

NATIONAL ACCOUNTS INSTITUTE

Gross National Income Methodological inventory BELGIUM

ESA 2010

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1 OVERVIEW OF THE SYSTEM OF ACCOUNTS

1.1 INTRODUCTION

National accounts offer a consistent framework that can be used for macro-economic analyses. Since the appearance of national accounts it has repeatedly been found necessary to adjust the methodology to new economic developments. The most recent revision of the standards applicable worldwide led, in 2008, to the *System of National Accounts* (SNA2008), drawn up under the joint responsibility of the United Nations, the International Monetary Fund, the World Bank, the Organisation for Economic Cooperation and Development and the European Commission. On the one hand SNA2008 aims for international comparability; on the other hand there is great heterogeneity in the structure and the level of development of countries. So, SNA2008 allows some flexibility in its application.

The *European System of Accounts* (ESA 2010)¹ is the Community version of SNA2008, and replaces the *European System of national and regional Accounts* (ESA 1995) published in 1996. ESA 2010 is compatible with SNA2008, but the options left open by SNA2008 were specifically elaborated to meet the information requirements of the European Union. The harmonisation between the macro-economic indicators of the Member States of the European Union was thereby maximised.

The definition of the economic territory considered in Belgian national accounts is consistent with that given in Regulation 109/2005 which refers to paragraphs 2.05 and 2.06 of Annex A to Regulation 2223/96 (ESA1995) and which also stipulates that the geographic territory is the territory of the Kingdom of Belgium.

The introduction of ESA 1995 coincided with a fundamental restructuring of the Belgian statistical apparatus. The Institute of National Accounts (INA) was set up by the Law of 21 December 1994 on the reform of the Belgian statistical apparatus. The function of the INA is to compile the following statistics and projections:

- the non-financial and financial national accounts;
- the quarterly national accounts;
- the regional accounts;
- the detailed quarterly accounts of general government;
- the input-output tables;
- the foreign trade statistics;
- the economic projections for the federal budget.

The INA has no staff of its own, but coordinates the functions carried out by the three associated institutions:

¹ Council Regulation (EC) No 549/2013 of 21 May 2013 on the European system of national and regional accounts in the Community.

- the General Directorate of Statistics and Economic Information (DGS) of the Federal Public Service (FPS) Economy that is responsible for collecting the basic data, except external trade statistics;
- the Federal Planning Bureau (FPB) that is responsible for drawing up the input-output tables and the budget projections;
- the National Bank of Belgium (NBB) that is responsible for drawing up the annual real and financial national accounts, the quarterly accounts, the regional accounts, the external trade statistics (including the collection of basic data) and, in cooperation with the FPB, the detailed accounts of the central, state, local government and social security funds.

The INA, which is monitored by the FPS Economy, is chaired by the representative of the FPS Economy and consists of representatives of the three associated institutions. The board is now assisted by four scientific committees, one for the national accounts, one for the economic projections for the budget, one for price analysis and one for the government accounts. These committees, composed of experts from inter alia the academic world and public administrations, give advice on the scientific value of the methods and sources used and approve the results. They are consulted in case of any important methodological change in their respective fields (e.g. the changeover to ESA2010).

In Belgium the macro-economic real and financial statistics (with the exception of the input-output table) are compiled in the Central Bank (NBB).

The structure of the statistics department of the National Bank is as follows:

- Statistical Information Systems Service

This service is responsible for publications (hard copy and via the website), distribution of statistical data within and outside the Bank, maintenance of the statistical databases and the Datashop.

- R&D unit

This unit is responsible for the development of statistical tools and IT-applications for the different services of the statistics department.

- External statistics service

This service is responsible for compiling the balance of payments, the International Investment Position and external trade statistics (imports and exports of goods by product).

- Financial statistics service

This service is responsible for the compilation of the financial sector accounts (on an annual and quarterly basis) and monetary and banking statistics.

- National accounts, regional accounts and short term indicators service

This service is responsible for the compilation of the non-financial national accounts - including labour market statistics (on an annual and quarterly basis)-, the government finance statistics, the regional accounts and business cycle surveys.

The staff working in the National Accounts division can be broken down as follows (in FTE, situation at end of 2015)

	academic	other	total
Technical support	0	4,8	4,8
National accounts (excl. GFS)	17,9	5,3	23,2
Government Finance Statistics	7,9	1,7	9,6
Total National Accounts	25,8	11,8	37,6
<i>p.m. Regional Accounts</i>	2,8	1,6	4,4

1.1.1 SUPERVISORY AND CONTROL SYSTEMS

There are a number of supervisory and control systems put in place in order to minimise risks concerning the timeliness and reliability of the statistics produced.

To reduce the risk of errors a number of actions have been taken:

- The designation of ‘responsible of sources’.
Every source is monitored by a statistician. This guarantees that changes in contents and/or formats can be detected in an early stage.
- Validation rules have been set up for the annual repertory and for the different sources.
- Standardised IT applications are used where possible.

This approach guarantees a harmonised and transparent treatment of sources (annual accounts of companies and non-profit institutions, VAT-declarations, social security declarations, structural business survey) and an explicit view of how ‘administrative’ aggregates are transformed into ‘national accounts’ aggregates. These applications exist for the estimation of the production and generation of income account (by industry) in S11, S14, S15 and part of S12 (S125, 126, 127).

- A regular procedure to assess the quality of statistical sources and products is applied. As regards sources, a report on the quality of the business register and all linked data sources (social security, balance sheets, VAT, etc.) is produced every year. In particular, comparisons are made with the previous versions, in order to spot irregularities. As regards our IT application for calculation of P1, P2 and B1g by industry, no written quality report is produced as such, but all aggregates for each activity are checked in depth by the responsible staff members. There are lists of checks that have to be implemented. After these checks, if necessary, corrections are introduced in the process. Moreover, a note containing the changes in the URS (user requirements specifications) is produced every year. An excel-table with URS is also updated every year. This enables to have a view to the procedures applied in the IT application. Finally, data produced outside the central IT

application (financial activities, government data, remuneration of employees, etc.) are checked in depth by responsible staff members.

- Successive internal controls are foreseen within the production chain (head of groups, general coordinator and head of service).
- Main users of national accounts aggregates (regional accounts, department “studies” within the NBB, Federal Planning Bureau) exert de facto external controls.
- Institutional controls exist (thorough assessment of sources and methods by the scientific committee which implies the need for detailed methodological descriptions).
- National accounts data are also monitored before publication by evaluating the revisions to the previous estimates.

To reduce the risk of failure in the production of statistics (in time) the following actions are taken:

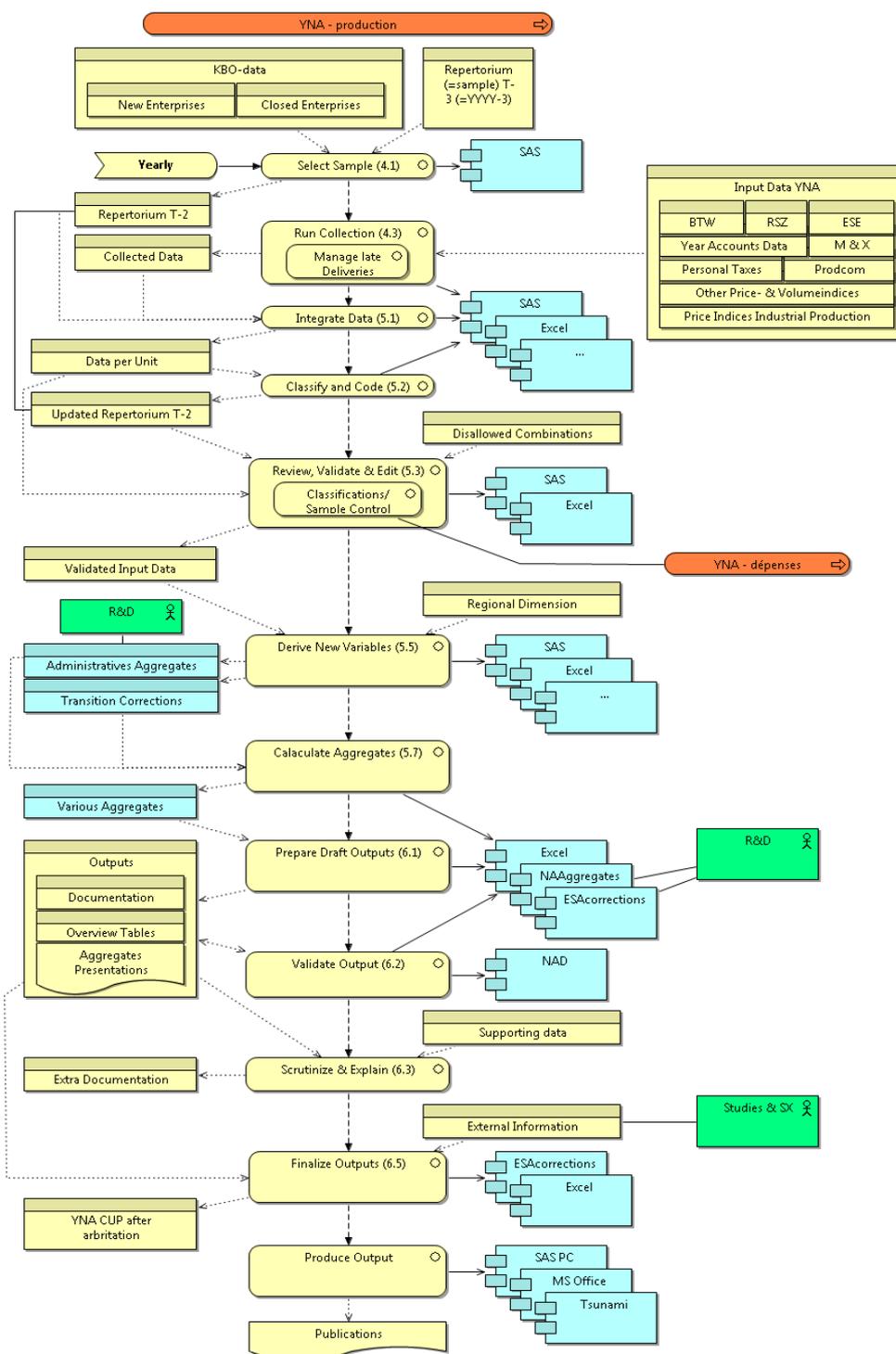
- Service Level Agreements (SLA’s) were set up between NA and ‘external’ suppliers - the Office of Social Security (social security declarations), DGSEI (Structural Business Survey, prodcom, HBS) and specific public authorities (input for compilation of S13-accounts).
- Transmission calendars exist between the NA and internal suppliers: the CBSO (annual accounts), the external statistics service (foreign trade statistics and Balance of payments statistics) and the financial statistics service (financial accounts).

Finally, there is performance of internal audits/reviews on the processes of collection and compilation of statistical data. Internal audits/reviews have been conducted in 2011/2012. A newly created department in the NBB specifically in charge with ORM will emphasize in the coming years the need to document the processes and evaluate the risks. This documentation on processes and risks will be extremely detailed and formalised. It will be implemented not only for statistics, but for all activities in the bank. This is planned for the medium term.

1.1.2 DESCRIPTION OF THE PRODUCTION PROCESS OF THE ANNUAL NATIONAL ACCOUNTS

The next flow chart describes the different stages in the compilation of the national accounts according to the "Generic Statistical Business Process Model" developed by UNECE/Eurostat/OECD (version 4.0 of April 2009: www.unece.org/stas/gsbpm).

The control and supervisory system will be developed along these lines in the future.



1.1.3 RECENT DEVELOPMENTS IN THE BELGIAN NATIONAL ACCOUNTS

Lack of resources in National Accounts/Government Finance Statistics

In the years prior to the introduction of ESA2010 it became apparent that there was a serious issue of (lack of) resources in the domain of national accounts and government finance statistics. From 2013 on (and up to 2020) the staff working in national accounts is increasing and the qualification level will rise. In 2015 a new organization chart was adopted for the national and regional accounts and short term indicators service. Academic staff will double by 2020 (36 FTE) compared to the previous

situation (18 FTE). The extra staff – part of which is already hired - will be working in the domain of national accounts and government finance statistics.

Introduction of a unique business register in the statistics department of the national bank

In order to be able to produce a consistent set of aggregates in national accounts, it is crucial that all the input compiled in other services of the statistics department (foreign trade statistics, balance of payments statistics, financial accounts,...) is build up using the same set of characteristics (institutional sector code, activity code, district code,...) for the companies/statistical units as those used in the national accounts division. This implies that the same business register (with unique statistical characteristics) is used by the different services within the statistics department of the Bank. From the reporting year 2014 on, this is the case.

Introduction of a unique activity code (nace code) to be used for all statistical purposes in Belgium

Until very recently the different organisations in Belgium producing statistics (NBB, DGS, Social Security Office,...) attributed and used their own activity codes (NACE codes) which implied that statistics by industry compiled by these different institutions – national accounts aggregates, structural business survey aggregates, prodcom information (by industry), labour market variables (employment and wages published by the SSO etc.- were a priori not comparable because the underlying populations (by industry) were not the same. From 2015 on, all institutions producing industry specific statistical information use the same ‘statistical’ NACE code (which of course is also used in the business register of the national accounts).

1.2 THE REVISIONS POLICY AND THE TIMETABLE FOR REVISING AND FINALISING THE ESTIMATES

1.2.1 PUBLICATION AND PRODUCTION SCHEDULE

The publication schedule for the non-financial national annual accounts, quarterly accounts and flash estimate during year *t* is as follows (current revisions, cf. below, are shown in *italics*):

Publication in year <i>t</i> (a)	Flash estimate (b)	Main aggregates T1	Tables per industry and P3S14 by purpose T3/T5	Sector accounts T8	Supply and use table (SUT) T15/16	Investments and capital stock per industry and product T20/22
Jan.	t-1(Q4)	t-1(Q3) <i>t-1(Q1_Q2)</i>				
Feb.						
March				t-1(Q4)		
April	t(Q1)	t-1(Q4) <i>t-1(Q1_Q3)</i>				
May						
June				t(Q1)		
July	t(Q2)	t(Q1)				
Aug.						
Sep.			t-1 <i>t-2, t-3</i>	t(Q2) t-1 <i>t-2, t-3</i>		
Oct.	t(Q3)	t(Q2) t(Q1) <i>t-1, t-2, t-3</i>				
Nov.						
Dec.					t-3	t-2

Q: quarter

(a) Table number used in Annex B of ESA 2010 transmission programme.

T1 and T8 relate to annual and quarterly aggregates. T3, T15/16 and T20/22: only annual aggregates.

(b) Estimate of the volume growth in gross domestic product.

Work is carried out throughout the year on the production of the quarterly accounts and flash estimates and on the corresponding methodology. The production schedule for the annual accounts is as follows:

Year t (a)	Tables per industry and P3S14 by purpose T3/T5	Sector accounts T8	Supply and use table (SUT) T15/16	Investments and capital stock per industry and product T20/22
Jan. Feb. Mar.	t-3 final	t-3 final	t-3 final	
Apr. May June	t-2 semi-final	t-2 semi-final	t-2 provisional	
July Aug. Sep. Oct. Nov. Dec.	t-1 provisional	t-1 provisional		t-2 provisional t-3 final

(a) Table number used in Annex B of ESA 2010 transmission programme.

1.2.2 REVISIONS POLICY

Revisions of published series are unavoidable because e.g. more recent and final source data become available, calculation methods are improved, or classifications change. The revisions policy must aim at the most adequate trade-off between stability and quality.

The comparability over time, or the correct estimate of growth figures, has a higher priority than the correct estimate of absolute levels. This has consequences for the revision policy and leads to a distinction between *current (or routine) revisions* and *occasional (or benchmark) revisions*.

Current revisions

These revisions are mainly caused by the availability of more exhaustive or more correct source data than at the time of the first estimate. These revisions therefore relate mainly to the last two years calculated in a previous campaign. The revised series are available at a fixed time and coincide with the publication calendar.

In the *accounts* not all the possible revisions are made, but only those that do not cause a break in the series. Exceptions to this rule are revisions requested by adjustments that have to be made immediately as a result of European Directives [e.g. Directives relating to excessive (general government) deficits; Directives relating to the contribution to the own resources of the European Union].

Current revisions, excluding those resulting from European Directives, are made to the annual accounts up to the time when the last deadline of the reporting tables expired. The reporting tables and their deadlines are defined in the transmission programme for ESA 2010². The last deadline relates to the supply and use table, namely $t + 36$ months. This means that from this time on no more current revisions are made, and that the GDP (gross domestic product) and the GNI (gross national income) are final until the next occasional revision.

The current revisions for the *annual accounts and the quarterly accounts* are synchronised. The quarters that belong to a year for which annual aggregates have already been published are only revised after the revision of the annual aggregates (October).

Occasional revisions

For the timespan for which no further current revisions are possible, new sources may become available or better methods can be developed after the closure of the final accounts (at $t+36$ months). The revisions linked to the introduction of new sources and methods are however only made occasionally.

Occasional revisions may also originate from the application of new concepts (e.g. ESA 2010) or change in classifications.

For occasional revisions there is neither a predetermined regularity, nor a previously specified period to which the revision relates. As a general rule occasional revisions go back as far as possible in time to maintain long consistent series (in practice back series are compiled from the year 1995 on).

The most recent occasional revisions in Belgium were carried out in 2014 and 2015. The 2014 revision reflects the introduction of the new national accounts methodology (ESA2010) as well as the use of new sources and improved methods. The 2015 revision reflects improvements due to further work on transversal reservations, the introduction of new benchmark figures for dwelling services, the introduction of harmonised NACE codes, adjustments in the figures for investment in R&D for market producers and some other revisions. This inventory reflects the situation after the implementation of the 2015 occasional revision, i.e. the currently used sources, calculation methods and methodology. In the future revisions will be made in accordance with the Community revisions policy to be agreed between the Member States and Eurostat. The next benchmark revision is planned in 2019.

The occasional revisions of the *quarterly accounts* are carried out at the same time as the occasional revisions for the *annual accounts*.

² Annex B - *Transmission Programme of National Accounts Data* - of the Council Regulation (EC) No 549/2013 of 21 May 2013 on the European system of national and regional accounts in the Community.

1.2.3 IMPACT OF THE TRANSITION FROM ESA1995 TO ESA2010 ON GNI

The introduction of ESA2010 had a positive impact on GNI of 2,2 % to 2,5 % as can be seen in the next table

Impact of the transition from ESA95 to ESA2010 on GNI (*)					
(mIn €)		2010	2011	2012	2013
GNI (ESA 95)	(a)	367.677	373.277	386.509	388.438
impact of conceptual differences between ESA2010 and ESA1995	(b)	8.227	9.121	9.798	9.887
GNI (ESA 2010)	(a)+(b)	375.905	382.398	396.307	398.325
<i>Impact of the transition from ESA95 to ESA2010 on GNI (in %)</i>	<i>(b)/(a)</i>	<i>2,2%</i>	<i>2,4%</i>	<i>2,5%</i>	<i>2,5%</i>
(*) According to the GNI-questionnaire of september 2015					

1.3 OUTLINE OF THE OUTPUT APPROACH

1.3.1 REFERENCE FRAMEWORK

The estimate of GDP via the output side is largely based on the *business register* compiled by DGS. This database includes all economic agents that are active in Belgium. The basic information for creating this register is supplied by a number of public administrations [VAT-administration, National Social Security Office (NSSO), National Register) which manage partial files of units for their own purposes (respectively VAT-registered enterprises, enterprises with employees, and corporate bodies]. By linking the identifiers present in these source files DGS creates the business register.

Based on this register, the NBB compiles an annual '*repertory*' which contains identification numbers and characteristics for all economically active resident institutional units present in the repertory of the national accounts (corporations, unincorporated enterprises, public bodies, NPAs³).

Aggregates are calculated for sub-populations determined by:

- NACE code (determines which industry the unit belongs to);
- category (determines which source⁴ is used to estimate the activity of the unit);
- institutional sector code (determines which institutional sector the unit belongs to)⁵;
- region code (this information is important for the regional split-up of the value added, compensation of employees, employment and gross fixed capital formation).

³ The legal notion *non-profit association (NPA)* is not relevant for the sector classification of ESA 2010 based on economic criteria.

⁴ cf.1.3.3.1.

⁵ ESA 2010 provides the institutional sectors: non-financial corporations (S.11), financial corporations (S.12), general government (S.13), households (S.14) and non-profit institutions (NPIs) serving households (S.15). The units belonging to S12 and S13 are further subsectorised in the repertory (S121, S122, S123, S124, S125, S126, S127, S128, S129 resp. S1311, S1312, S1313, S1314)

The units of the general government sector (S.13) are known from an exhaustive list that is updated annually. Since the estimate of the production in the general government sector is estimated via a sum of costs approach and is based on specific source material, the S13-aggregates (e.g. value added) are calculated in a different way to those for market producers.

The allocation of a sector code to the units included in the directory is largely carried out via an automated procedure. By combining the NACE code and the structure of the identification number it is possible, for the units not belonging to the general government, to determine the sector code.

The aggregation of variables present in the different source files (cf. 1.3.2) is always carried out on the basis of the characteristics (NACE code, sector code, district code) included in the directory. This procedure ensures that the results calculated via different sources are comparable with each other. The basic aggregates are always calculated per institutional sector, within each sector per industry and within each industry per district⁶. This ensures a fully integrated compilation (calculation, validation and adjustment) of the value added in the national and regional accounts.

1.3.2 MAIN SOURCES

1.3.2.1 Non-financial enterprises (S.11 and S.14)

All relevant sources (administrative data and survey data) are stored at enterprise level in a 'national accounts database'. For a large corporation working in the manufacturing industry for example we have the annual accounts (operating income, purchases of goods and services, wages and salaries, acquisitions of tangible fixed assets, etc.), the NSSO return (wages and salaries and number of employees), the VAT return (turnover, purchases of current goods and services and purchases of investment goods), the industrial production according to the return in Prodcum survey (Community survey on industrial production), the Structural Business Survey data (which gives extra detail concerning certain variables of the annual accounts) and the import and export data for goods and services (collected by the service external statistics).

The calculation method in ESA 2010 makes maximum use of administrative data. The main sources of an administrative nature are the annual accounts filed by non-financial corporations, the VAT returns of VAT-registered enterprises and the NSSO and NSSOPLA⁷ returns submitted by employers.

⁶ Corporations that have establishments in different districts are processed as 'multi-district' (MD).

⁷ National Social Security Office for Provincial and Local Authorities

Source: Annual accounts

In Belgium virtually all limited liability **corporations** (public limited companies, private limited companies, limited partnerships, etc.) must publish their accounts by filing them in accordance with a legally established accounting schedule with the Central Balance Sheets Office (CBSO) of the National Bank of Belgium. The annual accounts file is therefore the preferred source for estimating ESA 2010 aggregates for the production and generation of income account of non-financial corporations.

Large corporations⁸ must file a 'full' accounting schedule; SMS corporations may submit an 'abridged' accounting schedule. These reporting schedules are in fact data extracts from the internal financial accounting of corporations, where large corporations must provide more information than SMS corporations. In total 357 000 abridged accounts and 24 000 full accounts were filed for the 2012 financial year by corporations representing 1.977.000 employees in FTE overall.

All corporations with a turnover of more than € 500.000 must follow the 'Minimum Standardised System of Accounts'. This chart of accounts (introduced by Royal Decree in 1983) is the operational implementation of the accounting legislation dating from 1975. The accounting legislation specifies the content and valuation of the various headings in the balance sheet (assets and liabilities) and the profit and loss account (income and expenditure). In this way the chart of accounts can be translated into the classification of transactions according to ESA 2010.

Not only corporations deposit annual accounts but also **non-profit institutions** considered as very large⁹ (full schedule) or large (abridged schedule)¹⁰. For the financial year 2012, 1 400 full schedule accounts and 5 300 abridged schedule accounts were deposited for NPI's at the CBSO of the NBB representing 343 000 employees in FTE overall. These units can be sectorised in S11, S15 or S13. The annual accounts information for NPI's sectorised in S11 and S15 are used as the principal source for the compilation of the production and generation of income account in the industries in which these units are active.

⁸ The Corporations Act regards a corporation as large if: a) its average workforce on an annual basis is more than 100 or b) it exceeds more than one of the following thresholds: b1) annual average workforce: 50, b2) annual turnover (excluding VAT): € 7 300 000, b3) balance sheet total: € 3 650 000. A corporation that does not meet these criteria is classed as an SMS corporation (small and medium-sized corporation) and files an 'abridged' accounting scheme.

⁹ A NPI is considered as very large if: a) its average workforce (in full time equivalents) is more than 100 or b) it exceeds more than one of the following thresholds b1) annual average workforce 50, b2) annual receipts (excl. VAT): € 7.300.000, b3) balance sheet total € 3.650.000. Are considered as large: NPI's that exceed more than one of the following thresholds (and are not considered as very large): annual average workforce 5, receipts (excl. VAT) € 312.500, balance sheet total: € 1.249.500.

¹⁰ Royal decree of 19 December 2003 concerning the accounting and publication obligations of non-profit institutions and associations. These accounts have also to be filed with the CBSO and exist from the financial year 2006 and later.

The use of annual accounts information provides clear benefits:

- the 'primary input' of the national accounts is in accordance with concepts that are relevant for, and known by, the declarant corporations (commercial accounting rules);
- this information is standardised and can be converted into the concepts specified by the national accounts (ESA 2010 aggregates);
- in most industries the coverage of the annual accounts file is very large and only a small proportion of the total value added has to be estimated via other sources (structural business survey, VAT turnover or NSSO wages and salaries bill);
- the 'formal' quality of the annual accounts is guaranteed since these must comply with a number of checks provided for by law (since 1991): this concerns arithmetic and logical checks of the data indicated in the balance sheet, the profit and loss account and the notes (annexes to the accounts);
- the dependence on survey data for estimating the main aggregates is very limited; as a result the administrative burden on corporations can also be limited;
- the same source is used in the output approach (estimate of value added) and in the expenditure approach (estimate of investments);
- the compilation of balance sheets (and the integration of real and financial accounts) is simplified and largely depends on the same source.

Source: VAT returns

The activity of most non-financial (incorporated and unincorporated) enterprises (supply of goods and provision of services) falls under the VAT system. Only a limited number of activities are exempt from VAT (legal services, medical services, leasing of real estate, etc.).

Depending on their size, all enterprises (corporations, self-employed persons, NPAs) which fall within the scope of VAT must submit a monthly (annual turnover > € 1 million) or a quarterly VAT return (annual turnover < € 1 million). On the basis of this declaration the tax authorities determine their claim or debt relating to VAT for the enterprise in question.

From the VAT returns the turnover (proxy for P.1), current purchases of goods and services (proxy for P.2) and acquisitions of capital goods (proxy for P.51) can be deduced. The information relating to turnover and current purchases are used to estimate the value added of VAT-registered units classified in S.14, and to estimate the value added of corporations for which no (usable) annual accounts or structural business surveys are available.

Advantages of the VAT data are broad coverage, rapid availability and reasonable quality.

Source: NSSO and NSSOPLA returns

All employers established in Belgium must each quarter submit a return to the administration of the National Social Security Office (NSSO)¹¹ or to the National Social Security Office for Provincial and Local Authorities (NSSOPLA)¹². Based on this declaration the social contributions payable are calculated. The information given in these returns enables the compensation of employees (D.1) to be calculated.

The wages and salaries bill is used, in some service industries, to calculate the value added of corporations with no (usable) annual accounts or structural business survey and of small NPAs sectorised in S.11 or S.15 not depositing annual accounts.

1.3.2.2 Financial corporations and general government (S.12 and S.13)

Financial institutions (S.12) use specific accounts that are translated into the aggregates from the national accounts. The calculations are carried out per subsector (S.121 to S.129) because the basic accounting material available differs considerably between the different types of institutions [for example between deposit-taking corporations (S.122), money market funds (S.123), non-money market investment funds (S.124), insurance corporations (S.128) and pension funds (S.129)]. Most of the units belonging to the other subsectors of S.12 (S.125 other financial intermediaries, S.126 financial auxiliaries and S.127 captive financial institutions and money lenders) submit the same type of accounting schedule as non-financial corporations and are estimated accordingly.

The accounting information provided by the financial institutions is checked in the financial statistics service. This is of high quality and almost exhaustive.

The value added is also estimated by the general government per subsector (S.1311 to S.1314) and is largely based on information from the government accounts and budgets.

1.3.2.3 NPIs serving households (S.15)

The value added of non-market NPAs is estimated via a combination of administrative data (annual accounts, NSSO wages and salaries bill) and survey data. A specific survey has been carried out among NPAs for the requirements of the national accounts.

¹¹ Law of 27 June 1969, and Royal Decree of 28 November 1969.

¹² Law of 1 August 1985, and Royal Decrees of 25 October 1985 and 15 July 1986.

1.3.3 CALCULATION OF VALUE ADDED FOR NON-FINANCIAL CORPORATIONS (S.11)

The calculation is carried out in two phases:

- phase 1: compilation of a production account and generation of income account per industry (NACE 3 or 4 digit) and district in accordance with administrative/business accounting concepts;
- phase 2: adding up of national amounts to a higher aggregation level (SUT industries) and conversion to concepts and valuation methods of the national accounts (ESA 2010).

The validation and adjustments in phase 1 are carried out per industry and district.

It is important to stress that the production and income approaches are estimated *simultaneously and in an integrated way*. By doing this the consistency between value added and its components (D.1, D.29, D.39 and B.2g) are already monitored at the start of the calculations.

1.3.3.1 Calculation of 'administrative' aggregates

In the first phase, via the characteristics stored in the directory, the administrative aggregates are calculated. The checks and adjustments are performed per industry/district.

Non-financial corporations (S.11)

The calculation is carried out at NACE 3 or 4 digit level by totalling the results of the underlying subpopulations (categories):

Category	Description
A1	Large corporations with annual accounts using 'full accounting schedule'
E1	Large corporations with no (usable) ¹³ annual accounts but with S.B.S ¹⁴ .
A2	Large corporations with no (usable) annual accounts and without S.B.S.
B1	SMEs with abridged schedule, turnover and purchases indicated and gross margin > 0
B2	SMEs with abridged schedule without turnover and purchases and gross margin > 0
C1	SMEs with abridged schedule, turnover and purchases indicated and gross margin < 0
C2	SMEs with abridged schedule without turnover and purchases and gross margin < 0
E2	SMEs with no (usable) annual accounts but with S.B.S.
B3	SMEs with no (usable) annual accounts and without S.B.S.
BL	Members of a VAT-unit without annual accounts
H1	Very large NPA's with full accounting schedule
H2	Large NPA's with abridged schedule and operating revenue and purchases indicated
H3	Large NPA's with abridged schedule and operating revenue and purchases not indicated
H4	Small NPA's without annual accounts

¹³ Annual accounts are regarded as 'usable' (for further statistical processing) if:

- (a) the financial year coincides with the calendar year or
- (b) the financial year covers at least 3/4 of the calendar year (and covers a period of 12 months) or
- (c) financial year data from successive annual accounts can be determined pro rata to provide calendar year data.

In cases (a) and (b) the original data are used, in case (c) pro rata data. Corporations with 'no usable' annual accounts are dealt with in the same way as corporations with no annual accounts.

¹⁴ Structural Business Survey

RF	Fiscal representatives
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a1) large corporations with the 'full accounting schedule'

For large corporations in category A1 all relevant variables are available:

Operating income

Annual account code	Description
70	turnover
71	change in inventory produced goods (increase +, decrease -)
72	fixed assets - own construction
74	other operating income
740	operating subsidies
741/9	miscellaneous other operating income ¹⁵
9126	Interest subsidies ¹⁶

Operating costs

Annual account code	Description
60	consumed goods for resale, materials and supplies
600/8	purchases of goods for resale, materials and supplies
609	changes in inventories of purchased goods (increase -, decrease +)
61	services and other goods (not entered in 600/8)
62	wages and salaries, social security contributions and pensions
64	other operating costs
640	taxes other than income taxes
641/8	miscellaneous other operating costs
8002+649+669	Formation/restructuring costs ¹⁷
695	Fees to administrators/directors ¹⁸

The following 'administrative'¹⁹ aggregates can be deduced from these:

Aggregate		Annual account code
production	A	70 + 71 + 72 + 74 - 740
intermediate consumption	B	60 + 61 + 641/8 + 8002 + 649 + 669 + 695
gross value added	C	A - B
wages and salaries	D	62

¹⁵ 741/9 means the sum of accounts 741 to 749.

¹⁶ Interest subsidies are registered in financial income (account 753) but reclassified as operating subsidies (in line with 2010)

¹⁷ These costs are activated in the annual accounts but have to be treated as intermediate consumption in the national accounts (NA). The amount of activated formation and restructuring costs (8002) has to be corrected for the capitalized current (649) and capitalized extraordinary (669) restructuring costs (649 and 669 are negative amounts).

¹⁸ These amounts ("tantièmes") appear in the profit and loss appropriation account (part of distributed profit) but have to be reclassified as intermediate consumption in the NA (payment for services rendered by administrators).

¹⁹ These are intermediate aggregates/balancing items that in this phase still comply with the conventions and valuation rules for corporate accounting as specified in the accounting legislation. For a more elaborate treatment see chapter 3.4.

net business taxes	E	640 - (740 + 9126)
gross operating surplus	F	C - D - E

a2) large corporations with no (usable) annual accounts

For some of these units a structural business survey is available (cat E1). In this case the information from the survey is used.

For large corporations for which no SBS-information is available (category A2) we have the turnover (and current purchases) according to the VAT returns and the wages and salaries calculated from the NSSO file²⁰. The wage and salary data are included as they stand. The other headings are computed either via the turnover (this is the case in the majority of industries) or via the wages and salaries (this is the case in a number of service industries)²¹.

a3) SMS corporations

For SMS corporations the accounting information in the ‘abridged scheme’ is no longer exhaustive

Annual account code	Description
70	turnover (<i>optional information</i>)
60/61	600/8 + 609 + 61 = consumption of goods and services (<i>optional information</i>)
62	wages and salaries, social security contributions and pensions
640/8	640 + 641/8 (other operating costs incl. business taxes)
9900	gross margin = 70 + 71 + 72 + 74 - 60 - 61 > 0
9900	gross margin = 70 + 71 + 72 + 74 - 60 - 61 < 0

No information is available for total operational income (70+71+72+74), operating taxes (640), operating subsidies (740) and activated formation and restructuring costs (8002+649+669). Information concerning interest subsidies (9126) and administrators’ fees (695), however, is available.

For SMS with abridged accounts in which turnover and purchases are indicated (population B1 and C1 respectively with a positive and negative gross margin) we know the main headings (in particular the turnover and consumption of goods and services). The missing headings are deduced from the known headings or estimated on the basis of coefficients known for large corporations from the same industry.

The turnover and purchases of SMEs with abridged accounts that do not give this information (population B2 and C2 respectively with a positive and negative gross margin) are derived (VAT-turnover is in most industries available and purchases are derived as a residual (given the gross

²⁰ Including the NSSOPLA wages and salaries in a limited number of industries.

²¹ The structure of A1+E1 is transferred to A2 using the ratio VAT turnover A2/annual accounts turnover A1+E1, or the ratio NSSO wages and salaries A2/annual accounts wages and salaries A1+E1.

margin) In a limited number of industries turnover is estimated via the wages and purchases are derived as a residual

The data for SMEs with no (usable) annual accounts is taken from the SBS (if available: cat E2) or is estimated (cat B3). In most industries the VAT-turnover is available and purchases are estimated using the ratio purchases/turnover known for B1 + B2 + C1 + C2 + E2. In a limited number of industries turnover and purchases are estimated via the wage bill (using the ratio wages/turnover and wages/purchases known for B1+B2+C1+C2+E2. The NSSO wages and salaries for cat B3 are known from NSSO.

Enterprises belonging to VAT-units which do not deposit annual accounts (cat BL) demand a specific treatment because the only information available for this population is the wage bill. Turnover, purchases and value added for these units is estimated via wages. For NPA's sectorised in S.11 (market units) exceeding certain thresholds annual accounts are available (cat H1, H2, H3). These accounts are very similar to the accounts of corporations (full scheme, abridged scheme with operational revenue and purchases as optional items) and are used in the same way. Revenue, purchases and value added of small NPA's for which annual accounts are missing (cat H4) are estimated via NSSO-wages (using ratios available for NPA's with annual accounts). The value added of fiscal representatives is conventionally obtained via the wages (overall these are very limited amounts because the majority of the fiscal representatives are purely administrative units without employees).

Unincorporated enterprises included in the sector households (S.14)

These units are included in category B3 (small enterprises with no annual accounts).

Depending on the activity, different sources are used to estimate the value added (and the mixed income) of self-employed persons.

The calculations for *agriculture, forestry and fisheries* use sources that are specific for these industries.

For *VAT-registered self-employed persons* the value added is estimated via the VAT returns.

For *non VAT-registered self-employed persons* and business managers (directors and managers) personal income tax returns are used. The disadvantage of this source is that the final data only become available late (final data for income year t become available at the end of t+2). For the medical professions the NSDII data²² are also used.

²² National Institute for Health and Invalidity Insurance.

Dwelling services (real and imputed rent) are estimated according to a stratification method that is specified by a decision of the European Union. Multiplication of prices (rents) by quantities (dwellings per stratum) gives the total output of housing services. The Panel Study of Belgian Households gives the rents for different categories of dwellings in the base year (2001). The socio-economic survey of 2011 gives the new benchmark for the dwelling stock (number of dwellings by stratum).

The value added of *private households with employees* (NACE 97) corresponds to the wages paid by families to domestic help, gardeners, cleaning ladies etc. Because most of these services are supplied “in black” official sources cannot be used as such.

1.3.3.2 Transformation of “administrative” aggregates to national accounts aggregates

Non-financial corporations (S.11)

In the first phase, the administrative/business accounting aggregates are calculated per industry (NACE 3/4), category and district. National figures in NACE 3/4 are obtained by aggregating over categories and districts. These interim results are then added to a higher aggregation level (140 SUT industries).

In the second phase, the administrative aggregates are converted into ESA 2010 aggregates for each SUT industry (and separately for S.11 and S.14). Gross value added (B.1g) and gross operating surplus (B.2g) are balancing items after adjustments/reclassifications.

<u>Economic aggregates</u>	<u>Adjustments/ reclassifications</u>	<u>Aggregates ESA 2010</u>	
70+71+72+73+74-740	=>	output	P.1
600/8 + 609 + 61 + 641/8 + other	=>	intermediate consumption	P.2
62	=>	compensation of employees	D.1
640	=>	other taxes on production	D.29
740+9126	=>	other subsidies on production	D.39

The information needed to calculate these adjustments is available either in the annual accounts, in the structural business survey, or as exogenous data in the S.13 accounts (taxes and subsidies on products and other taxes and subsidies on products) and S.12 (insurance premiums received and claims paid).

The amounts estimated concerning the administrative aggregates, adjustments/reclassifications and ESA2010 aggregates for the year 2012 are listed in the next table.

Most adjustments and reclassifications have a counterpart; this may fall within or outside the production and income account. In this way the budget identity is maintained at sector account level.

S11_2012 (€million)	adm. Aggregates	adjustments	ESA2010 aggregates	
C_70	940.425	-360.787	579.638	P11
C_71	882	-238	644	P11
C_72	5.732	4.610	10.342	P12
C_73 (*)	5.410	-134	5.277	P11
C_74-740	32.609	-1.927	30.682	P11
C_A	985.057	-358.476	626.582	P1
C_600/8+61	781.573	-371.238	410.335	P2
C_609	-1.045	436	-609	P2
C_641/8	5.450	-1.044	4.405	P2
C_B	785.978	-371.847	414.131	P2
C_62	120.304	13.803	134.107	D1
C_640	7.260	-3.710	3.550	D29
C_740	2.165	8.297	10.462	D39
C_C	199.080	13.371	212.451	B1g
C_D	73.681	11.574	85.256	B2g

(*) Account 73 (contributions, gifts, legacies and grants) is specific in the accounting schemes for NPI's.

The NPI's sectorised in S11 (market producers) generate amounts for the account 73.

Households (S.14)

For unincorporated businesses the administrative aggregates are also converted into ESA 2010 aggregates. Because we have much less information available for self-employed persons only a few adjustments are calculated (goods for resale, bank charges, insurance premiums, gratuities and the black economy). The column adjustment in S14 also incorporates the amount added for dwelling services.

S14_2012 (€million)	Adm. Aggregates	Adjustments	ESA2010 aggregates	
C_70	42.899	9.438	52.337	P11
C_71	0	0	0	
C_72	176	21.967	22.143	P12
C_73	0	0	0	
C_74-740	1	0	1	P11
C_A	43.076	31.404	74.481	P1
C_600/8+61	20.266	2.236	22.502	P2
C_609	0	0	0	
C_641/8	0	0	0	
C_B	20.266	2.236	22.502	P2
C_62	1.628	632	2.260	D1
C_640	169	3.120	3.290	D29
C_740	299	226	526	D39
C_C	22.810	29.168	51.978	B1g
C_D	21.312	25.643	46.954	B2g+B3g

1.3.4 CALCULATION OF VALUE ADDED FOR OTHER PRODUCERS

1.3.4.1 Financial institutions (S.12)

The specific accounting statements of monetary financial institutions (S121+S122+S123) and non-money market investment funds (S124) provide exhaustive information from which, after a few adjustments, the variables of ESA 2010 can be calculated. These adjustments are estimated on the basis of information from the structural business survey for monetary financial institutions.

Standardised reporting schedules checked by official bodies are also available for the insurance industry (S128) and the pension funds (S129) from which, via the information from the structural survey for insurance corporations, the aggregates can be calculated in accordance with ESA 2010 concepts.

For the other subsectors in S12 (S125, S126 and S127) the estimation of value added is done on a detailed level of NACE. Most of the units belonging to these subsectors deposit standardised annual accounts identical to those of the non-financial corporations.

So, for these subsectors the same approach is followed as for the non-financial corporations (S11)

	adm. Aggregates	adjustments	ESA2010 aggregates	
S125+S126+S127_2012 (mln €)				
C_70	13.203	311	13.514	P11
C_71	7	0	7	P11
C_72	19	136	155	P12
C_73	1	0	1	P11
C_74-740	1.116	-86	1.031	P11
C_A	14.346	361	14.707	P1
C_600/8+61	8.352	-1.185	7.167	P2
C_609	2	0	2	P2
C_641/8	296	-113	183	P2
C_B	8.650	-1.298	7.352	P2
C_62	2.574	-66	2.508	D1
C_640	118	1	119	D29
C_740	7	11	18	D39
C_C	5.696	1.659	7.355	B1g
C_D	3.011	1.735	4.746	B2g

1.3.4.2 Non-market sectors

General government (S.13)

The output of non-market producers is calculated as the sum of the production costs: intermediate consumption (P.2) + compensation of employees (D.1) + consumption of fixed capital (P51c) + other taxes on production (D.29) - other subsidies on production (D.39).

For the Central government, State government and Social security funds (S1311, S1312 and S1314) the calculation of the above variables is based on information from the economic classification of expenditure and income. The classifications in these government accounts follow the concepts of the national accounts as closely as possible. As a result the variables of ESA 2010 can be calculated from the source data in a standardised way.

For the Local government (S1313) the source data is collected via specific accounting information and then converted into the concepts of the national accounts.

Non-profit institutions serving households (S.15)

The calculation of value added for the industries belonging to this sector is carried out by combining administrative data (annual accounts and compensation of employees) with data from the structure survey for NPAs. As in the case of S11 a two-step procedure is followed: estimation of “administrative” aggregates that afterwards are transformed into ESA2010 aggregates.

S15_2012 (€million)	Adm. Aggregates	Adjustments	ESA2010 aggregates	
C_70	1.238	-339	899	
C_71	0	0	0	
C_72	1	59	60	
C_73	4.463	691	5.155	
C_74-740	622	-303	319	
C_A	6.324	109	6.433	P1
C_600/8+61	2.555	-330	2.226	
C_609	-2	0	-2	
C_641/8	693	-20	673	
C_B	3.247	-350	2.897	P2
C_62	2.916	249	3.165	D1
C_640	48	0	48	D29
C_740	0	136	136	D39
C_C	3.078	459	3.537	B1g
C_D	114	346	460	B2g

1.3.5 CONCLUSION

The output approach is largely based on direct estimation methods in view of the ample availability of information of an accounting and fiscal nature.

The calculations are carried out directly, with the exception of the production of dwelling services. For rents the value of a base year (2001) is extrapolated with price and volume indices. For the housing stock, the socio-economic survey of 2011 has been used to re-benchmark the volume series.

The exhaustiveness of the estimate is ensured by the general procedure followed: use of the business register including all (officially registered) units – corporations, NPAs, self-employed persons.

An estimation is made for the black economy for S.11 and S.14.

Exhaustiveness of GDP is also obtained by correctly applying ESA 2010 definitions. In the output approach this is achieved by a detailed estimate of all transitional components between the administrative aggregates and the aggregates according to ESA 2010.

1.4 OUTLINE OF THE INCOME APPROACH

1.4.1 REFERENCE FRAMEWORK AND MAIN SOURCES

In Belgium no independent estimate is made of GDP according to the income approach. The estimate of value added in basic prices and its components - compensation of employees (D.1), net other taxes on products (D.29-D.39), gross operating surplus/mixed income (B.2g/B.3g) - is compiled simultaneously where B.2g+B.3g is determined as a balance.

The compensation of employees (D.1) is estimated by the combined use of accounting information (annual accounts and social balance sheet, specific accounting statements for the financial sector, general government accounts) and information relating to social contributions paid (NSSO and NSSOPLA file).

The totals for D.29 and D.39 are known via the general government account and the rest of the world account. These totals are apportioned over sectors and industries taking into account the nature of the taxes and subsidies and information available in the annual accounts.

1.4.2 CALCULATION

1.4.2.1 Compensation of employees

The total compensation of employees (D.1) is first calculated from various sources, then (partially via other sources) the wages and salaries (D.11), employers' actual social contributions (D.121) and employers' imputed social contributions (D.122) are calculated.

Calculation of the total compensation of employees (D.1) per sector and industry

The compensation of employees (D.1) comprises the total remuneration, in money or in kind, that is payable by an employer to an employee for the work carried out during the accounting period.

The total compensation of employees is calculated per sector and within each sector per industry (and per region). The procedure may differ slightly per sector. All the apportionments are made at SUT industry level (or, if possible, at the NACE level from which the SUT industry is composed).

The annual accounts and social balance sheet (S.11, S15 and S125_S127), accounting statements of financial institutions (S121, S122, S128_S129) and NSSO/NSSOPL data (all sectors) are the starting point for estimating the compensation according to ESA 2010. For the general government sector (S.13) the budgets of the various government levels are the basic source.

a) Non-financial corporations (S.11)²³

For corporations filing annual accounts whose financial year coincides with the calendar year and for which a social balance sheet is also available, the social balance sheet is used as a source for the compensation of employees according to ESA 2010 (D.1).

For corporations filing annual accounts whose financial year does not coincide with the calendar year, or not filing annual accounts/social balance sheet, the NSSO is used as a source to estimate D.1.

The NSSO provides information on the wages and salaries bill by enterprise. This includes all the elements of the gross wages and salaries on which social contributions are paid as well as the social contributions themselves (broken down by employees' contributions – which are already included in the gross wages and salaries – and employers' contributions). However, no social contributions are payable on certain elements of the compensation. The wages and salaries bill according to the NSSO is hence incomplete from the point of view of the national accounts and must be grossed up.

By comparing the wages and salaries bill according to the NSSO on the one hand and according to the social balance sheet on the other hand for corporations that occur in both sources, coefficients are calculated per industry with which the NSSO wages and salaries bill must be increased. Separate coefficients are calculated depending on whether these are large or small corporations. The mark-up is then carried out per corporation. Grouping the wages and salaries bill of all corporations with the same activity gives the compensation of employees per industry.

²³ The same approach is also followed for sectors S.124, S.125, S.126 and S.127.

The following elements, that are not included in the wages and salaries bill according to the NSSO or the annual accounts, are finally added:

- the wages and salaries bill of seafarers and the mine workers (who are members respectively of the Seafarers' Relief and Contingency Fund and the National Retirement Fund for Mineworkers; the latter was taken over as from 01/01/1999 by the NSSO);
- the compensation of prisoners according to the budgets of the Prison Labour Authority;
- the compensation of corporations affiliated to the NSSOPLA (National Social Security Office for Provincial and Local Authorities);
- wages and salaries in kind (social balance sheet, heading "benefits on top of wages and salaries");
- the personal use of a company car (from 1997 there is a social contribution on this benefit, from which the benefit itself can be estimated);
- gratuities (calculated as a percentage of turnover);
- the profit share of employees (heading in the annual accounts);
- wages and salaries paid out in the black economy (calculated as a percentage of the value added "in the black economy" in S.11).

b) Financial institutions (S.12)

For monetary financial institutions (S.121 and S.122) and for the subsectors of insurance corporations (S.128) and pension funds (S.129) the wages and salaries bill is calculated on the basis of annual accounts information.

The wages and salaries bill of the other financial corporations (S125, S126, S127) is calculated by a combined use of the social balance sheet and the NSSO (cf. S.11).

There is no compensation of employees in subsectors S123 and S124 (investment funds).

c) General government (S.13)

The compensation of employees is calculated using information from the government accounts and budgets. For the wages and salaries bill of employees at universities the NSSO wages and salaries bill is used. There is a breakdown per subsector and within each subsector per industry.

d) Households (S.14)

A minority of unincorporated enterprises in S.14 are employers and pay wages and salaries. The main sources are wages according to the NSSO. The following elements are added to it: premiums for industrial accidents (based on percentages per industry deduced from the quadrennial labour costs survey of DGSEI) gratuities (calculated as a percentage of turnover in certain sectors), the compensation of employees for NACE 97 "households as employers of domestic personnel" (only partially indicated in the NSSO) and wages and salaries paid in the black economy (determined as a flat rate of 5 % of officially reported wages and salaries).

e) Non-profit institutions serving households (S.15)

The wages and salaries bill in S15 is determined via a combination of accounting information (for units depositing annual accounts) and NSSO information.

Breakdown into wages and salaries (D11) and social contributions (D12)

The totals for actual social contributions (D121) are determined on the basis of the accounts of general government (S13) and insurance corporations and pension funds (S128+S129). Imputed social contributions (D122) are calculated from the results of the EEC four-yearly survey of the level and structure of labour costs.

Once the employers' social contributions (D12= D121 and D122) have been calculated, wages and salaries (D11) are derived as the difference between compensation of employees (D1) and employers' social contributions (D12).

1.4.2.2 Taxes on production and imports and subsidies (D2/D3)

Taxes on production and imports (D2)

These taxes on the production and importing of goods and services or the use of production factors are payable irrespective of whether or not profits are made.

The source reflects cash receipts. The recording method is that of "time-adjusted cash registration" whereby cash receipts are adjusted over time, which ensures that the amounts in question are attributed to the period in which the activity giving rise to the tax charge took place. This adjustment is based on the statutory time lag between the date of payment and the period in respect of which the payment is made.

Taxes on production and imports paid to EU institutions (S212) are also included, even though they do not pass through the accounts of general government (S13).

Taxes on production and imports (D2) are added up before being broken down into taxes on products (D21) and other taxes on production (D29) on the basis of the inventory of the various taxes, most of which are product-related. D29 therefore only comprises taxes which fall within the proposed definition and a balance of activity-related taxes which are mainly collected by municipalities.

Subsidies (D3)

Subsidies are non-contractual transfers granted mainly to market branches of activity by general government (S13) or by EU institutions (S212). They may be subsidies on products (D31), granted to reduce their market price or other subsidies on production (D39) to support employment. Coverage of annual losses is also treated as subsidy payment.

Subsidies are equivalent to negative taxes on production insofar as they impact on the operating surplus in the opposite way to taxes on production.

Like taxes on production and imports (D2), subsidies (D3) are added up before being broken down into, on the one hand, subsidies on products (D31), mainly comprising subsidies to public-sector enterprises (Belgian National Railways, the Postal Service etc.) and European subsidies under the CAP, and, on the other hand, other subsidies on production (D39), including interest subsidies and, more important, subsidies to foster employment.

1.4.2.3 Consumption of fixed capital (P51c)

General government and NPISH

As overall balance sheet data for general government and S15 are not available, the perpetual inventory method is used on the basis of long investment series. This method is described in section 4.12. Consumption of fixed capital is calculated by a depreciation function based on average service lives. These depend on the kind of asset.

Market industries

The consumption of fixed capital of market industries is calculated with the permanent inventory method (PIM).

ESA 2010 specifies calculating the consumption of fixed capital on the basis of the stock of fixed assets and the probable average economic life of the different types of goods. Because there is no direct information on the stock of fixed assets, the stock of fixed assets is estimated via the PIM as the sum of gross capital formation from the past that is still being used in the present period. By applying depreciation functions per type of fixed asset the consumption of fixed capital can be calculated.

1.4.3 CONCLUSION

In the income approach, the gross operating surplus/gross mixed income per industry is calculated as a balancing item. The calculation of compensation of employees, taxes on production and imports, and subsidies is based primarily on direct estimation methods in view of the ample availability of information in administrative sources and accounting statements.

The calculations are carried out directly.

The exhaustiveness of the estimate of the compensation of employees is ensured by the general procedure followed: use of the business register in which all (officially registered) employers are included.

A computation is made for wages and salaries paid out in kind, undeclared wages and salaries (consistent with the amounts relating to undeclared value added), gratuities and wages and salaries paid to domestic staff.

1.5 OUTLINE OF THE EXPENDITURE APPROACH

1.5.1 REFERENCE FRAMEWORK AND MAIN SOURCES

Consumption expenditure by households is mainly based on the household budget survey (biannual since 2010), administrative data and specific surveys. Consumption expenditure by the general government is based on administrative sources.

To estimate investments three main sources are used: the annual accounts, VAT returns and structural business surveys.

Exports of goods and services are derived from the balance of payments and external trade statistics.

1.5.2 CALCULATION

1.5.2.1 Consumption expenditure

Consumption expenditure by households (P3S14)

The Household Budget Survey (HBS) is one of the main data sources for calculating households' final consumption expenditure.

Average expenditure per product per household is extrapolated, according to the nomenclature of the household budget survey, to the total population. The expenditure of people living in communities (retirement homes, prisons, religious orders, etc.) is added for purchases in addition to the price paid for accommodation in the community.

The HBS provides data based in “national” concept (final consumption by Belgian households). As the supply and use table (SUT) is constructed on territorial lines, the figures have to be converted from the national to the domestic concept of final consumption (final consumption by households on Belgian territory), using balance of payments data. Tourist expenditure abroad by households resident in Belgium is excluded from the HBS data, whereas final consumption expenditure by non-residents in Belgium (from the balance of payments) is added to final consumption (of resident households) in Belgium.

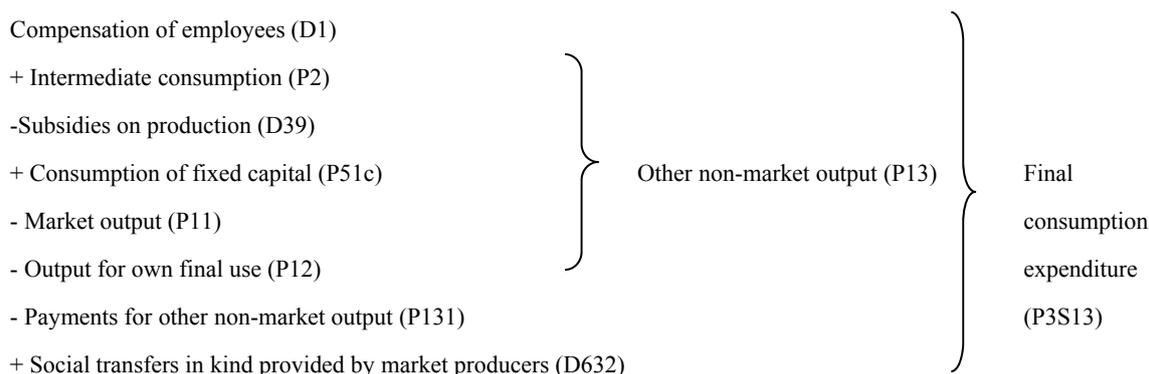
Administrative data are mainly used for estimating the consumption of alcoholic beverages and tobacco products, purchases of cars and spending on health care. Whatever the source of information, incorporating first estimates in the supply and use table makes checking and adjustment possible, depending on the reliability of available figures.

Final consumption expenditure of general government (P3S13)

This aggregate can be split up between separately identifiable final consumption (P31S13), i.e. expenditure where the consumer is identifiable, and collective consumption (P32S13). Separately identifiable final consumption, which is conventionally identified by means of a list of items in the Classification of Functions of Government (COFOG), includes expenditure on education, health, culture etc. Collective consumption, which comprises all other items in the COFOG classification, covers expenditure on the traditional "core" functions of the state (defence, justice, police, general administration) and a residual which includes non-market services to business and non-market services to households which relate to functions such as transport infrastructure which are not conventionally separately identified.

Individual consumption expenditure (P31S13) includes general government expenditure on goods and services provided by market producers with a view to supplying them (without processing) to households as social transfers in kind (D.632). In Belgium, the latter are particularly important, since all hospitals, retirement homes, and centers for the disabled, whether privately or publicly owned, are market producers.

The following flowchart applies:



The main sources are accounting data from budget turn-outs, which may differ from one subsector to another: payment orders in the case of the Central Government (S1311) and the Communities and Regions (S1312), spending commitments for local authorities (S1313) and economic charges borne by social security agencies (S1314). The distinction between individual consumption expenditure (P31S13) and collective consumption expenditure (P32S13) is made at the time of compiling the final tables of expenditure of general government by function and transaction.

Final consumption expenditure by NPISHs (P3S15)

This is the sum of the non-market output (P13) of NPISHs and their expenditure on goods and services provided by market producers with a view to supplying them to households as social transfers in kind (D632).

1.5.2.2 Gross fixed capital formation (P51g)

To estimate P51g three main sources are used: the annual accounts, VAT returns and structural business surveys. It is only for a few 'special' estimates such as GFCF in residential buildings, software, R&D and originals that other sources are also used.

Estimate per sector

Non-financial corporations (S.11)

To estimate P51g in sector S.1, the annual accounts and VAT returns are used. The annual accounts are the preferred source. In the absence of (usable) annual accounts the VAT returns are used. Corrections are made on these administrative data in order to make them ESA2010 compliant. A specific survey capturing R&D-activity is used to derive GFCF in R&D.

Financial institutions (S.12)

The GFCF of sector S.12 is estimated using annual accounts information (S.121, S124_S127) or SBS information (S122, S123, S128, S129).

General government (S.13)

For the general government sector the detailed government accounts are taken as a source to estimate GFCF.

Households (S.14)

To estimate the GFCF of unincorporated businesses belonging to sector S.14 two sources are used, depending on whether or not the units in these sectors submit a VAT return. In industries with VAT-registered units the estimate is based on the VAT returns; in industries for which no VAT returns are available the structural business survey is used as a source. GFCF in residential buildings is estimated via specific sources (price*quantity approach).

Non-profit institutions serving households (S15)

Sector S15 investments are mainly estimated on the basis of the annual accounts.

Special estimates

Residential buildings

The estimate of investments in residential buildings is based mainly on three sources: the statistics on the number of started buildings, the statistics on the number of building permits issued and a specific survey among construction corporations (price information by type of dwellings). By combining the quantity statistics (buildings started and building permits) with the price data from the survey among construction corporations we get an estimate of the total investments in residential buildings.

Software

Investments in software consist of two parts: purchased software and self-developed software.

To estimate investments in purchased software the data from the SBS are used. To estimate software produced on own account two types of data are used: the labour force survey and wage and salary data for IT personnel. The investments are then estimated by multiplying the number of people engaged in IT activities (or related activity) by the average wage cost for IT personnel. This result is then multiplied by 0.5 (IT personnel is assumed to spend half of their time on developing new programs/applications). Intermediate consumption and operating surplus are added to compensation in order to make an estimate of own account production of software at basic prices.

Entertainment, literary or artistic originals

Two methods of estimation are adopted depending on the existence or absence of royalty flows associated with these originals and managed by copyright management societies. Where copyright and related rights generated by a work are collected mainly via management societies, the output of original works is estimated on the basis of the royalties paid by all the Belgian management societies to Belgian recipients. Where copyright or related rights are managed only partly or not at all by management societies, the output of original works is estimated on the basis of creation costs plus a net operating surplus.

1.5.2.3 Changes in inventories (P52)

Changes in inventories are estimated via annual accounts information.

In order to have a valuation in accordance to national accounts an estimate of valuation differences regarding stocks is done. Outstanding amounts (AN.12) and transactions (P52) are estimated simultaneously.

1.5.2.4 Net exports of goods and services

External trade statistics (on imports and exports of **goods**) are incorporated in the balance of payments statistic. Part of the flows are derived from the intrastat survey, part are derived from customs declarations (extrastat). Flows in “community concept” are transformed to flows in “national concept” in order to eliminate transit flows.

External trade in **services** is estimated on the basis of specific surveys.

The balance of payments has the following main headings for services:

- manufacturing services on physical inputs owned by others (international processing)
- maintenance and repair services
- transport services
- travel services
- construction services
- insurance and pension services
- financial services
- telecommunications, computer and information services
- other business services
- personal, cultural and recreational services
- government goods and services n.e.c.
- charges for the use of intellectual property
- not allocated services.

1.5.3 CONCLUSION

For the various expenditure components all the possible sources are used, mainly via a direct method, to make initial estimates of the expenditure per product directly, which after integration of the supply and use table gives an exhaustive GDP.

1.6 INTEGRATION OF THE SUPPLY AND USE TABLE

An integrated calculation of GDP according to the output, expenditure and income approach is carried out within the framework of the supply and use table (SUT).

In view of the integration of information from various sources, the SUT is the most appropriate method for arriving at an exhaustive estimate of GDP.

1.6.1 STRUCTURE OF THE SUPPLY AND USE TABLE

The work format of the SUT provides for more industries and products than the format in which the SUT has to be transmitted to Eurostat. This permits a detailed analysis and adjustment of the statistical differences between supply and use to be carried out. In practice the quantity and quality of source data still puts a restriction on the work format.

The reporting format provides for 64 *industries* (A64 which corresponds to a grouping of 88 NACE rev2 divisions (2 digit industries)). 139 industries are used in the work format of the SUT. The delimitation of the industries took into account the Eurostat classification A64, the importance (turnover as criterion) of the various NACE rev2 3-digit classes, the homogeneity of the SUT industries and the distinction between market and non-market activities.

The reporting format provides for 64 *products* (P64) that correspond with the 2-digit CPA classification. The number of products in the work format is about 400.

The goods in the SUT are usually defined in terms of CPA 2008 4-digit, and the services according to CPA 2008 3-digit. Exceptions are sometimes made to this rule depending on the relevance of the products for the Belgian economy, or for various technical reasons.

The structure of sectors and products reflects the increasing importance of services in the economy. 32 % of the number of products relate to services. The percentage share of the service industries in the total number of industries is 47 %.

The different variables in the SUT are roughly classified as specified in the reporting format. For practical reasons further detail is sometimes appropriate.

ESA 2010 makes a distinction between *consumption expenditure* and *actual final consumption*. The first concept relates to who carries out the expenditure, the latter to who acquires the consumer goods or services. In the SUT the concept of consumption expenditure is used, while in the sector accounts both concepts are presented. Because the consumption expenditure in the sector accounts is derived from the SUT, in the use table the following distinction is made:

- P.3_S.14 consumption expenditure by households;
- P.31_S.13 individual consumption expenditure by the general government;
- P.32_S.13 collective consumption expenditure by the general government;
- P.3_S.15 consumption expenditure by NPIs serving households.

In order to maintain a link to the sector accounts, in the SUT work format the gross fixed capital formation (P.51g) is classified by sectors. The amounts per sector and per product are obtained via a separate investment module where the distinction by industries is also available.

1.6.2 DATA SOURCES AND INITIALISATION

Output and intermediate consumption

ESA 2010 output (P.1) and its components (P11: market output - sales and changes in inventories of produced goods -, P12 output for own final use, P13 non-market output) is not immediately available as such in the data of producers, but can after various calculations be derived from these. The same applies for intermediate consumption (P2) and its components (purchases for intermediate consumption and changes in inventory of materials and supplies).

For the various components of output and intermediate consumption, in the light of all the usable information (structural business survey, Prodcom, external trade statistics), apportionment keys per product are calculated to as detailed an activity level as possible.

Other elements

The totals of imports and exports of goods and services and the apportionment keys per product, are determined on the basis of data from the balance of payments and external trade statistics.

To calculate the trade and transport margins, information from annual accounts and surveys is used.

Information on taxes and subsidies on products comes mainly from general government accounts.

The initial estimates of consumption expenditure by households (P.3_S.14), NPIs (P.3_S.15) and general government (P.3_S.13) come mainly from respectively the household budget survey, specific surveys and government accounts.

The information for calculating the initial estimate of GFCF comes mainly from the annual accounts (aggregates and apportionment by large categories) and from VAT returns (aggregates). The apportionment of aggregates by SUT products is carried out on the basis of the SBS.

The components of value added are described in the income approach.

To be able to integrate the SUT in prices excluding VAT the VAT legislation was translated into percentages of non-deductible VAT per SUT product.

1.6.3 BALANCING

The calculation of aggregates according to the concepts of the national accounts, the breakdown of these aggregates by the most accurate estimates possible for production, intermediate consumption and investments per product, the calculations per SUT product of trade and transport margins, taxes and subsidies on products, imports and exports, and the initial estimate of consumption expenditure, form an important part of the SUT integration method.

After initialising the data the imbalances between supply and use per product are investigated and adjusted in the balancing (or netting) phase, as a result of which the aggregates estimated initially may also change. Balancing ultimately leads to a consistent estimate of GDP according to the three approaches.

In principle all variables may be changed by balancing, and so there are no constraints with respect to the initialised amounts, or with respect to amounts published in a provisional version.

The income approach only plays a secondary part in balancing the SUT because operating surplus/mixed income is calculated as a residual.

When balancing the output and expenditure approach, adjustments are either made in the columns or in the rows/products. Flexible SUT software enables the relevant adjustments to be made during any stage of balancing in a reasoned (and so not mechanical) way.

Small differences between supply and use are eliminated in a final phase with an iterative method (RAS).

1.7 EXHAUSTIVENESS

Exhaustiveness of the GDP is obtained by extrapolating the results of surveys as correctly as possible for the population using registers, applying the definitions of ESA 2010 as accurately as possible, and more specifically including the underground economy in the calculation methods.

The underground economy consists of the black economy plus the illegal economy. The black economy consists of clandestine corporations plus unreported or underreported activities.

The illegal economy includes activities that according to the concepts of the national accounts fall within the production boundary, but are not legally permitted.

An important aspect for obtaining an exhaustive GDP is the compilation of the register of production units. Every year a directory is constructed from the DGS business register, in which at present only non VAT-registered enterprises which are unincorporated *and* have no staff are missing. The aggregates for these enterprises are calculated via another register, namely the personal income tax return files

It can therefore be stated that the calculation of GDP via the output approach is based on an exhaustive register.

One of the transitional adjustments of the administrative aggregates to ESA 2010 aggregates concerns the extrapolation for the black economy. An overall adjustment per SUT sector is calculated by applying percentages to turnover and purchases for S.11 corporations and S.14 unincorporated businesses separately, according to the NACE classification considered relevant within a SUT branch for a differentiated adjustment per activity.

As in most other European countries the black economy is predominant in industries that supply the majority of their production to households. This applies among other things for the construction industry (in particular for building installation and building completion), the retail trade, the maintenance and repair of motor vehicles, hotels and restaurants, and other services to persons.

Implementation of ESA 2010 definitions is carried out in the production approach by a detailed estimate of all transitional components between the administrative aggregates and the aggregates according to the concepts of the national accounts.

1.8 TRANSITION FROM GDP TO GNI

The transition from GDP to gross national income (GNI) is based on data from the balance of payments and the financial accounts. The property income paid to and received from the rest of the world form the main component of primary incomes:

- The interest flows (D41) with the rest of the world are estimated via information from the financial accounts (outstanding amounts of interest generating financial assets held in/by ROW multiplied by percentage return).
- The dividends (D42) and reinvested earnings on FDI (D43) paid to and received from the rest of the world are estimated by combining figures from the national accounts (for resident corporations) with figures from the balance of payments (for non-resident corporations).

1.9 MAIN CLASSIFICATIONS USED

The main classifications used in the (non-financial) national accounts compiled according to ESA2010 are:

- the classification of institutional sectors (for corporations no distinction is made between public, national private and foreign controlled; for households no distinction is made between employers, own account workers, employees and recipients of property and transfer income; the specified sub-sectorisation in S12 and S13 is available in the register/statistics);
- the classification of transactions and other flows (transactions in products and distributive transactions);
- the classification of (non-financial) assets;
- the classification of activities (nace rev2) and underlying aggregation levels (A*10, A*21, A*38, A*64, A*SUT);
- the classification of products (CPA 2008) and underlying aggregation levels (P*3, P*10, P*21, P*38, P*64, P*SUT);
- the classification of the functions of the government (COFOG);
- the classification of individual consumption by purpose (COICOP);
- the classification of purposes of non-profit institutions serving households (COPNI).

1.10 MAIN DATA SOURCES USED

The main data sources used in the compilation of the non-financial accounts according to ESA2010 are:

- business register/repertory;
- annual accounts (corporations and non-profit institutions);
- NSSO and NSSOAPL declarations (employers);
- VAT-declarations;
- personal income tax declarations;
- structural business survey (for corporations, self-employed and NPI's);
- prodcom survey (manufacturing industry);
- household budget survey;
- specific budgetary information ;
- balance of payments and foreign trade statistics;
- specific survey on R&D-activity.

2 THE REVISIONS POLICY AND THE TIMETABLE FOR REVISING AND FINALISING THE ESTIMATES; MAJOR REVISIONS SINCE THE LAST VERSION OF THE GNI INVENTORY

2.1 THE REVISIONS POLICY AND TIMETABLE FOR REVISING AND FINALISING THE ESTIMATES (CURRENT REVISIONS)

GDP/GNI estimates only become definitive after 3 years.

The next table shows the different versions of the annual accounts (first block) as well as the source material used in the successive versions of the accounts (second block).

Consecutive estimates of GDP/GNI for year T (*)

T+2m	QNA	First yearly estimate of GDP (3 approaches) resulting from the quarterly national accounts
T+9m	YNA	Provisional estimate of GDP/GNI
T+21m	YNA	Semi-final estimate of GDP/GNI
T+36m	YNA	Final estimate of GDP/GNI

Sources used in different estimates of GDP/GNI for year T

T+2m	QNA	VAT and industrial production indices and provisional figures for S13
T+9m	YNA	More definitive figures for S13 (e.g. S1313), final (accounting) information for S121, S122, S128, S129, semi-final information for BOP and definitive ONSS wages and employment.
T+21m	YNA	Estimate based on repertory for T (compiled in T+14m) and use of annual accounts for S11, S125_S127, S15. Final information for ROW and property income flows to/from ROW
T+36m	YNA	Integration of definitive personal income tax information data (S14), definitive information for S13 + compilation of SUT for T

(*) The flash estimate (T+1m) is not mentioned. It is a quick but very provisional volume estimate of GDP (according to the production approach).

The first annual estimate (in T+2m) results from sources (monthly VAT-turnover and industrial production series) and (econometric) methods used in the quarterly national accounts.

The second estimate (in T+9m) is still largely based on the QNA value added estimate for the non-financial enterprises (S11+S14) but incorporates however more final figures for the public sector, part of the financial sector, imports and exports and ONSS wage and employment information.

The third estimate (in T+21m) is a semi-final one which is based on the repertory compiled for year T and incorporates the annual accounts information (and SBS-information) for S11, part of S12 and S15. The transformation from 'administrative' to ESA2010 aggregates (as described in this inventory) is introduced in this version of the accounts. The property income flows to/from the ROW are also established using final sources and methods in this version of the accounts.

The last estimate (T+36m) provides a final estimate based on a SUT approach after the introduction of all final source material (e.g. for S14 and S13) and final other adjustments or corrections.

2.2 MAJOR REVISIONS DUE TO THE TRANSITION FROM ESA1995 TO ESA2010

2.2.1 REVISIONS WITH IMPACT ON GDP

The following items with an impact on GDP were treated:

- R&D (market and non-market) (1a and 1b)
- valuation production for own final use (2)
- insurance and reinsurance (3)
- military equipment (4)
- market/non-market classification (boundary S13) (6)
- allocation of production of central bank (10).

Items (5), (7), (9) and (11) were not treated for the following reasons:

(5) Decommissioning costs

The way in which decommissioning costs for large capital assets are treated affects the distribution of consumption of fixed capital over the lifetime of the asset. Consumption of fixed capital has a direct link to GDP/GNI only for non-market producers. Because large capital assets such as nuclear power plants are owned and operated in Belgium by market producers this item does not have any impact on GDP/GNI and therefore has not been examined.

(7) Small tools

In practice the national accounts depend on the actual treatment of purchases of small tools in the annual accounts of the companies: when these purchases are treated as investment goods and are capitalized on the balance sheet they are de facto considered as part of GFCF, if they are registered as current purchases of goods in the profit and loss account they are de facto considered as intermediate consumption. No attempt has been made in the past (ESA95) nor will be made in the future (ESA2010) to correct the P2/P51 delineation used in business accounts. A possible correction would be immaterial compared to the GDP/GNI-levels.

According to the business accounting rules, the delineation between purchases registered as IC and investments is that the latest are needed by the company to durably operate its business, i.e. that all items meant to be kept or used for more than one year are to be capitalized. Moreover, a practical threshold (between 250 and 1000 euros according to the size of the unit) is used under which purchases of goods will not be regarded as fixed assets.

In the VAT records (used for units with no -usable- annual accounts), investment goods must also be used in a “durable” way and exceed 1.000 EUR since 1/1/2014.

(9) Index linked debt instruments

A correct treatment of revenue accruing to index-linked debt instruments requires that it is possible to isolate index-linked debt instruments from other debt instruments in the financial accounts. This, however, is not the case in practice and, consequently, no correction can be estimated for cross border interest flows.

(11) Land improvements recognised as a separate asset

No investigations have been done on this specific issue.

Making abstraction from potential classification problems in the stock and flow accounts, land improvements realised by government are registered in the accounts as gross fixed capital formation in the S13-accounts, increase the capital stock owned by S13 and generate consumption of fixed capital which contributes to total production and value added in S13. Through this approach, there is no risk of underestimating GDP.

The impact on GDP (3 approaches) of the transition items can be seen in the following table. It is not possible to do the same exercise for the year 2012 because we no longer dispose of an elaborate version of ESA95 accounts for that year (the estimates for 2012 were done directly according to ESA2010). The comments hereafter illustrate the revisions for the year 2010.

The impact of the different ESA2010 items impacting GDP is shown in the next table for the year 2010. These figures are compatible with the ESA2010 version of accounts published in September 2015 (GNIQ of 22 sept 2015).

ESA2010 items with impact on GDP (2010)
(€ million)

	(1)	(1a)	(1b)	(2)	(3)	(4)	(6)	(10)	total
P1S1	5.871	4.228	1.644	133	146	-44	158	0	6.264
P2S1	-1.217	-1.217	0	0	-176	-180	62	-19	-1.530
B1gS1	7.088	5.445	1.644	133	322	136	97	19	7.794
D21	0	0	0	0	0	0	0	0	0
D31	0	0	0	0	0	0	0	0	0
GDP	7.088	5.445	1.644	133	322	136	97	19	7.794
P1S11	4.100	4.100	0	133	0	0	-1.275	0	2.957
P2S11	-1.217	-1.217	0	0	144	0	-802	0	-1.875
B1gS11	5.317	5.317	0	133	-144	0	-473	0	4.832
P1S12	128	128	0	0	146	0	-186	0	88
P2S12	0	0	0	0	-320	0	-170	-19	-508
B1gS12	128	128	0	0	466	0	-17	19	596
P1S13	1.591	0	1.591	0	0	-44	1.619	0	3.166
P2S13	0	0	0	0	0	-180	1.033	0	853
B1gS13	1.591	0	1.591	0	0	136	586	0	2.313
P1S15	52	0	52	0	0	0	0	0	52
P2S15	0	0	0	0	0	0	0	0	0
B1gS15	52	0	52	0	0	0	0	0	52
Income	7.088	5.445	1.644	133	322	136	97	19	7.794
D1S1	0	0	0	0	0	0	2	0	2
D29S1	0	0	0	0	0	0	-18	0	-18
D39S1	0	0	0	0	0	0	-126	0	-126
B2g+B3gS1	7.088	5.445	1.644	133	322	136	-13	19	7.684
D1S11	0	0	0	0	0	0	-348	0	-348
D29S11	0	0	0	0	0	0	-18	0	-18
D39S11	0	0	0	0	0	0	-112	0	-112
B2g+B3g S11	5.317	5.317	0	133	-144	0	-219	0	5.086
D1S12	0	0	0	0	0	0	-49	0	-49
D29S12	0	0	0	0	0	0	-1	0	-1
D39S12	0	0	0	0	0	0	-14	0	-14
B2g+B3g S12	128	128	0	0	466	0	18	19	631
D1S13	0	0	0	0	0	0	399	0	399
D29S13	0	0	0	0	0	0	0	0	0
D39S13	0	0	0	0	0	0	0	0	0
B2g+B3g S13	1.591	0	1.591	0	0	136	187	0	1.914
D1S15	0	0	0	0	0	0	0	0	0
D29S15	0	0	0	0	0	0	0	0	0
D39S15	0	0	0	0	0	0	0	0	0
B2g+B3g S15	52	0	52	0	0	0	0	0	52
Expenditure	7.088	5.445	1.644	133	322	136	97	19	7.794
P3	-358	0	-358	0	322	-44	97	0	16
P3S13	-359	0	-359	0	0	-44	97	0	-307
P3S14	0	0	0	0	322	0	0	0	322
P3S15	1	0	1	0	0	0	0	0	1
P51	7.623	5.621	2.002	133	0	180	0	0	7.936
P51S11	5.496	5.496	0	133	0	0	-159	0	5.470
P51S12	125	125	0	0	0	0	-10	0	115
P51S13	1.950	0	1.950	0	0	180	168	0	2.299
P51S14	0	0	0	0	0	0	0	0	0
P51S15	52	0	52	0	0	0	0	0	52
P52	0	0	0	0	0	0	0	0	0
P6	-116	-116	0	0	0	0	0	19	-97
P7	60	60	0	0	0	0	0	0	60
P6-P7	-176	-176	0	0	0	0	0	19	-157
as % of ESA95 GDP	1,99 %	1,53 %	0,46 %	0,04 %	0,09 %	0,04 %	0,03 %	0,01 %	2,19 %

(1) R&D: (1a) R&D market, (2a) R&D non-market.

- (2) Valuation of production for own final use
- (3) Insurance and reinsurance
- (4) Military equipment
- (6) Market non-market boundary (S13)
- (10) Allocation of output of central Bank

R&D (item (1))

Two main data sources are used to estimate the impact of the capitalization of R&D on GDP/GNI.

The Supply and Use tables for the product R&D compiled in ESA95 are taken as the benchmark figures for R&D according to ESA95.

The ESA2010 treatment of R&D is derived from the satellite account for R&D which is primarily derived from the Belspo survey in combination with annual accounts information and Balance of Payments data.

The difference between the ESA2010 and ESA1995 aggregates determines the impact of the revised treatment of R&D on GDP.

Impact of capitalization of R&D on GDP (year 2010)

supply and use balance of product R&D before (a) and after (b) revision

(€ million)	ESA95 (a)	ESA2010 (b)	Impact (b)-(a)
Supply (P1+P7)	7.142	13.074	5.932
P1	4.874	10.745	5.871
P1S11	2.866	6.966	4.100
P1S12	0	128	128
P1S13	1.950	3.541	1.591
P1S15	58	110	52
P72	2.268	2.328	60
USE (P2+P3+P5+P6)	7.142	13.074	5.932
P2	2.524	1.307	-1.217
P2S11	2.524	1.307	-1.217
P2S12	0	0	0
P2S13	0	0	0
P2S15	0	0	0
P3	1.975	1.617	-358
P3S13	1.923	1.564	-359
P3S15	52	52	1
P51	0	7.623	7.623
P51S11	0	5.496	5.496
P51S12	0	125	125
P51S13	0	1.950	1.950
P51S15	0	52	52
P62	2.642	2.527	-116
contribution to GDP	2.349	9.438	7.088
market	342	5.786	5.445
Non-market	2.008	3.651	1.644
p.m.: ESA95 GDP (GNIQ sept 2015)			356.053
impact as % of ESA95 GDP			2,0 %
market			1,5 %
Non-market			0,5 %

(b) These amounts correspond to the ESA2010 aggregates mentioned in the GNIQ of sept 2015.

R&D market (1a) (S11+S12)

For the item (1a) "R&D market" there is an increase in production (+ € 4.228 million) - due to the activation of costs for R&D produced for own account - and a decrease in intermediate consumption (-€ 1.217 million) - due to the reclassification of purchased R&D services from intermediate consumption to gross fixed capital formation. Total value added increases by € 5.445 million.

In the income side the increase in value added is reflected in an increase of the operating surplus for the same amount.

In the expenditure side gross fixed capital formation (P51) in R&D appears (€ 5.621 million) and some adjustments had to be made to import and export figures for R&D services caused by the introduction of BOPM6 (net exports decrease with € 176 million).

R&D non-market (1b) (S13+S15)

For non-market producers (S13 and S15) production and value added increases with the amount of consumption of fixed capital on the R&D-stock that did not exist in ESA95 (€ 1.644 million). This is also reflected in gross operating surplus.

In the expenditure side collective consumption (P3) and gross fixed capital formation (P51) are impacted because in ESA95 the R&D-activity appeared as collective consumption (P3) and in ESA2010 as GFCF (P51). Moreover P3 is also impacted via the extra consumption of fixed capital on the R&D capital stock.

Extra information on the estimate of R&D in ESA2010 in the context of the satellite accounts for R&D (production, gross fixed capital formation, imports, exports, capital stock, consumption of fixed capital) is given in other parts of the inventory (§ 5.10.4).

Valuation production for own final use (item (2))

Because the own account production of tangible assets is valued at cost in the annual accounts a mark-up is estimated combining information from the SBS (own account construction of fixed assets by type of asset) and the Central Balance Sheets Office (operating surplus percentage in industries producing investment goods).

The estimated mark-up is added to the value of the production and gross fixed capital formation. Operating surplus increases by the same amount.

Insurance and reinsurance (item (3))

Because the estimation of production for non-life insurance changes in ESA2010, the corresponding expenditure for policyholders (households: P3) or companies (P2) is also modified. The impact on GDP equals the corresponding changes in household consumption expenditure. At the same time the different treatment of reinsurance induces changes in P1 and P2 in S12 for the same amounts (without impact on GDP).

These changes also explain the changes in value added and operating surplus of the financial and non-financial corporations.

Military equipment (item (4))

There is a reclassification of purchases of military equipment from P2 (-180) to P51 (+180) in S13.

Total production (as sum of cost) changes (-44) because these military purchases are now capitalized (-180) and the extra capital stock of military equipment generates extra consumption of fixed assets (+136).

In ESA95 the purchases appeared as collective consumption in the expenditure side (180). Now they are reclassified as P51. At the same time P3 increases with the extra consumption of fixed capital: the net change in P3 thus equals $-180 + 136 = -44$. The impact on GDP is equal to the extra consumption of fixed capital.

Market/non-market classification of units (boundary S13) (item (6))

A number of units have been reclassified from the market sector (S11 and S12) to the government sector (S13). Because the output is valued differently for market producers (proceeds of sales) and non-market producers (sum of costs), this reclassification of units has an impact on GDP. The investments (GFCF) of reclassified units are included in computation of capital stock and hence in consumption of fixed capital (CFC). This CFC has been included in the sum of costs of production of general government. Long series of GFCF have been estimated for the computation of the PIM for those units which have significant GFCF in the period 1995-2015.

Production, intermediate consumption and value added in market sectors diminishes; in S13 the corresponding flows (whereby P1 = sum of cost) appear. The net effect is an increase in value added/GDP (+ € 97 million). On the expenditure side investments switch between sectors and general government expenditure increases due to the consolidation of these units in the S13 accounts.

Allocation of output of central bank (item (10))

In ESA2010 the market production of the central bank must be allocated to the sectors that pay for it. After analysis of the accounts of the Belgian central bank it was clear that the central bank generates small amounts of revenue from abroad (for instance other central banks). This export is accounted for

in S2 (and the BOP). The counterpart of this is a decrease of P2 in the financial sector (the total production of the central bank does not change, only its allocation).

2.2.2 REVISIONS WITH IMPACT ON GNI

Registration of VAT-contribution to EU budget (third own resource) (item (8))

The only item with impact on GNI but not on GDP concerns the revised registration of the VAT-contribution paid to the EU. In ESA95 this payment was registered under D2 in account S2, in ESA2010 it is treated in the same way as the GNI-contribution (as a current transfer D7). This implies that GNI increases with the amount reclassified from D2 to D7 (€ 434 million in 2010).

2.3 MAJOR REVISIONS OTHER THAN DUE TO CONCEPTUAL CHANGES IN ESA2010

2.3.1 REVISIONS DUE TO GNI RESERVATIONS (IN ESA95)

2.3.1.1 Transversal reservations

Regarding transversal ESA95 reservations, the treatment of car scrap schemes has been changed in 2012 and estimates for the illegal economy have been introduced in 2014. In 2015 the demand side estimate for prostitution has been replaced by a supply side one and the reservation relating to intermediate consumption in dwelling services has been addressed.

Car scrap schemes

In the Belgian national accounts, the federal premium granted for the purchase of an environmentally friendly car and the Walloon ecobonus scheme for green cars (with low CO₂ emissions) were recorded as miscellaneous current transfers (D.75) for the benefit of households.

Owing to different accounting treatment in the various European countries, Eurostat has put forward the following proposal to the "National Accounts" working group in which the payment methods (directly to households or via sellers) do not play any decisive role in the analysis.

In the case of a conditional premium where the old car is taken out of circulation and without the obligation of having to buy a new car, the link between payment of the premiums and the sale of cars is weak. The effect on car prices and vehicle production is not clear. The bonus must in this case be entered into the accounts as miscellaneous current transfers (D.75) from government to households.

In cases where a premium is conditional on the old car being taken out of circulation with a commitment to buy a new car, the number of new vehicles increases and households, car dealers and manufacturers are the beneficiaries of the premiums. Therefore, no single beneficiary sector can be identified and the registration of a current transfer from S.13 to S.14 is not appropriate. So, the analysis has to be targeted on the product (the car) and the premium will be entered in the accounts under subsidies on products (D.31) which do not have to be assigned to a specific sector.

On this basis the NAI decided to record the two above-mentioned premiums as subsidies on products. Likewise, the Walloon ecomalus tax is recorded under taxes on products (D.21).

At the Belgian federal level, it was announced at the end of November 2011 that the premiums would be scrapped as of 31 December 2011. The measure was still valid for cars that were delivered before that date, as well as for vehicles that had already been ordered and for which a deposit had been paid before 28 November 2011. Taking account of the delays in processing the files, the premiums due for cars delivered in December 2011 were not paid until the year 2012, but in the national accounts they are recorded at the time of delivery, 2011 in this case.

Premiums paid have been reclassified from D75 to D31. These schemes were set up in 2008 and abolished in 2012. Net taxes on products, household consumption expenditure and GDP were revised downwards for the amounts which have been reclassified (2008: € 39 million, 2009: € 97 million, 2010: € 317 million).

Illegal economy

The impact of the introduction of the illegal economy on GDP/GNI is shown in the next table.

These amounts reflect the version of accounts published in September 2015 (including the supply side estimate for prostitution).

illegal economy (impact on GDP/GNI)								
(drugs, prostitution, smuggling)								
€ million								
	2002	2003	2004	2005	2006	2007	2008	2009
<u>Production</u>	1.462	1.381	1.363	1.445	1.456	1.517	1.534	1.589
P1S1	1.640	1.565	1.554	1.642	1.660	1.729	1.756	1.826
P2S1	178	185	191	197	204	212	222	236
B1gS1	1.462	1.381	1.363	1.445	1.456	1.517	1.534	1.589
P1S11	698	650	620	624	608	623	590	617
P2S11	30	31	31	31	31	32	31	38
B1gS11	667	619	589	593	576	591	558	579
P1S14	942	916	934	1.018	1.053	1.106	1.167	1.209
P2S14	148	154	160	166	173	180	191	199
B1gS14	794	762	774	852	880	926	976	1.010
<u>Income</u>	1.462	1.381	1.363	1.445	1.456	1.517	1.534	1.589
D1S1	6	6	6	7	7	7	7	7
B2g+B3gS1	1.456	1.374	1.357	1.439	1.449	1.510	1.527	1.582
D1S11	6	6	6	7	7	7	7	7
B2g+B3g S11	661	612	583	586	569	584	551	572
D1S14	0	0	0	0	0	0	0	0
B2g+B3g S14	794	762	774	852	880	926	976	1.010
<u>Expenditure</u>	1.462	1.381	1.363	1.445	1.456	1.517	1.534	1.589
P3	991	898	904	1.009	1.048	1.110	1.148	1.201
P3S14	991	898	904	1.009	1.048	1.110	1.148	1.201
P6	714	682	649	651	625	631	627	638
P61	684	651	617	618	591	596	590	599
P62	31	31	32	33	34	35	37	39
P7	243	200	190	215	217	224	241	250
P71	197	153	143	167	168	174	189	196
P72	46	46	47	48	49	51	52	54
P6-P7	471	483	459	436	408	407	386	388
ESA95 GNI (*)	273.981	282.123	296.493	307.535	323.629	341.556	353.786	340.730
% of ESA95 GNI	0,53 %	0,49 %	0,46 %	0,47 %	0,45 %	0,44 %	0,43 %	0,47 %
(*) GNIQ sept 2015								

Intermediate consumption in dwelling services

Intermediate consumption in dwelling services was revised downwards with € 204 million in 2009 and final consumption expenditure of households (and GDP) upwards with the same amount.

2.3.1.2 Specific reservations

The specific ESA95 reservations for Belgium were dealt with in the 2014 occasional revision. They concern the treatment of fiscal representatives and the assessment of the non-observed economy (in construction and other industries). The impact on GDP/GNI of the work done in order to lift these reservations can be seen in the next tables. Additional information regarding the treatment of fiscal representatives and the estimate of the NOE (after revision) is given in chapter 5 (5.13) and chapter 7.

Specific reservation fiscal representatives (impact on GDP/GNI)

(€ million)	2002	2003	2004	2005	2006	2007	2008	2009
<u>Production</u>	4	-133	-4	-66	-109	455	163	-165
P1S1	458	474	217	276	243	1.337	521	-603
P2S1	454	607	221	341	351	882	358	-438
B1gS1	4	-133	-4	-66	-109	455	163	-165
P1S11	458	473	217	275	242	1.335	519	-603
P2S11	454	606	221	341	351	882	357	-438
B1gS11	4	-133	-5	-66	-109	453	162	-165
<u>Income</u>	4	-133	-4	-66	-109	455	163	-165
B2g S11	4	-133	-5	-66	-109	453	162	-165
<u>Expenditure</u>	4	-133	-4	-66	-109	455	163	-165
P61	-643	-373	-781	70	392	-1.118	-1.755	-1.526
P71	-647	-240	-777	136	501	-1.573	-1.918	-1.361
P6-P7	4	-133	-4	-66	-109	455	163	-165
ESA95 GNI	273.981	282.123	296.493	307.535	323.629	341.556	353.786	340.730
% of ESA95 GNI	0,00 %	-0,05 %	0,00 %	-0,02 %	-0,03 %	0,13 %	0,05 %	-0,05 %

Specific reservation Non Observed Economy (impact on GDP/GNI)

(€ million)	2002	2003	2004	2005	2006	2007	2008	2009
<u>Production</u>	258	516	624	811	860	608	745	564
P1S1	-768	-1.537	-1.859	-2.414	-2.560	-1.810	-2.219	-5.752
P2S1	-1.026	-2.053	-2.483	-3.225	-3.420	-2.418	-2.965	-6.315
B1gS1	258	516	624	811	860	608	745	564
P1S11	-1.084	-2.169	-2.623	-3.406	-3.613	-2.554	-3.133	-4.426
P2S11	-1.463	-2.927	-3.540	-4.598	-4.876	-3.447	-4.228	-5.271
B1gS11	379	758	917	1.191	1.263	893	1.095	845
P1S14	316	632	765	993	1.053	744	913	-1.326
P2S14	437	874	1.057	1.373	1.456	1.029	1.263	-1.045
B1gS14	-121	-242	-293	-381	-403	-285	-350	-281
<u>Income</u>	258	516	624	811	860	608	745	564
B2g+B3gS1	258	516	624	811	860	608	745	564
B2g+B3g S11	379	758	917	1.191	1.263	893	1.095	845
B2g+B3g S14	-121	-242	-293	-381	-403	-285	-350	-281
<u>Expenditure</u>	258	516	624	811	860	608	745	564
P3	258	516	624	811	860	608	745	564
P3S13	0	0	0	0	0	0	0	0
P3S14	258	516	624	811	860	608	745	564
P3S15	0	0	0	0	0	0	0	0
P51	0	0	0	0	0	0	0	0
P52	0	0	0	0	0	0	0	0
P6	0	0	0	0	0	0	0	0
P7	0	0	0	0	0	0	0	0
ESA95 GNI	273.981	282.123	296.493	307.535	323.629	341.556	353.786	340.730
% of ESA95 GNI	0,09 %	0,18 %	0,21 %	0,26 %	0,27 %	0,18 %	0,21 %	0,17 %

2.3.2 OTHER REVISIONS

In this part we explain the rationale and major results of the occasional revisions conducted in 2009, 2011, 2012 and 2014 (the part which is linked to sources and methods excluding work on GNI reservations and introduction of ESA2010).

2.3.2.1 The 2009 occasional revision

In 2009 the Belgian NA implemented an occasional revision which was back casted till 1995. The most important impact (in term of level shifts) occurred in the expenditure side of the accounts. The purpose of this revision was to resolve some outstanding problems before 2014 (the next occasional revision coinciding with the scheduled introduction of new ESA 2010 according to the SNA 2008) and to deal with a number of issues that were identified during the Eurostat audit of 2008.

Occasional revision in the production approach

Value added in the non-market sectors (S.13 and S.15) changed because consumption of fixed capital was revised due to the introduction of adjusted P51 series (resulting from the 2005 occasional revision) into the PIM-model.

The change in value added in S.11 is related to the following items:

- an indirect estimation method for the market NPI's in nace 7485²⁴ was replaced by a direct estimate using annual accounts. The years before 2006 have been retropolated via VAT information.
- wages in kind related to the use of leasing cars have been revised upwards. This implies a reclassification of purchases of services (P.2-) to wages (D.1+) and a consequent rise in value added.
- specific corrections were carried out in nace 91 in order to rectify (small) errors.

Occasional revision gross value added (B1g) S.11

(€ million)	1999	2000	2001	2002	2003	2004	2005	2006	2007
wages in kind	718	802	904	945	950	957	918	946	1.002
nace 7485	-76	-85	-91	-99	-109	-113	-123	-123	-132
nace 91	10	10	11	16	-1	0	-1	0	0
total	652	728	824	862	841	843	794	823	869

The change in value added in S.12 is due to the revision of wages in kind relating to leasing cars (cf S.11).

Value added in S.14 changed because wages paid in domestic services (nace 95) were revised downwards over the whole period. Moreover some punctual corrections have been made in 1995, 2000 and 2003 in order to eliminate improbable evolutions in average mixed income of unincorporated businesses in some industries.

Net taxes on products (D.21-D.31) were lowered in line with the downward revision of imports (in national concept) from outside the EU. This implies that a larger part of the customs duties paid in Belgium originates from non-residents. These customs duties may not be attributed to expenditure in Belgium with a negative effect on GDP as a result.

Occasional revision in the income approach

The income approach of GDP changed due to the revision in wages (cf supra), the revision in customs duties paid by non-residents and the reclassification of subsidies paid to inter-municipal companies active in the treatment of waste to intermediate consumption.

²⁴ In particular the 'social secretariats' which are institutions that deal with payroll administration and legally have to operate as NPI's. From 2006 on we dispose of annual accounts for these (large) entities (total wagebill paid by these units in 2007 is € 290 million).

Occasional revision D.1

(€ million)	1999	2000	2001	2002	2003	2004	2005	2006	2007
S.11 (wages in kind)	718	802	904	945	950	957	918	946	1.002
S.12 (wages in kind)	19	21	26	26	26	25	25	26	28
S.14 (domestic services)	-234	-247	-268	-291	-302	-258	-234	-271	-333
total	502	576	662	680	674	723	708	701	697

Occasional revision in the expenditure approach

All expenditure components were revised:

P.3_S.13: the final expenditure of government was revised due to the introduction of adjusted figures for the consumption of fixed capital on government owned assets (same effect in the production approach)

P.3_S.14: the final expenditure of households was revised due to the use of new sources and methods. The level of some categories of household consumption was revised upwards, other categories were revised downwards. On balance total P.3S.14 was revised downwards.

P.3_S.15: the final expenditure of non-profit institutions was revised due to an upward revision of gross fixed capital formation which induced higher amounts of consumption of fixed capital..

P.51: gross fixed capital formation (GFCF) was revised for a number of reasons:

- GFCF for hospitals was revised upwards using annual accounts information from the «Service public fédéral Santé»;
- GFCF for NPA's (sectorised in S11 and S15) was revised upwards due to the combined use of SBS information and annual accounts (available since financial year 2006). Before revision the estimate for NPA's largely relied on VAT-information but a lot of activities in which these NPA's are active in are VAT exempt (VAT-file is not representative for NPA's);
- GFCF in dwellings was re-benchmarked (upward revision);
- The estimate for sales of existing fixed assets was revised: a fixed percentage was replaced by a genuine estimate based on annual accounts information (book value of disposals) and SBS information (gains and losses on the disposals of tangible fixed assets). After revision sales were higher.
- A problem of double counting in GFCF for dwellings in the real estate industry was corrected (with a negative impact on totals).

P.52: changes in stocks were revised in order to bring them more in line with source information available in the annual accounts.

P.61 and P.71: exports and imports of goods were revised. A limited number of individual declarations with very large import and/or export flows were analysed and confronted with other information used in compiling the national accounts (annual accounts, annual reports, SBS, VAT-declarations, industrial production survey). This 'micro-integration' of foreign trade statistics data led to corrections of import and export in national concept. Moreover, the methodology used to derive figures in national concept for so called fiscal representatives (F.R.) (of foreign companies) was changed and is now based on the VAT supplier file (sales from F.R. to Belgian companies are treated as imports in national concept, purchases by F.R. from Belgian companies are treated as exports in national concept). These changes lead to a significant downward revision of export and import flows (in national concept).

Revision final expenditure

(€ million)	1999	2000	2001	2002	2003	2004	2005	2006	2007
P.3_S.13	-92	21	17	2	-33	-41	-30	209	349
P.3_S.15	240	230	230	228	240	258	277	289	322
P.3_S.14	-34	-1 565	-1 617	-2 109	-2 621	-2 790	-3 477	-3 778	-4 567
P.51_S.11	-1.070	-249	260	-312	-178	1.109	653	1.095	889
P.51_S.12	226	232	261	299	361	341	266	-258	229
P.51_S.13	0	0	0	0	0	5	20	-82	-54
P.51_S.14	913	518	374	-458	-206	-886	65	-934	-1.176
P.51_S.15	298	277	221	201	291	295	258	311	347
P.51	367	778	1.116	-269	268	863	1.261	133	235
P.52	250	1.000	500	0	500	1.000	2.000	1.001	770
	-	-	-	-	-	-	-	-	-
P.6	12.359	15.740	17.298	14.526	17.336	19.614	18.811	15.940	17.982
	-	-	-	-	-	-	-	-	-
P.7	11.948	15.751	17.603	17.278	19.977	21.519	19.512	18.058	20.903
P.6-P.7	-411	11	305	2.752	2.641	1.905	701	2.118	2.921

Net primary income received from the rest of the world

Net primary income received from the rest of the world was revised upwards because, over the whole period, compensation of employees received from ROW was higher and taxes paid to the ROW were lower than before revision.

Overall revision in GDP and GNI

GDP and GNI before and after revision (€million)

Sep/08	1999	2000	2001	2002	2003	2004	2005	2006	2007
GDP	238.248	251.741	258.883	267.652	274.726	289.629	302.112	318.223	334.917
D.1_D.4	4.664	5.694	3.922	3.384	3.804	2.616	1.421	2.094	1.827
GNI	242.912	257.435	262.806	271.036	278.530	292.244	303.533	320.318	336.744

Sep/09	1999	2000	2001	2002	2003	2004	2005	2006	2007
GDP	238.569	252.216	259.433	268.256	275.716	290.825	302.845	318.193	334.948
D.1_D.4	4.642	5.774	4.164	3.608	4.253	3.155	1.970	2.778	3.205
GNI	243.211	257.990	263.597	271.864	279.969	293.980	304.816	320.971	338.153

Sep/09 min

Sep/08	1999	2000	2001	2002	2003	2004	2005	2006	2007
GDP	320	475	550	604	990	1.196	733	-30	31
D.1_D.4	-21	80	242	225	449	540	549	684	1.387
GNI	299	555	792	828	1439	1.736	1.283	653	1.409
<u>in %</u>									
GDP	0,13 %	0,19 %	0,21 %	0,23 %	0,36 %	0,41 %	0,24 %	-0,01 %	0,01 %
GNI	0,12 %	0,22 %	0,30 %	0,31 %	0,52 %	0,59 %	0,42 %	0,20 %	0,42 %

In the period 2000-2007 GDP was revised upwards with 0 % to 0,4 % and GNI with 0,2 % to 0,6 %. Which are very modest revisions.

The revision in GDP is only material in its effect on the composition of final expenditure: higher net exports and capital formation and lower final consumption expenditure of households

2.3.2.2 The 2011 occasional revision

In 2011 a number of changes were introduced in the business register for the year 2009 in order to improve the estimation of the level (and the distribution by industry) of value added.

Changes to repertory/business register 2009

Correction of activity codes in repertory 2009

The implementation of the new nace classification (nace rev2) seemed a good occasion to test the quality of activity codes in the business register and to correct them if necessary. This was the case for more than 7.000 units. A lot of reclassifications took place between agriculture and other industries (trade in agricultural products, food processing industry etc.). On balance there was a net outflow of enterprises from agriculture to other industries in the business register of 2009. This led to a net increase in value added (value added in agriculture did not change because it is an exogenous estimate, value added in industries where the reclassified companies appear increased). The total impact on value added of these reclassifications, however, was limited (+€ 38 million in 2008).

The other nace corrections (which give rise to shifts between other industries) were back casted in order to avoid breaks in series by industry. These reclassifications had no impact on total value added. Manufacturing and construction gained weight and administrative and support activities, trade and financial activities lost weight. Table 3 gives an overview of the corrections of nace codes and sector codes in the business register on the breakdown of value added by industry/sector

Redistribution of value added by industry and sector due to the correction of nacecodes/sectorcodes in the repertory of 2009
(2008, million. €)

	S11	S124	S15	totaal
agriculture, forestry and fishing (A)	-38			-38
mining and quarrying (B)	10			10
manufacturing (C)	560			560
Electricity, gas, steam (D)	1			1
water supply, sewerage, waste management (E)	60			60
construction (F)	76			76
wholesale and retail trade; repair of motor vehicles and motorcycles (G)	-105			-105
transportation and storage (H)	-30			-30
accomodation and food service activities (I)	0			0
information and communication (J)	-8			-8
financial and insurance activities (K)	9	-97		-88
real estate activities (L)	-6			-6
professional, scientific and technical activities (M)	-54			-54
administrative and support service activities (N)	-424			-424
education (P)	55		-56	-1
human health and social work activities (Q)	22			22
arts entertainment and recreation (R)	7			7
other service activities (S)	19			19
total	153	-97	-56	0

S11: non-financial companies

S124: financial auxiliaries

S15: non- profit institutions serving households

In a number of cases the sector code was also corrected:

- A number of units were reclassified from financial auxiliaries (S124) to non-financial companies (S11);
- International schools were reclassified from non-market producers (S15) to market producers (S11).

Inclusion in repertory 2009 of Non Profit Institutions (NPI's) with annual accounts but without vat-declarations or social security declarations

These units were not included in the old repertories (year 2008 and earlier) but appeared from the year 2009 on. Gross margin (which is a proxy for value added) for these units sectorised in S11 amounted to € 50 million. Old repertories (2008 and earlier) and aggregates based on them were not adjusted.

Reclassification of "fiscal representative" (cat RF) to Belgian branches of foreign
company (cat A2/B3) if these units have a normal economic profile
(employer and/or prodcom survey)

The VAT-file contains a number of purely administrative units (with large turnover and purchases and possibly imports and exports), for which no value added is estimated.

If these units employ personnel, value added was estimated as wages plus a mark-up.

From 2009 onwards these units (former RF paying wages) are considered as normal enterprises (most probably unincorporated Belgian branches of foreign companies) for which annual accounts are lacking. In most industries the value added of these units is estimated via the VAT-turnover.

As the estimation method for value added changed (from "wages" to "turnover") this had an impact on value added. The impact in 2008 can be estimated as + € 150 million. Old repertories (2008 and earlier) and aggregates based on them were not adjusted.

Attribution of a specific category to members of VAT-units without annual accounts

For enterprises that constitute a VAT-unit a vat declaration is available only for the unit and no longer for the individual members. As long as these members deposit annual accounts the information needed to estimate value added still exists. If annual accounts are lacking for members of VAT-units, VAT-information (on turnover, purchases and value added) for the member is no longer available and value added has to be estimated otherwise. In these cases value added for the years 2007 and 2008 was estimated via extrapolated turnover, an "ad hoc method" which was no longer appropriate from 2009 on. The standard source for estimating value added for members of VAT-units without annual accounts (cat BL) are wages from 2009 on. This change in method/source had a downward effect on value added (- € 230 million in 2008). Old repertories (2008 and earlier) and aggregates based on them were not adjusted.

Creation of new categories in the repertory 2009 to enable the use of the annual accounts
for NPI's in S11 and S15 and the SBS for S11 and ESA 1995 S123
and S124-units (if annual accounts are lacking).

Annual accounts of NPI's

Before revision value added for market (S11/S12) and non-market (S15) non-profit institutions (NPI's) was estimated via a specific survey in combination with information on wages. In industries where NPI's are rare, indirect methods were used (based on wages).

Since accounting year 2006 NPI's (surpassing certain levels of employment, turnover or balance sheet total) are obliged to deposit annual accounts. The quality of these accounts has gradually improved over the years and from the year 2009 on they were systematically used to estimate value added for these units.

In S15 the introduction of the annual accounts only had a marginal impact on value added but (non-market) production and intermediate consumption was revised upwards significantly in 2009. This parallel shift in P1 and P2 were not back casted.

In S11 the introduction of annual accounts most certainly had an impact on value added.

The effect, however, could not be measured as we were not in a position to make parallel estimates for a certain year (using old sources and methods on the one hand and new sources and methods on the other hand). If breaks in P1, P2 and B1g appeared between 2008 and 2009 the year 2008 was adjusted to smooth out yearly evolutions.

For the accounting year 2008 ca 6000 units deposited an annual account. The total gross margin (proxy for value added) amounted to € 14.143 million and total wages to € 12.005 million. Units sectorised in S13 are of course excluded in the compilation process (because they are estimated using other sources).

Four new subpopulations for NPI's (cat H1 to H4) were created to facilitate the treatment of their annual accounts (or information on wages) in an automatic and systematic way. For the very large NPI's (cat H1) all the relevant information needed to estimate value added is available. The information that is lacking for the large NPI's depositing abridged accounting schemes (cat H2 and H3) is derived from the known information from large ones. The value added of small and medium sized NPI's for which annual accounts are lacking (cat H4) is derived via the structure of the accounts of large NPI's (cat H2+H3) using wages as extrapolation factor.

Structural Business Survey (SBS)

In 2009 300 enterprises had good quality SBS-information but no annual accounts. Most of these units are Belgian branches of foreign companies that are not legally obliged to deposit annual accounts (for their activity in Belgium). For these units the SBS was, from the year 2009 on, used as the standard source to estimate their value added. Prior to 2009 this was not systematically the case (value added for these companies was estimated indirectly via wages or VAT-turnover). The impact on value added of the standard use of SBS if annual accounts are lacking is not known because the alternative indirect estimates (via VAT-turnover or wages) are no longer available.

Two new subpopulations/categories were created in the business register of 2009 in order to isolate enterprises with a structural business survey but without annual accounts:

E1: large companies with usable SBS for which annual accounts are lacking (or are not usable)

E2: SMS companies with usable SBS for which annual accounts are lacking (or are not usable).

The value added according to the SBS for this population amounted to € 2.026 million in 2009.

From 2009 on following sub-populations (categories) appear in the repertory:

- A1: large companies with a usable full accounting scheme (= existing)
- E1: large companies without usable annual accounts but with usable SBS (= new)
- A2: large companies without usable annual accounts or SBS (= existing but adjusted in content)
- B1: SMS companies with a usable abbreviated accounting scheme with turnover and purchases mentioned and gross margin > 0 (= existing)
- B2: SMS companies with a usable abbreviated accounting scheme without turnover and purchases mentioned and gross margin > 0 (= existing)
- C1: SMS companies with a usable abbreviated accounting scheme with turnover and purchases mentioned and gross margin < 0 (= existing)
- C2: SMS companies with a usable abbreviated accounting scheme without turnover and purchases mentioned and gross margin < 0 (= existing)
- E2: SMS companies with usable SBS but without usable annual accounts (new)
- C3: SMS enterprise without usable annual accounts or SBS (= existing but adjusted in content)
- BL: member of a VAT-unit without annual account or SBS (= new)
- H1: very large NPI's with a usable full accounting scheme (new)
- H2 large NPI's with a usable abbreviated accounting scheme and operating income and purchases mentioned (new)
- H3 large NPI's with a usable abbreviated accounting scheme and operating income and purchases not mentioned (new)
- H4: small NPI's not depositing annual accounts (new)
- RF: fiscal representatives without wages/employment (= existing but adjusted in content)

In the old repertories (2008 and earlier) E1 was part of A2, E2 was part of B3, BL was part of A2 or B3, and NPI's were grouped together in H and B3. This extra segmentation allows better, direct and automatic estimates of value added for the new subpopulations.

Changes to sources and methods

Forestry and fishing

In forestry and fishing specific sources (and assumptions) were replaced by standard sources and methods (annual accounts and VAT-declarations) to estimate value added. This new approach was followed from the year 2009 on and only the year 2008 was revised in order to avoid a break in the series. Preceding years (1995-2007) were not recalculated because the impact of the revision on value added was limited (- € 40 million in 2008).

Landscape service activities

In agriculture the estimation method for "landscape service activities"²⁵ was changed.

Up to this revision production was estimated in an indirect way, via the expenditure on this type of service from households (source: household budget survey). Intermediate consumption was supposed to be 20 % of production.

This approach was not feasible for three reasons:

- Final consumption expenditure for this service in the HBS was underestimated²⁶;
- Sales from this industry to companies and public sector units were larger than sales to households;
- Intermediate consumption was underestimated (P2/P1 is much higher in annual accounts and VAT).

For this reason a direct estimate of value added in landscape service activities via annual accounts and vat declarations was produced. This resulted in a significant upward revision of value added for this industry (+ € 800 million in 2008). Back data were constructed for the years 1995-2008.

Concomitant to the revision of the production approach the expenditure approach was also revised.

From the VAT supplier file we knew that more than 60 % of the total turnover of enterprises active in nace 0141 was sold to other enterprises (P2). We assumed that 15 % was sold to S13-units - these units are VAT-exempt and are absent in the vat-file - and the rest to households (which also are absent in the file). Taking these elements into account it was possible to make an estimate of the final expenditure of households on these services - final household expenditure (current maintenance of gardens) and investment in dwellings (construction of gardens, drives etc.) - that was consistent with the adjusted production figures. 50 % of this final expenditure was attributed to P3S14 and 50 % to P51S14. A final (limited) arbitrage in the production and expenditure approach was necessary in order to rebalance resources and uses for the total economy. The impact of the revised sources and methods for landscape service activities on GDP was 0,13 % to 0,17 % of GDP.

Standard use of annual accounts for non-profit institutions (cf supra)

Change in estimation method for small and medium sized (SMS) companies not mentioning turnover and purchases in the annual accounts

²⁵ This activity was included in agriculture in the old nace (0141: support activities to agriculture) and is transferred to a separate service industry in the new nace (813: landscape service activities).

²⁶ Only relatively rich families purchase this type of service. It is well known that rich families are underrepresented (or just lacking) in the HBS.

Turnover and purchases are optional items in the 'abridged' accounting scheme destined for SMS. Over the years less and less companies mention turnover and purchases (financial year 1995 45 %, 2008 20 % and only 17 % in 2012). If turnover and purchases are mentioned the category attributed in the repertory is B1 (positive gross margin) or C1 (negative gross margin). If turnover and purchases are lacking the category becomes B2 (positive gross margin) or C2 (negative gross margin).

Before revision (up to the year 2008) turnover and purchases in cat B2 were estimated via the turnover and purchases in cat B1 (using gross margin²⁷/value added as extrapolation base).

From the year 2009 on, turnover in cat B2 is no longer extrapolated but drawn from the VAT-declarations. Purchases are derived as a residual: turnover (vat) - gross margin (annual account) = purchases. Due to this, turnover and purchases will be different (on total lower) in cat B2 with no impact on value added. There will, however, be an indirect effect on cat B3 (SMS companies without annual accounts) because their value added depends on the structure of the accounts for SMS companies with annual accounts (B1+B2+C1+C2). This aggregate has changed because category B2 has changed. Because purchases in B2 are lower, estimated purchases in B3 are also lower and value added is higher. The total effect on value added in S11 can be estimated as + € 340 million (2008). This adjustment will not be back casted.

We illustrate with the following fictitious example²⁸:

Before revision (A)

S11_branch xyz

	A1	A2	B1	B2	C1	C2	B3	total	B1+B2+C1+C2	%
operational revenue	1.000	50	500	2.000	10	25	400	3.985	2.535	1,000
purchases	600	30	320	1.280	15	35	260	2.540	1.650	0,651
value added	400	20	180	720	-5	-10	140	1.445	885	0,349

After revision (B)

S11_branch xyz

	A1	A2	B1	B2	C1	C2	B3	total	B1+B2+C1+C2	%
operational revenue	1.000	50	500	1.500	10	25	400	3.485	2.035	1,000
purchases	600	30	320	780	15	35	226	2.006	1.150	0,565
value added	400	20	180	720	-5	-10	174	1.479	885	0,435

Revision (B-A)

S11_branch xyz

	A1	A2	B1	B2	C1	C2	B3	total
operational revenue	0	0	0	-500	0	0	0	-500
purchases	0	0	0	-500	0	0	-34	-534
value added	0	0	0	0	0	0	34	34

²⁷ The gross margin is a compulsory item in the accounting scheme for SMS companies (abridged scheme)

²⁸ The new categories E1, E2, BL, H1, H2, H3 and H4 are left out for the sake of simplicity.

Before revision

cat B2: operational revenue (turnover) and purchases in cat B2 are extrapolated via B1 (*4: value added_B2/value added_B1 = 4)

cat B3: operational revenue = VAT-turnover; purchases are derived via purchases/turnover for B1+B2+C1+C2 = 0,651

After revision

cat B2: operational revenue = VAT-turnover, purchases derived as balance (value added remains the same)

cat B3: operational revenue = VAT-turnover; purchases are derived via purchases/turnover for B1+B2+C1+C2 = 0,565

Estimation of administrators'/director's fees in SMS companies not depositing annual accounts

Director's fees are treated as intermediate consumption for the companies that pay them and as production for the administrators that receive them. With the 2011 occasional revision an estimate was also made for companies that do not deposit their annual accounts. Total intermediate consumption increased with € 150 million (and value added decreased by the same amount).

*Standard use of structural business survey (SBS) for companies without annual accounts (cf supra)**Alternative treatment of income associated with dwelling services*

Up till 2011 income generated by households associated with dwelling services was treated differently for owner-occupiers (imputed rents) and for households renting their dwellings (actual rents): imputed rents generate operating surplus and actual rents were supposed to generate mixed income. This treatment is not in line with ESA95 because the notion of mixed income is strictly reserved for unincorporated businesses. Households renting dwellings cannot be qualified as unincorporated entrepreneurs. For this reason the total income associated with dwelling services will be treated as operating surplus. The reclassification of mixed income (B3 -) to operating surplus (B2 +) does not change the total of operating surplus and mixed income (B2+B3) in the S14-account.

Reclassification of gross mixed income and gross operating surplus in S14 (€million)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
B2g	4.303	4.241	4.212	4.356	4.250	4.455	4.561	4.365	4.283	4.132	4.426	4.668	4.976	4.991
B3g	-4.303	-4.241	-4.212	-4.356	-4.250	-4.455	-4.561	-4.365	-4.283	-4.132	-4.426	-4.668	-4.976	-4.991

Revision of transactions registered in account S212 (institutions of the E.U)

Eurostat publishes data concerning transactions (D1, D5, D61, D62, D75) of Institutions of the E.U. with the different member states. These transactions were revised from 2008 on. Back data have been created till 1995 in order to have consistent series. These revisions have no impact on GDP but can have an impact on GNI or disposable income.

Conclusion

As can be seen in the next table the most important element of the 2011 revision (change in sources and methods for landscape service activities) was back casted in order to avoid a break in the series of value added in nace rev2 81 (services to buildings and landscape activities).

The other elements - which on balance had a much lower impact on value added/GDP and potentially influenced all industries in the economy (for small amounts) – were introduced from the year 2009 on and were not be back casted.

Impact of 2011 occasional revision on value added by item (for 2008) (*)

(€ million)

	backcasting	
1 impact of nace corrections in agriculture	40	N
2 change in methods and sources in forestry and fishing	-40	N
3 inclusion in repertory of NPI with annual accounts but without VAT- and SS-declarations in S11	50	N
4 change in methods and sources for fiscal representatives with normal economic profile	150	N
5 change in sources and methods for SMS companies not mentioning turnover and purchases	340	N
6 director's fees for SMS companies not depositing annual accounts	-150	N
7 change in sources and methods for members of VAT-units not depositing annual accounts	-230	N
8 change in methods and sources in landscape service activities	800	Y
9 introduction annual accounts for NPI's in S15	n.s.	N
10 introduction annual accounts for NPI's in S11	n.a.	N
11 standard use of SBS for companies for which annual accounts are lacking	n.a.	N
Total (excl. item 10 and 11)	960	

REVISION TO PRODUCTION APPROACH

(version sept 2011 minus sept 2010)

(€ million)	2002	2003	2004	2005	2006	2007
GDP september 2010	268.256	275.716	290.825	302.845	318.150	335.085
GDP september 2011	268.620	276.157	291.292	303.357	318.697	335.610
revision gdp	364	440	467	512	547	526
revision value added nace 0141	478	522	553	609	678	773
other (*)	-114	-81	-86	-97	-132	-248
of which S12	0	0	0	0	-58	-242

(*) adjustment value added in wholesale trade (arbitrage), adjustment value added in S15 (elimination double counting), adjustment value added in S12 (2006 en 2007: correction of error)

The revision in value added for definitive years (2002-2007) is largely due to the revised figures for landscape service activities and the correction of errors in the accounts of S12 in 2006 and 2007.

Revision to expenditure approach

(version sept 2011 minus sept 2010)

(€ million)	2002	2003	2004	2005	2006	2007
final consumption expenditure government (P3S13)	0	0	0	0	0	25
final consumption expenditure households (P3S14)	137	167	212	255	260	209
final consumption expenditure NPI's (P3S15)	-57	-60	-66	-72	-78	-86
Gross fixed capital formation (P51)	248	259	246	-42	467	209
government (P51S13)	0	0	-41	-340	136	-134
households/dwellings (P51S14)	248	259	287	298	332	343
Changes in inventories (P52)	36	74	75	370	-102	169
Export goods (P61)	-428	-1.019	-1.891	-4.110	-4.395	-2.233
Import goods (P71)	-428	-1.019	-1.891	-4.110	-4.395	-2.233
gdp	364	440	467	512	547	526

The upward revision of the final expenditure of households (consumption and gross fixed capital formation) was the result of the revised production figures in landscape service activities.

P3S15 was revised downwards because international schools were reclassified as market producers and a unit that was double counted was eliminated. Gross fixed capital formation in local government was revised and counter booked in changes in inventories. The import and export of goods are diminished by the same amount in order to eliminate the transit of gas.

The 2011 occasional revision had only a small upwards effect on GDP (between 0,1 % and 0,2 %).

2.3.2.3 The 2012 occasional revision.

Changes to sources and methods in the accounts for local government

The compilation of the transactions in the account S1313 which determine GDP (after revision) is explained in the relevant chapters of this inventory concerning general government.

The most important elements of the 2012 revision (with impact on GDP) concern the upward revision of compensation of employees (D1) and revised series for GFCF (P51) and consumption of fixed capital. A reclassification of certain local taxes and subsidies (with impact on D21-D31) was also implemented.

Impact of the revision of the local government accounts (S.1313) on GDP

(€ million)

	2003	2004	2005	2006	2007	2008	2009	2010
Value added - general government (B1gS13)	0	-5	78	309	376	287	281	354
Net taxes on products (D21-D31)	0	0	0	-177	-172	-32	64	-8
GDP (output side)	0	-5	78	132	204	255	346	346
Final consumption expenditure of general government (P3S13)	0	-287	-227	6	-170	-122	-171	-82
General government investment (P5S13)	0	-31	-53	-213	-75	-155	6	-75
Household final consumption expenditure (P3S14)	100	198	219	77	-8	186	153	19
Changes in inventories non-financial corporations (P52S11)	-100	115	140	262	457	345	358	484
GDP (expenditure side)	0	-5	78	132	204	255	346	346
General government compensation of employees (D1S13)	0	2	0	234	300	197	228	255
General government consumption of fixed capital (K1S13)	0	-7	78	75	76	90	53	99

The revision in value added corresponds to the sum of the adjustment to the wage bill and to consumption of fixed capital. The data series with respect to taxes/subsidies on products received and paid by local government were also revised, as have consumption expenditure and investments by local authorities.

Because some items under household final consumption expenditure (P3S14) are estimated using (amended) information from the government accounts, these elements also had to be adjusted. The remaining difference was assigned to changes in inventories (which is considered to be the least reliable aggregate in the expenditure side).

Changes that appeared for the years 2003-2007 were not taken into account in the GNI-questionnaire of September 2012 because these were “closed” years and the revisions were not initiated by reservations formulated on Belgium GNI by Eurostat in the beginning of 2012.

Registration of fees for the provision of guarantees

Under ESA 1995, fees received by general government for the provision of guarantees are treated as income from sale of services. Consequently, the fees paid by financial institutions for the use of the state guarantee provided for interbank loans or the contribution by the financial sector to the Special Deposit Protection Fund were recorded as payments for services.

Given the size of the amounts in question, one has to ask whether it is logical that such accounting treatment should lead to a reduction of GDP (intermediate consumption increases/value added decreases in S.12 while there is no increase in total output/value added in S.13 because total output for non-market producers is estimated as sum of costs: the total of these costs does not change).

After some consideration, Eurostat proposed the following rule in the 4e edition of the "Manual on Government Deficit and Debt" (March 2012): "Any fees that government receives in its role as guarantor are classified as service fees (P.131 payments for non-market output). They should be spread over the life of the guarantee (accruing principle).

However, in situations where the amount of fees paid should be considered as highly out of proportion with the cost of operating the guarantee scheme, the difference between fees and the estimated cost could be recorded as a current transfer (D.75).

Because these schemes have very low operating costs (less than five employees) and the amount of fees paid are therefore highly out of proportion with the cost of operating these guarantee schemes, the NAI decided to record the two above-mentioned fees as revenue from miscellaneous current transfers since 2008, the year in which they were applied for the first time.

The following amounts were involved:

Fees received by government under guarantee schemes and counterpart information

(€ million)

	2008	2009	2010
Special protection funds for deposits	25	93	252
recorded as intermediate consumption	2	88	247
recorded otherwise	24	5	5
Other guarantee schemes for the banking sector	21	507	687
recorded as intermediate consumption	11	234	316
recorded otherwise	0	56	94
paid from abroad	10	218	277
Total	46	601	939
recorded as intermediate consumption	13	322	564
recorded otherwise	24	61	99
paid from abroad	10	218	277

It is worth noting that only a part of the fees paid by resident financial institutions was actually recorded in their intermediate consumption as part of the fees are paid by foreign subsidiaries (as in the DEXIA S.A. group's case).

The impact on GDP of the revised treatment of fees for guarantee schemes and ecobonuses is shown in the next table

Impact on GDP of reclassifying eco premiums and fees for guarantee schemes

(€ million)

	2008	2009	2010
Production (P1)	0	0	0
Intermediate consumption financial institutions (P2S12)	-13	-322	-564
Value added financial institutions (B1gS12)	13	322	564
Subsidies on products (D31) (-)	-39	-97	-317
GDP (output side)	-26	226	247
Final consumption expenditure of general government (P3S13)	46	601	939
Final consumption expenditure of households (P3S14 private cars)	-39	-97	-317
Changes in inventories (P52S11)	-34	-278	-376
GDP (expenditure side)	-26	226	247

The value added in S.12 increased by the amount of the paid-up fees removed from intermediate consumption and reclassified as current transfers. The registration of eco premiums on cars as subsidies on products instead of current transfers had a downward effect on GDP.

On the expenditure side, household consumption expenditure (purchase of cars) was revised downwards by the amount of these eco premiums because up to 2012 this element had not been taken into account when estimating the purchase price of cars.

General government consumption expenditure increased by the sum of the fees received that henceforth shall be recorded as transfers²⁹. The remaining arbitrage difference was imputed on changes in inventories.

²⁹ General government output is specified as the sum of the costs incurred. The latter do not change so P.1 (and B.1g) remain unchanged. Since P.131 (payments for other non-market output) diminishes by the amount of the reclassified fees, P.132 increases to the same extent. The counterpart of this on the expenditure side in the government account is general government consumption expenditure (P3S13).

The overall impact on GDP caused by the revision of the accounts for local government and the amended registration of fees for guarantee schemes and eco premiums is shown in the next table

Impact on GDP of the revision of the local government accounts and the amended registration of fees for guarantee schemes and eco premiums

(€ million)

	2003	2004	2005	2006	2007	2008	2009	2010
Value added general government (B1gS13)	0	-5	78	309	376	287	281	354
Value added financial institutions (B1gS12)	0	0	0	0	0	13	322	564
Net taxes on products (D21-D31)	0	0	0	-177	-172	-71	-32	-325
GDP (output side)(a)	0	-5	78	132	204	228	571	592
Final consumption expenditure of general government (P3S13)	0	-287	-227	6	-170	-76	430	857
General government investment (P5S13)	0	-31	-53	-213	-75	-155	6	-75
Final consumption expenditure of households (P3S14)	100	198	219	77	-8	147	56	-298
Changes in inventories non-financial corporations (P52S11)	-100	115	140	262	457	311	79	108
GDP (expenditure side) (b)	0	-5	78	132	204	228	571	592
De facto revision of GDP (c)	0	-5	78	132	204	244	379	1.747
(c)-(a) = routine revision	0	0	0	0	0	16	-192	1.155

For the period 2003-2007, these methodological changes explain the whole revision of GDP. As explained earlier these changes were not taken into account in the GNI questionnaire of September 2012.

2.3.2.4 The 2014 occasional revision (excl. ESA2010 items)

As can be seen in the table shown below the revision in sources and methods implemented in the 2014 major revision had, on balance, a negative impact on GDP.

Changes in methods and sources (excl. ESA2010) (impact on value added/GDP) (€million)

(version Sept 2014 minus Sept 2013)

	2010	2011	2012
Agriculture	394	296	83
Hospitals	217	224	438
Unincorporated financial enterprises	-288	-275	-283
Consumption of fixed capital in S15 and S121 (excl. R&D)	-149	-159	-187
Correction production software produced on own account	-315	-342	-284
Correction production non-produced non-financial assets	-162	-169	-148
Delineation market/ non-market (in ESA95)	19	31	35
Other changes in accounts S13 (incl. routine revisions)	-419	-409	-457
Management fees non-resident mutual funds	-743	-674	-535
TOTAL	-1.447	-1.477	-1.338

Agriculture

Production and intermediate consumption of agriculture has been revised since 2002 in order to better align them on the economic accounts of agriculture published by the Belgian Statistical Institute. An estimate was also made for the production of electricity generated by horticulture. The production and consumption for own final use (fruit and vegetables grown by households in their own gardens) was also revised due to the use of a different source (household budget survey instead of economic accounts for agriculture). All these revisions had an upward impact on value added (€ 394 million in 2010 and 296 in 2011). For 2012 only the total revision is known (more definitive source material + impact of revised methods: + € 83 million).

Hospitals

The production, intermediate consumption and value added for hospitals was revised because the ministry of Health released a new series of accounts for the hospitals for the period 1995-2006 and for the first time produced accounts for the period 2007-2012. For these years the estimates based on indirect information were replaced by the annual accounts information. The impact on value added for the years 2010 and 2011 is resp. € 217 million and € 224 million. For 2012 only the total revision is known (+ € 438 million).

The revised production figures are of course reflected in the household consumption of hospital services (government consumption expenditure on health services did not change). Gross fixed capital formation by the hospitals was also revised because the annexes to the annual accounts are used to derive gross fixed capital formation for these units.

Unincorporated financial enterprises

Before revision the activity of these units was estimated in an indirect way or via hypotheses.

This led to improbable evolutions of value added and mixed income from 2000 on taking into account the structural decline of the number of self-employed persons in this branch. A switch was made to a direct source (personal income tax information) to estimate the activity for this sector and activity. This source is already used for self-employed persons when their activity is VAT-exempt (medical professions, lawyers etc.)

This revision had a negative impact on value added of € 288 million in 2010, € 275 million in 2011 and € 283 million in 2012.

Consumption of fixed capital in S15 and S121 (excl. R&D capital stock)

In 2011 the P51 series in S15 was revised since 1995. At that time the new (lower) series had not been fed into the PIM model due to time constraints.

In the September 2014 version of the accounts we produced consistent P51, Capital stock and consumption of fixed capital stock series (by sector, branch and type of asset). As the consumption of fixed capital has a direct impact on production and value added in S15 and S121 (production = sum of costs) this revision also has a direct impact on GDP (- € 149 million in 2010 and - € 159 million in 2011 and - € 187 million in 2012).

Correction in production for own final use related to intangible assets

Since 2008 the SBS gives a detail concerning the production on own account of tangible and intangible assets:

- Intangible assets: R&D, software, other (concessions, patents, licenses, know-how, trademarks and similar rights)
- Tangible assets: construction works and other (equipment etc.)

The total production of software on own account (and the corresponding amount of investment) is estimated via information based on the labour force survey (number of IT-people working in different industries). The production on own account of fixed assets (item 72), an information that large companies have to mention in their annual accounts, is increased with this amount (the underlying hypothesis being that computer software produced for own account is never activated in the annual accounts). However the available information in the SBS contradicts this assumption: a (small) part of the total production of software on own account seems to be activated in the annual accounts. This implies that a double-counting occurred in the production for own final use which was eliminated in this revision (- € 315 million in 2010, - € 342 million in 2011 and - € 284 million in 2012).

At the same time we observed relatively small amounts of production on own account (activated costs) for “other” intangible assets. In the context of national accounts, however, these assets are considered as non-produced non-financial assets (AN.2) which implies that the corresponding “production” in the annual accounts (known via the SBS) has to be eliminated (- € 162 million in 2010, - € 169 million in 2011 and - € 148 million in 2012).

Delineation market/non-market in ESA95

A number of units were reclassified between S11/S12 and S13 according to ESA95 criteria.

Because the estimate of production and value added is different for market and non-market units this reclassification had an impact on GDP. This impact however was small (€ 19 million in 2010 and € 31 million in 2011). As these units were correctly sectorised in the repertory of 2012 a “market” value added for these units was no longer available which implies that the impact on GDP could not be estimated for that year (€ 35 million is an indicative amount).

Other changes in the accounts S13

This item comprises all the revisions in the accounts S13 with impact on GDP other than the impact of the activation of R&D, military equipment and the market/non-market boundary. The total amount mentioned in the table is the sum of the impact on B1g in S13 and changes in net taxes on products (D21-D31).

Other revisions in S13 (€ million)	2010	2011	2012
revision B1g S13	-685	-805	-884
revision D21-D31	266	396	427
total	-419	-409	-457

These changes are primarily the result of the correction of errors in old series: the reclassification of expenditure (switch between wages (-) and intermediate consumption (+) and revenue/taxes.

A downward revision of compensation of employees in S13 had a direct negative impact on value added and GDP. This effect was mitigated by the fact that on balance the reclassification of taxes (and subsidies) had a positive impact on the net taxes on products (D21-D31).

Management fees for non-resident mutual funds

The management fees of resident mutual funds owned by non-residents have to be registered as the export of a financial service. These amounts are estimated in the national accounts and registered in the account S2 (ROW).

The management fees of non-resident mutual funds owned by residents have to be registered as an import of a financial service. These imports, however, were missing in the balance of payments and, consequently, the use of these imports (intermediate consumption or household final consumption) was also missing in the national accounts. This inconsistency was corrected.

The service charge percentage (management fees/net assets) known for resident mutual funds is used as a proxy for non-resident funds (management fees are supposed to be equal in Belgium and abroad). Imports are estimated by multiplying outstanding amounts abroad held by residents (known via the financial accounts) by this service charge percentage. This import is then allocated to intermediate consumption (P2) and final consumption (P3) on the basis of the sectoral structure of ownership of the funds (households or institutional investors). The management fees allocated to intermediate consumption had a negative impact on value added and GDP.

Impact on GDP			
(€ million)	2010	2011	2012
B1gS11	-7	-3	-1
B1gS12	-736	-670	-534
GDP production approach	-743	-674	-535
P3S14	834	831	734
P72	1.577	1.505	1.269
GDP expenditure approach	-743	-674	-535

For the year 2010, the imports of financial services generated by non-resident mutual funds can be estimated as € 1577 million. As 52.9 % of these funds are held by Belgian households in that year, € 834 million ($0,529 \cdot 1577$) had to be allocated to household consumption expenditure and the rest (€ 743 million) to the intermediate consumption of financial corporations (€ 736 million) and non-financial corporations (€ 7 million). The negative impact of this revision on GDP is rather significant taking into account the large amounts of mutual funds abroad (especially in Luxemburg) owned by resident institutional investors.

2.3.2.5 The 2015 occasional revision

The September 2015 version of the national accounts reflects an occasional (major) revision due to further work on transversal reservations (the introduction of a supply side estimate of prostitution services and the revision of the benchmark year for dwelling services (2011 instead of 2001), a revised allocation of the production of certain financial services between intermediate and final consumption, the introduction of adjusted/harmonized NACE-codes in the business register from 2009 on - and the compilation of aggregates by industry using these new NACE-codes -, the introduction of revised figures for own account software (resulting from changes in wages in the IT-industry due to adjustments in NACE-codes), the full integration of transactions for units which were reclassified from S11/S12 to S13 and the update of sources and methods in other domains of the accounts (especially revised figures in the financial accounts and international investment position (IIP) which generated important revisions in property income flows from/to the ROW). Moreover improvements were made to the estimates of the production and use of R&D and the way in which these transactions have to be integrated in the accounts. An overview of the most important elements of the 2015 occasional revision with impact on GDP - production approach - is given in the next table.

Overview of revisions with impact on GDP

(€ million)

		2010	2011	2012	2013
GDP sept 2014	a	365.747	379.991	388.254	395.262
transversal reservations (*)		535	588	553	338
Production in dwelling services		-689	-974	-1.178	-1.451
R&D		-1.358	-974	-872	-505
allocation production financial services		208	-53	-591	-488
software		310	280	132	-58
Reclassification units between S11/S12 and S13		97	116	154	25
other changes S13		-26	-139	-256	-652
other revisions (**)		276	272	1.223	228
total revision	b	-647	-884	-836	-2.563
GDP sept 2015	a+b	365.101	379.106	387.419	392.699
(*) prostitution		324	333	347	358
P2 in dwelling services (impact on B1g)		212	254	206	-19
total transversal reservations		535	588	553	338

(**) impact of NACE-harmonization and other items which cannot be isolated (incl. current revisions)

Transversal reservations

The revisions induced by work on transversal reservations relate to a supply based estimate of prostitution and revised figures for intermediate consumption in dwelling services.

Production in dwelling services

The revision in the production of dwelling services (and the corresponding revision of final consumption on real and imputed rents) is an element of an occasional revision with increasing negative impact on GDP.

In the national accounts, production of dwelling services not only comprises services produced by renting out houses, but also services provided by owner-occupiers. Production is measured by the value of the rentals. It is recorded as production for the owner and as consumption for the tenant (final in the case of a household and intermediate in the case of a company). When a household owns the dwelling it occupies, the national accounts records both production of dwelling services and final consumption for this household (ESA 2010 §3.08 and 3.09).

The estimate of dwelling services is mainly based on observations of the stock of housing made from decennial censuses, which implies that there is a benchmark year, while the other years are either interpolated (between two surveys) or extrapolated.

It was possible to integrate a new benchmark year, in this case 2011, into this new edition of the national accounts³⁰. The new benchmark led to a downward revision of the number of dwellings (the

³⁰ The 2011 Census results were only released by the DGS in November 2014, which explains why this revision was not incorporated into the accounts sooner. This is the first census for which all the information comes from administrative

volume component) compared with the previous extrapolation exercise. Information on average rentals by type of dwelling (the price component), however, was not revised and is still taken from the *Panel socio-économique et démographique* (PSBH) - rentals for the year 2002 - and then extrapolated via the price index for non-social housing rent.

The production of dwelling services, like any production process, needs intermediate consumption. In this case, it is primarily maintenance expenses borne by the owner. It is the Household Budget Survey (HBS) that provides the basic information to calculate intermediate consumption. It is also used for estimating household final consumption, namely costs that the tenant has to pay. This method has nevertheless been reviewed in order to guarantee maximum consistency in the P2/P3 split for this type of expenditure. This improvement conforms more strictly to the code of good practices issued by Eurostat. The HBS 2012 headings that are relevant for estimating average expenses per household devoted to accommodation were re-identified. Within the major expenditure categories of 'Maintenance and repair of the dwelling' and 'Supply of water and other services relating to the dwelling', the breakdown between expenses chargeable to owners (allocated to intermediate consumption), and expenses borne specifically by tenants (allocated to final consumption), was carried out in more detail than before.

For periods between two censuses or for periods falling after the last available surveys, figures are estimated using the most relevant indices possible. On the production side, the volume index is calculated from statistics on the number of housing units completed, adjusted for withdrawals of dwellings, while the price indicator is the consumer price index for non-social housing rent. For intermediate consumption, an index is compiled, on the volume side, using changes in the number of dwellings and, on the price side, with consumer prices for housing maintenance and repair products.

The revisions to production concern the years 2002 and later (old benchmark figure year 2001 has not changed), while adjusted figures for intermediate consumption were retroplated to 1995. On the whole, value added of dwelling services was significantly revised downwards in recent years.

R&D

One of the main elements of the migration to ESA 2010 lies in what is referred to as "capitalisation of R&D expenditure", a change which requires this expenditure (whether own-account expenditure or purchases of R&D services) to be recorded as investment expenditure. This change was incorporated into the national accounts published in September 2014.

The new accounting treatment of R&D expenditure was one of the main challenges faced during the switchover to ESA 2010. Since this change was brought in, additional checks were carried out. While confirming the methods applied last year, it was found that there was room for improvement in the

databases, in contrast to previous more traditional censuses that were based on a survey. The advantage of this new methodology is that it should enable the findings to be updated more frequently. On the other hand, its content is narrower, so certain variables were not been updated.

treatment of data for two large enterprises. These improvements have led to corrections being made in this new edition of the accounts.

The integration of imports of patents and imports of R&D services in the production side of the accounts (impact on value added) was also revised, taking into account the different registration of these transactions in the annual accounts of the companies:

- a purchase (e.g. import) of a patent is registered as an acquisition of intangible fixed assets in the annual accounts and is a mere balance sheet transaction (cash is substituted for an asset) which implies that this kind of transaction has no impact on value added according to the annual accounts (or national accounts: P7 = P5). So, P51 in R&D resulting from imports of patents has no counterpart registration in the production approach.
- a purchase (e.g. import) of R&D services is registered as a purchase of services/intermediate consumption in the profit and loss account of the company which implies that this kind of transaction has an impact on value added derived from the annual accounts. For national accounts purposes this transaction has to be reclassified from P2 (-) to P51 (+) with a positive impact on value added/GDP.

Furthermore, following the work done on harmonizing within the NAI the activity codes of the statistical units, certain methods developed during the compilation of the R&D satellite accounts were adapted from the year 2009 onwards. In addition, the data from the Belgian Science Policy Office's last biennial R&D survey carried out in 2014 and covering the years 2012 and 2013 were used.

Overall, the revisions related to the capitalization of R&D expenditure had a downward impact on GDP.

Allocation of production of financial services

The method used for calculating final consumption of financial services by households is carried out by branch of activity, at the 5-digit level of the NACE-Bel classification. According to the branch in question, market production is allocated to either final consumption or intermediate consumption, when it is not exported. Thus, production of consumer credit services is assumed to be totally consumed by households. Conversely, production of factoring activities³¹ is assumed to be totally consumed by corporations. Between these two extremes, production can be allocated both to final consumption and to intermediate consumption, notably on the basis of information from structural surveys carried out among banks.

It was not been possible to implement this method defined by branch of activity over the last few years³². So, a simplified method was used, linking the overall trend in household final consumption to

³¹ These are a company's trade credit operations by an external debt recovery organisation.

³² The estimation of production for part of the financial sector has effectively been automated by using an IT-application, already used for the non-financial sector, but which does not provide an adequate level of detail (5-digit NACE codes) for allocating production between P2 and P3S14.

that for total production of the other financial intermediaries sector (S.123 in ESA 1995), regardless of the specific development of the various segments. This method led to a loss of accuracy and, with it, quality in the estimation of final consumption of financial services.

The methodology that had been used before 2009 has been brought back in this edition of the national accounts: production of financial services, adapted to the NACE-Bel 2008 classification and ESA 2010, was allocated to final consumption and/or to intermediate consumption according to specific criteria for each of the underlying NACE 5 digit industries.

As there has been no review of production of financial services, the revision of household final consumption was offset by an opposite revision of intermediate consumption of non-financial corporations, with an impact on GDP. In recent years a greater proportion of the production of financial services was consumed by corporations with a negative impact on GDP.

Software

In the case of software produced for own account, production – equal to investment - is estimated, per industry, by multiplying the number of IT staff (on the basis of data by profession taken from DGS's labour force surveys) by the average wage cost of this kind of personnel (taken from the national accounts³³). This result is then weighted by a factor of 0.5 since IT staff members are presumed to spend half of their time on program development. Intermediate consumption and the operating surplus (mark-up) are then added to the wages to derive an estimate for (own account) production.

The current method was not modified, but the estimation of IT staff wages and the mark-up were recalculated using adjusted data per industry following the NACE code harmonization. The end result was higher-than-previously-estimated average wage and mark-up levels, triggering an upward revision of production and investment.

At the same time the correction for purchased software in the transition table which transforms business accounting aggregates to NA-aggregates (reclassification from intermediate consumption to investment) were also revised per industry (due to changes in nace codes). This also has (a more limited) impact on total value added/GDP.

Reclassification of units between S13 and S11/S12

This item reflects the difference in valuation of production for the units that shifted from S11/S12 (market producers for which production is estimated via turnover) to S13 (non-market producers for which production is estimated as sum of costs). It is normal to have a positive impact on GDP because revenue of sales only covers a part of total costs for these units.

³¹ The average wage cost is estimated on the basis of the ratio between compensation of employees (D.1) and employment in the 'Computer programming activities' branch (NACE 62010).

Other changes in S13

This item covers all other revisions in S13 with impact on GDP (excluding the effect of reclassification of units across institutional sectors).

Other revisions

This item is residual and covers all the other revisions (e.g. the impact of NACE harmonization) but also correction of errors³⁴ (in 2012) and current revisions (in 2013).

The activity codes (NACE) for economic units are now harmonized between the institutions making up the NAI, which should help to give a more accurate and up-to-date picture of economic reality.

The harmonization of the economic activity codes within the various databases produced by the NAI's partners first of all required harmonization of the statistical unit populations used, and in particular the different identifiers associated with each unit. The economic activity code attributed by Belgium's Directorate-General Statistics (DGS) was brought into widespread use, with the National Bank's involvement for the financial corporations sector (S.12). For the year 2013, the effective harmonization rate is 99.6 %, and work is underway on further improvements in convergence for 2014.

The harmonized NACE codes were incorporated into the national accounts from the year 2009 on. This harmonization may lead to breaks in series compared with the year 2008 for aggregates per branch of activity. 8.9 % of the value added of non-financial corporations switched branch (on A64 level) in 2012.

This harmonization also had an impact on the sectorisation of units (switches between S11 and S12 and S11 and S15 for NPI's).

³⁴ The important amount in 2012 is due to a negative correction in P2/positive correction in value added for 1 unit in S12; after further analysis it became clear that an important holding loss was registered in the other operating costs (which are treated as intermediate consumption by default).

Owing to differences in extrapolation methods by industry (via vat turnover or wages) for corporations without annual accounts and changes in the market/non-market boundary for NPI's, the NACE harmonization had a (relatively small) total impact on value added/GDP. The corresponding **revision in the expenditure approach** can be seen in the next tables.

Revision final consumption expenditure of households (P3S14)

Most of the revision for the period 2010-2012 can be explained by the revision of dwelling services, the revision of financial services, the revision in prostitution and the revision in health and social protection services (which is linked to the revision in P3S13 for these products: production that is not consumed by S13 is consumed by households). For 2013 there is an important element of current revision (see large amount in "other").

Revision to P3S14

(€ million)	2010	2011	2012	2013
rentals/dwelling services	-477	-719	-971	-1.471
financial services	154	-31	-616	-362
fisim	0	74	34	97
management cost nonresident mutual funds	-54	-51	-60	29
other (different allocation of production between P2/P3)	208	-53	-591	-488
prostitution	314	322	334	345
health and social protection services (commodity flow method)	566	437	229	86
other	81	-27	204	1.369
total	637	-18	-820	-32

Revision to final consumption expenditure of NPI'S serving households (P3S15)

The accounts for S15 were re-estimated from 2009 on, taking into account the adjusted NACE and sector codes for NPI's. There has been a net outflow of NPI's from S15 to S11 which is reflected in lower production and value added in S15 after NACE harmonization.

The revision to P3S15 is caused by an upward revision in non-market output (P13S15). The non-market output was revised upwards in line with the downward revision of market output (P11S15). This reduction in market output is logical given the fact that before NACE harmonization a number of market NPI's (with important market production/revenue of sales) were (wrongly) sectorised in S15 and generated important P11. After NACE/sector correction this is no longer the case. The revision to the figures for the years 2010-2013 are given in the next table.

Revision to production, intermediate consumption, value added and final consumption expenditure in S15

(€ million)	2010	2011	2012	2013
P1S15	-368	-338	-59	-299
P11S15	-1.322	-1.310	-1.075	-1.470
P12S15	-6	-12	-50	-57
P13S15	961	984	1.066	1.228
P2S15	-243	-218	62	-111
B1gS15	-124	-121	-121	-188
P3S15	961	984	1.066	1.228

Revision to final consumption expenditure of government (P3S13)

The inclusion of new units in the S13 boundary has an upward effect on P3S13, other changes to the S13-accounts have a downward effect (e.g. final consumption expenditure of government on health and social protection services).

Revision to P3S13

(€ million)	2010	2011	2012	2013
market/non-market boundary	80	103	146	21
other changes	-518	-458	-388	-849
total	-438	-355	-242	-828

Revision to gross fixed capital formation (P51G)

The most important elements are the downward revision of GFCF in R&D (especially in S11), the downward revision of investments in dwellings (in S14) - which is basically a correction of errors in the housing starts statistic and the introduction of an adjusted time pattern in energy saving construction work-, and the shift of investments from S11/S12 to S13 caused by changes in the public sector boundary.

Revision to P51g per institutional sector

(€ million)	2010	2011	2012	2013
S11	-1.839	-1.145	-330	-212
R&D	-1.420	-777	-618	-522
public sector boundary	-159	-192	-334	-248
own account software	254	231	73	-2
other	-514	-406	549	561
S12	227	159	-435	-298
R&D	0	10	17	17
public sector boundary	-10	-150	-15	-37
own account software	124	86	32	62
other	113	214	-470	-340
S13	341	670	585	697
public sector boundary	168	343	348	285
other	173	327	237	413
S14	-602	-1.371	-1.284	-1.369
dwellings	-514	-1.308	-1.190	-1.304
other	-87	-63	-94	-64
S15	-1	-2	-4	-13
Total economy (S1)	-1.872	-1.690	-1.469	-1.193

There were also important revisions in property income received from/paid to the ROW which had, in most years, a positive impact on GNI.

Revision in the financial accounts/International investment position

Property income (D.4) has been subject to several adaptations. These adjustments have affected almost all components of property income. The revision of property income, as far as transactions between

Belgium and the rest of the world are concerned, has an impact on the estimation of gross national income.

A good many of the changes affecting property income are still a consequence of the transition to ESA 2010. This was of course introduced in September 2014 but adjustments were still necessary, in order to ensure greater consistency between the different domains of macro- economic statistics (national accounts, financial accounts and external statistics), all of which switched over to a new version of their respective accounting framework last year.

The adjusted series of the financial accounts, in line with ESA 2010, was published in October 2014, roughly one month after the national accounts had been closed. Subsequently, harmonization efforts have resulted in information from statistics on the international investment position (IIP statistics) being integrated into the financial accounts. For this reason, during the course of the year 2015, the financial accounts were adjusted back to the end of 2008. As a result of these changes, the estimation of interest income (D.41) - which in some respects is based on outstanding assets and liabilities featuring in the financial accounts - has therefore been adjusted since 2009. From the year 2013 onwards, the reference rates that are used to estimate interest income on loans between associated corporations were also adapted so as to converge on the implicit rates that emerge from comparisons between individual survey data³⁵ and the international investment position.

There has also been a reassessment of income distributed by non-resident investment funds taking account of revised information, since 2009, in the international investment position statistics/ balance of payments.

These various review elements have led to a revaluation of property income from the rest of the world, and consequently of gross national income too (see part 3).

The new treatment for monetary income of the ESCB

A joint decision by Eurostat and the European Central Bank (ECB) recommends that all Member States review the statistical treatment for monetary income of the European System of Central Banks (ESCB). This income was recorded under different transactions in the accounts of the national statistical institutes, resulting not just in a possible bias in the comparability of national income, but also in inconsistencies in the different statistical domains (balance of payments and international investment position, financial accounts, national accounts).

The monetary income of the ESCB corresponds to the interest income that national central banks receive or pay on intra-Euro system assets and liabilities related to the allocation of euro banknotes³⁶.

³⁵ Data collected for compilation of the balance of payments.

³⁶ Intra-Eurosystem assets and liabilities correspond to the difference between the value of euro banknotes allocated to each national central bank (NCB) as per the ECB capital key and the value of euro banknotes actually put into circulation by each NCB.

In accordance with the previously issued European recommendations, the NAI had recorded this income for Belgium as a current transfer (D.75) from the rest of the world to the national central bank (S.121), a transfer that has no impact on gross national income (GNI). From now on, they have to be recorded as interest flows (D.41), still between these same two sectors (see part 3).

Reassessment of net profit made by foreign direct investment companies

Under the ESA95/2010, retained earnings are treated as if they were distributed and remitted to foreign direct investors in proportion to their ownership of the equity of the enterprise and then reinvested by them by means of additions to equity in the financial account (ESA 2010 §4.66).

Reinvested earnings on foreign direct investment (D.43) “paid out” by Belgian corporations to their foreign shareholders are valued using data from annual accounts filed with the Central Balance Sheet Office, by setting off their financial results against the dividends that they pay; the difference is prorated depending on the foreign ownership in the company’s capital³⁷.

In line with the ESA rules, the company’s results to be taken into account must leave out any capital gains or losses. In the past, accounting items 764/9 ‘Other extraordinary income’ and 664/8 ‘Other extraordinary costs’ had been taken into account to calculate companies’ financial results. However, it appears that companies do actually register capital gains or losses under these items. A decision was therefore made not to take them into consideration when calculating net current profit. If, upon further examination, it turns out that large transactions that are not capital gains or losses have been registered, they will then be included in net profit. This more in-depth analytical exercise has also provided an opportunity to correct some individual errors.

An overview of the revision of net property income received from the ROW by type is given in the next table

³⁷ The data for reinvested earnings on Belgian foreign investment in non-resident companies are taken directly from the balance of payments.

Revision of net property income received from the rest of the world

(€ million)

	2010	2011	2012	2013
D41 (interest)				
paid to ROW (a)	2.408	2.944	3.622	1.884
received from ROW (b)	4.957	5.319	5.304	4.750
<i>payments relating to the issuing of euro banknotes</i>	190	221	138	73
<i>other interest received from ROW</i>	4.767	5.098	5.166	4.677
net income received from (+)/paid to (-) ROW (b)-(a)	2.549	2.375	1.682	2.866
D42 (distributed income from corporations)				
paid to ROW (a)	-227	1.499	-98	-3.889
received from ROW (b)	0	0	0	1.500
net income received from (+)/paid to (-) ROW (b)-(a)	227	-1.499	98	5.389
D43 (reinvested earning on FDI)				
paid to ROW (a)	-431	2.511	717	-1.870
received from ROW (b)	0	0	0	-1.883
net income received from (+)/paid to (-) ROW (b)-(a)	431	-2.511	-717	-14
D441 (investment income attributable to insurance policy holders)				
paid to ROW (a)	0	-1	-10	-28
received from ROW (b)	0	0	0	0
net income received from (+)/paid to (-) ROW (b)-(a)	0	1	10	28
D443 (investment income attributable to collective investment fund shareholders)				
paid to ROW (a)	-4	0	3	10
received from ROW (b)	744	810	926	1.279
net income received from (+)/paid to (-) ROW (b)-(a)	747	810	924	1.268
	2010	2011	2012	2013
D4 total				
paid to ROW (a)	1.746	6.953	4.234	-3.893
received from ROW (b)	5.701	6.129	6.230	5.645
net income received from (+)/paid to (-) ROW (b)-(a)	3.955	-824	1.996	9.539
p.m.: GNI (ESA95 based) sept 2014	363.078	374.101	384.595	380.905
revision of net property income received from ROW	3.955	-824	1.996	9.539
as % of GNI (ESA95 based) sept 2014	1,1 %	-0,2 %	0,5 %	2,5 %

Net interest received from the ROW increases in line with adjustments in the I.I.P/outstanding amounts of interest generating assets and liabilities and the reclassification of income relating to the issuing of banknotes from current transfers to interest (for rather small amounts).

There are also revisions in the dividends and reinvested earnings paid to the ROW. Part of the D43-revision results from the use of an adjusted current operating profit concept.

The revision of investment income attributable to collective investment fund shareholders (D433) is also caused by revisions in the financial accounts (higher amounts of these foreign financial assets owned by residents).

On total the revision of net property income received from the ROW is considerable: + € 4 billion in 2010, - € 0.8 billion in 2011, + € 2 billion in 2012 and + € 9.5 billion in 2013.

3 THE PRODUCTION APPROACH

3.0 GDP ACCORDING TO THE PRODUCTION APPROACH

The distribution of production, intermediate consumption and gross value added by industry (A*21) and institutional sector are shown in the next tables.

Production per industry and institutional sector

P1 2012						
(€ million)	S11	S12	S13	S14	S15	S1
A	4.887			5.391		10.278
B	634			3		637
C	227.881			1.560		229.441
D	13.203					13.203
E	9.487		1.557	54		11.098
F	60.005			5.941		65.947
G	82.582			4.046		86.628
H	45.997		7.599	533		54.129
I	11.376			3.286		14.662
J	31.518		902	292		32.712
K	0	42.187		194		42.381
L	12.736			31.039		43.774
M	49.130	382		14.827	236	64.575
N	27.007			1.368		28.375
O			36.919			36.919
P	1.059		26.652	90	379	28.180
Q	39.444			2.985	1.921	44.350
R	4.405			443	344	5.192
S	5.232			1.964	3.553	10.749
T				466		466
total	626.582	42.569	73.629	74.481	6.433	823.694

Intermediate consumption per industry and institutional sector

P2 2012						
(€ million)	S11	S12	S13	S14	S15	S1
A	3.882			3.356		7.238
B	391			2		393
C	179.664			968		180.632
D	7.479					7.479
E	6.668		962	40		7.670
F	42.636			3.678		46.314
G	42.070			1.364		43.434
H	31.561		2.350	332		34.244
I	6.612			1.847		8.459

J	17.195		387	141		17.722
K	0	20.403		83		20.485
L	7.610			6.106		13.716
M	31.622	403		1.748	96	33.870
N	13.644			791		14.435
O			9.772			9.772
P	620		3.241	41	110	4.012
Q	16.789			1.083	619	18.491
R	2.489			203	152	2.844
S	3.200			720	1.920	5.840
T				0		0
total	414.131	20.806	16.712	22.502	2.897	477.048

Value added per industry and institutional sector

B1g_2012 (€ million)	S11	S12	S13	S14	S15	S1
A	1.005			2.035		3.040
B	243			1		244
C	48.218			592		48.810
D	5.724					5.724
E	2.820		595	14		3.428
F	17.370			2.263		19.633
G	40.512			2.682		43.194
H	14.435		5.249	200		19.884
I	4.764			1.439		6.203
J	14.324		515	151		14.990
K		21.785		112		21.896
L	5.126			24.933		30.059
M	17.507	-21		13.079	140	30.705
N	13.363			577		13.940
O			27.147			27.147
P	439		23.411	49	269	24.168
Q	22.655			1.902	1.303	25.859
R	1.916			241	192	2.348
S	2.032			1.244	1.633	4.909
T				466		466
total	212.451	21.763	56.917	51.978	3.537	346.646
D21						42.992
D31						-2.219
GDP						387.419

3.1 THE REFERENCE FRAMEWORK

3.1.1 BUSINESS REGISTER AND REPERTORY

The estimate of GDP via the output side is largely based on the *business register* compiled by DGS. This database includes all economic agents that are active in Belgium. The basic information for

creating this register is supplied by a number of public administrations [VAT-administration, National Social Security Office (NSSO), National Register, KBO³⁸) which manage partial files of units for their own purposes (respectively VAT-registered enterprises, enterprises with employees, and corporate bodies]. By linking the identifiers present in these source files DGS creates the business register.

Based on this register the NBB constructs an annual '*repertory*' which contains identification numbers and characteristics that are relevant for the national accounts for all units (corporations, unincorporated enterprises, public bodies, NPAs³⁹).

The combination of the following characteristics enables ESA 2010 variables to be calculated in a detailed way, and the most appropriate basic source to be selected:

- NACE 5 digit⁴⁰ code (determines which industry the unit belongs to)
- category (determines which source⁴¹ is used to estimate the activity of the unit)
- institutional sector code (determines which institutional sector the unit belongs to)⁴²
- district code (this information is important for the regional split-up of value added, compensation of employees, employment and gross fixed capital formation).

The units of the general government sector (S.13) are known from an exhaustive list that is updated annually. Since the estimate of the production in the general government sector is estimated via a sum of cost approach and is based on specific source material the S13-aggregates (e.g. value added) are calculated in a different way to those for market producers.

The allocation of a sector code to the units included in the directory is largely carried out via an automated procedure. By combining the NACE code and the structure of the identification number it is possible, for a part of the units not belonging to the general government, to determine the sector code.

Sectoral breakdown of business register

The attribution of sector codes to units in the business register is largely automated, although some units have to be classified manually. The sector classification criteria for units in the directory are as follows:

³⁸ KBO: "Kruispuntbankondernemingen".

³⁹ The legal notion *non-profit association (NPA)* is not relevant for the sector classification of ESA 2010 based on economic criteria.

⁴⁰ This is a Belgian version which is compatible to the Nace Rev.2 classification. The most detailed level of nace Rev.2 is the 4 digit level.

⁴¹ cf.1.3.3.1.

⁴² ESA 2010 provides the institutional sectors: non-financial corporations (S.11), financial corporations (S.12), general government (S.13), households (S.14) and non-profit institutions (NPIs) serving households (S.15). The units belonging to S12 and S13 are further sub-sectorised in the repertory (S121, S122, S123, S124, S125, S126, S127, S128, S129 resp. S1311, S1312, S1313, S1314)

- all incorporated units (legal persons), other than non-profit associations and units in NACE 64, 65 and 66, are classified to sector S11;
- all unincorporated units (physical persons) are classified to sector S14. Some of them are active in financial activities (nace 661 or 662);
- all incorporated units belonging to nace 64, 65 and 66 are classified in sector S12. There is a direct link between nace 4 digit in these activities and the corresponding subsectors of S12:

Sector	SUT	description
S121	64A	Central Bank
S122	64A	Deposit-taking corporations
S123	64C	Money market funds
S124	64C	Non MMF investment funds
S125	64D	Other financial intermediaries except S128 and S129
S126	66A,B,C and 70A	Financial auxiliaries
S127	64B	Captive financial institutions
S128	65A	Insurance corporations
S129	65A	Pension funds

Nace	Description	S121	S122	S123	S124	S125	S126	S127	S128	S129
64.11	Central Banking	X								
64.19	Other monetary intermediation		X							
64.20	Holding companies							X		
64.30	Trusts, funds and similar financial entities			X	X					
64.91	Financial leasing					X				
64.92	Other credit granting					X				
64.99	Other financial service activities					X				
65.11	Life insurance								X	
65.12	Non-life insurance								X	
65.20	Reinsurance								X	
65.30	Pension funding									X
66.11	Administration of financial markets						X			
66.12	Security and commodity contracts brokerage						X			
66.19	Other activities auxiliary to financial services						X			
66.21	Risk and damage evaluation						X			
66.22	Activities of insurance agents and brokers						X			
66.29	Other activities auxiliary to insurance and pension funding						X			
66.30	Fund management activities						X			
70.10	Head offices (*)						X			

(*) Whose subsidiaries are financial corporations.

- the only unit in NACE 6411 (the National Bank of Belgium) is classified to sector 121;

- units in NACE 6419 are classified to sector S122. Lists compiled by the supervisory body for credit institutions are used to verify the accuracy and exhaustiveness of the content of this sector;
- legal persons in NACE 64.20 (holding companies)⁴³ are classified to sector S127;
- legal units in nace 64.30 are classified to sector S123 (money market funds) or to sector S124 (non- money market investment funds) according to their characteristics;
- legal units in nace 64.9 are classified in sector S125, nace 65.1 and 65.2 in sector S128, nace 65.3 in sector S129, and nace 66 in S126. Lists compiled by the supervisory body for insurance companies and pension funds are used to verify the accuracy and exhaustiveness of this sector.

The units classified to sector S13 are determined exhaustively on the basis of a list compiled by the Institute of National Accounts

The classification of associations (not sectorised in S13)⁴⁴ as either market producers (S11 or S12) or non-market producers (S15) largely depends on the activity (nace 5 digit code) the unit is performing. The rationale behind this choice is the fact that annual accounts (which could be used to derive their market/non-market nature) are only available in a minority of cases (for very large and large NPA's). The link between nace and sector code is usually unambiguous, but case-by-case classification is necessary for associations in NACE 72 (research and development), 85.5 (other education), 85.6 (educational support activities) 88.9 (other social work activities without accommodation), 87.9 (other residential care activities), 90 (creative, arts and entertainment activities) 91 (libraries, archives and other cultural activities) and 93 (sports activities and amusement and recreation activities).

The majority of NPI's (64.1 %) are considered as market producers (S11/S12).

30.1 % is sectorised in S15 and the rest (5.8 %) in S13. Only the very large and large NPI's deposit annual accounts (21.3 % of total) which are used (in S11/S12 and S13) to estimate value added.

The sectoral breakdown of NPI's is given in the next table.

Sectorisation of NPI's in 2012						
number	S11	S12	S13	S15	S1	
with annual accounts	3.899	19	680	2.122	6.720	
without annual accounts	16.269	17	1.162	7.360	24.808	
total	20.168	36	1.842	9.482	31.528	
%	S11	S12	S13	S15	S1	
with annual accounts	12,4%	0,1%	2,2%	6,7%	21,3%	
without annual accounts	51,6%	0,1%	3,7%	23,3%	78,7%	
total	64,0%	0,1%	5,8%	30,1%	100,0%	

⁴³ Excluding the head offices, which are classified in nace 70.1 and belong to S11 or S12, depending on the nature of their subsidiaries (non-financial or financial corporations).

⁴⁴ The continuing text will refer generally to non-profit associations only. Other, less common legal forms are treated in the same way (foundations, public utilities, scientific organisations, etc.)

- Non-profit associations in NACE 01 to 82 are classified to the market sector (non-financial companies: S11). Exceptions comprise:
 - NPA's in nace 72 (R&D) which are classified case by case (S11 or S15)
 - NPA's in NACE 64, 65 and 66, which are classified in S12.
- Non-profit associations in NACE 84 (public administration) are part of sector S13. Non-profit associations in NACE 85 (apart from private schools) are also classified in S13.
- NPAs in the following activities are classified as non-financial corporations (S11):
 - human health activities;
 - veterinary activities;
 - institutions for disabled children;
 - institutions for children in difficulties;
 - institutions for disabled adults;
 - rest homes for the elderly;
 - day-care centres for babies (crèches);
 - sheltered workshops and day centres for the disabled;
 - sewerage, refuse collection and waste management;
 - activities of employers', business and professional organisations;
 - recreational, cultural and sporting activities⁴⁵
- NPA's in the following activities are classified in S15:
 - trade unions,
 - religious organisations and
 - political organisations
- NPA's in the following activities are classified on a case by case basis:
 - research and development
 - international education
 - continuing and other forms of education
 - other social work activities with accommodation
 - other social work activities without accommodation,
 - other membership organisations,
 - other cultural activities (libraries, museums, heritage, botanical gardens, zoos,..), activities of sports clubs and sporting associations.

⁴⁵ Some underlying nace 5 digit groupings are however considered as non market (S15)

This implies that S15-units only appear in a limited number of activities as shown in the next table:

Activities in which S15-units appear

Nace_Bel (5 digit)	Description	NACE rev. 2
72110	R&D on natural sciences and engineering	721
72200	R&D on social sciences and humanities	722
85207	Adult literacy	852
85209	Primary education (other)	
85319	General secondary education (other).	853
85329	Technical and vocational secondary education (other).	
85410	Post-secondary non-tertiary education	854
85429	Tertiary education (other).	854
85520	Cultural education	8552
85591	Other education "enseignement de promotion sociale"	8559
85592	Other education "formation professionnelle"	8559
85593	Other education "formation socio-culturelle"	8559
85599	Other education "autres formes d'enseignement"	8559
85609	Educational support activities (other)	856
87109	Other residential nursing care activities	871
87209	Other residential care activities for mental retardation, mental health and substance abuse.	872
87309	Other residential care activities for the elderly and disabled	873
87909	Other residential care activities (other).	879
88102_9	Social work activities without accomodation for the elderly and disabled	8810
88919	Other social work activities without accomodation- child day care activities	8891
88991_9	Other social work activities without accomodation - other	8899
91011_2	Library and archives activities	9101
91020	Museums activities	9102
91030	Operation of historical sites and buildings	9103
91041	Botanical and zoological gardens and nature reserve activities	9104
93121_9	Activities of sport clubs	9312
93191	Other sport activities (sport federations)	9319
93299	Other amusement and recreation activities (other)	9329
94120	Activities of professional membership organisations	941
94200	Activities of trade unions	942
94910	Activities of religious organisations	9491
94920	Activities of political organisations	9492
94991_9	Activities of other membership organisations	9499

The repertory does not contain unincorporated businesses without personnel whose activity is not liable to VAT. Value added for these S14-units is estimated via the personnel income tax (PIT) file.

In practice the P.I.T. information is used for the following activities (nace codes) in S14:

66.1 and 66.2: activities auxiliary to financial services and insurance activities

69.1: legal activities⁴⁶

70.2: part relating to administrators of companies

86.2: medical and dental practice activities

86.9: other human health activities

VAT liable Enterprises with annual turnover below 5 580 € do not have to file VAT-declarations. This implies that the activity of these very small (self-employed) units is missing in the VAT-file. The grossing-up percentages for the NOE are supposed to cover this missing activity. There is no threshold for income tax declarations or for companies that have to deposit annual accounts.

Special Purpose Entities are not identified separately in the repertory which implies that they do not receive a special treatment.

The statistical unit that is actually used in the compilation of national accounts aggregates by sector and industry is the legal unit (corporation, unincorporated enterprise, NPI). Every legal unit is characterised by one institutional sector code and one activity code (reflecting the principal activity of the unit). Legal units with different establishments in more than one district are identified as such in the repertory (label MA). Although these establishments might, in reality, have different activities they are not treated as “local kind of activity units” but receive the same activity code as the legal entity they are part of.

3.1.2 NON-FINANCIAL CORPORATIONS (S11), FINANCIAL CORPORATIONS EXCLUDING MONETARY FINANCIAL INSTITUTIONS, INSURANCE CORPORATIONS AND PENSION FUNDS (S124_S127), HOUSEHOLDS (S14) AND NON-PROFIT INSTITUTIONS SERVING HOUSEHOLDS (S15)

For units belonging to sectors for which standardized source information can be used (annual accounts, and/or VAT-declarations and/or NSSO-declarations) centralized IT-applications have been developed to compile value added.

The main sources are the annual accounts filed by non-financial corporations (S.11) , by part of the financial corporations (S124, S125, S126, S127), and by NPA's (S11 and S15), VAT returns of VAT-registered units (S.11 and S.14), National Social Security Office returns submitted by employers (in all sectors) and personal income tax returns (S.14) for unincorporated businesses that are not liable to VAT. All the individual information is stored in a 'national accounts database'.

⁴⁶ Some activities within this nace however have become VAT liable in the recent years.

Annual accounts

In Belgium virtually all limited liability corporations (public limited companies, private limited companies, limited partnerships, etc.) must publish their accounts by filing them with the Central Balance Sheets Office of the National Bank of Belgium in accordance with a standardised accounting schedule provided by law. The annual accounts file is therefore the preferred source for estimating ESA 2010 aggregates relating to the production and primary distribution of income account of non-financial corporations, a subset of financial corporations (depositing no specific type of accounts) and for NPA's.

Large corporations must file a 'full' accounting schedule; SME corporations may file an 'abridged' accounting schedule. These reporting schedules are in fact data extracts from the internal financial accounting of corporations where large corporations must provide more information than SME corporations. All corporations with a turnover of more than EUR 0.5 million must follow the 'Minimum Standardized Accounting System'. This chart of accounts (introduced by Royal Decree in 1983) is the concrete operational implementation of the accounting legislation that dates from 1975.

The Minimum Standard Chart of Accounts contains 8 chapters/headings, five of which relate to the Balance sheet (chapter 1 to 5) two of which to the profit and loss account (chapter 6 and 7) and one chapter (chapter 0) which is not relevant in the context of national accounts.

Chapter 0	Rights and commitments not reflected in the balance sheet
Chapter 1	Capital and reserves, provisions and amounts payable after one year
Chapter 2	Formation expenses, fixed assets and amounts receivable after one year
Chapter 3	Stocks and contracts in progress
Chapter 4	Amounts receivable and payable within one year
Chapter 5	Current investments and cash
Chapter 6	Charges
Chapter 7	Income

The accounting legislation specifies the content of the various headings from the balance sheet, profit and loss account (income and expenditure) and annexes to the balance sheet and profit and loss account. In this way business accounting variables can be translated into ESA 2010 variables.

The most important information used to compile the real accounts comes from chapter 7 (production: P1), chapter 6 (intermediate consumption and components of value added: P2, D1, D29, D39) and chapter 2 and 3 (Gross fixed capital formation and changes in stocks). Chapters 1, 4 and 5 are relevant in the compilation of the financial accounts. The detailed content of the Minimum Standard Chart of Accounts can be consulted in chapter 10.1

The use of annual accounts information provides clear advantages:

- the 'primary input' of the national accounts is drawn up according to concepts that are relevant for and known by the data suppliers (commercial accounting);
- this information is standardised and can be converted into the concepts specified by the national accounts (ESA 2010 aggregates);
- in most industries the coverage of the annual accounts file is very good and only a small part of total value added has to be derived in an indirect way (extrapolation via other sources);
- the 'formal' quality of the annual accounts data is guaranteed because they must comply with a number of checks provided by law (since 1991): these are arithmetic and logical checks on the data indicated in balance sheet, profit and loss account and notes;
- the dependence on survey data (SBS) to estimate the main aggregates is very limited;
- the integration of the real and financial accounts is easier due to the use of the same sources.

VAT returns

The activity of most non-financial corporations (supply of goods and provision of services) falls under the VAT system. Only a limited number of activities are exempt from VAT (legal services, medical services, renting of real estate, etc.). Recently (since 2014), legal services have also become VAT liable which implies that the value added of the self-employed persons active in these activities will also be estimated via the VAT declarations in the future.

Depending on their size all units (corporations, self-employed persons, non-profit associations...) that fall within the scope of VAT must submit a monthly (annual turnover > € 1 million)⁴⁷ or a quarterly VAT return (annual turnover < € 1 million). On the basis of this declaration the tax authorities deduct their VAT-claim (or VAT-debt) towards the unit in question.

From the VAT returns the turnover (proxy for P.1), current purchases of goods and services (proxy for P.2) and acquisition of capital goods (proxy for P.51) can be deduced. The information on turnover and current purchases is used in most industries to estimate the value added of VAT-registered units sectorised in S.14, and to estimate the activity of corporations for which no (usable) annual accounts or structural business surveys are available.

Advantages of using VAT data are the high level of representativeness, rapid availability and reasonable quality.

⁴⁷ The continuing text will refer generally to non-profit associations only. Other, less common legal forms are treated in the same way (foundations, public utilities, scientific organisations, etc.)

NSSO and NSSOPLA returns

All employers established in Belgium must each quarter submit a return to the administration of the National Social Security Office (NSSO) or to the National Social Security Office for Provincial and Local Authorities (NSSOPLA). On the basis of this the social contributions payable are calculated. The information given in these returns allows the compensation of employees (D.1) to be calculated.

The wages and salaries bill is used to estimate the value added of corporations with no annual accounts and of (small) NPAs not obliged to deposit annual accounts.

Personal income tax returns

The activity of some liberal professions is exempt from VAT. For these S.14 units the value added is estimated via the personal income tax return. From these returns the 'income from a liberal profession' (proxy for P.1) and the professional expenses (proxy for P.2) are deduced.

Linking source data and directory

Aggregates can be created that are calculated on the basis of variables available in the different sources. An aggregate is a total amount for a certain variable calculated for a certain group of units on the basis of a certain source for a certain period (e.g. the total turnover according to the VAT returns of corporations classified to S.11 belonging to the industry NACE 181 for 2012).

The aggregation of variables present in the different source files is always carried out on the basis of the characteristics (NACE code, sector code) included in the directory. This procedure ensures that the results obtained are comparable with one another.

In this way one can compare e.g. the turnover and wages and salaries bill present in different sources (VAT and annual accounts on the one hand, NSSO and annual accounts on the other hand) with one another in a meaningful way.

3.1.3 M.F.I. (S.121_S123), INSURANCE CORPORATIONS AND PENSION FUNDS (S128_S129)

The value added estimated for these units is also based on accounting information of a specific nature. The contents of the sources used are described in detail in chapter 3.17 treating the financial sector.

3.1.4 GENERAL GOVERNMENT (S13)

3.1.4.1 Definition and scope of the general government sector

The general government sector (S.13) consists of institutional units which are non-market producers whose output is intended for individual and collective consumption, and are financed by compulsory payments made by units belonging to other sectors, and institutional units principally engaged in the redistribution of national income and wealth (ESA 2010, §2.111).

The institutional units classified to sector S.13 are:

- general government units which exist through a legal process to have judicial authority over other units in the economic territory, and administer and finance a group of activities, principally providing non-market goods and services, intended for the benefit of the community;
- a corporation or quasi-corporation which is a government unit, if its output is mainly non-market and a government unit controls it;
- non-profit institutions recognised as independent legal entities which are non-market producers and which are controlled by general government;
- autonomous pension funds, where there is a legal obligation to contribute, and where general government manages the funds with respect to the settlement and approval of contributions and benefits.

This definition requires amplification to facilitate comprehension of the rationale underlying the classification of institutional units in the general government sector. For a unit to be classifiable to this sector, the following questions need affirmative answers:

- Is the unit in question an institutional unit⁴⁸?
- Is it a public-sector unit⁴⁹?
- Is it a non-market producer⁵⁰?

For non-financial units, a non-market producer is a unit that does not pass either the qualitative criterion or the quantitative criterion of the market test. The qualitative criterion relates to who is the buyer of the production. If the unit sells more than half of its production to government without any competition (e.g.: public tendering), the unit is considered non-market. The quantitative criterion is also called the "50% criterion". It is the ratio between sales and production cost. The terms "sales" and "production costs" are used within the meaning of ESA 2010, not in their ordinary legal or administrative sense.

For financial units, the risk exposure determines if a unit is a financial corporation (classified outside government) or a government unit.

⁴⁸ A unit is deemed to be an institutional unit if it has decision-making autonomy with respect to its main functions and keeps full accounting records or is able to compile adequate records if so required from an economic and legal perspective. If the unit is not an institutional unit, it must be included with the institutional unit it depends of.

⁴⁹ An enterprise is deemed to be a public enterprise within the meaning of ESA 2010 if it is publicly controlled, i.e. if it is controlled directly or indirectly by general government. Control over an entity is defined as the ability to determine the general policy or programme of that entity. General government secures control over a corporation if it owns more than half of its voting shares or otherwise controls more than half of the shareholder votes. Control can also be secured as a result of special legislation, decree or regulation which empowers the government to determine corporate policy or appoint its managers. ESA 2010 has a list of indicators to determine if an enterprise is publicly controlled. The same applies, *mutatis mutandis*, to non-profit institutions.

⁵⁰ To attribute a sector code to a unit in ESA 2010, it is therefore essential to have that unit's annual accounts (or other accounting records) for several successive years. In the case of newly created units which have not yet been able to publish annual accounts, it was decided that a provisional sector code should be attributed on the basis of other available information (e.g. articles of association and/or budget forecasts) subject to subsequent examination of the first annual accounts of the unit in question. When these become available, the 50% criterion is applied and the unit is given a sector code retroactively, i.e. after the date of its creation.

3.1.4.2 Interfaces with other sectors

In Belgium, the list of public units (comprising both units in and outside of the government sector) is updated twice a year by the National Accounts Institute (NAI).

Efforts have been made to detect public units in a systematic way in the aim of arriving at an exhaustive list, as described below.

Three sources of information are used simultaneously to detect public units in a systematic manner. A first source is their legal form. Virtually all institutional units active in Belgium must be registered in the Crossroads Bank for Enterprises (CBE)⁵¹ and their legal form is one piece of the information that it contains⁵². The NSI makes use of this database to automatically detect the units that have a legal form which has been flagged as public⁵³. A manual check is then made to make sure that the units detected are effectively public.

A second source is the National Social Security Office for Provincial and Local Government (ONSSAPL)⁵⁴. The ONSSAPL is the body in charge of the social security services of local government units, including provinces, municipalities, public welfare centres, some intercommunales, some units under local government control, etc. All units affiliated to this body are therefore automatically flagged as public.

A third means of identifying public units is the shareholding links. This information is obtained from four different sources: (i) annual accounts of individual companies, (ii) consolidated annual accounts of groups, (iii) NBB's Foreign Direct Investments (FDI) survey and (iv) the reporting on participations of public units.

- (i) In Belgium, most companies are required to file their annual accounts every year under a standardized format at the Central Balance Sheet Office of the National Bank of Belgium. In their annual accounts, companies must report all their participations of at least 10%.
- (ii) Groups of companies satisfying certain conditions⁵⁵ are required to file their consolidated annual accounts at the Central Balance Sheet Office. Those accounts contain the list of the subsidiaries which are consolidated and their percentage of ownership.

⁵¹ The CBE was created by the law of 16 January 2003 (« loi portant création d'une Banque-Carrefour des Entreprises, modernisation du registre de commerce, création de guichets-entreprises agréés et portant diverses dispositions »).

⁵² The CBE can be consulted at <http://kbopub.economie.fgov.be/kbopub/zoeknummerform.html?lang=en>.

⁵³ Examples of public legal forms are Ministry, Federal Public Service, Regional Authority, Local Police, State, Public Limited Company, Public Association, Public Welfare Centre, Municipality, Intercommunale, etc.

⁵⁴ On 1 January 2015, the ONSSAPL merged with the Social Security Office for Overseas (OSSOM) and the new entity was renamed the Office for Special Social Security Systems (ORPSS).

⁵⁵ The obligation to draw up and file consolidated annual accounts and a consolidated annual report is governed by Articles 108 to 121 of the Companies Code, Articles 106 to 169 of the Royal Decree of 30 January 2001 implementing that Code and Article 11, § 1 of the law of 17 July 1975 on corporate accounting. These provisions constitute the transposition into Belgian law of the 7th Directive of the Council of the European Communities of 13 June 1983 (RL 83/349/EEG)

- (iii) Information is also collected from the NBB's survey on FDI. This monthly⁵⁶ survey conducted on a selection of resident companies active in FDI asks, amongst others, for the group structure of companies.
- (iv) Finally, shareholding links of public units are also identified by means of a dedicated reporting called Reporting Participations. This reporting, which is in principle sent every year to the SPOCs⁵⁷ of each government, asks for the participations of all public units identified that do not file annual accounts and for the public mandates of all government units identified. This reporting is of great importance as many government units do not file standardized annual accounts at the Central Balance Sheet Office so, for these units, this is the only way to detect shareholding links.

Those four sources of information are introduced into a specific algorithm designed to detect the group structures of companies based on participations⁵⁸. For example, if a unit A is owned 30% by a municipality, 30% by regional government and 40% by a public unit, the algorithm will detect that A is public⁵⁹. This unit A is then added to the list of public units mentioned above, its sector classification is assessed as described below and its affiliates are identified through the shareholding links as described above. This is thus an iterative process designed to identify in a systematic way all units of which the public sector is directly or indirectly the majority shareholder.

The sources described above are also used to detect new public units (newly created public units or non-public units that become public). In addition, the SPOC of the controlling entity (or other contacts) may inform the NSI directly when a new unit has been created or is to be created, either just for information or to ask for its sector classification. Although unsystematic, this is a supplementary way of detecting public units.

3.1.4.3 Composition of the general government sector

Under ESA 2010 methodology, the general government sector (S13) comprises four subsectors:

- central government (S.1311) called "Federal Government" in Belgium;

56 For some companies less active in FDI, the survey is conducted yearly.

57 The SPOCs are the single points of contact that have been designated by the Federal government and the 8 regional governments (Brussels, Flanders, Walloon Region, French Community, German-speaking Community, VGC, COCOM and COCOF) on the request of the NAI in order to facilitate the flow of information between the NAI and the public entities.

58 Currently, the fourth source (reporting Participations), which is quite new, has not yet been included in the algorithm due to a limited amount of responses but it should be included in the near future.

59 The algorithm was originally designed to detect the group structure of companies so its task was to identify the ultimate mother company (head of group) and detect all its subsidiaries. In the case of public control, the process is slightly different since a unit can be considered public because of the joint control of several public units with no other links between them than their public nature (i.e. there might be no unique ultimate mother company). This necessitates a slight adaptation of the algorithm, which is under implementation.

- federated state administrations (S.1312) referred to in Belgium as "Communities and Regions", viz. the French, Flemish⁶⁰ and German-speaking Communities, the Walloon and Brussels Capital Regions and the French, Flemish and Joint Community Commissions;
- local authorities (S.1313) comprising the 10 provinces, the 589 communes (excluding their *de jure* municipal undertakings), the 589 Public Social Welfare Centers (PSWCs) -excluding their hospitals and rest homes-, the 196 police zones, the Brussels conurbation, the polders and water authorities and "intercommunales" not producing market services⁶¹;
- social security administrations (S.1314), comprising the central and some primary agencies of the various social security schemes⁶² for employees and the self-employed, including the Business Closures Fund and the Overseas Social Security Office, but excluding holiday pay and optional insurance schemes⁶³. The medical care insurance bodies of the Flemish Community are also part of this subsector.

3.1.4.4 Main data sources

Federal Government, Communities and Regions

The main analytical source for the Federal government and the Communities and Regions is an *economic regrouping* of the expenditure and revenue of each of these entities, based on economic concepts (consumption, transfers of income, investments, etc.) of the budgetary and similar transactions (transactions of funds, public-sector administrative bodies and cessations of budget funding) of the entity concerned. The scope of economic regrouping is therefore not confined to budget transactions, but extends to non-budget transactions such as prefinancing and to transactions by autonomous bodies and funds. The economic grouping however does not follow strictly the consolidation perimeter of the federal level or the individual state level. Entities which are not integrated in the economic grouping are added on the basis of their business accounts, as described further in this chapter (other data sources).

⁶⁰ The Flemish Community covers also the Flanders Region.

⁶¹ *De jure* municipal undertakings, PSWC hospitals and rest homes, intercommunales producing market goods and services and "Chapter XII associations" (Articles 118-135 of the Consolidation Act on Public Social Welfare Centres of 8/7/1976) are included in the non-financial corporations sector (S11).

⁶² disability insurance, family benefits, pensions, early retirement pensions, unemployment, occupational diseases and industrial accidents for employees, and disability, family benefits and pensions for the self-employed and also sickness insurance for employees and self-employees.

⁶³ The bodies which manage holiday pay funds come under the Federal Government, whereas the sections of mutual organisations which manage optional insurance schemes are deemed to be quasi-corporations and are part of the financial corporations sector. In addition to compulsory insurance, mutual organisations also manage optional insurance and supplementary sickness/disability insurance, comprising:

- optional health care insurance, also known as "minor risks" insurance for the self-employed until 2007, in 2008 this scheme became compulsory and was included in the social security funds (S1314);
- supplementary insurance (daily allowances, hospitalisation, transport of sick persons, medical care abroad and various other services) which may or may not involve compulsory membership (depending on mutual organisation and type of service);
- prenuptial savings.

The economic regroupings are compiled by the budget departments of the bodies in question⁶⁴ and are then forwarded to the secretariat of the General Documentary Base created under an agreement between the State, the Communities, the Joint Community Commission and the Regions, which makes them available to the Institute of National Accounts.

Up to and including 1995, the Federal Government used the *Benelux economic classification* of the expenditure and income of general government (Benelux 1964). From 1996 to 1998, the Federal Government codified its transactions on the basis of the Benelux economic classification of the expenditure and income of general government (Benelux 1981⁶⁵, version adapted for Belgium in May 1992), which was itself based on the European System of Integrated Economic Accounts (ESA 1979). The Communities and Regions used a version of this latter classification from 1989. Since 1999, a new classification, adapted to ESA 1995, has been used: the Benelux 1981 economic classification, version adapted to ESA 1995 for Belgium (initially of March 1998, subsequently October 2000). An update of this classification was published in March 2009, several expenditure categories in which the counterparty or economic nature was not clearly defined were changed. This classification was used for the reference year 2012. In June 2015 an update was made to introduce the changes linked to the introduction of the ESA 2010 and also some further clarification on the counterparty of transactions. The complete description of the economic codes can be found on the website of the General Documentary base. (<http://www.begroting.be/NL/figures/Pages/grouping.aspx>). For each economic code a description and examples are given.

⁶⁴ Taking our recommendations into account

⁶⁵ The Benelux economic classification provides data for use in the national accounts. It was published in Belgian Official Gazette No 229 of 1 December 1981

The economic grouping distinguishes 10 main groups. The groups 0-4 register current flows, the groups 5-8 concern capital flows and the group 9 concerns transactions in the government debt other than interest charges.

Group	Expenditure	Receipts
0	Non-divided expenditure	Non-divided receipts
1	Current expenditure for goods and services	Current receipts for goods and services
2	Interest and other expenditure from property	Interest and other receipts from property
3	Current transfers to other sectors	Current transfers from other sectors
4	Current transfers within the government sector	Current transfers within the government sectors
5	Capital transfers to other sectors	Capital transfers from other sectors
6	Capital transfers within the government sector	Capital transfers within the government sector
7	Investments	Disinvestments
8	Capital injection (equities and loans)	Reimbursement of loans and sales of equities
9	Governments debt	Government debt

The economic codes identify the counterparty of transactions. Flows between government sectors receive a specific code (4 or 6 depending on the nature of the transaction), the INA can on the basis of this verify if the transfers from the federal level and between the different Communities and Regions are consistent.

In addition to the economic regrouping, there is also a *functional regrouping* of the tasks of general government in terms of their purpose (general administration, national defence, education, etc.). The advantage of this classification is that it is constant over time and unaffected by changes to ministerial portfolios or to the allocation of tasks among the various administrations.

Combining the economic and functional regroupings makes it possible to compile cross tables of the expenditure of the various general government subsectors by function and transaction.

Up to and including 1995, the Federal Government used the *Benelux functional classification* of the expenditure and income of general government (Benelux 1972). Since 1996 it has classified its transactions on the basis of the Benelux functional classification of the expenditure and income of general government (Benelux 1989⁶⁶). It was within this nomenclature that the Communities and Regions constructed their first functional regroupings, using the data for 1995 to 1997. Their respective tables of "Expenditure of general government by function and transaction" for the period 1990-1994 were therefore constructed by backcasting using partial data. Since 2004 a new functional

⁶⁶ Published in Belgian Official Gazette No 19 of 24 January 1990.

classification, COFOG 1998,⁶⁷ which classifies the functions of general government under ESA 1995⁶⁸ has been used, an update of this document has been provided in 2005.

Local government

Until 2011, there was no centralised electronic database on the budgets and accounts of the main local authorities (provinces, communes, PSWCs and police zones), information on the units of this subsector was gathered by surveys and other sources (such as Belfius⁶⁹ studies of local authority finances).⁷⁰

In the course of 2011 the necessary detailed information became available so that in 2012 the NAI could review its method to establish local government accounts starting from the year 2006.

The local government in Belgium encompasses 10 provinces, 589 municipalities, 589 PSWCs⁷¹ (providing welfare services) excluding hospitals and rest homes consolidated in their accounts, 195 local police zones, the Brussels agglomeration, the polders and water boards and the other local public entities not providing market services.

⁶⁷ COFOG is the acronym for "Classification of the Functions of Government", a functional classification devised by the United Nations. It was revised in 1998 in the light of SNA93

⁶⁸ The classification units in the functional classification, like those in the economic classification, are individual transactions. In other words, every purchase, salary payment, transfer or other item of expenditure is given a functional COFOG code, depending on the purpose of the transaction. It is recommended that this principle be strictly applied to capital transfers and current transfers, and to the acquisition of financial assets. For most other expenditure it is not generally possible to use transactions as classification units. COFOG functional codes have to be attributed to programmes of activity, directorates, agencies, offices, administrative units and other units of the same type belonging to government departments. All expenditure items of a particular unit (other than transfers and acquisition of assets) are given the same functional code.

Where government bodies, rather than transactions, are used as classification units, it is possible that even the smallest bodies which can be identified in the national accounts may exercise more than one COFOG function. It is sometimes possible to break down the expenditure of multi-function bodies between COFOG functions on the basis of information about their expenditure, but in most cases the best that can be done is to attribute all their expenditure to the function which appears to represent the largest part of their total expenditure.

In the economic classification, it is compulsory for the classification units to be individual transactions (there can be no question of derogating from this principle) and if a budget heading contains several basic transactions, it must be broken down into as many economic codes as there are basic transactions.

This means that the functional classification is constructed with less precision than the economic classification, which is therefore the focus of close attention by the staff responsible for constructing these classifications.

In the functional classification, functions are delineated purely by convention, and any error under a particular heading is automatically compensated for under another heading, i.e. it has no impact on the economic aggregates (public consumption, deficit, GDP, etc.)

⁶⁹ Previously Dexia Banque and before that Crédit Communal de Belgique

⁷⁰ The former method is described in EDP consolidated inventory of sources and methods Belgium, September 2007 (http://www.nbb.be/doc/DQ/E_pdf_EDP/BE_2007september_inventory_EN.pdf).

⁷¹ CPAS in French and OCMW in Dutch.

Overview of the administrative supervision of local authorities in Belgium

	WALLONIA	BRUSSELS	FLANDERS
► Provinces	Walloon Region		Flemish Region
► Municipalities	Walloon Region German-speaking Community (for the 9 German-speaking municipalities)	Brussels-Capital Region	Flemish Region
► CPAS/OCMW	Walloon Region German-speaking Community (for the 9 German-speaking municipalities)	Joint Community Commission	Flemish Region
► Local Police zones	FPS Interior		

The NAI receives from the supervising authorities the detailed accounts of the municipalities, CPAS/OCMW, local police zones and provinces. The supervising authorities collect these data in order to make the statutory audits on the accounts of the local entities. The regions and the German speaking community are the supervising authorities for the municipalities; the communities are the supervising authorities for the CPAS/OCMW (in Wallonia this is done by the Region); the regions are the supervising authorities for the provinces; the supervising authority for the local police zones is the Federal Government (FPS Interior).

Legally most local government units have to submit their accounts at the latest six months after the end of the year to the supervising authorities, which have in general around one month to make remarks. These legal deadlines are however often missed. The NAI receives the individual accounts for the year T-1 at T+8 months. Additional accounts are transmitted at the NAI at t+12 months, t+16 months and in rare cases t+24 months. An indication of the rate of coverage in September 2015 can be found in the table below.

Coverage of available data (in proportion of the number of inhabitants) (*)

	2011	2012	2013	2014
Municipalities	98,4%	99,6%	99,4%	77,8%
Walloon Region	96,8%	98,9%	98,1%	88,8%
Flemish Region	99,0%	99,9%	100,0%	69,3%
Brussels Capital Region	100,0%	100,0%	100,0%	90,1%
German Speaking Region	100,0%	100,0%	100,0%	100,0%
Public Welfare Centre (OCMW-CPAS)	84,0%	94,2%	90,1%	72,9%
Walloon Region	87,1%	94,3%	97,4%	87,7%
Flemish Region	81,1%	98,0%	97,9%	69,7%
Brussels Capital Region	89,5%	72,5%	24,3%	44,1%
German Speaking Region	100,0%	100,0%	100,0%	100,0%
Zones de police (in proportion of total wages)	71,7%	53,4%	28%	0,0%

(*) This means e.g. that the accounting information for municipalities available at the end of august 2015 is quasi exhaustive for the year 2012 (it covers 99.6% of the total Belgian population in that year). The corresponding national figure for the Public Welfare Centers in 2012 is 94,2%. This coverage of course is lower for the year T-1 (2014).

The coverage rate for the polices zones is lower for the most recent years because the deadlines for the compilation of the accounts and those for the supervising authority to make its remarks is up to 200 days in both cases. However 80% of the expenditures of the local police zones are wages and this information is available from the social security fund of local government, while their financing comes from higher governments and the municipalities.

Competence for the accounting systems is to a large extent in the hands of each individual community and region and this has caused increasing divergence in bookkeeping systems. The diversity of the bookkeeping systems used in the local administrations makes it more difficult to translate the accounts into ESA concepts and thus compile government statistics because these differences sometimes have an impact on the statistical process.

Most local administrations (municipalities, OCMW/CPAS and local police zones) have a two-pillar accounting system based on budget accounting (annual flows) and general accounting (system of double-entry accounting with a balance sheet and profit-and-loss account). The individual data of the local entities, which give an overview of their budgetary transactions (per economic code and functional code) and their financial statements are codified and via conversion tables translated into concepts that can be used for the ESA2010. The data are also extrapolated in the database in order to compensate for the missing expenditure and revenue figures. After this conversion has been done, a number of structural corrections still need to be made with regard to the time of recording. In principle, these adjustments are made at consolidated level. In addition, punctual corrections concerning the operation itself or the time of recording also have to be taken into consideration.

The budget accounting of the Walloon, Brussels and German speaking local authorities consists of a normal service and an extraordinary service. The normal service contains all expenditure and receipts which normally occur every year, including debt reimbursements, while the extraordinary service contains all expenditure and receipts which have an important influence on the patrimony of the local government (especially investments).

The normal service forms the basis of the government accounts for these local authorities:

Normal service

Economic Grouping	Category
+ 60	Operational receipts
+ 61	Incoming transfers
+ 62	Financial transactions (receipts)
- 70	Wages and salaries
- 71	Operational expenditure
- 71	Outgoing transfers
- 7X	Financial transactions (expenditure)

On the one hand a part of the receipts and expenditure of the extraordinary service has to be taken into account

Extraordinary service

Economic Grouping	Category
+ 80	Incoming capital transfers
+ 81	Sale of capital assets
- 90	Outgoing capital transfers
- 91	Acquisition of capital assets

and on the other hand some debt-related transactions should not be taken into account.

Economic Grouping	Economic Code	Category
+ 62		Financial transactions (receipts)
	-861	Repayment of loans by public units
	-867	Repayment of loans by private units
	-870	Repayment of loans by households and NPISH
	-891	Repayment of loans by higher government levels
	-893	Repayment of loans by other government levels
+ 7X		Financial transactions (expenditure)
	+911	Repayment of debts for account of the municipality
	+912	Repayment of debts for account of higher government levels
	+913	Repayment of debts for account of others
	+918	Repayment of guaranteed debt

The Flemish government started to implement the new accounting system (BBC, Beleids- en Beheerscyclus) from 2011, which is fully implemented from the accounting year 2014 onwards. The new system increases the details in the accounts and makes it possible to do a complete translation into ESA-transactions. Behind this new accounting system there still is a two-pillar accountings system;

the two pillars however being fully integrated as budgetary and general transactions are recorded in one sole registration system using one set of economic codes. The budget accounting, which is the basic information on which the non-financial accounts are compiled, consists of three parts:

- The operating budget: this includes transactions such as wages and salaries, purchases of goods and services, transfers to and from other government levels such as OCMW/CPAS and police zones, subsidies, and receipts from sales and taxes.
- The investment budget: this details the investment both in financial and non-financial assets as well as investment grants.
- The liquidity budget: consists of the expected money flows. It summarizes both expenditure and receipts from operating and investment transactions as well as other financial transaction (debt transactions)

The detail in the budget accounting (individual transactions with separate economic, functional codes as well as information on the counterparty of the transaction) allows to translate these accounts into ESA2010 transactions (using conversion tables). Net lending/borrowing (B.9) can roughly speaking be derived as follows:

The operating result

(receipts – expenditures; excluding exchange rate or holding gains on financial assets)

+ the investment result (excluding transactions in financial participations)

+ donations (only transaction that is withheld from the liquidity budget)

The degree of detail in the economic classification for all local authorities is sufficient to identify the economic nature of the transactions.

The time of recording of the data provided is “netto vastgestelde rechten/droits nets constatés” for the receipts and “aanrekening/imputation” for expenditure, which in principle corresponds closely to a recording of most transactions on an accrual basis. However for the taxes collected by higher governments, it is different from the time of recording in the government accounts; in that case the NAI uses “transactionalised cash basis” recording.

The local government sector also includes a number of consolidated units, like the polders and water boards and the other local public entities not providing market services, for which no data nor accounts are provided by the supervisory authorities. For these entities data can be found in the social security fund of the local government (ONSS-APL), the Central Balance Sheet Office (NBB_CBSO) and the economic grouping or other budgetary information of higher authorities enabling them to be integrated into the government accounts.

Social security administrations

Most of the data used to compile the accounts of social security agencies are from the social security economic accounts (formerly the "General Report on Social Security") published by the Federal Ministry of Social Security. Economic accounts are compiled according to five social security schemes: scheme for employees, scheme for self-employed, health care scheme (since 2008, the health care schemes for employees and self-employed are merged into a new scheme), Public Service for Social Security from provincial and local government (ONSSAPL/DIBISS), and oversea social security scheme.

The social security economic accounts comprise general accounts in the form of a comprehensive presentation of the classes of expenditure and proceeds under the accounting plan of social security agencies (both those which collect contributions and those which pay benefits). Within each social security scheme, expenditure and income are broken down by the various social security "fields"⁷².

This document is useful for compiling the accounts of social security administrations according to the national accounts in not only encompassing all semi-state social security bodies but also recording transactions from an accruals perspective.

Other data sources

The introduction of the ESA2010, in September 2014, enlarged substantially the scope of the government perimeter; around 700 public entities were included in the government sector and this at every level of government. As the direct information for the different entities (Federal Government, Communities and Region, Local governments and Social security sector) provided to the NAI for the reference year 2012 did not include these entities, the NAI has taken the accounts available at the central Balance Sheet Office at the National Bank of Belgium. These accounts follow business accounting rules and only permit the identification of certain economic flows and the calculation of the financing balance of these entities. At the Federal Government level and the level of the Communities and the Regions these entities are more and more integrated in the economic groupings.

3.1.5 NON-PROFIT INSTITUTIONS SERVING HOUSEHOLDS (S15)

3.1.5.1 NPI's in the repertory and company database

Non-profit institutions (NPIs) are defined according to the ESA 2010 as entities "whose status does not permit them to be a source of income, profit or other financial gains for the units that establish, control or finance them" (§3.31 ESA2010). In practice, these entities are identified in the repertory and

⁷² These "fields" correspond to the social risks covered by social security

company database on basis of their legal form, annual accounts model and nature of activity. Units that fulfill at least one of the following criteria are considered as NPIs:

- All units having filed annual accounts in accordance with the model designed for non-profit institutions,
- All units acting as trade unions (NACEBEL 94200) or political parties (NACEBEL 94920)
- All units outside of the household sector with one of the legal form shown in the table below⁷³.

017	Association sans but lucratif
018	Fondation d'utilité publique
020	Union professionnelle
022	Organisation scientifique international de droit belge
023	Association étrangère privée avec un établissement, agence, bureau, succursale en Belgique
026	Fondation privée
028	Institution sans but lucratif
029	Fondation publique
117	Association sans but lucrative de droit privé
125	Association international sans but lucratif
128	Temporel des cultes et établissement culturel public

Moreover, three types of entities are excluded from the scope of NPIs:

- Units classified in the household sector,
- Pension funds (NACEBEL 65300),
- Units whose VAT number is associated with several other entities.

Once their population has been delineated, NPIs are grouped into four different classes (H1 to H4) for the needs of the National Accounts estimation procedures. These classes reflect the level of information available about the entity over a given year. The first group H1 consists of entities which have filed a full presentation of the annual accounts. H2 units are entities that have filed the abbreviated presentation of the annual accounts and answered the optional fields⁷⁴. NPIs classified in the H3 group have filed the abbreviated model of the annual accounts but left empty the optional fields. At last, units in the H4 group are entities for which no annual account is available over the given period.

NPIs classified in the H4 group are by far, the more numerous. Indeed, only large and very large NPIs are required to file annual accounts in Belgium, meaning that 80 % of NPIs are actually exempt from filing annual accounts⁷⁵. The only information available for H4 entities are thus wages declared at the

⁷³ The present list of legal forms associated with NPIs should not be considered as a closed one. Additional forms could be added to this list to reflect the evolution of economy.

⁷⁴ The optional fields in question are both "Ventes et prestations" (heading 70/74) and "Approvisionnement, marchandises, services et biens divers" (heading 60/61).

⁷⁵ Associations or foundations that meet or exceed at least two of the following criteria at the end of the bookkeeping year is deemed as a large NPI and required to file at least an abbreviated presentation of the annual accounts :

- Annual average workforce (in full-time equivalents) : 5,
- Total annual income, other than exceptional income (excluding VAT):€ 312.500,

National Social Security Office (NSSO) and VAT filings (although many NPIs are exempt from paying VAT, as well). As explained below, the scarcity of information available for H4 NPIs has influenced the choice of estimation techniques and sectorisation process.

Number of NPIs in 2012 by category and institutional sector

NPI Categories	Non-financial corporations	Financial corporations	General government	NPISH	TOTAL
H1	901	2	315	166	1.384
H2	1.311	4	146	932	2.393
H3	1.654	12	207	1.070	2.943
H4	16.120	15	1.150	7.528	24.813
TOTAL	19.986	33	1.818	9.696	31.533

Source: *Repertory 2012*

NPIs are furthermore divided into different institutional sectors on basis of two counts. One first has to determine whether the given entity operates freely from the control of the general government. A NPI is considered as a public entity in case the government wields control over its general policy or program (§20.13 ESA 2010). The NPI in question is otherwise said to be a private producer. NPIs are then characterized as market or non-market producers. According to the ESA 2010, non-market producers are units (public or private) which cover at most 50 % of their costs by their sales (§3.19 and §20.29 ESA 2010). In practice however, it is impossible to determine the source of financing of most NPIs due to a lack of information. NPIs are thus divided between market- and non-market producers based on the nature of their activities.

NPIs' institutional sector is derived from the latter two characteristics. NPIs labeled as both public and non-market producers are part of the general government sector (S.13) while market producers (public or private) are sorted in the (non-)financial corporations sector (S.11 or S.12). Finally, the set of private and non-market NPIs make up the Non-Profit Institution Serving Household sector S.15 (§3.27 ESA 2010).

3.1.5.2 Sources of information for S15

The information sources used for compiling the S15 account are:

- NSSO data (wages and salaries) for units in sector S15 (cat H4);
- annual accounts (cat H1, H2, H3);
- the results of the annual structure survey of associations in sector S15, covering all units employing more than 20 persons and a sample of those employing fewer (information necessary to transform 'administrative/accounting aggregates' to ESA2010 aggregates);

- the annual reports of certain large associations (e.g. Belgian Red Cross, Médecins sans Frontières etc.);
- data from the general government account and various administrative sources.

3.1.6 OTHER INFORMATION ON DATA SOURCES USED FOR THE PRODUCTION APPROACH

The business repertory is updated once in a year, in Q1 for Y-2. This ensures that the population for estimation of year Y-2 is exhaustive and of high quality.

The administrative data are obtained as quickly as the law fixes the scheduling for their collection. It means: on monthly basis for VAT, on quarterly basis for Social Security, on yearly basis for the annual accounts (central balance sheet office) or business survey. Monthly VAT and quarterly social security data are used to estimate quarterly national accounts.

There are two surveys less frequent than yearly that are used for annual National Accounts:

- a survey for general building contractors (see 10.1.16)
- the Belspo survey on R&D (see 10.3.1)

There are no ad-hoc large scale surveys, but ad-hoc information can be collected by e-mail or on the internet (number of cross-border workers or information on specific event in one big company, for example).

As regards products bartered, they are immaterial. A study of the VBO (Association of Belgian Companies) suggests that the barter economy is (up to now) of marginal importance. Explicit figures of that (very little) part of the economy are not available anywhere.

3.2 BORDERLINE CASES

In this part we give a brief description of the inclusion/exclusion in production and intermediate consumption of some borderline cases.

- a) Own-account gross fixed capital formation (GFCF) including, in particular:
 - i. Mineral exploration,
Mineral exploration is irrelevant in the Belgian context.
 - ii. Machine tools produced by engineering enterprises,
These items are included in business accounts (account 72: own account construction of assets).
 - iii. Construction or extensions to dwellings by households and communal construction undertaken by groups of households,

Own account work on dwellings is taken into accounts in the estimation of P51 on dwellings and grossing up % for the non-observed economy in construction.

- iv. Entertainment, literary and artistic originals,
Specific estimates are made in accordance with GNI recommendations /ESA2010.
 - v. Software,
Specific estimates are made in accordance with GNI recommendations /ESA2010.
 - vi. Research and development;
Estimation in accordance with manual on R&D and R&D satellite accounts.
- b) Production, storage and processing of agricultural products for own-account by households.
 - c) A specific estimate is made for own account production and consumption of agricultural products by households (vegetable gardens).
 - d) Dwelling services produced by owner-occupiers.
 - e) The estimate of dwelling services is in accordance with GNI-recommendations/ESA2010. The largest part of the total production of dwelling services is imputed rents for owner-occupiers.
 - f) Household services produced by employing paid domestic staff.
 - g) An estimate is made in the context of exhaustiveness adjustments for the NOE (type N1: underground producer).
 - h) Volunteer activities that result in goods.
 - i) No explicit estimate is made for this. We believe these activities/amounts involved are immaterial.
 - j) Products used for payments in kind.
 - k) An explicit adjustment is made for goods and services produced or purchased by employers and put at the disposal of employees as wages in kind.
 - l) Products bartered: no explicit estimate is made for this. We believe amounts are immaterial.
 - m) Products supplied by one local KAU to another within the same institutional unit to be used as intermediate inputs or for final uses.
 - n) The administrative sources used (annual accounts and VAT-declarations) only register transactions between different legal units. This implies that products supplied between establishments of the same legal unit are not registered in the basic sources and, as a consequence, neither in the national accounts. These 'missing' transactions do not influence value added or GDP/GNI.
 - o) Products added to the inventories of finished goods and work-in-progress (including natural growth of animal and vegetable products, standing timber and uncompleted structures for which the buyer is unknown).
 - p) Annual accounts information covers this type of production as well as the economic accounts for agriculture which are used to compile the aggregates for agriculture.
- 1) The following borderline cases are included in intermediate consumption:
 - a) Costs of using rented fixed assets (mainly operational leasing);
The treatment in business accounts/VAT is in accordance to ESA2010.
 - b) Inexpensive tools used for common operations and small devices such as those listed in the ESA2010 §3.89 (f)(1);

We follow the treatment (capitalization/current purchase) of business accounts which, overall, is in accordance to ESA2010.

- c) Subscriptions, contributions or dues paid to non-profit business associations;
These payments are treated as operating revenue/production by the units receiving them and as purchase of service/intermediate consumption by the units paying them.
- d) Goods and services received from another local KAU of the same institutional unit that comply with the definition of intermediate consumption;
The administrative sources used (annual accounts and VAT-declarations) only register transactions between different legal units. This implies that products supplied between establishments of the same legal unit are not registered in the basic sources and, as a consequence, neither in the national accounts. These 'missing' transactions do not influence value added or GDP/GNI.
- e) Non-life insurance service charges (payments for life insurance should be excluded);
An explicit adjustment for this item is made (cf 3.4).
- f) FISIM purchased by resident producers;
An explicit adjustment for this item is made (cf 3.4).
- g) Research and development acquired to be used solely in the creation of further products of research and development (all other research and development should be treated as GFCF);
Treatment in accordance with manual on R&D and R&D satellite accounts.
- h) Goods and services used as inputs into ancillary activities;
All purchases of goods and services (from other legal units) used as inputs whether to main activities or to ancillary activities are treated as intermediate consumption.
- i) Expenditure by employees, reimbursed by the employer, on items necessary for the employers' production.
No explicit estimate/adjustment is made for this. We believe amounts are immaterial and business accounting practice corresponds to ESA2010 approach (reimbursement registered as a purchase of goods and services)

2) The following borderline cases are excluded from intermediate consumption:

- j) Items to be treated as gross capital formation, e.g. valuables, mineral exploration, major repairs and improvements (renovation, reconstruction or enlargement), software, research and development (with the exception of the R&D acquired to be used solely in the creation of further products of R&D), military weapons;
We do not make a separate estimate for valuables. These amounts are treated as stocks or as fixed assets in the annual accounts which implies that the composition of P5 could be somewhat blurred but not the distinction between P5 and P2 (which would have an impact on GDP). Mineral exploration is not relevant for Belgium, major repairs and improvements are treated the same way in the annual accounts and the national accounts (as P51), purchases of software accounted for in the profit and loss account (as intermediate consumption) are reclassified as investment (see 3.4), R&D is treated according to ESA2010 prescriptions and military weapons are also capitalized in ESA2010.

- k) Expenditure to be treated as the purchase of non-produced assets, e.g. long-term contracts, leases and licenses;

These items appear as a separate class of intangible assets in the annual accounts. Expenditure on them (as well as on tangible fixed assets) is accounted for outside the profit and loss account – increase of fixed asset and increase of net financial liability - which is in accordance to ESA2010.

- l) Expenditure by employers to be treated as wages and salaries in kind;

An explicit adjustment is made for goods and services produced or purchased by employers put at the disposal of employees as wages in kind (see 3.4)

- m) Use by market or own-account producer units of collective services provided by government units (to be treated as collective consumption expenditure by government);

The compilation of the S13-accounts reflects this treatment. Only if payments are made for the use of services provided by government – which may occasionally happen – will these payments be accounted for as the purchase of a service (intermediate consumption).

- n) Goods and services produced and consumed within the same accounting period and within the same local KAU (to be also excluded from output);

These flows do not appear in the basic sources

- o) Payments for government licenses and fees that are to be treated as other taxes on production;

All transactions in S13-accounts are ESA2010 compatible

Payments for licences for using natural resources (e.g. land) that are to be treated as rents, i.e. as a payment of property income.

This information is estimated via the SBS

- p) Decommissioning for large capital assets.

No specific treatment is envisaged because nuclear power plants are operated by market producers.

3.3 VALUATION

3.3.1 ACCRUAL ACCOUNTING

A basic principle in national accounts and business accounts is “accrual” accounting (transactions have to be registered when they take place and not when they are paid for). This principle also results in the registration of a number of “internal” transactions which are necessary in order to give an exhaustive and economically relevant description of the economic activity. Production does not only cover the sale of goods and services (turnover and other operating revenue) but also goods (finished goods, work in progress, contracts in progress) that are produced but not yet sold (additions to stocks) as well as assets produced on own account for own final use. Purchases of goods which have not yet been used in the production process (or resold) give rise to changes in stocks which are taken into account to determine intermediate consumption. This implies that, in general, the underlying principles of business accounts correspond to those of national accounts. Specific adjustments, however, are necessary to transform producer prices (annual accounts) into basic prices (national accounts), to include a mark-up in the valuation of production for own final use (for market producers) and to

eliminate stock appreciation/depreciation from the changes in stocks that can be derived from the annual accounts.

3.3.2 VALUATION OF MARKET OUTPUT AT BASIC PRICES AND INTERMEDIATE CONSUMPTION AT PURCHASER PRICES

The valuation of turnover in annual accounts and VAT-declaration does not include VAT charged to costumers which is compatible to a basic price evaluation. Some other taxes on products (excise duties, tax on turnover in the pharmaceutical sector) are however passed through in the producer price and some types of wage subsidies are registered as normal operating revenue (assimilated to production) in the annual accounts and not as other subsidies on production (D39). A transformation from producer to basic prices in these cases is necessary. The amounts involved for 2012 are shown in the next table (in € 1000).

2012-2015-S11 All Branches	Initial	(o1)	(o2)	(o31)	(o32)	(o4)
C_70	940.425.072	-6.624.401	-226.400	-2.681.300	-1.527.720	0
C_71	881.583	0	0	0	0	0
C_72	5.731.996	0	0	0	0	163.917
C_73	5.410.181	0	0	0	0	0
C_74-740	32.608.649	0	0	0	0	0
C_A	985.057.481	-6.624.401	-226.400	-2.681.300	-1.527.720	163.917
C_600/8+61	781.573.063	-3.989.354	-70.412	0	0	0
C_609	-1.045.365	0	0	0	0	0
C_641/8	5.449.810	0	0	0	0	0
C_B	785.977.509	-3.989.354	-70.412	0	0	0
C_62	120.303.741	0	0	0	0	0
2012-2015-S11 All Branches	Initial	(o1)	(o2)	(o31)	(o32)	(o4)
C_640	7.259.962	-2.635.047	-155.988	0	0	0
C_740	2.165.101	0	0	2.681.300	1.527.720	0
C_C	199.079.972	-2.635.047	-155.988	-2.681.300	-1.527.720	163.917
C_D	73.681.370	0	0	0	0	163.917

- (01) excise duties
 (02) tax on turnover in pharmaceutical industry
 (031) rebate on advance tax payment (précompte professionnel)
 for researchers, in the case of shift work, night work and overtime hours
 (032) subsidies "cheques services"
 (04) mark up own account production of tangible assets

The total amount of excise duties (€ 6.624,4 million) is known via the S13-accounts. Part of this amount (€ 2.635 million) is accounted for in "other operating taxes" (640) - this information is available in the SBS - and the remaining part is supposed to be included in the total of purchases of goods and services (600/8+61). After correction (o1), turnover is cleared for excise duties (at basic prices) and operating taxes and purchases of goods and services are cleared for taxes on products

(excise duties). The logic behind the correction (o2) is the same: elimination of a tax on product from turnover and elimination of taxes on products included in taxes on production and purchases of goods and services (intermediate consumption). The rationale for corrections (o31) and (o32) is to reclassify wage subsidies (€ 4.209 million) from normal operating revenue/turnover in the annual accounts (-) to subsidies on production (740/D39) (+).

In a final phase (cor (aa)) the total of operating taxes (640) and subsidies (740) estimated via the annual accounts/SBS are aligned to the totals known from the government accounts. This reconciliation generates additional effects on turnover and purchases (and value added) because the budget identity acts as a constraint (extra imputations on line C_640 and C_740 are counterbalanced on turnover and purchases).

In business accounts purchases of goods and services are evaluated at “acquisition cost” which includes non-deductible VAT. This corresponds to the valuation in national accounts (intermediate consumption at purchaser prices i.e. inclusive of non-deductible VAT).

3.3.3 VALUATION OF OUTPUT FOR OWN FINAL USE AND OF ADDITIONS TO WORK-IN-PROGRESS

The valuation of own account production of fixed assets in the annual accounts is at cost (labour cost, intermediate consumption, depreciation). The valuation of own account production of fixed assets (software, R&D, tangible fixed assets) in ESA2010 includes a mark-up for operating surplus for market producers. For software and R&D, the amounts put on the line C_72 in cor(i1) and cor(g) take this mark up into account.

For tangible fixed assets, the mark-up is added to the amounts of C_72 valued at cost in cor (o4).

Production of R&D for own-account (P.12 R&D) is estimated by applying the ratio between own account production of R&D as reported in the SBS (PRODRND) and the item 8021 in the annual accounts (“R&D acquisition including production fixed assets”) applied on the investments in R&D (P.51 R&D) estimated with the R&D satellite accounts.

Production of software for own account is sum of the costs pertaining to this activity, covering computer staff remuneration, intermediate consumption, and gross operating surplus (by applying a mark-up).

A more detailed description of the estimate of output for own final use and of the mark-up is to be found in the dedicated section for each of the relevant assets:

- For tangible assets see section 5.10.3.1.4, item (e)
- For R&D, see section 5.10.4.1
- For software, see section 5.10.4.2.2
- For entertainment, literary and artistic originals, see section 5.10.4.3

The steps taken ensure that GFCF produced on own-account is valued at the basic prices of similar fixed assets, and if such prices are not available, at the costs of production plus a mark-up (except for non-market producers) for net operating surplus or mixed income.

For (additions to) work in progress we follow the business accounting valuation rules (and the resulting flows): work in progress (account 32) is valued at cost and for contracts in progress (account 37) intermediate profit recognition is a common practice.

3.3.4 HOLDING GAINS/LOSSES ON STOCKS

Changes in stocks as derived in the business accounts depend on the valuation methods allowed in business accounting (FIFO, LIFO, other methods) which do not always correspond to the ESA2010 treatment. In order to clear changes in stocks and value added from holding gains/losses on stocks, a specific adjustment is estimated (see 5.11).

3.4 TRANSITION FROM PRIVATE ACCOUNTING AND ADMINISTRATIVE CONCEPTS TO ESA 2010 AGGREGATES

3.4.1 INTRODUCTION

The calculation is carried out in two phases:

- preparation of a production and primary distribution of income account per industry (NACE 3 or 4) and per institutional (sub)sector according to administrative/business accounting concepts;
- adding up of these amounts to give a higher aggregation level (SUT industries) and conversion to concepts and valuation methods of the national accounts (ESA 2010).

In the next table, the different adjustments made to the data sources are detailed for production (P1), intermediate consumption (P2) and added value (B1g), in accordance with the process table presentation. The different types of conceptual adjustment are described in section 3.4.2.

The corrections having the highest impact on the basis for NA figures are:

1. correction (d) - elimination of goods for resale from total turnover, purchases and changes in inventories
2. correction (z) - production to be calculated as a 'margin' for specific activities
3. correction (v) - elimination of value added produced abroad

The adjustment for exhaustiveness is described in chapters 1.7 and 3.6, as well as in Annex 1, section 3.1.2.

The data validation process is presented in Annex 1, section 3.1.2.

		P1	P2	B1G
Data validation		-32.008	-28.982	-3.026
Allocation of Fisim		625	7.935	-7.310
Other conceptual adjustment				
	(a)	-188	0	-188
	(b)	0	0	0
	(c)	-442	-515	72
	(d)	-350.020	-350.020	0
	(e)	-1.165	-1.259	94
	(f)	-229	-614	385
	(g)	1.688	-777	2.465
	(h1)	0	-181	181
	(h2)	-1.246	0	-1.246
	(i1)	3.051	-1.025	4.076
	(i2)	-353	0	-353
	(i3)	-148	0	-148
	(j)	-611	0	-611
	(k)	0	2.652	-2.652
	(l)	0	-1.167	1.167
	(m)	-784	0	-784
	(n)	-2.136	0	-2.136
	(o1)	-6.624	-3.989	-2.635
	(o2)	-226	-70	-156
	(o31)	-2.701	0	-2.701
	(o32)	-1.585	0	-1.585
	(o4)	164	0	164
	(r)	0	0	0
	(s)	-496	-496	0
	(t)	0	0	0
	(u)	0	-366	366
	(v)	-16.372	-14.226	-2.147
	(w)	0	135	-135
	(x1)	630	70	560
	(x4)	0	63	-63
	(z)	-29.035	-29.035	0
	(aa)	-2.325	749	-3.075
	(ab)	0	0	0
	(ac)	0	0	0
	(af)	0	0	0
	(ae)	3.435	0	3.435
	S12	457	637	-180
	S13	43	43	0
Total other conceptual adjustment		-407.220	-399.392	-7.828
Exhaustiveness		27.964	9.163	18.801
Balancing		-494	150	-644
Total adjustment		-411.134	-411.126	-8

It is important to stress that the output and income approach is estimated *simultaneously and in an integrated way*. In this way the consistency between the value added and its components (D.1, D.29, D.39 and B.2g) is already monitored at the start of the calculations.

3.4.1.1 Calculation of the administrative/private accounting aggregates per industry and sector

The calculation is carried out at NACE 3 or 4 digit level by totalling the results of the underlying subpopulations (categories):

Category	Description
A1	large corporations with annual accounts using 'full accounting schedule'
E1	Large corporations with no (usable) annual accounts but with S.B.S.
A2	large corporations with no (usable) ⁷⁶ annual accounts and without S.B.S.
B1	SMEs with abridged schedule, turnover and purchases indicated and gross margin > 0
B2	SMEs with abridged schedule without turnover and purchases and gross margin > 0
C1	SMEs with abridged schedule, turnover and purchases indicated and gross margin < 0
C2	SMEs with abridged schedule without turnover and purchases and gross margin < 0
E2	SMEs with no (usable) annual accounts but with S.B.S.
B3	SMEs with no (usable) annual accounts and without S.B.S.
BL	Members of a VAT-unit without annual accounts
H1	Very large NPA's with full accounting schedule
H2	Large NPA's with abridged schedule and operating revenue and purchases indicated
H3	Large NPA's with abridged schedule and operating revenue and purchases not indicated
H4	Small NPA's without annual accounts
RF	Fiscal representatives

For **category A1** all the relevant variables are available:

From the profit and loss account:

Operating income

70 turnover

71 change in inventory of produced goods (increase +, decrease -)

72 own account production of fixed assets

74 other operating income

740 operating subsidies (annex)

741/9 other operating income⁷⁷

⁷⁶ Annual accounts are regarded as 'usable' (for further statistical processing) if:

(a) the financial year coincides with the calendar year or

(b) the financial year covers at least 3/4 of the calendar year (and covers a period of 12 months) or

(c) financial year data from successive annual accounts can be determined pro rata to provide calendar year data. In cases (a) and (b) the original bookyear data are used, in case (c) pro rata data (e.g. a company closing its accounts at 30/06: all the flows for financial year N will be derived by adding 50 % of the amounts occurring in the accounts closed at 30/06/N and 50 % of the amounts in the accounts closed at 30/06/N+1). Corporations with 'no usable' annual accounts are dealt with in the same way as corporations with no annual accounts.

Operating costs

- 60 consumed goods for resale, materials and supplies
 - 600/8 acquisitions of goods for resale, materials and supplies
 - 609 changes in inventories of purchased goods (increase -, decrease +)
- 61 services and other goods (not entered in 600/8)
- 62 wages and salaries, social security contributions and pensions
- 64 other business taxes
 - 640 operating taxes (annex)
 - 641/8 other operating costs
 - 649 operating charges capitalized as restructuring costs (-)

Extraordinary charges

- 669 extraordinary charges capitalized as restructuring costs (-)

From the notes/annexes to the accounts and the profit distribution account

- 8002 formation expenses/restructuring costs: new costs of the year (*)
 - 9126 interest subsidies (registered as financial revenue in the annual accounts)
 - 695 distribution of profit to administrators/governors
- (*) costs linked to the constitution of the corporation, issue of new stock, issue of bonds and costs linked to the reorganisation/restructuring of the corporation

Costs linked to the constitution and the reorganisation/restructuring of the company can be capitalized according to Belgian accounting law. These costs however are to be treated as intermediate consumption in the national accounts (purchase of services).

Interest subsidies (9126), accounted for as financial revenue in the annual accounts, are treated the same way as operating subsidies in the national accounts (other subsidies on production: D39) and have to be reclassified.

The fees paid to administrators are considered to be an allowance for the delivery of a service (intermediate consumption by the corporation and production by the administrator who delivers the management service; administrators are unincorporated businesses/self-employed persons sectorised in S14).

The following 'business accounting'⁷⁸ aggregates can be deduced from this:

- A production (70 + 71 + 72 + 74 - 740)
- B intermediate consumption [60 + 61 + (64 - 640) + (8002 - 649 - 669) + 695]⁷⁹
- C gross value added (A - B)
- compensation of employees (62)

⁷⁷ 741/9 means the sum of accounts 741 to 749.

⁷⁸ 741/9 means the sum of accounts 741 to 749.

⁷⁹ Treatment of small tools is addressed in section 2.2.1, item (7).

operating taxes (640)

operating subsidies (740 + 9126)

D gross operating surplus [C – 62 - 640 + (740 + 9126)].

In order to illustrate the importance of the different variables we give the amounts for the financial year 2012 (full schemes and abbreviated schemes - all industries and sectors) as published by the CBSO.

Full scheme- financial year 2012 - all industries and sectors (PU450)		
(mIn €)		
turnover	70	714.679
changes in stocks (produced goods)	71	1.229
own account production of assets	72	5.586
other operating revenue	74-740	29.830
Production	A	751.324
purchases of goods and services	600/8	490.534
changes in stocks of purchased goods	609	-1.634
consumption of goods	60	488.900
purchases of services (and other goods)	61	122.016
other operating costs	64 -640	4.792
formation/reorganisation costs	8002	140
capitalised current reorganisation cost	649	-13
capitalized extraordinary reorganisation costs	669	-1
administrators' fees	695	311
Intermediate consumption	B	616.145
Gross value added	C = A-B	135.179
compensation of employees	62	84.078
operating taxes	640	5.062
operating subsidies	740	1.964
interest subsidies	9126	80
Gross operating surplus	D	48.083
Gross margin (70/74-60/61)	9900	142.372
Gross value added		135.179
Difference		7.193
conceptual differences concerning charges		5.229
conceptual differences concerning income		1.964
Number of accounts/corporations		23.628

Abbreviated scheme - financial year 2012 - all industries and sectors (PU450)		
(mIn €)		
Gross margin (70/74 - 60/61)	9900	49.962
compensation of employees (-)	62	24.361
other operating costs (-)	640/8	2.068
interest subsidies (+)	9126	17
Gross operating surplus		23.550
operating taxes (n.a. but estimated)	640	1.062
other operating costs (excl. taxes)	641/8	1.006
operating subsidies (not estimated)	740	n.a.
formation/reorganisation costs	8002	n.a.
administrators' fees	695	785
Gross value added (*)		48.171
Gross margin minus gross value added		1.791
conceptual differences concerning charges		1.791
conceptual differences concerning income		0
Number of accounts/corporations		357.269
(*) 9900 - 641/8 - 695		

An aggregate that is commonly used in financial statements analysis (and which is also compulsory in the abbreviated schemes) is the "gross margin" or the difference between total operating revenue and the consumption of goods and services (70/74 - 60/61). This is a proxy measure for value added.

Value added estimated in the context of national accounts, however, is lower than the gross margin because some transactions are reclassified: other operating revenue (74) is corrected for operating subsidies (740) and other operating costs (64 - 640) as well as capitalized formation/restructuring costs and administrators' fees are treated as intermediate consumption. This explains why gross value added is lower than the gross margin.

The vast majority (93 %) of corporations depositing annual accounts are considered as small or medium sized and deposit an abridged format. These SMS corporations however account for only 26 % (€ 50 billion) of total value added (€ 192.3 billion) in business accounts (gross margin). As in other countries large companies are still predominant in the Belgian economy (7 % of corporations account for 74 % of total value added).

For *large corporations with no (usable) annual accounts* sometimes a structural business survey⁸⁰ is available (**cat E1**). In this case the information from the survey is used. This is direct information covering the same contents as in the annual accounts (reference is made in the survey to the accounting scheme).

⁸⁰ All large corporations were surveyed via the structural business survey. This is for example also the case for the Belgian branch offices of foreign corporations that are not obliged to file annual accounts with the Central Balance Sheets Office. For those units we therefore have a structure survey but no annual accounts. Corporations that do have to file annual accounts but do not in fact do this in most cases also do not fill in a structural business survey.

For large corporations for which no annual accounts or SBS are available (category **A2**) we have the turnover (and current purchases) according to the VAT returns and the wages and salaries calculated from the NSSO file⁸¹. The wage and salary data are included as such. The other headings are computed either via VAT- turnover (this is the case in the majority of industries) or via ONSS -wages and salaries (this is the case in a number of service industries)⁸² using the structural information – turnover/purchases, turnover/wages, purchases/wages, value added/wages - of the units for which direct information is available (cat A1 and E1) in the nace 3 or 4 digit industry that is estimated.

For *SMS corporations* the accounting information in the ‘abridged scheme’ is no longer exhaustive: the detail of operating revenue (70, 71, 72, 74) is missing, turnover (70) and consumption of goods and services (60/61) are optional (and de facto in a majority of cases also missing), and operating subsidies (740) and operating taxes (640) are no longer available via the notes/annexes to the accounts. Gross margin (operational revenue minus consumption of goods and services) (9900), wages and salaries (62) and total other operating costs (640/8) are however compulsory.

annual account code	description
70	turnover (<i>optional information</i>)
60/61	600/8 + 609 + 61 = consumption of goods and services (<i>optional information</i>)
62	wages and salaries, social security contributions and pensions
640/8	640 + 641/8 (other operating costs incl. business taxes)
9900	gross margin = 70 + 71 + 72 + 74 - 60 - 61 > 0
9900	gross margin = 70 + 71 + 72 + 74 - 60 - 61 < 0

For SMEs with abridged accounts in which turnover and purchases are indicated (cat **B1** and **C1** respectively with a positive and negative gross margin) we know the main headings (in particular the turnover and consumption of goods and services). The missing headings are deduced from the known headings (71, 72, 74) or estimated on the basis of coefficients known for large corporations from the same industry (640 and 740).

For SMEs with abridged accounts in which turnover and purchases are missing (cat **B2** and **C2** respectively with a positive and negative gross margin) turnover is calculated from the VAT-declarations and purchases are derived as a residual (given the gross margin). In a limited number of industries turnover is estimated via the wages and purchases are derived as a residual.

The data for *SMEs with no (usable) annual accounts* is taken from the SBS (if available: cat **E2**) or is estimated via other sources (cat **B3**). In most industries the VAT-turnover is available and purchases

⁸¹ Including the NSSOPLA wages and salaries in a limited number of industries.

⁸² The cost structure of A1+E1 is transferred to A2 using the ratio VAT turnover A2/annual accounts turnover A1+E1, or the ratio NSSO wages and salaries A2/annual accounts wages and salaries A1+E1.

are estimated using the ratio purchases/turnover known for B1 + B2 + C1 + C2 + E2. In a limited number of industries turnover and purchases are estimated via the wage bill (using the ratio wages/turnover and wages/purchases known for B1+B2+C1+C2+E2). The NSSO wages and salaries for cat B3 are known from NSSO.

*Enterprises not depositing annual accounts and belonging to VAT-units (cat **BL**)* demand a specific treatment because the only information available for this population is the wage bill. Turnover, purchases and value added for these units is estimated via wages.

NPA's with annual accounts sectorised in S11 (market units) are categorized as **H1, H2 or H3** depending on the type of accounting scheme (resp. full scheme, abridged scheme with operational revenue and purchases mentioned and abridged scheme with the revenue and purchases missing). These accounts are very similar to the accounts of corporations and are used in the same way. Contrary to the accounts for corporations, the accounts for NPI's include a specific income item 73 (contributions, gifts, legacies and grants). Revenue, purchases and value added of small NPA's for which annual accounts are missing (cat **H4**) are estimated via NSSO-wages (using ratios available for NPA's with annual accounts).

Annual accounts data available by category of NPI

Headings	Description	H1	H2	H3	H4
<i>Production</i>					
70/74	Operating income (70+71+72+73+74)	x	x		
70	Turnover	x			
71	Changes in stocks of produced goods	x			
72	Capitalized own account production of assets	x			
73	Contributions, gifts, legacies, grants	x			
730/1	Contributions	x			
732/3	Gifts	x			
734/5	Legacies	x			
736	Investment and interest grants	x			
74	Other operating income	x			
<i>Intermediate consumption and taxes on production</i>					
60/61	Consumption of goods and services (60 + 600/8 + 609 + 61)	x	x		
60	Consumption of raw materials, consumables etc.	x			
600/8	Purchases of goods	x			
609	Changes in stocks of purchased goods	x			
61	Services and other goods	x			
640/8	Other operating costs	x	x	x	
640	Operating taxes	x			
641/8	Other operating costs (excl. taxes)	x			
<i>Compensation of employees</i>					
62	Compensation, social contributions and pensions	x	x	x	
<i>Gross margin</i>					
9900	Difference of the headings 70/74 and 60/61		x	x	

Estimation of the administrative aggregates of the NPISH

For **category H1** units, administrative aggregates are calculated on basis of the following headings of their annual accounts:

- Output: 70 + 71 + 72 + 73 + 74
- Intermediate consumption: 600/8 + 61 + 609 + 641/8
- Compensation of employees: 62
- Other taxes on production: 640
- Other subsidies on production: 0.

The NPI's operating income (70/74) breakdown is not available for units of the **category H2** that file a short version of the annual accounts. One needs to extrapolate these data from the information provided by H1 units, in order to estimate the different components of the output. Likewise, the sole information available to estimate the intermediate consumption of H2 units is the heading 60/61 of the annual accounts (supplies, merchandises, services miscellaneous goods). It is therefore necessary to identify the part of taxes on production (heading 640) relative to the other operating costs recorded in (640/8). These are derived from the data provided by H1 units.

Output and intermediate consumption of NPIs of the **category H3** are extrapolated from the annual accounts of units of the categories H1 and H2 based on the gross operating margin (9900 = 70/74 –

60/61). Similarly the category H2, other operational expenses recorded in the annual accounts of NPIs of the category H3 are divided between intermediate consumption and other taxes on production using the breakdown provided by units of the categories H1 and H2.

Finally, all administrative aggregates for units of the **category H4** are extrapolated on basis of wages declared to the National Social Security Office and structural information of NPI's with annual accounts (H2+H3).

The amounts of the relevant variables from the profit and loss account of NPI's consolidated in the statistics of the C.B.S.O. of the NBB are shown in the next table.

NPI's - financial year 2012- full and abbreviated schemes- all industries and all sectors

Source CBSO/NBB (€ million)	account	full scheme	abbrev scheme
turnover	70	13.087	
changes in stocks (produced goods)	71	5	
own account production of assets	72	34	
contributions, gifts, legacies and grants	73	6.699	
other operating revenue	74	1.695	
operating income/production	70/74 (A)	21.520	
purchases of goods and services	600/8	2.263	
changes in stocks of purchased goods	609	-2	
consumption of goods	60	2.261	
Purchases of services (and other goods)	61	5.161	
other operating costs	64-640	481	294
formation/reorganisation costs	8002	21	
capitalised current reorganisation cost	649	-2	
capitalized extraordinary reorganisation costs	669	-1	
Intermediate consumption	B	7.921	
Gross value added	C = A-B	13.599	
compensation of employees	62	12.279	3.812
operating taxes	640	105	n.a.
operating subsidies	740+9126	0	0
Gross operating surplus	D	1.215	343
Gross margin (70/74-60/61)	9900	14.098	4.449
Gross value added		13.599	4.155
Difference		499	294

The value added of fiscal representatives is conventionally obtained via the wages (overall these are very limited amounts because the majority of the fiscal representatives are purely administrative units without personnel).

Category **RF** consists of units that act as fiscal representatives (for VAT purposes) for non-resident units. The value added for these units equals wages.

The total amounts of the administrative/private accounting aggregates by sector for the year 2012 are shown in the next table (in € million)

2012.2015.S11.Agg1.D.*																	
mIn €	A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	RF	total	
C_70	695.552	7.105	10.547	27.655	148.961	811	3.200	2.744	30.003	2.331	7.326	999	1.405	1.759	26	940.425	
C_71	1.097	-5	162	-240	-143	-10	0	8	7	6	-1	0	0	0	0	882	
C_72	5.687	1	16	0	0	0	0	1	1	3	16	1	2	3	0	5.732	
C_73	0	0	0	0	0	0	0	0	0	0	2.786	800	802	1.022	0	5.410	
C_74-740	28.192	190	443	876	1.356	61	0	54	51	91	674	165	242	214	0	32.609	
C_A	730.528	7.292	11.168	28.292	150.174	862	3.200	2.807	30.062	2.430	10.801	1.965	2.451	2.998	26	985.057	
C_600/8+61	597.645	6.151	9.036	20.975	109.053	953	3.886	2.387	23.373	1.743	3.246	658	992	1.474	0	781.573	
C_609	-620	-125	-38	-60	-205	-4	0	8	1	-4	0	0	0	0	0	-1.045	
C_641/8 (*)	3.572	5	28	212	1.214	7	76	18	95	11	106	30	31	46	0	5.450	
C_B	600.597	6.031	9.027	21.126	110.062	957	3.962	2.413	23.469	1.750	3.352	688	1.022	1.520	0	785.978	
C_62	79.588	860	1.348	3.823	19.675	39	156	184	3.058	469	7.387	1.150	1.261	1.280	26	120.304	
C_640	5.720	19	49	179	853	10	83	32	150	31	42	20	20	53	0	7.260	
C_740	1.099	13	13	58	272	1	4	1	47	4	653	0	0	0	0	2.165	
C_C	129.931	1.261	2.141	7.165	40.112	-95	-762	394	6.593	680	7.449	1.277	1.429	1.478	26	199.080	
C_D	45.722	395	758	3.221	19.855	-142	-996	179	3.432	184	672	107	148	146	0	73.681	

(*) including other elements of intermediate consumption

S11	category	C_C (B1g)	%
Direct information		188.161	94,5 %
Annual accounts		186.507	93,7 %
corporations	A1+B1+B2+C1+C2	176.352	88,6 %
NPI's	H1+H2+H3	10.155	5,1 %
SBS	E1+E2	1.654	0,8 %
Indirect information	A2+B3+BL+H4+RF	10.919	5,5 %
Total		199.080	100,0 %

Almost 95 % of total value added in S11 is estimated using direct information (annual accounts or occasionally SBS). Only 5 % (€ 10.9 billion) of value added is estimated in an indirect way (using VAT or ONSS-information).

The estimation methods for populations A2 and B3 can be summarized as follows:

- VAT1: turnover and purchases are taken over from the VAT returns
- VAT2: turnover is taken over from the VAT returns, purchases are extrapolated
- NSSO1: turnover and purchases are extrapolated via NSSO wages and salaries.

The extrapolation base (for VAT2 and ONSS1) is the population of comparable enterprises for which direct information exists. In the case of A2 it is A1+ E1, in the case of B3: B1+B2+C1+C2+E2.

If the extrapolation base for industries in which VAT-declarations are representative is too small, the VAT1 method is used (a minority of industries).

In most industries whose activity is not exempt from VAT (and for which relevant VAT information is therefore available) method VAT2 is used. After comparing the turnover and purchases from the annual accounts and the VAT- declarations it was found that the amounts for purchases (of current goods and services) in the VAT file were not always reliable. It therefore was appropriate to extrapolate purchases (via the ratio purchases/turnover of comparable enterprises).

For a large number of service industries NSSO1 is used instead of VAT1 or VAT2.

The *estimation method for BL and H4* is NSSO1 (because VAT-information is missing in the case of BL and is mostly missing in the case of H4). The extrapolation base used to estimate BL is A1+E1+B1+B2+C1+C2+E2 (because enterprises belonging to VAT-units can be large as well as small) and the extrapolation base for H4 is H1+H2+H3. Limiting the extrapolation base for H4 to H2+H3 would induce too much extrapolation problems/ad hoc corrections because the estimates in S15 are made on a detailed nace level (mostly nace 4/5).

The estimation methods only give usable results for the total operating income and the total consumption of goods and services but not for the underlying headings (including the changes in inventories). Changes in stocks (C_71 and C_609) are only available in the profit and loss accounts for large companies (full schemes: cat A1). Therefore, the amounts derived/extrapolated in other categories are not used in the estimate of changes in stocks (P52) as will be explained in chapter 5.

For the subsectors in S12 for which the same approach is used we have the following amounts.

The relative importance of indirect estimation methods is higher here but the absolute amounts involved are low (€ 1.1 billion)

2012.2015.S125_S127	A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	RF	TO
C_70	7.802	111	528	384	2.532	14	19	88	1.040	665	14	1	5	1	0	13.203
C_71	8	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	7
C_72	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
C_73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
C_74-740	827	4	110	19	120	0	0	1	10	20	4	0	0	1	0	1.116
C_A	8.655	115	638	403	2.651	14	19	89	1.050	685	18	2	5	2	0	14.346
C_600/8+61	5.324	74	354	208	1.344	20	49	21	487	459	7	1	2	2	0	8.352
C_609	6	0	0	-1	-4	0	0	0	0	0	0	0	0	0	0	2
C_641/8 (*)	204	1	14	7	61	0	3	0	4	1	0	0	2	0	0	296
C_B	5.534	75	368	215	1.401	20	52	21	491	460	7	1	4	2	0	8.650
C_62	1.469	39	124	79	603	1	4	10	146	97	0	0	2	0	0	2.574
C_640	79	0	2	3	21	0	2	1	7	0	1	0	1	0	0	118
C_740	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
C_C	3.121	40	269	188	1.251	-6	-34	68	559	225	11	1	1	0	0	5.696
C_D	1.578	1	144	106	629	-7	-40	57	406	128	10	1	-1	0	0	3.011
(*) including other elements of intermediate consumption																

S125_S127	category	C_C (B1g)	%
Direct information		4.642	81,5 %
Annual accounts		4.533	79,6 %
corporations	A1+B1+B2+C1+C2	4.521	79,4 %
NPI's	H1+H2+H3	12	0,2 %
SBS	E1+E2	109	1,9 %
Indirect information	A2+B3+BL+H4+RF	1.054	18,5 %
Total		5.696	100,0 %

For S15 we have the following amounts

2012.2015.S15.	A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	RF	TO
C_70	0	0	0	0	0	0	0	0	0	0	189	184	197	668	0	1.238
C_71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C_72	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
C_73	0	0	0	0	0	0	0	0	0	0	990	741	788	1.944	0	4.463
C_74-740	0	0	0	0	0	0	0	0	0	0	134	100	107	281	0	622
C_A	0	0	0	0	0	0	0	0	0	0	1.315	1.025	1.092	2.893	0	6.324
C_600/8+61	0	0	0	0	0	0	0	0	0	0	566	339	401	1.249	0	2.555
C_609	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	-2
C_641/8	0	0	0	0	0	0	0	0	0	0	162	72	94	366	0	693
C_B	0	0	0	0	0	0	0	0	0	0	727	411	494	1.614	0	3.247
C_62	0	0	0	0	0	0	0	0	0	0	506	578	558	1.274	0	2.916
C_640	0	0	0	0	0	0	0	0	0	0	12	6	7	22	0	48
C_740	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C_C	0	0	0	0	0	0	0	0	0	0	588	614	597	1.278	0	3.078
C_D	0	0	0	0	0	0	0	0	0	0	70	30	32	-18	0	114

By construction we only have amounts in cat H1, H2, H3 and H4. Because only very large (H1) and large NPI's (H2 and H3) deposit annual accounts a relatively large amount of value added has to be estimated in an indirect way (using ONSS-wages and salaries) (H4).

Sources and methods used in the compilation of value added (in private accounting concepts)

S15	category	€ million	%
Direct information		1.799	58,5 %
Annual accounts NPI's	H1+H2+H3	1.799	
Indirect information (*)	H4	1.278	41,5 %
Total		3.078	100,0 %

(*) In terms of value added the estimate for S15 is very reliable because compensation of employees is always available.

Depending on the activity, different sources are used to estimate the value added (and mixed income) of **self-employed persons (S14)**

The calculations for *agriculture* are based on the economic accounts for agriculture.

For *VAT-registered self-employed persons* value added is estimated via the VAT returns.

For *non VAT-registered self-employed persons*, business managers (administrators) and unincorporated businesses in the financial sector (activities auxiliary to financial and insurance services: nace 66) the personal income tax returns are used. The disadvantage of these source is that the final data only become available late (the final data for income year t become available at the end of t+2). These calculations are at present still carried out outside the directory. Apart from administrators (put in S14_nace 702) following activities are estimated using the personal income tax file:

The split-up of the total (*) by sources is given in the next table

2012.2015 S14	agriculture	income tax	VAT	total
C_70	4.982	17.082	20.835	42.899
C_71	0	0	0	0
C_72	176	0	0	176
C_73	0	0	0	0
C_74-740	0	0	1	1
C_A	5.159	17.082	20.835	43.076
C_600/8+61	3.084	1.969	15.213	20.266
C_609	0	0	0	0
C_641/8	0	0	0	0
C_B	3.084	1.969	15.213	20.266
C_62	68	82	1.478	1.628
C_640	25	1	143	169
C_740	273	0	26	299
C_C	2.075	15.113	5.622	22.810
C_D	2.255	15.030	4.026	21.312

(*) Excluding dwelling services and households with domestic personnel.

The amount of € 176 million on line C_72 for agriculture corresponds to the production for own final consumption of vegetables by households in their own gardens.

3.4.2 NON-FINANCIAL CORPORATIONS (S.11)

In a previous phase the administrative aggregates were calculated per industry (NACE 3/4) and per sector. These intermediate results are then totalled to give a higher aggregation level (140 SUT industries; cf. 10.1).

Per SUT industry the administrative/business accounting variables (operating revenue, consumption of goods and services, wages and salaries, operating taxes and operating subsidies) are converted into ESA 2010 aggregates (production, intermediate consumption, compensation of employees, other taxes on production, other subsidies on production). The balancing items gross value added (B.1g = P1-P2) gross operating surplus (B.2 g = B1g - D1 - D29 + D39) can of course also be derived.

Business accounting aggregates	=>	Aggregates ESA 2010
70+71+72+73+ 74-740	=>	P.1
600/8+ 609 + 61 + 641/8 + 8002 + 649 + 669 + 695=>		P.2
62	=>	D.1
640	=>	D.29
740 + 9126	=>	D.39

All adjustments and reclassifications have a counterpart that can fall within or outside the primary distribution of income account. The budget identity on the global level of the sector account is therefore always respected.

To obtain exhaustive accounts the administrative figures can be completed with exogenously estimated amounts (e.g. in the case of hospitals depositing a specific type of accounts).

The information needed to calculate these adjustments is available either in the annual accounts, in the SBS, or as exogenous data in accounts S.13 (taxes and subsidies on products and other taxes and subsidies on production) and S.12 (nonlife insurance premiums received and damages payments made)

In the following we shall explain each type of adjustment (indicated with a letter). The amounts refer to 2012 (total for all industries within S.11). The amounts are in € million.

Transition from business accounting/administrative aggregates to ESA 2010 transactions (S11, 2012, € millions) (All industries)

2012-2015- 11.All Branches	C_70	C_71	C_72	C_73	C_74- 740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
Initial (I)	940.425	882	5.732	5.410	32.609	985.057	781.573	-1.045	5.450	785.978	120.304	7.260	2.165	199.080	73.681
(a)	0	0	0	-22	0	-22	0	0	0	0	0	0	0	-22	-22
(b)	0	0	0	0	0	0	0	0	0	0	352	0	0	0	-352
(c)	-442	0	0	0	0	-442	-515	0	0	-515	0	0	0	72	72
(d)	-341.180	0	0	0	0	341.180	-341.455	276	0	-341.180	0	0	0	0	0
(e)	0	0	0	0	-1.131	-1.131	0	0	-1.149	-1.149	0	0	0	18	18
(f)	0	0	0	0	-228	-228	-611	0	0	-611	0	0	0	383	383
(g)	0	0	1.668	0	0	1.668	-741	0	0	-741	0	0	0	2.409	2.409
(h1)	0	0	0	0	0	0	-158	0	-10	-168	0	0	0	168	168
(h2)	0	0	0	-109	0	-109	0	0	0	0	0	0	0	-109	-109
(i1)	0	0	2.875	0	0	2.875	-1.002	0	0	-1.002	0	0	0	3.877	3.877
(i2)	0	0	-353	0	0	-353	0	0	0	0	0	0	0	-353	-353
(i3)	0	0	-148	0	0	-148	0	0	0	0	0	0	0	-148	-148
(j)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	2.339	0	0	2.339	0	0	0	-2.339	-2.339
(l)	0	0	0	0	0	0	-962	0	0	-962	0	0	0	962	962
(m)	0	0	0	0	-781	-781	0	0	0	0	0	0	0	-781	-781
(n)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o1)	-6.624	0	0	0	0	-6.624	-3.989	0	0	-3.989	0	-2.635	0	-2.635	0
(o2)	-226	0	0	0	0	-226	-70	0	0	-70	0	-156	0	-156	0
(o31)	-2.681	0	0	0	0	-2.681	0	0	0	0	0	0	2.681	-2.681	0
(o32)	-1.528	0	0	0	0	-1.528	0	0	0	0	0	0	1.528	-1.528	0
(o4)	0	0	164	0	0	164	0	0	0	0	0	0	0	164	164
(p1)	57	0	0	0	0	57	0	0	0	0	57	0	0	57	0
(p2)	0	0	0	0	0	0	-1.966	0	0	-1.966	1.966	0	0	1.966	0
(q)	422	0	0	0	0	422	0	0	0	0	422	0	0	422	0
(r)	0	0	0	0	0	0	0	0	0	0	113	0	0	0	-113
(s)	-496	0	0	0	0	-496	-485	-12	0	-496	0	0	0	0	0

2012-2015- 11.All Branches	C_70	C_71	C_72	C_73	C_74- 740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
Initial (I)	940.425	882	5.732	5.410	32.609	985.057	781.573	-1.045	5.450	785.978	120.304	7.260	2.165	199.080	73.681
(t)	272	-247	-24	0	0	0	0	0	0	0	0	0	0	0	0
(u)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-14.856	10	-44	-2	-452	-15.345	-13.535	36	-46	-13.544	-1.249	0	0	-1.801	-552
(w)	0	0	0	0	0	0	0	135	0	135	0	0	0	-135	-135
(x1)	19.235	0	473	0	664	20.373	9.008	0	160	9.168	9.786	16	742	11.205	2.145
(x2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x3)	678	0	0	0	0	678	50	0	0	50	8	0	0	628	620
(x4)	0	0	0	0	0	0	49	0	0	49	0	0	0	-49	-49
(y)	17.987	0	0	0	0	17.987	8.048	0	0	8.048	1.328	0	0	9.938	8.610
(z)	-29.035	0	0	0	0	-29.035	-29.035	0	0	-29.035	0	0	0	0	0
(aa)	-2.325	0	0	0	0	-2.325	768	0	0	768	0	-935	2.325	-3.094	166
(ab)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ac)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(af)	0	0	0	0	0	0	0	0	0	0	1.020	0	1.020	0	0
(ad)	-42	0	0	0	0	-42	0	0	0	0	0	0	0	-42	-42
(fisim)	0	0	0	0	0	0	3.022	0	0	3.022	0	0	0	-3.022	-3.022
(ae)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
total adjustm. (II)	-360.787	-238	4.610	-134	-1.927	358.476	-371.238	436	-1.044	-371.847	13.803	-3.710	8.297	13.371	11.574
Final (I)+(II)	579.638	644	10.342	5.277	30.682	626.582	410.335	-609	4.405	414.131	134.107	3.550	10.462	212.451	85.256
ESA2010	P11	P11	P12	P11	P1	P1	P2	P2	P2	P2	D1	D29	D39	B1g	B2g

Adjustment (a): Legacies received to be reclassified as current transfers (D75)

NPI's which are classified as market are sectorised in S11. Very large NPI's (cat H1) have to deposit a full accounting scheme with account 73 broken down (in the annex). One of the items in account 73 are legacies received (734/5). The part of legacies in the total of 73 is calculated (by SUT-branch) and then applied to the total of account 73 (ΣH_i). The total amount of legacies received is € 22 million in 2012.

heading annual accounts	amounts before adjustment	adjustment (a)
C_73	4.552	-22
counterpart D75		+22

The amounts in the headings before adjustment refer to the total for all industries within S.11.

Adjustment (b): alignment of wages and salaries from administrative sources with
ESA 2010 wages and salaries

The calculation method and sources used for the compensation of employees according to administrative aggregates (annual accounts and NSSO) and according to ESA 2010 (largely social balance sheet) differ from one another⁸³. In adjustment (b) the opening amounts and the closing amounts are aligned with one another. The amount of this adjustment in (b) also takes into account corrections on account C_62 in other corrections (p1, p2, q, r, v, x1, x3, y, af: cf infra).

heading annual accounts	amounts before adjustment	adjustment (b)
62	120.673	+352

⁸³ In the administrative aggregates heading 62 is determined pro rata where needed (the same approach as for turnover, purchases, value added etc.). In the compilation of D1 (ESA2010) the annual accounts (social balance sheet) are only used for corporations whose financial year and calendar year coincide. If this is not the case, then an estimate is made via the NSSO. The notion 'usable' annual accounts (social balance sheet) is therefore stricter in the wages and salaries file than in the value added file. As a result the consistency between the number of employees (averaged over 4 quarters) and the total wage and salary bill (originally calendar year data) is always guaranteed

Adjustment (c): discounts for cash payment recorded in the financial results

In corporate accounting discounts given to customers for cash payment are recorded as financial costs, discounts received from suppliers for cash payment as financial income. In the national accounts these amounts are deducted respectively from turnover and purchases. The percentages by which turnover and purchases are corrected are deducted from the SBS.

70	940.425	-442
600/8 +61	781.573	-515
<hr/>		
75 (financial income)		-515
65 (financial expenditure)		-442

Adjustment (d): elimination of goods for resale from total turnover, purchases and changes in inventories

The goods for resale are eliminated from the total purchases, changes in inventories and turnover. This converts purchases of goods and services into purchases intended for intermediate consumption (excluding goods for resale) and turnover of goods for resale into a trade margin (turnover of goods for resale – purchases of goods for resale).

The relevant amounts are estimated by combining information from the annual accounts, SBS and Prodcom with one another. This adjustment is calculated for all industries and not only for wholesale and retail trade (SUT 45A, 46A, 46B, 47A, 47B). The amounts are very large (around 36 % of total turnover and 44 % of total purchases) but there is no impact on value added.

headings annual accounts	amounts before adjustment	adjustment (d)
70	940.425	-341.180
600/8 +61	781.573	-341.455
609	-1.045	276

The cost of sold goods for resale is equal to purchases of goods for resale (604) adjusted for changes in inventories of goods for resale (6094).

604	purchases goods for resale	341.455
6094	changes in inventories goods for resale (increase)	-276
604 + 6094	cost of sold goods for resale	341.180

By deducting the cost of sold goods for resale from total turnover you get the turnover for services, self-produced goods and the trade margin on the resale of commercial goods i.e. the output of the trade activity according to the national accounts:

turnover = turnover of services + turnover of goods for resale + turnover of self-produced goods
 turnover – cost of sold goods for resale = turnover of services + (turnover of goods for resale – cost of sold goods for resale) + turnover of self-produced goods

(sold) output = turnover of services + **trade margin** + turnover of self-produced goods

Adjustment (e): elimination of holding gains and losses from operating income and expenditure

Holding gains and losses are not transactions and must therefore be eliminated from output and intermediate consumption. This concerns the following items for which information is available via the SBS:

- 741: gains on current disposal of tangible fixed assets
- 742: gains on realisation of (written of) trade debts
- 641: losses on current disposal of tangible fixed assets
- 642: losses on realisation of (written of) trade debts

headings annual accounts	amounts before adjustment	adjustment (e)
74-740	32.609	-1.131
641/8	5.450	-1.149
net gains		-18

Adjustment (f): elimination of rent received and paid for land from operating income and operating costs

Land is a non-produced asset. Rental income and payments are therefore not regarded as output and intermediate consumption but as property income (D.45). The rent received and paid on land is known via the SBS.

headings annual accounts	amounts before adjustment	adjustment (f)
74-740	32.609	-228
600/8 + 61	781.573	-611
D45_R		228
D45_U		611

Adjustment (g): capitalisation of expenditure on R&D

Belgian accounting law allows companies to capitalise their R&D costs. Activation, however, is not obliged. This implies that production on own account of R&D (included in account 72) and GFCF in R&D appear in the annual accounts but that these amounts underestimate the total R&D-activity and cannot be used as such.

For large companies (full scheme) the acquisition of R&D is known separately and for SMS companies (abbreviated scheme) the acquisition of R&D is included in the total acquisitions of intangible fixed assets (R&D, concessions, patents, licences, know-how, trade-marks and other similar rights).

Starting point is the estimate of acquisitions of R&D according to the annual accounts: the amounts are known as such for large companies and are estimated for SMS companies (using the hypothesis that the part of the acquisitions of R&D in the total acquisitions of intangible assets is the same for large companies as for SMS companies in every industry (SUT-branch)).

This amount is then compared to the total investments in R&D according to ESA2010 compiled according to the manual on R&D/satellite accounts of R&D. The basic source used in this respect is the specific survey on R&D conducted by the Belgian Science Policy Office (Belspo-survey) which allows to estimate the total production of R&D. Following a supply and use approach and after integrating the amounts of imports and exports of R&D from the balance of payments, investment in R&D according to the national accounts (ESA2010) can be derived.

This amount is higher than the acquisitions of R&D in the business accounts because not all companies activate their R&D costs. For companies activating their R&D costs, the annual accounts are ESA2010 compliant (there is production for own final use of R&D and/or purchases

of R&D that were activated). For companies which did not activate their R&D but have R&D investments according to the satellite account/national accounts, the annual accounts have to be adjusted: value added must increase in line with their investment (increase in production and/or decrease in intermediate consumption). So cor (g) corresponds to the difference between the investment in R&D according to the national accounts and the investment in R&D according to the annual accounts⁸⁴. This difference covers companies not activating their R&D costs as well as conceptual and valuation differences between annual accounts (e.g. production for own final use is valued at cost) and national accounts/satellite accounts (e.g. production for own final use includes a mark-up for operating surplus).

This adjustment has a considerable positive impact on value added.

headings	amounts before	adjustment
annual accounts	adjustment	(g)
72	5.732	1.668
600/8 + 61	781.573	-741
P51_R&D		2.409

Adjustment (h1): elimination of gifts paid recorded in intermediate consumption

Gifts paid by companies are normally recorded in account 61 and must be deleted from intermediate consumption and transferred to the appropriate transaction category (miscellaneous current transfers: D75). This information is known via the SBS sent to corporations. This correction is only made for corporations (all categories except Hi)

headings	amounts before	adjustment
annual accounts	adjustment	(h)
600/8 + 61	781.573	-158
641/8	5.450	-10
D75_U		168

⁸⁴ The part of investment in R&D which is generated by imports of patents, however, is not taken into account when calculating cor(g). This concerns a transaction with no impact on value added/GDP in the national accounts (P7=P51) nor in the annual accounts (a purchase of a patent is a balance sheet transaction according to the annual accounts – acquisition of intangible assets (excl. R&D) - and does not appear in the profit and loss account which implies that value added which can be derived from the annual accounts is not impacted). So this type of investment in R&D has no counterpart in the production approach of the accounts: cor (g) = P51_R&D_ESA2010 – imports of patents – P51_R&D_annual accounts.

Gifts paid by NPI's (cat Hi) are recorded in the other operating charges (641/8) and also have to be treated as current transfers. The part of gifts in the other operating charges is estimated via information available in the SBS sent to associations and estimated for 16 SUT-branches.

Adjustment (h2): elimination of gifts received recorded in operating revenue
/production (for NPI's)

These gifts have to be reclassified as current transfers (D75).

An estimate is made using annual accounts information of very large NPI's for which account 73 is detailed in the annexes:

73: contributions, gifts, legacies, grants

730/1: contributions

732/3: gifts

734/5: legacies

736: other grants

headings annual accounts	amounts before adjustment	adjustment (h)
C_73	5.410	-109
<hr style="border-top: 1px dashed black;"/>		
D75_R		109

Adjustment (i1): recording of non-capitalised costs of software as investment

Self-developed software for own use is, in most cases, not capitalised by corporations; purchased software is often treated as a current purchase (entry in the profit and loss account) and not as an acquisition of a fixed asset in the balance sheet.

Self-produced software is estimated on the basis of the wage and salary costs of IT- staff employed in the different industries (cf. 5.11.1.2). Purchased software registered as a current expense is known via the SBS.

Self-produced software is added to production (heading 72: own production of fixed assets) and investments; purchased software accounted for as current purchases of goods and services is reclassified from intermediate consumption to GFCF.

This adjustment has a considerable positive impact on value added

headings annual accounts	amounts before adjustment	adjustment (i)
72	5.732	2.875
600/8 + 61	781.573	-1.002

P51 software		3.877

Adjustment (i2): elimination of activated software in the annual accounts

A limited number of companies activate their costs associated to the development of software for own final use. This information is known via the SBS (detail of account 72). The total production of software on own account is entered in adjustment (i1). The part that was already taken into account in the annual accounts is corrected for in adjustment (i2). In the absence of (i2) there would be a problem of double counting in the production approach. The amount in 2012 is € 353 million.

Adjustment (i3): elimination of activated costs linked to non- produced non-financial assets

A limited number of companies activate costs linked to intangible fixed assets which are considered as non- produced non-financial assets in the national accounts (concessions, licences, trade-marks etc.). As these assets are not part of the produced fixed assets (AN.11), no P51g can be associated nor any production. If production (in the form of activated costs) appears in the annual accounts it has to be eliminated (put at 0). This information is known via the SBS. The amount in 2012 is € 148 million.

Adjustment (k): transfer of some bank charges to intermediate consumption

Via the SBS destined to financial institutions we know the amounts (commissions, management charges, etc.) that banks invoice to S.11 units for the services they provide. Non-financial corporations enter these charges in account 65 (financial charges). These charges, however, are to be treated as intermediate consumption (account 61: purchase of services). The amounts involved are significant.

headings annual accounts	amounts before adjustment	adjustment (k)
600/8 + 61	781.573	2.339

65: financial charges		-2.339

Adjustment (l): non-life insurance premiums

Companies register the (gross) premiums paid to insurance corporations in account 61 (purchase of a service). According to the national accounts the total premium must be split into a 'service part'

(corresponding to the production of insurance corporations) and a transfer part (compensation paid to insured parties).

The gross premiums paid are known via the SBS. The transfer part - to be withdrawn from intermediate consumption - can be deduced from the accounts of the insurance corporations.

headings annual accounts	amounts before adjustment	adjustment (l)
600/8 + 61	781.573	-962
<hr/>		
D71_U		962

Adjustment (m): non-life insurance claims

Non-life insurance claims received are recorded in "other operating income" (account 74) or in "other extraordinary income" (account 764/9). The part recorded in operating income can be deduced from the SBS and is reclassified from production to other current transfers (non-life insurance claims (D72)).

headings annual accounts	amounts before adjustment	adjustment (m)
74-740	32.609	-781
<hr/>		
D72_R		781

Adjustment (n): this adjustment is not relevant for S11

Adjustment (o): adjustment to transform producer prices into basic prices

The valuation of turnover in annual accounts and VAT-declaration does not include VAT charged to customers which is compatible to a basic price evaluation. Some other taxes on products (excise duties, tax on turnover in the pharmaceutical sector) are however passed through in the producer price and some types of wage subsidies are registered as normal operating revenue (assimilated to production) in the annual accounts and not as other subsidies on production (740/D39). A transformation from producer to basic prices in these cases is necessary. The amounts involved for 2012 are shown in the next table (in € 1000).

This adjustment consists of 4 sub-adjustments for excise duties, turnover tax in the pharmaceutical sector, wage subsidies (recorded in operating income) split into 2 sub-items, and a mark-up for own account production of tangible fixed assets (valued at cost).

- (o1) adjustment for excise duties
- (o2) adjustment for tax on turnover in the pharmaceutical industry

- (o31) adjustment for rebate on advance tax payments⁸⁵ (wage subsidies) for researchers, shift work, night work and overtime hours
- (o32) adjustment for wage subsidies attributed in the context of “cheques services”
- (o4): mark up for own account production of tangible fixed assets valued at cost

2012-2015-S11.All Branches	Initial	(o1)	(o2)	(o31)	(o32)	(o4)
C_70	940.425.072	-6.624.401	-226.400	-2.681.300	-1.527.720	0
C_71	881.583	0	0	0	0	0
C_72	5.731.996	0	0	0	0	163.917
C_73	5.410.181	0	0	0	0	0
C_74-740	32.608.649	0	0	0	0	0
C_A	985.057.481	-6.624.401	-226.400	-2.681.300	-1.527.720	163.917
C_600/8+61	781.573.063	-3.989.354	-70.412	0	0	0
C_609	-1.045.365	0	0	0	0	0
C_641/8	5.449.810	0	0	0	0	0
C_B	785.977.509	-3.989.354	-70.412	0	0	0
C_62	120.303.741	0	0	0	0	0
C_640	7.259.962	-2.635.047	-155.988	0	0	0
C_740	2.165.101	0	0	2.681.300	1.527.720	0
C_C	199.079.972	-2.635.047	-155.988	-2.681.300	-1.527.720	163.917
C_D	73.681.370	0	0	0	0	163.917

The total amount of excise duties (€ 6 624 million) is known via the S13-accounts. Part of this amount (€ 2.635 million) is accounted for in “other operating taxes” (640) - this information is available in the SBS - and the remaining part is supposed to be included in the total of purchases of goods and services (600/8+61+641/8). After correction (o1), turnover is cleared for excise duties (valued at basic prices) and operating taxes and purchases of goods and services are cleared for taxes on products (excise duties).

The logic behind the correction (o2) is the same: elimination of a tax on product from turnover and elimination of taxes on products included in taxes on production and purchases of goods and services (intermediate consumption).

The rationale for corrections (o31) and (o32) is to reclassify wage subsidies (€ 4.209 million) from normal operating income/turnover in the annual accounts to subsidies on production (740/D39).

In a final phase (cor (aa)) the total of operating taxes (640) and subsidies (740) estimated via the annual accounts/SBS are aligned to the totals known from the government accounts. This reconciliation generates additional effects on turnover and purchases (and value added) because the budget identity acts as a constraint (extra imputations on line C_640 and C_740 are counterbalanced on turnover and purchases) (cf infra).

⁸⁵ Précompte professionnel/Bedrijfsvoorheffing.

Cor (o4) is necessary because own account production of tangible investment goods (construction work, installations, machines,...) is valued at cost in the annual accounts while it should be valued at basic prices (including a mark-up for operating surplus) in the national accounts. This mark-up is registered in cor (o4) (€ 164 million in 2012).

Adjustment (p): wages and salaries in kind

Adjustment (p1): wages and salaries in kind produced by the employer

Goods and services produced by companies and provided free of charge or at reduced prices to employees must be added to turnover and to wages and salaries. Amounts are estimated for two industries: hotels, restaurants and cafés (free meals offered to staff) and manufacturers of motor vehicles (discounts granted to employees on a new car purchased from their own employer).

Adjustment (p2): wages and salaries in kind purchased by the employer

The information is obtained via the NSSO (personal use of company car) and from the balance sheet (code 1033: benefits on top of wage or salary).

Headings Annual accounts	amounts before adjustment	Adjustment		
		(p1)	(p2)	(p1) + (p2)
70	940.425	57		57
600/8 + 61	781.573		-1.966	-1.966
62	120.304	57	+1.966	2.023

(p1): produced goods and services made available as wages and salaries in kind

(p2): purchased goods and services made available as wages and salaries in kind

Adjustment (q): tips/gratuities

In a number of industries gratuities are taken into account (hotels, restaurants and cafés, taxis, hairdressers). These are estimated as a percentage of the turnover.

Turnover and the wages and salaries are increased by the amount of the gratuities estimated.

headings annual accounts	amounts before adjustment	(q)
70	940.425	442
62	120.304	442

Adjustment (r): reclassification of profits distributed to employees as compensation of employees

Profits can be distributed to three types of beneficiaries:

- Owners/stockholders (dividends) (694)

- Directors/managers (695)
- Other beneficiaries (employees) (696)

The (small) part going to employees is treated as compensation of employees in national accounts (€ 113 million in 2012).

Adjustment (s): real estate acquired intended for resale

Real estate companies trade in existing real estate (non-residential buildings, dwellings, etc.). The purchase of immovable property for resale is treated in the same way as the purchase of other goods for resale; they are recorded in the profit and loss account (605: purchase of real estate intended for resale) and give rise to an increase in stocks (account 6095) if there is no subsequent sale and are not treated as an acquisition of fixed assets (GFCF).

By this adjustment the corresponding acquisitions are eliminated from intermediate consumption, and the turnover on account of the resale of real estate is reduced to a 'margin' [similar to the adjustment for goods for resale, cf. adjustment (d)]. This 'margin' is imputed to the product buildings in the supply and use table as shown in the example:

Real estate sector acquires buildings produced by NACE 41 for 100, keeps 10 in stock and sells on 90 at 120							
The margin realized on this sale (30) is imputed to the product buildings							
annual accounts		adjustment(s)	after adj.				
70	120	-90	30	P1	allocate to product buildings		
605	100	-100	0	P2			
6095	-10	10	0	P2			
supply and use table							
		P1	P1	supply	P51	P52	use
		nace41	nace 68				
buildings		100	30	130	120	10	130

The changes in stocks of immovable property acquired for resale (6095) are reclassified as GFCF (P51) afterwards taken into account the type of assets concerned. This implies that no changes in stocks are allowed for the product buildings in the SUT (see also chapter 5.11).

The amounts for 2012 (known via the SBS) are as follows

605	purchase of real estate intended for sale	485
6095	changes in inventories of real estate intended for sale	12 (decrease)
605+6095	cost of commercial real estate sold	496

headings annual accounts	amounts before adjustment	adjustment (s)
70	940.425	-496
600/8 +61	781.573	-485
609	-1.045	-12

Adjustment (t) transfer of amounts recorded in account 71 to account 70 in certain industries

In the construction industry (NACE 41-43) and the real estate industry (NACE 68) the amounts recorded in account 71 are contracts in progress. The principal will record the corresponding advance payment as an investment (under account 27: assets under construction and advance payments)⁸⁶. To avoid double counting in the SUT it is therefore appropriate to reclassify this production in the construction and real estate industry from a change in inventory (account 71) to a sale (account 70) (C_71: -274 and C_70: +274).

In other service industries we sometimes find very small amounts in account 72 that are put at zero (reclassified as sales) before further processing in the SUT (C_72: -24 and C_70: +24).

Adjustment (v): elimination of value added produced abroad

In the annual accounts transactions (and assets and liabilities) are reported for the legal unit. This unit may have operating premises (establishments) located outside Belgium. Because only the value added produced in Belgium may be included in GDP, the figures for corporations with foreign establishments [operating premises with no separate legal personality] must be adjusted. Because survey or administrative information is not available on the establishment level, an indirect approach is used to estimate the activity realised abroad. This is done by comparing the wages and salaries indicated in the annual accounts (including foreign establishments) with those indicated in the social balance sheet (wages and salaries paid in Belgian establishments). The difference between these amounts is the wage bill paid in foreign establishments. The proportion of wages paid abroad with respect to the total wages and salaries paid is used as a proxy to estimate the value added produced abroad⁸⁷. The related turnover, purchases and the corresponding wages and salaries, are deducted from the original figures. This adjustment, which transforms value added from a corporate basis to a territorial basis, is quite significant (-0.9 % overall).

⁸⁶ In the books of the construction company these advance payments received are recorded as a liabilities on the balance sheet (account 46: advances received on contracts in progress)

⁸⁷ If wages according to the social balance sheet are 90 and wages in the annual accounts (profit and loss account) are 100, 10 of total wages are paid in foreign establishments. If value added according to the annual account is 150, 10 % (15) of this amount is deemed to be produced abroad which implies that all the relevant transactions (turnover, purchases, wages) in the annual accounts are corrected in the same proportion (-10 %).

headings annual accounts	amounts before adjustment	adjustment (v)
70	940.425	-14.856
71	882	10
72	5.732	-44
73	5.410	-2
74-740	32.609	-452
operating income (A)	985.058	-15.345
600/8+61	781.573	-13.535
609	-1.045	36
641/8	5.450	-46
consumption g&s (B)	785.978	-13.544
62	120.304	-1.249
640	7.260	0
740	2.165	0
gross added value (C)	199.080	-1.801
gross operating surplus (D)	73.681,0	-552,0

Adjustment (w): holding gains/losses on inventories

In periods of big price increases or price reductions for raw materials, consumables and goods for resale the accounting figures for changes in inventories may include significant holding gains/losses if corporations value their inventories by the FIFO method. An estimate is made of these holding gains/losses and the changes in inventories for purchased goods (heading 609) according to the annual accounts are thereby adjusted. This adjustment has no counterpart and therefore also affects value added and gross operating surplus. In the case of holding gains value added is adjusted downwards, in the case of holding losses value added is adjusted upwards. There is an additional note on this in 5.11.

For the year 2012 holding gains on (purchased) inventories are estimated at + € 135 million.

This implies that the business accounting figure for changes (increase) in (purchased) stocks includes a valuation difference of € 135 million. These holding gains are excluded from the changes in stocks in adjustment (w). After adjustment the increase in purchased stocks is lower and intermediate consumption higher. Gross value added and operating surplus decrease by the same amount.

Adjustment (x): additions for units or corrections for which an ad hoc calculation is performed

Adjustment (x1) contains the production and primary income account for hospitals (for which overall information is available via the FPS Public Health), the subsidies on production not registered in phase 1 for agriculture and the part of own account production of originals registered in S11.

Adjustment (x3) covers the part of the production of drugs sectorised in S11 (in nace 20)

Adjustment (x4) contains the imputation of management costs for mutual funds detained by S11

2012-2015-11-(x)

	Agriculture	Originals	hospitals	(x1)	(x3)	(x4)
P11/V1	0	0	19.235	19.235	678	
P12	0	473	0	473		
P11/V2	0	0	664	664		
P1	0	473	19.899	20.373	678	
P2/A1	0	0	9.008	9.008	50	49
P2/P52u	0	0	0	0		
P2/A2	0	0	160	160		
P2	0	0	9.168	9.168	50	49
D1	0	0	9.786	9.786	8	
D29	0	0	16	16		
D39	191	0	551	742		
B1g	0	473	10.731	11.205	628	-49
B2g	191	473	1.480	2.145	620	-49

(x1) agriculture, originals and hospitals

(x3) illegal economy (production of drugs)

(x4) imputation of management costs for mutual funds (detained by S11)

Adjustment (y): grossing up for the non-observed/black economy

In the official administrative databases (annual accounts, VAT returns, NSSO returns) we only find the official/declared part of business activities. In column (y) the grossing up for '*undeclared*' sales, purchases and wages is done in order to bring the official figures better into line with the economic reality and to produce exhaustive GDP-figures. The grossing up percentages are determined per NACE 3 or 4 digit and are only applied to the official amounts estimated for SMS corporations (categories B1, B2, B3, C1, C2 and E2).

Since undeclared wages and salaries are paid net (excluding social security contributions and payroll tax) the ratio wages and salaries/value added for undeclared activities is lower than for regular activities. The extrapolation on account of undeclared activities is € 9.938 million for value added and € 1.328 million for wages and salaries in S.11.

headings annual accounts	amounts before adjustment	adjustment (y)
70	940.425	17.987
71	882	0
72	5.732	0
73	5.410	0
74-740	32.609	0
operating income (A)	985.057	17.987
600/8+61	781.573	8.048
609	-1045	0.0
641/8	5.450	0.0
consumption g&s (B)	785.978	8.048
62	120.978	1.328
640	7.260	0.0
740	2.165	0.0
gross value added (C)	199.080	9.938
gross operating surplus (D)	73.681	8.610

Adjustment (z)

This adjustment is specific for a number of industries (auctions, games of chance, trade in gas and electricity, etc.). By analogy with trade, production must also be calculated here as a 'margin'. There is no impact on value added. Turnover and purchases are adjusted downwards by the same amount.

Adjustment (aa): reconciliation entries

In this column operating taxes and subsidies and non-life insurance premiums, as these can be deduced from the accounts of non-financial corporations, are reconciled with the totals known from the general government account and the accounts of insurance corporations. The total adjustment (aa) is the sum of three sub-items:

- *alignment of accounts 640 and 740 (after adjustments) to D.29 and D.39*

The total of D.29 and D.39 (known from the general government account and the rest of the world account) is split up by institutional sector based on the nature of the taxes and subsidies.

In the annual accounts and the SBS, information is available from payers (business taxes) and recipients (operating subsidies).

In adjustment (aa) the information from corporate accounts is aligned with the exogenous amounts known from the general government account.

For business taxes this gives the following figures:

opening amount 640 from the annual accounts (incl. amounts for SMS enterprises)	7.260
adjustments on line 640 (excise duties, etc.)	-2 775
additional adjustment (aa)	-935
D.29 in S.11	3.550

The business taxes are additionally reduced by € 935 million in adjustment (aa). There is a counterpart for this amount in the purchases assuming that it relates to taxes on products that from the point of view of the national accounts was incorrectly recorded in account 640 (this is for example the case for non-deductible VAT on current purchases of goods and services that must be allocated to intermediate consumption).

For operating subsidies we get the following situation:

opening amount 740 from the annual accounts (incl. amounts for SMS enterprises)	2.165
adjustments to line 740 (different types of wage subsidies not recorded in 740 etc.)	+5.972
additional adjustment (aa)	+2.325
D.39 in S.11	9.275

The operating subsidies are additionally augmented with € 2.325 million in adjustment (aa). This amount has a counterpart in turnover/other operating revenue. Here we assume that these 'lacking' subsidies on production were incorrectly recorded in turnover and are now reclassified.

- *reconciliation of insurance premiums paid with insurance premiums received*

Here we assume that all insurance premiums paid were properly recorded under the heading purchases of goods and services. The information available via the SBS (premiums paid) is also not fully consistent with the insurance corporation data (premiums received). The adjustment for insurance premiums already made [adjustment (I)] based on insurance premiums paid per industry must therefore be reconciled with the total premiums received (the transfer part is deducted from or added to purchases of goods and services).

For non-life insurance premiums we get the following situation:

elimination of transfer part of premiums from purchases based on information from the SBS (payers) (adj. (I))	-962
Additional adjustment taking into account the exogeneous information from insurance corporations (recipients) (adjustment aa3)	-167
final adjustment of intermediate consumption on account of non-life insurance premiums	-1.129

These 3 elements explain the total of correction (aa) as shown in the next table

2012-2015-11.All Branches

(€ million)	before adjustm.	(aa1)	(aa2)	(aa3)	(aa)
C_70	940.425	-2.325			-2.325
C_71	882				0
C_72	5.732				0
C_73	5.410				0
C_74-740	32.609				0
C_A	985.057	-2.325			-2.325
C_600/8+61	781.573		935	-167	768
C_609	-1.045				0
C_641/8	5.450				0
C_B	785.978		935	-167	768
C_62	120.304				0
C_640	7.260		-935		-935
C_740	2.165	2.325			2.325
C_C	199.080	-2.325	-935	167	-3.094
C_D	73.681	0	0	167	166

D71

(aa1)

alignment operating subsidies

(aa2)

alignment operating taxes

(aa3)

alignment insurance premiums

167

Adjustment (ab): reclassification of social workplaces with protected/subsidized jobs

Social workplaces have a specific NACE-BEL 5 digit code but must, for national accounts purposes, be included in the industries that correspond to their actual activity (mainly some industries from the processing industry). This reclassification is made via adjustment (ab). The sum of the positive and negative amounts (total S.11) is of course equal to 0.

Adjustment (af): treatment of specific deductions on employers' social contributions as wage subsidies

In Belgium cut-backs on employers' social contributions are granted for specific target groups in order to improve their employment opportunities. These amounts are not accounted for as revenue (wage subsidy) in the annual accounts which also implies that compensation of employees is netted for these deductions. In the national accounts compensation of employees/employers' social contributions have to be registered before deductions/cut-backs of employers' social contributions (in gross terms) and at the same time a wage subsidy (equal to the amount of deductions) has to be recorded. In adjustment (af) this correction is done:

C_740: + 1020 (wage subsidy)

C_62: + 1020 (gross registration of wage cost i.e. before deduction of employers' social contributions).

Adjustment (ad) arbitrage

In order to reconcile the production approach and the expenditure approach of GDP (and taking into account the reality of estimation errors on both sides) it is always necessary to make adjustments (in the expenditure aggregates, the production aggregates or both) to produce a consistent set of accounts. Arbitrage adjustments in the production side (on production and/or intermediate consumption) appear in this column.

For the year 2012 only a very small amount of arbitrage in the production approach was necessary (turnover and value added: - € 42 million).

Adjustment of FISIM

In estimating and allocating FISIM it is decided what part must be allocated to the intermediate consumption of S.11. This amount (€ 3.022 million) is split-up over industries via production.

Note that no adjustment is brought as regards durable goods of small value. On this topic, national accounts depend on the treatment of purchases of small tools in the annual accounts of the companies: when these purchases are treated as investment goods and are capitalized on the balance sheet, they are de facto considered as part of GFCF. If they are recorded as current purchases of goods in the profit and loss account, they are de facto considered as intermediate consumption. No attempt has been made in the past (ESA95) nor will be made in the future

(ESA2010) to correct the P2/P51 delineation used in business accounts. A possible correction would be immaterial compared to the GDP/GNI-levels.

3.4.3 FINANCIAL CORPORATIONS (EXCL. MFI AND INSURANCE CORPORATIONS AND PENSION FUNDS)

The following nace groups/sut-industries and subsectors are covered in this part:

Nace rev2	description	SUT	sector
642	Activities of holding companies	64B	S127
643	Trusts, funds and similar financial entities	64C	S124
649	Other financial service activities, except insurance and pension funding	64D	S125
661	Activities auxiliary to financial services, except insurance and pension funding	66A	S126
662	Activities auxiliary to insurance and pension funding	66B	S126
663	fund management activities	66C	S126
701	Activities of head offices	70A	S126

sector	description
S124	Non-MMF investment funds
S125	Other financial intermediaries, except insurance and pension funding
S126	Financial auxiliaries
S127	Captive financial institutions and money lenders

p.m. S121_123 Monetary financial institutions

p.m.: S128_129 Insurance corporations and pension funds

For these financial companies the same approach is followed as for S11.

For the subsector S124 (Non-MMF investment funds) an ad hoc estimate is done based on specific sources which directly results in ESA2010 aggregates (we refer to chapter 3.17).

For the subsectors S125 to S127 an estimate is done by SUT-industry and subsector.

Totals are given in the table below. Only a part of the adjustments relevant for non-financial corporations are also relevant for this sub-group of financial corporations which explains why a lot of lines/items are 0.

Adjustment (d) is only made in S125_64D because companies active in financial leasing record the goods purchased to be leased as commercial goods. These purchases, however, cannot be treated as intermediate consumption and the same type of correction is necessary as in the case of goods for resale (in S11/S14).

Adjustment (j) is a specific correction made in S125_64D (financial leasing, consumer credit, mortgage loans, factoring etc.). A lot of companies active in these industries record (part of) interest revenue in turnover (70) instead of financial income (75). This correction aims at the reclassification of these flows (turnover/production is adjusted downwards and interest/property income adjusted upwards).

Adjustment (x1) is a specific correction made in S125_64D in order to allocate part of the imputed production of the central Bank to this sector. The output of the central Bank is measured as the sum of its costs. Only a small part of this output is invoiced to other sectors (and has a counterpart on the expenditure side). So, this non-market output (total output less commissions and fees) of the Central Bank has to be allocated to the intermediate consumption of the financial intermediaries (S122+S125) in proportion to their value added. The part of non-market output of S121 allocated to P2 in S125 is recorded in this adjustment (on the line purchases of goods and services).

Adjustment for fisim.

S125 is a producer of fisim as well as a consumer of fisim.

These (exogenous) amounts have to be added to the rest of the production and intermediate consumption estimated via the annual accounts (production of fisim appears on line C_70 and intermediate consumption of fisim on line C_600/8+61). In S126 and S127 small amounts for P2_fisim are also estimated and added.

Transition table for sectors S125, S126 and S127

2012-2015-125_127	C_70	C_71	C_72	C_73	C_74-740	C_A_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
Initial	13.203	7	19	1	1.116	14.346	8.352	2	296	8.650	2.574	118	7	5.696	3.011
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	27	0	0	0	0	-27
(c)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	-981	0	0	0	0	-981	-981	0	0	-981	0	0	0	0	0
(e)	0	0	0	0	-34	-34	0	0	-111	-111	0	0	0	77	77
(f)	0	0	0	0	-1	-1	-3	0	0	-3	0	0	0	2	2
(g)	0	0	0	0	0	0	-27	0	0	-27	0	0	0	27	27
(h1)	0	0	0	0	0	0	-6	0	0	-6	0	0	0	6	6
(h2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i1)	0	0	137	0	0	137	-19	0	0	-19	0	0	0	156	156
(i2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(j)	-611	0	0	0	0	-611	0	0	0	0	0	0	0	-611	-611
(k)	0	0	0	0	0	0	275	0	0	275	0	0	0	-275	-275
(l)	0	0	0	0	0	0	-33	0	0	-33	0	0	0	33	33
(m)	0	0	0	0	-3	-3	0	0	0	0	0	0	0	-3	-3
(n)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o31)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p2)	0	0	0	0	0	0	-64	0	0	-64	64	0	0	64	0
(q)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(r)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(t)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(u)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-890	0	-2	0	-48	-939	-630	0	-3	-633	-168	0	0	-306	-138
(w)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x1)	0	0	0	0	0	0	72	0	0	72	0	0	0	-72	-72
(x2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(y)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(z)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(aa)	0	0	0	0	0	0	-17	0	0	-17	0	1	0	17	15
(ab)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ac)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(af)	0	0	0	0	0	0	0	0	0	12	0	12	0	0	0
(ad)	-202	0	0	0	0	-202	150	0	0	150	0	0	0	-352	-352
(fisim)	2.995	0	0	0	0	2.995	99	0	0	99	0	0	0	2.896	2.896
(ae)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Final S125_S127	13.514	7	155	1	1.031	14.707	7.167	2	183	7.352	2.508	119	18	7.355	4.746
ESA2010	P11	P11	P12	P11	P11	P1	P2	P2	P2	P2	D1	D29	D39	B1g	B2g
Final S124	1.132	0	0	0	0	1.132	824	0	0	824	0	301	0	308	8
ESA2010	P11	P11	P12	P11	P11	P1	P2	P2	P2	P2	D1	D29	D39	B1g	B2g
S124_S127	14.646	7	155	1	1.031	15.839	7.991	2	183	8.176	2.508	419	18	7.663	4.753
ESA2010	P11	P11	P12	P11	P11	P1	P2	P2	P2	P2	D1	D29	D39	B1g	B2g

3.4.4 HOUSEHOLDS (S.14)

For self-employed persons/unincorporated enterprises the administrative aggregates are also converted into ESA 2010 aggregates. In a number of cases (dwelling services, private households with employees, originals, and illegal activities) the administrative figures are supplemented with exogenously estimated amounts (x1, x2 and x3).

Since we have much less information available for the self-employed adjustments are only calculated for goods for resale (d), bank charges (k), insurance premiums (l), wages in kind (p1), wage subsidies (o31 and o32), tips/gratuities (q), black economy (y) and fisim. Business taxes and subsidies are also reconciled with the total figure (apportioned over sectors) known from the general government account (aa). This is also the case for wages and salaries (b). Arbitrage adjustments (ad) can be necessary as well.

For 2012 the transition table is as follows

2012-2015-14.	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
Initial	42.899	0	176	0	1	43.076	20.266	0	0	20.266	1.628	169	299	22.810	21.312
(b)	0	0	0	0	0	0	0	0	0	0	-7	0	0	0	7
(d)	-7.859	0	0	0	0	-7.859	-7.859	0	0	-7.859	0	0	0	0	0
(k)	0	0	0	0	0	0	12	0	0	12	0	0	0	-12	-12
(l)	0	0	0	0	0	0	-164	0	0	-164	0	0	0	164	164
(o31)	-20	0	0	0	0	-20	0	0	0	0	0	0	20	-20	0
(o32)	-58	0	0	0	0	-58	0	0	0	0	0	0	58	-58	0
(p1)	6	0	0	0	0	6	0	0	0	0	6	0	0	6	0
(q)	107	0	0	0	0	107	0	0	0	0	42	0	0	107	65
(x1)	8.100	0	21.967	0	0	30.067	2.936	0	0	2.936	466	2.791	0	27.130	23.873
(x2)	1.345	0	0	0	0	1.345	178	0	0	178	0	127	0	1.166	1.039
(x3)	1.349	0	0	0	0	1.349	220	0	0	220	0	0	0	1.129	1.129
(y)	6.717	0	0	0	0	6.717	2.811	0	0	2.811	73	0	0	3.906	3.833
(aa)	0	0	0	0	0	0	0	0	0	0	0	202	97	0	-105
(af)	0	0	0	0	0	0	0	0	0	0	52	0	52	0	0
(ad)	-250	0	0	0	0	-250	0	0	0	0	0	0	0	-250	-250
(fisim)	0	0	0	0	0	0	4.101	0	0	4.101	0	0	0	-4.101	-4.101
Final	52.337	0	22.143	0	1	74.481	22.502	0	0	22.502	2.260	3.290	526	51.978	46.954
ESA2010	P11	P11	P12	P11	P11	P1	P2	P2	P2	P2	D1	D29	D39	B1g B2g+B3g	

The detail of the amounts added, that are missing in the administrative sources, can be seen in the following table (detail x1, x2, x3)

2012-2015-14-(x1)	P11/V1	P12	P1	P2/A1	P2	D1	D29	D39	B1g	B2g
68B	8.100	21.424	29.524	2.936	2.936	0	2.791	0	26.588	23.797
90A	0	77	77	0	0	0	0	0	77	77
97A	0	466	466	0	0	466	0	0	466	0
total	8.100	21.967	30.067	2.936	2.936	466	2.791	0	27.130	23.873
2012-2015-14-(x2)	P11/V1	P12	P1	P2/A1	P2	D1	D29	D39	B1g	B2g
68B	1.345	0	1.345	178	178	0	127	0	1.166	1.039
2012-2015-14-(x3)	P11/V1	P12	P1	P2/A1	P2	D1	D29	D39	B1g	B2g
01A	100	0	100	40	40	0	0	0	60	60
47A	406	0	406	12	12	0	0	0	395	395
96A	843	0	843	169	169	0	0	0	674	674
total	1.349	0	1.349	220	220	0	0	0	1.129	1.129

Adjustment (x1) includes dwelling services (68B), originals (90A) and the (black) wages – which are equal to production - paid for employing domestic personnel (97A).

Adjustment (x2) corresponds to rents received by households letting real estate to enterprises (“professional” rents).

Adjustment (x3) covers the illegal activities sectorised in S14 (production of cannabis (01A), trade in drugs (47A) and prostitution (96A)).

The grossing up for non-observed economy (cor(y)) in terms of value added is € 3.906 million in S.14 which in relative terms is much greater than in S.11. The undeclared wages and salaries paid by the self-employed to their staff are determined at a flat rate of 5 % of the officially stated white wages and salaries (€ 72 million in 2012).

A large part of the total intermediate consumption of fisim in S14 (€ 4.157 million) is allocated to industry 68B (fisim on mortgage loans: € 2.953 million).

3.4.5 MFI (S121_S123), INSURANCE CORPORATIONS (S128) AND PENSION FUNDS (S129)

The treatment of the specific accounting information of corporations belonging to these sectors is explained in chapter 3.17.

3.4.6 GENERAL GOVERNMENT

3.4.6.1 From public accounting to national accounts

For most public entities which are part of general government, almost complete accounting information is available (i.e. the "economic regrouping"), generally for categories of units⁸⁸. These data are processed in an integrated manner, so that all non-financial transactions are compiled only once, in accordance with both the institutional subsector approach and the branch-of-activity approach. Generally speaking, the distinction between administrative services, transport, education and defence is available directly from the functional codes. This functional distinction facilitates the transition to branch-of-activity data. The accounts of the institutional subsectors and branches of activity are thus compiled simultaneously, ensuring complete consistency between the two perspectives. This makes it possible to obtain all the elements necessary for calculating GDP from three perspectives: taxes on production and imports (D2), subsidies (D3), gross fixed capital formation (P51), wages (D1) etc. More detailed analyses in terms of products within the framework of the SUT and of functions (COFOG) are done at later stages.

Differences in definitions and in the conceptual approach to various flows between the economic classification and ESA 2010 necessitate a series of adjustments to bring the former into line with the latter. For these different accounting data (individual or amalgamated), we compile conversion tables between the available items and ESA 2010. These conversion tables are updated at each accounting exercise to accommodate innovations and changes.

The detailed descriptions of the calculations of the various flows will be illustrated on the basis of the classification used in 2012 by the Federal Government and by the Communities and Regions. In 2012 the economic groupings followed the rules described in the Manual on economic grouping, edition 2009⁸⁹.

For bodies for which complete accounting records are not available (subsidised private/public schools⁹⁰), i.e. which appear only partially in economic regroupings, various resource and expenditure items are estimated using known values, on the assumption that the balance of funding of these bodies is zero.

⁸⁸ The economic regroupings described above (cf. 3.1.4.4.1) represent data for a category of units. Only units not included in these regroupings are processed individually.

⁸⁹ In 2015 this manual has been updated to take into account the changes linked to the introduction of the ESA 2010 and other changes which were deemed necessary.

⁹⁰ For universities and most high schools direct accounting information is available since 2011. This is also the case for schools under control of municipalities or provinces, because they are included in the accounts of these entities.

The economic regroupings thus completely disregard the specific revenue (i.e. revenue other than transfers in budgets) and corresponding expenditure of schools, including boarding schools and school canteens. The following list shows the main categories of specific revenue (i.e. other than subsidies paid by Communities and Regions):

- schools (state-controlled or independent)
 - gifts and bequests from households;
 - revenue from celebrations and other events organised by parents' associations;
 - gifts from religious organisations (for denominational private education);
 - miscellaneous activities by parents (photocopying, school trips, etc.);
 - rents for halls and sports facilities used by third parties outside of school hours;
 - interest on financial assets (current and investment accounts);
 - school monitoring;
 - pupil accommodation charges at boarding schools;
 - meals consumed in refectories by outsiders;
 - sales of goods and services produced by schools (mainly by technical and vocational departments).

Expenditure covered by this revenue includes the remuneration of certain staff, the operating costs of boarding schools and canteens, bursaries and awards to deserving pupils, investments in information technology, etc.

Accounts currently include only the following headings as specific revenue:

- part of gifts from households (the difference between investments of private educational establishments and investment subsidies from the Communities);
- course enrolment and examination fees, school monitoring, pupil accommodation charges at boarding schools and meals consumed in refectories by outsiders, estimated on the basis of HBS data (source: DGSEI). The first two of these items are regarded as non-market education service sales, the other two as secondary market sales of hotel and restaurant services by non-market education. The corresponding expenditure is assumed to equal the resources and be part of intermediate consumption. As it is not possible to distinguish between education networks, all the transactions are assigned to independent education;
- an estimate for research contracts: this revenue is regarded as market secondary sales of research services by non-market education and the corresponding expenditure is assumed to represent remuneration. For the high schools, for which no direct information was available an estimate based on the other high schools and universities is included.

ESA code	Denomination	Code economic grouping 2009
P11	Market output	16 partim+18 partim
P12	Output for own final use	-
P131	Payments for non-market output	16 partim+18 partim
P2	Intermediate consumption	12+14
P51	Gross fixed Capital Formation	13+7 partim (exp.) -17- 7 partim (rev.)
P1	Production	D1+P2+P51c+D29-D39
P3	Final consumption expenditure	P1-P11-P12-P131+D632+B2n
B2n	Net operating surplus	-
P51c	Consumption of fixed capital	-
D1	Compensation of employees	11 + 44.1
D2r	taxes on production and import	36
D3p	Subsidies	22+31+32
D4r	Property income (received)	26+27+28
D4p	Property income (paid)	21+24
D5r	Current taxes on income, wealth, etc	37 partim
D61r	Social contributions	37 partim
D6p	Social benefits	34 partim
D62	Social benefits, other than social benefits in kind	34 partim
D632	Social benefits in kind	34 partim
D7r	Other current transfers	38+39+4 (rev.)
D7p	Other current transfers (paid)	33+34 partim +35+4 (exp.)-44
D9r	Capital transfers	56+57+58+59+6 (rev.)
D91r	Capital taxes	56
D9p	Capital transfers (paid)	51+52+53+54+6 (exp.)+8 partim (exp.)
NP	Acquisitions less disposals of non-produced assets	7 partim (exp.) 7 partim (rev.)
OTE	Total expenditure	P2+D1+D4+D62+D632+D3+D29p+D5p +D7+D8+P5+NP+D9p
OTR	Total revenue	D2+D5+D91r+D61r+P11+P12+P131+D 3r+D4r+D7r+D9r

ESA code	Denomination	Code economic grouping 2009
B9	Net lending /net borrowing	OTR-OTE

r: received; p: paid

rev. revenue; exp. Expenditure

3.4.6.2 Entities not included in the economic groupings

Governments include more and more the entities that are consolidated directly in the economic groupings, or deliver similar information to the NAI. However the implementation of the ESA2010, in September 2014, has changed considerably the scope of the S.13. Those new government entities are not integrated in the economic groupings of 2012, which became final in the beginning of 2014. Therefore the NAI used for these new government entities the accounting information available at the central balance office. The information of these accounts is collected electronically and nearly automatically integrated in the accounts following a semi-automatic conversion table.

Conversion table between business annual accounts and ESA

ESA Codes	Annual account codes
D.1	62
D.11	62-621-622-624=620+623
D.12	621+622+624
D.121	621+622
D.121 to S.1314	621
D.121 to S.129	622
D.122	624
P.2 SC	600/8+609+61+(640/8-640)+(8002+649+669)+695
P.2 SA	0
D29 e	640
P.51C	630
P.52	-609+71
P.11	71
P.12	72
P.5111	8169
P.5113	-(8179-8309+763-663)
NP.1	8029-(8039-8109)
P.1	D1+P2+ P51c+D29-D39
P.13	D1+P2+P51C+D29-D39-P12
P.131 SC	70+74-740
P.131 SA	9900
P.132	P13-P131
P.32	P132
D.41 e SC	650
D.41 r SC	751
D.41 e SA	65
D.41 r SA	75
D.421 r	750
D.421 e	694 (t-1)
D.51 e	67/77
D39 r	740+9126
D92 r	15 (t)-15(t-1)+9125

SC = Complete account, SA = short accounts, e = expenditure, r = revenue

REVENUE =P11+P12+P131+D41r+D421r+D39r+D92r
EXPENDITURE =D1+P2+D29e+P5111+P5113+P52+NP.1+D41e+D421e+D51e
B9 =REC-DEP

To be examined on a case by case

696 Could be treated as 694 or to be examined
794 To be treated as D.39r if recurrent, Otherwise D.99r if one-off
763 To be eliminated if this relates to financial assets or liabilities
663 To be eliminated if this relates to financial assets or liabilities
694 To be verified for superdividends
168 To be examined for D.92r
680 To be examined for D.92r
780 To be examined for D.92r
73(*) Has to be treated as P.11 or D.73r

REVENUE =70+71+72+73+74+751+750+9126+15(t)-15(t-1)+9125
EXPENDITURE =62+600/8+609+61+640/8+(8002+649+669)+695+8169-(8179-8309+763-663)-609+71+8029-(8039-8109)+650+694(t-1)+67/77

(*) This code only exists in the complete schemes for NPI's

Recording on accruals basis

Revenue

The national accounts are mainly a system for recording economic events in terms of the monetary payments to which they give rise: payment for the purchase of a good, payment of a wage or salary, payment of a tax, etc. In some cases, there is a time lag between the economic event which gives rise to the payment and the payment itself. A decision therefore has to be made as to the date of recording. In addition, the amount to be recorded may vary according to the choice of date. Thus, if a payment is never effected due to the debtor's bankruptcy, there will be recording of an amount equal to the missing payment if the date of the economic event is chosen as the date of recording; conversely, no amount will be recorded if it is decided to use the actual date of payment. ESA 2010 is based on the principle that the economic event is decisive, and that flows should be entered on an accruals basis, except that tax and para-fiscal revenues that are due but never collected should not be taken into account⁹¹.

With social security administrations, the problem is relatively simple, since in most cases they record the amounts in question on an accruals basis. In certain cases social contributions will never be paid (e.g. if the contributor goes bankrupt). Which amount should be recorded: the amount declared or the amount actually paid? As previously indicated, the basic principle is that taxes and social contributions which are due but never paid may have a positive impact on the deficit, so an adjustment is needed to eliminate the portion of social contributions which will never be paid.

The problem is more complicated in the case of taxes recorded in budgets on a cash basis. Some, such as VAT, are based on self-assessment whereby the taxpayer sends the tax authority a return showing the amount of tax payable, which he/she pays in due course. In the case of VAT, an adjustment is made for the time difference between the date of payment and the period to which the underlying transactions (sales and purchases) refer. For any given year, revenues relating to economic transactions which took place during the previous year have to be deducted from the cash-based VAT amount; conversely, revenues in respect of economic transactions taking place during the year in question but collected the following year have to be added. This approach, which gives the amount of VAT on a "time-adjusted cash" basis, is the option chosen⁹².

91 It has been made clear that the evaluation of tax and para_fiscal revenues should reflect the amounts actually collected, at least in the medium term. In other words, tax and para_fiscal revenue in the national accounts should only differ from the cash basis to the extent that there are timing differences (cf. Regulation (EC) No 2516/2000 of the European Parliament and of the Council of 7 November 2000 modifying the common principles of the European system of national and regional accounts (ESA 1995) as regards taxes and social contributions and amending Council Regulation (EC) No 2223/96).

92 In practice, we simply time-shift revenues relating to the period between the date of the economic transaction which gives rise to the tax charge and the date on which the amount falls due. Adjustments for late payment are only made where the payments are substantial and the amounts are known

For other taxes, particularly personal income tax and corporation tax, the authority issues assessments for payment. The date on which the assessment is issued is taken as the time of recording, rather than the year in which the revenue is generated. There is a problem with the amount to be recorded, since assessments issued are usually for amounts higher than those actually collected. Here again it was decided to record only adjusted cash revenue relating to the period between the date on which the assessment is issued and the due date or final date for payment without penalty.

The following table lists the taxes recorded on a "time-adjusted cash" basis, and the number of months for which the time shift is made.

	Time shift	Subsectors involved
VAT (D211)	1 month	S1311
Tax on stock exchange transactions (D214C)	1 month from 01/04/2002	S1311
Tobacco excise duties (D2122C and D214A)	Until 1996 : 3 months 1997-2008 : 2 months 2009-2014 : 1 month Since 2015 : 0 month	S1311
Tax on income from immovable assets and supplements thereto (D29A)	2 months	S1312 and S1313
Vehicle taxes (D29B and D59D)	Until 2011 : 1 month Since 2012 : 2 months	S1312

Expenditure

Notwithstanding the harmonisation of the economic grouping, the public accounting systems differ between the entities and they can be cash/accrual or mixed. In principle the Federal and State level entities are gradually implementing an accrual recording, however at a different speed. The general principles are described in the Law of 16 May 2003 (wet van 16 mei 2013 tot vaststelling van de algemene bepalingen die gelden voor de begroting, de controle op de subsidies en voor de boekhouding van de gemeenschappen en de gewesten, alsook voor de organisatie van de controle door het Rekenhof/ Loi du 16 mai 2003 fixant les dispositions générales applicables aux budgets, au contrôle des subventions et à la comptabilité des communautés et des régions, ainsi qu'à l'organisation du contrôle de la Cour des comptes).

The Flemish Community, the Brussels Capital Region and the German speaking Community use an accrual recording. While the Federal level, the Walloon region and the French speaking Community use a mixed recording and accrual adjustments have sometimes to be carried out.

As well as the aforesaid adjustments applied systematically each year, particular adjustments to correct one-off occurrences are also applied.

The accounting systems for local authorities follow an accrual accounting.

3.4.6.2. Output and branches of activity of general government

The general government sector mainly produces non-market goods and services; its output is measured in terms of production costs. The sector may also, secondarily, be involved in the market output of goods or services, which is valued at basic prices.

This output of non-market goods and services is consumed by the sector which produces it (collective actual final consumption), by the household sector (individual actual final consumption) or by sectors which purchase part of it (payments in respect of other non-market output). Payments in respect of other non-market output correspond to sales by non-market branches of activity which do not respect the conditions to be recognised as market sales (e.g. museum entry tickets, course enrolment and examination fees, collection costs for taxes, etc.).

Market output comprises sales by market branches of activity (e.g. by the Belgian Official Gazette) and sales of goods and services by non-market branches of activity which are recognised as market sales (e.g. rentals with similar conditions as the private sector, contracts research of universities with industrial companies,...). These latter sales are only considered market sales if it is beyond doubt that there are market sales; the sales where there are doubts on their economic nature are, by convention, treated as payments in respect of other non-market output. They are determined as a balancing item and therefore have an "overspill" effect.

Output for own final use comprises investments effected in-house. Although this is prescribed by ESA 2010, it has not been possible to include a net operating surplus in the evaluation of output for own account.

It follows that this output for own account has no impact on the value added of the non-market activity which produces it. The same is clearly true of payments in respect of other non-market output and sales of market goods and services by non-market branches of activity.

The results for institutional units of general government are:

Output (P1) = compensation of employees (D1) + intermediate consumption (P2) + consumption of fixed capital (P51c) - other subsidies on production (D39)

and

$$\text{Non-market output (P13)} = \text{output (P1)} - \text{market output (P11)} \\ - \text{output for own final use (P12)}$$

As elsewhere, other taxes on production (D29) are deemed to be zero⁹³ in the case of the output of general government, resulting in two equations:

Case where the output of an institutional unit is exclusively non-market:

$$\text{Gross value added} = \text{compensation of employees (D1)} + \text{consumption of fixed capital (P51c)} - \\ \text{other subsidies on production (D39)}$$

Case of a local secondary kind-of-activity unit (KAU) which is a market producer:

$$\text{Gross value added} = \text{compensation of employees (D1)} + \text{consumption of fixed capital (P51c)} - \\ \text{other subsidies on production (D39)} + \text{net operating surplus (B2n)}$$

The other subsidies on production received (D.39) are only registered in the state and local government sector. It concerns the reductions of employer's social contributions for specific groups of employees and reductions on the withholding tax for researchers. These amounts are first registered as social contributions received in the social security sector and as income tax in the Federal government and then registered as other subsidies on production. It concerns the branches administration and education at the State level and the branch administration at the local level.

The various branches of activity in the general government sector appear in the following table:

A38 level	SUT level	Market or non-market	Sub-sectors
Water supply, sewerage, waste management and remediation activities (E)	Aquafin (37A)	NM	S1312
	Waste management (38A)	NM	S1311/S1312/S1313
Transportation and storage (H)	Public transport (49B)	NM	S1312
	Management of transport infrastructures (52A)	NM	S1312/S1313
Information and communication (J)	Belgian Official Gazette (58A)	M	S1311
	RTBF, VRT and BRF (60A)	NM	S1312
Public administration and defence, compulsory social security (O)	General government, except defence and social security (84A)	NM	S1311/S1312/S1313
	Defence (84B)	NM	S1311
	Social security (84C)	NM	S1314
Education (P)	Public sector education (85A)	NM	S1311/S1312/S1313

⁹³ These amounts are not zero, but they are small and are included in the rubric intermediate consumption (P2).

Certain branches of activity were created to avoid gaps between branches in cases where units are reclassified between non-financial corporations (S11) and general government (S13):

- in 2002, public radio and television companies were reclassified to the general government sector;
- in 2005, AQUAFIN was reclassified to the non-financial corporations sector;
- in 2015, the branch “waste management” was created for the period beginning in 2009 in the framework of the NACE harmonization (for the years before 2009, the concerned units are classified in the branch “general government”).

Nevertheless, this presentation by branch of activity is not perfect, since many small units operating in human health and social work activities (Q) and arts, entertainment and recreation (R) remain classified to general government (O).

The only local secondary kind-of-activity unit (KAUs) which is a market producer is the Belgian Official Gazette publishing house.

The boundaries of non-market branches of activity in the various subsectors are defined on the basis of the previously mentioned Benelux functional classifications.

In the COFOG functional classification, fundamental scientific research is classified to "General services of general government" and applied scientific research is always treated as part of the function to which its purpose is related. Conversely, in the nomenclature of activities, "Education" includes fundamental scientific research by universities and certain institutional units which are in the general government sector⁹⁴.

94 This method differs from ESA 2010, in which local kind-of-activity units (KAUs) in the general government sector which operate in scientific research (fundamental and/or applied) are included under "Research" (NACE 73). This choice is justified solely on practical grounds relating to the availability of basic data under the Benelux functional classification

3.4.6.3. Production account and generation of income account of general government

Branches of activity of general government	2012 (€ millions)
Total S13	
Output (P1)	73 629
Market output (P11)	2 157
Output for final use (P12)	2 546
Non-market output (P13)	68 925
Intermediate consumption (P.2)	16 712
Gross value added (B1g)	56 917
Consumption of fixed capital (P51c)	8 889
Compensation of employees (D1)	48 599
Other subsidies on production (D39)	-618
Net operating surplus (B2n)	47
Waste management (38A)	
Output (P1)	1 557
Market output (P11)	44
Output for final use (P12)	14
Non-market output (P13)	1 499
Intermediate consumption (P.2)	962
Gross value added (B1g)	595
Consumption of fixed capital (P51c)	149
Compensation of employees (D1)	446
Other subsidies on production (D39)	0
Net operating surplus (B2n)	0
Public transport (49B)	
Output (P1)	2 524
Market output (P11)	0
Output for final use (P12)	30
Non-market output (P13)	2 494
Intermediate consumption (P.2)	924
Gross value added (B1g)	1 600
Consumption of fixed capital (P51c)	416
Compensation of employees (D1)	1 184
Other subsidies on production (D39)	0
Net operating surplus (B2n)	0
Management of transport infrastructures (52A)	
Output (P1)	5 075
Market output (P11)	0
Output for final use (P12)	0
Non-market output (P13)	5 075
Intermediate consumption (P.2)	1 426
Gross value added (B1g)	3 649
Consumption of fixed capital (P51c)	2 283
Compensation of employees (D1)	1 366
Other subsidies on production (D39)	0
Net operating surplus (B2n)	0

Branches of activity of general government	2012 (€ millions)
Belgian Official Gazette (58A)	
Output (P1)	55
Market output (P11)	55
Output for final use (P12)	
Non-market output (P13)	0
Intermediate consumption (P.2)	1
Gross value added (B1g)	54
Consumption of fixed capital (P51c)	0
Compensation of employees (D1)	7
Other subsidies on production (D39)	0
Net operating surplus (B2n)	47
Public Broadcasting Corporations (RTBF, VRT and BRFB) (60A)	
Output (P1)	847
Market output (P11)	253
Output for final use (P12)	18
Non-market output (P13)	576
Intermediate consumption (P.2)	385
Gross value added (B1g)	461
Consumption of fixed capital (P51c)	94
Compensation of employees (D1)	368
Other subsidies on production (D39)	0
Net operating surplus (B2n)	0
General government (84A, 84B, 84C: cf. 3.21)	
Output (P1)	36 919
Market output (P11)	1 134
Output for final use (P12)	763
Non-market output (P13)	35 022
Intermediate consumption (P.2)	9 772
Gross value added (B1g)	21 147
Consumption of fixed capital (P51c)	3 139
Compensation of employees (D1)	24 449
Other subsidies on production (D39)	-440
Net operating surplus (B2n)	0,0

Branches of activity of general government	2012 (€ millions)
Public-sector education (85A: cf. 3.22)	
Output (P1)	26 652
Market output (P11)	671
Output for final use (P12)	1 721
Other non-market output (P13)	24 260
Intermediate consumption (P.2)	3 241
Gross value added (B1g)	23 411
Consumption of fixed capital (P51c)	2 809
Compensation of employees (D1)	20 780
Other subsidies on production (D39)	-178
Net operating surplus (B2n)	0,0

3.4.6.4. Output and branches of activity of general government

The general government sector mainly produces non-market goods and services; its output is measured in terms of production costs. The sector may also, secondarily, be involved in the market output of goods or services, which is valued at basic prices.

This output of non-market goods and services is consumed by the sector which produces it (collective actual final consumption), by the household sector (individual actual final consumption) or by sectors which purchase part of it (payments in respect of other non-market output). Payments in respect of other non-market output correspond to sales by non-market branches of activity which do not cover 50 % of production costs (e.g. museum entry tickets, course enrolment and examination fees).

Market output comprises sales by market branches of activity (e.g. by the Belgian Official Gazette publishing house) and sales of goods and services by non-market branches of activity which cover at least 50 % of production costs (e.g. charges for refuse removal, sales of felled timber). These latter sales are only considered market sales if it is beyond doubt that the resulting revenue covers at least 50 % of production costs; sales where the production cost percentage covered is completely unknown are, by convention, treated as payments in respect of other non-market output. They are determined as a balancing item and therefore have an "overspill" effect.

Output for own final use comprises investments effected in-house. Although this is prescribed by ESA 1995, it has not been possible to include a net operating surplus in the evaluation of output for own account.

It follows that this output for own account has no impact on the value added of the non-market activity which produces it. The same is clearly true of payments in respect of other non-market output and sales of market goods and services by non-market branches of activity.

The results for institutional units of general government are:

Output (P1) = compensation of employees (D1) + intermediate consumption (P2) + consumption of fixed capital (K1)

and

Non-market output (P13) = output (P1) - market output (P11)
- output for own final use (P12)

As elsewhere, other taxes on production (D29) and other subsidies on production (D39) are deemed to be zero⁹⁵ in the case of the output of general government, resulting in two equations:

Case where the output of an institutional unit is exclusively non-market:

- Gross value added = compensation of employees (D1) + consumption of fixed capital (K1)

Case of a local secondary kind-of-activity unit (KAU) which is a market producer:

- Gross value added = compensation of employees (D1) + consumption of fixed capital (K1) + net operating surplus (B2n)

The various branches of activity in the general government sector appear in the following table:

A31 level	SUT level	Market or non-market	Sub-sectors
Paper and cardboard industry; printing and publishing (DE)	Belgian Official Gazette (22A1)	M	S1311
Trade; repair of motor vehicles and household articles (GG)	Management of agricultural or food products by Belgian Intervention and Refund Office (51A1)	M	S1311
Transport, storage and communications (I)	Public transport (60B3)	NM	S1312
	Management of transport infrastructures (63B3)	NM	S1312/S1313
General government (L)	General government, except defence and social security (75A3) ⁹⁶	NM	S1311/ S1312/ S1313
	Defence (75B3)	NM	S1311
	Compulsory social security (75C3)		S1314
Education (M)	Public-sector education (80A3)	NM	S1311/ S1312/ S1313
Collective, social and personal services (O)	AQUAFIN (90A)	NM	S1312
	RTBF, VRT and BRF (92A3)	NM	S1312
	National lottery (92D1) ⁹⁷	M	S1311

⁹⁵ These amounts are not zero, but they are small. As a reliable estimate is not possible, they are deemed to be zero

⁹⁶ It follows that non-market units of general government operating "Health and social work activities" (N) and "Collective, social and personal services" (O), other than those listed in the table, are classified to the general government sector (L).

⁹⁷ Up to 1991. In 1992, the national lottery, which had previously been a separately managed state operator, became a semi-state incorporated body and was reclassified to the non-financial corporations sector.

Certain branches of activity were created to avoid gaps between branches in cases where units are reclassified to non-financial corporations (S11) and general government (S13):

- in 1991, the regional transport companies (SRWT, TEC, De Lijn, STIB-MIVB) that took over from Société Nationale des Chemins de Fer Vicinaux (SNCV) and from the multi-commune public transport companies were classified to the general government sector;
- in 1992 the national lottery was classified to the non-financial corporations sector;
- in 2002, public radio and television companies were reclassified to the general government sector;
- in 2005, AQUAFIN was reclassified to the non-financial corporations sector.

This new breakdown by branch of activity improves the presentation of the activities of general government. At a time when there was much discussion of the use of public-private partnerships for future transport infrastructure developments (DIABOLO, BAM etc.) to avoid having to record investment expenditure on them in the public sector accounts, it was hardly logical that infrastructures that were similar but operated by non-market public producers should be recorded under general government (L) and not under transport, storage and communications (I).

Nevertheless, this presentation by branch of activity is not perfect, since many small units operating in health and social work (N) and collective, social and personal services (O) remain classified to general government (L).

The only two local secondary kind-of-activity units (KAUs) which are also market producers⁹⁸ are the Belgian Official Gazette publishing house and the commercial activities of the Belgian Intervention and Refund Office (BIRO).

The boundaries of non-market branches of activity in the various subsectors are defined on the basis of the previously mentioned Benelux functional classifications (cf. 3.1.4.4.1).

In the COFOG functional classification, fundamental scientific research is classified to "General services of general government" and applied scientific research is always treated as part of the function to which its purpose is related. Conversely, in the nomenclature of activities, "Education" includes fundamental scientific research by universities and certain institutional units which are in the general government sector⁹⁹.

98 Although the sale of its products is its main source of revenue, the national lottery, which was a separately managed state service, was not treated as a quasi-corporation, and continued to be regarded as part of Federal Government sector until 1991. In 1992, it became a category C public interest organisation and has therefore since been an institutional unit in the non-financial corporations sector (S11).

99 This method differs from ESA 1995, in which local kind-of-activity units (KAUs) in the general government sector which operate in scientific research (fundamental and/or applied) are included under "Research" (NACE 73). This choice is justified solely on practical grounds relating to the availability of basic data under the Benelux functional classification.

3.4.7 NON-PROFIT INSTITUTIONS SERVING HOUSEHOLDS (S15)

For S15 business accounting aggregates are also transformed to ESA2010 aggregates as can be seen in the next table.

2012-2015-15.	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
Initial	1.238	0	1	4.463	622	6.324	2.555	-2	693	3.247	2.916	48	0	3.078	114
(a)	0	0	0	-165	0	-165	0	0	0	0	0	0	0	-165	-165
(b)	0	0	0	0	0	0	0	0	0	0	5	0	0	0	-5
(g)	0	0	20	0	0	20	-9	0	0	-9	0	0	0	29	29
(h1)	0	0	0	0	0	0	0	0	-7	-7	0	0	0	7	7
(h2)	0	0	0	-1.137	0	-1.137	0	0	0	0	0	0	0	-1.137	-1.137
(i1)	0	0	39	0	0	39	-4	0	0	-4	0	0	0	43	43
(k)	0	0	0	0	0	0	26	0	0	26	0	0	0	-26	-26
(l)	0	0	0	0	0	0	-8	0	0	-8	0	0	0	8	8
(m)	0	0	0	0	-1	-1	0	0	0	0	0	0	0	-1	-1
(n)	-332	0	0	-1.507	-296	-2.136	0	0	0	0	0	0	0	-2.136	-2.136
(p2)	0	0	0	0	0	0	-2	0	0	-2	2	0	0	2	0
(u)	0	0	0	0	0	0	-366	0	0	-366	0	0	0	366	366
(v)	-7	0	0	-75	-5	-88	-36	0	-13	-49	-36	0	0	-39	-3
(x1)	0	0	0	142	0	142	0	0	0	0	142	0	0	142	0
(x4)	0	0	0	0	0	0	14	0	0	14	0	0	0	-14	-14
(aa)	0	0	0	0	0	0	-2	0	0	-2	0	0	0	2	2
(af)	0	0	0	0	0	0	0	0	0	0	136	0	136	0	0
(fisim)	0	0	0	0	0	0	58	0	0	58	0	0	0	-58	-58
(ae)	0	0	0	3.435	0	3.435	0	0	0	0	0	0	0	3.435	3.435
Final	899	0	60	5.155	319	6.433	2.226	-2	673	2.897	3.165	48	136	3.537	460
ESA2010						P1				P2	D1	D29	D39	B1g	B2g

Most of the corrections in S15 have the same meaning as those in S11. They are estimated using annual accounts (incl. annexes to NPI accounting scheme) or survey information (specific SBS for NPI's). Three corrections are specific for S15-units:

(h1): gifts paid which are eliminated from intermediate consumption (h2 concerns gifts received which are eliminated from production)

(n): operating subsidies (received from S13) which have to be treated as current transfers (D75) and have to be eliminated from production. In practice these resources can be registered in account 70, 73 or 74. For practical reasons the total amount of the correction is imputed on account 73.

(ae): correction destined to align production to the sum of costs.

Because production is valued as sum of costs (P2+D1+D29-D39+P51c) in the case of non-market producers a specific correction is necessary in S15 in order to align production to the sum of costs:

D1: 3165, P2: 2897, D29: 48, D39: 136 (-), P51c: 460 (= B2g)

$P1 = D1 + P2 + (D29-D39) + P51c = 3167+2835+76-39+453 = \text{€ } 6433 \text{ million.}$

This implies that an adjustment of 3.435 is made in correction (ae) in order to obtain a total production of € 6.433 million.

3.5 THE ROLES OF DIRECT AND INDIRECT ESTIMATION METHODS AND OF BENCHMARKS AND EXTRAPOLATIONS

The table below gives per NACE group/class and per category (subpopulation) the method used to estimate the administrative aggregates in (sub) sectors for which a centralised IT-application is used. Because specific accounting information is used for S121_S123 and S128_S129 these subsectors are not mentioned in this table (but also rely on direct methods and exhaustive sources). The same holds for S13.

SUT	nace	S11/S125_S127/S15														S14 B3/A2
		A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	
01A	01.1	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	
01A	01.2	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	
01A	01.3	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	
01A	01.4	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	
01A	01.5	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	ext	
01A	01.6	JR	n.a.	BTW2	JR	BTW	JR	BTW	n.a.	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
01A	01.7	JR	n.a.	BTW2	JR	BTW	JR	BTW	n.a.	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
02A	02.1	JR	n.a.	BTW2	JR	BTW	JR	BTW	n.a.	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
02A	02.2	JR	n.a.	BTW2	JR	BTW	JR	BTW	n.a.	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
02A	02.3	JR	n.a.	BTW2	JR	BTW	JR	BTW	n.a.	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
02A	02.4	JR	n.a.	BTW2	JR	BTW	JR	BTW	n.a.	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
03A	03.1	JR	n.a.	BTW2	JR	BTW	JR	BTW	n.a.	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
03A	03.2	JR	n.a.	BTW2	JR	BTW	JR	BTW	n.a.	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
08A	08.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
08A	08.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
09A	09.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
09A	09.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10A	10.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10B	10.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10C	10.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10D	10.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10E	10.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10F	10.6	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10G	10.71	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10G	10.72	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10G	10.73	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10H	10.81	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10H	10.82	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10I	10.83	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10I	10.84	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1

SUT	nace	S11/S125_S127/S15														S14 B3/A2
		A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	
10I	10.85	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10I	10.86	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10I	10.89	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
10J	10.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
11A	11.01_06	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
11B	11.07	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
12A	12.0	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
13A	13.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
13A	13.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
13A	13.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
13B	13.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
14A	14.11	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
14A	14.12_19	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
14A	14.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
14A	14.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
15A	15.11	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
15A	15.12	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
15A	15.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
16A	16.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
16A	16.21	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
16A	16.22_23	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
16A	16.24	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
16A	16.29	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
17A	17.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
17A	17.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
18A	18.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
18A	18.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
19A	19.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
19A	19.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
20A	20.11_12/20.14_17	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
20B	20.13	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
20C	20.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1

SUT	nace	S11/S125_S127/S15														S14 B3/A2
		A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	
20D	20.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
20E	20.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
20F	20.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
20G	20.6	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
21A	21.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
21A	21.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
22A	22.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
22B	22.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
23A	23.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
23B	23.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
23B	23.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
23B	23.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
23C	23.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW1	RSZ1	JR	JR	JR	RSZ1	BTW1
23D	23.6	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
23D	23.7	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
23D	23.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
24A	24.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
24A	24.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
24B	24.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
24B	24.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
24B	24.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
25A	25.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
25A	25.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
25A	25.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
25A	25.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
25A	25.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
25A	25.6	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
25B	25.6	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
25C	25.7	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
25C	25.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
26A	26.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
26A	26.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
26B	26.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1

SUT	nace	S11/S125_S127/S15														S14 B3/A2
		A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	
26B	26.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
26C	26.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
26C	26.6	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
26C	26.7	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
26C	26.8	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
27A	27.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
27A	27.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
27A	27.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
27A	27.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
27B	27.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
27B	27.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
28A	28.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
28A	28.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
28B	28.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
28B	28.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
28B	28.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
29A	29.1	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
29B	29.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
29B	29.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
30A	30.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
30B	30.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
30C	30.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
30D	30.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
30D	30.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW1	RSZ1	JR	JR	JR	RSZ1	BTW1
31A	31.0	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
32A	32.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
32B	32.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
32B	32.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
32B	32.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
32B	32.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
32B	32.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
33A	33.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1

SUT	nace	S11/S125_S127/S15														S14 B3/A2
		A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	
33A	33.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
35A	35.11	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
35A	35.12	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
35A	35.13	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
35A	35.14	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
35B	35.21	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
35B	35.22	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
35B	35.23	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
35A	35.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
36A	36.0	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
37A	37.0	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
38A	38.1_38.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
38B	38.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
39A	39.0	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
41A	41.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
41A	41.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
42A	42.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
42A	42.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
42A	42.91	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
42A	42.99	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
43A	43.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
43B	43.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
43C	43.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
43D	43.91	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
43D	43.99	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
45A	45.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
45A	45.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
45A	45.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
45A	45.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
46A	46.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
46A	46.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
46A	46.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1

SUT	nace	S11/S125_S127/S15														S14 B3/A2
		A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	
46A	46.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
46A	46.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
46A	46.6	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
46B	46.71	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
46A	46.72_77	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
46A	46.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
47A	47.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
47A	47.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
47B	47.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
47A	47.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
47A	47.5	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
47A	47.6	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
47A	47.7	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
47A	47.8	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
47A	47.9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
49A	49.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
49A	49.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
49B	49.31	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
49B	49.32	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
49B	49.39	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
49C	49.4	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
49C	49.5	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
50A	50.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
50A	50.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
50B	50.3	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
50B	50.4	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
51A	51.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
51A	51.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
52A	52.1	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
52A	52.21	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
52A	52.22	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
52A	52.23	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1

SUT	nace	S11/S125_S127/S15														S14
		A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	B3/A2
52A	52.24	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
52A	52.29	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
53A	53	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
55A	55.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
55A	55.2_3_9	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
56A	56.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
56A	56.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
56A	56.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
58A	58.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
58A	58.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
59A	59.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
59A	59.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
60A	60	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
61A	61	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
62A	62.0	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
63A	63.11	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
63A	63.12	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
63A	63.91	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
63A	63.99	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
64B	64.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1		JR	JR	JR	RSZ1	n.s.
64C	64.3	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1		JR	JR	JR	RSZ1	n.s.
64D	64.910	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1		JR	JR	JR	RSZ1	n.s.
64D	64.921	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1		JR	JR	JR	RSZ1	n.s.
64D	64.922	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1		JR	JR	JR	RSZ1	n.s.
64D	64.929	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1		JR	JR	JR	RSZ1	n.s.
64D	64.991	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1		JR	JR	JR	RSZ1	n.s.
64D	64.992	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1		JR	JR	JR	RSZ1	n.s.
64D	64.999	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1		JR	JR	JR	RSZ1	n.s.
66A	66.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	P.I.T.
66B	66.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	P.I.T.
66C	66.3	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	n.s.
68A	68.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1

SUT	nace	S11/S125_S127/S15														S14
		A1	E1	A2	B1	B2	C1	C2	E2	B3	BL	H1	H2	H3	H4	B3/A2
68B	68.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	ext.
68A	68.3	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
69A	69.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	P.I.T.
69A	69.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
70A	70.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
70A	70.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	P.I.T.
71A	71.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
71A	71.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
72A	72.1	JR	ESE	BTW2	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
72A	72.2	JR	ESE	BTW2	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
73A	73.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
73A	73.2	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW1	RSZ1	JR	JR	JR	RSZ1	BTW1
74A	74.1 + 74.9	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW1	RSZ1	JR	JR	JR	RSZ1	BTW1
74A	74.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
74A	74.3	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
75A	75.0	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
77A	77.1	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
77B	77.2	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
77C	77.3	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
77C	77.4	JR	ESE	BTW2	JR	BTW	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
78A	78	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
79A	79.11+79.90	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
79A	79.12	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
80A	80	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
81A	81.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
81B	81.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
81A	81.3	JR	ESE	BTW2	JR	JR	JR	BTW	ESE	BTW2	RSZ1	JR	JR	JR	RSZ1	BTW1
82A	82.1	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
82A	82.2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	BTW1
82A	82.3	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW1	RSZ1	JR	JR	JR	RSZ1	BTW1
82A	82.9	JR	ESE	BTW1	JR	BTW	JR	BTW	ESE	BTW1	RSZ1	JR	JR	JR	RSZ1	BTW1
85A	85.1_2	JR	ESE	RSZ1	JR	JR	JR	RSZ	ESE	RSZ1	RSZ1	JR	JR	JR	RSZ1	n.s.

Exhaustiveness of the GDP is also obtained by correctly applying ESA 2010 definitions. In the output approach this is achieved by a detailed estimate of all the transitional components between administrative aggregates and the aggregates according to ESA 2010 (cf. 3.3). Two specific adjustments can be indicated: the adjustment for wages and salaries in kind, and the adjustment for gratuities (cf. 3.3 and 7.2).

Exhaustiveness adjustments by industry and type
(impact on Value added in € million)

B1g industry	Type					Total
	N1	N2	N3	N6	N7	
A		60	111	30	2	204
B					2	2
C		628		451	459	1.538
D					43	43
E				11	17	29
F				4.270	121	4.391
G		395		4.226	525	5.145
H				201	117	318
I				1.291	569	1.860
J				153	210	362
K				19	58	76
L				350	16	365
M				976	247	1.223
N				487	125	612
P				18	4	22
Q				903	62	966
R				220	11	231
S		674		238	36	948
T	466					466
Grand Total	466	1.757	111	13.844	2.622	18.801

N1: domestic personnel employed by households

N2: illegal economy

N3: production of vegetables by households in own gardens

N6: adjustment for underreporting/fiscal fraud

N7: wages in kind and tips

3.7 AGRICULTURE, FORESTRY AND FISHING (A)

3.7.1 INTRODUCTION

In 2012, the value added of agriculture, forestry and fishing (Section A) amounted to 3.040 million or 0,9 % of the value added of all branches of activity combined. It was produced by two institutional sectors: non-financial corporations (S11: € 1.005 million) and households (S14: € 2.035 million)¹⁰⁰. Forestry and fishing generate only very small amounts of value added in the Belgian economy (resp. € 93 and € 41 million).

Gross value added in section A, by branch of activity and institutional sector (2012)

Industry	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
A	4.887	3.882	1.005	5.391	3.356	2.035	10.278	7.238	3.040
AA	4.887	3.882	1.005	5.391	3.356	2.035	10.278	7.238	3.040
01	4.418	3.513	904	5.277	3.275	2.001	9.694	6.788	2.906
01A	4.418	3.513	904	5.277	3.275	2.001	9.694	6.788	2.906
02	318	257	61	108	76	32	426	333	93
02A	318	257	61	108	76	32	426	333	93
03	151	112	40	6	5	1	158	116	41
03A	151	112	40	6	5	1	158	116	41

An overview of the amounts according to administrative sources and after ESA2010 corrections is given (separately for S11 and S14) in the next table.

¹⁰⁰ For every section (A21) we will give the most detailed underlying aggregates by industry (A64, SUT-branch) and sector. In this section the A64-industries only contain one SUT-branch.

S11	C_70	C_71	C_72	C_73	C_74-740	C_A	500/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	1.205	8	1	0	28	1.242	1.033	-2	2	1.034	97	4	7	209	116
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B1	350	0	0	0	10	360	278	-5	1	274	33	2	2	86	52
B2	2.685	-2	0	0	71	2.755	2.126	-22	10	2.114	231	20	13	641	403
C1	11	0	0	0	0	12	14	0	0	14	1	0	0	-2	-3
C2	67	0	0	0	0	67	81	0	0	82	4	1	0	-15	-19
E2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B3	422	0	0	0	0	422	343	0	1	344	31	3	3	79	48
BL	2	0	0	0	0	2	1	0	0	1	0	0	0	1	0
H1	4	0	0	3	1	9	3	0	0	3	6	0	0	6	0
H2	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0
H3	3	0	0	1	0	4	1	0	0	1	2	0	0	2	0
H4	2	0	0	0	0	2	1	0	0	1	1	0	0	1	0
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (I)	4.753	5	1	4	113	4.877	3.883	-29	15	3.868	406	30	26	1.008	597
adjustments (II)	6	0	4	0	0	10	13	0	0	13	3	0	208	-3	201
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	-7	0	0	0	7
(d)	-29	0	0	0	0	-29	-29	0	0	-29	0	0	0	0	0
(g)	0	0	4	0	0	4	-6	0	0	-6	0	0	0	10	10
(o31)	-10	0	0	0	0	-10	0	0	0	0	0	0	10	-10	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p2)	0	0	0	0	0	0	-2	0	0	-2	2	0	0	2	0
(v)	-2	0	0	0	0	-2	-1	0	0	-1	0	0	0	-1	0
(x1)	0	0	0	0	0	0	0	0	0	0	0	0	191	0	191
(x4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(y)	47	0	0	0	0	47	29	0	0	29	2	0	0	18	16
(af)	0	0	0	0	0	0	0	0	0	0	7	0	7	0	0
(fisim)	0	0	0	0	0	0	24	0	0	24	0	0	0	-24	-24
Final (I)+(II)	4.760	5	5	4	113	4.887	3.897	-29	15	3.882	410	30	233	1.005	798
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14 A	C_70	C_71	C_72	C_73	C_74-740	C_A	500/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
TOTAL (I)	5.087	0	176	0	0	5.263	3.155	0	0	3.155	72	28	273	2.108	2.282
adjustments (II)	128	0	0	0	0	128	201	0	0	201	1	0	3	-73	-71
(b)	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	2
(d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o31)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x3)	100	0	0	0	0	100	40	0	0	40	0	0	0	60	60
(y)	29	0	0	0	0	29	17	0	0	17	0	0	0	12	11
(af)	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0
(fisim)	0	0	0	0	0	0	145	0	0	145	0	0	0	-145	-145
Final (I+II)	5.215	0	176	0	0	5.391	3.356	0	0	3.356	72	28	276	2.035	2.211
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14+S11 Final	9.974	5	181	4	113	10.278	7.253	-29	15	7.238	482	58	509	3.040	3.009

Translated in terms of the process table we obtain the following information:

Basis for NA Figures												
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total sources	
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FISIM	Other E&M			Total Extrap+ Models
P1	8.799	1.093									70	9.962
P2	6.103	805									50	6.958
B1g	2.696	288									20	3.004

Adjustments												
Data validation	Conceptual			Exhaustiveness						Balancing	Total adjustments	Final
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness			
	0	-37	-37	0	100	176	76	0	353		316	10.278
	168	-37	131	0	40	65	46	-2	149		280	7.238
	-168	0	-168	0	60	111	30	2	204		36	3.040

3.7.2 METHOD OF CALCULATION

In nace 01 (agriculture) estimates are largely based on the economic accounts of agriculture (EAA) which is survey based (survey & censuses). The economic accounts of agriculture cover nace 011 to 015 (crop and animal production and mixed farming) but not 016 and 017 (support activities to agriculture and post-harvest crop activities and hunting and other services activities). For these industries - as well as for forestry (02) and fishing (03) - administrative sources (annual accounts and VAT-declarations) are used. An estimate of electricity production in horticulture is also made which relies on specific sources (other).

In the corrections for exhaustiveness we find amounts for production for own final consumption of non-agricultural households (own grown fruits and vegetables) (N3). The illegal production of cannabis is also registered (N2) and an adjustment is made for fiscal fraud (N6)¹⁰¹. As in all industries the allocation of fisim has a downward impact on value added.

The bridge table between the aggregates according to the agricultural accounts (EAA) and the aggregates according to the annual accounts (ESA2010) for agriculture (nace 01) is shown in the next table

¹⁰¹ Only for the activities not covered by the EAA (nace 016, 017, 02 and 03).

administrative/ survey info	E.A.A	nace 016+017	N3	electricity	TOTAL	(x3)=N2	adjustments			total adjustm.	ESA2010	
							(y)=N6	(fisim)	other			
C_70	8.695	486	0	70	9.251	100	49	0	-5	144	9.395	
C_71	5	0	0	0	5	0	0	0	0	0	5	
C_72	0	0	176	0	176	0	0	0	4	4	180	
C_73	0	4	0	0	4	0	0	0	0	0	4	
C_74-740	100	9	0	0	110	0	0	0	0	0	110	
C_A	8.800	499	176	70	9.545	100	49	0	-1	149	9.694	P1
C_600/8+61	6.119	349	65	50	6.583	40	28	163	-10	221	6.805	
C_609	-29	-1	0	0	-29	0	0	0	0	0	-29	
C_641/8	12	1	0	0	13	0	0	0	0	0	13	
C_B	6.103	349	65	50	6.567	40	28	163	-10	221	6.788	P2
C_62	375	46	0	0	421	0	1	0	5	7	428	D1
C_640	43	3	0	0	46	0	0	0	0	0	46	D29
C_740	292	6	0	0	298	0	0	0	203	203	501	D39
C_C	2.697	150	111	20	2.978	60	21	-163	9	-73	2.906	B1g

The Economic Accounts for Agriculture (EAA) are the basic source for the output and intermediate consumption for branch 01 “Crop and animal production, hunting and related service activities”. The EAA cover the agricultural output and intermediate consumption of all activities in nace codes 011 until 015: growing of non-perennial crops (011), growing of perennial crops (012), and plant propagation (013), and animal production (014) and mixed farming (015). It also covers certain non-agricultural activities such as tourism organised at the farm. The growth of multi-annual plantations and animals is also dealt with in the EAA.

There are no good sources to estimate the intermediate consumption in agricultural production for own use in Belgium. Based on expert judgement, the intermediate consumption in agricultural production for own use by households is estimated at 40% of the auto-consumptive production by non-agricultural households.

Non-agricultural activities (not included in the EAA) are difficult to measure for agricultural enterprises. An estimate of the production of electricity supplied to the energy grid in terms of output and intermediate consumption is made using information from a variety of sources. Studies by VITO (the Flemish Institute for Technological Research) in the area of the Flemish energy balance and cogeneration were used as well as its statistics on the Flemish energy balance. Statistics on the Belgian energy balance and energy prices were obtained from the DGSEI (Directorate General Statistics and Economic Information). Information on green certificates was obtained from the VREG (the Flemish Regulator of Electricity and Gas Market).

The energy supplied by enterprises in branch 01 to the electricity grid is mainly produced using cogeneration. The term cogeneration is used to describe the process in which the warmth, which arises during the production of electricity, is used as an input in another production process. This technique is used in horticulture to simultaneously produce warmth to heat greenhouses and electricity. The latter can be used as an input in the agricultural production process or can be supplied to the energy grid. Solar panels did not appear to be an important source for energy supply to the electricity grid. It was therefore not included in the estimation procedure. Output was estimated using information on the

amount of electricity that was supplied to the electricity grid, electricity prices, the number of green certificates and the price of green certificates, which can all be found or derived from information in the above mentioned sources. The main energy source used for cogeneration in horticulture is natural gas. The proportion of the gas that can be attributed to the production of electricity for the electricity grid is multiplied by the gas price to obtain the intermediate consumption.

Information on other non-agricultural activities performed by agricultural enterprises is difficult to obtain. Studies are scarce and often tied to a specific region. Since non-agricultural activities vary widely across regions, it is difficult to derive a nationwide estimate of their output and the intermediate consumption related to it. Moreover, information found in studies older than a few years has a risk of being obsolete due to changes in food safety legislation, tax rules, national and European subsidy schemes and other rules. Furthermore, it is difficult to estimate the output and intermediary consumption of agricultural activities performed by enterprises in other branches which should be eliminated from the EAA. It is therefore assumed that the value of the non-agricultural activities, besides the energy supply to the electricity grid and those already incorporated in the EAA, performed by enterprises with primary nace code between 011 and 015 is equal to that of the agricultural activities in other branches¹⁰².

The household budget survey is used to estimate the production for own consumption by households, also referred to as auto consumption (AC). Auto consumption consists of auto consumption by non-agricultural households (produced in kitchen gardens) and the auto consumption by agricultural households. The former is estimated using the Household Budget Survey. This survey is held bi-annually from 2012 onwards. For non-survey years, the consumer price index for fruit and vegetables is applied to the estimate of the previous year. This estimate is adjusted once the next survey is available. The auto consumption by agricultural households is estimated using the evolution of the auto consumption by non-agricultural households.

3.8 MINING AND QUARRYING (B)

3.8.1 INTRODUCTION

Mining and quarrying is a marginal activity in Belgium. Only a limited number of enterprises are active in nace 08.1 (quarrying of stone, sand and clay). The value added in this industry represents 0.1 % of total value added.

¹⁰² Note that the agricultural activities performed by enterprises in other branches are small. 98.4 % of the agricultural surface area and 92.9 % of the cattle can be attributed to enterprises with primary nace code between 011 and 015.

	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
B	634	391	243	3	2	1	637	393	244
BB	634	391	243	3	2	1	637	393	244
05-09	634	391	243	3	2	1	637	393	244
08A	634	391	243	3	2	1	637	393	244

3.8.2 METHOD OF CALCULATION

The estimate relies on administrative sources and only a few adjustments are made.

section B	Basis for NA Figures												Other	Total (sources)	
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Total Extrapol+Models				
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M						
P1		776												776	
P2		523												523	
B1g		253												253	
Data validation	Adjustments												Balancing	Total adjustments	Final
	Conceptual			Exhaustiveness											
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N4	N5	N6	N7	Total exhaustiveness				
		-140	-140								0	0		-140	637
	3	-131	-128								-2	-2		-130	393
	-3	-8	-11								2	2		-9	244

3.9 MANUFACTURING (C)

3.9.1 INTRODUCTION

In 2012, the value added of manufacturing (Section C) amounted to € 48.810 million or 14.1 % of the value added of all branches of activity combined. It is produced by two institutional sectors: non-financial corporations (S11: € 48.218 million), and households (S14: € 592 million). The importance of unincorporated businesses (S14) in manufacturing is very limited; only for bakeries (SUT10G), printing and reproduction of recorded media (SUT18A), manufacture of fabricated metal products (SUT25A and SUT 25B) manufacture of furniture (31A), other manufacturing (nace 32) and repair and installation (nace 33) a material part of the activity is realised by unincorporated businesses.

Gross value added of section C, by branch of activity and institutional sector (2012)

Industry	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
C	227.881	179.664	48.218	1.560	968	592	229.441	180.632	48.810
CA	37.325	30.395	6.931	744	449	296	38.070	30.843	7.227
10-12	37.325	30.395	6.931	744	449	296	38.070	30.843	7.227
10A	6.674	5.846	829	48	41	8	6.723	5.887	836
10B	464	376	88	1	1	0	465	377	88
10C	3.660	2.975	685	3	2	1	3.663	2.977	686
10D	3.244	3.126	118	0	0	0	3.244	3.126	118

Industry	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
10E	3.731	3.180	551	17	10	7	3.747	3.190	558
10F	2.715	2.469	246	10	9	1	2.725	2.478	248
10G	3.053	2.052	1.001	609	342	267	3.662	2.394	1.268
10H	3.270	2.367	903	9	4	5	3.279	2.371	908
10I	2.788	2.147	641	14	11	3	2.802	2.158	644
10J	3.397	3.082	315	27	24	3	3.424	3.106	317
11A	2.483	1.566	917	5	4	1	2.488	1.570	917
11B	1.521	1.048	473	0	0	0	1.521	1.048	473
12A	325	162	164	1	1	0	326	162	164
CB	4.968	3.598	1.369	60	35	25	5.027	3.633	1.394
13-15	4.968	3.598	1.369	60	35	25	5.027	3.633	1.394
13A	1.047	785	262	12	9	3	1.059	794	265
13B	2.971	2.183	788	16	10	5	2.986	2.193	793
14A	716	495	221	29	15	15	745	509	236
15A	234	136	99	3	1	1	237	137	100
CC	10.570	7.718	2.852	198	131	67	10.768	7.850	2.918
16	2.991	2.236	756	83	60	23	3.074	2.296	779
16A	2.991	2.236	756	83	60	23	3.074	2.296	779
17	4.350	3.343	1.008	2	1	1	4.352	3.344	1.008
17A	4.350	3.343	1.008	2	1	1	4.352	3.344	1.008
18	3.228	2.140	1.088	114	71	43	3.342	2.210	1.132
18A	3.228	2.140	1.088	114	71	43	3.342	2.210	1.132
CD	38.675	37.441	1.234				38.675	37.441	1.234
19	38.675	37.441	1.234				38.675	37.441	1.234
19A	38.675	37.441	1.234				38.675	37.441	1.234
CE	33.779	26.177	7.602	1	0	1	33.780	26.178	7.602
20	33.779	26.177	7.602	1	0	1	33.780	26.178	7.602
20A	23.871	19.221	4.650	0	0	0	23.871	19.221	4.650
20B	1.850	1.581	269	0	0	0	1.850	1.581	269
20C	295	148	147				295	148	147
20D	1.859	1.338	521	0	0	0	1.859	1.338	521
20E	1.282	903	378	0	0	0	1.282	904	378
20F	4.085	2.559	1.526	0	0	0	4.085	2.559	1.526
20G	537	427	110	0	0	0	537	427	110
CF	12.687	7.281	5.406	1	0	0	12.688	7.281	5.407
21	12.687	7.281	5.406	1	0	0	12.688	7.281	5.407
21A	12.687	7.281	5.406	1	0	0	12.688	7.281	5.407
CG	13.111	8.913	4.199	40	24	16	13.151	8.936	4.215
22	5.574	3.659	1.916	6	4	2	5.580	3.662	1.918
22A	337	115	222	0	0	0	337	115	222
22B	5.238	3.544	1.694	6	4	2	5.244	3.548	1.696
23	7.537	5.254	2.283	34	20	14	7.571	5.274	2.296
23A	1.863	1.371	491	2	1	1	1.864	1.373	492
23B	599	343	256	3	2	1	602	345	257
23C	1.292	878	414				1.292	878	414
23D	3.784	2.662	1.122	29	17	12	3.813	2.679	1.134

Industry	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
CH	33.439	27.276	6.163	244	160	85	33.684	27.436	6.248
24	21.681	19.299	2.382	4	2	2	21.685	19.301	2.384
24A	10.069	9.108	961	2	1	1	10.071	9.109	962
24B	11.612	10.191	1.421	2	1	1	11.614	10.192	1.422
25	11.758	7.977	3.781	240	158	83	11.998	8.134	3.864
25A	7.548	5.262	2.287	118	81	37	7.666	5.343	2.323
25B	2.674	1.666	1.008	103	64	39	2.777	1.730	1.046
25C	1.536	1.049	487	20	12	8	1.556	1.061	495
CI	3.436	2.215	1.221	7	4	2	3.442	2.219	1.223
26	3.436	2.215	1.221	7	4	2	3.442	2.219	1.223
26A	1.050	681	369	3	2	1	1.053	684	370
26B	1.305	876	429	2	1	1	1.307	877	430
26C	1.080	658	423	1	1	0	1.082	658	423
CJ	4.225	2.759	1.467	9	6	3	4.234	2.764	1.469
27	4.225	2.759	1.467	9	6	3	4.234	2.764	1.469
27A	3.144	2.122	1.022	7	5	2	3.150	2.127	1.024
27B	1.082	637	445	2	1	1	1.083	638	446
CK	9.762	6.219	3.542	27	19	8	9.788	6.238	3.550
28	9.762	6.219	3.542	27	19	8	9.788	6.238	3.550
28A	5.668	3.524	2.144	8	5	3	5.676	3.529	2.147
28B	4.094	2.695	1.399	18	14	5	4.112	2.709	1.403
CL	18.661	15.068	3.593	12	10	2	18.673	15.078	3.595
29	16.647	13.915	2.732	8	7	1	16.655	13.922	2.733
29A	11.080	9.625	1.455	1	1	0	11.080	9.625	1.455
29B	5.567	4.291	1.277	8	6	1	5.575	4.297	1.278
30	2.014	1.153	861	4	3	1	2.018	1.156	862
30A	188	32	156	1	1	0	189	33	156
30B	242	186	55	0	0	0	242	187	55
30C	1.404	794	610	0	0	0	1.404	794	610
30D	180	141	40	2	2	1	182	142	40
CM	7.244	4.605	2.640	219	131	88	7.463	4.735	2.728
33	3.619	2.187	1.431	63	48	15	3.682	2.236	1.446
33A	3.619	2.187	1.431	63	48	15	3.682	2.236	1.446
31-32	3.626	2.417	1.209	155	82	73	3.781	2.499	1.282
31A	2.146	1.464	682	101	65	37	2.247	1.528	719
32A	477	430	47	17	6	11	494	436	58
32B	1.003	523	480	37	12	25	1.041	535	506

The process table for the total of manufacturing industry is summarized in the next tables:

Basis for NA Figures											
Surveys & Census es	Administrative Records	Combined Data	Extrapolation and Models							Other	Total (sources)
			Benchmark extrapolations	Commodity Flow Model	CFC (PIM)	Dwellings - stratification method	FISIM	Other E&M	Total Extrap+ Models		
P1	1.476	275.561								767	277.805
P2	1.166	227.518								609	229.293
B1g	311	48.043								158	48.512

Adjustments												Final
Data validation	Conceptual			Exhaustiveness						Balancing	Total (adjustments)	
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness			
-70	0	-49.983	-49.983	0	678	0	990	22	1.690		-48.362	229.441
-105	1.141	-49.849	-48.708	0	50	0	539	-437	152		-48.661	180.632
36	-1.141	-133	-1.274	0	628	0	451	459	1.538		299	48.810

3.9.2 METHOD OF CALCULATION

The aggregates of the production and primary distribution of income account for section C are set out in the following table. For non-financial corporations (S11) and households (S14), they follow the general method. Because large corporations are preponderant in manufacturing, cat A1- for which all the relevant information is available in the annual accounts – represents 86 % of total value added (C_C) in manufacturing (€ 41.305 million compared to a total of € 48.039 million).

Illegal activities (N2) in nace C represent the value-added generated by the production of XTC and amphetamines (excluding trade margins, which are included in NACE G). The breakdown of value-added of N2 can be summarised as follows:

	XTC	Cocaine	Heroine	Amphetamines	Cannabis	Prostitution	Smuggling	TOTAL
A					60			60
C	591			37				628
G	43	79	16	27	125		105	395
S						674		674
Total B1g	634	79	16	64	185	674	105	1.757

Section C manufacturing industry															
S11-C	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	240.063	279	3.247	0	8.344	251.933	210.029	-23	622	210.628	25.470	783	254	41.305	15.306
E1	1.180	-3	0	0	15	1.192	909	-2	1	908	216	4	1	284	64
A2	3.764	148	3	0	68	3.983	3.303	-19	5	3.289	451	14	1	694	229
B1	2.214	-8	0	0	69	2.274	1.545	1	13	1.559	473	14	4	716	233
B2	13.979	1	0	0	2	13.982	9.457	-1	85	9.541	2.880	78	24	4.442	1.508
C1	37	-1	0	0	3	40	46	0	0	46	5	1	0	-6	-12
C2	162	0	0	0	0	162	201	0	3	203	20	6	0	-41	-68
E2	282	-3	1	0	5	285	256	2	0	258	26	1	0	27	-1
B3	1.635	4	0	0	2	1.641	1.186	1	6	1.193	261	9	3	448	181
BL	608	6	2	0	33	649	520	-2	2	520	78	3	0	129	48
H1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H2	5	0	0	2	1	7	2	0	1	4	3	0	0	4	1
H3	13	0	0	3	1	17	6	0	1	7	6	0	0	10	4
H4	116	0	0	0	0	117	89	0	0	89	11	16	0	28	2
RF	1	0	0	0	0	1	0	0	0	0	1	0	0	1	0
TOTAL (I)	264.059	424	3.253	4	8.542	276.282	227.548	-44	739	228.243	29.901	928	287	48.039	17.497
adjustments (II)	-49.564	-2	1.557	0	-391	-48.400	-48.450	7	-136	-48.579	867	-305	1.716	179	1.333
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	103	0	0	0	-103
(c)	-227	0	0	0	0	-227	-143	0	0	-143	0	0	0	-84	-84
(d)	-47.748	0	0	0	0	-47.748	-47.748	0	0	-47.748	0	0	0	0	0
(e)	0	0	0	0	-94	-94	0	0	-131	-131	0	0	0	36	36
(f)	0	0	0	0	-33	-33	-102	0	0	-102	0	0	0	69	69
(g)	0	0	879	0	0	879	-253	0	0	-253	0	0	0	1.132	1.132
(h1)	0	0	0	0	0	0	-41	0	-1	-41	0	0	0	41	41
(h2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i1)	0	0	681	0	0	681	-185	0	0	-185	0	0	0	865	865
(i2)	0	0	-14	0	0	-14	0	0	0	0	0	0	0	-14	-14
(i3)	0	0	-19	0	0	-19	0	0	0	0	0	0	0	-19	-19
(j)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	404	0	0	404	0	0	0	-404	-404
(l)	0	0	0	0	0	0	-220	0	0	-220	0	0	0	220	220
(m)	0	0	0	0	-192	-192	0	0	0	0	0	0	0	-192	-192
(n)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o1)	-560	0	0	0	0	-560	-450	0	0	-450	0	-110	0	-110	0
(o2)	-83	0	0	0	0	-83	-53	0	0	-53	0	-29	0	-29	0
(o31)	-1.012	0	0	0	0	-1.012	0	0	0	0	0	0	1.012	-1.012	0
(o32)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o4)	0	0	40	0	0	40	0	0	0	0	0	0	0	40	40
(p1)	22	0	0	0	0	22	0	0	0	0	22	0	0	22	0
(p2)	0	0	0	0	0	0	-437	0	0	-437	437	0	0	437	0
(q)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(r)	0	0	0	0	0	0	0	0	0	0	47	0	0	0	-47
(s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(t)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(u)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-1.067	-2	-8	0	-72	-1.149	-942	-5	-4	-951	-158	0	0	-198	-39
(w)	0	0	0	0	0	0	0	12	0	12	0	0	0	-12	-12
(x1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x3)	678	0	0	0	0	678	50	0	0	50	8	0	0	628	620
(x4)	0	0	0	0	0	0	7	0	0	7	0	0	0	-7	-7
(y)	686	0	0	0	0	686	360	0	0	360	47	0	0	326	278
(z)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(aa)	-455	0	0	0	0	-455	127	0	0	127	0	-165	455	-583	38
(ab)	202	0	0	0	0	202	75	0	0	75	232	0	118	128	14
(ac)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(af)	0	0	0	0	0	0	0	0	0	0	129	0	129	0	0
(ad)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fisim)	0	0	0	0	0	0	1.099	0	0	1.099	0	0	0	-1.099	-1.099
(ae)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Final (I)+(II)	214.495	422	4.810	4	8.151	227.882	179.098	-37	603	179.664	30.769	623	2.003	48.218	18.830
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

S14_C	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
TOTAL (I)	1.453	0	0	0	0	1.453	945	0	0	945	149	9	2	508	352
adjustments (II)	107	0	0	0	0	107	23	0	0	23	10	1	13	84	86
(d)	-193	0	0	0	0	-193	-193	0	0	-193	0	0	0	0	0
(k)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(l)	0	0	0	0	0	0	-6	0	0	-6	0	0	0	6	6
(o31)	-4	0	0	0	0	-4	0	0	0	0	0	0	4	-4	0
(y)	304	0	0	0	0	304	179	0	0	179	7	0	0	125	118
(aa)	0	0	0	0	0	0	0	0	0	0	0	1	6	0	5
(af)	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0
(ad)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fisim)	0	0	0	0	0	0	42	0	0	42	0	0	0	-42	-42
Final (I+II)	1.560	0	0	0	0	1.560	968	0	0	968	159	10	14	592	438
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
Final S11+S14	216.055	422	4.810	4	8.151	229.441	180.066	-37	603	180.632	30.928	632	2.017	48.810	19.268
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

3.10 ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY (D)

3.10.1 INTRODUCTION

In 2012, the value added in the energy sector (Section D) amounted to € 5 724 million or 1,7 % of the value added of all branches of activity combined. It was produced by one institutional sector: the non-financial corporations (S11). The generation, transmission and distribution of electric power (SUT branch 35A) represents 97 % of the total activity in section D (SUT branch 35B concerns the distribution of gas through mains).

Gross value added of section D, by branch of activity and institutional sector (2012)

Industry	S11			S1		
	P1	P2	B1g	P1	P2	B1g
D	13.203	7.479	5.724	13.203	7.479	5.724
DD	13.203	7.479	5.724	13.203	7.479	5.724
35	13.203	7.479	5.724	13.203	7.479	5.724
35A	12.637	7.080	5.557	12.637	7.080	5.557
35B	566	399	168	566	399	168

The process table for section D

Basis for NA Figures												
Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Other	Total (sources)	
			Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrap+Models			
P1	809	54.943							15		55.768	
P2	782	46.985							8		47.775	
B1g	28	7.959							7		7.993	
Adjustments												
Data validation	Conceptual			Exhaustiveness						Balancing	Total (adjustments)	Final
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness			
-13.244	0	-29.320	-29.320	0	0	0	0	0	0		-42.565	13.203
-11.079	64	-29.238	-29.175	0	0	0	0	-43	-43		-40.296	7.479
-2.166	-64	-82	-146	0	0	0	0	43	43		-2.269	5.724

For this industry we make an important (recurrent) adjustment on the figures for one important unit without annual accounts (data validation adjustment). The other conceptual adjustments mainly reflect a correction on turnover and purchases in order to take into account the trading activities (in gas and electricity) of some large companies (see cor (z)).

3.10.2 METHOD OF CALCULATION

The standard approach is followed

section D															
S11_D	C_70	C_71	C_72	C_73	C_74-740	C_A_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
A1	39.317	15	311	0	1.160	40.803	34.745	-48	446	35.143	2.044	869	5	5.660	2.752
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	190	0	1	0	5	197	177	0	1	178	6	1	0	19	13
B1	33	0	0	0	1	33	17	0	0	17	0	0	0	16	16
B2	214	0	0	0	0	214	137	0	1	138	2	1	0	77	75
C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C2	4	0	0	0	0	4	6	0	0	6	0	0	0	-2	-2
E2	809	0	0	0	0	809	782	0	0	782	4	0	0	28	23
B3	447	0	0	0	0	447	424	0	0	424	5	0	0	23	18
BL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H4	15	0	0	0	0	15	8	0	0	8	1	0	0	7	6
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (I)	41.030	15	312	0	1.166	42.523	36.296	-48	448	36.696	2.061	871	5	5.828	2.901
adjustments (II)	-29.150	0	-38	0	-132	-29.320	-28.917	1	-301	-29.217	-1	-183	42	-103	122
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	2	0	0	0	-2
(c)	0	0	0	0	0	0	-2	0	0	-2	0	0	0	2	2
(e)	0	0	0	0	-14	-14	0	0	-296	-296	0	0	0	282	282
(f)	0	0	0	0	0	0	-5	0	0	-5	0	0	0	4	4
(g)	0	0	1	0	0	1	-72	0	0	-72	0	0	0	72	72
(h1)	0	0	0	0	0	0	-2	0	0	-2	0	0	0	2	2
(i1)	0	0	56	0	0	56	-36	0	0	-36	0	0	0	92	92
(i2)	0	0	-15	0	0	-15	0	0	0	0	0	0	0	-15	-15
(i3)	0	0	-97	0	0	-97	0	0	0	0	0	0	0	-97	-97
(k)	0	0	0	0	0	0	147	0	0	147	0	0	0	-147	-147
(l)	0	0	0	0	0	0	-48	0	0	-48	0	0	0	48	48
(m)	0	0	0	0	-45	-45	0	0	0	0	0	0	0	-45	-45
(o31)	-29	0	0	0	0	-29	0	0	0	0	0	0	29	-29	0
(o4)	0	0	22	0	0	22	0	0	0	0	0	0	0	22	22
(p2)	0	0	0	0	0	0	-43	0	0	-43	43	0	0	43	0
(v)	-692	0	-5	0	-73	-770	-679	1	-5	-683	-48	0	0	-87	-39
(w)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x4)	0	0	0	0	0	0	2	0	0	2	0	0	0	-2	-2
(z)	-28.419	0	0	0	0	-28.419	-28.419	0	0	-28.419	0	0	0	0	0
(aa)	-11	0	0	0	0	-11	174	0	0	174	0	-183	11	-185	8
(af)	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0
(fisim)	0	0	0	0	0	0	64	0	0	64	0	0	0	-64	-64
Final (I)+(II)	11.880	15	274	0	1.034	13.203	7.379	-47	148	7.479	2.061	688	47	5.724	3.023
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

3.11 WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES (E)

3.11.1 INTRODUCTION

In 2012 the value added in this industry (Section E) amounted to € 3.428 million or 1 % of the value added of all branches of activity combined. It was produced by three institutional sectors: non-financial corporations (S11: € 2.820 million), government (S13: € 595 million) and households (S14: € 14 million)

Gross value added of section E, by branch of activity and institutional sector (2012)

Industry	S11			S13			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
E	9.487	6.668	2.820	1.557	962	595	54	40	14	11.098	7.670	3.428
EE	9.487	6.668	2.820	1.557	962	595	54	40	14	11.098	7.670	3.428
36	2.325	1.360	966							2.325	1.360	966
36A	2.325	1.360	966							2.325	1.360	966
37-39	7.162	5.308	1.854	1.557	962	595	54	40	14	8.772	6.310	2.463
37A	1.075	573	502				7	4	3	1.082	577	505
38A	2.674	1.791	884	1.557	962	595	12	8	3	4.243	2.761	1.481
38B	2.947	2.611	336				33	26	7	2.980	2.637	343
39A	465	332	133				2	2	1	468	334	134

The process table for section E

	Basis for NA Figures											
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Other	Total (sources)
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FSIM	Other E&M	Total Extrapol+Models		
P1	48	11.224	0	0	0	149	0	0	17	166	0	11.438
P2	45	7.965	0	0	0	0	0	0	16	16	0	8.025
B1g	3	3.259	0	0	0	149	0	0	2	151	0	3.413

Data validation	Adjustments													Final
	Conceptual			Exhaustiveness								Balancing	Total (adjustments)	
	Allocation of FSIM	Other conceptual	Total conceptual	N1	N2	N3	N4	N5	N6	N7	Total exhaustiveness			
257	0	-627	-627	0	0	0	0	0	29	0	29	0	-341	11.098
170	47	-573	-525	0	0	0	0	0	17	-17	0	0	-356	7.670
88	-47	-54	-101	0	0	0	0	0	11	17	29	0	15	3.428

The amounts appearing in the column CFC (PIM) represent the consumption of fixed capital estimated for S13-units in this industry.

3.11.2 METHOD OF CALCULATION

The aggregates of the production and primary distribution of income account for section E are set out in the following table (S11 and S14). For the non-market producers in this industry (S13) production is

of course estimated as the sum of costs. The aggregates for non-financial corporations and for households are derived via the general method (cf. 3.3).

Section E															
S11_E	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	8.234	143	107	0	279	8.763	6.138	-23	76	6.191	1.240	96	193	2.572	1.429
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	67	2	0	0	3	72	49	0	0	49	13	1	1	23	10
B1	87	0	0	0	2	89	59	0	1	59	16	1	1	30	14
B2	740	0	0	0	0	740	530	0	7	536	88	8	5	204	113
C1	2	0	0	0	0	2	3	0	0	3	0	0	0	-1	-1
C2	25	0	0	0	0	25	30	0	0	30	2	1	0	-5	-8
E2	48	0	0	0	0	48	46	0	0	45	1	0	0	3	2
B3	206	0	0	0	0	206	151	0	0	151	5	2	1	54	48
BL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H1	106	0	0	1	3	110	102	0	1	103	7	1	0	8	0
H2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H3	12	0	0	0	0	12	11	0	0	11	1	0	0	1	0
H4	17	0	0	0	0	17	15	0	0	16	1	0	0	2	0
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	9.543	145	107	1	290	10.085	7.132	-24	86	7.194	1.376	110	200	2.892	1.607
adjustments (II)	-597	0	30	0	-32	-598	-497	0	-29	-526	88	-23	90	-72	-47
(b)	0	0	0	0	0	0	0	0	0	0	65	0	0	0	-65
(c)	-1	0	0	0	0	-1	-2	0	0	-2	0	0	0	1	1
(d)	-194	0	0	0	0	-194	-194	0	0	-194	0	0	0	0	0
(e)	0	0	0	0	-15	-15	0	0	-28	-28	0	0	0	14	14
(f)	0	0	0	0	-4	-4	-15	0	0	-15	0	0	0	11	11
(g)	0	0	0	0	0	0	-6	0	0	-6	0	0	0	7	7
(h1)	0	0	0	0	0	0	-1	0	-1	-2	0	0	0	2	2
(i1)	0	0	20	0	0	20	-14	0	0	-14	0	0	0	35	35
(i2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	30	0	0	30	0	0	0	-30	-30
(l)	0	0	0	0	0	0	-19	0	0	-19	0	0	0	19	19
(m)	0	0	0	0	-14	-14	0	0	0	0	0	0	0	-14	-14
(o31)	-17	0	0	0	0	-17	0	0	0	0	0	0	17	-17	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o4)	0	0	10	0	0	10	0	0	0	0	0	0	0	10	10
(p2)	0	0	0	0	0	0	-17	0	0	-17	17	0	0	17	0
(v)	-28	0	0	0	0	-28	-24	0	0	-24	-2	0	0	-4	-3
(w)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x4)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(y)	28	0	0	0	0	28	17	0	0	17	1	0	0	11	10
(z)	-318	0	0	0	0	-318	-318	0	0	-318	0	0	0	0	0
(aa)	-66	0	0	0	0	-66	20	0	0	20	0	-23	66	-86	3
(af)	0	0	0	0	0	0	0	0	0	0	7	0	7	0	0
(fisim)	0	0	0	0	0	0	46	0	0	46	0	0	0	-46	-46
Final (I)+(II)	8.947	145	137	1	258	9.487	6.635	-24	57	6.668	1.463	87	290	2.820	1.560
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_E	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
TOTAL (I)	53	0	0	0	0	53	39	0	0	39	2	0	0	15	12
adjustments (II)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	0
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	-1	0	0	0	0	-1	-1	0	0	-1	0	0	0	0	0
(k)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(l)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(y)	1	0	0	0	0	1	1	0	0	1	0	0	0	1	0
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fisim)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
Final (I+II)	54	0	0	0	0	54	40	0	0	40	2	1	1	14	12
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S11+S14- Final	9.000	145	137	1	258	9.541	6.674	-24	57	6.708	1.466	87	291	2.834	1.572
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

3.12 CONSTRUCTION (F)

3.12.1 INTRODUCTION

In 2012, the value added of construction (Section F) was € 19.633 million or 5,7 % of the value added of all branches of activity combined. It was produced by two institutional sectors: non-financial corporations (S11: € 17.370 million) and households (S14: € 2 263 million).

Gross value added of section F, by branch of activity and institutional sector (2012)

Industry	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
F	60.005	42.636	17.370	5.941	3.678	2.263	65.947	46.314	19.633
FF	60.005	42.636	17.370	5.941	3.678	2.263	65.947	46.314	19.633
41-43	60.005	42.636	17.370	5.941	3.678	2.263	65.947	46.314	19.633
41A	20.583	15.917	4.665	615	400	215	21.197	16.317	4.880
42A	9.237	6.663	2.575	92	57	35	9.330	6.720	2.609
43A	2.059	1.370	689	279	161	118	2.338	1.531	807
43B	12.492	8.167	4.325	1.765	1.134	631	14.256	9.301	4.955
43C	8.852	5.918	2.934	2.039	1.235	804	10.892	7.153	3.738
43D	6.782	4.600	2.182	1.152	691	461	7.934	5.291	2.643

PROCESS TABLE (SECTION F)

	Basis for NA Figures										
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total (sources)
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M			Total Extrap+Models
P1	106	58.180							122		58.408
P2	89	42.264							84		42.436
B1g	17	15.916							39		15.972

Data validation	Adjustments										Final	
	Conceptual			Exhaustiveness						Balancing		Total (adjustments)
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness			
-752	0	-1.593	-1.593	0	0	0	9.884	0	9.884		7.538	65.947
-670	449	-1.394	-945	0	0	0	5.613	-121	5.493		3.878	46.314
-82	-449	-199	-648	0	0	0	4.270	121	4.391		3.661	19.633

A striking feature of the process table in construction is the important amounts of the exhaustiveness adjustments and more particular N6. This item covers adjustments for underreporting/fiscal fraud of businesses active in this industry as well as an amount for own account construction and renovation of dwellings. More information regarding the exhaustiveness adjustments in construction can be found in chapter 7.

3.12.2 METHOD OF CALCULATION

The standard approach is followed in section F

Construction (section F)															
S11_F	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	24.326	417	31	0	744	25.519	18.964	-13	213	19.164	4.456	92	23	6.355	1.830
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	110	0	0	0	3	114	78	0	1	79	40	0	0	34	-6
B1	3.933	-18	0	0	129	4.044	2.867	5	35	2.906	700	18	4	1.138	424
B2	19.830	-88	0	0	96	19.838	13.594	22	198	13.813	3.676	79	23	6.025	2.293
C1	109	-3	0	0	4	110	122	1	2	124	4	1	0	-15	-19
C2	441	0	0	0	0	441	520	0	10	530	14	6	1	-88	-107
E2	106	-2	0	0	2	106	87	1	0	89	15	0	0	17	2
B3	3.800	0	0	0	0	3.800	2.704	0	16	2.720	271	16	4	1.080	797
BL	118	0	0	0	1	120	82	0	1	83	26	0	0	36	10
H1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H2	2	0	0	1	0	3	1	0	0	1	1	0	0	2	1
H3	1	0	0	0	0	1	0	0	0	1	0	0	0	1	1
H4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RF	2	0	0	0	0	2	0	0	0	0	2	0	0	2	0
TOTAL (I)	52.781	307	32	1	979	54.099	39.020	16	475	39.511	9.205	213	56	14.588	5.226
adjustments (II)	6.365	-307	72	0	-224	5.906	3.295	-51	-120	3.124	777	-45	263	2.782	2.312
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	-23	0	0	0	23
(c)	-24	0	0	0	0	-24	-63	0	0	-63	0	0	0	38	38
(d)	-70	0	0	0	0	-70	-70	0	0	-70	0	0	0	0	0
(e)	0	0	0	0	-76	-76	0	0	-118	-118	0	0	0	42	42
(f)	0	0	0	0	-22	-22	-36	0	0	-36	0	0	0	14	14
(g)	0	0	2	0	0	2	-26	0	0	-26	0	0	0	29	29
(h1)	0	0	0	0	0	0	-20	0	0	-20	0	0	0	20	20
(i1)	0	0	67	0	0	67	-42	0	0	-42	0	0	0	109	109
(i2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	136	0	0	136	0	0	0	-136	-136
(l)	0	0	0	0	0	0	-148	0	0	-148	0	0	0	148	148
(m)	0	0	0	0	-114	-114	0	0	0	0	0	0	0	-114	-114
(o31)	-101	0	0	0	0	-101	0	0	0	0	0	0	101	-101	0
(o32)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o4)	0	0	3	0	0	3	0	0	0	0	0	0	0	3	3
(p2)	0	0	0	0	0	0	-121	0	0	-121	121	0	0	121	0
(s)	-399	0	0	0	0	-399	-351	-48	0	-399	0	0	0	0	0
(t)	327	-327	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-779	20	0	0	-12	-770	-593	-3	-1	-596	-152	0	0	-174	-22
(w)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x4)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(y)	7.484	0	0	0	0	7.484	4.318	0	0	4.318	742	0	0	3.166	2.424
(aa)	-72	0	0	0	0	-72	19	0	0	19	0	-45	72	-92	26
(ab)	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0
(af)	0	0	0	0	0	0	0	0	0	0	88	0	88	0	0
(fisim)	0	0	0	0	0	0	289	0	0	289	0	0	0	-289	-289
Final (I)+(II)	59.146	0	103	1	755	60.005	42.316	-35	355	42.636	9.982	169	319	17.370	7.538
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_F															
TOTAL (I)	3.557	0	0	0	0	3.557	2.255	0	0	2.255	221	14	3	1.302	1.071
adjustments (II)	2.384	0	0	0	0	2.384	1.423	0	0	1.423	19	1	20	961	961
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	-13	0	0	0	0	-13	-13	0	0	-13	0	0	0	0	0
(k)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(l)	0	0	0	0	0	0	-21	0	0	-21	0	0	0	21	21
(o31)	-2	0	0	0	0	-2	0	0	0	0	0	0	2	-2	0
(o32)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(y)	2.400	0	0	0	0	2.400	1.296	0	0	1.296	11	0	0	1.104	1.093
(aa)	0	0	0	0	0	0	0	0	0	0	0	1	9	0	8
(af)	0	0	0	0	0	0	0	0	0	0	8	0	8	0	0
(fisim)	0	0	0	0	0	0	160	0	0	160	0	0	0	-160	-160
Final (I+II)	5.941	0	0	0	0	5.941	3.678	0	0	3.678	241	15	23	2.263	2.031
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S11+S14-final															
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
Final (I)+(II)	65.087	0	103	1	755	65.947	45.994	-35	355	46.314	10.222	183	342	19.633	9.569

3.13 WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES (G)

3.13.1 INTRODUCTION

In 2012, the value added of trade and repair of motor vehicles (Section G) was € 43.194 million or 12, 5 % of the value added of all branches of activity combined. It was produced by two institutional sectors: non-financial corporations (S11: € 40.512 million) and households (S14: € 2 682 million).

Gross value added of section G, by branch of activity and institutional sector (2012)

Industry	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
G	82.582	42.070	40.512	4.046	1.364	2.682	86.628	43.434	43.194
GG	82.582	42.070	40.512	4.046	1.364	2.682	86.628	43.434	43.194
45	10.290	4.902	5.389	640	256	384	10.930	5.157	5.773
45A	10.290	4.902	5.389	640	256	384	10.930	5.157	5.773
46	49.314	27.737	21.577	532	156	376	49.846	27.893	21.954
46A	46.631	25.827	20.804	524	155	369	47.155	25.982	21.173
46B	2.683	1.910	773	8	1	7	2.691	1.911	780
47	22.977	9.432	13.546	2.874	952	1.922	25.851	10.384	15.468
47A	22.471	9.235	13.236	2.822	932	1.890	25.293	10.167	15.126
47B	506	197	310	52	20	32	559	217	342

Process table

Basis for NA Figures											
Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Other	Total (sources)
			Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrap+Models		
P1	6.059	395.974								897	402.930
P2	5.359	353.119								791	359.269
B1g	700	42.855								105	43.661

Adjustments											Final	
Data validation	Conceptual			Exhaustiveness						Balancing		Total (adjustments)
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness			
-9.830	0	-313.219	-313.219	0	406	0	6.340	0	6.746		-316.303	86.628
-8.473	507	-309.470	-308.963	0	12	0	2.115	-525	1.601		-315.835	43.434
-1.357	-507	-3.749	-4.256	0	395	0	4.226	525	5.145		-467	43.194

3.13.2 METHOD OF CALCULATION

As in other industries the basis for NA figures are primarily administrative records.

Regarding adjustments relatively important data validation adjustments are made as well as conceptual and exhaustiveness adjustments. Turnover and purchases have to be adjusted downwards with large amounts in order to transform turnover to trade margins and purchases of goods and services to intermediate consumption (cor (d)).

N2 covers trade margins estimated for drugs dealers and smugglers and N6 the adjustment for fiscal fraud/underreporting.

The largest correction on turnover and purchases in this industry is the correction for trade margins (cor (d)). This correction aims at transforming the commercial turnover into trade margins and the total purchases of goods and services (incl. goods for resale) into intermediate consumption (purchases of goods and services excl. goods for resale). This correction is done combining information from the annual accounts and VAT-declarations (total turnover and purchases) and the SBS103 (turnover by activity – commercial, services, industrial production- and purchases by type).

We illustrate this with a fictitious example for a company active in wholesale trading which also has some secondary industrial and service output. We assume that all the goods and services purchased are imported and that the total of goods and services sold are exported. Only the accounts relevant to derive trade margins are shown in the example.

7	Income						source	transaction	product
70	Turnover					100	AA		
		goods for resale				90	SBS	P6	CPA1
		immovable property for resale				0	SBS		
		services				5	SBS	P6	CPA2
		industry (prodcom list)				5	SBS	P6	CPA3
71+72+74	Change in stocks produced, own construction of fixed assets and other operating income					0	AA		
6	Charges								
60	raw materials, consumables and goods for resale					79	AA		
600/8	purchases of goods					82	AA	P7	
600	purchase of raw materials					1	SBS	P7	CPA4
601	purchase of consumables					1	SBS	P7	CPA5
602	purchase of services, works and studies					0	SBS	P7	
603	general sub-contracting					0	SBS	P7	
604	purchase of goods for resale					80	SBS	P7	CPA1
605	purchase of immovable property for resale					0	SBS	P7	
608	discounts, allowances and rebates received (-)					0	SBS	P7	
609	changes in stocks of purchased goods (increase-, decrease +)					-3	AA		
	6090	raw materials				0	SBS		
	6091	consumables				0	SBS		
	6094	goods purchased for resale				-3	SBS	P52	CPA1
	6095	immovable property acquired for resale				0	SBS		
61	Services and other goods					7	AA	P7	CPA6
641/8	other operating charges					0	AA		
	AA: Annual Accounts								
	SBS: Structural Business Survey								

The trade margin is the difference between the value of the commercial goods sold and the cost of the commercial goods sold. Increases in stocks have to be retreated from the purchases and decreases in stocks have to be added to the purchases in order to determine the cost of the commercial goods sold.

¹⁰³ The SBS refers to the content of the Minimum Standard Chart of Accounts all Belgian companies have to follow in their accounting system.

In this example we obtain the following results:

commercial goods sold (a)			90
cost of commercial goods sold (b)			77
604	purchases		80
6094	increase in stocks		-3
Trade margin (a)-(b)			13

In correction (d) the cost of commercial goods sold is retreated from the total turnover and from the total consumption of goods and services. After correction we obtain the ESA2010 valuation of production (commercial turnover has been transformed into a trade margin) and intermediate consumption (goods for resale are excluded from the total consumption of goods and services).

Adm. Aggregates		(d)	ESA2010	
70	100	-77	23	P1
600/8+61	89	-80	9	P2
609	-3	3	0	
C_C	14	0	14	B1g

The composition of total production and intermediate consumption in this example is shown in the next table

composition of total output	23
trade margins	13
other services (secondary output)	5
industrial goods (secondary output)	5
composition of intermediate consumption	9
raw materials	1
consumables	1
services	7

The information in the SUT-framework:

SUT	P1_G	P7	TM	Supply	P2_G	P52	P6	Use
CPA1		80	13	93		3	90	93
CPA2	5			5			5	5
CPA3	5			5			5	5
CPA4		1		1	1			1
CPA5		1		1	1			1
CPA6		7		7	7			7
TM (*)	13		-13	0				0
Total	23	89	0	112	9	3	100	112
p.m. B1g					14			
(*) trade margins								

An estimate to eliminate holding gains in value added and changes in stocks (P52) is done in manufacturing, construction and trade (cor (w)). For 2012, a year with moderate increases in production and import prices, value added was adjusted downwards with € 135 million of which € 124 million in section G.

Non-trade branches of activity may also realise trade margins as secondary output. It can be assumed that most trade margins in these branches are on wholesale activities. This assumption is supported by the SBS, which gives a detailed overview of turnover broken down by activity (e.g. commercial activity). The following table gives an overview of the importance of correction (d) by industry. The calculation of correction (d) includes non-commercial organisations.

Correction (d) by industry (S11+S14) in 2012

section	€ million	%
C	-47.941	13,7 %
G	-295.458	84,6 %
other	-5.640	1,6 %
total	-349.039	100,0 %

Apart from trade (section G), there only seems to be a significant commercial activity in manufacturing (section C).

The standard approach is followed to derive the production and primary distribution of income account in section G.

For nace G, independent estimates from the demand and the supply side are produced and confronted with each other for validation purposes. Estimates for the supply side are based on annual accounts (Central balance sheet office) and other administrative data (following the general estimation method).

Estimates for the demand side are based on totally different sources. Validation against expenditure estimates takes place within the supply and use framework.

So, the turnover of the retail trade is compared and made consistent with the tradable consumption of households. Again, the validation against expenditure estimates takes place within the supply and use framework. The estimates for final consumption expenditure of households are also based on different indicators, of which a survey on retail trade.

The estimates for enterprises active in repairs of motor vehicles are calculated on the basis of on annual accounts (Central balance sheet office) and other administrative data (following the general estimation method). Validation against the expenditure approach (P.3 – see description in chapter 5.7.3.2.7) takes also place within the supply and use framework.

Section G															
S11_G	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	272.955	237	305	0	9.032	282.528	254.330	-253	574	254.651	16.237	2.974	151	27.877	8.818
E1	5.068	-6	0	0	154	5.215	4.707	-128	3	4.582	372	11	10	633	260
A2	4.204	2	4	0	169	4.378	3.882	-9	9	3.882	261	14	3	496	224
B1	11.603	-182	0	0	202	11.623	10.117	-9	44	10.152	845	40	7	1.470	593
B2	62.362	0	0	0	0	62.362	53.203	0	283	53.486	4.812	213	42	8.877	3.894
C1	408	-2	0	0	5	411	449	0	1	450	11	2	0	-38	-51
C2	1.613	0	0	0	0	1.613	1.771	0	22	1.792	51	30	0	-179	-259
E2	829	10	0	0	5	844	762	6	9	777	42	9	0	66	15
B3	13.279	0	0	0	5	13.284	11.773	0	21	11.794	1.005	46	7	1.490	446
BL	840	0	0	0	24	865	780	-2	3	781	50	2	1	83	32
H1	25	0	0	4	1	30	12	0	0	12	15	0	0	18	3
H2	10	0	0	2	1	13	8	0	0	8	4	0	0	5	1
H3	20	0	0	3	1	23	12	0	0	12	9	0	0	11	1
H4	13	0	0	1	0	14	10	0	0	10	4	0	0	4	0
RF	18	0	0	0	0	18	0	0	0	0	18	0	0	18	0
TOTAL (I)	373.249	59	309	9	9.597	383.222	341.816	-395	970	342.391	23.736	3.341	223	40.832	13.977
adjustments (II)	-299.933	-8	378	-7	-1.071	-300.641	-300.554	440	-207	-300.321	600	-2.774	704	-320	2.557
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	21	0	0	0	-21
(c)	-142	0	0	0	0	-142	-272	0	0	-272	0	0	0	131	131
(d)	-287.955	0	0	0	0	-287.955	-288.231	276	0	-287.955	0	0	0	0	0
(e)	0	0	0	0	-636	-636	0	0	-194	-194	0	0	0	-443	-443
(f)	0	0	0	0	-73	-73	-155	0	0	-155	0	0	0	83	83
(g)	0	0	213	0	0	213	-201	0	0	-201	0	0	0	415	415
(h1)	0	0	0	0	0	0	-47	0	0	-47	0	0	0	47	47
(h2)	0	0	0	-7	0	-7	0	0	0	0	0	0	0	-7	-7
(i1)	0	0	262	0	0	262	-221	0	0	-221	0	0	0	483	483
(i2)	0	0	-71	0	0	-71	0	0	0	0	0	0	0	-71	-71
(i3)	0	0	-13	0	0	-13	0	0	0	0	0	0	0	-13	-13
(k)	0	0	0	0	0	0	362	0	0	362	0	0	0	-362	-362
(l)	0	0	0	0	0	0	-149	0	0	-149	0	0	0	149	149
(m)	0	0	0	0	-185	-185	0	0	0	0	0	0	0	-185	-185
(o1)	-6.037	0	0	0	0	-6.037	-3.540	0	0	-3.540	0	-2.497	0	-2.497	0
(o2)	-144	0	0	0	0	-144	-17	0	0	-17	0	-127	0	-127	0
(o31)	-303	0	0	0	0	-303	0	0	0	0	0	0	303	-303	0
(o32)	-3	0	0	0	0	-3	0	0	0	0	0	0	3	-3	0
(o4)	0	0	7	0	0	7	0	0	0	0	0	0	0	7	7
(p2)	0	0	0	0	0	0	-525	0	0	-525	525	0	0	525	0
(r)	0	0	0	0	0	0	0	0	0	0	9	0	0	0	-9
(s)	-8	0	0	0	0	-8	-8	0	0	-8	0	0	0	0	0
(v)	-10.204	-8	-21	0	-177	-10.409	-9.835	40	-13	-9.808	-377	0	0	-601	-224
(w)	0	0	0	0	0	0	0	124	0	124	0	0	0	-124	-124
(x4)	0	0	0	0	0	0	5	0	0	5	0	0	0	-5	-5
(y)	5.070	0	0	0	0	5.070	1.758	0	0	1.758	233	0	0	3.312	3.079
(aa)	-211	0	0	0	0	-211	125	0	0	125	0	-151	211	-335	26
(ab)	1	0	0	0	0	1	0	0	0	0	2	0	1	1	0
(af)	0	0	0	0	0	0	0	0	0	0	187	0	187	0	0
(fisim)	0	0	0	0	0	0	398	0	0	398	0	0	0	-398	-398
Final (I)+(II)	73.316	51	686	2	8.527	82.582	41.262	45	763	42.070	24.337	567	927	40.512	16.536
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_G	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
TOTAL (I)	9.876	0	0	0	0	9.876	8.405	0	0	8.405	329	44	7	1.471	1.104
adjustments (II)	-5.831	0	0	0	0	-5.831	-7.041	0	0	-7.041	24	3	30	1.210	1.213
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	3
(d)	-7.503	0	0	0	0	-7.503	-7.503	0	0	-7.503	0	0	0	0	0
(k)	0	0	0	0	0	0	2	0	0	2	0	0	0	-2	-2
(l)	0	0	0	0	0	0	-18	0	0	-18	0	0	0	18	18
(o31)	-4	0	0	0	0	-4	0	0	0	0	0	0	4	-4	0
(o32)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(x3)	406	0	0	0	0	406	12	0	0	12	0	0	0	395	395
(y)	1.270	0	0	0	0	1.270	357	0	0	357	16	0	0	913	897
(aa)	0	0	0	0	0	0	0	0	0	0	0	3	14	0	11
(af)	0	0	0	0	0	0	0	0	0	0	11	0	11	0	0
(fisim)	0	0	0	0	0	0	109	0	0	109	0	0	0	-109	-109
Final (I+II)	4.046	0	0	0	0	4.046	1.364	0	0	1.364	354	47	36	2.682	2.318
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S11+S14_final	77.363	51	686	2	8.527	86.628	42.626	45	763	43.434	24.690	614	963	43.194	18.853
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

3.14 TRANSPORTATION AND STORAGE (H)

3.14.1 INTRODUCTION

In 2012, the value added of transport and storage (Section H) amounted to € 19.884 million, 5, 7 % of the value added of all branches of activity combined. It was produced by three institutional sectors, S11 (€ 14.435 million), S13 (€ 5.249 million) and S14 (€ 200 million).

Gross value added of section H per branch of activity and per institutional sector (2012)

Industry	S11			S13			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
H	45.997	31.561	14.435	7.599	2.350	5.249	533	332	200	54.128	34.244	19.884
HH	45.997	31.561	14.435	7.599	2.350	5.249	533	332	200	54.128	34.244	19.884
49	14.495	9.238	5.257	2.524	924	1.600	359	225	134	17.378	10.387	6.991
49A	2.791	1.806	984							2.791	1.806	984
49B	1.188	573	615	2.524	924	1.600	103	57	46	3.815	1.554	2.261
49C	10.517	6.859	3.658				256	168	88	10.772	7.027	3.746
50	4.154	3.745	409				24	17	8	4.178	3.761	416
50A	3.924	3.597	327				12	10	2	3.936	3.607	329
50B	230	148	82				12	6	6	242	154	87
51	2.944	2.523	421				3	2	1	2.946	2.525	421
51A	2.944	2.523	421				3	2	1	2.946	2.525	421
52	20.543	14.253	6.290	5.075	1.426	3.649	54	35	20	25.673	15.714	9.958
52A	20.543	14.253	6.290	5.075	1.426	3.649	54	35	20	25.673	15.714	9.958
53	3.862	1.803	2.059				93	54	39	3.954	1.856	2.098
53A	3.862	1.803	2.059				93	54	39	3.954	1.856	2.098

The process table for section H

	Basis for NA Figures												Total (sources)	
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total Extrapolation+Models			
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FSIM	Other E&M					
P1	457	57.135				2.698				53	2.752		60.344	
P2	342	39.546				0				35	35		39.923	
B1g	115	17.590				2.698				18	2.717		20.422	
Data validation	Adjustments												Final	
	Conceptual			Exhaustiveness								Balancing		Total (adjustments)
	Allocation of FSIM	Other conceptual	Total conceptual	N1	N2	N3	N4	N5	N6	N7	Total exhaustiveness			
-4.998	0	-1.559	-1.559	0	0	0	0	0	333	8	341	0	-6.216	54.129
-4.657	236	-1.281	-1.045	0	0	0	0	0	132	-109	24	0	-5.678	34.244
-341	-236	-278	-514	0	0	0	0	0	201	117	318	0	-537	19.884

The amounts appearing in the column CFC(PIM) correspond to the consumption of fixed capital estimated via PIM for S13-units belonging to this industry.

3.14.2 METHOD OF CALCULATION

Non-financial corporations and self-employed (S.11 and S.14)

The compilation of the aggregates of the production and primary distribution of income account follow the general method.

Section H															
S11_H	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	33.810	6	618	0	1.762	36.196	24.521	-5	193	24.709	8.044	174	175	11.486	3.443
E1	396	8	0	0	8	412	307	6	0	312	86	1	0	100	13
A2	634	0	0	0	24	658	431	0	2	433	179	3	1	226	45
B1	1.187	-3	0	0	55	1.239	828	0	13	841	252	17	5	398	134
B2	6.482	-1	0	0	147	6.628	4.519	0	52	4.571	1.308	50	18	2.057	718
C1	12	0	0	0	0	12	13	0	0	13	1	0	0	-2	-3
C2	75	0	0	0	0	75	89	0	1	90	2	1	0	-15	-18
E2	40	0	0	0	4	45	29	0	0	29	14	0	0	16	1
B3	1.934	0	0	0	0	1.934	1.561	0	3	1.563	250	9	8	370	120
BL	45	0	0	0	3	47	32	0	0	32	9	0	0	15	6
H1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H2	4	0	0	1	0	5	2	0	0	2	1	0	0	4	3
H3	5	0	0	1	0	6	2	0	0	2	3	0	0	3	1
H4	5	0	0	0	0	6	3	0	0	3	2	0	0	3	1
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (I)	44.629	10	618	2	2.004	47.263	32.336	0	265	32.601	10.151	255	208	14.662	4.463
adjustments (II)	-1.146	-10	203	0	-314	-1.266	-978	1	-63	-1.040	235	-75	429	-226	43
(b)	0	0	0	0	0	0	0	0	0	0	103	0	0	0	-103
(c)	-22	0	0	0	0	-22	-2	0	0	-2	0	0	0	-20	-20
(d)	-558	0	0	0	0	-558	-558	0	0	-558	0	0	0	0	0
(e)	0	0	0	0	-147	-147	0	0	-61	-61	0	0	0	-86	-86
(f)	0	0	0	0	-36	-36	-168	0	0	-168	0	0	0	132	132
(g)	0	0	1	0	0	1	-11	0	0	-11	0	0	0	13	13
(h1)	0	0	0	0	0	0	-6	0	0	-6	0	0	0	6	6
(i1)	0	0	180	0	0	180	-100	0	0	-100	0	0	0	280	280
(i2)	0	0	-14	0	0	-14	0	0	0	0	0	0	0	-14	-14
(i3)	0	0	-1	0	0	-1	0	0	0	0	0	0	0	-1	-1
(k)	0	0	0	0	0	0	105	0	0	105	0	0	0	-105	-105
(l)	0	0	0	0	0	0	-116	0	0	-116	0	0	0	116	116
(m)	0	0	0	0	-118	-118	0	0	0	0	0	0	0	-118	-118
(o1)	-28	0	0	0	0	-28	0	0	0	0	0	-28	0	-28	0
(o31)	-231	0	0	0	0	-231	0	0	0	0	0	0	231	-231	0
(o32)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o4)	0	0	37	0	0	37	0	0	0	0	0	0	0	37	37
(p2)	0	0	0	0	0	0	-109	0	0	-109	109	0	0	109	0
(q)	7	0	0	0	0	7	0	0	0	0	7	0	0	7	0
(r)	0	0	0	0	0	0	0	0	0	0	12	0	0	0	-12
(t)	10	-10	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-449	0	0	0	-13	-462	-372	1	-2	-372	-71	0	0	-89	-18
(x4)	0	0	0	0	0	0	3	0	0	3	0	0	0	-3	-3
(y)	270	0	0	0	0	270	107	0	0	107	23	0	0	164	141
(aa)	-145	0	0	0	0	-145	28	0	0	28	0	-48	145	-172	20
(af)	0	0	0	0	0	0	0	0	0	0	52	0	52	0	0
(fisim)	0	0	0	0	0	0	222	0	0	222	0	0	0	-222	-222
Final (I)+(II)	43.483	0	821	2	1.690	45.997	31.358	1	202	31.562	10.385	180	636	14.435	4.506
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_H															
TOTAL (I)	483	0	0	0	1	484	314	0	0	314	40	4	1	170	128
adjustments (II)	49	0	0	0	0	49	19	0	0	19	4	0	4	30	30
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	-14	0	0	0	0	-14	-14	0	0	-14	0	0	0	0	0
(k)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(l)	0	0	0	0	0	0	-8	0	0	-8	0	0	0	8	8
(o31)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(q)	1	0	0	0	0	1	0	0	0	0	0	0	0	1	1
(y)	63	0	0	0	0	63	26	0	0	26	2	0	0	37	35
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
(af)	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0
(fisim)	0	0	0	0	0	0	14	0	0	14	0	0	0	-14	-14
Final (I+II)	532	0	0	0	1	533	332	0	0	332	44	4	5	200	158
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

General government (S.13)

Detailed information on the sources and methods of calculation is available in point 3.21. The costs related to transportation are identified using the economic codes and the functional codes (Cofog) attributed to the specific transactions or units (such as the consolidated regional transport companies).

3.15 ACCOMMODATION AND FOOD SERVICE ACTIVITIES (I)

3.15.1 INTRODUCTION

In 2012, the value added of hotel, restaurant and catering activities (Section I) amounted to 6.203 million, 1.8 % of the value added of all branches of activity combined. It was produced by two institutional sectors: non-financial corporations (S11: € 4.764 million) and households (S14: € 1.439 million).

Gross value added of section I, by branch of activity and institutional sector (2012)

Industry	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
I	11.376	6.612	4.764	3.286	1.847	1.439	14.662	8.459	6.203
II	11.376	6.612	4.764	3.286	1.847	1.439	14.662	8.459	6.203
55-56	11.376	6.612	4.764	3.286	1.847	1.439	14.662	8.459	6.203
55A	2.393	1.123	1.269	156	71	85	2.548	1.194	1.354
56A	8.983	5.488	3.495	3.131	1.777	1.354	12.114	7.265	4.849

The process table for section I:

	Basis for NA Figures										
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total (sources)
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FISIM	Other E&M			Total Extrap+Models
P1	63	12.146							62		12.271
P2	41	7.610							36		7.688
B1g	21	4.536							26		4.583

Data validation	Adjustments										Balancing	Total (adjustments)	Final
	Conceptual			Exhaustiveness									
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness				
0	0	-174	-174	0	0	0	2.017	548	2.566		2.391	14.662	
0	143	-77	66	0	0	0	726	-21	705		771	8.459	
0	-143	-97	-240	0	0	0	1.291	569	1.860		1.620	6.203	

Important adjustments are made for fiscal fraud/underreporting (N6) as well as for tips (N7).

3.15.2 METHOD OF CALCULATION

In section I the standard approach is followed concerning the compilation of ESA2010 aggregates. The correction (d) for trade margins is empty which implies that the purchase of food, beverages etc. in this industry are not treated as goods for resale but as goods destined for intermediate consumption.

Section I															
S11_I	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	2.428	4	1	0	194	2.626	1.432	9	9	1.450	908	49	2	1.176	221
E1	40	0	0	0	0	40	27	0	0	27	21	2	0	13	-10
A2	30	0	0	0	4	34	19	0	0	19	6	0	0	16	9
B1	1.155	-1	0	0	32	1.186	800	1	6	807	262	17	0	379	101
B2	5.066	0	0	0	0	5.066	3.205	0	26	3.231	1.214	73	2	1.835	549
C1	36	0	0	0	0	36	42	0	0	42	2	1	0	-6	-9
C2	70	0	0	0	0	70	87	0	0	87	5	3	0	-17	-24
E2	22	0	0	0	0	22	10	0	5	15	6	0	0	8	1
B3	815	0	0	0	0	815	545	0	2	547	157	12	0	269	100
BL	8	0	0	0	0	8	4	0	0	4	2	0	0	4	1
H1	54	0	0	14	3	71	36	0	0	36	33	1	0	36	1
H2	31	0	0	6	2	39	16	0	0	17	17	1	0	22	4
H3	43	0	0	10	3	56	29	0	1	30	25	2	0	27	0
H4	43	0	0	7	4	54	31	0	1	32	19	1	0	22	2
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (I)	9.843	2	1	38	242	10.126	6.282	10	51	6.343	2.679	162	5	3.783	947
adjustments (II)	1.268	-2	6	-6	-16	1.250	278	0	-9	268	544	-34	97	981	569
(b)	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	5
(c)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(e)	0	0	0	0	-1	-1	0	0	-9	-9	0	0	0	8	8
(f)	0	0	0	0	-5	-5	-29	0	0	-29	0	0	0	24	24
(g)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h1)	0	0	0	0	0	0	-3	0	0	-3	0	0	0	3	3
(h2)	0	0	0	-6	0	-6	0	0	0	0	0	0	0	-6	-6
(i1)	0	0	6	0	0	6	-14	0	0	-14	0	0	0	20	20
(k)	0	0	0	0	0	0	40	0	0	40	0	0	0	-40	-40
(l)	0	0	0	0	0	0	-18	0	0	-18	0	0	0	18	18
(m)	0	0	0	0	-6	-6	0	0	0	0	0	0	0	-6	-6
(o31)	-29	0	0	0	0	-29	0	0	0	0	0	0	29	-29	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p1)	34	0	0	0	0	34	0	0	0	0	34	0	0	34	0
(p2)	0	0	0	0	0	0	-21	0	0	-21	21	0	0	21	0
(q)	409	0	0	0	0	409	0	0	0	0	409	0	0	409	0
(t)	2	-2	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-104	0	0	0	-3	-107	-68	0	0	-69	-25	0	0	-38	-13
(x4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(y)	978	0	0	0	0	978	305	0	0	305	64	0	0	672	608
(aa)	-23	0	0	0	0	-23	31	0	0	31	0	-34	23	-54	3
(ab)	1	0	0	0	0	1	1	0	0	1	2	0	1	1	0
(af)	0	0	0	0	0	0	0	0	0	0	44	0	44	0	0
(fisim)	0	0	0	0	0	0	55	0	0	55	0	0	0	-55	-55
Final (I)+(II)	11.111	0	7	32	226	11.376	6.560	10	41	6.612	3.223	128	103	4.764	1.516
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_I	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
TOTAL (I)	2.145	0	0	0	0	2.145	1.344	0	0	1.344	227	32	1	800	542
adjustments (II)	1.142	0	0	0	0	1.142	503	0	0	503	61	2	18	639	594
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	3
(d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(l)	0	0	0	0	0	0	-7	0	0	-7	0	0	0	7	7
(o31)	-3	0	0	0	0	-3	0	0	0	0	0	0	3	-3	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p1)	6	0	0	0	0	6	0	0	0	0	6	0	0	6	0
(q)	100	0	0	0	0	100	0	0	0	0	39	0	0	100	60
(y)	1.040	0	0	0	0	1.040	421	0	0	421	11	0	0	619	608
(aa)	0	0	0	0	0	0	0	0	0	0	0	2	7	0	5
(af)	0	0	0	0	0	0	0	0	0	0	8	0	8	0	0
(fisim)	0	0	0	0	0	0	88	0	0	88	0	0	0	-88	-88
Final (I+II)	3.286	0	0	0	0	3.286	1.847	0	0	1.847	288	34	19	1.439	1.136
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S11+S14_final	14.397	0	7	32	226	14.662	8.407	10	41	8.459	3.511	162	121	6.203	2.651
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

Production estimates for HORECA are based on annual accounts (Central balance sheet office) and other administrative data (following the general estimation method). Validation against expenditure estimates takes place within the supply and use framework. There is no price X quantity approach.

3.16 INFORMATION AND COMMUNICATION (J)

3.16.1 INTRODUCTION

In 2012, the value added of information and communication services (Section J) amounted to € 14.990 million, 4, 3 % of the value added of all branches of activity combined. It was produced by three institutional sectors: non-financial corporations (S11: € 14.324 million), Government (S13: public broadcasting corporations and Belgian Official Gazette: € 515 million) and households (S14: € 151 million).

Gross value added of section J, by branch of activity and institutional sector (2012)

Industry	S11			S13			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
J	31.518	17.195	14.324	902	387	515	292	141	151	32.712	17.722	14.990
JA	6.111	3.735	2.377	902	387	515	49	23	25	7.061	4.144	2.917
58	2.988	1.944	1.044	55	1	54	13	7	6	3.056	1.952	1.103
58A	2.988	1.944	1.044	55	1	54	13	7	6	3.056	1.952	1.103
59-60	3.123	1.791	1.333	847	385	461	36	16	19	4.006	2.192	1.813
59A	2.179	1.141	1.038				34	15	19	2.213	1.157	1.056
60A	944	649	295	847	385	461	2	1	1	1.793	1.036	757
JB	12.284	6.790	5.494				39	29	9	12.323	6.819	5.504
61	12.284	6.790	5.494				39	29	9	12.323	6.819	5.504
61A	12.284	6.790	5.494				39	29	9	12.323	6.819	5.504
JC	13.123	6.670	6.453				205	88	117	13.328	6.759	6.569
62-63	13.123	6.670	6.453				205	88	117	13.328	6.759	6.569
62A	11.397	5.914	5.483				161	67	94	11.558	5.981	5.577
63A	1.726	756	970				44	21	23	1.770	778	993

The process table for section J

Basis for NA Figures												
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Other	Total (sources)
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FSIM	Other E&M	Total Extrap+ Models		
P1	138	33.408	0	0	0	94	0	0	144	238	0	33.784
P2	89	19.603	0	0	0	0	0	0	78	78	0	19.770
B1g	49	13.804	0	0	0	94	0	0	66	160	0	14.014

Adjustments														
Data validation	Conceptual			Exhaustiveness								Balancing	Total (adjustments)	Final
	Allocation of FSIM	Other conceptual	Total conceptual	N1	N2	N3	N4	N5	N6	N7	Total exhaustiveness			
-383	0	-910	-910	0	0	0	0	0	221	0	221	0	-1.072	32.712
-139	160	-1.928	-1.768	0	0	0	0	0	68	-210	-142	0	-2.048	17.722
-244	-160	1.018	858	0	0	0	0	0	153	210	362	0	976	14.990

3.16.2 METHOD OF CALCULATION

The estimate in S13 is a sum of cost approach (except for the Belgian Official Gazette which is considered as market). It concerns the public broadcasting corporations; see 3.21 for the method of calculation. In S11 and S14 the standard procedure is followed:

Section J															
S11_J	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	23.336	50	658	0	1.255	25.299	14.511	3	161	14.675	5.701	65	59	10.624	4.917
E1	123	-2	1	0	3	125	82	0	0	82	42	0	0	43	1
A2	309	0	7	0	37	353	221	0	1	222	67	1	0	131	64
B1	980	0	0	0	69	1.049	670	0	9	680	204	4	5	369	166
B2	3.821	0	0	0	6	3.827	2.318	0	43	2.361	698	19	20	1.467	769
C1	28	0	0	0	3	31	42	0	0	43	4	0	0	-12	-16
C2	112	0	0	0	0	112	144	0	2	146	7	1	0	-34	-43
E2	13	0	0	0	0	14	7	0	0	7	6	0	0	7	1
B3	1.082	0	0	0	2	1.085	734	0	6	740	179	6	4	345	164
BL	105	0	0	0	2	107	58	0	0	58	50	0	0	49	-1
H1	77	0	0	6	1	85	33	0	0	33	38	0	0	51	13
H2	28	0	0	7	1	36	18	0	0	18	17	0	0	18	1
H3	25	0	0	20	1	46	17	0	0	17	28	0	0	29	0
H4	28	0	0	7	2	36	20	0	0	20	15	0	0	16	1
RF	1	0	0	0	0	1	0	0	0	0	1	0	0	1	0
TOTAL (I)	30.069	48	667	39	1.383	32.205	18.876	3	222	19.101	7.056	98	89	13.104	6.038
adjustments (II)	-1.909	-48	1.329	0	-58	-687	-1.811	0	-96	-1.906	113	-21	170	1.220	1.297
(b)	0	0	0	0	0	0	0	0	0	0	17	0	0	0	-17
(c)	-5	0	0	0	0	-5	-5	0	0	-5	0	0	0	0	0
(d)	-1.190	0	0	0	0	-1.190	-1.190	0	0	-1.190	0	0	0	0	0
(e)	0	0	0	0	-19	-19	0	0	-92	-92	0	0	0	72	72
(f)	0	0	0	0	-4	-4	-9	0	0	-9	0	0	0	5	5
(g)	0	0	163	0	0	163	-17	0	0	-17	0	0	0	181	181
(h1)	0	0	0	0	0	0	-11	0	0	-11	0	0	0	11	11
(i1)	0	0	801	0	0	801	-115	0	0	-115	0	0	0	916	916
(i2)	0	0	-134	0	0	-134	0	0	0	0	0	0	0	-134	-134
(i3)	0	0	-11	0	0	-11	0	0	0	0	0	0	0	-11	-11
(k)	0	0	0	0	0	0	96	0	0	96	0	0	0	-96	-96
(l)	0	0	0	0	0	0	-29	0	0	-29	0	0	0	29	29
(m)	0	0	0	0	-28	-28	0	0	0	0	0	0	0	-28	-28
(o31)	-85	0	0	0	0	-85	0	0	0	0	0	0	85	-85	0
(o32)	-3	0	0	0	0	-3	0	0	0	0	0	0	3	-3	0
(o4)	0	0	38	0	0	38	0	0	0	0	0	0	0	38	38
(p2)	0	0	0	0	0	0	-210	0	0	-210	210	0	0	210	0
(r)	0	0	0	0	0	0	0	0	0	0	44	0	0	0	-44
(t)	49	-47	-2	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-827	0	-1	0	-7	-835	-557	0	-4	-560	-203	0	0	-275	-72
(x1)	0	0	473	0	0	473	0	0	0	0	0	0	0	473	473
(x4)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(y)	210	0	0	0	0	210	66	0	0	66	22	0	0	145	123
(aa)	-59	0	0	0	0	-59	16	0	0	16	0	-21	59	-74	5
(af)	0	0	0	0	0	0	0	0	0	0	23	0	23	0	0
(fisim)	0	0	0	0	0	0	152	0	0	152	0	0	0	-152	-152
Final (I)+(II)	28.159	0	1.995	39	1.324	31.518	17.065	4	127	17.195	7.169	77	258	14.324	7.336
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_J															
TOTAL (I)	294	0	0	0	0	294	144	0	0	144	5	2	1	150	145
adjustments (II)	-2	0	0	0	0	-2	-3	0	0	-3	0	0	2	1	2
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	-12	0	0	0	0	-12	-12	0	0	-12	0	0	0	0	0
(k)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(l)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(y)	10	0	0	0	0	10	2	0	0	2	0	0	0	8	8
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
(af)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fisim)	0	0	0	0	0	0	8	0	0	8	0	0	0	-8	-8
Final (I+II)	292	0	0	0	0	292	141	0	0	141	5	2	3	151	147
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

3.17 FINANCIAL AND INSURANCE ACTIVITIES (K)

3.17.1 INTRODUCTION

In 2012, the value added of financial and insurance activities (Section K) amounted to € 21.896 million, 6,3 % of the value added of all branches of activity combined. It was produced by two institutional sectors: financial corporations (S12: € 21.785 million) and households (S14: € 112 million).

Gross value added for section K per (sub) sector (2012)

	P1	P2	B1g
S12	42.187	20.403	21.785
S121	360	73	286
S122	15.954	7.173	8.781
S123+S124	1.141	829	311
S125+S126+S127	14.324	6.949	7.376
S128	10.117	5.300	4.817
S129	292	79	212
S14	194	83	112
Total K	42.381	20.485	21.896

The process table for K

	Basis for NA Figures											
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Other	Total (sources)
				Benchmark extrapolations	Commodity Flow Model	CFC(PI M)	Dwellings - stratification method	FISIM	Other E&M	Total Extrapol+ Models		
P1	2.141	29.691	269	0	0	0	0	10.946	1.024	11.970	0	44.070
P2	176	20.112	0	0	0	0	0	0	742	742	0	21.030
B1g	1.965	9.579	269	0	0	0	0	10.946	282	11.228	0	23.040

Data validation	Adjustments											final	
	Conceptual			Exhaustiveness							Balancing		Total adjustments
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness				
292	0	-1.798	-1.798	0	0	0	19	0	19	-202	-1.689	42.381	
-58	193	-772	-579	0	0	0	0	-58	-58	150	-545	20.485	
349	-193	-1.025	-1.218	0	0	0	19	58	76	-352	-1.145	21.896	

In section K FISIM represents 25 % of the total production (before adjustments). As in other industries, administrative (accounting) information is decisive to estimate the production account. In

2012 a balancing adjustment with a negative impact of € 352 million on value added was implemented.

3.17.2 METHOD OF CALCULATION

3.17.2.1 Production and allocation of fisim

Total output of financial services comprises two elements: commissions and income from financial intermediation services. Although commission remuneration for services has grown over recent years, a large proportion of financial services are still invoiced implicitly: neither their value nor their volume nor their prices are observed directly. Financial corporations thus cover part of their expenditure and produce an operating surplus by setting the interest rates they charge on funds lent at a higher value than the rates they pay on funds borrowed and by setting the interest rates they give on deposits at a lower value than the rates they pay on funds borrowed. SNA 2008 and ESA 2010 use the concept of financial intermediation services indirectly measured (FISIM) to evaluate financial services that are not explicitly invoiced, and requires allocating FISIM among user sectors.

The system of national accounts is based on the principle that each time output is recorded there has necessary to be explicit recording of use of that output elsewhere. This implies that production of FISIM gives rise to one or other of the following uses: intermediate consumption, final consumption or exports. This treatment ensures that the levels of GDP and GNI take FISIM into account in the same way as any other output¹⁰⁴.

FISIM output is calculated on deposits received and loans granted by financial intermediaries belonging to the subsectors of other monetary financial institutions (S.122) and other financial intermediaries except insurance enterprises and pension funds (S.125). FISIM output is also calculated on deposits received and loans granted by financial intermediaries belonging to the sector of the rest of the world (S.2).

Only the management of loans and deposits generates output insofar as the interest rates applied to them are controlled by financial intermediaries and therefore include remuneration for the latter's intermediation services. The financial transactions are F2 (currency and deposits) and F4 (loans). The decision to confine the calculation of FISIM to loans and deposits is based on the following:

- FISIM are not calculated on securities other than AF2 and AF4, because financial intermediaries do not control the interest rates on them;

¹⁰⁴ Commission Regulation (EC) No 1889/2002 of 23 October 2002 stated the arrangements for FISIM allocation by user sector pursuant to Council Regulation (EC) No 448/98 of 16 February 1998 amending and supplementing Regulation (EC) No 223/96 as regards the breakdown of FISIM among user sectors within the scope of the System of National and Regional Accounts (ESA 1995). The approach adopted before the new European legislation came into force in January 2005 did not allocate FISIM output to different users. The total output was recorded, by convention, as intermediate consumption of a notional branch of activity. Before the introduction of ESA1995 a large part of the activity of the financial sector (financial intermediation) had no impact on GDP.

- Interest on deposits and loans is readily identifiable, with a clear distinction between the rates on loans (higher) and those applied to deposits (lower). This distinction is important, since the FISIM breakdown method is based on the difference between the implicit interest rates on deposits and loans and a reference rate. This distinction is less clear in the case of bonds and securities.

Non-performing loans are included in the stocks of instrument AF4. Therefore, interests are calculated on these amounts, and are included in the calculation of FISIM. Note that the amount of non-performing loans is very low compared to the total stocks of loans (much less than 1% of the total).

The financial intermediation of insurance enterprises and pension funds (S.128 and S.129) is of a different kind from that of subsectors S.122 and S.125. These organisations are excluded from FISIM calculation insofar as their main activity does not consist in receiving deposits and granting loans. Financial auxiliaries (S.126) are financial corporations but not financial intermediaries, so they do not produce intermediation services. Mutual funds (S.123 and S.124) are excluded from the scope of FISIM calculation, as well as holdings (S.127).

Finally, the central bank (S.121) is excluded from FISIM calculation: its output is measured on the basis of the sum of its costs (Regulation (EC) 448/98). This treatment arises from the very specific nature of monetary intermediation conducted by a central bank as a public financial corporation which is a monetary authority in that it issues bank notes and sometimes coins and manages the whole or part of the country's foreign exchange reserves. The central bank's income is mainly generated by seigniorage.

The FISIM calculation method is based on calculating the margin defined as the difference between the interest rates actually received on loans and paid on deposits and a reference rate supposed to represent a "pure" interest rate exclusive of risk premiums and intermediation services.

For each counterpart sector, the value of FISIM consumed may be formalised as follows:

$$\text{FISIM on loans:} \quad + \left[r_{L,Si}^t - rr^t \right] * Y_{L,Si}^t$$

$$\text{FISIM on deposits:} \quad - \left[r_{D,Si}^t - rr^t \right] * Y_{D,Si}^t$$

where $r_{L,Si}^t$ is the implicit rate on loans granted to sector i in period t

$r_{D,Si}^t$ is the implicit rate on deposits of sector i in period t

rr^t is the reference rate

$Y_{L,Si}^t$ and $Y_{D,Si}^t$ are respectively the average outstanding amount of loans and deposits of sector i

The sum of FISIM on loans and deposits is often presented as (I) with the reference rate rr^t being generally higher than the rate on deposits and lower than the rate on loans

$$\left[r_{L,Si}^t - rr^t \right] * Y_{L,Si}^t + \left[rr^t - r_{D,Si}^t \right] * Y_{D,Si}^t \quad (I)$$

FISIM are generated independently on the assets and liabilities side of the balance sheet of financial intermediaries. The amount of loans on which FISIM are calculated may be higher or lower than the amount of deposits. For some intermediaries who finance themselves from other financial intermediaries or on the financial markets, FISIM may even be generated only on loans.

Outstanding amounts of deposits and loans and the corresponding interest have to be broken down by counterpart sector in order to distribute FISIM among user sectors. The basic data required for FISIM calculation are briefly as follows:

- a table of average outstanding amounts of loans and deposits per counterpart sector;
- a table of interest received and paid per counterpart sector, corresponding to the table of outstanding amounts;
- an internal reference rate and an external reference rate (see below).

The data on outstanding amounts of loans and deposits are from quarterly financial accounts, which give reliable information by counterpart sector (*who-to-whom*).

The table of interest received and paid per counterpart sector is not directly available. We have available data on interests for some sectors as S.121, S.122, S.123, S.124, S.128, S.129 and S.13. For the other sectors, in order to complete this interest matrix, we combine the table of average outstanding amounts with a table of interest rates available. These interest rates come from diverse sources and are determined for each sector, for each counterpart sector, for each financial asset, for two maturity types (short term and long term) and for each currency separately. Thereby, we make sure the chosen interest rate is the most appropriate for the corresponding outstanding amounts.

The *internal reference rate (IRR)* is the implicit rate on interbank claims between resident financial intermediaries. The *external reference rate (ERR)* used for calculating FISIM imports and exports is calculated as a weighted average of the rates on interbank claims and debts between resident and non-resident financial intermediaries. Only S.122 interbank claims and debts (and relating interest) are taken into account in calculating the reference rates¹⁰⁵. The calculated reference rates for 2012 are the following:

	2012 - Q1	2012 - Q2	2012 - Q3	2012 - Q4
IRR	1,76 %	1,71 %	1,63 %	1,62 %

¹⁰⁵ Data of S.125 units that produce FISIM are excluded from calculating the reference rate, because they are less reliable than those of banks. The reference rates are calculated from a uniform data source, i.e. the accounting schedule of credit institutions.

ERR	1,89 %	1,89 %	1,88 %	1,64 %
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FISIM calculation thus comprises the following elements:

- calculation of the interest matrix
- calculation of internal and external reference rates;
- calculation of FISIM produced by resident financial intermediaries for use by domestic sectors: relations of resident financial intermediaries with resident clientele;
- calculation of FISIM exports: relations between resident financial intermediaries and non-resident clientele, including non-resident financial intermediaries;
- calculation of FISIM imports: relations between non-resident financial intermediaries and resident clientele.

In every of the cases above, FISIM is calculated as the difference between the expected interest (stocks * reference rate) and the interest payable, for each sector separately. The calculation is made for deposits and for loans separately, as it has a different impact on the property income.

The households sector (S.14) in the national accounts covers households as consumers and as producers. Separating FISIM consumption for final use from FISIM intermediate consumption entails distributing the data on households on the basis of whether they act as:

- consumers (final consumption of FISIM);
- owners of unincorporated businesses (intermediate consumption of FISIM);
- producers of housing services (intermediate consumption of FISIM).

Data are available for each type of loans (mortgage loans or other loans) but not for each client of the loans (household or self-employed). We therefore associate the mortgage loans to producers of housing services, and divide the residual loans between households and self-employed, based on a survey.

The allocation of FISIM to its users entails the reclassification of part of the interest payments as payments for services, and as a result has an impact on GDP and GNI. There is no impact on saving and the net lending/borrowing of the units involved.

In the goods and services account the identity between resources and uses of FISIM can be verified:

Supply and Use of FISIM 2012 (€ million)			
Resources		Uses	
Production P.1	10.945	7.935	Intermediate consumption P.2
S.122	7.950	3.022	S.11
S.125	2.995	187	S.12
		567	S.13 ^(*)
		4.101	S.14 ^(**)
		58	S.15 ^(*)
Imports P.7	408	1.655	Final consumption of households P.3 S.14
		1.764	Exports P.6
Total supply	11.354	11.354	Total uses

(*) accompanied with an increase of P.1 and an increase of P.3 in S13 and S15

(**) of which € 2.943 million as producer of housing services

The impact of the allocation of FISIM on GDP is equal to P1 - P2 (not taking into account P2 of non-market producers S13 and S15 which give rise to an equivalent increase in production):

$$10.945 - 3.022 - 187 - 4.101 = \mathbf{€3.635 \text{ million.}}$$

The impact of the allocation of FISIM on GNI is equal to the impact on P3 (S14+S13+S15) or $1.655 + 567 + 58 = \mathbf{€2.279 \text{ million.}}$

These amounts can also be deduced from the information in the process table

3.17.2.2 S121 Central Bank (nace 64.110)

The National Bank of Belgium represents a subsector of financial corporations on its own. The sequence of the Central Bank account is estimated on the basis of its corporate report and accounting data delivered by the Controlling Department.

Estimation of the output of the Central Bank

The Central bank carries out a range of tasks in the general public interest, most of which are not directly charged for. For this reason, in the national accounts, its output has to be valued via the sum of its production costs (i.e. intermediate consumption, compensation of employees, other taxes less subsidies on production and consumption of fixed capital). It is then possible to distinguish within this global output figure the part that is directly invoiced (Central Balance Sheet Office,) and the part which is not and is thus referred to as imputed production.

According to Council Regulation No. 448/98, the Central Bank cannot be considered as a producer of financial services indirectly measured (FISIM).

Output for own final use covers production of software for internal use¹⁰⁶

Total output (P1) is estimated as sum of costs (P2+D1+D29-D39+P51c).

The commissions and fees for directly invoiced services are paid by financial and non-financial corporations (P2) and by non-resident units (P6).

The imputed output is, by convention, allocated to the intermediate consumption of S122 and S125 in proportion to the respective value added of each of these subsectors.

Estimation of the intermediation consumption of the Central Bank

The Central Bank's intermediate consumption consists of general expenses corrected for the following items:

- Remuneration of special representatives, the Board of Directors, attendance fees of the members of the Council of Regency and the Board of Censors are included in staff costs in the corporate report. However, these should be booked as intermediate consumption accorded to ESA (payment for services rendered).
- Gifts should not be considered as intermediate consumption expenses but rather as transfers (§4.165 ESA2010). These should therefore be withdrawn from the computation of intermediate consumption.
- Fines should be booked under other miscellaneous current transfers (D.759) in accordance with §4.132 ESA2010.
- Taxes included in general expenses should be excluded from the computation of the intermediate consumption and imputed to other taxes on production.
-

3.17.2.3 S122 Deposit taking corporations (NACE 64.190)

Population of deposit-taking corporations

Credit institutions need a license from the National Bank of Belgium in order to operate in the country. A list of the authorized credit institutions is published monthly on the National Bank of Belgium's website. These units form together a subset of the financial corporations sector, namely "deposit-taking corporations except the central bank" (S.122).

Estimation of the production account of deposit-taking corporations

Sources

¹⁰⁶ An estimate is done for all financial corporations, non-financial corporations and government via a standardized approach.

Estimation of the production account of deposit-taking corporations is based on two sources of information. First, we use accounting data provided by credit institutions to the National Bank of Belgium in its capacity of prudential supervisor, known as “Scheme A”. Second, additional information is collected in the yearly survey called “Bank Structural Business Survey”.

Territoriality

Profit and loss accounts of the Scheme A take into account banking activities both inside (domestic branches) and outside the country (foreign branches). From a national account perspective, only the valued added created within the borders of the state should be considered. Therefore, banking activities realized abroad need to be eliminated from accounting data. This is done by computing a territory coefficient based on the Bank Structural Business Survey (abbreviated Bank SBS). This coefficient reflects the share of banks’ salaries paid in Belgium over total wages. In the SBS, we don’t have the distinction between income/expenses of the domestic branches and income/expenses of the non-resident branches. For products and charges, the SBS makes only the distinction between transactions with residents or with not-residents. The only element available in SBS for calculating the territory coefficient is the amount of banks ‘wages paid in Belgium related to total wages paid.

Estimation of the deposit-taking corporations output (P1)

About half of deposit-taking corporations market output comes from financial intermediation services indirectly measured (FISIM). The other half consists mainly of commissions on financial services. Accounting and survey data used in the output estimation need to be corrected for deposit-taking corporations’ activities abroad through the application of the territory coefficient (see point ‘Territoriality’ above).

	Source	Amount
Bank commissions	Scheme A	6.107
+ Loan fees other than interest income	Bank SBS	219
+ Margins on the sales and purchases of foreign currencies	Bank SBS	489
+ Margins on the sales and purchases of precious metals	Bank SBS	6
+ Employees’ contribution to social services costs	Bank SBS	10
+ Recovered costs from clients (credit card expenses, etc.)	Bank SBS	120
+ Income derived from activities other than financial services (IT services, real estate sales, etc.)	Bank SBS	83
+ Recovered costs from related entities	Bank SBS	300
+ Recovered costs from other entities and institutions	Bank SBS	22
+ Invoice to delegated agents (advertisement, etc.)	Bank SBS	53
+ Other operating income	Bank SBS	273
+ Financial intermediation services indirectly measured (FISIM)	Exogenous estimate	7.951
+ Output for own final use (P.12)	Exogenous estimate	321
= TOTAL OUTPUT		15.954

Margins on the sales and purchases of foreign currencies and precious metal are also included in deposit-taking corporations' market output. According to §3.56 ESA 2010, these should not cover holding gains and losses.

The details of "Income derived from activities other than financial services" are specified in the SBS. Sales of real estate and dwelling services are excluded. As far as possible, only items related to output according to ESA 2010 are included. Some adjustments are made to exclude amounts that would not fit into ESA 2010 definition of production.

	Source	Amount
Positive balance derived from the sale of precious metals to clients	Bank SBS	32
- Negative balance derived from the sale of precious metals to clients	Bank SBS	-25
+ Positive balance derived from the sale of currencies to clients	Bank SBS	538
- Negative balance derived from the sale of currencies to clients	Bank SBS	-50
= MARGINS ON SALES AND PURCHASES OF FOREIGN CURRENCIES AND PRECIOUS METALS		495

Estimation of the deposit-taking corporation's intermediate consumption (P.2)

The bulk of deposit-taking corporations' intermediate consumption is other operational expenses and commissions paid for financial services.

	Source	Amount
Commissions paid for financial services	Scheme A	2.586
+ Other operational expenses	Scheme A	6316
- Renting of land	Bank SBS	-1
- Share of liability insurance policy unrelated to the provided service	Calculations	-37
- Computer software expenses	Bank SBS	-29
- Gifts	Bank SBS	-1
- Contribution to the protection of depositors' savings system booked in other operational expenses	S13 account	-1074
- Realized losses booked in other operational costs	Bank SBS	-2
- Depreciations booked in other operational costs	Bank SBS	-1
- Losses incurred through theft or fraud	Bank SBS	-25
- Operational fiscal expenses	Scheme A	-653
- Other operational expenses (that are not P.2)	Bank SBS	-534
+ Directors' remuneration	Bank SBS	29
+ Directors' fees	Scheme A	5
+ Loan fees other than interest income	Bank SBS	184
+ Non-deductible VAT	Calculations	269
+ Allocation of the imputed output of the Central Bank	S121 account	134
+ Investment fund implicit management fees	ICBs' account	6
TOTAL OF INTERMEDIATE CONSUMPTION		7.173

Accounting and survey data used in the intermediate consumption estimation procedure need to be corrected in order to take only into account domestic deposit-taking corporations' activities. This is done through the application of the territory coefficient (see point 'Territoriality' above).

Expenses related to land rent should be withdrawn from the intermediate consumption and booked as property income (§3.90 ESA 2010).

Only the share of the insurance premium linked to the service provision should be taken into account in the intermediate consumption (§ 3.89 ESA2010). Remuneration for the insurance service is estimated within the scope of the insurance corporations' account.

Gifts bestowed by deposit-taking corporations should not be considered as intermediate consumption expenses but rather as transfers (§4.165 ESA2010). These should therefore be withdrawn from the computation of intermediate consumption.

Similarly, contributions made by deposit-taking corporations to the system of depositors' savings protection ought to be considered as other taxes on production (D.29) and should hence be eliminated from intermediate consumption expenses. The amount of these contributions is derived from the General government's account.

Intermediate consumption is valued at purchasers' prices (§3.91 ESA 2010). Non-deductible VAT should therefore be taken into account in the estimation of the intermediate consumption. The share of non-deductible VAT paid on the intermediate consumption of good and services is calculated on basis of the Bank SBS.

According to §3.89 ESA 2010, imputed output of the central bank should be entirely allocated to the intermediate consumption of other financial intermediaries, among which deposit-taking corporations. A share of the central bank non-market output, proportional to the weight of deposit-taking corporations' value added in comparison to other financial intermediaries, is imputed to deposit-taking corporations' intermediate consumption.

Investment funds implicitly charge shareholders management fees which should be booked in deposit-taking corporations' intermediate consumption. To comply with BPM6, implicit management imported fees charged by foreign investment funds to deposit-taking corporations are added to their intermediate consumption.

The value added is therefore equal to:

	Amount
Output (P.1)	15.954
- Intermediate consumption (P.2)	- 7.173
Gross value added (B.1g)	8.781

3.17.2.4 Money market funds (S123) and non- money market investment funds (S124)

Classification of investment funds in National accounts

Investment funds (IF) are controlled by the Financial Services and Market Authority (FSMA) in Belgium. An exhaustive list of IF active in Belgium is published on FSMA's website.

Investment funds are classified into two separate sub-sectors of the financial corporations sector. According to §2.79 of the ESA 2010, investment funds which are primarily engaged in financial intermediation are classified as money market funds (S.123). In Belgium, this sub-sector is made up of segments of collective investment undertakings which invest mainly in short-term instruments, essentially deposits and short-term fixed income securities. It is up to the FSMA to determine, in accordance with the instructions of the European Securities and Market Authority, whether an IF has to be regarded as monetary or non-monetary. IF that fall into the latter category are classified in the non-money market investment funds (S.124).

Sources

The estimation of investment funds' value added is based on quarterly data gathered by the FSMA. This data is available by type of investment funds' segment i.e. stock, indices, funds of funds, real estate, monetary, bond and other.

Since 2008, a new type of investment funds called institutional investment funds has appeared. These are exclusively dedicated to professionals and institutional investors (Royal Decree of December 7, 2007) and are all classified in S.124. Institutional investment funds value added is estimated on basis of their (non-standardized) annual accounts, available at the Central Balance Sheet Office.

Estimation of investment funds' value added

IF are considered as pure financial intermediaries; hence their net lending/borrowing is always equal to zero. Part of the output is accounted for by commissions (other revenues) received by the fund. The other part, known as imputed output, consists of costs which are not covered by commissions.

2012 (in € million)	Source	MMF (S.123)	Non- MMF (S.124)	Total
Commissions (a)	FSMA	0	100	100
Costs not covered by commissions (imputed output) (b)	FSMA	8	1.032	1.040
<i>Of which Intermediate consumption (P.2)</i>		5	824	829
<i>Investment funds tax (D.29)</i>		3	244	247
<i>Other taxes (D.29)</i>		0	64	64
Total output (P1) (a)+ (b)		8	1.132	1.140
Intermediate consumption (P2)		5	824	829
Gross value added (B1g)		3	308	311

3.17.2.5 Other financial intermediaries (S125), financial auxiliaries (S126)¹⁰⁷ and captive financial institutions and money lenders (S127)

These units deposit the same standardized annual accounts as the non-financial corporations which imply that the compilation process is the same as in other industries. A few specific corrections however have to be made.

¹⁰⁷ Excluding S126 nace 701 (activities of head offices) which are part of section M.

Adjustment (j): Elimination of interest booked in turnover:

Some financial corporations book interest received in account 70 (turnover) instead of 75 (financial income). In the national accounts, however, interest received has to be booked in D.41 (interest income) only. This correction aims at eliminating interest income from production and transferring it to property income (D41). This correction is only estimated for credit institutions with a full accounting scheme sectorised in S.125.

A theoretical interest income is estimated by combining balance sheet information (outstanding amounts of interest generating financial assets) with theoretical yield percentages (by type of asset). This theoretical interest income is then compared to the interest accounted for in the financial revenue (account 751). The difference between the theoretical interest and the interest accounted for in financial income is supposed to be registered in turnover. This amount is then deducted from turnover (70: -) and added to financial income (75: +). This correction amounts to € 611 million in 2012.

Adjustment (x1): allocation of imputed production of S.121

Imputed production of S.121 is assigned to P.2 of S.122 and S.125 according to ESA2010. The breakdown of this imputed production is done using the proportion of the value added (B.1g) in each subsector.

S125_S127-K	C_70	C_71	C_72	C_73	C_74-740	C_A_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
A1	7.301	8	18	0	769	8.095	4.839	6	204	5.049	1.167	74	4	3.046	1.809
E1	111	0	0	0	4	115	74	0	1	75	39	0	0	40	1
A2	528	0	0	0	110	638	354	0	14	368	124	2	0	269	144
B1	384	0	0	0	19	403	208	-1	7	215	79	3	0	188	106
B2	2.532	-1	0	0	120	2.651	1.344	-4	61	1.401	603	21	2	1.251	629
C1	14	0	0	0	0	14	20	0	0	20	1	0	0	-6	-7
C2	19	0	0	0	0	19	49	0	3	52	4	2	0	-34	-40
E2	88	0	0	0	1	89	21	0	0	21	10	1	0	68	57
B3	1.040	0	0	0	10	1.050	487	0	4	491	146	7	0	559	406
BL	665	0	0	0	20	685	459	0	1	460	97	0	0	225	128
H1	14	0	0	0	4	18	7	0	0	7	0	1	0	11	10
H2	1	0	0	0	0	2	1	0	0	1	0	0	0	1	1
H3	5	0	0	0	0	5	2	0	2	4	2	1	0	1	-1
H4	1	0	0	0	1	2	2	0	0	2	0	0	0	0	0
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
total (I)	12.702	7	18	1	1.059	13.786	7.868	2	296	8.166	2.272	113	6	5.620	3.242
adjustments (II)	489	0	134	0	-85	539	-1.104	0	-113	-1.217	-26	1	11	1.756	1.792
(b)	0	0	0	0	0	0	0	0	0	0	-8	0	0	0	8
(d)	-981	0	0	0	0	-981	-981	0	0	-981	0	0	0	0	0
(e)	0	0	0	0	-34	-34	0	0	-111	-111	0	0	0	77	77
(f)	0	0	0	0	-1	-1	-3	0	0	-3	0	0	0	2	2
(g)	0	0	0	0	0	0	-27	0	0	-27	0	0	0	27	27
(h1)	0	0	0	0	0	0	-6	0	0	-6	0	0	0	6	6
(i1)	0	0	135	0	0	135	-17	0	0	-17	0	0	0	152	152
(j)	-611	0	0	0	0	-611	0	0	0	0	0	0	0	-611	-611
(k)	0	0	0	0	0	0	257	0	0	257	0	0	0	-257	-257
(l)	0	0	0	0	0	0	-29	0	0	-29	0	0	0	29	29
(m)	0	0	0	0	-3	-3	0	0	0	0	0	0	0	-3	-3
(p2)	0	0	0	0	0	0	-58	0	0	-58	58	0	0	58	0
(v)	-711	0	-1	0	-46	-759	-546	0	-3	-549	-87	0	0	-210	-123
(x1)	0	0	0	0	0	0	72	0	0	72	0	0	0	-72	-72
(aa)	0	0	0	0	0	0	-13	0	0	-13	0	1	0	13	11
(af)	0	0	0	0	0	0	0	0	0	0	11	0	11	0	0
(ad)	-202	0	0	0	0	-202	150	0	0	150	0	0	0	-352	-352
(fisi m)	2.995	0	0	0	0	2.995	98	0	0	98	0	0	0	2.897	2.897
Final (H+II)	13.191	7	152	1	974	14.324	6.764	2	183	6.949	2.246	114	18	7.376	5.034
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

3.17.2.6 Insurance corporations (S128) and pension funds (S129)

The population of NACE 65 comprises the following units:

- Belgian insurance (or reinsurance) companies, subject to the supervision of the National Bank
- Branches of European insurance (or reinsurance) companies (not subject to the supervision of the National Bank)
- Pension funds subject to the supervision of the FSMA (Financial Services and Markets Authority)
- Free and supplementary health insurance subject to the supervision of the Office for the Supervision of Mutual Societies
- Mutual insurance companies
- The Office Nationale du Ducroire [Belgian export credit insurance institution] (excluding activities on behalf of the State)
- Other (Fonds Commun de Garantie Automobile, Bureau Belge des Experts Automobiles, etc.).

As regards output, the insurance calculation methodology differs according to whether the output concerns life insurance, non-life insurance or reinsurance.

Among these various types of insurance, it is also necessary to be able to identify social insurance organised collectively for a group, where participation in the scheme is generally obligatory or encouraged by a third party (ESA 2010 § 16.02). Apart from social security schemes funded by the government which are classified in sector S13, there are schemes set up or managed by employers for their employees in Belgium, mainly for supplementary pensions (group insurance and pension funds) but also for other forms of insurance (such as insurance covering hospitalisation, for example). These schemes form an integral part of the insurance and pension fund sector in the national accounts. Amounts of social contributions and social benefits are calculated for them.

3.17.2.6.1. Method of calculating output P11

Under the ESA 2010, the method of calculating output differs according to the type of insurance:

- non-life insurance: insurance against fire, road accidents, water damage, natural disasters, etc.
- life insurance: insurance covering death, survivors (including second pillar supplementary pensions and individual life insurance constituting the third pillar of pensions in Belgium).
- reinsurance: reinsurance is treated as non-life insurance, and all reinsurance flows are recorded in the accounts, in contrast to the ESA95.

3.17.2.6.1.1. Non-life insurance

Non-life insurance output is calculated by the following formula:

$$\begin{array}{l}
 \text{premiums earned} \\
 \text{plus } \textit{premium supplements} \\
 \text{less } \textit{adjusted claims incurred}
 \end{array}$$

In the output calculations, this method of calculating non-life insurance is implemented in detail for each type of insurance and according to the various types of insurance undertaking (Belgian companies, branches of foreign companies, etc.).

A detailed example of the calculation of the different variables is presented below for the largest category of non-life insurance, namely fire, accident and miscellaneous risks (IARD) on the basis of the non-life detailed technical accounts available for Belgian insurance companies subject to the National Bank's supervision. The headings of the detailed technical accounts used are given in the various tables. Fire, accident and miscellaneous risks insurance is shown in column 1 of the non-life detailed technical accounts.

That will be followed by a summary table for the total non-life insurance output.

Premiums earned

The premiums earned are the premiums written during the year less the change (less increase or plus decrease) in the reserves for premium unearned between the beginning and the end of the accounting year.

<i>Accounting schedule headings</i>	<i>Accounting codes</i>	<i>2012</i>
Premiums written	710.1	9.252
Change in the reserves for unearned premium	710.3	54
<u>Premiums earned</u>	710.1 - 710.3	<u>9.198</u>

Premium supplements

Premium supplements are the income earned from the investment of the insurance technical reserves of the insurers, which represent liabilities towards policyholders. The premium supplements do not include the income earned by the investment of own funds.

An "own funds/technical reserve" ratio is calculated for companies active in non-life insurance. That ratio can be used to calculate the proportion of investment income relating to the investment of own funds, that proportion then being deducted from the total investment income, leaving only the premium supplements corresponding to income from the investment of the insurance technical reserves.

Reinsurance flows have to be recorded gross according to the ESA 2010 methodology. The direct insurer and the reinsurer earn property income from investing their technical reserves. Property income is transferred by the reinsurer to the direct insurer who then adds this amount to its own property income earned and further distributes it to the policyholder (ESA 2010 §16.76). This flow is labelled as "reinsurance supplement" in the table.

The “theoretical rent” is defined as “the rent that would have been received, on normally market conditions, as the building has been rent to a third in place to be partly of fully occupied by the company itself”. This amount of “Theoretical rent’ is not taken into account in the calculation of the premium supplements.

Accounting schedule headings	Accounting codes	2012
Income from investments in dependent companies	712.1	31
(+) Income from other investments	712.2	590
(-) Theoretical rent	712.212	8
(-) Investment charges, excluding financial provision	614.1 – 614.13	49
(-) Income from investment of insurers own funds		118
Technical account supplementary premiums		446
(+) Other supplementary premiums	CDNT	26
(+) Reinsurance supplement		7
Non-Technical account supplementary premiums		35
Total premium supplements		479

Adjusted claims incurred

Claims can be distinguished between claims paid and claims incurred (ESA 2010 §16.34).

Non-life insurance claims incurred are calculated as the claims paid plus the change (plus increase or less decrease) in the reserves for claims outstanding between the beginning and the end of the accounting year.

Adjusted claims are calculated according to the "geometrically weighted moving averages" method over a 5-year period. Use of this method makes it possible to smooth out the claims over the period, but gives a bigger weighting to more recent observations compared to older ones. This provides a more constant output value, since the annual fluctuations in claims are evened out. That corresponds to an anticipation method, as a given insurer sets its premium ex ante according to the claims expected on the basis of past claims. Use of this method therefore obviates the need for equalisation provisions (provisions formed in anticipation of future claims).

The European Central Bank handbook¹⁰⁸ was used for the theoretical and practical aspects of this method.

The starting point is the following econometric comparison:

$$NLR_t = w_1 LR_t + w_2 LR_{t-1} + \dots + e_t$$

where $w_i = \alpha(1 - \alpha)^{i-1}$ and e_t is the error term.

¹⁰⁸ “Financial Production, Flows and Stocks in the System of National Accounts”; United Nations- European Central Bank- 2014 - Chapter 3 (non-life insurance) (ST/ESA/STAT/SER.F/113)

The terms LR_t represent *the claims incurred ratios*, the ratio between *actual claims incurred* and *earned premiums*. The ECB handbook calls NLR_t the *expected claims incurred ratio* but to avoid any confusion between the different names, this text will refer to the *adjusted claims incurred ratio*.

The use of ratios offers one specific advantage. The ratio between claims and premiums provides a criterion which is unaffected by inflation. The calculation of the *adjusted claims incurred ratio* is therefore relatively independent of inflation in any given year. If that ratio is multiplied by the premiums in the year for which the *adjusted claims incurred* are to be calculated, there is no need to make any other adjustment for inflation. Of course, it is not possible to allow for every fluctuation in inflation, but a subsequent adjustment for inflation appears unnecessary.

α is the *smoothing parameter* and, given sufficient observations (minimum 30), could be estimated by an econometric method. If there are insufficient observations, a calibration method is necessary. A value for α between 0.1 and 0.3 is therefore defined in advance, and then the smoothing parameter value that gives the best results is verified. Tests have revealed that the value $\alpha=0.3$ is the most appropriate for practically all categories of non-life insurance.¹⁰⁹

The procedure for calculating the *adjusted claims incurred* can be summed up in the following steps¹¹⁰: (the references in brackets refer to the detailed IARD calculation table):

1. Calculation of the *earned premiums*. (1) as the *premiums written* less the change (less increase or plus decrease) in the reserves for premium unearned (2).
2. Calculation of the *actual claims incurred* (5) as the *claims paid* (3) plus the change (plus increase or less decrease) in claims outstanding (4).
3. Calculation of the *actual claims incurred ratio* (6) for each year. This is the ratio between *actual claims incurred* (5) and *earned premiums* (1).
4. The value of the *smoothing parameter* α is set at 0.3 and the geometric weightings are defined by means of this parameter α . Via normalisation, the sum of the geometric weightings must be equal to 1.

Smoothing parameter			X/T
A	0.300	X1	0.361
α^* (1- α)	0.210	X2	0.252
α^* (1- α)(1- α)	0.147	X3	0.177
α^* (1- α)(1- α)(1- α)	0.103	X4	0.124
α^* (1- α)(1- α)(1- α)(1- α)	0.072	X5	0.087
Total	0.832	T	1.000

¹⁰⁹ The value of the smoothing parameter cannot exceed 0.3 since values higher than 0.3 may indicate the presence of a serial correlation in the data set. The US Bureau of Economic Analysis also uses the value 0.3 for its estimates.

¹¹⁰ The calculation presented here is based on the UN/ECB handbook. In that handbook, supplements are likewise smoothed over time. However, the ESA 2010 stipulates at 16.51 “premium supplements are less volatile than claims and no adjustment for volatility is necessary.”

5. Multiplication of the *actual claims incurred ratio (LR)* (6) by the corresponding geometric weighting to obtain the *adjusted claims incurred ratio (NLR)* (7)
6. Multiplication of the *adjusted claims incurred ratio (7)* obtained via the premiums for the year concerned in order to obtain the *adjusted claims* (8)
7. Allowance for changes in the provision for profit-sharing and rebates (12) to obtain the *adjusted claims incurred* (13).

IARD	Accounting codes	2008	2009	2010	2011	2012
(1) Earned premiums	710.1 - 710.3	8024	8419	8462	8921	9198
Premiums written	710.1	8054	8431	8499	8986	9252
Unearned premiums (2)	710.3	30	12	37	65	54
(3) Claims paid	610.111	4567	5036	5073	5342	5165
(4) Changes in claims outstanding	610.21	321	187	396	-148	240
(5) Actual claims incurred	(3) + (4)	4888	5223	5469	5194	5405
(6) Actual claims incurred ratio (LR)	(5)/(1)	61%	62%	65%	58%	59%
(7) Adjusted claims incurred ratio (NLR)		60%	61%	62%	61%	60%
(8) Adjusted claims	(1) * (7)	4841	5127	5271	5446	5542
(9) Participation bénéfiques et ristournes	612.11	41	29	25	27	29
(10) Variation provision bén et rist	612.21	-6	-6	-3	5	1
(11) Variation provision vieillissement	611.11	69	98	107	80	141
(12) Provisions	(9)+(10)+(11)	104	121	129	112	172
(13) Adjusted claims incurred	(8)+(12)	4945	5248	5400	5558	5714

(9) Profit-sharing and rebates

(10) Change in provision for profit-sharing and rebates

(11) Change in provision for ageing

In the event of catastrophes, the losses incurred shall not affect the value of claims. The catastrophic losses shall be recorded as a capital transfer from the insurer to the policyholder.

Claims management costs are excluded from the calculation of adjusted claims. In the accounts of insurance companies in Belgium, it is possible to make the distinction between the claims and the claims management costs. The data are separately identified in the accounts and the claims taken into account in the calculation of adjusted claims exclude already the claims management costs.

Non-life insurance - IARD

The output of non-life insurance in the above example is therefore:

	2012
Premiums earned	9.198
(+) Premium supplement	479
(-) Adjusted claims incurred	5.714
Output P11	3.962

TOTAL NON-LIFE INSURANCE OUTPUT

The methodology detailed above is the one used for calculating the IARD insurance of Belgian companies subject to National Bank supervision. The calculation of output in the case of other types of non-life insurance and other types of company follows exactly the same methodology.

In the case of Belgian insurance companies, the basic data come from the detailed annual accounts. These reports mention international activities, but it is only direct foreign activities (DFA) that should be taken into account. It is therefore necessary to exclude activities conducted via foreign branches. That information is obtained from the structural survey which permits a distinction between these two types of international activity, so that only the direct foreign activities are included.

In the case of branches of foreign companies active in Belgium, the results of the annual structural survey are used to calculate output.

Table summarising total non-life insurance output

	(1)	(2)	(3)	(4)
Belgian companies - IARD	9.198	479	5.715	3.962
Belgian companies – Other non-life insurance	1.135	246	845	536
Belgian companies DFA	285	11	41	255
Belgian branches of foreign companies	745	35	334	446
Supplementary mutual and others	1.196	53	879	371
Total non-life insurance output	12.559	825	7.814	5.570

- (1) Premiums earned
 (2) (+) Premiums supplement
 (3) (-) Adjusted claims incurred
 (4) (=) Output of non-life insurance P11

The non-life insurance output therefore comes to € 5.570 million for the year 2012.

3.17.2.6.1.2. Life insurance

The output of direct life insurance is calculated separately as:

- *Premiums earned*
 plus *Premium supplements*

minus *Benefits due*

minus *increases (plus decrease) in technical reserves and with-profits insurance.*

In the calculation of output, holding gains and losses are excluded.

In calculating output, this method of calculating life insurance is applied in detail by type of insurance (individual life, group life, pension fund) and by type of insurance company (Belgian companies, branches of foreign companies, pension funds, etc.).

A detailed example of the calculation of the different variables is presented below for the largest category of life insurance, namely life insurance, on the basis of the life detailed technical accounts available for Belgian insurance companies subject to the National Bank's supervision. The headings of the detailed technical accounts used are given in the various tables. The life insurance concerned is shown in column 01 of the life detailed technical accounts.

A summary table for the total life insurance output will be presented next.

Premiums earned

The premiums earned are the premiums written during the year less the change (less increase or plus decrease) in the reserves for premium unearned between the beginning and the end of the accounting year.

Accounting schedule headings	Accounting codes	2012
Premiums written	720.1	20.971
(+) Change in the reserves for unearned premium	720.3	0
Premiums earned	720.1 - 720.3	20.971

Premium supplements

Premium supplements are the income earned from the investment of the insurance technical reserves of the insurers, which represent liabilities towards policyholders. The premium supplements do not include the income earned by the investment of own funds.

An "own funds/technical reserve" ratio is calculated for companies active in life insurance. This ratio can be used to calculate the proportion of investment income relating to the investment of own funds, that proportion then being deducted from the total investment income, leaving only the premium supplements corresponding to income from the investment of the insurance technical reserves.

Reinsurance flows have to be recorded gross according to the ESA 2010 methodology. The direct insurer and the reinsurer earn property income from investing their technical reserves. Property income is transferred by the reinsurer to the direct insurer who then adds this amount to its own property income earned and further distributes it to the policyholder (ESA 2010 §16.76). This flow is labelled as "reinsurance supplement" in the table.

Accounting schedule headings	Accounting codes	2012
Income from investments in dependent companies	722.1	288
(+) Income from other investments	722.2	7.246
(-) Theoretical rent	722.212	24
(-) Investment charges, excluding financial provision	624.1 – 624.13	555
(-) Income from investment of insurers own-funds		211
Technical account supplementary premiums		6.745
(+) Other supplementary premiums	CDNT	213
(+) Reinsurance supplement		1
Non-Technical account supplementary premiums		214
Total premium supplements		6.958

Benefits due

The amount of the life insurance benefits due is calculated as the benefits paid during the period plus the change in the provisions for claims and profit-sharing.

Accounting schedule headings	Accounting codes	2012
Benefits paid	620.111	17.733
(+) Change in provision for claims	620.21	-35
(+) Profit-sharing and rebates	622.1	11
Benefits due		17.709

Change in life technical reserves and with-profits insurance

The change in technical reserves and profit-sharing is calculated as the sum of the changes in the life insurance and class 23 provision and the change in the provision for profit-sharing, with due regard for transfers from reserves.

The change in the technical reserves is then adjusted to exclude gains and losses.

In the case of class 23, gains and losses are clearly identifiable in the life technical accounts.

For other types of life insurance, the proportion of gains/losses related to investment of own funds has to be deduced from the total gains/losses recorded in the accounts.

Accounting schedule headings	Accounting codes	2012
Change in the life insurance provision	621.111.	3.614
(-) Transfers from the reserve (incoming less outgoing)	621.113- 621.112	-274
(+) Change in provision for profit-sharing	622.211	286
(+) Change in provision for class 23 insurance	621.211.1	5.023
(-) Transfers from other reserves	621.213 – 621.212	-6
Change in the provisions before adjustment for gains/losses	A	9.203
(+) Gains on investment item D of the assets (class 23)	723	2.129
(-) Losses on investment item D of the assets (class 23)	625	345
(+) Adjustment for own funds and non-technical account	calculation	7
Total adjustment for gains/losses	B	1.791
Change in technical reserves excluding gains/losses	A - B	7.412

TOTAL LIFE INSURANCE OUTPUT

The methodology used for calculating the life insurance of Belgian companies subject to National Bank supervision is presented in detail above. The same methodology is used for other types of life insurance, according to the various types of company.

In the case of Belgian insurance companies, the basic data come from the detailed annual accounts. These report international activities, but it is only direct foreign activities (DFA) that should be taken into account. It is therefore necessary to exclude activities conducted via foreign branches. The information obtained from the structural survey permits a distinction between these two types of international activity, so that only the direct foreign activities are included.

In the case of branches of foreign companies active in Belgium, the results of the annual structural survey are used to calculate output.

For pension funds, the data come from the aggregate annual accounts of pension funds published by the FSMA.

Table summarising total life insurance output

	(1)	(2)	(3)	(4)	(5)
Belgian companies	20.971	6.958	17.709	7.412	2.808
Belgian companies DFA	120	41	128	19	14
Branches of foreign companies	184	15	61	44	94
Pension funds	1.249	165	893	229	292
Total life insurance output	22.524	7.179	18.791	7.704	3.208

(1) Premiums earned

(2) (+) Premium supplements

(3) (-) Benefits due

(4) (-) Change in life technical reserves and with-profits insurance

(5) (=) Output of life insurance P11

Life insurance output therefore comes to € 3.208 million for the year 2012.

3.17.2.6.1.3. Reinsurance

According to the ESA 2010, life and non-life reinsurance must be recorded “gross”, i.e. including all flows between the reinsurer and the direct insurer. It has to be treated as non-life insurance. The statistical method for calculating claims ex ante (adjusted claims incurred) must be used for reinsurance in the same way as for non-life insurance.

When estimating reinsurance it is necessary to distinguish between active and passive reinsurance. In active reinsurance, the reinsurer takes on the risk, whereas in passive reinsurance the direct insurer passes on the risk to a reinsurer (by taking out a reinsurance policy).

Active reinsurance output can be estimated by using the available accounts data. Passive reinsurance is harder to estimate owing to the lack of information, particularly on passive reinsurance supplements.

That is why the Eichmann method¹¹¹ is used to calculate reinsurance. It is an alternative method that solves the problem of estimating passive reinsurance.

3.17.2.6.1.3.1. Description of the Eichmann method

First, reinsurers are divided into two classes, namely specialist reinsurers (reinsurance companies that only engage in reinsurance activities) and non-specialist reinsurers (insurance companies whose main activity is direct insurance but which also engage in reinsurance activities). These two classes can then be subdivided into active and passive reinsurance transactions effected either with resident insurance companies (domestic) or with non-resident insurance companies (foreign) according to the following table.

Specialist reinsurers				
		Domestic	Foreign	Total
Active	Premiums			(a)
	Services			(b)
Passive Retrocession	Premiums			(c)
	Services			
Non-specialist reinsurers				
		Domestic	Foreign	Total
Active	Premiums			(d)
	Services			
Passive	Premiums			(e)
	Services			
Total (specialist + non-specialist) reinsurers				
		Domestic	Foreign	Total
Active	Premiums			(a+d)
	% domestic output or exports Services	(1-x) %	x %	
Passive	Premiums			(c+e)
	% domestic intermediate consumption or imports Services	(1-y) %	y %	

The Wolfgang Eichmann method begins by using the data on active reinsurance transactions effected by specialist reinsurers. This means that the output of reinsurance services of specialist reinsurers and all related flows are calculated on the basis of the accounts data of specialist reinsurers according to the non-life insurance method described above.

Next, the total reinsurance services obtained (item (b) in the table) are divided by the premiums (a). This services/premiums ratio forms the basis of calculation for the whole of the Eichmann method.

¹¹¹ “Reinsurance in SNA 2008”, Joint meeting on National Accounts UNECE/OECD, GENEVA, 1-3 May 2012, Wolfgang

The total premiums received by non-specialist reinsurers from insurers (d), and those ceded by specialist and non-specialist reinsurers (c and e respectively) are data available in the detailed technical accounts.

If the services/premiums ratio previously calculated is multiplied by these various premiums, it is possible to estimate reinsurance services for the active reinsurance of non-specialist reinsurers and for the passive reinsurance of specialist or non-specialist reinsurers. This method avoids calculating reinsurance services on the basis of incomplete accounts data relating to passive reinsurance transactions.

Total reinsurance services can be calculated by taking the sum of the premiums received by specialist and non-specialist reinsurers (a+d) and the sum of premiums ceded for reinsurance (c+e) and multiplying them both by the service ratio previously obtained.

In an ideal situation, the service ratios of the other major reinsurance countries could be used to estimate reinsurance imports. However, since these service ratios are not available, the Belgian service ratio will be used for these transactions.

The supplements are obtained by calculating a supplement ratio for the active reinsurance services of specialist reinsurers and then multiplying it by the reinsurance premiums received by non-specialist reinsurers. The supplement ratio is the ratio between the supplements generated by specialist reinsurers and the premiums received by specialist reinsurers.

Commissions can be estimated in the same way on the basis of a commission ratio between the reinsurance commissions paid by specialist reinsurers and the premiums received by specialist reinsurers.

In the table, the total premiums received within the country must be equal to the total insurance premiums ceded within the country. By definition, domestic active reinsurance must be equal to domestic passive reinsurance, since in that case the premiums are ceded by a resident company (passive reinsurance) to a resident company (active reinsurance).

3.17.2.6.1.3.2. *Active reinsurance – Specialist insurers*

When using the Eichmann method, the first step is to calculate the reinsurance output (life and non-life) of specialist reinsurers. The basic data come from the detailed technical accounts in the case of Belgian companies specialising in reinsurance (column 05 in the detailed technical accounts) and from the structural survey in the case of branches of foreign companies specialising in reinsurance.

The reinsurance output is calculated by the following formula:

Premiums earned
plus *premium supplements*

less *adjusted claims incurred*

les *reinsurance commissions*

When calculating output, this calculation method is applied separately for life reinsurance and non-life reinsurance.

A detailed example of the calculation of the different variables is presented below for the non-life reinsurance of specialist reinsurers. The detailed technical accounts headings used are indicated in the various tables.

Premiums earned

Accounting schedule headings	Accounting codes	2012
Premiums written	710.1	225
Change in the reserves for unearned premium	710.3	6
Premiums earned (A)	710.1 - 710.3	219

Premium supplements

Premium supplements are likewise calculated for reinsurance since all flows are recorded gross in the ESA 2010. They are calculated in the same way as for non-life insurance. These supplements must exclude income from own funds' investments. That is why an "own funds/technical reserve" ratio is calculated so that supplements can be excluded from the proportion of income relating to the investment of own funds.

Reinsurers may also cede their premiums to other reinsurers (retrocession). In that case, reinsurance supplements are also calculated.

Accounting schedule headings	Accounting codes	2012
Income from investments in dependent companies	712.1	0
(+) Income from other investments	712.2	7
(-) Investment charges, excluding financial provision	614.1	2
(-) Income from investment of insurers own-funds		2
Technical account supplementary premiums		3
(+) Reinsurance supplement		0
Non-Technical account supplementary premiums		0
Total premium supplements (B)		3
<i>Ratio supplements/premiums</i>	<i>(B) / (A)</i>	<i>1.2 %</i>

The supplements/premiums ratio of specialist reinsurers is thus calculated and comes to 1.2 %.

Adjusted claims incurred

As in the case of non-life insurance, adjusted claims are calculated by the "geometrically weighted moving averages" method.

Réassurance non-vie	Accounting codes	2008	2009	2010	2011	2012
		(1) Earned premiums	710.1 - 710.3	339	358	401	150	219
(3) Claims paid	610.111	155	151	138	0	87
(4) Changes in claims outstanding	610.21	47	64	82	-19	43
(5) Actual claims incurred	(3) + (4)	202	215	220	-19	130
(6) Actual claims incurred ratio (LR)	(5)/(1)	60%	60%	55%	-13%	59%
(7) Adjusted claims incurred ratio (NLR)		55%	57%	57%	57%	57%
(8) Adjusted claims	(1) * (7)	188	205	227	85	132
(9) Participation bénéfiques et ristournes	612.11	0	0	1	0	1
(10) Variation provision bén et rist	612.21	0	0	0	0	0
(11) Variation provision vieillissement	611.11	0	0	0	0	0
(12) Provisions	(9)+(10)+(11)	0	0	1	0	1
(13) Adjusted claims incurred	(8)+(12)	188	205	228	85	133

Non-life reinsurance

(9) Profit-sharing and rebates

(10) Change in the provision for profit-sharing and rebates

(11) Change in the provision for ageing

In the event of catastrophes, the losses incurred shall not affect the value of claims. The catastrophic losses shall be recorded as a capital transfer from the reinsurer to the insurer.

Reinsurance commissions

The reinsurance commissions paid by reinsurers to insurers are entered under heading 613.112 in the detailed accounts.

Accounting schedule headings	Accounting codes	2012
Reinsurance commissions (C)	613.112	14
<i>Ratio commissions/premiums</i>	(C) / (A)	6.6 %

The commissions/premiums ratio of specialist reinsurers is thus calculated and comes to 6.6 %.

Non-life reinsurance

In the above example, the non-life reinsurance output of specialist reinsurers thus comes to:

	2012
Premiums earned	219
(+) Premium supplement	3
(-) Adjusted claims incurred	133
(-) Reinsurance commission	14
Output P11 (D)	75
<i>Ratio service/premiums = (D)/(A)</i>	34 %

The service/premiums ratio of specialist reinsurers is thus calculated and comes to 34 %.

The life reinsurance of specialist reinsurers is calculated by the same method, and the various ratios are likewise calculated.

3.17.2.6.1.3.3. Application of the Eichmann method

Use of the method entails dividing premium flows between domestic flows within the country and foreign flows. These premium flows can be estimated from the results of the structural survey.

If the supplements/premiums, commissions/premiums and services/premiums ratios calculated for specialist reinsurers are applied to the various domestic and foreign premium flows it is possible to obtain an integrated estimate of active and passive reinsurance.

Following application of the Eichmann method, the final reinsurance results are presented in the table below.

Total reinsurance	Belgium (domestic)	Foreign (external)	TOTAL
ACTIVE			
Premiums	420	753	1173
(+) Premium supplements	4	9	13
(-) Adjusted claims	297	457	754
(-) Commissions	47	50	96
Reinsurance output P11	81	255	336
PASSIVE			
Premiums	420	1846	2266
(+) Premium supplements	4	16	20
(-) Adjusted claims	297	1406	1703
(-) Commissions	46	252	298
Reinsurance output P2	81	204	285

This method ensures consistency between domestic active and domestic passive reinsurance. Active reinsurance represents reinsurance output P11 (€ 336 million for 2012). Part of the domestic output (€ 81 million) is consumed in Belgium and the rest (€ 255 million) is therefore exported to other countries.

Passive reinsurance represents the intermediate consumption of reinsurance output P2 (€ 285 million in 2012), part of which comes from domestic output (€ 81 million) and the rest is imported (€ 204 million).

3.17.2.6.1.4. Output of secondary activities

Companies active in insurance also engage in secondary activities. The output of these secondary activities forms part of the output of branch K.

The main secondary activities are property services (rents), miscellaneous commissions received and technical expenses recovered (e.g. sale of wrecks, etc.).

The data come from the technical and non-technical accounts of insurance companies, the structural survey and the accounts of mutual and other units in the branch 65 population.

Accounting schedule headings	Accounting codes	2012
Income from land and buildings	712..211+722.211+730.211	255
(-) Land rents	Structural survey	2
(-) Building maintenance costs	Structural survey	21
Total Rents		232
(+) Technical expenses recovered	610.114 – 610.122	587
(+) Commissions	8.12.611 + 8.12.612	256
(+) Other income		90
Total secondary activities		1.165

The output of secondary activities therefore comes to € 1.165 million in 2012.

3.17.2.6.1.4.1. Output for own final use P12

The amount of output for own final use P12 of the insurance and pension fund sectors is calculated by the person in charge of investments and comes to € 105 million for the year 2012.

3.17.2.6.1.4.2. Method of calculating intermediate consumption P2

The intermediate consumption is calculated separately for each type of insurance companies in Belgium: Belgian insurance companies with detailed accounts available (technical and non-technical accounts), foreign branches with only results of yearly structural survey available and other units with annual accounts available.

For the calculation of the intermediate consumption of Belgian insurance companies the basic data are obtained from the detailed technical accounts and the results of the annual structural survey. The data are adjusted for the activities of establishments in other countries.

In the case of foreign branches, the basic data are obtained from the annual structural survey.

For other units in the sector, the basic data come from their annual accounts.

Two exogenous inputs are included in the IC and are recorded in insurance accounts but calculated independently: FISIM and management fees non-resident mutual funds (for this last point, see chapter. 2.3.2.3. for “the 2014 occasional revision”). These imputed management costs of CIUs are added (€ 374 million).

The insurance and pension fund sectors are also FISIM consumers. The amount is calculated by the person in charge of FISIM and comes to € 88 million in 2012.

The amount of reinsurance consumed corresponds to the amount of passive reinsurance calculated by the Eichmann method. As explained in section 1.3.3., part is imported and the rest corresponds to domestic reinsurance output.

Intermediate consumption P2	Accounting codes/ Sources	2012
Belgian insurance companies		
<i>External claims administration costs (adjusted)</i>	610.112 + 620.112	446
<i>Commissions to intermediaries (adjusted)</i>	613.111 + 623.111	2.661
<i>Miscellaneous goods and services (adjusted)</i>	Various headings	1.327
Sub-total		4.434
Foreign branches	Survey	80
Other units	Annual accounts	117
Imputed management costs	Exogenous input	374
FISIM	Exogenous input	88
Reinsurance	Eichmann method	285
TOTAL		5.379

The total amount of intermediate consumption of sectors S128 and S129 therefore comes to € 5.379 million for the year 2012.

3.17.2.6.1.4.3. Calculation of value added

The value added of the insurance and pension funds branch 65 comes to € 5.030 million for the year 2012, according to the details in the table.

Branch 65: insurance and pension funds	2012
P11 Market output	
Non-life insurance	5.570
Life insurance	3.208
Reinsurance	336
Secondary activities	1.165
Total P11	10.279
P12 Output for own final use	130
Output P1	10.409
Intermediate consumption P2	5.379
Value added (B1g)	5.030

3.17.2.6.1.4.4. Allocation of output

The allocation of the output varies according to the type of insurance.

Life insurance can only be consumed by households, so that the whole of the life insurance output (€ 3.208 million) is allocated to household final consumption expenditure P3_S14.

In the case of non-life insurance, the output is allocated on the basis of the breakdown of gross premiums per sector and per type of non-life insurance according to the results of the annual structural survey. The output is thus allocated to household final consumption expenditure P3_S14 but also to the intermediate consumption of all sectors (S11, S12, S15, S13) and part is exported to S2.

In the case of reinsurance, the output is allocated between the intermediate consumption P2 of the insurance sector and exports P6, as explained in the calculation of reinsurance output.

3.17.2.7 S14

The estimation for the unincorporated businesses active in nace 66 (activities auxiliary to financial services and insurance activities: insurance agents, brokers etc.) is based on the personal income tax information. As there is a structural decrease of self-employed workers in the financial sector the amounts for S14 have become quite small.

S14_K	C_70	C_71	C_72	C_73	C_74-740	C_A_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
TOTAL (I)	176	0	0	0	0	176	77	0	0	77	19	0	0	99	80
adjustments (II)	18	0	0	0	0	18	5	0	0	5	1	0	2	13	14
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o31)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(y)	19	0	0	0	0	19	0	0	0	0	1	0	0	19	18
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
(af)	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
(fisim)	0	0	0	0	0	0	5	0	0	5	0	0	0	-5	-5
Final (I+II)	194	0	0	0	0	194	83	0	0	83	21	0	2	112	93
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

The compilation method in S12 will be described by subsector (or groups of subsectors) taking into account the specific sources used for these different subsectors.

3.18 REAL ESTATE ACTIVITIES (L)

3.18.1 INTRODUCTION

In 2012, the value added of real-estate services (Section L) amounted to 30.059 million, 8.7 % of the value added of all branches of activity combined. It was produced by the non-financial corporations (S11: € 5.126 million) and households (S14: € 24.933 million). SUT-branch 68B in S14 reflects the important amounts estimated for dwelling services.

Industry	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
L	12.736	7.610	5.126	31.039	6.106	24.933	43.774	13.716	30.059
LL	12.736	7.610	5.126	31.039	6.106	24.933	43.774	13.716	30.059
68	12.736	7.610	5.126	31.039	6.106	24.933	43.774	13.716	30.059
68A	7.879	5.829	2.050	170	48	122	8.049	5.876	2.173
68B	4.857	1.781	3.075	30.869	6.058	24.811	35.726	7.840	27.886

The process table in section L

	Basis for NA Figures										
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total (sources)
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FSIM	Other E&M			Total Extrapol+Models
P1	201	14.048		787			28.737		83	29.607	43.856
P2	50	7.759		232			2.705		41	2.978	10.786
B1g	152	6.289		555			26.032		41	26.629	33.070

Data validation	Adjustments										Final	
	Conceptual			Exhaustiveness						Balancing		Total (adjustments)
	Allocation of FSIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness			
14	0	-614	-614	0	0	0	518	0	518	0	-81	43.774
-16	3.009	-217	2.793	0	0	0	168	-16	153	0	2.930	13.716
30	-3.009	-397	-3.406	0	0	0	350	16	365	0	-3.011	30.059

Dwelling services in S14 are estimated using a stratification method (for benchmark year 2011).

Real estate services in S11 are estimated using the standard sources and methods.

Fsim generated on mortgage loans represents an important part of total intermediate consumption in dwelling services. The other adjustments are less important.

3.18.2 METHOD OF CALCULATION

section L															
S11_L	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	5.427	-62	24	0	470	5.858	3.800	-215	88	3.672	367	240	82	2.186	1.661
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	243	-4	1	0	23	264	171	-9	4	166	20	10	3	98	71
B1	842	-5	0	0	70	907	492	-39	19	471	84	38	18	436	331
B2	4.462	-30	0	0	388	4.821	2.702	-192	101	2.611	250	167	54	2.210	1.847
C1	26	-2	0	0	1	25	37	-3	1	35	1	3	0	-9	-13
C2	127	0	0	0	0	127	204	0	8	212	6	17	0	-85	-108
E2	171	0	0	0	31	201	50	0	0	50	9	19	0	152	123
B3	439	0	0	0	0	439	289	0	4	293	25	17	4	146	108
BL	12	0	0	0	1	13	5	-1	0	5	1	1	0	8	7
H1	39	0	0	12	3	55	26	0	0	27	6	2	0	28	19
H2	30	0	0	8	2	40	22	0	0	23	7	3	0	17	7
H3	22	0	0	8	2	32	17	0	0	17	6	2	0	15	8
H4	52	0	0	14	4	70	36	0	1	36	11	4	0	33	19
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (I)	11.891	-103	26	41	995	12.851	7.850	-459	226	7.617	795	521	162	5.234	4.080
adjustments (II)	-147	103	7	-1	-77	-115	3	37	-47	-7	39	-109	80	-108	42
(b)	0	0	0	0	0	0	0	0	0	0	-2	0	0	0	2
(c)	0	0	0	0	0	0	-10	0	0	-10	0	0	0	10	10
(d)	-11	0	0	0	0	-11	-11	0	0	-11	0	0	0	0	0
(e)	0	0	0	0	-26	-26	0	0	-46	-46	0	0	0	20	20
(f)	0	0	0	0	-31	-31	-20	0	0	-20	0	0	0	-11	-11
(g)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(h1)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(h2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i1)	0	0	5	0	0	5	-9	0	0	-9	0	0	0	14	14
(k)	0	0	0	0	0	0	211	0	0	211	0	0	0	-211	-211
(l)	0	0	0	0	0	0	-23	0	0	-23	0	0	0	23	23
(m)	0	0	0	0	-17	-17	0	0	0	0	0	0	0	-17	-17
(o31)	-8	0	0	0	0	-8	0	0	0	0	0	0	8	-8	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o4)	0	0	2	0	0	2	0	0	0	0	0	0	0	2	2
(p2)	0	0	0	0	0	0	-16	0	0	-16	16	0	0	16	0
(r)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(s)	-89	0	0	0	0	-89	-125	36	0	-89	0	0	0	0	0
(t)	-102	102	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-82	0	0	-1	-4	-86	-28	1	-2	-29	-6	0	0	-57	-51
(x4)	0	0	0	0	0	0	3	0	0	3	0	0	0	-3	-3
(y)	498	0	0	0	0	498	164	0	0	164	15	0	0	334	319
(z)	-298	0	0	0	0	-298	-298	0	0	-298	0	0	0	0	0
(aa)	-55	0	0	0	0	-55	105	0	0	105	0	-109	55	-161	4
(af)	0	0	0	0	0	0	0	0	0	0	17	0	17	0	0
(fisim)	0	0	0	0	0	0	61	0	0	61	0	0	0	-61	-61
Final (I)+(II)	11.744	0	33	41	918	12.736	7.853	-422	179	7.610	834	412	243	5.126	4.122
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_L	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
TOTAL (I)	150	0	0	0	0	150	39	0	0	39	58	3	1	112	51
adjustments (II)	9.464	0	21.424	0	0	30.888	6.067	0	0	6.067	5	3.111	5	24.821	21.710
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o31)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x1)	8.100	0	21.424	0	0	29.524	2.936	0	0	2.936	0	2.791	0	26.588	23.797
(x2)	1.345	0	0	0	0	1.345	178	0	0	178	0	127	0	1.166	1.039
(y)	20	0	0	0	0	20	4	0	0	4	3	0	0	16	13
(aa)	0	0	0	0	0	0	0	0	0	0	0	193	2	0	-191
(af)	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0
(fisim)	0	0	0	0	0	0	2.948	0	0	2.948	0	0	0	-2.948	-2.948
Final (I+II)	9.615	0	21.424	0	0	31.039	6.106	0	0	6.106	63	3.114	6	24.933	21.761
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S11+S14_final	21.359	0	21.457	41	918	43.775	13.959	-422	179	13.716	897	3.526	248	30.059	25.883
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

Whereas NACE 68.1 (buying and selling of own real estate) and 68.3 (real estate activities on a fee or contract basis) are estimated according to the general method, NACE 68.2 (rental and operating of own leased real estate; branch 68B) is estimated using specific sources and methods.

3.18.3 DWELLING SERVICES IN S14

In order to obtain the total value of the letting of real estate, households (S14) for the output of housing services (rent actually paid and output of housing services by owner-occupiers) are added to non-financial corporations (S11) in branch 68B.

In the national accounts, production of dwelling services does not only include services produced by renting out housing, but also services provided by owner-occupiers.

On the one hand, renting a dwelling is effectively a provision of services for the owner and consumption for the tenant, i.e. final consumption in the case of a household and intermediate consumption in the case of a company. This is measured by the value of the rentals.

On the other hand, when a household owns the dwelling it occupies, the national accounts records both production of dwelling services (P.1) and final consumption (P.3) for this household.

The estimate of dwelling services is mainly based on observations of the stock of housing made from decennial censuses, which implies that there are benchmark years, while the other years are either interpolated (between 2 surveys) or extrapolated.

The only benchmark years available in the current series (1995-2013) are 2001 and 2011, corresponding to the last decennial census, respectively the so-called “General Socio-economic Survey 2001” and the 2011 Census.

Estimates for the reference years

Production

To calculate production of dwelling services, Eurostat says that Member States should use the stratification method based on actual rentals, using either extrapolation or econometric regression. As far as owner-occupied dwellings are concerned, that involves using actual rentals for similar rented housing (as specified in the ESA§3.75).

In Belgium, the direct extrapolation method was chosen.

Broadly speaking, production of dwelling services is estimated with the help of a volume x price approach, multiplying the number of dwellings for each type by the corresponding rent.

a) Tenants

Volumes

The 2011 Census results were used in order to benchmark the number of dwellings in Belgium.

The number of dwellings in Belgium based on the 2011 Census is classified according to the following characteristics which apply to both volumes and prices: status of the occupier (owner or tenant), type of dwelling (house or apartment) and the number of rooms (1 to 2, 3 or more than 3).

Because of a lack of information, garages are not included in the stratification of the Belgian housing stock.

Prices

From 1992 to 2002, information derived from the “Panel Study of Belgian Households” (PSBH) has been taken into consideration. These were panel surveys carried out by the Universities of Antwerp and Liège, which notably provided information on actual rentals per dwelling according to the characteristics used for volumes.

As the PSBH stopped in 2002, the consumer price index for non-social housing rent has been used to extrapolate the latest price levels from data collected in 2002 via the PSBH.

Total rentals are then estimated by multiplying (actual) rent figures taken from the PSBH for each type of dwelling by the number of dwellings of each type extracted from the 2011 Census.

b) Owner-occupiers

The owner-occupiers output is estimated in the same way as that for the tenants.

Intermediate consumption

According to the ESA2010, “*intermediate consumption (P.2) consists of goods and services consumed as inputs by a process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital. The goods and services are either transformed or used up by the production process*” (§3.88).

Thus, any improvements made to existing fixed assets by day-to-day maintenance and repair work are included in gross fixed capital formation (P.51).

As far as common expenditure on maintenance and repairs are concerned, in the case of owner-occupied dwellings, intermediate consumption should cover the same type of ordinary work as would normally be considered as intermediate consumption by the owner for similar rented dwellings. Expenditure on repair and maintenance work of the same kind as that normally done by tenants should be treated as household final consumption expenditure in the case of both tenants and owner-occupiers.

The breakdown between intermediate consumption (P.2) and final consumption (P.3) is done by COICOP 5 heading from the Household Budget Survey (HBS)

Expenditure typically carried out by owners is allocated to intermediate consumption, while expenses borne specifically by tenants remain under private consumption; expenditure that cannot be exclusively attributed to one or the other is allocated in equal proportion to each of the two aggregates.

Breakdown between P.2 and P.3 by HBS heading

NSI6	NSI6 code	COICOP 5	PPP2015	SUT_2008	P3	P2
04310A	Exterior and interior paints	04310	04.3.1.0	20D01	0,5	0,5
04310B	Wallpapers	04310	04.3.1.0	17A06	1	0
04310C	Taps and sanitary ware (WC, bath, taps, shower head, etc.)	04310	04.3.1.0	22B03	0	1
04310C		04310	04.3.1.0	23B01	0	1
04310C		04310	04.3.1.0	25C03	0	1
04310C		04310	04.3.1.0	28A02	0	1
04310D	Wooden items for the house (skirting boards, panels, planks, doors, etc.)	04310	04.3.1.0	16A01	0	1
04310D		04310	04.3.1.0	16A02	0	1
04310D		04310	04.3.1.0	16A03	0	1
04310E	Materials for repairs to the house (bricks, blocks, tiles, roof tiles, plaster, cement, window panes, doors, etc.)	04310	04.3.1.0	08A02	0	1
04310E		04310	04.3.1.0	22B01	0	1
04310E		04310	04.3.1.0	23B02	0	1
04310E		04310	04.3.1.0	23B03	0	1
04310E		04310	04.3.1.0	23C01	0	1
04310E		04310	04.3.1.0	23C02	0	1
04310E		04310	04.3.1.0	23D01	0	1
04310E		04310	04.3.1.0	24A04	0	1
04310F	Other small items for dwellings (excluding electrical items and door accessories): letterboxes, smoke detectors, fire extinguishers, mosquito netting, etc.	04310	04.3.1.0	22B03	0	1
04310F		04310	04.3.1.0	23A01	0	1
04310F		04310	04.3.1.0	25C03	0	1
04310F		04310	04.3.1.0	27A03	0	1
04310F		04310	04.3.1.0	27A04	1	0
05119F	Tapestries (hand-made, Gobelins, etc.)	04310	04.3.1.0	17A06	1	0
04321A	Routine maintenance services (plumber)	04321	04.3.2.0	43B02	0,5	0,5
04322A	Routine maintenance services (electrician)	04322	04.3.2.0	43B01	0,5	0,5
04323A	Routine maintenance services (heating maintenance)	04323	04.3.2.0	43B02	0,5	0,5
04324A	Routine maintenance services (painter)	04324	04.3.2.0	43C04	0,5	0,5
04325A	Routine maintenance services (carpenter)	04325	04.3.2.0	43C02	0,5	0,5
04329A	Other services for routine maintenance of the dwelling (glazier, locksmith, plasterer, tilesetter, decorator, roof repair, insulation, alarm system maintenance)	04329	04.3.2.0	43B01	0	1
04329A		04329	04.3.2.0	43B02	0	1
04329A		04329	04.3.2.0	43C01	0	1
04329A		04329	04.3.2.0	43C02	0	1
04329A		04329	04.3.2.0	43C03	0	1
04329A		04329	04.3.2.0	43C04	0	1
04329A		04329	04.3.2.0	43C05	0	1
04329A		04329	04.3.2.0	43C06	0	1
04329A		04329	04.3.2.0	43D01	0	1
04329A		04329	04.3.2.0	43D02	0	1
04329A		04329	04.3.2.0	81A01	1	0
04410A	Tap water	04410	04.4.1.0	36A01	1	0
04430B	Water purification tax	04410	04.4.1.0	36A01	1	0
04441G	Charges for owner (main residence) (including water, gas, electricity, heating if not separable)	04410	04.4.1.0	36A01	1	0
04420A	Refuse tax	04420	04.4.2.0	38A01	1	0
04420B	Smart waste collection	04420	04.4.2.0	38A01	1	0
04420C	Purchases of municipal dustbin liners or stickers	04420	04.4.2.0	38A01	1	0
04420D	Garbage collection payment system (including recycling tax for domestic electrical appliances and cost of municipal container park)	04420	04.4.2.0	38A01	1	0
04430A	Sewerage tax	04430	04.4.3.0	37A01	1	0
04441A	Rental charges (except water, gas, electricity, heating): charges for lift maintenance, caretaker, lighting in common areas, etc.	04441	04.4.4.0	68A02	1	0
04441B	Charges for second residence (except water, gas, electricity, heating): charges for lift maintenance, caretaker, lighting in common areas, etc.	04441	04.4.4.0	68A02	0	1
04441C	Charges for second residence (including water, gas, electricity, heating if not separable)	04441	04.4.4.0	68A02	1	0
04441D	Charges for owner (main residence) excluding water, gas, electricity, heating	04441	04.4.4.0	68A02	0	1
04441F	Rental charges (including water, gas, electricity, heating if not separable)	04441	04.4.4.0	68A02	1	0
04442A	Security services for multi-occupied dwelling	04442	04.4.4.0	81A01	0,5	0,5
04449A	Collective heating	04449	04.4.4.0	35B01	1	0
04449B	Other services relating to multi-occupied dwelling (chimney-sweeping, snow-clearing of pavements, etc.)	04449	04.4.4.0	81A01	1	0
05629A	Garden maintenance services (landscape gardener, gardeners, etc.)	04441	04.4.4.0	81A01	0,5	0,5

Average expenditure by household is then multiplied by the number of households taken from the official population statistics so as to obtain total consumption in national concept.

Since P.2 and P.3 must be estimated according to the domestic concept and as it is not possible to make this correction to P.2 and P.3 directly, a global adjustment is made to the total for all the HBS headings. The figure is then broken down between P.2 and P.3 on the basis of the distribution key that has been established (using an average over 3 years) under the national concept.

Charges for heating, water, electricity, etc. are excluded for the calculation of output of dwelling services. As intermediate consumption must be consistent with production, these charges are also excluded from intermediate consumption.

Lastly, an upward revision has been made so as to compensate for the structural underestimation of the HBS following sampling problems and the lack of data on the number of collective households.

The part of intermediate consumption relating to house (fire) insurance is taken from the accounts of insurance companies. It is broken down between intermediate consumption and household final consumption on the basis of a key established from the respective weightings of the corresponding HBS headings.

The amount relating to financial intermediation services indirectly measured (FISIM) also has to be added. The treatment is explained in the section 3.17.

Social housing

The basic source for the estimate of social housing is the annual report of the 3 regional social housing companies, which in turn cover each some dozens of smaller local entities. All the dwellings covered are rented ones.

For each company the following information is collected:

- The total number of houses owned (a)
- The number of actually occupied houses (b)
- The average rent paid for occupied houses (c)
- In some cases, the total rent of actually occupied houses is also provided, or it is calculated by multiplying (b) by (c)

The total production of housing services by the social housing companies (sectorised in S11) equals total rent received (for occupied houses).

The housing services production in S.11 does furthermore include an estimate of the intervention of the public sector in the social rents, more precisely the counterpart of transfers in kind from the public sector to social housing companies which are considered to relate to rentals.

Second homes

The comprehensive estimate of housing services also comprises holiday homes or second homes. The rent taken into consideration for the second homes is the general average rental value.

Estimates for the other years

Production

a) Tenants

Volumes

In volume terms, the number of dwellings for the years between 2001 and 2011 is calculated by interpolation on the basis of the figure for completed dwellings adjusted for dwellings removed from the housing stock. After 2011, the figures are estimated by direct extrapolation. Statistics Belgium gives information on building permits (housing starts). A survey (organized by the NBB) addressed to general construction entrepreneurs gives information on the distribution of payments and on the construction period. (see section 10.XXX for more details), This allows transforming “housing starts” into “housing completions”.

Prices

As for prices, two indices make it possible to tackle the absence of update of the PSBH:

- the consumer price index for non-social housing rent
- the quality index (kept constant between two censuses): calculation of this index is based on the increase of house comfort between the 1981 and 1991 censuses. Characteristics of the dwellings taken into consideration are the equipment of indoor toilets, bathrooms, central heating and running water.

b) Owner-occupiers

The owner-occupiers output is estimated in the same way as that for the tenants.

Intermediate consumption

Owing to major variations in the HBS from one year to another, the estimate for the intervening years (between 2001 and 2011) is made on the basis of changes in the number of dwellings (volumes) and from price movements taken from the CPI, while the level of censuses year (2001 & 2011) are fixed at their actual level.

The years 2012 and later are estimated by direct extrapolation.

As for the references years, an upward revision has also been made so as to compensate for the structural underestimation of the HBS.

The table below presents the total dwelling stock by types of dwellings for the year 2012.

Dwelling stock by type of dwellings

	2012
	Number
Houses	3,174,198
Flats	1,387,532
1-2 rooms	1,201,612
3 rooms	166,001
>= 4 rooms	19,920
Second homes	219,800
TOTAL	4,781,530

Households can also rent non-residential property (offices, warehouses, etc.) to firms (self-employed and companies), which use those goods for business purposes.

These professional rental revenues are known via tax declarations and have to be added to the output of dwelling services in order to achieve a comprehensive outcome of output for the household sector (S.14) in NACE 68. The amounts listed in the 2012 accounts are the following:

Aggregates for dwelling services produced by the household sector (S.14)

(in € million, 2012)	Dwelling services (a)	Professional rentals (b)	Total
Production (P.1)	29,524	1,345	30,869
<i>of which: tenants (P.11)</i>	8,100	1,345	9,445
<i>of which: owner-occupiers (P.12)</i>	21,424	0	21,424
Intermediate consumption (P.2*)	2,936	178	3,115
Value added (B1g)	26,588	1,166	27,754

* Excluding FISIM

(a) corresponds to correction (x1) in S14_68B

(b) corresponds to correction (x2) in S14_68B

Dwellings abroad

For the time being no estimate is made for the import of dwelling services generated by (holiday) homes abroad owned by Belgians and the export of dwelling services generated by dwellings located in Belgium owned by foreigners, nor for the associated property income flows (D422). The amounts involved are immaterial. The conceptual treatment and (tentative) estimate of these flows is explained below.

Treatment in national accounts

Dwellings abroad owned by residents (physical persons) are supposed to be held as assets by quasi corporations resident in the country where the dwellings are located. The resident owner of the dwellings holds a financial claim (equity) on the quasi-corporation (and thus on the rest of the world).

Dwellings situated in the reporting country owned by non-residents are supposed to be held as assets by quasi corporations resident in the reporting country. The non-resident owner of the dwelling holds a financial claim on the resident quasi corporation.

The net stock of dwellings abroad owned by residents (dwellings abroad owned by residents minus dwellings located in the reporting country owned by non-residents) is part of the net investment position of the reporting country.

Dwellings generate production (housing services) pro rata their occupation (by tenants or owner occupiers). In the case of holiday homes this occupation rate is probably situated between 8.3 % (1 month) and 50 % (6 months). An average occupation rate of 25 % (3 months) seems a reasonable assumption and might even be considered as an upper limit estimate. Tenants as well as the owner can use the dwelling. We suppose that the dwelling is rented for 2 months and is occupied by the owner for 1 month.

If the tenant is resident in the country where the holiday home is situated the production is consumed by households. If the tenant is not resident in the country where the holiday home is situated the production is exported (travel item in BOP). The same holds for the production corresponding to the use of the holiday home by the owner occupier.

The operating surplus (production minus intermediate consumption) generated by these quasi corporations producing dwelling services is distributed as property income (D422 withdrawal of income from quasi corporations) to their owners.

Accounting scheme in national accounts

Holiday homes in Belgium owned by foreigners

(Flows in the non-financial sector accounts of the Belgium)

U	S11	R	U	S14	R
	P1	30	P3	20	
P2	3				
D422	27				

U	S2	R
P62	10	D422
		27

We suppose total production of (holiday) dwelling services equals 30.

2/3 is rental income paid by Belgians (P3S14: 20)

1/3 is imputed production/rent for the non-resident owner (P62: 10)

Intermediate consumption (maintenance and repair) equals 3.

Operating surplus (30 minus 3 = 27) is distributed to the ROW.

The net resources for the ROW (foreign owners of real estate) (17)

is equal to the rents paid (20) minus cost of maintenance and repairs (3)

Holidays homes abroad owned by Belgians

(Flows in the non-financial sector accounts of Belgium)

U	S14	R
P3	50,0	D422
		135,0

U	S2	R
D422	135,0	P72
		50,0

We suppose total production of (holiday) dwelling services abroad equals 150

2/3 is rental income (100) (paid by foreigners)

1/3 is imputed production/rent for the non-resident owner (P72 and P3S14 in the accounts of BE) (50)

Intermediate consumption (maintenance and repair) equals 15

Operating surplus (150 minus 15 = 135) is distributed to BE (D422).

P1 (abroad)	150,0		
P3 (abroad)	100,0		
P62 (abroad)	50,0	P72	50,0
P2 (abroad)	15,0		
B2g (distributed to BE)	135,0	D422	135,0

The net resources for S14 (85) correspond to rentals received (100).
minus the cost of maintenance and repairs (15).

Data sources

Up to now no estimate has been made of these flows due to inappropriate/non-existent data.

Houses located in Belgium owned by foreigners

It is possible to estimate the number of houses in Belgium owned by non-residents via information from the ministry of finance (from 2005 on).

Houses located in Belgium owned by nonresidents

	2005	2006	2007	2008	2009	2010
number	22.100	21.600	21.400	19.900	19.300	17.200

In relation to the total number of dwellings in Belgium these numbers are very small.

Under certain assumptions it is possible to estimate D422 paid to the ROW in relation to the production of dwelling services of houses in Belgium owned by foreigners:

- Assumption 1: the rental value of holiday homes owned by foreigners is the same as the average rental value of houses owned by Belgians.
- Assumption 2: intermediate consumption of holiday homes owned by foreigners as a % of production is the same as for houses owned by Belgians.
- Assumption 3: the occupation rate = 25 % (holiday homes are rented/occupied 3 months a year).

$$D422 = (\# \text{ houses}) * (\text{rental value}^{112} - \text{intermediate consumption}) * (\text{occupation rate})$$

$$2005: 22.100 * (6\,296 - 640) * 0.25 = \text{€ } 31\,245\,000$$

$$2011: 17.400 * (6\,763 - 673) * 0.25 = \text{€ } 26\,493\,000$$

As houses owned by non-residents are, for the time being, not isolated in the housing stock/estimate of dwelling services in the Belgian national accounts, production and value added is probably imputed in S14 instead of S11 (but is integrated in GDP). So there is no impact on GDP. D422 paid to ROW has a negative impact on GNI (- € 26.5 million in 2011).

¹¹² Rental values derived from series constructed on the old benchmark year (2001).

Houses abroad owned by Belgians

Fiscal information

The personal income tax declaration contains a part on “foreign real estate income”.

This information however cannot be used for statistical purposes because the income needs only to be mentioned if it is taxable in Belgium¹¹³ or is (partially) financed with a loan that is fiscally deductible.

Household budget survey

The HBS not only asks for information on income and expenditure but also on the possession of durable consumer goods (cars etc.) and second houses in Belgium and abroad. By extrapolating these results it is possible to estimate the number of houses abroad owned by Belgian households.

Information on second homes abroad from HBS											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Original figures from HBS											
Number of households in BE (1000)	4.237,8	4.278,9	4.320,0	4.361,2	4.402,3	4.439,7	4.481,8	4.523,4	4.569,5	4.606,5	4.647,3
% of households with second home abroad	0,43%	0,83%	0,80%	0,71%	1,09%	0,74%	0,65%	1,41%	0,86%	0,90%	1,13%
average number of second homes abroad per household	1,00	1,05	1,03	1,06	1,14	1,03	1,00	1,18	1,03	1,00	1,10
total number of second homes abroad (1000)	18,1	37,2	35,6	32,6	54,9	34,0	29,0	74,8	40,7	41,7	57,7
Adjusted figures from HBS											
Number of households in BE	4.237,8	4.278,9	4.320,0	4.361,2	4.402,3	4.439,7	4.481,8	4.523,4	4.569,5	4.606,5	4.647,3
% of households with second home abroad (a)		0,68%	0,78%	0,87%	0,85%	0,83%	0,93%	0,97%	1,06%	0,97%	1,02%
number of second homes abroad per household (b)	1,06	1,06	1,06	1,06	1,06	1,06	1,06	1,06	1,06	1,06	1,06
total number of second homes abroad (1000)		31,1	35,6	40,1	39,5	38,9	44,3	46,6	51,3	47,1	50,1
(a) 3 year centered moving average											
(b) average for the period 2000-2010											
p.m. number of households in HBS sample	3.816	3.726	3.721	3.731	3.785	3.550	3.783	3.746	3.671	3.599	3.578

As can be seen from the table the percentage of households with second homes abroad as well as the average number of second homes abroad per household is unstable. Due to this the resulting total number of second homes abroad is very erratic and improbable.

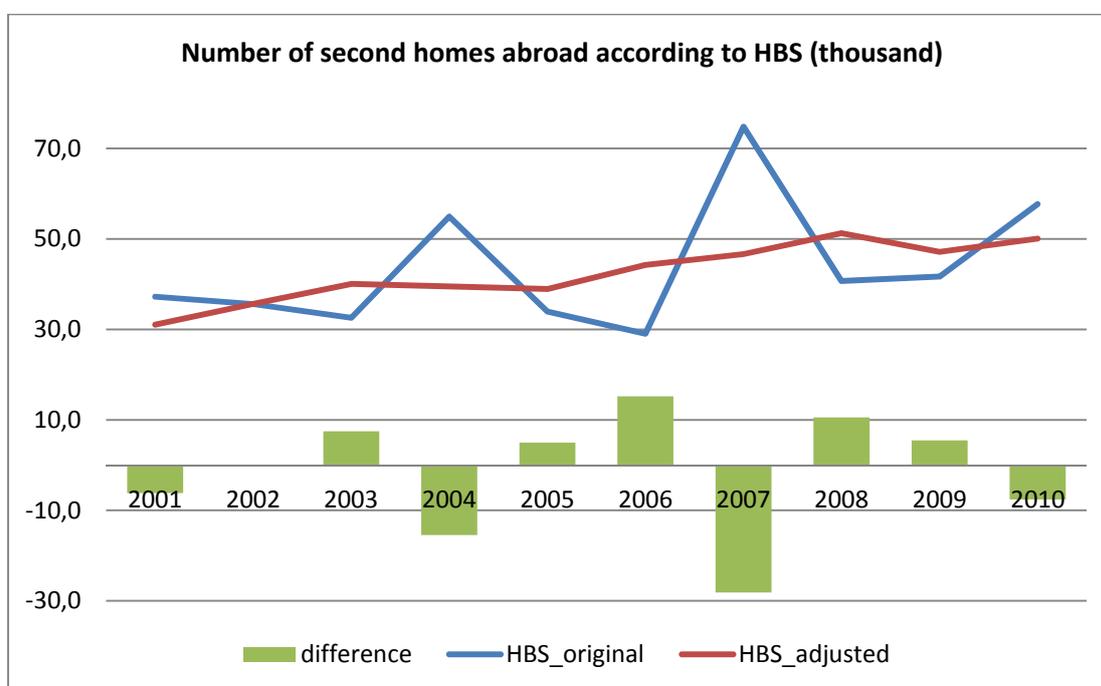
Therefore the HBS figures should be adjusted: for the % of households with second homes we use a 3 year centred moving average and for the number of second homes abroad by household we use the average for the whole period (1.06). This generates a series which is far more plausible (an increase from 30 000 in the beginning of the period to about 50 000 by the end of the period). This implies that by the end of the period the number of houses owned by residents abroad should approximately be

¹¹³ The Belgian fiscal authorities have concluded agreements to prevent double taxation with some countries (e.g. France) which implies that real estate taxed abroad, is no longer taxed in Belgium (and has not to be declared in the tax declaration).

three times higher than the number of houses located in Belgium owned by residents. Taking into consideration that Belgium is not typically a holiday country and that Belgians are relatively wealthy compared to other EU citizens and the small surface of Belgium (and so with a relatively large RoW) this seems to be a plausible situation. However, in general terms one can question the reliability of the HBS in this respect because rich households (top 1 or 5 % which probably own a large part of the real estate abroad) are probably underrepresented in the HBS sample. So these numbers have to be regarded as a lower limit and the real numbers could be higher.

In the HBS information is lacking on the breakdown by country (France, Italy, Spain,) for houses abroad owned by Belgians. So, additional hypotheses should be used to integrate this information into the balance of payments.

From 2012 on the HBS is two-yearly and the information on second houses (in Belgium and abroad) is no longer available (last available data refers to 2010).



Impact on GNI

The information on number of houses in Belgium owned by foreigners and number of houses abroad owned by residents makes it possible to estimate D422 flows using the following assumptions:

- adjusted HBS figures can be used to estimate the number of houses abroad owned by residents;
- in Belgium the characteristics and rental value of houses owned by non-residents are the same as for houses owned by residents;
- the rental value of houses abroad is the same as for houses in Belgium;
- the occupation rate for holiday homes is 25 %.

Using these hypotheses the D422 flows related to dwelling services of holiday homes (and the impact on GNI¹¹⁴) can be estimated

Income from quasi corporations received and paid to ROW linked to second homes abroad							
(mln €)							
		2005	2006	2007	2008	2009	2010
D422 paid to ROW	(a)	31,2	31,2	31,4	29,5	29,1	26,0
D422 received from ROW	(b)	55,0	63,9	68,4	76,0	71,1	75,8
impact on GNI	(b)-(a)	23,8	32,7	37,0	46,5	42,0	49,8
GNI		305.423	321.554	339.181	351.342	338.538	361.953
impact as % GNI		0,008%	0,010%	0,011%	0,013%	0,012%	0,014%

Belgian GNI seems to be underestimated by € 30 to 50 million (or 0,01 %) in recent years due to missing flows in the net cross border property income from second homes abroad.

Conclusion concerning dwellings abroad

For houses located in Belgium owned by non-residents the information for years prior to 2005 is lacking. For houses abroad owned by Belgians the information is no longer available in the HBS for recent years (2011 and later). In the future it could be envisaged to gather information on this item through the “Household Finance and Consumption Survey” which is a European survey by the ECB.

A number of assumptions concerning rental values and occupation rates have to be made and no information exists concerning the location of holiday homes of Belgians abroad (number of houses in France, Italy, Spain, etc.)

The (positive) impact on GNI is probably very limited (+0.01 %).

It is not yet possible to make an integrated estimate in the financial accounts (flows and stocks/international investment position) and non-financial accounts (cross border property income flows induced by holiday homes) due to the lack of (reliable) information concerning housing purchases/housing stock abroad. Taking all these elements into account estimates of cross border property income flows (linked to holiday homes abroad) are not registered in the national accounts.

3.19 PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES (M)

3.19.1 INTRODUCTION

In 2012, the value added realised in Section M amounted to € 30.705 million, 8.9 % of the value added of all branches of activity combined. It was produced by the non-financial corporations (S11: € 17.507 million), financial corporations¹¹⁵ (S12: -€ 21 million), Households (S14: € 13.079 million) and Non-profit institutions serving households (S15: € 140 million: NPI's active in R&D-activities).

¹¹⁴ The GNI-figures in the table correspond to ESA95 GNI figures published in sept 2013.

¹¹⁵ Activities of head offices, of which subsidiaries, are financial corporations (S126).

The amounts in S14 are quite considerable in SUT-branch 70A. In this branch we register the activity of self-employed administrators of enterprises (€ 11.233 million value added).

Industry	S11			S12			S14			S15			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
M	49.130	31.622	17.507	382	403	-21	14.827	1.748	13.079	236	96	140	64.575	33.870	30.705
MA	39.573	25.057	14.516	382	403	-21	14.058	1.341	12.717				54.013	26.801	27.212
71	8.137	5.000	3.137				666	287	379				8.803	5.287	3.516
71A	8.137	5.000	3.137				666	287	379				8.803	5.287	3.516
69-70	31.436	20.057	11.379	382	403	-21	13.392	1.054	12.338				45.210	21.514	23.696
69A	8.331	4.633	3.698				1.777	672	1.105				10.108	5.305	4.803
70A	23.105	15.424	7.681	382	403	-21	11.616	382	11.233				35.102	16.209	18.893
MB	2.321	1.206	1.114				4	1	2	236	96	140	2.561	1.304	1.257
72	2.321	1.206	1.114				4	1	2	236	96	140	2.561	1.304	1.257
72A	2.321	1.206	1.114				4	1	2	236	96	140	2.561	1.304	1.257
MC	7.236	5.359	1.877				766	406	360				8.001	5.765	2.237
73	5.533	4.206	1.326				127	67	60				5.660	4.273	1.386
73A	5.533	4.206	1.326				127	67	60				5.660	4.273	1.386
74-75	1.703	1.152	551				639	339	300				2.342	1.491	850
74A	1.296	875	422				276	132	144				1.573	1.007	565
75A	407	278	129				363	207	156				769	484	285

The process table for section M

	Basis for NA Figures											Other	Total (sources)
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Total Extrapolation Models			
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FSIM	Other E&M				
P1	633	64.007										604	65.244
P1	429	34.673										341	35.443
B1g	205	29.334										262	29.801

Data validation	Adjustments										Balancing	Total (adjustments)	Final
	Conceptual			Exhaustiveness									
	Allocation of FSIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness				
-455	1	-1.422	-1.421	0	0	0	1.489	0	1.489	-282	-669	64.575	
-1.452	637	-1.023	-386	0	0	0	513	-247	266	0	-1.573	33.870	
997	-636	-399	-1.034	0	0	0	976	247	1.223	-282	904	30.705	

Section M is one of the rare industries in which a balancing adjustment has been made (with a negative impact of € 282 million on value added).

3.19.2 METHOD OF CALCULATION

S11_M	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	21.483	-35	350	0	3.441	25.240	16.412	-60	945	17.297	5.778	97	60	7.943	2.129
E1	253	-1	0	0	10	262	101	0	1	102	94	1	1	160	66
A2	838	13	0	0	71	922	612	0	3	615	223	5	3	307	82
B1	2.360	-1	0	0	125	2.483	1.516	-7	43	1.553	332	9	6	931	595
B2	14.914	-4	0	0	342	15.251	8.610	-2	311	8.919	1.960	61	35	6.333	4.348
C1	70	0	0	0	4	74	97	-1	2	97	7	1	0	-24	-31
C2	352	0	0	0	0	352	543	0	24	567	29	7	1	-215	-249
E2	364	2	0	0	6	372	326	-1	2	327	38	1	0	45	6
B3	3.040	3	1	0	9	3.054	1.881	0	25	1.906	401	12	5	1.147	740
BL	263	0	0	0	9	272	140	0	1	141	74	1	3	131	58
H1	581	-1	1	97	67	745	341	0	2	343	322	3	0	402	77
H2	75	0	0	23	10	107	52	0	1	52	45	1	0	55	9
H3	171	0	0	41	16	228	125	0	3	128	86	3	0	101	12
H4	178	0	0	65	16	260	163	0	1	164	79	1	0	96	16
RF	2	0	0	0	0	2	0	0	0	0	2	0	0	2	0
TOTAL (I)	44.945	-25	353	226	4.125	49.624	30.917	-70	1.363	32.210	9.470	201	114	17.414	7.858
adjustments	-976	25	589	0	-133	-494	-514	0	-75	-588	218	-42	550	94	468
(b)	0	0	0	0	0	0	0	0	0	0	28	0	0	0	-28
(c)	-3	0	0	0	0	-3	-8	0	0	-8	0	0	0	5	5
(d)	-705	0	0	0	0	-705	-705	0	0	-705	0	0	0	0	0
(e)	0	0	0	0	-21	-21	0	0	-62	-62	0	0	0	40	40
(f)	0	0	0	0	-6	-6	-22	0	0	-22	0	0	0	15	15
(g)	0	0	399	0	0	399	-118	0	0	-118	0	0	0	516	516
(h1)	0	0	0	0	0	0	-9	0	0	-9	0	0	0	9	9
(i1)	0	0	292	0	0	292	-164	0	0	-164	0	0	0	456	456
(i2)	0	0	-88	0	0	-88	0	0	0	0	0	0	0	-88	-88
(i3)	0	0	-6	0	0	-6	0	0	0	0	0	0	0	-6	-6
(k)	0	0	0	0	0	0	639	0	0	639	0	0	0	-639	-639
(l)	0	0	0	0	0	0	-70	0	0	-70	0	0	0	70	70
(m)	0	0	0	0	-16	-16	0	0	0	0	0	0	0	-16	-16
(o31)	-337	0	0	0	0	-337	0	0	0	0	0	0	337	-337	0
(o32)	-5	0	0	0	0	-5	0	0	0	0	0	0	5	-5	0
(o4)	0	0	2	0	0	2	0	0	0	0	0	0	0	2	2
(p2)	0	0	0	0	0	0	-241	0	0	-241	241	0	0	241	0
(r)	0	0	0	0	0	0	0	0	0	0	2	0	0	0	-2
(t)	-25	25	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-532	0	-8	0	-90	-630	-384	0	-13	-397	-175	0	0	-233	-58
(x4)	0	0	0	0	0	0	18	0	0	18	0	0	0	-18	-18
(y)	814	0	0	0	0	814	283	0	0	283	65	0	0	531	466
(aa)	-151	0	0	0	0	-151	30	0	0	30	0	-42	151	-181	12
(af)	0	0	0	0	0	0	0	0	0	0	57	0	57	0	0
(ad)	-32	0	0	0	0	-32	0	0	0	0	0	0	0	-32	-32
(fisim)	0	0	0	0	0	0	237	0	0	237	0	0	0	-237	-237
Final (I)+(II)	43.969	0	942	226	3.992	49.130	30.403	-69	1.288	31.622	9.687	158	664	17.507	8.326
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S12_M	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	501	0	1	0	58	560	484	0	0	484	302	5	0	75	-231
TOTAL (I)	501	0	1	0	58	560	484	0	0	484	302	5	0	75	-231
adjustments	-178	0	2	0	-1	-178	-81	0	0	-81	-40	0	0	-97	-57
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	35	0	0	0	-35
(f)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(g)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i1)	0	0	2	0	0	2	-2	0	0	-2	0	0	0	4	4
(k)	0	0	0	0	0	0	18	0	0	18	0	0	0	-18	-18
(l)	0	0	0	0	0	0	-4	0	0	-4	0	0	0	4	4
(m)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p2)	0	0	0	0	0	0	-6	0	0	-6	6	0	0	6	0
(v)	-178	0	-1	0	-1	-180	-84	0	0	-84	-82	0	0	-96	-15
(aa)	0	0	0	0	0	0	-4	0	0	-4	0	0	0	4	4
(af)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fisim)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
Final (I+II)	323	0	3	0	56	382	403	0	0	403	262	5	1	-21	-288
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

S14_M	C_70	C_71	C_72	C_73	C_74-740	C_A_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
TOTAL (I)	14.408	0	0	0	0	14.408	1.196	0	0	1.196	167	6	2	13.212	13.042
total adjustm	419	0	0	0	0	419	552	0	0	552	10	0	9	-133	-134
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	1
(d)	-4	0	0	0	0	-4	-4	0	0	-4	0	0	0	0	0
(k)	0	0	0	0	0	0	5	0	0	5	0	0	0	-5	-5
(l)	0	0	0	0	0	0	-76	0	0	-76	0	0	0	76	76
(o31)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(y)	675	0	0	0	0	675	229	0	0	229	8	0	0	445	437
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
(af)	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0
(ad)	-250	0	0	0	0	-250	0	0	0	0	0	0	0	-250	-250
(fisim)	0	0	0	0	0	0	398	0	0	398	0	0	0	-398	-398
Final (I+II)	14.827	0	0	0	0	14.827	1.748	0	0	1.748	177	6	11	13.079	12.907
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S15_M	C_70	C_71	C_72	C_73	C_74-740	C_A_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
H1	4	0	0	91	15	111	14	0	41	56	8	4	0	55	43
H2	1	0	0	6	1	8	2	0	0	2	5	0	0	5	1
H3	1	0	0	7	1	10	4	0	2	6	7	0	0	4	-3
H4	16	0	0	46	7	69	28	0	9	37	38	1	0	33	-6
TOTAL (I)	23	0	0	151	23	197	48	0	52	100	57	5	0	97	35
adjustments	0	0	26	14	0	39	-4	0	0	-4	1	0	1	43	43
(a)	0	0	0	-36	0	-36	0	0	0	0	0	0	0	-36	-36
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(c)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(g)	0	0	20	0	0	20	-6	0	0	-6	0	0	0	27	27
(h2)	0	0	0	-100	0	-100	0	0	0	0	0	0	0	-100	-100
(i1)	0	0	5	0	0	5	0	0	0	0	0	0	0	5	5
(k)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(l)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(m)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(n)	0	0	0	-25	0	-25	0	0	0	0	0	0	0	-25	-25
(u)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x4)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(af)	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
(fisim)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(ae)	0	0	0	174	0	174	0	0	0	0	0	0	0	174	174
Final (I+II)	23	0	26	165	23	236	44	0	52	96	59	5	1	140	78
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

The turnover of NACE 69.1 (legal activities: solicitors, notaries, bailiffs, etc.) was until recently not subject to VAT. The activity of self-employed persons in this industry is therefore estimated via the personal income tax data. The same source is used for the administrators of enterprises (NACE 70.2 in S14).

3.20 ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES (N)

3.20.1 INTRODUCTION

In 2012, the value added realised in Section N amounted to € 13.940 million, 4.0 % of the value added of all branches of activity combined. It was produced by the non-financial corporations (S11: € 13.363 million) and Households (S14: € 577 million).

Industry	S11			S14			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
N	27.007	13.644	13.363	1.368	791	577	28.375	14.435	13.940
NN	27.007	13.644	13.363	1.368	791	577	28.375	14.435	13.940
77	5.947	3.158	2.790	91	54	37	6.038	3.211	2.827
77A	3.257	1.621	1.636	10	6	4	3.267	1.627	1.640
77B	377	224	154	55	34	21	432	258	174
77C	2.313	1.313	1.000	26	13	13	2.338	1.326	1.012
78	6.128	1.147	4.982	14	6	8	6.142	1.152	4.989
78A	6.128	1.147	4.982	14	6	8	6.142	1.152	4.989
79	3.842	3.325	517	36	24	12	3.878	3.349	529
79A	3.842	3.325	517	36	24	12	3.878	3.349	529
80-82	11.089	6.014	5.075	1.228	707	521	12.317	6.722	5.595
80A	1.063	338	725	28	12	16	1.091	350	741
81A	1.722	1.119	604	838	521	317	2.560	1.639	921
81B	2.574	1.143	1.430	195	90	105	2.768	1.234	1.535
82A	5.731	3.415	2.316	167	84	83	5.898	3.499	2.399

The process table for section N

Basis for NA Figures												
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total (sources)	
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FSIM	Other E&M			Total Extrapol+Models
P1	89	32.225							384		32.697	
P2	45	16.815							192		17.052	
B1g	43	15.411							192		15.646	
Adjustments												
Data validation	Conceptual			Exhaustiveness						Balancing	Total (adjustments)	Final
	Allocation of FSIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness			
-1.114		-3.979	-3.979	0	0	0	770	0	770		-4.323	28.375
-399	167	-2.543	-2.376	0	0	0	283	-125	158		-2.617	14.435
-715	-167	-1.436	-1.603	0	0	0	487	125	612		-1.706	13.940

3.20.2 METHOD OF CALCULATION

As in most industries the standard procedure is followed in section N

Section N															
S11_N	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	18.413	30	23	0	1.110	19.576	9.189	8	162	9.360	7.618	91	22	10.216	2.529
E1	45	0	0	0	1	46	18	0	0	18	28	0	0	28	0
A2	46	0	0	0	2	48	13	0	0	13	32	0	0	34	2
B1	1.435	-1	0	0	48	1.482	945	-7	12	950	353	8	2	532	173
B2	6.049	-2	0	0	219	6.266	3.942	-10	49	3.981	1.342	42	9	2.284	909
C1	36	0	0	0	38	74	42	-1	0	42	1	0	0	32	31
C2	73	0	0	0	0	73	101	0	5	106	5	8	1	-33	-45
E2	43	0	0	0	0	43	26	0	1	27	13	0	1	16	3
B3	896	0	0	0	9	905	574	0	7	582	199	7	1	324	119
BL	15	0	0	0	1	16	11	0	0	11	3	0	0	5	2
H1	956	1	12	37	53	1.060	480	0	18	498	555	10	0	561	-4
H2	107	0	0	19	7	133	47	0	1	48	75	6	0	85	4
H3	214	0	1	25	11	252	104	0	3	107	143	3	0	145	-1
H4	310	1	2	36	19	368	175	0	5	180	176	8	0	187	4
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (I)	28.636	30	39	117	1.519	30.340	15.669	-8	262	15.923	10.542	184	36	14.416	3.727
adjustments (II)	-3.432	-30	242	-5	-109	-3.333	-2.173	0	-107	-2.280	926	-39	2.277	-1.053	336
(b)	0	0	0	0	0	0	0	0	0	0	135	0	0	0	-135
(c)	-11	0	0	0	0	-11	-3	0	0	-3	0	0	0	-8	-8
(d)	-2.450	0	0	0	0	-2.450	-2.450	0	0	-2.450	0	0	0	0	0
(e)	0	0	0	0	-73	-73	0	0	-101	-101	0	0	0	28	28
(f)	0	0	0	0	-6	-6	-14	0	0	-14	0	0	0	8	8
(g)	0	0	0	0	0	0	-6	0	0	-6	0	0	0	6	6
(h1)	0	0	0	0	0	0	-6	0	-5	-11	0	0	0	11	11
(h2)	0	0	0	-4	0	-4	0	0	0	0	0	0	0	-4	-4
(i1)	0	0	258	0	0	258	-46	0	0	-46	0	0	0	303	303
(i2)	0	0	-17	0	0	-17	0	0	0	0	0	0	0	-17	-17
(i3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	81	0	0	81	0	0	0	-81	-81
(l)	0	0	0	0	0	0	-70	0	0	-70	0	0	0	70	70
(m)	0	0	0	0	-27	-27	0	0	0	0	0	0	0	-27	-27
(o31)	-296	0	0	0	0	-296	0	0	0	0	0	0	296	-296	0
(o32)	-1.062	0	0	0	0	-1.062	0	0	0	0	0	0	1.062	-1.062	0
(o4)	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1
(p2)	0	0	0	0	0	0	-125	0	0	-125	125	0	0	125	0
(t)	30	-30	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-80	0	0	-1	-2	-83	-44	0	-1	-45	-27	0	0	-38	-11
(x4)	0	0	0	0	0	0	2	0	0	2	0	0	0	-2	-2
(y)	540	0	0	0	0	540	194	0	0	194	62	0	0	346	284
(aa)	-526	0	0	0	0	-526	27	0	0	27	0	-39	526	-553	12
(ab)	424	0	0	0	0	424	156	0	0	156	485	0	248	268	30
(af)	0	0	0	0	0	0	0	0	0	0	146	0	146	0	0
(fisim)	0	0	0	0	0	0	130	0	0	130	0	0	0	-130	-130
Final (I)+(II)	25.205	0	280	112	1.410	27.007	13.496	-8	155	13.644	11.468	145	2.314	13.363	4.063
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_N	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
TOTAL (I)	1.244	0	0	0	0	1.244	729	0	0	729	119	10	3	515	389
adjustments (II)	124	0	0	0	0	124	62	0	0	62	11	1	86	62	137
(a)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	-60	0	0	0	0	-60	-60	0	0	-60	0	0	0	0	0
(k)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(l)	0	0	0	0	0	0	-5	0	0	-5	0	0	0	5	5
(o31)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o32)	-45	0	0	0	0	-45	0	0	0	0	0	0	45	-45	0
(y)	231	0	0	0	0	231	89	0	0	89	6	0	0	141	135
(aa)	0	0	0	0	0	0	0	0	0	0	0	1	35	0	34
(af)	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0
(fisim)	0	0	0	0	0	0	37	0	0	37	0	0	0	-37	-37
Final (I+II)	1.368	0	0	0	0	1.368	791	0	0	791	130	11	89	577	526
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S11+S14_final	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
Final (I)+(II)	26.573	0	280	112	1.410	28.375	14.287	-8	155	14.435	11.598	156	2.403	13.940	4.589
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

Operational leasing

The treatment of operational leasing in the annual accounts corresponds to the registration in the national accounts: the rentals received are registered in turnover (P1) and the rentals paid (by enterprises) in purchases of services (P2).

Tour operators

ESA 2010 states in § 3.61 that *"The output of tour operator services is measured by the full expenditure made by travelers to the tour operator"*.

Because the turnover for tour operators corresponds to the total expenditure of travellers, no adjustments have to be made.

Travel agencies

ESA 2010 states in § 3.60 that *"The output of travel agency services is measured as the value of service charges of agencies (fees or commission charges) and not by the full expenditures made by travelers to the travel agency, including charges for transport by third parties"*.

In practice, travel agencies record the output in two ways: either the full expenditure (mostly done by bigger companies) or only the fees (done by small companies). This implies that an adjustment is necessary for the first group (the bigger companies).

Because travel agencies are regarded as enterprises that trade in tourism services this correction is done under adjustment (d) in the transition table. The relevant amount, that is important for this industry, is calculated on the basis of the purchases of travel agencies. This adjustment has no impact on value added.

In most recent years there is a tendency that the bigger companies change their way of recording output, namely only the fees are recorded. As a result adjustment (d) has diminished in comparison with the past.

3.21 PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY (O)

3.21.1 INTRODUCTION

In 2012, the value added of public administration (Section O) amounted to € 27.147 million, 7.8 % of the value added of all branches of activity combined. By definition, it was produced entirely by the institutional sector of general government (S13).

Industry	S13			S1		
	P1	P2	B1g	P1	P2	B1g
O	36.919	9.772	27.147	36.919	9.772	27.147
OO	36.919	9.772	27.147	36.919	9.772	27.147
84	36.919	9.772	27.147	36.919	9.772	27.147
84A	30.704	8.171	22.533	30.704	8.171	22.533
84B	3.562	569	2.993	3.562	569	2.993
84C	2.653	1.031	1.621	2.653	1.031	1.621

The process table in section O

	Basis for NA Figures											Other	Total (sources)
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Total Extrap+Models		
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FSIM	Other E&M				
P1		33.171				3.139					3.139		36.309
P2		9.162									0		9.162
B1g		24.009				3.139					3.139		27.147

Data validation	Adjustments											Balancing	Total (adjustments)	Final
	Conceptual			Exhaustiveness							Total exhaustiveness			
	Allocation of FSIM	Other conceptual	Total conceptual	N1	N2	N3	N4	N5	N6	N7				
	567	43	610										610	36.919
	567	43	610										610	9.772
	0	0	0										0	27.147

Section O exclusively contains S13-units. The production in the case of non-market producers is derived as the sum of their costs (D1 + P2 + D29 – D39 + P51c). The consumption of fixed capital (P51c) is a PIM based model estimate. The other costs can be derived from administrative sources.

The allocation of fisim results in an increase of P2 and P1 and there are also small amounts of other conceptual adjustments.

3.21.2 METHOD OF CALCULATION

. Since overall output (P1) is equal to the costs borne by general government, the method consists initially in calculating compensation of employees (D1), intermediate consumption (P2), other subsidies on production (D39) and consumption of fixed capital (K1). For general government, there are no taxes on production paid (D29). Overall output is then broken down by market output (P11), output for own final use (P12) and other non-market output (P131, P132).

The evaluation of the compensation of employees and intermediate consumption is described below. The calculation of consumption of fixed capital is PIM based estimate (cf. 4.12). The breakdown of the output of general government is dealt with in the section on the final consumption expenditure of S13 (cf. 5.9).

3.21.3 COMPENSATION OF EMPLOYEES (D1)

3.21.3.1 Description of basic data

In the Benelux economic regrouping, the compensation of own personnel appears under economic code 11 (Wages and social contributions), comprising all payments and benefits paid by general government as an employer to its employees as remuneration for work (including contributions to widows' and orphans' funds, social security contributions and withholding taxes).

There has therefore to be an employment relationship, and this applies also to political appointees (ministers, secretaries of state, deputies, aldermen, members of municipal councils and members of parliament).

Group 11 also covers the salaries, allowances and pensions paid in Belgium to ministers of religion¹¹⁶.

In Belgium, the Central Service for Penitentiary Work is regarded as a public-sector enterprise (in sector S11); the remuneration of prisoners therefore falls outside the public sector.

¹¹⁶ In the national accounts, ministers of religion are classified in branch O, NACE 91 (cf. 3.21) and belong to sector S15 (NPISH).

Group 11 breaks down as follows:

11.1 Wages as such

11.11 Remuneration according to tariffs

It is important to know wage trends in the public sector in order to know wages as such, before allowances and before deduction of social insurance and retirement contributions, taxes etc.

11.12 Other elements of remuneration.

These comprise pay for overtime, night work or irregular working hours, productivity bonuses, attendance fees for officials, allowances for senior functions, gratuities and holiday pay.

Allowances for travel on duty are regarded as reimbursement of expenses and are consequently coded under 12.1.

Relocation expenses are a particular form of travel expenses and therefore come under code 12.1. Allowances paid to employees for the purchase of tools, means of transport and special work clothing (for protection from dangerous or polluting substances) are regarded as purchases of goods and services (group 12).

11.2 Employers' social contributions paid to institutions or funds

These include statutory, contractual and voluntary contributions to insurance against the risks of absence due to sickness and associated expenses, disability, old age, unemployment, accident and death, and family allowance contributions. It follows from this list that retirement benefit contributions (old age and survivors' pensions) are also included.

Although paid directly by employers to the insurer, these contributions are treated as part of the compensation of employees, which the latter are deemed to pay to the insurer.

Retirement pensions paid to the former staff of public-interest organisations affiliated to the pension scheme instituted by the Law of 28 April 1958 are paid via the semi-state pool (which collects contributions from its affiliated bodies). These contributions are regarded as social contributions (code 1120).

11.3 Other employer's social costs

These comprise social benefits provided directly by employers to their employees or former employees and dependants. They are treated as contributions to a contributory social insurance scheme.

Other employer's social costs comprise:

11.31 Direct allocations

These include family allowances, birth allowances, bridging allowances, payments covering insurance for expenses pertaining to sickness, industrial accidents and death, and all relating direct allocations.

11.32 Continued payment of wages

This means the payment of wages as such for the period during which a worker is out of work due to sickness, accident or redundancy.

11.33 General government staff pensions

This item includes pensions paid directly - i.e. not via a contributory system - by government to its personnel and/or their dependants, and the pensions of former political appointees and/or their dependants. Payments to the semi-state pool are coded under 1120.

11.4 Wages in kind

Benefits in kind deemed part of the compensation of employees, such as the provision of food, clothing, military uniforms and housing either free of charge or at reduced prices, are treated as wages in kind.

Code 11 includes:

- 11.11
 - Remuneration according to tariffs;
 - Promotion to higher grades;
 - Wage increases;
 - Ministerial office allowances;
 - Allowances relating to recruitment;
 - Travel allowances;
 - Student remuneration.

- 11.12 In general
 - elements of remuneration not covered by tariffs, particularly:
 - subsidised season tickets, i.e. general government's contribution to the price of season tickets purchased by its employees who use public transport.
 - allowances for higher functions;
 - payments for special functions;
 - payments for overtime;
 - attendance fees and various payments (taxable) awarded to staff members or public agents (deputies, senators, etc.);
 - payments to drivers;
 - Christmas allowances and bonuses;
 - household and residential allowances;
 - holiday pay;
 - trade-union bonuses;
 - fixed allowances for living abroad;
 - refunding of initial expenses of residents abroad;
 - expatriate allowances;
 - allowances for foreign postings.

- 11.20 - Employers' social contributions paid to social security agencies;
 - Contributions by public interest organisations to the semi-state pension funds pool;
 - Employers' social contributions paid to institutions other than social security agencies.
- 11.31 Direct allocations, in particular:
 - family allowances;
 - birth allowances;
 - allowances for industrial accidents paid to general government staff (if the entity is its own insurer);
 - allowances for expenses relating to terminal sicknesses and funerals;
 - severance payments;
 - disability pensions paid directly to beneficiaries;
 - non-returnable social assistance to personnel (other than for meals).
- 11.32 Severance payments to ministerial office staff (continued payment of salaries);
 - Payments for standby status.
- 11.33 Retirement pensions paid directly by government to former staff members (contributions to the semi-state funds pool are coded under 11.20).
- 11.40 Remuneration in kind;
 - Various social services expenditure ("Saint Nicolas", trips, subsidised meals, etc.) similar to remuneration in kind;
 - Cards entitling the holder to reduced public transport fares;
 - Meals paid for in part or in full;
 - Regular transport of personnel from home to place of work by special shuttle;
 - Free transport for statutory staff;
 - Contributions towards luncheon vouchers;
 - Contributions towards civilian and military uniforms (other than working or on-duty clothes).

3.21.3.2 Imputed social contributions

Imputed social contributions are the counterpart of social benefits that employers pay directly to their employees or former employees, or their survivors, without creating an autonomous fund, setting up special reserves or taking out specific insurance. These benefits concern mainly general government staff with the status of established "officials" and mainly comprise retirement pensions and family benefits¹¹⁷. General government staff not having the status of established officials are covered by the private-sector social security arrangements.

¹¹⁷ An important borderline case is temporary continuing payment by the employer of wages and salaries in the event of sickness, maternity, disability, etc. but this item is not estimated and the corresponding payments have been left under "gross wages and salaries" (D11).

These imputed social contributions are currently estimated as being equal to social benefits paid (less employees' social contributions). It is not currently possible to develop a model on an actuarial basis for estimating imputed social contributions on the basis of employers' future commitments with regard to the payment of benefits.

At the same time as reforming the police forces, the government also profoundly modified the financing of police retirement and survivors' pensions. An "Integrated Police Pensions Fund" was set up by the Federal Finance Ministry. The fund provides pensions awarded from 1 April 2001 onwards and receives individual contributions and employers' contributions from the federal police and the police zones. In the ESA 2010 accounts terminology, this fund is regarded as managing a "social security regime" but, since it is not an institutional unit, it remains in the Federal Government subsector (S1311).

In practice, the Fund pays police pensions awarded from 1 April 2001 onwards and has been receiving contributions since the beginning of 2003. During the transitional period from 1 April 2001 to 31 December 2002, contributions from members of the police were paid to the various pension regimes they were under on 31 March 2001. The Survivors' Pensions Fund advanced the sums needed for paying pensions that started from 1 April 2001 onwards. The Integrated Police Pensions Fund reimbursed these payments in 2003. Since 2012, the Fund pays only the pension of the federal police and the pensions of the local police are treated by the pension fund of the NSSOPLA (see below).

Before the establishment of this new system, retirement pensions for federal police and gendarmes were paid directly by the Public Treasury, i.e. the federal government (S1311) as employer, without any contributions being levied, whereas survivors' pensions were payable from the Survivors' Pensions Fund fed by individual contributions. Retirement and survivors' pensions for municipal police were integrated with municipal pensions for statutory staff, involving three coexisting systems: the "common government pension scheme" and the "new members' pensions scheme", often referred to as Pool I and Pool II, which are disbursing schemes run by the NSSOPLA, are merged in a new pension fund in 2012 and are therefore part of the social security administration subsector (S1314) in ESA 2010 public accounts;

- the "welfare institutions scheme" whereby employers make an agreement with an insurance company to provide pensions for the members of their statutory staff. This is a collective capitalisation scheme falling within the insurance enterprises and pension funds subsector (S128);
- the "internal scheme" comprising local authorities that opt not to join either of the schemes described above and therefore have to make their own arrangements for the funding and payment of pensions for their staff and the latter's dependants. Under this scheme there is no payment of employer's contributions but a withholding levy on employees. These operations are recorded in the employer's accounts, i.e. in the local government subsector (S1313).

Since the introduction of the Integrated Police Pensions Fund, the previous schemes no longer receive any levy from federal or local police salaries but continue to bear the cost of retirement and survivors' pensions awarded before 1 April 2001. The legislation therefore provided for the Integrated Police Pensions Fund to transfer resources to these schemes so that they have sufficient resources to meet their obligations. The ESA 2010 accounts thus record transfers (D75) between the Federal Government subsector (S1311) and the other subsectors concerned.

As the transfer of gendarmes to police zones and the improvement in the pecuniary status of police officers increased the employers' contributions payable by police zones, the legislation provides for the Federal Government to subsidise part of those contributions. A transfer (D75) between the Federal Government (S1311) and the police zones (S1313) is recorded.

Since the general system of public-sector pensions payable from the public purse is not funded by contributions actually levied, the ESA 2010 system refers to a "social insurance scheme with no formation of reserves managed by employers" and imputes social contributions in such a way as to provide a full measure of labour costs. These social contributions, which should be calculated by an actuarial method with reference to employers' future commitments to pay benefits, are estimated as equal to the benefits paid, net of any withholdings from employees.

As currently serving federal police officers no longer participate in this system, the estimation of imputed contributions involves deducting the retirement pensions of gendarmes and federal police officers that started before 1 April 2001. The result for the retirement pensions of federal officials is as follows:

Social contributions imputed (D122 = D612)

= pensions paid

- any withholdings for pensions

- pensions of federal police officers and gendarmes running since before 1 April 2001.

The same principle is applicable to the earlier municipal police pensions payable under the "internal scheme".

3.21.3.3 Summing-up: calculation of compensation of employees (amounts for 2012)

Data for 2012 (millions of euros)	
Public administration except defence and social security of Federal government (S1311)	
Code 11 (Administration)	6939
Remuneration of ministers of religion	-142
Differences in definition of federal government	67
Staff pensions of Communities and regions	-308
Integrated police pension fund: pensions running since before 1 April 2001	-62
<i>Subtotal</i>	<u>6494</u>
Public administration except defence and social security of Communities and Regions (S1312)	
Code 11 (economic grouping	8314
- Code 11 Education	-3786
- Code 11 Waste	-109
- Code 11 transportation	-1364
- Code 11 public broadcasting corporations	-192
Differences in definition of Communities and Regions	463
Staff pensions of Communities and regions	186
Other subsidies received	67
<i>Subtotal</i>	<u>3579</u>
Public administration except defence and social security of local government (S1313)	
Accounting data of local authorities	9704
Other subsidies received	373
Differences in the definition of local government	62
<i>Subtotal</i>	<u>10139</u>
Defence (SUT 75B3)	
Code 11 Defense	<u>2671</u>
Compulsory social security (SUT 75C3)	
Remuneration and social contributions of staff of social security agencies for employed, self-employed persons and health, the overseas social security office (OSSO) and the zorgfonds	1428
Differences in definition of social security	137
<i>Subtotal</i>	<u>1565</u>
Total Branch (O)	<u>24449</u>

3.21.4 INTERMEDIATE CONSUMPTION (P2)

3.21.4.1 Description of basic data

In the Benelux economic regrouping the relevant headings are coded 12 and 14.,.

(i) Code 12 - Purchases of non-durable goods and services

For its purchases of goods and services, government deals mainly with the corporate sector and foreign suppliers. Since it is very often difficult to identify the source of goods and services, no distinction is made in the coding.

There are circumstances in which households receive services in exchange for remuneration which cannot be regarded as wages, as there is no employer/employee relationship. Such services are recorded by government as purchases of non-durable goods and services. Attendance fees paid to

persons other than established officials on official and administrative boards and panels are also included in group 12.

Any purchases by government that are normally made by households are entered as transfers in kind (34.32) to households or as wages in kind, as in 11.4, e.g. government buying food, clothing, medicines, etc. and distributing them to households free of charge. Likewise hospital expenses for needy patients and welfare aid to the destitute.

Purchases of non-durable goods and services intended to be transferred abroad as gifts are recorded as income transfers (cf. group 35) to other countries.

Code 12 includes, in particular:

12.11 Operating overheads paid to sectors other than the general government sector

The purchases referred to in 12.11 can be broken down as follows:

- Expenses such as office equipment, drawing, reproduction, printing and binding equipment, purchases of books, periodicals and newspapers, maintenance, hire and repair of furniture and office machines, carriage charges, telephone, telegrams, the cost of sending service documents and interdepartmental mail, bank charges and accountants' fees, remuneration for information technology, typing and translation work, and remuneration of temporary administrative staff.
- Repair and maintenance of buildings not resulting in any increase in value, cleaning of buildings by specialist companies, fuel, electricity, gas and water, insurance premiums, surveillance and relocation expenses and associated minor expenses.
- Living and hospitality expenses, including those incurred by members of staff and refunded by government.
- Honorary allowances and attendance fees paid to outsiders. Any payment to persons treated as general government staff are classified under group 11.
- Other overheads, e.g. relating to recruitment and staff training, and publicity expenses. Any partial or total payments granted to members of staff having courses arranged by the department which employs them is regarded as government consumption. Publicity expenses can include printing expenses, films, radio and television broadcasts and the cost of organising exhibitions.
- Cheap small tools used to carry out relatively simple work or operations: hand tools such as saws, hammers and screwdrivers or small accessories such as pocket calculators.
- Payments for the use of non-produced intangible assets, such as patented assets, trademarks, etc. (other than payments to purchase such property rights, which are treated as acquisitions of non-produced intangible assets (code 7440)).
- Investment, management and other commissions on public loans and administrative financial expenses.

12.12 Renting of buildings from sectors other than the general government sector

12.13 Operational leasing from sectors other than the general government sector

12.21 Operating overheads paid within the general government sector

The purchases referred to in 12.21 correspond to those referred to in 12.11.

12.22 Renting of buildings paid for within the general government sector

12.5 Indirect taxes paid to subsectors of the general government sector

These include taxes on income from immovable and movable assets, regional taxes, etc. paid by one general government subsector to another.

The following are not covered by code 12:

- repair and maintenance of civil engineering structures not resulting in any increase in value, which are classified to group 14;
- purchases of durable military assets regarded as fixed capital formation (group 7, investments) or not so regarded (code 13);
- major improvements (e.g. refurbishment, rebuilding or extension) which significantly exceed what would be necessary merely to maintain fixed assets in good working order;
- employers' expenditure treated as wages and salaries in kind (code 11.40);
- computer software purchases or user licences, treated as investments subject to meeting both of the two following conditions:
 1. production process use repetitively or continuously for more than one year;
 2. acquisition cost (including VAT) is not very low.

If these two conditions are not met, the expenditure in question is regarded as intermediate consumption.

- the development of customised software also follows this double rule, whether developed by an external firm or on own account. Any produced for own account is valued at cost price.

(ii) Code 14 - Repair and maintenance of civil engineering structures not resulting in an increase in value

This group includes expenditure on roads, canals, bridges, tunnels, ports, etc. that cannot be regarded as investments (cf. group 73). It involves expenditure intended to preserve the value of capital assets. Maintenance entails regular and permanent attention to ensure the proper functioning and good condition of capital assets. These operations are classified as current expenditure.

Substantial changes to existing capital goods which result in an increase in value (e.g. road repairs which completely transform roads by laying a new surface, adopting of a different layout, etc.) are recorded as investments (group 73). Repairs to damage caused by war or natural disasters are also treated as investments (group 7).

3.21.4.2 Summing-up: calculation of intermediate consumption

Data for 2012 (millions of euros)	
Public administration except defence and social security of Federal government (S1311)	
Code 12 (administration)	2242
Code 14	0
Differences in definition of federal government	301
Fisim on deposits	19
Fisim on credits	121
<i>Subtotal</i>	<u>2682</u>
Public administration except defence and social security of Communities and Regions (S1312)	
Code 12	4072
- Code 11 Education	-1101
- Code 11 Waste	-62
- Code 11 transportation	-1124
- Code 11 public broadcasting corporations	-245
Code 01 (unitemised and/or unforeseen expenditure)	326
Differences in definition of Communities and Regions	553
Fisim on deposits	34
Fisim on credits	165
<i>Subtotal</i>	<u>2619</u>
Public administration except defence and social security of local government (S1313)	
Accounting data of local authorities	2457
Adjustment for non-life insurance (less gross premiums plus service)	-205
Fisim on deposits	43
Fisim on credits	165
<i>Subtotal</i>	<u>2870</u>
Defence (SUT 75B3)	
Code 12 Defense	<u>569</u>
Compulsory social security (SUT 75C3)	
Other current operating expenditure by social security agencies for employed, self-employed persons and health, the overseas social security office (OSSO) and the zorgfonds	928
Differences in definition of social security	83
Fisim on deposits	7
Fisim on credits	13
<i>Subtotal</i>	<u>1031</u>
Total Branch (O)	<u>9772</u>

3.21.5 OTHER SUBSIDIES RECEIVED (D39R)

The State and local governments receive subsidies on production from the federal level and the social security sector. It concerns the reductions of employer social contributions for specific groups of employees and reductions on the withholding tax for researchers. These amounts are first registered as social contributions received in the social security sector and as income tax in the Federal government and then registered as other subsidies on production. It concerns the branches administration and education at the State level and the branch administration at the local level.

The amount of subsidies received by these subsectors and the identification of the branches is done on the basis of data from the ONSS and ONSAPPL and the FPS Finances.

Calculation of subsidies received (amounts for 2012)

Data for 2012 (millions of euros)		
Public administration except defence and social security of Communities and Regions (S1312)		
Reductions of employer social contributions for specific groups		-67
<i>Subtotal</i>		-67
Public administration except defence and social security of local government (S1313)		
Reductions of employer social contributions for specific groups		-373
<i>Subtotal</i>		-373
Total Branch (O)		-440

3.22 EDUCATION (P)

3.22.1 INTRODUCTION

In 2012, the value added of education activities (Section P) amounted to 24.168 million, 7 % of the value added of all branches of activity combined. It was produced by four institutional sectors: non-financial corporations (S11: € 439 million), general government (S13: € 23.411 million), households (S14: € 49 million) and NPISHs (S15: € 269 million).

Gross value added of section P, by branch of activity and institutional sector (2012)

Industry	S11			S13			S14			S15			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
P	1.059	620	439	26.652	3.241	23.411	90	41	49	379	110	269	28.180	4.012	24.168
PP	1.059	620	439	26.652	3.241	23.411	90	41	49	379	110	269	28.180	4.012	24.168
85	1.059	620	439	26.652	3.241	23.411	90	41	49	379	110	269	28.180	4.012	24.168
85A	1.059	620	439	26.652	3.241	23.411	90	41	49	379	110	269	28.180	4.012	24.168

The process table for section P

	Basis for NA Figures											Other	Total (sources)	
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Total Extrap+Models			
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FSIM	Other E&M					
P1		25.194					2.809				96	2.905		28.099
P2		3.930					0				47	47		3.978
B1g		21.264					2.809				48	2.857		24.121

Data validation	Adjustments												Balancing	Total (adjustments)	Final
	Conceptual			Exhaustiveness											
	Allocation of FSIM	Other conceptual	Total conceptual	N1	N2	N3	N4	N5	N6	N7	Total exhaustiveness				
66	5	-9	-4							19	0	19		81	28.180
38	12	-13	-1							1	-4	-3		34	4.012
28	-8	4	-3							18	4	22		47	24.168

3.22.2 METHOD OF CALCULATION

For S11, S14 and S15 the standard sources and compilation procedure is followed.

For public education (S13) the production is estimated as the sum of costs.

Section P															
S11_P	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	145	0	0	0	3	147	106	0	0	106	36	0	4	41	9
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	30	0	0	0	0	30	21	0	0	21	7	0	0	9	2
B1	52	0	0	0	1	52	34	0	1	35	10	0	1	17	9
B2	315	-2	0	0	3	316	204	0	5	208	63	2	8	108	50
C1	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0
C2	7	0	0	0	0	7	9	0	1	10	2	0	0	-2	-4
E2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
B3	48	0	0	0	1	49	32	0	0	32	10	0	1	17	8
BL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H1	162	0	0	27	27	215	71	0	5	76	122	1	0	139	16
H2	34	0	0	16	14	64	34	0	1	34	26	0	0	29	4
H3	54	0	0	23	20	97	47	0	2	49	42	0	0	48	6
H4	54	0	0	24	17	96	45	0	2	47	43	0	0	48	5
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (I)	902	-2	0	90	87	1.076	604	0	17	621	361	4	14	455	104
adjustments (II)	-15	2	7	-9	-2	-17	0	0	0	-1	13	-1	22	-16	-6
(a)	0	0	0	-7	0	-7	0	0	0	0	0	0	0	-7	-7
(b)	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	1
(c)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(e)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(f)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(g)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h2)	0	0	0	-2	0	-2	0	0	0	0	0	0	0	-2	-2
(i1)	0	0	7	0	0	7	-1	0	0	-1	0	0	0	8	8
(k)	0	0	0	0	0	0	2	0	0	2	0	0	0	-2	-2
(l)	0	0	0	0	0	0	-2	0	0	-2	0	0	0	2	2
(m)	0	0	0	0	-2	-2	0	0	0	0	0	0	0	-2	-2
(o31)	-4	0	0	0	0	-4	0	0	0	0	0	0	4	-4	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p2)	0	0	0	0	0	0	-4	0	0	-4	4	0	0	4	0
(t)	-2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(aa)	-8	0	0	0	0	-8	1	0	0	1	0	-1	8	-9	0
(af)	0	0	0	0	0	0	0	0	0	0	10	0	10	0	0
(fism)	0	0	0	0	0	0	5	0	0	5	0	0	0	-5	-5
Final (I)+(II)	887	0	7	80	85	1.059	604	0	17	620	374	4	36	439	98
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_P	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
TOTAL (I)	71	0	0	0	0	71	38	0	0	38	2	0	2	33	33
adjustments (II)	19	0	0	0	0	19	3	0	0	3	0	0	1	16	17
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(l)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(y)	19	0	0	0	0	19	1	0	0	1	0	0	0	18	18
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
(af)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fism)	0	0	0	0	0	0	2	0	0	2	0	0	0	-2	-2
Final (I+II)	90	0	0	0	0	90	41	0	0	41	2	1	3	49	50
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

S15_P	C_70	C_71	C_72	C_73	C_74-740	C_A	600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
H1	12	0	0	51	11	73	14	0	10	24	46	0	0	50	3
H2	27	0	0	100	10	137	42	0	5	46	84	1	0	91	6
H3	18	0	0	65	6	89	25	0	1	26	56	1	0	63	6
H4	13	0	0	48	4	66	19	0	1	20	43	1	0	46	3
TOTAL (I)	70	0	0	265	31	366	99	-1	17	116	229	3	0	250	17
adjustments (II)	-34	0	2	71	-26	13	-6	0	0	-6	23	0	23	20	20
(b)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	-1
(g)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(h1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h2)	0	0	0	-21	0	-21	0	0	0	0	0	0	0	-21	-21
(i1)	0	0	3	0	0	3	0	0	0	0	0	0	0	3	3
(k)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(l)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(m)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(n)	-34	0	0	-180	-25	-239	0	0	0	0	0	0	0	-239	-239
(u)	0	0	0	0	0	0	-9	0	0	-9	0	0	0	9	9
(v)	-1	0	0	-2	0	-3	-1	0	0	-1	-2	0	0	-2	0
(x4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(af)	0	0	0	0	0	0	0	0	0	0	23	0	23	0	0
(fisim)	0	0	0	0	0	0	5	0	0	5	0	0	0	-5	-5
(ae)	0	0	0	274	0	274	0	0	0	0	0	0	0	274	274
Final (I+II)	36	0	3	335	5	379	93	-1	17	110	252	3	23	269	38
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

3.22.3 PUBLIC-SECTOR EDUCATION

Since the education output of S13 (P1) is equal to the costs borne by general government, the method consists initially in calculating compensation of employees (D1), intermediate consumption (P2), other subsidies on production (D39) and consumption of fixed capital (P51c). Total output is then broken down by market output (P11), output for own final use (P12) and other non-market output (P131, P132).

The valuation of compensation of employees and intermediate consumption is described below. The calculation of consumption of fixed capital is a P.I.M based estimate (cf. 4.12). The breakdown of the output of general government is dealt with in the section on final consumption expenditure of S13 (cf. 5.9).

As explained in 3.21 the economic code 11 contains the wages and salaries. Universities and High Schools are mainly directly integrated in the economic groupings, the other schools, except the schools included in the municipal accounts, are integrated on the basis of the flows mentioned in the budget and assumptions on the other income flows and expenditure. In the economic groupings the part related to education is identified on the basis of the functional codes.

The wage subsidies paid by the communities and the pension subsidies paid by the federal state to the teachers of subsidized private schools are also taken into account.

Description of basic data

Cf. 3.21 Administration.

Calculation of compensation of employees

Data for 2012 (millions of euros)	
Public sector education of Communities and Regions (S1312)	
Code 11 Education	3786
Staff pensions of Communities and regions	1531
Code 44.1 Contributions to salaries of private-sector teaching staff	7640
Code 44.2 Contributions to pensions of private-sector teaching staff	2687
Univerities and High schools Flemisch region	446
Other subsidies received (not included in wages)	15
<i>Subtotal</i>	16104
Public sector education of local government (S1313)	
Accounting data of local authorities	628
Code 43.1 Contributions to salaries of subsidised official teaching staff	2944
Code 43.2 Contributions to pensions of subsidised official teaching staff	1105
Differences in the definition of local government	0
<i>Subtotal</i>	4677
Total Branch	20780

Intermediate consumption (P2)

Description of basic data: cf 3.2.1 administration

Calculation of intermediate consumption

Data for 2012 (millions of euros)	
Public sector education of Communities and Regions (S1312)	
Code 12 (teaching)	1101
Code 44.3 Contributions to other running expenses of private education	1623
Adjustment for non-life insurance (less gross premiums plus service)	-118
Differences in the definition of communities and regions	259
<i>Subtotal</i>	2865
Public sector education of local government (S1313)	
Accounting data of local authorities	2
Code 43.3 Contribution of other operating costs of subsidised official education	374
Differences in the definition of local government	0
<i>Subtotal</i>	376
Total Branch	3241

Other subsidies on production (D.39)

Description of basic data

Cf. 3.21 Administration.

Calculation of other subsidies on production

Data for 2012 (millions of euros)	
Public-sector education of the Communities and Regions (S1312)	
Reductions on the withholding taxes on income from researchers	-163
Reductions of employer social contributions for specific groups	-15
total	-178

Output in public-sector education (S13_P) equals sum of costs:

D1	20.780
P2	3.241
P51c	2.809
D29	0
D39	178 (-)

P1 26.652 (D1+P2+P51c+D29 - D39)

B1g 23.411 (P1-P2)

3.23 HUMAN HEALTH AND SOCIAL WORK ACTIVITIES (Q)

3.23.1 INTRODUCTION

In 2012, the value added realised in Section Q amounted to 25.859 million, 7.5 % of the value added of all branches of activity combined. It was produced by the non-financial corporations (S11: € 22.655 million), households (S14: € 1.902 million) and NPI serving households (S15: € 1.303 million)

Industry	S11			S14			S15			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
Q	39.444	16.789	22.655	2.985	1.083	1.902	1.921	619	1.303	44.350	18.491	25.859
QA	29.768	14.458	15.310	2.764	976	1.788				32.532	15.434	17.099
86	29.768	14.458	15.310	2.764	976	1.788				32.532	15.434	17.099
86A	19.713	9.232	10.481							19.713	9.232	10.481
86B	6.786	3.598	3.188	1.274	349	925				8.060	3.947	4.113
86C	1.174	687	487	371	153	217				1.545	840	705
86D	2.095	940	1.155	1.119	473	646				3.214	1.414	1.800
QB	9.676	2.332	7.344	221	107	114	1.921	619	1.303	11.818	3.057	8.761
87-88	9.676	2.332	7.344	221	107	114	1.921	619	1.303	11.818	3.057	8.761
87A	7.649	1.905	5.743	33	13	20	215	48	167	7.896	1.966	5.930
88A	2.027	426	1.601	188	94	94	1.706	571	1.135	3.922	1.091	2.830

The process table for section Q

Basis for NA Figures											
Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Other	Total (sources)
			Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrap+Models		
P1	42.627								1.581		44.208
P2	17.576								532		18.108
B1g	25.051								1.049		26.100

Adjustments												
Data validation	Conceptual			Exhaustiveness						Balancing	Total (adjustments)	Final
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness			
374	23	-1.625	-1.602	0	0	0	1.370	0	1.370		142	44.350
100	293	-415	-122	0	0	0	467	-62	404		383	18.491
274	-270	-1.209	-1.480	0	0	0	903	62	966		-241	25.859

3.23.2 METHOD OF CALCULATION

Section Q															
S11_Q	C_70	C_71	C_72	C_73	C_74-740	C_A_C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
A1	1.691	-1	1	0	87	1.778	707	-1	16	721	874	5	48	1.057	226
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	37	0	0	0	1	38	16	0	0	17	13	0	0	22	8
B1	920	-17	0	0	32	935	491	0	9	499	139	6	0	435	290
B2	5.762	-12	0	0	62	5.812	3.156	0	14	3.170	692	9	0	2.642	1.940
C1	17	0	0	0	0	17	18	0	0	19	1	0	0	-2	-3
C2	26	0	0	0	0	26	37	0	1	37	1	1	0	-11	-14
E2	2	0	0	0	0	2	0	0	0	0	1	0	0	1	0
B3	1.295	0	0	0	0	1.295	736	0	1	737	96	1	0	558	461
BL	273	-1	0	0	16	289	99	0	3	102	163	2	0	187	23
H1	4.709	0	2	2.246	420	7.377	1.528	0	35	1.564	5.945	16	653	5.814	505
H2	480	0	0	518	83	1.082	238	0	14	252	782	5	0	830	43
H3	420	0	0	324	54	798	172	0	8	180	563	3	0	618	51
H4	317	0	0	275	39	631	140	0	4	144	453	2	0	487	33
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (I)	15.949	-31	4	3.364	795	20.080	7.339	-1	105	7.442	9.725	50	701	12.638	3.564
adjustments(II)	18.546	31	172	-35	649	19.364	9.190	0	157	9.347	9.333	2	1.387	10.017	2.069
(a)	0	0	0	-12	0	-12	0	0	0	0	0	0	0	-12	-12
(b)	0	0	0	0	0	0	0	0	0	0	3	0	0	0	-3
(c)	-1	0	0	0	0	-1	-3	0	0	-3	0	0	0	2	2
(d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(e)	0	0	0	0	-3	-3	0	0	-1	-1	0	0	0	-1	-1
(f)	0	0	0	0	-4	-4	-26	0	0	-26	0	0	0	22	22
(g)	0	0	3	0	0	3	-10	0	0	-10	0	0	0	13	13
(h1)	0	0	0	0	0	0	-10	0	-1	-11	0	0	0	11	11
(h2)	0	0	0	-22	0	-22	0	0	0	0	0	0	0	-22	-22
(i1)	0	0	176	0	0	176	-41	0	0	-41	0	0	0	217	217
(i2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(j)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	58	0	0	58	0	0	0	-58	-58
(l)	0	0	0	0	0	0	-37	0	0	-37	0	0	0	37	37
(m)	0	0	0	0	-8	-8	0	0	0	0	0	0	0	-8	-8
(n)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o31)	-131	0	0	0	0	-131	0	0	0	0	0	0	131	-131	0
(o32)	-413	0	0	0	0	-413	0	0	0	0	0	0	413	-413	0
(o4)	0	0	2	0	0	2	0	0	0	0	0	0	0	2	2
(p1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p2)	0	0	0	0	0	0	-61	0	0	-61	61	0	0	61	0
(q)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(r)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(s)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(t)	-23	31	-9	0	0	0	0	0	0	0	0	0	0	0	0
(u)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-7	0	0	0	0	-8	-3	0	0	-3	-3	0	0	-4	-2
(w)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x1)	19.235	0	0	0	664	19.899	9.008	0	160	9.168	9.786	16	551	10.731	1.480
(x2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x4)	0	0	0	0	0	0	3	0	0	3	0	0	0	-3	-3
(y)	992	0	0	0	0	992	347	0	0	347	22	0	0	645	623
(z)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(aa)	-475	0	0	0	0	-475	7	0	0	7	0	-14	475	-482	6
(ab)	-632	0	0	0	0	-632	-233	0	0	-233	-723	0	-369	-399	-45
(ac)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(af)	0	0	0	0	0	0	0	0	0	0	187	0	187	0	0
(ad)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fism)	0	0	0	0	0	0	190	0	0	190	0	0	0	-190	-190
(ae)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(I)+(II)	34.495	0	176	3.329	1.444	39.444	16.529	-1	261	16.789	19.058	52	2.088	22.655	5.633
Final ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

S14-Q	C_70	C_71	C_72	C_73	C_74-740	C_A_C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
Initial (I)	2.611	0	0	0	0	2.611	901	0	0	901	70	0	0	1.710	1.641
adjustments (II)	373	0	0	0	0	373	181	0	0	181	5	0	11	192	198
(b)	0	0	0	0	0	0	0	0	0	0	2	0	0	0	-2
(k)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(l)	0	0	0	0	0	0	-19	0	0	-19	0	0	0	19	19
(o31)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o32)	-5	0	0	0	0	-5	0	0	0	0	0	0	5	-5	0
(y)	378	0	0	0	0	378	120	0	0	120	1	0	0	259	257
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
(ad)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fisim)	0	0	0	0	0	0	80	0	0	80	0	0	0	-80	-80
Final (I)+(II)	2.985	0	0	0	0	2.985	1.083	0	0	1.083	75	0	12	1.902	1.839
Final ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S15-Q	C_70	C_71	C_72	C_73	C_74-740	C_A_C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
H1	64	0	1	290	50	406	112	0	7	119	267	2	0	286	18
H2	73	0	0	363	48	484	128	0	9	138	330	2	0	347	15
H3	66	0	0	333	42	441	118	0	36	154	249	3	0	287	35
H4	188	0	0	426	46	660	258	0	28	286	344	3	0	374	28
TOTAL	392	0	1	1.412	186	1.991	616	0	80	697	1.189	9	0	1.294	96
adjustments	-138	0	3	192	-127	-70	-77	0	-2	-78	57	0	66	8	18
(a)	0	0	0	-28	0	-28	0	0	0	0	0	0	0	-28	-28
(h1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h2)	0	0	0	-105	0	-105	0	0	0	0	0	0	0	-105	-105
(j)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	6	0	0	6	0	0	0	-6	-6
(m)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(t)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(u)	0	0	0	0	0	0	-94	0	0	-94	0	0	0	94	94
(x3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(z)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(ad)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fisim)	0	0	0	0	0	0	23	0	0	23	0	0	0	-23	-23
(ae)	0	0	0	843	0	843	0	0	0	0	0	0	0	843	843
Final ESA2010	254	0	4	1.603	59	1.921	540	0	79	619	1.246	9	66	1.303	114
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

3.23.2.1 Human health care (Section QA)

Hospital activities (NACE 86.1)

Units classified in the NACE 86.1 are mostly determined by the list of recognised and certified general, acute and psychiatric hospitals, which is composed by the Public Federal Service of Public Health and comprises 201 entities. They provide medical, chirurgial or technical services to hospitalised patients. However, they also produce important fringe activities, such as out-patient treatments (consults, dialyses, and emergencies), medical laboratories, education, residential care activities, or non-residential care activities.

Hospital activities that were not certified by the PFS Public Health and that are included in NACE 86.1 are those in-patient activities provided under the direct supervision of a recognised physician for plastic or esthetical surgery. This group is very limited: only 5 entities were recognised in 2012.

Services provided by hospitals are treated as market sales to final consumers (households as regards the amount payable by the patient, general government as regards the amount paid as social benefits in kind) and to intermediate consumers (other producers). Hospital institutions include private commercial companies, non-profit associations or organisations under public law. As all entities are considered market-producers, they are all classified in the market sector of non-financial corporations (S.11).

Given their legal status, hospitals are obliged to supply the FPS of Public Health each year with detailed statistical and accounting data following a standardised outline which is based on, but more detailed as, the structure of the recognised annual accounts filed at Centrale Balance Sheet Office (CSBO) of the National Bank of Belgium. As a consequence, the various components of the detailed production and the generation of income accounts can be calculated, following the same methodology as that for large enterprises.

Using the information from the FPS Public health creates however three problems:

1. Secondary activities are not always covered by the accounting information of every hospital. This is for example often the case with residential care activities that are a part of the hospital structure or for institutions under the direct care of a physician for plastic or esthetical surgeries. Total wages of hospitals reported in the annual accounts is therefore lower than wages reported in ONSS and ONSS-PPO data.
2. With the exception of wages and salaries, no information is available on an individual level. Only aggregated data for all public and for all private hospitals is available.
3. Besides heading 740 (operating subsidies), subsidies to employment and reimbursements on purchases are recorded as income.

To cover all output of hospitals and bring it into line with ESA 2010, the administrative data received from the PFS Public Health are adjusted. In more detail, the aggregates are calculated in four stages. The corrections made are shown in the next table:

Estimation of production and income accounts for hospital activities
Year 2012, in million

Balance sheets	Administrative aggregates	Correction P.2	Correction D.1	Correction D.39	ESA (2010) aggregates	ESA (2010)
70	17.476,3	0,0	1.758,8	0,0	19.235,1	P.11/V1
71	0,0	0,0	0,0	0,0	0,0	P.11/P.52s
72	34,9	0,0	-34,9	0,0	0,0	P.12
73	0,0	0,0	0,0	0,0	0,0	
74-740	1.644,7	-596,7	126,3	-510,1	664,2	P.11/V2
A	19.155,9	-596,7	1.850,2	-510,1	19.899,3	Total P.1
600/8+61	8.783,8	-596,7	821,0	0,0	9.008,1	P.2/A1
609	-0,6	0,0	0,8	0,0	0,2	P.2/P.52u
641/8	143,6	0,0	16,1	0,0	159,7	P.2/A2
B	8.926,8	-596,7	837,9	0,0	9.167,9	Total P.2
62	8.990,3	0,0	795,8	0,0	9.786,1	D.1
640	13,9	0,0	2,1	0,0	15,9	D.29
740	39,0	0,0	2,0	510,1	551,1	D.39
C	10.229,1	0,0	1.012,3	-510,1	10.731,3	B.1g
D	1.263,9	0,0	216,5	0,0	1.480,4	B.2g
8279	1.019,4	0,0	109,2	0,0	1.128,6	C_8279

1. Column 1: calculation of administrative aggregates according to the general method used for entities with full annual accounts registered by the CBSO
2. Column 2: netting of purchasing cost recoveries booked under C_743;
3. Column 3: Alignment with wages and salaries estimated from NSSO and NSSOPLA data and upgrading of other components of production accounts pro rata to the grossing up of wages and salaries ($D.1 / C_{62} = 1.089$). Activities not recorded in the FPS Public Health data are implicitly extrapolated based on the structure of hospital activities. This adjustment is done separately for private (NSSO) hospitals and public (NSSOPLA) hospitals, which explains small differences in extrapolation coefficients.
4. Column 4: Transfer of the employment subsidies booked under C_743 to C_740 (D.39), based on information available in the general government accounts.
5. Column 5: the final ESA2010 aggregates (after correction) are introduced as cor (x1) in our IT-applications.

Medical and dental practice activities (NACE 86.2) and other human health activities (86.9)

Like hospital services (NACE 86.1), outpatient medical and paramedical services are considered market sales to final consumers (households as regards the amount payable by the patient, general government as regards the amount paid as social benefit in kind) and to intermediate consumers (other producers). General and specialist medical practice (NACE 86.21 + 86.23), dental practice (NACE 86.23) and other human health activities (86.9) are therefore classified in the market sectors of non-financial corporations (S.11) and households (S.14).

S.11 units comprise medical, dental and paramedical practitioners organised in a legal entity, most often as a commercial corporation or non-profit organisation. Since these activities are generally not subjected to VAT, their production and generation of income accounts are either calculated from annual accounts they file, or are extrapolated from wages and salaries. In this later case, with regard to category H entities, a correction for subsidies on production (D.39) is also made: a number of

subsidies on production (D.39) specifically for non-profit associations (Social Maribel, etc.) are identified in the general government accounts, and are therefore deducted from estimated output and added in D.39.

The units classified in S.14 comprise practitioners of medical, dental and paramedical services operating as unincorporated enterprises. Since they are not subjected to VAT and/or they do not file annual accounts, their production and generation of income accounts are estimated based on the income and professional expenses declared by the respective professions to the personal income tax administration (the various headings used are set out in the table below). As this data is only available three years after the initial tax declaration, intermediate methods were developed to estimate years (t-2) and (t-1) based on the evolution of these industries in S.11 and the evolution of reimbursement for these services by the general government.

Headings used from personal income tax declaration

ESA 2010 Aggregates	Heading of personal income tax declaration
Production	Gross operating profit of industrial, commercial or agricultural enterprises (A6000 + B6000) + Income from liberal professionals (A6500 + B6500) + Arrears of fees from liberal professionals (A6520 + B6520)
Intermediate consumption	Occupational expenses of industrial, commercial and agricultural enterprises (A6060 + B6060) + Actual occupational expenses of liberal professionals (M657 + M682) - Depreciation (A9540 + B9540) - Remuneration (D1 or A9550 + B9550)

3.23.2.2 Social work activities (Section QB)

Social work activities, market (NACE 87 and 88)

Market output of social work activities are produced by non-financial corporations (S.11) and households (S.14). The distinction between market and non-market producers is made based on the nature of their activities.

For those activities in S.11 the production and generation of income accounts are estimated according to the general method.

In addition, some specific adjustments are made as follows:

1. A number of subsidies on production (D.39) specific to non-profit associations (Social Maribel, wage subsidies for adapted-work enterprises, etc.) are identified in the national government accounts. They are deducted from estimated output and added to D.39 in category H1.

2. The main purpose of most sheltered workshops is not to take care of the disabled within the framework of social work activities, but rather to enable them to produce market goods and services. The units concerned have to be certified by government and are referred to as a “Entreprise de travail adapté” in the French Community or “Beschutte werkplaats” in the Flemish Community. The output of each of these units is therefore reclassified to the NACE corresponding to their main activity (correction (ab)).
3. Wages and salaries for rest homes that are part of a public-sector entity (often PSWCs) are identified using NSSOPLA data. As rest homes are considered to be market producers, the salaries and wages of these separate units are added to the market aggregates and output is calculated by extrapolation.

The production and the generation of income accounts of S.14 units are calculated using specific methods.

Output (P.1) of residential care activities is estimated using extrapolation coefficients from the same activities in S.11. Output (P.1) of social work activities without accommodation is estimated in a similar way, with the exception of child day-care activities (NACE 88.91).

A specific method was developed for this last category on the basis of information supplied by the “Office de la naissance et de l’enfance” (French community), “Kind&Gezin (Flemish community) and the “Dienst für Kind und Familie” (German community). The information allows the following equation to be made:

$$\text{Output (P.1)} = \text{Number of days of child care} \times \text{average price per day}$$

Intermediate consumption (P.2) for child day-care activities is estimated by taking the ratio P.1/P.2 of category B3 in S.11.

Social work activities, non-market (NACE 87 and 88)

All non-market social work activities fall within S.15. It is subject to a specific methodology combining annual accounts and wages.

3.24 ARTS, ENTERTAINMENT AND RECREATION (R)

3.24.1 INTRODUCTION

In 2012, the value added realised in Section R amounted to 2.348 million, 0, 7 % of the value added of all branches of activity combined. It was produced by the non-financial corporations (S11: € 1.916 million), households (S14: € 241 million) and NPI serving households (S15: € 192 million)

Industry	S11			S14			S15			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
R	4.405	2.489	1.916	443	203	241	344	152	192	5.192	2.844	2.348
RR	4.405	2.489	1.916	443	203	241	344	152	192	5.192	2.844	2.348
93	1.869	1.048	821	195	103	91	176	109	67	2.240	1.260	980
93A	1.869	1.048	821	195	103	91	176	109	67	2.240	1.260	980
90-92	2.536	1.441	1.094	249	99	149	168	44	125	2.952	1.584	1.368
90A	1.505	855	650	228	86	142				1.733	941	792
91A	174	71	104	3	2	1	168	44	125	346	117	229
92A	856	516	341	17	11	6				873	527	347

The process table for section R

	Basis for NA Figures											Total (sources)
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total	
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FSIM	Other E&M				Total Extrapol+Models
P1	8	5.836								556		6.401
P2	4	3.957								242		4.203
B1g	4	1.879								314		2.198

Data validation	Adjustments										Balancing	Total adjustments	Final
	Conceptual			Exhaustiveness									
	Allocation of FSIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness				
-1.458	3	-44	-42	0	0	0	300	0	300	-10	-1.209	5.192	
-1.447	36	-18	18	0	0	0	80	-11	70	0	-1.359	2.844	
-11	-33	-26	-59	0	0	0	220	11	231	-10	150	2.348	

3.24.2 METHOD OF CALCULATION

The amounts in the column “data validation” mainly correspond to corrections for copyright management companies and gambling and betting activities.

Copyright management companies are remunerated for collecting and/or redistributing their members’ royalties. The only output of the companies is the remuneration (fee) they thus earn. Accordingly, a downward adjustment of turnover/output and purchases/intermediate consumption is made in cases

where the royalties received are recorded in turnover and the royalties redistributed in purchases¹¹⁸. The amounts of royalties passed on are supplied by the department of the Federal Economy Ministry that supervises copyright management companies.

Gambling and betting activities also require specific corrections.

" the amounts paid for lottery tickets or placed in bets consists of two elements: the payment of a service charge to the unit organising the lottery or gambling and a residual current transfer that is paid out to the winners" (ESA 2010 § 4.135). The amounts paid out to winners have therefore to be deducted from output in cases where they are recorded in the turnover of gaming and betting organisations. This applies to the national lottery and to tiercé enterprises, for which an adjustment is made on the basis of detailed data from the annual accounts. This adjustment does not apply to casinos and automatic gaming establishments.

We illustrate the adjustments made for the National Lottery which has the largest market share in this industry.

National Lottery							
(mln €)	initial	(a)	(b)	(c)	total cor.	After cor	CPA
C_70	1.257	-759	-242	0	-1.001	256	92A01
C_71	0	0	0	0	0	0	
C_72	0	0	0	0	0	0	
C_73	0	0	0	0	0	0	
C_74-740	112	0	0	0	0	112	other
C_A	1.369	-759	-242	0	-1.001	368	P1
C_600/8+61	952	-759	0	0	-759	193	
C_609	0	0	0	0	0	0	
C_641/8	361	0	-242	-115	-356	4	
C_B	1.313	-759	-242	-115	-1.116	197	P2
C_62	41	0	0	0	0	41	
C_640	0	0	0	115	115	115	D29
C_740	0	0	0	0	0	0	
C_C	56	0	0	115	115	171	B1g
C_D	15	0	0	0	0	15	B2g
(a) Lottery tickets (and equivalent products) paid out							
(b) Revenue from fiscal monopolies paid out as taxes and registered as a tax on products (D214) in S13- account							
(c) taxes registered as other taxes on production (D29) in S13-account							

Lottery tickets paid out by the national lottery in 2012 amounted to € 759 million in 2012. This amount has to be retreated from the total purchases of goods and services (600/8+61) and from

¹¹⁸ The redistribution of royalties can also be registered as a distribution of profit to other beneficiaries. In this case no correction to purchases has to be made.

turnover (70) in order to eliminate the transfer part in turnover/production and purchases of goods and services/intermediate consumption (cor (a)).

Part of the National Lottery taxes are registered as taxes on products (D214: € 242 million) and another part as other taxes on production (D29: € 115 million) in the accounts of S13.

In the annual accounts of the national Lottery both of these amounts are registered as other operating costs (641/8). In correction (b) these taxes on products are eliminated from intermediate consumption and turnover (resulting in the valuation of production at basic prices). Correction (c) transfers the other taxes on production from intermediate consumption (641/8) to account 640 (operating taxes). The amounts after correction correspond to the proper amounts of P1, P2, B1g, D29 and B2g in the national accounts. This can also be verified by the construction of the S&U balance for the product gambling and betting services for the National Lottery (we suppose that all the tickets have been bought by resident households).

Supply and use of gambling and betting services for the National Lottery (2012 in mln €)					
	P1	D214	Supply	P3S14	Use
Gambling and betting services (92A01)	256	242	498	498	498
<i>p.m.:other products</i>	<i>112</i>				

Belgian households have bought € 1.257 million of tickets (which corresponds to the turnover of the National Lottery). € 759 million has been paid out to winners. The difference is the net amount paid by households for gambling and betting services ($1.257 - 759 = € 498$ million) to be registered as household final consumption expenditure (P3S14).

The compilation procedure by sector is shown in the next tables

S15_R	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
H1	1	0	0	14	2	16	6	0	0	6	8	0	0	11	3
H2	9	0	0	47	6	62	32	0	1	33	27	0	0	29	2
H3	16	0	0	87	11	115	60	0	1	61	52	1	0	54	1
H4	20	0	0	96	12	128	60	0	1	62	62	1	0	66	4
Total	46	0	0	243	32	321	158	0	3	161	148	2	0	160	9
adjustments	-16	0	3	58	-22	23	-9	0	0	-9	11	0	9	32	30
(b)	0	0	0	0	0	0	0	0	0	0	3	0	0	0	-3
(h1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h2)	0	0	0	-2	0	-2	0	0	0	0	0	0	0	-2	-2
(i1)	0	0	3	0	0	3	0	0	0	0	0	0	0	3	3
(k)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(l)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(m)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(n)	-15	0	0	-94	-22	-131	0	0	0	0	0	0	0	-131	-131
(u)	0	0	0	0	0	0	-10	0	0	-10	0	0	0	10	10
(v)	0	0	0	-2	0	-2	-1	0	0	-1	0	0	0	-1	0
(ad)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fisim)	0	0	0	0	0	0	3	0	0	3	0	0	0	-3	-3
(ae)	0	0	0	155	0	155	0	0	0	0	0	0	0	155	155
Final ESA2010	30	0	3	302	9	344	149	0	3	152	160	2	9	192	39

S11_R	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
A1	1.338	0	10	0	182	1.529	838	2	58	899	340	166	13	631	139
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	11	0	0	0	0	11	3	0	0	3	7	0	0	8	2
B1	223	-1	0	0	22	244	143	0	5	148	46	3	3	96	49
B2	1.038	-3	0	0	17	1.051	652	0	22	674	153	16	17	377	226
C1	9	0	0	0	1	10	17	0	0	18	1	0	0	-8	-9
C2	23	0	0	0	0	23	34	0	1	35	7	1	0	-13	-20
E2	8	0	0	0	0	8	4	0	0	4	3	0	0	4	1
B3	194	0	0	0	0	194	140	0	1	141	28	2	3	54	26
BL	41	0	0	0	1	42	10	0	0	10	12	20	0	31	-1
H1	120	0	0	111	46	277	90	0	8	98	131	3	0	180	45
H2	65	0	0	99	25	188	83	0	1	84	82	1	0	104	21
H3	125	0	0	151	93	368	133	0	3	135	185	4	0	233	44
H4	147	0	0	197	43	386	166	0	4	170	164	13	0	216	39
RF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL (I)	3.342	-5	10	559	427	4.333	2.313	2	104	2.419	1.157	229	36	1.913	563
adjustments (II)	62	5	18	-3	-9	72	75	0	-5	70	-30	-48	143	3	223
(a)	0	0	0	-2	0	-2	0	0	0	0	0	0	0	-2	-2
(b)	0	0	0	0	0	0	0	0	0	0	-92	0	0	0	92
(c)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	-44	0	0	0	0	-44	-44	0	0	-44	0	0	0	0	0
(e)	0	0	0	0	-2	-2	0	0	-5	-5	0	0	0	3	3
(f)	0	0	0	0	-3	-3	-4	0	0	-4	0	0	0	1	1
(g)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h1)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(h2)	0	0	0	-1	0	-1	0	0	0	0	0	0	0	-1	-1
(i1)	0	0	28	0	0	28	-1	0	0	-1	0	0	0	29	29
(k)	0	0	0	0	0	0	13	0	0	13	0	0	0	-13	-13
(l)	0	0	0	0	0	0	-4	0	0	-4	0	0	0	4	4
(m)	0	0	0	0	-4	-4	0	0	0	0	0	0	0	-4	-4
(o31)	-65	0	0	0	0	-65	0	0	0	0	0	0	65	-65	0
(o32)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p2)	0	0	0	0	0	0	-11	0	0	-11	11	0	0	11	0
(t)	5	5	-10	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-1	0	0	0	0	-1	0	0	0	0	0	0	0	0	0
(x4)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(y)	217	0	0	0	0	217	59	0	0	59	15	0	0	158	144
(aa)	-41	0	0	0	0	-41	47	0	0	47	0	-48	41	-88	1
(af)	0	0	0	0	0	0	0	0	0	0	37	0	37	0	0
(ad)	-10	0	0	0	0	-10	0	0	0	0	0	0	0	-10	-10
(fisim)	0	0	0	0	0	0	21	0	0	21	0	0	0	-21	-21
Final (I)+(II)	3.404	0	28	555	418	4.405	2.388	2	99	2.489	1.127	181	179	1.916	786
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_R	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
TOTAL (I)	289	0	0	0	0	289	176	0	0	176	10	5	3	114	101
total adjustment	77	0	77	0	0	154	27	0	0	27	1	0	3	127	129
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	-6	0	0	0	0	-6	-6	0	0	-6	0	0	0	0	0
(k)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(l)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(o31)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(o32)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(x1)	0	0	77	0	0	77	0	0	0	0	0	0	0	77	77
(y)	83	0	0	0	0	83	22	0	0	22	0	0	0	62	61
(aa)	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
(af)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(fisim)	0	0	0	0	0	0	12	0	0	12	0	0	0	-12	-12
Final (I+II)	366	0	77	0	0	443	202	0	0	202	11	6	6	241	230
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

3.25 OTHER SERVICE ACTIVITIES (S)

3.25.1 INTRODUCTION

In 2012, the value added realised in Section S amounted to 4.909 million, 1, 4 % of the value added of all branches of activity combined. It was produced by the non-financial corporations (S11: € 2.032 million), households (S14: € 1.241 million) and NPI serving households (S15: € 1.633 million).

Industry	S11			S14			S15			S1		
	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g	P1	P2	B1g
S	5.232	3.200	2.032	1.964	720	1.244	3.553	1.920	1.633	10.749	5.840	4.909
SS	5.232	3.200	2.032	1.964	720	1.244	3.553	1.920	1.633	10.749	5.840	4.909
94	2.932	1.954	978	35	0	35	3.553	1.920	1.633	6.520	3.874	2.646
94A	2.932	1.954	978	35	0	35	3.553	1.920	1.633	6.520	3.874	2.646
95	410	215	196	147	66	81				557	280	277
95A	410	215	196	147	66	81				557	280	277
96	1.890	1.032	858	1.782	654	1.128				3.672	1.686	1.986
96A	1.890	1.032	858	1.782	654	1.128				3.672	1.686	1.986

The process table for section S

	Basis for NA Figures											Total (sources)
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other		
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings - stratification method	FISIM	Other E&M		Total Extrap+Models	
P1	8	7.554								2.897		10.458
P2	3	4.940								1.809		6.753
B1g	4	2.614								1.087		3.705

Data validation	Adjustments										Total (adjustments)	Final
	Conceptual			Exhaustiveness						Balancing		
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N6	N7	Total exhaustiveness			
-707	27	-212	-186	0	843	0	329	12	1.184		291	10.749
-796	104	-455	-352	0	169	0	91	-23	236		-912	5.840
89	-77	243	166	0	674	0	238	36	948		1.204	4.909

In this section, the relative importance of “other extrapolations and models” is high (almost 30 % of total sources). This is caused by the fact that a lot of small NPI’s (without annual accounts) are active in these activities. Depending on their nace code they are sectorised in S11 or S15.

The activity of prostitution appears in N2 in the process table and in cor (x3) in the transition table for S14. The compilation procedure is shown in the next tables.

3.25.2 METHOD OF CALCULATION

Section S															
S11_S	C_70	C_71	C_72	C_73	C_74-740	C_AC_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
A1	750	0	0	0	67	817	430	2	3	435	264	5	0	382	114
E1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A2	33	0	0	0	32	65	40	0	0	41	23	0	0	24	2
B1	257	0	0	0	10	267	159	0	1	160	67	3	0	107	37
B2	1.177	0	0	0	3	1.180	666	0	8	674	291	15	1	506	200
C1	8	0	0	0	0	9	10	0	0	10	1	0	0	-2	-3
C2	22	0	0	0	0	22	26	0	0	26	1	1	0	-5	-7
E2	7	0	0	0	1	8	3	0	0	3	4	0	0	4	1
B3	465	0	0	0	21	486	298	0	1	299	135	9	1	187	45
BL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H1	491	0	0	228	48	767	525	0	35	560	208	5	0	207	-5
H2	127	0	0	99	20	246	135	0	9	144	91	2	0	103	9
H3	278	0	0	192	39	510	314	0	11	325	162	3	0	185	21
H4	460	-1	1	396	71	927	572	0	27	599	302	8	0	328	18
RF	1	0	0	0	0	1	0	0	0	0	1	0	0	1	0
TOTAL (I)	4.078	-2	2	915	312	5.305	3.178	2	97	3.277	1.550	49	3	2.028	431
adjustments (II)	-34	2	34	-67	-7	-72	-70	0	-7	-77	77	-10	117	5	55
(b)	0	0	0	0	0	0	0	0	0	0	6	0	0	0	-6
(c)	-6	0	0	0	0	-6	-1	0	0	-1	0	0	0	-5	-5
(d)	-97	0	0	0	0	-97	-97	0	0	-97	0	0	0	0	0
(e)	0	0	0	0	-2	-2	0	0	-5	-5	0	0	0	4	4
(f)	0	0	0	0	0	0	-3	0	0	-3	0	0	0	3	3
(g)	0	0	2	0	0	2	-11	0	0	-11	0	0	0	13	13
(h1)	0	0	0	0	0	0	-1	0	-2	-3	0	0	0	3	3
(h2)	0	0	0	-67	0	-67	0	0	0	0	0	0	0	-67	-67
(i1)	0	0	36	0	0	36	-14	0	0	-14	0	0	0	50	50
(i2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k)	0	0	0	0	0	0	12	0	0	12	0	0	0	-12	-12
(l)	0	0	0	0	0	0	-7	0	0	-7	0	0	0	7	7
(m)	0	0	0	0	-5	-5	0	0	0	0	0	0	0	-5	-5
(o31)	-23	0	0	0	0	-23	0	0	0	0	0	0	23	-23	0
(o32)	-39	0	0	0	0	-39	0	0	0	0	0	0	39	-39	0
(o4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(p2)	0	0	0	0	0	0	-23	0	0	-23	23	0	0	23	0
(q)	6	0	0	0	0	6	0	0	0	0	6	0	0	6	0
(t)	2	2	-4	0	0	0	0	0	0	0	0	0	0	0	0
(v)	-3	0	0	0	0	-3	-2	0	0	-2	-1	0	0	-1	0
(x4)	0	0	0	0	0	0	1	0	0	1	0	0	0	-1	-1
(y)	152	0	0	0	0	152	42	0	0	42	15	0	0	110	95
(aa)	-27	0	0	0	0	-27	9	0	0	9	0	-10	27	-36	1
(ab)	2	0	0	0	0	2	1	0	0	1	2	0	1	1	0
(af)	0	0	0	0	0	0	0	0	0	0	27	0	27	0	0
(fisim)	0	0	0	0	0	0	25	0	0	25	0	0	0	-25	-25
Final (I)+(II)	4.044	0	35	848	305	5.232	3.108	2	90	3.200	1.626	39	119	2.032	486
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g
S14_S	C_70	C_71	C_72	C_73	C_74-740	C_AC_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
TOTAL (I)	997	0	0	0	0	997	507	0	0	507	139	12	0	490	339
adjustments (II)	967	0	0	0	0	967	213	0	0	213	13	1	18	754	759
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d)	-53	0	0	0	0	-53	-53	0	0	-53	0	0	0	0	0
(k)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(l)	0	0	0	0	0	0	-3	0	0	-3	0	0	0	3	3
(o31)	-1	0	0	0	0	-1	0	0	0	0	0	0	1	-1	0
(o32)	-5	0	0	0	0	-5	0	0	0	0	0	0	5	-5	0
(q)	7	0	0	0	0	7	0	0	0	0	3	0	0	7	4
(x3)	843	0	0	0	0	843	169	0	0	169	0	0	0	674	674
(y)	177	0	0	0	0	177	49	0	0	49	5	0	0	128	123
(aa)	0	0	0	0	0	0	0	0	0	0	1	7	0	0	6
(af)	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0
(fisim)	0	0	0	0	0	0	52	0	0	52	0	0	0	-52	-52
Final (I+II)	1.964	0	0	0	0	1.964	720	0	0	720	152	13	18	1.244	1.098
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

S15_S															
	C_70	C_71	C_72	C_73	C_74-740	C_AC_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D	
H1	108	0	0	544	57	709	420	0	103	523	177	6	0	187	3
H2	73	0	0	225	35	334	135	0	57	192	133	3	0	142	6
H3	95	0	0	296	46	437	195	0	53	247	194	3	0	190	-7
H4	430	0	0	1.328	211	1.969	884	-1	327	1.210	788	17	0	759	-46
TOTAL (I)	707	0	0	2.393	350	3.449	1.634	-2	540	2.172	1.292	29	0	1.277	-44
total adjustmen	-151	0	25	357	-127	103	-234	0	-18	-252	157	0	37	356	236
(a)	0	0	0	-101	0	-101	0	0	0	0	0	0	0	-101	-101
(b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(g)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(h1)	0	0	0	0	0	0	0	0	-7	-7	0	0	0	7	7
(h2)	0	0	0	-911	0	-911	0	0	0	0	0	0	0	-911	-911
(i1)	0	0	25	0	0	25	-2	0	0	-2	0	0	0	27	27
(k)	0	0	0	0	0	0	18	0	0	18	0	0	0	-18	-18
(l)	0	0	0	0	0	0	-3	0	0	-3	0	0	0	3	3
(m)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(n)	-146	0	0	-708	-123	-977	0	0	0	0	0	0	0	-977	-977
(p2)	0	0	0	0	0	0	-1	0	0	-1	1	0	0	1	0
(u)	0	0	0	0	0	0	-253	0	0	-253	0	0	0	253	253
(v)	-5	0	0	-54	-4	-63	-27	0	-11	-39	-22	0	0	-24	-2
(x1)	0	0	0	142	0	142	0	0	0	0	142	0	0	142	0
(x4)	0	0	0	0	0	0	11	0	0	11	0	0	0	-11	-11
(aa)	0	0	0	0	0	0	-1	0	0	-1	0	0	0	1	1
(af)	0	0	0	0	0	0	0	0	0	0	37	0	37	0	0
(fisim)	0	0	0	0	0	0	27	0	0	27	0	0	0	-27	-27
(ae)	0	0	0	1.988	0	1.988	0	0	0	0	0	0	0	1.988	1.988
Final (I+II)	556	0	25	2.750	223	3.553	1.400	-2	522	1.920	1.449	29	37	1.633	192
ESA2010	P11	P11	P12	P11	P11	P1_total	P2	P2	P2	P2_total	D1	D29	D39	B1g	B2g

Estimates for enterprises active in repairs of household goods are calculated based on annual accounts (Central balance sheet office) and other administrative data (following the general estimation method). Validation against expenditure estimates takes place within the supply and use framework.

Estimates for individual consumption of households on repairs of household goods are calculated based on the household budget survey in reference years, and extrapolated using VAT revenue growth in intermediate years. Given the greater instability of this source, preference is given to the administrative sources in production approach to calculate production and value-added.

3.26 ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS (T)

3.26.1 INTRODUCTION

In 2012, the value added of households as employers of domestic personnel (Section T) amounted to € 466 million, 0.1 % of the value added of all branches of activity combined. It was produced entirely by the household sector (S14).

Gross value added of section T, by branch of activity and institutional sector (2012)

	S14			S1		
	P1	P2	B1g	P1	P2	B1g
T	466	0	466	466	0	466
TT	466	0	466	466	0	466
97-98	466	0	466	466	0	466
97A	466	0	466	466	0	466

The process table for section T

	Basis for NA Figures											Other	Total (sources)
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Total Extrap+Models		
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M				
P1													0
P2													0
B1g													0

Data validation	Adjustments											Balancing	Total (adjustments)	final
	Conceptual			Exhaustiveness										
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N4	N5	N6	N7	Total exhaustiveness			
				466	0	0	0	0	0	0	466		466	466
				0	0	0	0	0	0	0	0		0	0
				466	0	0	0	0	0	0	466		466	466

3.26.2 METHOD OF CALCULATION

Because the vast majority of employed domestic personnel are not officially registered there are no amounts in the first part of the table. The amounts appear in N1. In this case

Production equals compensation of employees equals household final consumption (and P2= 0).

The wages of workers in the “domestic services” branch of activity are estimated on the basis of information from the Household Budget Survey. The HBS gives the average annual consumption expenditure per household at a very detailed product-by-product level. In order to stick as closely as possible to the definition of domestic services paid by households, it was decided to use the following headings:

4621 "domestic services" covering

462101 household maintenance services (S14_97A)

462102 child care at home (S14_97A)

462103 services paid by LEA cheques and by service vouchers (other branches mostly in S11)

This average annual consumption expenditure per household is extrapolated to the whole population to obtain a total amount for domestic services (incl. LEA cheques and service vouchers).

From this total the amount for service vouchers and LEAs - which appear elsewhere in the accounts - are subtracted and the outlays/wages for domestic services (D1_S14_97A) are derived as a residual (€ 466 million in 2012).

3.27 TAXES ON PRODUCTS

This section covers both taxes on products (D21) and other taxes on production (D29).

3.27.1 SOURCE DATA ECONOMIC GROUPINGS

In the Benelux economic regrouping (cf. 3.4.6.1), indirect taxes appear under economic code 36 (Indirect taxes and levies).

Indirect taxes and levies are compulsory payments imposed by general government on production units, and affect the output and/or importing of goods and services or the use of production factors; these taxes, which are part of ex-factory prices and ex-customs prices, are payable irrespective of any operating profits.

Code 36 is broken down as follows:

- 36.1 Import taxes
- 36.2 Excise duties and other taxes on consumption
- 36.3 Value-added tax¹¹⁹
- 36.4 Registration fees
- 36.5 Profits of government fiscal monopolies or public-sector enterprises of a monopolistic nature
- 36.6 Road tax
- 36.7 Pollution taxes
- 36.8 Levies and taxes on property, except tax on income from immovable property assets
- 36.9 Various taxes, including gaming levies, export levies, charges on expert reports and levies on entertainments.

Fiscal penalties are classified under various current transfers (code 38) and interest on arrears is classified under interest on claims (code 26), unless they cannot be separated from the corresponding tax.

3.27.1.1 Source data on Community taxes

Taxes on production and imports received by EU institutions (income deriving under the CAP and customs duties) do not appear in the economic regrouping of the Federal Government, but the data are available from the Federal Ministry of Finance.

3.27.2 FROM PUBLIC ACCOUNTING TO NATIONAL ACCOUNTS

3.27.2.1 Allocation of revenue to recipient subsectors of general government

¹¹⁹ In practice, the item comprises the value added tax, the stamp duties and the taxes assimilated to stamp.

Tax receipts by subsectors are calculated per final recipient, not per collecting body. When a public administration (e.g. part of Federal Government) collects taxes that include a proportion transferable automatically to another general government (e.g. part of local government), that portion is recorded as taxes collected directly by the latter.

Under this rule, charges additional to the tax on income from immovable assets¹²⁰ and to the income tax charged by Federal Government to the benefit of provinces, communes and the Brussels conurbation are recorded directly as income of local authorities. Similarly, regional taxes under the Finance Act of 16 January 1989 are recorded as taxes collected directly by the regions. This principle also applies to taxes paid to EU institutions.

As well as additional charges and regional taxes collected by Federal Government on behalf of other subsectors of general government, there are some transfers of fiscal revenue which represent redistribution by Federal Government. These include the shared taxes that fund the Communities and the joint taxes that fund the Regions, likewise under the Finance Act of 16 January 1989, and the taxes allocated to social security administrations within the framework of alternative funding. These payments are not attributed directly to the subsector of Communities and Regions or social security administrations, but are recorded as "transfers of fiscal revenue", which form part of current transfers within general government. These shared taxes, joint taxes and allocated taxes represent a Federal Government claim on the taxpayers concerned, while the portion paid to other entities constitutes a claim by the latter on Federal Government.

Current transfers within general government also include "other current transfers within general government", which are funded from the general resources of the donor unit and do not correspond to a specific category of taxes but are often apportioned by distribution keys based on number of inhabitants.

3.27.2.2 Main adjustments (other than those for transition to cash registration basis)

- Road tax and tax treated as excise duty (code 36.6) are divided into the portion paid by production units, which is regarded as another tax on production (D29), and the portion paid by households as final consumers, which is regarded as another current tax (D59). The annual tax on profit sharing is included under income taxes (D51).
- Duties on gifts included among registration fees (code 36.4) are not regarded as taxes on products (D21) like other registration fees, but as a tax on capital (D91). Similarly, tax on long-term savings is treated as a tax on capital (D91).

¹²⁰ As from the 1999 tax year, the Flemish Community has collected directly the tax on income from immovable assets and the related additional charge

- The special levy payable by electricity producers collected via advance corporation tax (code 37.1) is reclassified to other taxes on production (D29).
- Tax on income from immovable assets (codes 37.1 and 37.2) is not regarded as income tax (D51) but as other taxes on production (D29).

3.27.2.3 Distinction between fiscal and non-fiscal revenue

The national accounts classify taxes according to economic considerations. Accordingly, revenue usually qualified as taxes is frequently classified in the national accounts as non-fiscal revenue.

Within the framework of the survey of local government accounts, a more detailed analysis of taxes and charges collected under economic code 36 was carried out, and some items of fiscal revenue were reclassified to sales, property income or direct taxes.

The following taxes are included in non-market sales of goods and services:

- charges for administrative services: revenue on the issue of various administrative documents such as identity cards, passports, marriage certificates, etc. This heading includes charges connected with one-off services, such as the storage charge for vehicles seized by the police;
- refund or "recovery" charges levied by communes to recover from "benefiting" taxpayers all or some of authorised expenditure on local road improvements (pavements, sewers, etc.).

Charges for public hygiene services (refuse collection, income from sale of bin liners, services relating to cemeteries) are regarded as market sales of goods and services.

Charges and fees for occupation of public areas (beaches, market pitches, café terraces, etc.) are included among ground rents (D45).

Property taxes (second homes, balconies and drive-in doors, holiday cottages, private swimming pools) and various other charges (on tennis courts, hunting permits and firearms licences) are included among other current charges. These charges are grouped under the heading "Other current taxes (D59)".

All other minor charges are grouped under the heading "Other taxes on production (D29)". No residual item is used with regard to taxes on products.

3.27.2.4 Distinction between taxes on products (D21) and other taxes on production (D29)

As already noted, this distinction is not made in the economic regrouping as such, but at the level of detailed fiscal revenue data, where each tax is allotted an ESA 2010 code (D21, D29, D51, D59 or D91).

In practice, taxes on production and imports (D2) are totalled before subtracting all taxes which are regarded explicitly as taxes on products (D21).

The correspondence between taxes on products (D21) [or other taxes on production (D29)] and the products to which they relate [or the branches of activity which pay them] is determined within the framework of the SUT.

3.27.3 CALCULATION OF TAXES ON PRODUCTION AND IMPORTS (D2)

<i>Data for 2012 (millions of euros)</i>		
Taxes on production and imports (D2) by Federal Government (S1311)		
Code 36		37703
VAT transferred to EU Institutions	+	509
VAT over compensation	+	0
Monthly slippage on VAT	+	55
Monthly slippage on TOB	+	5
Monthly slippage on tobacco excise duties	+	-36
weekly slippage on tobacco excise duties	+	-45
Code 36 regarded as D5 (tax treated as excise duty paid by households as consumers and annual tax on profit sharing)	-	11
Code 36 regarded as D91 (tax on long-term savings)	-	400
Contribution for APETRA	+	185
Contribution on oil product for heating	+	7
Contribution to the Special Protection Fund for deposits, life insurance contracts and the capital of approved cooperative societies	+	1000
Contribution for Financial Stability to the Resolution Funds	+	238
Annual tax on unit trusts, credit companies and insurance companies	+	247
Adjustment for excise duties received from Luxembourg	-	70
Other adjustments on VAT	+	-23
<i>Subtotal</i>	=	<i>39364</i>
Taxes on production and imports (D2) by Communities and Regions (S1312)		
Code 36		6294
Code 37 regarded as D2 (tax on income from immovable assets)	+	144
Monthly slippage on tax on income from immovable assets	+	0
Monthly slippage on road tax included in D29	+	2
Code 36 regarded as D5 (road tax paid by households as consumers)	-	1019
Code 36 regarded as D91 (taxes on gifts)	-	397
Other adjustments (wrong registration of code 36)	-	64
<i>Subtotal</i>	=	<i>4960</i>
Taxes on production and imports (D2) by local government (S1313)		
Accounting data of local authorities		496
Additional charge on the income tax levied by Federal Government	+	2787
Monthly slippage on tax on income from movable assets	+	18
Additional charges on tax on income from immovable assets levied by the Flemish Community	+	1652
Monthly slippage on tax on income from immovable assets	+	-13
<i>Subtotal</i>	=	<i>4941</i>
Taxes on production and imports (D2) by social security administrations (S1314)		
Supplement to industrial accident insurance premiums		49
Supplement to motor insurance premiums	+	638
Supplement to fire insurance premiums	+	168
Supplement to hospitalisation insurance premiums	+	125
Levy on pharmaceutical industry turnover	+	226
Levy on certain pharmaceutical products	+	4
Single levy on companies	+	202
Clinical biology and medication refund	+	5
annual contribution for public mandates	+	8
<i>Subtotal</i>	=	<i>1424</i>
Taxes on production and imports (D2) by EU institutions (S212)		
Customs duties (100%)	+	2040
"Rotterdam effect" adjustment	-	826
Agricultural levies (100%)	+	47
Sugar levy (100%)	+	9
<i>Subtotal</i>	=	<i>1270</i>

3.27.4 CALCULATION OF TAXES ON PRODUCTS (D21)

The following table sets out the various taxes on production and imports (D2) by collecting subsectors. As already mentioned, all major taxes are given a D21 or D29 code and the rest, mainly comprising various minor taxes collected by communes, are recorded under the residual heading "Other taxes on production (D29)".

D2 (€ 51.959 million) and the detail of its components in D21 (€ 42.992 million) and D29 (€ 8.967 million) are given in the next table.

Data for 2012 (millions of euros)	Federal Government (S1311)	Communities and Regions (S1312)	Local authorities (S1313)	Social security (S1314)	EU Institutions (S212)	Total (S13+S212)
Taxes on production and imports (D.2)	39364	4960	4941	1424	1270	51959
Taxes on products (D.21)	36697	3816	0	1209	1270	42992
Value added tax (VAT) (D.211)	26844	0	0	0	0	26844
VAT on products	26844	0	0	0	0	26844
Taxes and duties on imports, excluding VAT (D.212)	949	0	0	0	1261	2210
Import duties (D.2121)	0	0	0	0	1214	1214
Import duties including ECSC rights	0	0	0	0	1214	1214
Taxes on imports, excluding VAT and duties (D.2122)	949	0	0	0	47	996
Levies on imported agriculture products (D.2122 A)	0	0	0	0	47	47
Levies on agriculture (D.2122 A)	0	0	0	0	47	47
Monetary compensatory amounts on imports (D.2122 B)	0	0	0	0	0	0
Monetary compensatory amounts on imports (D.2122 B)	0	0	0	0	0	0
Excise duties (D.2122 C)	949	0	0	0	0	949
Excise duties on mineral oil	60	0	0	0	0	60
Excise duties on liquefied natural gas and liquefied hydrocarbon and benzol	0	0	0	0	0	0
Excise duties on tobacco	320	0	0	0	0	320
Excise duties on brandy	181	0	0	0	0	181
Taxes on consumption of alcohol and brandy	0	0	0	0	0	0
Excise duties on fermented sparkling drinks	66	0	0	0	0	66
Excise duties on fermented fruit juices	115	0	0	0	0	115
Excise duties on beer	10	0	0	0	0	10
Excise duties on non-alcoholic beverages	24	0	0	0	0	24
Excise duties on sugar and refining syrup	0	0	0	0	0	0
Excise duties on coffee	14	0	0	0	0	14
Excise duties on intermediary products	0	0	0	0	0	0
Contribution for the surveillance on domestic fuel oil	0	0	0	0	0	0
Contribution on oil product for heating	0	0	0	0	0	0
Contribution on energy	0	0	0	0	0	0
Packing contribution	158	0	0	0	0	158
Environmental charge	0	0	0	0	0	0
Ecotax	0	0	0	0	0	0
General sales or turnover taxes (D.2122 D)	0	0	0	0	0	0
Taxes as tax stamps	0	0	0	0	0	0
Taxes on specific services (D.2122 E)	0	0	0	0	0	0
Profits of import monopoly (D.2122 F)	0	0	0	0	0	0

Other taxes on products, except VAT and import taxes (D.214)	8904	3816	0	1209	9	13938
Excise duties and consumption taxes (D.214 A)	7012	3	0	0	9	7024
Excise duties on mineral oil	3952	0	0	0	0	3952
Excise duties on liquefied natural gas and liquefied hydrocarbon and benzol	0	0	0	0	0	0
Excise duties on tobacco	1589	0	0	0	0	1589
Excise duties on brandy	68	0	0	0	0	68
Taxes on consumption of alcohol and brandy	0	0	0	0	0	0
Excise duties on fermented sparkling drinks	0	0	0	0	0	0
Excise duties on fermented fruit juices	0	0	0	0	0	0
Excise duties on beer	171	0	0	0	0	171
Excise duties on non-alcoholic beverages	30	0	0	0	0	30
Excise duties on sugar and refining syrup	0	0	0	0	0	0
Excise duties on coffee	0	0	0	0	0	0
Excise duties on intermediary products	24	0	0	0	0	24
Contribution for the surveillance on domestic fuel oil	39	0	0	0	0	39
Contribution on oil product for heating	7	0	0	0	0	7
Contribution on energy	328	0	0	0	0	328
Federal contribution on electricity and natural gas	426	0	0	0	0	426
Taxes on water (FR, WR and BCR)	0	3	0	0	0	3
Contributions on sugar	0	0	0	0	9	9
Super levy on milk	0	0	0	0	0	0
Super levy on cereals	0	0	0	0	0	0
Super levy on mutton	0	0	0	0	0	0
Penalty for exceeding the milk quota	0	0	0	0	0	0
Compulsory contributions from producers of animals and animal products (Sanitel)	14	0	0	0	0	14
Levy ECSC	0	0	0	0	0	0
Packing contribution	159	0	0	0	0	159
Environmental charge	14	0	0	0	0	14
Ecotax	2	0	0	0	0	2
Contribution for FAPETRO	5	0	0	0	0	5
Contribution for APETRA	185	0	0	0	0	185
Stamp taxes (D.214 B)	0	0	0	0	0	0
Stamp taxes (D.214 B)	0	0	0	0	0	0
Taxes on financial and capital transactions (D.214 C)	403	3379	0	0	0	3782
Registration rights	88	3379	0	0	0	3467
Mortgage rights	74	0	0	0	0	74
Court rights	35	0	0	0	0	35
Taxes on stock exchange business	164	0	0	0	0	164
Tax on delivery of securities to bearer	4	0	0	0	0	4
Duties on written documents	39	0	0	0	0	39
Registration taxes (D.214 D)	0	371	0	0	0	371
Car registration taxes	0	0	0	0	0	0
Traffic taxes	0	371	0	0	0	371
Taxes on entertainment (D.214 E)	0	0	0	0	0	0
Taxes on lotteries, gambling and betting (D.214 F)	0	63	0	0	0	63
Taxes on gambling and bets	0	63	0	0	0	63
Taxes on insurance premiums (D.214 G)	1244	0	0	979	0	2223
Taxes on insurance contracts	1237	0	0	0	0	1237
Additional levy on premiums for industrial accidents	0	0	0	49	0	49
Additional levy on car insurance premiums	0	0	0	638	0	638
Additional levy on fire insurance premiums	0	0	0	168	0	168
Additional levy on hospitalization insurance premiums	0	0	0	125	0	125
Receipts for the benefit of the Belgian Red Cross	8	0	0	0	0	8
Other taxes on specific services (D.214 H)	0	0	0	0	0	0
General sales or turnover taxes (D.214 I)	0	0	0	0	0	0
Taxes as tax stamps	0	0	0	0	0	0
Profits of fiscal monopolies (D.214 J)	242	0	0	0	0	242
Profits of the national lottery	242	0	0	0	0	242
Export duties and monetary compensatory amounts on exports (D.214 K)	0	0	0	0	0	0
Monetary compensatory amounts on exports	0	0	0	0	0	0
Other taxes on products n.e.c. (D.214 L)	3	0	0	231	0	234
Taxes on poster advertising	3	0	0	0	0	3
Contribution on the turnover of the pharmaceutical industry	0	0	0	226	0	226
Levy on particular pharmaceutical products	0	0	0	4	0	4

Other taxes on production (D.29)	2667	1144	4941	214	0	8967
Taxes on land, buildings or other structures (D.29 A)	0	220	4445	0	0	4665
Advance tax payment on property (PP)	0	127	2964	0	0	3090
Advance tax payment on property (Corp)	0	17	1482	0	0	1499
Opening tax	0	0	0	0	0	0
Licence right	0	0	0	0	0	0
Regional tax (BCR) - From 2002 onwards, only regional tax payable by the building owners	0	76	0	0	0	76
Taxes on use of fixed assets (D.29 B)	1	666	51	0	0	717
Traffic taxes paid by corporations	0	505	51	0	0	555
Tax on automatical recreation appliances	0	47	0	0	0	47
Euro tax disc	0	114	0	0	0	114
Taxes equal to excise rights paid by corporations	0	0	0	0	0	0
Total wage bill and payroll taxes (D.29 C)	0	0	0	0	0	0
Taxes on the co-ordinating centre	0	0	0	0	0	0
Taxes on international transactions (D.29 D)	0	0	0	0	0	0
Taxes on business and professional licences (D.29 E)	1239	0	0	0	0	1239
Contribution to the Protection Fund for Deposits and Financial Instruments	0	0	0	0	0	0
Contribution to the Special Protection Fund for deposits, life insurance contracts and the capital of approved cooperative societies	1000	0	0	0	0	1000
Contribution for Financial Stability to the Resolution Funds	238	0	0	0	0	238
Taxes on pollution (D.29 F)	0	176	0	0	0	176
Tax on waste products (FR and WR)	0	53	0	0	0	53
Tax on manure (FR)	0	5	0	0	0	5
Taxes on water (FR, WR and BCR)	0	119	0	0	0	119
Emission permits	0	0	0	0	0	0
Undercompensation of VAT (D.29 G)	0	0	0	0	0	0
Undercompensation of VAT	0	0	0	0	0	0
Other taxes on production n.e.c. (D.29 H)	1428	82	446	214	0	2170
Annuities for patented entities	7	0	0	0	0	7
Monopoly interest (Belgacom)	0	0	0	0	0	0
Monopoly interest (National lottery)	115	0	0	0	0	115
Non-recurrent company contribution	0	0	0	202	0	202
Contribution on public mandate	0	0	0	8	0	8
Reclamation clinical biology and pharmaceutical products	0	0	0	5	0	5
Radio and television licences (WR, FR and GR) - partim	0	0	0	0	0	0
Contribution payable by the nuclear operators	799	0	0	0	0	799
One-off contribution payable by the gas sector	0	0	0	0	0	0
Special contribution from the electricity corporations	0	0	0	0	0	0
One-off contribution payable by the oil sector	0	0	0	0	0	0
Annual tax on unit trusts, credit companies and insurance companies	247	0	0	0	0	247
Annual tax on credit institutions	81	0	0	0	0	81
Other taxes on production	179	82	446	0	0	707

3.27.5 CALCULATION OF VAT (D211)

The Federal Government budget does not list VAT separately but has a combined entry for all VAT revenue, stamp duties and levies treated as stamp duties. The Federal Ministry of Finance provides the details necessary for compiling the national accounts.

<i>Data for 2012 (€ millions)</i>	
VAT received cash by Federal Ministry of Finance	26 832
Monthly slippage on VAT	+ 55
VAT over-compensation	+ 0
Adjustment	+ -43
<i>Subtotal</i>	26 844

Sections 3.28 apply to both subsidies on products (D31) and other subsidies on production (D39).

3.28 SUBSIDIES ON PRODUCTS

3.28.1 SOURCE DATA ECONOMIC GROUPINGS

In the Benelux economic regrouping, subsidies are recorded under economic codes 31 and 32. However an analysis of the NAI showed that several government levels recorded transfers to S.15, while in reality these entities in the national accounts are in S.11 and that the amount related to subsidies on production.

(i) Code 31 - Operating subsidies

Operating subsidies are income transfers affected by general government or by European Community institutions (via national budgets) as part of their economic and social policy to resident units which produce market goods and/or services.

These subsidies can serve to lower the selling price that would normally result from actual production costs. The aim is to influence selling prices and/or to allow a sufficient return on production factors. In principle, subsidies have the opposite effect to indirect taxes, which add to cost prices.

Here, we opt for another subdivision, since producer units (producers) which provide market goods and services may belong to different institutional sectors (sole proprietorships, firms, etc.). Investment subsidies, compensation for damage caused by disasters, debt relief and other compensations are all capital transfers.

31.1 Interest subsidies

Interest subsidies granted to production units are also recorded as operating subsidies even if their purpose is to facilitate investment. In fact, these subsidies constitute transfers designed to reduce producers' operating costs. They are recorded as subsidies to producers even where general government pays the credit institution concerned the interest rate differential.

31.2 Other operating subsidies to public-sector enterprises

31.21 Price subsidies to public-sector enterprises

Subsidies paid to enterprises per unit produced of goods or services.

31.22 Other subsidies to public-sector enterprises

Examples include:

- operating subsidies granted conditionally to a public-sector enterprise in connection with a program-contract;

- subsidies to public-sector enterprises to cover wage costs.

31.3 Other operating subsidies to producers other than public-sector enterprises

31.31 Price subsidies to private enterprises

Subsidies paid to enterprises per produced unit of goods or services.

31.32 Other subsidies to producers other than public-sector enterprises

Examples include subsidies to private enterprises to reduce pollution or cover wage costs.

(ii) Code 32 – Income transfers, other than operating subsidies to corporations and financial institutions

This residual item mainly comprises transfers to public-sector enterprises to cover part of the cost of their former employees' pensions.

(iii) Data from the ONSS and ONSSAPL on employer's social contributions for specific groups

It concerns the reductions of employer's social contributions for specific groups of employees. These amounts are first registered as social contributions received in the social security sector and then registered as other subsidies on production. These subsidies are mainly allocated to the non-financial corporations but part is also allocated at the State and Local level.

The amount of subsidies received by these subsectors and the identification of the branches is done on the basis of data from the ONSS and ONSSAPL.

(iv) Reductions in the withholding tax on income

Employers can keep part of the withholding tax on income employees have to pay on their salary. In the tax declaration of the employee the whole amount is registered as tax paid. It concerns a general reduction and specific reductions of the withholding tax for researchers, overtime work and night work. These amounts are first registered as income tax received and then registered as other subsidies on production paid by the federal level. These subsidies are mainly allocated to the non-financial corporations but a small part is also allocated to the State. Information is provided directly by the FPS Finance.

(v) Wages subsidies under Maribel scheme

The Maribel scheme has been in operation since mid-2003. Within each non-market sector, as defined by Belgian law, not by ESA (comprising hospitals, health establishments and services, educational and accommodation facilities, etc.), it was decided to place the proceeds arising from " reductions in social contributions" in a fund and pass them on to certain employers, according to priorities defined jointly with the supervisory authorities. This is not a reduction for individual employers, but a sectoral reduction governed by collective agreement.

An employer in these sectors has to continue paying the NSSO the social contributions for his staff. The NSSO acts as agent and pays to the relevant Maribel sectoral fund the amount corresponding to the reductions in social contributions, with a view to the creation of new jobs.

If the employer decides not to use the Maribel scheme, he need take no action. An employer who wishes to take part submits an application to the Maribel fund for his sector. The application must be signed by the workers' representatives.

If the employer wishes to recruit a worker or create a job, he must follow the procedures laid down in his collective agreement. Some are automatic and require only the consent of the fund, whereas others have to go through a selection procedure in which the (joint) management committees of the funds have to make choices under the criteria of collective agreements and arrangements made with supervisory authorities.

These Maribel funds have opted for the status of social protection funds. The traditional social protection funds receive compulsory statutory social contributions and are part of the social security administrations sector (S1314). They pay social security benefits and organise training for the workers concerned.

3.28.2 FROM PUBLIC ACCOUNTING TO NATIONAL ACCOUNTS.

The Maribel social protection funds also form part of the social security administrations, since their activity is a non-market one and their operating costs are covered by a levy on the amounts that the NSSO places at their disposal.

An employer in the sector concerned pays standard contributions to the NSSO, which transfers to the sector's social fund a combined amount determined for all employers in that sector. If the employer wishes to have the benefit of the Maribel scheme, he submits an application to the social fund, which, if the conditions are met, makes a payment to the employer.

The following operations are recorded in the national accounts: payment of employers' contributions, followed by internal transfer between two social security administrations and, finally, a wage bill subsidy.

Basic data on Community subsidies

Before 2005, community subsidies comprise mainly the following subsidies on products (D 311):

- intervention expenditure enabling the producer, in certain cases, to obtain a selling price higher than the world market price. EAGGF interventions benefit either farmers or the agri-food industry;
- refunds corresponding to the difference between the world market price and the Community market price. EAGGF refunds are granted on exports of agricultural products to non-member countries of the EU. The main final recipients are therefore food industry exporters and import-export firms dealing in agricultural products. Since the payment of refunds is in the currency of the country where the goods are cleared and many European enterprises use the port of Antwerp for their exports, refunds to these foreign firms relate to non-resident units and are therefore not shown in the Belgian national accounts.

It appears that since the reform of the Common Agricultural Policy (CAP) of the European Union (EU) and the introduction of the Single Payment Scheme (SPS) in 2005 nearly all agricultural subsidies are other subsidies on production (D39).

3.28.3 CALCULATION OF SUBSIDIES (D3)

<i>Data for 2012 (millions of euros)</i>		
Subsidies (D3) from Federal Government (S1311)		
Code 31		2006
Code 32	+	7
Code 22	+	0
Income tax deducted at source by employers	+	2878
Car scrap schemes	+	14
Other adjustments (principally incorrect registration of internal transfers)		-167
Subtotal	=	4737
Subsidies (D3) from Communities and Regions (S1312)		
Code 31		1779
Code 32	+	361
Other adjustments (incorrect registration of transfers to S.15)	+	932
Subtotal	=	3072
Subsidies (D3) from local authorities (S1313)		
Accounting data of local authorities		345
Subsidies to non-market local public units	-	326
Subsidies to market local public units	+	486
Other adjustments		3
Subtotal	=	508
Subsidies (D3) from social security administrations (S1314)		
Wage subsidies to hospital contractors		111
Wage subsidies under the Maribel scheme	+	911
Capitalisation of unemployment benefit subsidies	+	463
Reductions of employer's social contributions for specific groups	+	1714
Service cheques (Law of 2002)	+	1595
Other subsidies (principally incorrect registration of external transfers)	+	247
<i>Subtotal</i>		<i>5041</i>
Subsidies (D3) from EU institutions (S212)		
Interventions		643
Refunds	+	11
Refunds for non-resident enterprises	-	9
Changes in prefinancing	+	-2
<i>Subtotal</i>	=	<i>643</i>

3.28.4 CALCULATION OF SUBSIDIES ON PRODUCTS (D31)

The following table breaks down the various subsidies (D3) by the subsector which grants them. As may be seen, all fairly large subsidies are coded D31 or D39, while the remainder (mostly paid by the Regions) are recorded under the residual heading "Other subsidies on production n.e.c. (D39)".

		Federal Governm ent (S1311)	Commun ities and Regions (S1312)	Local authoriti es (S1313)	Socila security (S1314)	EU Institutio ns (S212)	Total (S13+S21 2)
	Data for 2012 (millions of euros)						
D.3	Subsidies	4737	3072	508	5041	643	14000
D.31	Subsidies on products	1749	191	125	0	155	2219
D.311	Subsidies on imports	0	0	0	0	0	0
D.319	Other subsidies on products	1749	191	125	0	155	2219
	BNR losses	1399	0	0	0	0	1399
	Losses incurred by the Postal Service	336	0	0	0	0	336
	Losses incurred by PSWC hospitals	0	0	49	0	0	49
	Car scrap schemes	14	4	0	0	0	18
	Losses incurred by PSWC rest homes	0	0	75	0	0	75
	European subsidies (CAP)	0	0	0	0	155	155
	subsidies to drinking water companies (FR)	0	190	0	0	0	190
	Other subsidies on products	0	-3	0	0	0	-3
D.39	Other subsidies on production	2988	2881	384	5041	487	11781
	reductions of employer's social contributions for specific groups of employees ONSS	0	0	0	1287	0	1287
	reductions of employer's social contributions for specific groups of employees ONSSAPL/DIBISS	0	0	0	427	0	427
	Contractual wage subsidies to hospitals	0	0	0	111	0	111
	Capitalisation of unemployment benefit subsidies	0	0	0	463	0	463
	Service cheques (Law of 2002)	0	0	0	1595	0	1595
	social agreement (INAMI)	0	0	0	90	0	90
	Income tax deducted at source by employers	2878	0	0	0	0	2878
	Interest subsidies n.e.c.	26	112	0	0	0	139
	Subsidies on disabled persons' wages	0	0	0	0	0	0
	European subsidies (CAP)	0	0	0	0	487	487
	VAT over-compensation	0	0	0	0	0	0
	MARIBEL scheme - non-market sector	0	0	0	911	0	911
	Other subsidies on production n.e.c.	84	2769	384	157	0	3393

4 THE INCOME APPROACH

4.0 GDP ACCORDING TO THE INCOME APPROACH

The income components of GDP split out by industry (A21) and institutional sector can be seen in the following tables (figures for 2012 in € million).

Compensation of employees (D1)

Sum of D1	Column					
Row Label	S11	S12	S13	S14	S15	Grand Total
A	410			72		482
B	135			0		135
C	30.769			159		30.928
D	2.061					2.061
E	1.463		446	2		1.911
F	9.982			241		10.222
G	24.337			354		24.690
H	10.385		2.550	44		12.979
I	3.223			288		3.511
J	7.169		374	5		7.549
K	0	9.856		21		9.877
L	834			63		897
M	9.687	262		177	59	10.185
N	11.468			130		11.598
O			24.449			24.449
P	374		20.780	2	252	21.408
Q	19.058			75	1.246	20.378
R	1.127			11	160	1.297
S	1.626			152	1.449	3.227
T				466		466
Grand Total	134.107	10.119	48.599	2.260	3.165	198.250

Other taxes on production (D29)

Sum of D29	Column					
Row Label	S11	S12	S13	S14	S15	Grand Total
A	30			28		58
B	10			0		10
C	623			9		632
D	688					688
E	87		0	1		87
F	169			15		183
G	567			48		615
H	180		0	4		184
I	128			34		162
J	77		0	2		79
K	0	2.075		0		2.075
L	412			3.114		3.526
M	159	5		6	5	174
N	145			11		156
O			0			0
P	4		0	1	3	7
Q	52			0	9	61
R	181			6	2	189
S	39			13	29	80
T				0		0
Grand Total	3.550	2.080	0	3.290	48	8.967

Other subsidies on production (D39)

Sum of D39	Colu					
Row Labels	S11	S12	S13	S14	S15	Grand Total
A	233			276		510
B	3			0		3
C	2.003			14		2.017
D	47					47
E	290		0	1		291
F	319			23		342
G	927			36		963
H	636		0	5		642
I	103			19		121
J	258		0	3		262
K	0	39		2		41
L	243			6		249
M	664	1		11	1	677
N	2.314			89		2.403
O			440			440
P	36		178	3	23	241
Q	2.088			12	66	2.166
R	179			6	9	193
S	120			18	37	175
T				0		0
Grand Total	10.462	40	618	526	136	11.781

Gross operating surplus and mixed income (B2g+B3g)

Sum of B2g	Column					
Row Labels	S11	S12	S13	S14	S15	Grand Total
A	798			2.211		3.009
B	101			1		101
C	18.829			438		19.267
D	3.023					3.023
E	1.560		149	12		1.721
F	7.538			2.031		9.569
G	16.535			2.317		18.852
H	4.506		2.698	158		7.363
I	1.516			1.136		2.652
J	7.336		141	147		7.624
K	0	9.893		93		9.986
L	4.122			21.761		25.883
M	8.325	-288		12.908	78	21.023
N	4.063			526		4.589
O			3.139			3.139
P	98		2.809	50	38	2.994
Q	5.633			1.839	114	7.586
R	786			230	39	1.056
S	486			1.098	192	1.776
T				0		0
Grand Total	85.256	9.605	8.936	46.954	460	151.211

The resulting totals for 2012 are as follows:

	S11	S12	S13	S14	S15	S1
D1	134.107	10.119	48.599	2.260	3.165	198.250
D29	3.550	2.080	0	3.290	48	8.967
D39 (-)	10.462	40	618	526	136	11.781
B2g+B3g	85.256	9.605	8.936	46.954	460	151.211
D21						42.992
D31 (-)						2.219
GDP						387.419
D1						198.250
D2						51.959
D3(-)						14.000
B2g+B3g						151.211
GDP						387.419

4.1 REFERENCE FRAMEWORK

4.1.1 INCOME COMPONENTS

As already indicated in the introductory section on the output approach in Belgium no independent estimate is made of GDP according to the income approach. Value added in basic prices and its income components (compensation of employees, net other taxes on production, gross operating surplus/mixed income) are estimated simultaneously with B.2g+B.3g being determined as a balance.

Compensation of employees (D.1) is estimated by the combined use of accounting information (annual accounts and social balance sheets information of non-financial corporations and NPI's, specific accounting statements for the financial sector, general government accounts) and administrative data relating to wages, salaries and social contributions paid to the Social Security institutions (NSSO and NSSOPLA file).

The distribution of the wages and salaries bill (D1) over industries and sectors is carried out on the basis of the characteristics (NACE code and sector code) of the employers present in the annual directory/business register (cf. 4.7).

The totals for **other taxes and subsidies on production (D.29 and D.39)** are known via the general government account and the rest of the world account (cf. 4.8 and 4.9). In a second phase these totals are distributed over institutional sectors taking into account the nature of the taxes paid and subsidies received.

For the financial sector (S.12) we have virtually exhaustive information on D.29 paid. In S14 almost 95 % of the total of D.29 concerns property taxes paid by owners of dwellings (the production of housing services is included in industry L); the rest of D29 paid by unincorporated businesses is estimated via SBS information. D29 in S15 is estimated via annual accounts information and the amount for S11 is derived on balance

Two thirds of the other subsidies on production (D39) concern different types of *wage subsidies* (reductions in employers' social contributions targeted for specific groups, subsidies for "cheques services", withholding income tax kept by employers (for night work, shift work, R&D personnel) etc. Public information (ONSS/ONSSAPL, Finance Ministry) is available to distribute these amounts over sectors and industries. The amounts of D39 in S13 (€ 618 million) and S15 (€ 136 million) are exclusively wage subsidies. European *agricultural subsidies* are imputed in section A of S11 and S14. The distribution of *interest subsidies* over industries in S11 is known via information in the annual accounts. Most of the *non-specified other subsidies on production* are imputed in S11.

The amounts of subsidies and taxes that we find in the accounts (annual accounts and SBS) of non-financial enterprises (S.11 and S.14) and non-market NPI's (S15) are aligned with the 'exogenous' amounts from the general government account (and the rest of the world account) via adjustment (aa).

The **gross operating surplus/gross mixed income (B.2g/B.3g)** per industry is the difference between the value added (B.1g), compensation of employees (D.1) and net other taxes on production (D.29 - D.39).

4.1.2 INTRODUCTION TO THE VARIOUS SOCIAL INSURANCE AND SOCIAL ASSISTANCE SCHEMES IN BELGIUM

The following table sets out the various social insurance and social assistance schemes in Belgium, cross-classified by sector and by ESA 1995 category.

For the first three categories (social security schemes run by government, autonomous and non-autonomous pension funds), the employers' actual contributions (D121) are added to gross wages and salaries (D11) to arrive at the compensation of employees (D1). The same applies to the fourth category (unfunded social insurance schemes managed by employers), except that employers' contributions are imputed contributions (D122). For the fifth category (social assistance arrangements), there are no employers' contributions.

The meaning of the colours is as follows:

	Does not exist (not provided for by ESA 1995 or by Belgian law)
	None (at present)

	Social security schemes run by government	Autonomous pension funds	Non-autonomous pension funds	Unfunded social insurance schemes run by employers	Non-contributory social assistance arrangements
Federal Government (S1311)	<ul style="list-style-type: none"> ■ Survivors' pension fund ■ Pool for semi-state bodies ■ Postal Service retirement pension scheme (as from 1997) ■ Employment fund 			<ul style="list-style-type: none"> ■ Wages paid during sickness ■ Retirement pensions ■ Family allowances ■ Industrial accidents 	<ul style="list-style-type: none"> ■ Guaranteed income for the elderly ■ Disability allowances ■ War pensions ■ Ministry of Public Health contributions towards hospitalisation costs ■ Maritime Transport Authority (RTM) staff retirement pensions (as from 1997)
Communities and Regions (S1312)			Pension funds set up as NPAs and responsible for " first pillar" public-sector pensions are regarded as non-autonomous pension funds (e.g. VRT)	<ul style="list-style-type: none"> ■ Wages paid during sickness ■ Retirement pensions ■ Family allowances 	<ul style="list-style-type: none"> ■ Student grants ■ Transfers relating to youth protection and Fund for Special Assistance to Young Persons

Local authorities (S1313)			Pension funds set up as NPAs and responsible for " first pillar" public-sector pensions are regarded as non-autonomous pension funds (e.g. East Flanders Province pension fund)	<ul style="list-style-type: none"> ■ Municipal pension funds ■ Wages paid during sickness ■ Retirement pensions (subsidised education) ■ Family allowances (subsidised education) ■ Non-statutory family allowances ■ Pensions paid directly by commune (non-contributory) 	<ul style="list-style-type: none"> ■ Social minimum income ■ Destitution relief
Social security administrations (S1314)	<ul style="list-style-type: none"> ■ General scheme for employees ■ Scheme for the self-employed ■ Mineworkers' scheme ■ Seafarers' scheme ■ Social protection fund ■ Municipal pension fund (pool I and pool II) ■ Time credits and paid training leave 			<ul style="list-style-type: none"> ■ Wages paid during sickness (semi-state D) ■ Family allowances (semi-state D) ■ Non-statutory family allowances (mutual organisations), ■ ... 	<ul style="list-style-type: none"> ■ Guaranteed family allowances

	Social security schemes run by government	Autonomous pension funds	Non-autonomous pension funds	Unfunded social insurance schemes run by employers	Non-contributory social assistance arrangements
Insurance enterprises (S125)		<ul style="list-style-type: none"> ■ Insurance enterprises (industrial accidents, group insurance, hospitalisation insurance with employers' contributions, etc.) ■ Mutual organisations (independent health care insurance - minor risks of self-employed persons) ■ Pension fund for Members of Parliaments ■ <input type="checkbox"/> Senators' Retirement Fund, ■ Electrabel pension fund (supplementary pensions), ■ ... 		<ul style="list-style-type: none"> ■ Contributions towards medical expenses, ■ Non-statutory family allowances, ■ ... 	

<p>Non-financial corporations and other financial corporations (S11, S121_124)</p>			<ul style="list-style-type: none"> ■ Enterprises can no longer use non-autonomous pension funds (Law of 9 July 1975 and Royal Decrees of 14 and 15 May 1985), but pension funds set up as NPAs and responsible for "first pillar" public-sector pensions are regarded as non-autonomous pension funds (e.g. Belgacom) ■ BNR social solidarity fund 	<ul style="list-style-type: none"> ■ BNR pension fund ■ Wages paid during sickness (BNR, Postal Service) ■ Contributions towards medical expenses ■ Non-statutory family allowances ■ Postal Service and RTM retirement pension scheme (up to 1996) ■ Redundancy pay under a collective agreement ■ Employers' share of contractual early retirement pensions ■ ... 	
<p>NPISHs (S15)</p>				<ul style="list-style-type: none"> ■ Contributions towards medical expenses ■ Non-statutory family allowances 	<ul style="list-style-type: none"> ■ Destitution relief ■ Aid for developing countries ...

4.1.3 SOCIAL SECURITY IN BELGIUM

4.1.3.1 General

There are currently three main social security agencies which receive employers' actual contributions (D121): the National Social Security Office (NSSO), which is the general collecting agency; the National Social Security Office for Provincial and Local Authorities (NSSOPLA), created in 1986 when it took over the NSSO's responsibilities for provincial and local authorities and associated bodies; and a specialised agency, the Seafarers' Relief and Contingency Fund (SRCF)¹²¹. A number of disbursing agencies also receive employers' contributions, e.g. the National Family Allowances Office for Employed Persons (ONAFTS) collects contributions on a per-capita basis.

The collecting agencies are responsible for distributing the proceeds from contributions, current transfers from Federal Government (S1311) and earmarked taxes between the agencies that disburse various social benefits.

4.1.3.2 Holiday pay

Holiday pay is part of statutory social security. It only applies to manual workers. Employers pay the collecting agencies a contribution to a holiday pay fund. This contribution is transferred to the agency which provides the holiday benefits: the National Office for Holiday pay (NOAH), which generally disburses to manual workers every year, via auxiliary bodies, an amount of money as their ordinary holiday pay.

As the holiday pay part of the Belgian social security system is not among social risks and needs within the meaning of ESA 1995, it follows that "social contributions" intended for the NOAH, the Seafarers' Paid Leave Office and other specific annual holiday funds (e.g. in the construction and diamond industries) are not actual social contributions within the meaning of national accounting but part of the remuneration of workers and seafarers.

As the institutional units running this branch of activity do not provide a market service, they are included in Federal Government. Their revenue and expenditure are therefore grouped with those of the latter, except "employers' contributions to holiday pay" which are completely transparent. In other words, employers' contributions are regarded as payment of wages to households that are then invested by the latter in an account with the NOAH, while holiday pay is regarded as a withdrawal of these sums by households when they can access the resulting funds held at the NOAH.

¹²¹ Another specialised agency, the National Retirement Fund for Mineworkers (NRFM), was dissolved in 1999, and contributions to it have since gone to the NSSO. In addition, a number of social protection funds collect contributions directly, without NSSO involvement.

4.2 BORDERLINE CASES

The treatment and estimation of wages in kind is explained in 4.7.

Goods and services purchased by employers and provided free or at reduced prices to their employees are reclassified from intermediate consumption to wages/final consumption expenditure. This adjustment increases value added/GDP, compensation of employees and final consumption expenditure of households.

The treatment of intangible fixed assets is explained in 5.10

Purchased software registered in company accounts as a current expense (P2) is reclassified as GFCF (P51). This adjustment increases value added/GDP, operating surplus and gross fixed capital formation.

The borderline between taxes and subsidies on production and on taxes and subsidies on products is explained in 4.8. An adjustment is made for excise duties accounted for in account 640 in order to eliminate taxes on products from taxes on production and to evaluate production in basic prices.

4.3 VALUATION

The valuation according to the regulations of ESA 2010 is carried out by converting the economic/administrative aggregates (operating income/turnover, operating costs/purchases of goods and services, wages, salaries and social security contributions, business taxes, operating subsidies) into the corresponding ESA 2010 aggregates (output, intermediate consumption, compensation of employees, other taxes and subsidies on production) (cf. 3.2).

4.4 TRANSITION FROM ADMINISTRATIVE TO ESA 2010 CONCEPTS

For non-financial corporation please refer for this to the output approach (cf. 3.3).

In determining the mixed income of self-employed persons the distinction between intermediate consumption (purchases of goods and services used in professional activity) and final consumption is important. In the tax returns (VAT returns or personal income tax returns) one finds usable data relating to intermediate consumption/professional expenses of self-employed persons:

- the purchases indicated in the VAT returns must relate to professional activity to be deductible;
- the professional expenses that relate to purchases of goods and services indicated in the personal income tax returns are a good approximation for the inputs consumed in the production process of self-employed enterprises.

4.5 THE ROLE OF DIRECT AND INDIRECT METHODS

Direct methods are used to estimate almost the entire wage bill. Direct information is available from corporate accounting records and from quarterly returns to the NSSO and the NSSOPLA (S11, S12, S15). Compensation of employees paid out by unincorporated businesses (S14) - which account for

only a small part of the total wage bill - is only available from the NSSO. Compensation of employees in S13 is known via specific administrative information available in the subsectors of S13.

Certain exhaustiveness adjustments (wages in kind, gratuities, undeclared wages, domestic personnel) are sometimes derived in an indirect way using specific sources and hypotheses.

The following table provides an overview of sources used and adjustments applied per sector. The methodology is described in detail in section 4.7.

Compensation of employees – sources and adjustments						
2012 (€million)						
	S11	S12	S13	S14	S15	S1
NSSO	32.652	672	0.0	1.686	1.512	36.522
Extrapolation of NSSO wages and salaries after comparison with social balance sheets/annual accounts	2.238	53			90	2.381
Social balance sheets and annual accounts (including " large enterprises")	89.211	1.710			1.283	92.204
NSSOPLA	4.915					4.915
Schedules A and annual reports		5.496				5.496
Accounting statements of insurance enterprises		2.088				2.088
General government sector accounts			48.144			48.144
Total	129.016	10.019	48.144	1.686	2.885	191750
Adjustments	5.091	99	455	574	280	6.499
Targeted reductions in D.121	1.020	30	455	52	136	1.693
CSPM (*)	80					80
Wages in kind purchased	619	15			2	636
Company cars	1.346	49				1.395
Wages in kind produced	57			6		63
Gratuities	422			42		464
Undeclared wages (incl.illegal economy)	1.335	4		80		1.419
Redistribution to SMEs	71	1		-23	0.0	49
Profit sharing	113					113
Local employment agencies	28					28
Domestic personnel (**)				403		403
Industrial accident insurance premiums				14		14
Priests					142	142
Total after adjustments	134.107	10.118	48.599	2.260	3.165	198.249

(*) Caisse d'Aide et de Prévoyance des Marins de la marine marchande.

(**) The total wages for domestic personnel are estimated at € 466 million of which € 403 million are not declared to the NSSO.

4.6 THE MAIN APPROACHES WITH RESPECT TO EXHAUSTIVENESS

The exhaustiveness of the estimate is guaranteed by the general procedure used: use of business register which includes all (officially registered) employers.

An estimation is done for wages and salaries in kind (purchased and produced by employers), advantages related to the use of company cars, undeclared wages and salaries (these amounts are

consistent with the amounts relating to undeclared value added), gratuities and wages and salaries paid to domestic staff that in most cases are not registered. In total the above elements account for around € 4,4 billion or 2.2 % of the total wage bill.

4.7 COMPENSATION OF EMPLOYEES

4.7.1 OVERVIEW

Compensation of employees is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the reference accounting period (ESA2010, § 4.02).

Compensation of employees (D.1) consists of the following elements:

Breakdown of D.1 in the total economy (S.1)

2012 (in € million)		
(a) Gross wages and salaries in cash and in kind D.11		143.356
(b) Employers' social contributions D.12 = D.121 + D.122	(b) = (b1) + (b2)	54.893
	(b1) Actual social contributions (D.121)	42.055
	(b2) Imputed social contributions (D.122)	12.838
(c) Compensation of employees D.1 = D.11 + D.12	(c) = (a) + (b)	198.249

Compensation of employees is calculated by institutional sector. The data sources and the method of calculation differ according to the institutional sector concerned.

Within each sector, employee compensation is calculated by branch of activity.

4.7.2 TOTAL COMPENSATION: NON-FINANCIAL CORPORATIONS (S.11)

4.7.2.1 Non-financial corporations S.11: source NSSO

The NSSO supplies quarterly data by enterprise. These figures, based on quarterly returns from all employers established on Belgian territory (except those falling within the competence of other social security agencies) and employing workers under an employment contract, provide a series of information on employed persons and their remuneration. The data are therefore confined to the components of the gross wages and salaries on which social contributions are payable, and those contributions. In addition to descriptive data on the enterprise, they include employers' contributions,

reductions in contributions, days paid, holidays, workforce and remuneration (wages, severance payments, bonuses, holiday pay and allowances, contractual/flat-rate salaries, on-call wages for lorry drivers, personal contributions), and, up until 2002, statistics on luncheon vouchers.

4.7.2.1.1. Calculation of wages and salaries according to NSSO

Wages in cash

For wages and salaries in cash, the calculation differs slightly by category of workers – "white collar", "civil servants" and "white-collar trainees", or "blue collar" and "blue-collar trainees" –because of the different holiday pay arrangements for manual and non-manual workers.

The method of arriving at wages in cash (excluding double holiday pay) is the same whatever the category of worker. Among the variables available in the NSSO data by category of worker, "normal" wages, flat-rate wages, on-call wages and bonuses are added up for each firm. The resulting sum includes social contributions payable by the employee and is therefore in line with the ESA2010 definition. Double holiday pay and supplementary allowance have then to be added. This is where the distinction between manual and non-manual workers arises.

In simplified terms, for white-collar workers, single and double holiday pay and the supplementary allowance are paid directly by the employer. Single holiday pay (normal wages during the month when holidays are taken) forms part of the remuneration which is subject to NSSO contributions and is therefore already recorded under wages. Double pay is a supplement which generally represents 85 % of gross remuneration for the month in which holidays are taken. It is excluded from the concept of remuneration but is subject to a personal contribution (13.07 %). Supplementary allowance on top of double holiday pay, which is non-contributory, is added. Since it knows the sums paid by way of this contribution, the NSSO can work out the amount of double pay which is included per worker in the "double holiday pay" variable.¹²²

The holiday pay of manual workers is not paid directly by the employer but by the holiday fund to which the latter is affiliated, i.e. the National Office for Holiday pay (NOAH) or specific funds. To make up single and double holiday pay, the employer pays a quarterly contribution (6 % of 108 % of gross remuneration) on remuneration for the quarter (wages, bonuses and allowances), together with the other employers' contributions to the NSSO, and an annual contribution (10,27 % of 108 % of gross remuneration) which is directly transferred to the NOAH (or paid directly into a specific fund or the social protection fund for enterprises in the diamond and construction industries). This 10.27 % contribution is not stated in the quarterly return but two new variables are created for incorporation on

¹²² Supplementary allowance is defined as a percentage of double holiday pay. Personal contributions are only paid on holiday pay calculated at 85 % of the gross remuneration of the month in which the holiday period falls, but total double holiday pay represents 92 % thereof; it is therefore arrived at by taking 92/85 of the holiday pay calculated on the basis of the contributions received by the NSSO.

a notional basis in the quarterly files, with a distinction being made between contributions paid for construction workers and other workers. Manual workers' holiday pay is arrived at from this contribution [holiday pay = (contribution/10.27)*16.27].

Wages in kind

The NSSO instructions to employers require benefits in kind to be treated as follows:

"Benefits in kind are regarded as remuneration for the calculation of social security contributions. They must be evaluated as accurately as possible, at current prices. With regard to the provision of free housing, the estimate should be based on rental value, unless the benefit can be evaluated on a standard basis."

Some benefits in kind as defined in ESA2010 are clearly excluded from the concept of remuneration for the purpose of calculating social contributions. These are:

- provision of a meal in a company canteen at below cost-price;
- benefits in the form of luncheon vouchers (exempt from social contributions if they meet a set of conditions);
- gifts in kind, in cash or in the form of gift vouchers, if they meet certain conditions (must not exceed a given amount);
- benefit from personal and individual use of a vehicle placed at the worker's disposal by the employer, whether for commuting purposes or for private use of company cars (see. 4.7.2.2.3).

Benefits in kind are therefore statutorily declarable to the NSSO as remuneration which is subject to social contributions, except those benefits which are explicitly exempt. Other benefits in kind will be discussed later (see 4.7.2.2.3).

4.7.2.1.2. Calculation of employers' social contributions according to NSSO

Actual social contributions

Employers' contributions to the NSSO are calculated as the sum of total standard and special contributions together and subtracting personal contributions (already entered under gross wages and salaries) and the deductions to which the employer is entitled (with the exception of targeted reductions in employers' contributions)¹²³.

Many employers also make payments towards non-statutory benefits upon retirement or premature death (mainly payments to group insurance and pension funds), which are also actual social contributions.

A special contribution to the NSSO of 8.86 % is imposed on these payments. The amount of non-statutory benefit is obtained indirectly from this contribution.

¹²³ Recorded in gross terms.

Imputed social contributions

The only component of imputed contributions according to ESA2010 for which the NSSO has separate data is severance pay. Daily, weekly or monthly guaranteed wages during absence due to accident or sickness are recorded by the NSSO as "normal" wages, whereas ESA2010 treats them as imputed contributions. These payments therefore do actually form part of the wage bill according to the NSSO, but are not recorded in the correct place.

Conversely, amounts paid directly by the employer that have to be regarded as a supplement to a benefit granted by the social security system do not constitute remuneration for NSSO purposes. This exemption is confined to supplements to statutory pensions (without involving an insurance company or an autonomous pension fund or constitution of a specific fund or a separate reserve), unemployment benefits (including supplements because of career breaks), and allowances granted due to sickness or accident.

4.7.2.1.3. Total compensation of employees in sector S.11 according to NSSO

The compensation of employees according to the NSSO is the sum of wages in cash and kind and actual and imputed social contributions calculated as described above. This total is the starting point for adjustments to ESA2010 definitions. Some elements of the compensation of employees according to ESA2010 are not actually subject to social contributions. The preliminary estimate based on social security data is therefore incomplete. Only after a series of additions, a breakdown is possible between gross wages and salaries (D11), on the one hand, and actual and imputed social contributions (D121 and D122), on the other hand.

Compensation of employees according to NSSO (S.11)

S.11 (excluding "large enterprises")		
		2012 (in €million)
Gross wages and salaries according to NSSO	(1)	81.970
Actual social contributions according to NSSO	(2)	25.556
Imputed social contributions according to NSSO	(3)	1.086
Social contributions according to NSSO	(4) = (2) + (3)	26.642
Compensation of employees according to NSSO	(5) = (1) + (4)	108.612
<i>enterprises for which accounting data are used</i>	(5a)	75.960
<i>enterprises for which NSSO data are used</i>	(5b) = (5) - (5a)	32.652

4.7.2.2 Increase in the NSSO wage bill

4.7.2.2.1. Comparison between NSSO and accounting data

Direct use of accounting data is indicated because the concept of the remuneration adopted by them is more in line with ESA 2010 than that used by the NSSO, since they cover all wage costs, irrespective of whether they are subject to social security contributions. These data are used where they are of sufficient quality, combining the advantages of the social balance sheet (which is confined to "interior" remuneration) and the annual accounts (which state any pensions paid directly by employers and the wages of statutory personnel who have the status of civil servant).

Because this involves estimating remuneration using the "interior" concept, there is a reliable way of eliminating the total wage bill for foreign establishments involving use of the social balance sheet (based on a domestic concept). In this way, employees permanently employed abroad are not taken into consideration.

The drawback is that other groups, namely the statutory groups, are also not observed in the social balance sheet. This problem can be reduced to a limited number of known corporations¹²⁴. For these companies, heading 62 of the annual accounts will be used.

A second necessary computation of the balance sheet data concerns supplementary payments for pensions paid directly by the employer (included according to ESA2010 as imputed contributions). These may however simply be estimated by adding heading 624 from the annual accounts¹²⁵.

Consequently, the methodology is as follows. Accounting data are used directly to calculate the wage bill for enterprises in the "core" sub-population in cases where the quality is good enough, i.e. meeting the following criteria:

- providing wage bill data that are neither zero nor missing from the three sources (NSSO, annual accounts and social balance sheet);
- providing accounting data deemed usable (i.e. belonging to categories A1, B1, B2, C1, C2, H1, H2 and H3);
- accounting year coinciding with calendar year.

For core enterprises, the wage bill is calculated as the sum of "personnel expenses" taken from the social balance sheet (code 1023) and "pensions" from the annual accounts (code 624).

¹²⁴ This applies only to three of the enterprises in the population covered by the directory of production units. The largest employers of statutory personnel are actually large public-sector enterprises (B-Post, the SNCB and Belgacom) which are processed individually on the basis of their detailed accounting data, or enterprises covered by the NSSOPLA (mainly municipal utilities).

¹²⁵ Heading 624 "pensions" covers only benefits supplementary to the statutory pensions that the employer pays directly ("non-contributory non-statutory pensions"; i.e. not non-statutory annuities and pensions paid by third agencies such as group insurance or pension funds).

Core enterprises' data are also used for calculating upgrade coefficients by sector, branch of activity and category of enterprise¹²⁶ (large or small, with full or abbreviated accounting format) representing the average ratio between the wage bill as defined above (social balance sheet code 1023 + annual accounts code 624) and remunerations calculated from NSSO data.

For other enterprises, the amounts gathered from NSSO are revalued by means of upgrade coefficients to take into account remuneration elements not covered by NSSO.

In this case the wage bill is calculated as the product of multiplying the remunerations calculated from the NSSO data by the average upgrade coefficient of the corresponding sector/SUT/NACE/category combination.

For all enterprises, the wage bill taken from NSSO is regarded as a minimum (on the assumption that in the returns they submit to NSSO enterprises do not over-estimate the remunerations on which they have to pay social contributions etc.).

4.7.2.2.2. Specific methods of calculation

Remuneration in "large" enterprises

"Large enterprises" (SNCB-national railways, Belgacom/Proximus and the Postal Service) are excluded from the method for calculating remuneration. As with the other variables relating to these enterprises, remuneration is calculated by individual analysis of their annual accounts or reports. The amounts arrived at are incorporated without adjustment into the overall wage bill of sector S.11.

Intermediate D.1 (after first adjustments) for S.11

S.11	2012 <i>(in € million)</i>
<i>(5a) NSSO D.1 of enterprises for which accounting data are used (excluding large enterprises)</i>	75.960
(6a) Wage bill of this population according to accounting data	84.775
<i>(5b) NSSO D.1 of enterprises for which NSSO data are used</i>	32.652
(6b) NSSO D1 revalued via accounting data of enterprises for which NSSO data are used	34.890
(8) "Large enterprises" (sources: annual reports and accounts)	4.435
(9) Intermediate D.1 for S.11	(9) = (6a) + (6b) + (8) = 124.100

¹²⁶ Calculation of coefficients for about 900 sector/NACE branch of activity/category combinations.

Final adjustments of sector S11 remuneration

On the one hand, these relate to various elements of compensation of employees according to ESA2010, such as benefits in kind, gratuities and undeclared labour. These elements do not form part of remuneration in the accounting data, so neither direct use of the latter nor recourse to upgrade coefficients enable them to be taken into account. On the other hand, the wages of workers falling within the competence of other social security agencies have to be added to the wage bill of enterprises covered by the NSSO.

Lastly, it should be noted that since ESA2010 came into effect, targeted reductions in employers' contributions are no longer recorded as negative revenue but are processed as wage and payroll subsidies: these are either wage-bill-related subsidies, subsidies related to the total workforce or employment of specific categories of people (the disabled, long-term unemployed), or subsidies based on the cost of training arranged or financed by companies themselves.

Belgium's national accounts have thus been adapted: employees' remunerations have been revised upwards in their "social contributions" component, as have wage subsidies to enterprises (D39).

Wages in kind purchased by the employer

Vehicles supplied for employees' personal use

The benefit associated with the use of a vehicle put at the disposal of the worker by the employer is excluded from the concept of remuneration used by the NSSO. However, between 1997 and 2004, an employers' solidarity contribution of 33 % was imposed on the private use of company cars, so it was possible to indirectly deduce the amount of this benefit in kind.

Since 2005, this contribution has consisted of a monthly flat-rate amount per vehicle (depending on the vehicle's emissions) that the employers make available for their workers. This flat-rate contribution is payable regardless of the employee's financial participation and however high the employee's intervention may be and no longer enables us to work out the benefit associated with the use of a vehicle put at the disposal of the worker. Instead, it is information taken from the Household Budget Survey (HBS) that enables us to determine a global figure for lease cars, assuming that, in principle, two-thirds of this amount is paid by the employer as a benefit. This overall figure is then broken down by sector and by branch of activity according to an allocation formula defined on the basis of figures for company cars notified by the NSSO for each declarant.

Other benefits over and above wages

The social balance sheet comprises an item on "benefits over and above wages". This heading refers to "benefits provided with a clear corporate purpose or with a view to fostering good relations between members of staff and strengthening their ties with the company (e.g. wedding presents, use of company sporting and cultural facilities, benefits from use of a medical service, use of employer's

services, purchase of goods at cost price, etc.). These non-salary benefits are not taxable to the recipient insofar as they are not already included in personnel costs"; the amounts that appear under this heading are reproduced as they are.

Wages in kind produced by the employer

Goods and services produced by enterprises and made available to their employees at below market prices are a second type of wages in kind.

An estimate is made for manufacturing of motor vehicles and for catering, being two branches of activity in which the amount of such goods and services may be substantial and is relatively easy to quantify.

The resulting benefit is estimated by the following general formula: unit benefit in euros in 2000¹²⁷ x the number of persons concerned x frequency x price variation relative to base year 2000.

Gratuities

These are only estimated for hotels and catering, taxis, hairdressing and beauty care, as a percentage of turnover. The percentages arbitrarily applied are 5 % for the hotels and catering branch, 3 % for taxis and 1 % for hairdressing and beauty care.

Undeclared labour

A part of value added is accounted for by undeclared labour. This is catered for by upgrading the figures for turnover/output, purchases of goods and services/intermediate consumption and wages/compensation of employees of SMEs in sector S.11 by percentages estimated by branch of activity.

Wages declared to the NSSOPLA¹²⁸

In addition to its family allowance payment functions, the NSSOPLA is also responsible for collecting contributions in respect of the personnel of the public-sector bodies registered with it:

- communes, public-sector establishments belong to them, and associations of communes;
- conurbations and federations of communes, and establishments belonging to them;
- the French and Flemish Community Commissions (COCOF and COCON);
- regional development organisations;
- provinces and public-interest agencies belonging to them;
- public-interest agencies designated as such by the King;

¹²⁷ Motor vehicle assembly (S.11)

¹²⁸ Changed to ORPSS – Office des régimes particuliers de sécurité sociale – in January 2015

- associations of two or more of these agencies;
- the non-profit organisation *Vlaamse Operastichting* for staff members appointed on a permanent basis to the *Opera voor Vlanderen* intercommunal structure and who are registered as keeping their status.

These provisions therefore concern not only personnel of communes, provinces, and Public Social Welfare Centres (PSWCs), which form part of the general government sector (S.13) but also staff of MCUs, hospitals and rest homes run by PSWCs, classified as non-financial corporations (S.11).

The overall cost to the employer is obtained by simply adding together various variables in the specific data file provided by the NSSOPLA:

Wages and salaries (D.11)

Gross wages and salaries are supplied for various categories of employees, i.e. established staff, temporary staff, subsidised contract staff, students and other employees, covering:

- the wage bill subject to social contributions (including personal contributions);
- the wage bill not subject to social contributions (e.g. luncheon vouchers, personal share of payments for group insurance payments, reimbursement of the cost of commuting);
- double holiday pay (not included in the wage bill which is subject to contributions);
- overtime of subsidised contract staff.

Employers' actual social contributions (D.121)

These include:

- employers' contributions paid to the public sector, obtained as the difference between total contributions and personal contributions. The latter are calculated by applying to the gross wages supplied above a personal contribution rate which is specific for the various types of remunerations and employees;
- employers' contributions for pensions, for established staff only.

Gross wages and salaries are combined with imputed social contributions (e.g. wages paid during sickness). It is not possible to isolate them. Employers' contributions for industrial accidents have to be added to actual contributions.

As for enterprises covered by the NSSO, the industrial accidents scheme is financed from contributions to insurance enterprises under a specific law. The amount of these contributions is known from the detailed annual accounts of insurance companies published by the National Bank.

The remuneration estimate described above is limited to units in sector S.11. Those in the general government sector (the majority, in this case) are an integral part of the calculation for that sector (S.13) on the basis of public-sector budgets (see below).

Certain hospitals and rest homes run by PSWCs are not identified as separate entities from the latter, so their wage bill is combined with that of the public sector. Data for reclassifying them correctly to non-financial corporations (S.11) are extracted from detailed files supplied by the NSSOPLA.

Local Employment Agencies (LEAs)

LEA workers are regarded as employed by local employment agencies, which the production units directory classifies among temporary enterprises (SUT 78A, Employment-related activities) of the non-financial corporations sector (S.11). However, wages paid to unemployed persons under LEA status are not covered by NSSO data¹²⁹.

The wages of these workers are estimated on the basis of hours of work recorded by the National Employment Office (ONEM) and the wage portion of each voucher (€ 4.1 per hour)¹³⁰.

Wages declared to the Seafarers' Relief and Contingency Fund (SRCF)

Merchant seafarers are covered by a special scheme funded by contributions collected by the SRCF, which provides data on flat-rate wages, actual wages and employers' social contributions.

Profit sharing

Two sources of information make it possible to estimate profit shares granted by certain employers.

- On the one hand, the annual accounts in which a specific code is allocated to them: code 696 (distributable profits; other recipients). It should be noted that these profits are decided in year t but paid in $t+1$. Thus, the amount considered as profit sharing in 2012 comes from the annual accounts for 2011.
- On the other hand, an annual NSSO file listing employees' solidarity contributions that are imposed on cash payments of company profit shares. As this contribution is 13.07 %, it is easy to work out the profit shares from it.

Depending on the availability of the information and its plausibility, we will give preference to using one or the other source to estimate the amount of these employees' shares in the company's profits.

Redistribution of contributions to the benefit of SMEs

¹²⁹ Covering only these agencies' own staff.

¹³⁰ The long-term unemployed receive an overall monthly revenue equal to the amount of their full unemployment benefit, plus a tax-exempt amount of € 4.10 per hour worked.

This "redistribution" aims to alleviate the social security burden on SMEs by granting them a reduction in employers' social security contributions. It is a "one-shot" operation carried out in July of year t+1 on the basis of the contributions for year t. The NSSO supplies us with a specific annual file comprising the amounts in question per declarant. These amounts are then broken down by sector and by branch of activity, according to the information in the file.

Targeted reductions in employers' social security contributions

As mentioned above, **targeted reductions** in employers' social security contributions are now treated as wage and payroll subsidies: employee compensation figures have thus been revised upwards in their "social contributions" component, as have subsidies to enterprises (D.39).

Those considered as target groups benefiting from a reduction in employers' contributions are:

- Persons falling within the scope of an ACTIVA¹³¹ or SINE¹³² employment preparedness plan seeking to promote the recruitment of people who have been out of work for a long time. The reduction depends on age and salary.
- Companies that cut the working week to less than 38h on a voluntary basis, or introduce a four-day week or a combination of these two formulas. The reduction consists of a flat-rate cut in employers' social security contributions.
- Young workers (meeting certain age and wage criteria). All employers from the private and public sectors qualify for the target-group reduction, regardless of the number of workers they employ. However, in order to benefit from the young workers target-group reduction, employers must satisfy their obligation to provide a "first job", i.e. employ enough young people.
- People taking part in a career transition programme which helps employers in the non-market sector to take on people who have been out of work for some time and workers to acquire vocational training and professional experience that will enable them to re-position themselves on the labour market.
- Workers made redundant under a corporate restructuring programme (under certain criteria) so as to help them to find a job again.
- 'Persons subject to Article 60'¹³³. The Public Social Welfare Centres may benefit from an exemption from employers' social security contributions for people employed under Article 60, § 7 of the PSWCs' organic law.

¹³¹ The long-term unemployed. Employers thus benefit from a cut in their social security contributions in the form of a target-group reduction for long-term unemployed job-seekers and a contribution to the worker's net wages through activation of unemployment benefit, which the employer can deduct from the worker's net wages.

¹³² A scheme in the context of socio-economic measures to promote the re-integration of the long-term unemployed into the labour market that provides for an employer's wage subsidy on the one hand, and a target-group reduction in social security contributions on the other.

¹³³ These are 1) people who benefit from an allowance (living wages) pursuant to the Law of 26 May 2002 on the right to social integration (= people with Belgian nationality, and also foreigners entered into the population register); 2) any person of foreign nationality who can lay claim to financial social assistance, entered in the register of foreigners with an unlimited residence permit; 3) any person of foreign nationality who can lay claim to financial social assistance, entered in the register of foreigners but without an unlimited residence permit.

- Subsidised contract staff. Within the limits set by the appropriations available, the government grants (according to the Region) a financial contribution to public interest and non-profit organisations and recognised associations taking on unemployed job-seekers or workers who have been employed under a plan to cut unemployment. These so-called subsidised contract staffs are bound by a permanent or temporary employment contract.
- Workers taken on under an agreement concluded with the Ministers for Scientific Policy and Social Affairs and assigned to scientific research activities.
- Tutors/Mentors. An employer can benefit from a "tutors" target-group reduction for certain workers who monitor internships or who take on responsibilities for training under vocational training courses.
- Seafarers aboard self-propelled dredging vessels equipped for the transport of cargo on the high seas, registered in a Member State of the European Union and at least 50 % of whose operational activities involve sea-going maritime transport qualify for this reduction.
- Artists. The employer can claim a reduction in contributions to employ an artist. This exemption only applies for employers' contributions, and not for the employee's contributions.
- Domestic personnel.

On the basis of information supplied by the NSSO and NSSOPLA (quarterly files) matched against the business register, the amounts of each type of reduction are broken down by sector (including S.11) and industry.

Amount of the reductions by source and type

2012 <i>(in € million)</i>	
NSSO	
Older workers	361
Subsidised contract staff	301
Reintegration of unemployed workers	225
Young workers – first jobs	243
Scientific research and universities	94
Artists	16
Restructuring	12
Career change	8
Collective reduction in working time	8
Other	5
TOTAL NSSO	1.273
NSSOPLA	
Subsidised contract staff	330
Article 60	71
Reintegration of unemployed workers	13
Career change	4
Other	2
TOTAL NSSOPLA	420
TOTAL	1.693

Amount of the reductions by sector

2012 <i>(in € million)</i>	
S11	1.020
S121+122	13
S125	1
S126	10
S127	0
S128+S.129	6
S13	455
S14	52
S15	136
TOTAL	1.693

Drugs

The average wages of these employees as well as the number of laboratories are estimated on the basis of information published in studies or released in the news media.

The number of employees is estimated based on the assumption that half of the laboratories in Belgium work with just two employees. Wages in illegal drugs production are estimated at € 8 million.

Final adjustments of sector S.11 remuneration

2012 <i>(in € million)</i>		
Wages in kind purchased	of which: vehicles supplied for employees' personal use	1.347
	other benefits over and above wages	619
Wages in kind produced		57
Gratuities		422
Undeclared work		1.327
Wages declared to NSSOPLA		4.915
LEA's		28
Wages declared to the SRCF		80
Redistribution to SMEs		71
Profit sharing		113
Drugs		8
Targeted reductions in contributions		1.020
Total		10.007

Total remuneration S.11

2012 <i>(in € million)</i>	
Intermediate D.1	124.100
Final adjustments D.1	10.007
D.1 total S.11	134.107

4.7.3 TOTAL REMUNERATION: FINANCIAL CORPORATIONS (S.12)

4.7.3.1 Sectors S.121 (NACE 64.110), S.122 (NACE 64.190) central bank and deposit-taking institutions

S.121

Compensation of employees for the National Bank of Belgium (NBB) is computed on the basis of accounting data supplied by the NBB Controlling Department.

S.122

Compensation of employees working for deposit-taking corporations is estimated on the basis of:

- Accounting data (Scheme A),
- Bank Structural Business Survey (SBS),
- Administrative data from the National Social Security Office (NSSO).

Wages per enterprise are calculated from accounting data in Scheme A returns after deduction of wages paid abroad declared in the SBS and directors' remuneration. Non-cash benefits that are not recorded in the Scheme A data are also added.

The result obtained for each enterprise is compared with the NSSO data and, if it turns out to be less, an adjustment is added, as the NSSO wage is logically regarded as a minimum.

Profit-sharing and SME redistribution are then added to the sum of wages obtained.

Compensation of employees (D.1) is therefore estimated as a whole and subsequently divided up between its various components on the basis of accounting data from Scheme A.

S.121 & S122	Computation	Amount (2012) in €million
Total of compensation, payroll tax and pension benefits	Scheme A & annual accounts NBB	5.666
- Directors' remuneration	Bank SBS	-29
- Wages paid abroad	Bank SBS	-174
+ Non-cash benefits	Bank SBS	13
+ Correction based on NSSO data	NSSO	19
+ SME redistribution	NSSO	4
+ Reduction in employers' contributions	NSSO	13
= TOTAL EMPLOYEE COMPENSATION		5.512

- 4.7.3.2 Sub-sectors other financial intermediaries (excluding insurance enterprises and pension funds), financial auxiliaries and captive financial institutions and non-institutional money lenders: S.125 (NACE 64.9), S.126 (NACE 66 and NACE 70.100 partim) and S.127 (NACE 64.2)

The calculation of compensation of employees is based on figures supplied by the NSSO.

As for sector S.11, an initial D.1 is calculated on the basis of NSSO data, annual accounts and social balance sheets. Adjustments related to targeted reductions in employers' contributions, redistribution to SMEs, company cars, wages in kind paid as well as profit sharing as calculated for sector S.11 are applied.

Intermediate D.1 and adjustments for sub-sectors S.125-126-127

		2012		
		<i>(in € million)</i>		
		S.125	S.126	S.127
<i>(1a) NSSO D.1 of enterprises for which accounting data are used</i>		179	1.211	137
<i>(2a) Wage bill of this population according to accounting data</i>		212	1.340	160
<i>(1b) NSSO D.1 of enterprises for which NSSO data are used</i>		175	440	58
<i>(2b) NSSO D.1 revalued via accounting data</i>		188	475	61
(4) Intermediate D.1	(4) = (2a) + (2b)	400	1.814	221
(5) Adjustments		13	53	8
<i>Wages in kind paid (excl. company cars)</i>		2	11	1
<i>Redistribution SMEs</i>		1	-3	0
<i>Company cars</i>		9	35	6
<i>Reductions in employers' contributions</i>		1	10	1
<i>Profit sharing</i>		0	0	0
(6) D.1 total	(6) = (4) + (5)	413	1.867	229

- 4.7.3.3 Insurance and pension funds sectors: (S.128, S.129)

The sources for compensation of employees in the insurance sector are data from NSSO, Annex 12 of the annual accounts and the annual insurance Structural Business Survey (SBS).

For insurance companies governed by Belgian law, the data on compensation of employees according to Annex 12 are corrected with the SBS compensation to foreign employees and then compared per insurance company with the wages registered by the NSSO. The D.1 per insurance company must be at least equal to NSSO wages. If not, an adjustment is made to obtain the amount of the NSSO wage.

Concerning the branches of companies governed by foreign law, the data from NSSO and the annual SBS are used. Data from annual accounts are not available since these companies have to report in their home country. Data of the SBS and the NSSO are compared. The NSSO data are considered as the lower bound. If the wage calculated is less than the NSSO wage, an adjustment is made.

For other enterprises registered in insurance sector as optional and supplementary health care insurance and for pension funds, the only information available is the NSSO data.

Profit sharing figures are then added to total wages.

Adding up the amounts for all these categories of companies, the compensation of employee for the insurance sector is obtained (€ 2097 million in 2012).

Insurance and pension funds	Sources	Amount (2012) in €million
<i>Compensation of employees</i>	<i>Annex 12 of annual accounts</i>	<i>1.979</i>
<i>- Wages paid abroad</i>	<i>Structural Business Survey</i>	<i>-60</i>
<i>+ Correction based on NSSO data</i>	<i>NSSO</i>	<i>12</i>
(a) Sub-total insurance Belgian law		1.932
<i>Branches:</i>		
<i>Compensation of employees</i>	<i>Structural Business Survey</i>	<i>72</i>
<i>+ Correction based on NSSO data</i>	<i>NSSO</i>	<i>38</i>
(b) Sub-total branches		110
© Other enterprises	NSSO	50
(d) Reduction of employers' contributions	NSSO	6
Total compensation of employees (S128+S129) (a)+(b)+(c)+(d)		<u>2.097</u>

To sum up, the D.1 figures for S.12 are as follows:

2012	
<i>(in € million)</i>	
S.121+S.122	5.512
S.125	413
S.126	1.867
S.127	229
S.128+S.129	2.097
S.12	10.118

4.7.4 TOTAL REMUNERATION: GENERAL GOVERNMENT (S.13)

As for all other aggregates in this sector, the compensation of employees of the general government sector is extracted from public-sector accounts and realized budgets. For details we refer to the production approach (3.21 and 3.22).

For a limited number of S13-units depositing annual accounts, wages are extracted from this source.

The total remuneration in S13 by activity and subsector is given in the next table.

D1 by industry and subsector in S13 (2012 in mln €)					
Section/SUT	S1311	S1312	S1313	S1314	S13
E	39	109	298		446
38A	39	109	298		446
H		1.783	767		2.550
49B		1.184			1.184
52A		599	767		1.366
J	7	368			374
58A	7				7
60A		368			368
O	9.165	3.579	10.140	1.565	24.449
84A	6.494	3.579	10.140		20.213
84B	2.671				2.671
84C				1.565	1.565
P		16.104	4.677		20.780
85A		16.104	4.677		20.780
TOTAL	9.210	21.943	15.882	1.565	48.599

4.7.5 TOTAL REMUNERATION: HOUSEHOLDS (S.14)

The wage bill for employees in this sector is estimated primarily on the basis of NSSO data.

It is supplemented by industrial accident insurance premiums (on the basis of percentages per branch of activity derived from the EEC quadrennial survey of labour costs¹³⁴), gratuities, wages in kind

¹³⁴ The gathering of four-yearly labour cost data is based on Council Regulation (EC) No. 530/1999 of 9 March 1999 on structural statistics concerning wages and labour costs. The result is detailed structural data on labour cost, hours worked and hours paid. All EU Member States, as well as Norway and Iceland, took part. The information provided is broken down by size category, economic activity (NACE) and by region for the largest countries. The data are gathered by national statistics agencies on the basis of stratified random samples of enterprises or local units which in most countries means units with at least ten employees. The stratification is based on economic activity, size category and region (where applicable).

produced and undeclared wages, redistribution of contributions for SMEs and targeted reductions in contributions as calculated for sector S.11.

As in sector S.11, gratuities are a percentage of turnover, but in sector S.14 a distinction has to be made between units in this sector which do and do not have any staff. For units with staff, the wage bill is increased in the same proportions as in sector S.11. The balance of the gratuities is added to the gross mixed income (gratuities to employers without staff).

Wages in kind produced (see point 4.7.2.2.4), i.e. goods and services produced by enterprises and made available to their employees at below market prices, are estimated for hotels, restaurants etc. The wage benefit is estimated by the same formula as in S.11: unit benefit in euros in 2002 x number of persons concerned x frequency x price change relative to base year 2002

Undeclared wages paid by self-employed persons are estimated at a flat rate of 5 % of remuneration known to NSSO.

The wages of all workers in the “domestic services” branch of activity - which only occur in sector S14 (SUT 97A) - are estimated on the basis of information from the Household Budget Survey¹³⁵ and extrapolated to the whole population to obtain a total amount for domestic services (incl. LEA’s and service vouchers). From this total the amount for service vouchers and LEAs - which appear elsewhere in the accounts and are known via administrative sources - are subtracted and the outlays/wages for domestic services (D1_S14_97A) are derived as a residual (€ 466 million). Of this amount only € 63 million appears in the official NSSO returns and the rest (€ 403 million) has to be entered as an adjustment/correction.

Remuneration, S.14

S.14	2012 (in € million)
NSSO returns	1.686
Industrial accident premiums	14
Gratuities	42
Undeclared wages paid by self-employed	80
Wages in kind produced	5
Adjustment for domestic services (97A)	403

¹³⁵ The source is the HBS, which gives the average annual consumption expenditure per household at a very detailed product-by-product level. In order to stick as closely as possible to the definition of domestic services paid by households, it was decided to use the following headings: 4621 "domestic services": this covers household maintenance services (462101), child care at home (462102) and services paid by LEA cheques and by service vouchers (462103).

Redistribution to SMEs	-22
Targeted reductions in employers' contributions	52
Total S.14	2.260

4.7.6 TOTAL REMUNERATION: NON-PROFIT INSTITUTIONS SERVING HOUSEHOLDS - NPISH (S.15)

As for S11, NSSO data and accounting data are used as a basis for estimates for the staff of units registered with the NSSO.

Figures for remuneration of ministers and priests (in Belgium, religious service providers attached to officially recognised religions are paid by the State) are taken from the S.13 account (based on public sector accounts and budgets).

An adjustment is made to integrate the targeted reductions in employers' contributions, wages in kind paid and redistributions to SMEs into the wage bill, as for sector S.11.

Remuneration, S.15

S.15	2012 (in € million)	
<i>(1a) NSSO D.1 of NPI's for which accounting data are used</i>		1.183
<i>(2a) Wage bill of this population according to accounting data</i>		1.282
<i>(1b) NSSO D.1 of NPI's for which NSSO data are used</i>		1.512
<i>(2b) NSSO D.1 revalued via accounting information</i>		1.603
(4) Intermediate D.1	(4) = (2a) + (2b)	2.885
Adjustments		280
<i>Ministers of religion</i>		142
<i>Wages in kind</i>		2
<i>Redistribution to SMEs</i>		0
<i>Reductions in employers' contributions</i>		136
Total S.15		3.165

4.7.7 BREAKDOWN OF COMPENSATION OF EMPLOYEES INTO WAGES AND SOCIAL CONTRIBUTIONS

Total remuneration for each sector has to be divided into gross wages and salaries (D.11), actual social contributions (D.121) and imputed social contributions (D.122).

Total actual social contributions (D.121) are determined within the framework of the accounts of general government (S.13), insurance enterprises and pension funds (S.125) and, very marginally, by those of autonomous pension funds (S.11). Imputed social contributions (D.122) are calculated from the results of the EEC quadrennial survey on the level and structure of labour costs, information collected at NSSO on early retirement payments and information on pensions paid directly by employers (code 624 'Retirement and survivors' pensions' in the social balance sheets).

Once social contributions (D.121 and D.122) have been determined, gross wages and salaries (D.11) are obtained by the difference between the latter and total remuneration (D.1).

4.7.7.1 Actual social contributions (D.121)

Employers' actual social contributions are divided into social contributions to general government (S.13) (mainly intended for social security administrations) and those to other sectors, namely insurance companies and pension funds (S.128 and S.129) and autonomous pension funds (S.11). They correspond to the respective D.6111 variables (employers' actual social contributions) of the income secondary distribution accounts for sectors S.11, S.13, S.128 and S.129. As the totals for these contributions are fixed, they have to be further broken down between the different sectors and branches of activity.

4.7.7.1.1. Actual social contributions to general government

For sectors S.121, S.122, S.128, S.129 and S.13, actual social contributions to general government and their breakdown by branch of activity are determined within the compilation of the accounts for these sectors. In sector S.11, the amounts paid to agencies other than the NSSO (SRCF and NSSOPLA) are also known.

The contributions still to be distributed among S.11, S.125, S.126, S.127, S.14 and S.15 and their branches of activity are therefore equal to the code D.6111 total for S.13, less the D.121 amount for S.13 paid by sectors S.121, S.122, S.128, S.129 and S.13 and the D.121 amount paid to the SRCF and the NSSOPLA (portion paid by S.11).

This amount is broken down among S.11, S.125, S.126, S.127, S.14 and S.15 and their branches of activity in line with the breakdown of employers' contributions set out in the NSSO file.

Employers' actual social contributions to S.13

2012 (in €million)	
S.11	24.952
S.12	1.888
S.121 + S.122	1.063
S.125	76
S.126	341

S.127	40
S.128 +S.129	368
S.13	6.115
S.14	346
S.15	658
Total	33.959

4.7.7.1.2. Actual contributions to other sectors (S128 and S129)

For the contributions to the private sector a distinction must be made between:

- contributions for industrial accident insurance;
- contributions for hospitalisation insurance;
- employers' share of contributions to group insurance and pension funds;
- contributions to subsistence security funds.

4.7.7.1.2.1. Industrial accident insurance contributions

Sectors S.11, S.12, S.14, S.15

This is compulsory insurance, but the risk is mainly covered by private insurance companies. Total payments appear in the detailed annual accounts published by the National Bank. The payments are broken down on the basis of the EEC survey on the level and structure of labour costs. The breakdown includes a variable representing these contributions as well as total remuneration by branch of activity, for the branches covered by the survey. The percentages obtained by comparing the two are extrapolated to all branches of activity. This makes it possible to construct a key for distributing the total amount among sectors and branches of activity.

Sector S.13

Industrial accident insurance contributions paid to insurance companies are obtained from public sector accounts and budgets.

4.7.7.1.2.2. Non-statutory insurance premiums

The main forms of non-statutory insurance are hospitalisation insurance and supplementary pension insurance (group insurance and pension funds). The totals for hospitalisation insurance and group insurance are available from the annual statistics broken down by type of insurance published by the National Bank. Data for pension funds are available in the aggregate annual accounts of pension funds published by the Financial Services and Markets Authority (FSMA).

For sectors S.121 and S.122, data on employers' premiums paid out for non-statutory insurance are available respectively in the accounts and Scheme A.

In the case of insurance companies falling under the supervision of the National Bank, the amounts of employers' premiums for non-statutory insurance are mentioned in Annex 12 to the annual accounts.

For sector S.13, the amount of the contributions is obtained from public-sector accounts and budgets.

In sector S.15, the NSSO file variable "payments for non-statutory pension insurance" is used.

The amounts to be distributed among S.11 and S.14 for these two types of insurance are then obtained as a balancing item. The employers' share of contributions to group insurance and pension funds is broken down between the two sectors and the branches of activity, as is the social security contribution of 8.86 % for these insurance funds (variable available in the NSSO file). Hospitalisation insurance is broken down on the basis of a variable representing these payments in the EEC survey, as for industrial accident insurance.

Contributions to subsistence security funds

Subsistence security funds (SSF) are legal persons set up in a given sector upon the initiative of the social partners by means of a collective labour agreement that has been made mandatory, with a view to fulfilling missions of social interest, with the help of contributions paid by employers. They are run jointly and autonomously by representatives of employers and workers from the sector concerned. The purpose of these funds is to pay out social benefits, notably in the field of general worker health and safety.

As part of the ESA2010 revision, SSFs have been moved from sector S.13 to sector S.128 following an opinion from the NAI.

The contributions can be collected either directly or through the NSSO, which then carries out a contribution collection task on behalf of the funds.

The proportion of the contributions to SSFs paid via the NSSO is available from the NSSO itself, while the share of contributions paid directly by employers into SSFs is estimated on the basis of an evolution coefficient derived from NSSO data.

Employers' actual social contributions to the private sector

2012 (in €million)	
	Total
S.11	6.888
S.12	846
S.121 + S.122	423
S.125	42
S.126	196
S.127	35
S.128+S.129	150
S.13	268
S.14	15
S.15	80
Total	8.097
of which:	
Industrial accidents	1.135
Hospitalisation	789
Group insurance	4.816
Subsistence security funds	1.357

The total for actual social contributions is broken down as follows:

Employers' actual social contributions (D.121)

2012 (in €million)	
S.11	31.840
S.12	2.734
S.121 + S.122	1.486
S.125	118
S.126	537
S.127	75
S.128 + S.129	518
S.13	6.383
S.14	361
S.15	738
Total	42.056

4.7.7.2 Employers' imputed social contributions (D.122)

For sectors S.121, S.122, S.128, S.129 and S.13, imputed social contributions are taken from the accounts of these sectors using annual accounts and reports for S.12 and public sector accounts and budgets for S.13.

For the majority of the other sectors, information on early retirement payments is available from the NSSO. Data on pensions paid directly by employers come from companies' social balance sheets (code 624). This information is supplemented from the quadrennial EEC survey on the structure and level of labour costs, making it possible to calculate a ratio between imputed social contributions (D.122) and remuneration of employees (D.1) in the branches of activity covered by the survey. The resulting percentages are extrapolated to all branches of activity combined. These coefficients are then applied to the total calculated remuneration in these sectors, after deducting early retirement payments.

A few "large enterprises"¹³⁶ are subjected to particular treatment in sector S.11. They often self-insure for industrial accidents, pensions and sometimes other social benefits. The amounts of the corresponding payments appear in their annual reports and accounts.

The imputed social contributions of ministers of religion in sector S.15 are extracted from the S13 account.

For general government sector (S13), this concerns essentially the system of pensions (old age, survivors and disability) and the family/maternity allowances paid (without employers' actual social contributions) to a major part of civil servants and also the armed forces¹³⁷. For the time being, in the core NA, the employers' imputed social contributions are not recorded on an actuarial basis but are calculated as follow: social benefits paid to employees, ex-employees and survivors minus employees' actual social contributions (if any).

Data for 2012 (€million)	
Federal government (S1311)	
Pensions	2114
Family and children	205
<i>Subtotal</i>	2319
Communities and regions (S1312)	
Pensions	4892
Family and children	313
<i>Subtotal</i>	5205
Local authorities (S1313)	
Pensions	1535
Family and children	36
Other contributions	49
<i>Subtotal</i>	1620
Social security funds (S1314)	
Family and children	7
<i>Subtotal</i>	7
Total	9151

¹³⁶ The SNCB (national railways), Belgacom and B-Post

¹³⁷ For some civil servants, there exist true systems of social security and actual social contributions are recorded.

Employers' imputed social contributions (D.122)

	2012 (in €million)
S.11	3.304
S.12	241
S.121 + S.122	71
S.125	12
S.126	63
S.127	7
S.128 + S.129	84
S.13	9.151
S.14	32
S.15	110
Total	12.838

Compensation of employees and its components by sector

2012 (in €million)	D.1	D.11 = D.1 - D.12	D.12 = D.121 + D.122	D.121	D.122
S.11	134.107	98.963	35.144	31.840	3.304
S.12	10.118	7.143	2.975	2.734	241
S.121 + S.122	5.512	3.955	1.557	1.486	71
S.125	413	283	130	118	12
S.126	1.867	1.267	600	537	63
S.127	228	146	82	75	7
S.128+S.129	2.097	1.495	602	518	84
S.13	48.599	33.065	15.534	6.383	9.151
S.14	2.260	1.867	393	361	32
S.15	3.165	2.317	848	738	110
Total	198.249	143.355	54.894	42.056	12.838

4.7.8 EMPLOYERS' ACTUAL SOCIAL CONTRIBUTIONS RECEIVED BY GENERAL GOVERNMENT

4.7.8.1 Description of basic data

In the economic regrouping, social contributions appear under code 37 - Direct taxes and contributions paid to social security administrations. This group mainly includes regular taxes on income or capital,

the calculation of which generally takes the taxpayer's situation into account (family expenses, residence, nature of activity, etc.).

The tax on movable assets and the property tax are therefore direct taxes. If certain criteria are met, they are part of income tax. The single tax on capital, inheritance duties and other similar extraordinary taxes are classified as capital transfers.

In principle, direct taxes are divided as follows:

- 37.1 Direct taxes on enterprises, credit institutions and insurance enterprises
Corporation tax falls within this group.
- 37.2 Direct taxes on households and private NPISHs
This group includes taxes on private bodies serving households and taxes on households, including retailers, craftsmen, members of the professions etc.
- 37.3 Social security contributions payable by government as employer
- 37.4 Social security contributions from other employers
- 37.5 Social security contributions from employees
- 37.6 Withholdings for the Survivors' Pension Fund
- 37.7 Other compulsory contributions

4.7.8.2 Calculation of employers' actual social contributions received by general government (S13)

The majority of social security schemes are run by an institutional unit classified to the social security administrations sector (S1314), although there are exceptions.

Data for 2012 (millions of euros)	
Federal government (S1311)	
Contributions to semi-state bodies pool	346
Public enterprises contributions	217
Police Pensions Fund	170
Contribution from communities and regions	16
<i>Subtotal</i>	749
Communities and regions (S1312)	
VRT pension fund	8
<i>Subtotal</i>	8
Local authorities (S1313)	
East Flanders Province pension fund	5
<i>Subtotal</i>	5
Social security funds (S1314)	
Employers' contributions to main schemes	29012
Maribel scheme	911
Business closures fund	372
Municipal pension schemes	1251
Contributions from hospital contractors	111
Reductions of employer's social contributions for specific groups	1714
Other contributions	47
Cancellation of provisions for social contributions and replacement by an estimation of the amount assessed but unlikely to be collected	-222
<i>Subtotal</i>	33196
Total	33959

4.7.9 CONCISE OVERVIEW OF CALCULATION METHODOLOGY FOR PAID EMPLOYMENT

4.7.9.1 Sources

The main information sources for the estimation method are:

- National Social Security Office (NSSO) statistics by enterprise (employees);
- National Social Security Office for Provincial and Local Authorities¹³⁸ (NSSOPLA) statistics by entity (employees of provincial and local authorities);
- additional information on seamen, domestic staff, workers employed under a contract from a Local Employment Agency (LEA), embassy staff, working students (separate data from NSSO and from NSSOPLA), double counting between administrative sources, and border workers.

4.7.9.2 Compilation

4.7.9.2.1. Employment in terms of number of persons

Basically, NSSO and NSSOPLA statistics give information about paid employment at the end of each quarter for each enterprise. As, in the national accounts, the employment statistics are considered in relation to flow variables such as value added and compensation of employees, the end-of-quarter situation cannot be regarded as representative of the quarter. ESA 2010 recommends using a quarterly average. This is obtained by calculating the arithmetical mean of the situations at the beginning and the end of the quarter for each individual enterprise which becomes the basis for the estimation of paid employment in the Belgian national accounts.

The current form of NSSO and NSSOPLA statistics by enterprise makes it possible to adopt a paid employment approach entirely comparable with the method used for estimating the other aggregates of the national accounts.

Thus the paid employment figures are obtained by aggregating individual data of enterprises on number of employees, taken mainly from the NSSO and NSSOPLA databases, according to the characteristics (branch of activity and institutional sector) set out in the directory of production units, so as to ensure consistency of results.

An adjustment is made to avoid counting twice employees who are registered with both the NSSO and the NSSOPLA. This adjustment is based on information from the "Crossroads Bank for Social Security" regarding the number of persons registered with the two social security agencies: for each branch of activity, the proportion of workers registered with both agencies is extrapolated to the actual population of the NSSO and NSSOPLA records and deducted from the total.

¹³⁸ Since 1st January 2015, the NSSOPLA became the Special Social Security Schemes Office (SSSSO).

An additional adjustment is introduced in order to avoid double counting between employees and self-employed: information from the Crossroads Bank for Social Security is used to eliminate those whose employed activity is secondary to a self-employed main activity.

The information obtained from the NSSO and the NSSOPLA and adjusted in order to avoid double counting still does not entirely correspond to national accounts concepts.

The number of employees derived so far needs three additions:

- workers not liable for contributions/allocated under other social security authorities (seamen, domestic staff, LEA¹³⁹, contract workers, etc.), for whom an estimate is made on the basis of supplementary statistical information (other administrative sources, surveys, etc.);
- working students, who are recorded in a distinct NSSO variable and a separate NSSOPLA file;
- undeclared employment, estimated in a manner consistent with the adjustments made in the calculation of wages in the national accounts.

The total of these various categories represents the domestic paid employment by quarter. The annual total is then derived as the average of the quarterly estimates.

Paid employment (annual average)

	2012 <i>(thousands of persons)</i>
(1) Number of persons in paid employment based on administrative data	3.750
(2) Adjustments to ESA concepts	
<i>Adjustments for double counting</i>	-36
<i>Workers not liable for contributions/allocated under other social security authorities</i>	47
<i>Working students</i>	37
<i>Undeclared employment</i>	11
(3) Paid domestic employment in terms of number of persons in national accounts	3.809

National paid employment is obtained by adding the balance of border workers.

¹³⁹ LEA: local employment agency

4.7.9.2.2. Employment in terms of number of hours worked

The situation when it comes to calculating the number of hours worked by employees is different from the calculation of employment: only the NSSO files are currently exploited in order to estimate the number of hours worked. Exhaustive estimation of total hours worked therefore involves the definition of conversion ratios to allow the transition from the amount of employment in terms of number of persons to the volume of labour expressed in number of hours. More precisely, estimating the number of hours worked is based on calculating, on the basis of NSSO individual statistics by enterprise, multiplier coefficients (number of hours worked per person) applicable at the most detailed level (140 branches of activity spread over 16 institutional sectors or subsectors) to the number of paid employees to arrive at the number of hours worked. In this process, a distinction is made between full-time and part-time work and between blue collar and white collar workers, in the light of available information.

The conversion ratios are obtained by estimating the number of hours declared to the NSSO and dividing that figure by the number of persons recorded in the same files. These ratios are defined quarter by quarter.

An adjustment is made at the most detailed level in order to take undeclared labour into account consistently with the way this is done for the other aggregates of the national accounts (wages and employment).

Moreover, the number of hours worked is directly affected by the number of working days, the holiday traditions, etc., resulting in great sensitivity to seasonal variation and calendar effects. This implies adjustments for calendar effects to the number of hours worked in order to derive the published series.

The annual results are obtained by aggregating the quarterly estimates which are the result of the multiplication of the number of employees estimated according the method described in the previous point and the average number of hours worked per person.

Number of hours worked by employees

	2012
(1) Average time worked per employee based on administrative data (hours)	1.585
(2) Adjustments to ESA concepts (hours)	
Annual holidays, public holidays and sickness (estimated)	-167
Undeclared labour	12
Adjustment for seasonal variations and calendar effects	1
(3) Average time worked per employee based on national accounts (hours)	1.431
(4) Total work volume of employees (millions of hours)	5.449
= (number of employees)*(hours per employee)	

4.8 OTHER TAXES ON PRODUCTION (D29)

The calculation of taxes on products (D21) is explained elsewhere (cf. 3.28). Other taxes on production (D29) are calculated as a residual (D2 – D21).

The tax on income from immovable assets is regarded as a tax on production and imports as in section 4.23.a) and not as a current tax on income, wealth, etc. It is a tax on land, buildings and equipment. The portion relating to land and unoccupied buildings not involved in any production process cannot be eliminated but is quite small.

For the attribution of D29 to SUT branches of activity: cf. 4.1.

Data for 2012 (millions of euros)	Federal Government (\$1311)	Communities and Regions (\$1312)	Local authorities (\$1313)	Social security (\$1314)	EU Institutions (\$212)	Total (\$13+S212)
Other taxes on production (D.29)	2667	1144	4941	214	0	8967
Taxes on land, buildings or other structures (D.29 A)	0	220	4445	0	0	4665
Advance tax payment on property (PP)	0	127	2964	0	0	3090
Advance tax payment on property (Corp)	0	17	1482	0	0	1499
Opening tax	0	0	0	0	0	0
Licence right	0	0	0	0	0	0
Regional tax (BCR) - From 2002 onwards, only regional tax payable by the building owners	0	76	0	0	0	76
Taxes on use of fixed assets (D.29 B)	1	666	51	0	0	717
Traffic taxes paid by corporations	0	505	51	0	0	555
Tax on automatical recreation appliances	0	47	0	0	0	47
Euro tax disc	0	114	0	0	0	114
Taxes equal to excise rights paid by corporations	0	0	0	0	0	0
Total wage bill and payroll taxes (D.29 C)	0	0	0	0	0	0
Taxes on the co-ordinating centre	0	0	0	0	0	0
Taxes on international transactions (D.29 D)	0	0	0	0	0	0
Taxes on business and professional licences (D.29 E)	1239	0	0	0	0	1239
Contribution to the Protection Fund for Deposits and Financial Instruments	0	0	0	0	0	0
Contribution to the Special Protection Fund for deposits, life insurance contracts and the capital of approved cooperative societies	1000	0	0	0	0	1000
Contribution for Financial Stability to the Resolution Funds	238	0	0	0	0	238
Taxes on pollution (D.29 F)	0	176	0	0	0	176
Tax on waste products (FR and WR)	0	53	0	0	0	53
Tax on manure (FR)	0	5	0	0	0	5
Taxes on water (FR, WR and BCR)	0	119	0	0	0	119
Emission permits	0	0	0	0	0	0
Undercompensation of VAT (D.29 G)	0	0	0	0	0	0
Undercompensation of VAT	0	0	0	0	0	0
Other taxes on production n.e.c. (D.29 H)	1428	82	446	214	0	2170
Annuities for patented entities	7	0	0	0	0	7
Monopoly interest (Belgacom)	0	0	0	0	0	0
Monopoly interest (National lottery)	115	0	0	0	0	115
Non-recurrent company contribution	0	0	0	202	0	202
Contribution on public mandate	0	0	0	8	0	8
Reclamation clinical biology and pharmaceutical products	0	0	0	5	0	5
Radio and television licences (WR, FR and GR) - partim	0	0	0	0	0	0
Contribution payable by the nuclear operators	799	0	0	0	0	799
One-off contribution payable by the gas sector	0	0	0	0	0	0
Special contribution from the electricity corporations	0	0	0	0	0	0
One-off contribution payable by the oil sector	0	0	0	0	0	0
Annual tax on unit trusts, credit companies and insurance companies	247	0	0	0	0	247
Annual tax on credit institutions	81	0	0	0	0	81
Other taxes on production	179	82	446	0	0	707

4.9 OTHER SUBSIDIES ON PRODUCTION (D39)

The calculation of subsidies on products (D31) is explained elsewhere (cf. 3.29): other subsidies on production (D39) are calculated as a residual (D3-D31)

The most substantial items are wage subsidies and interest subsidies.

For the attribution of D39 to SUT branches of activity, cf. 4.1.

		Federal Governm ent (S1311)	Commun ities and Regions (S1312)	Local authoriti es (S1313)	Socila security (S1314)	EU Institutio ns (S212)	Total (S13+S21 2)
	Data for 2012 (millions of euros)						
D.39	Other subsidies on production	2988	2881	384	5041	487	11781
	reductions of employer's social contributions for specific groups of employees ONSS	0	0	0	1287	0	1287
	reductions of employer's social contributions for specific groups of employees ONSSAPL/DIBISS	0	0	0	427	0	427
	Contractual wage subsidies to hospitals	0	0	0	111	0	111
	Capitalisation of unemployment benefit subsidies	0	0	0	463	0	463
	Service cheques (Law of 2002)	0	0	0	1595	0	1595
	social agreement (INAMI)	0	0	0	90	0	90
	Income tax deducted at source by employers	2878	0	0	0	0	2878
	Interest subsidies n.e.c.	26	112	0	0	0	139
	Subsidies on disabled persons' wages	0	0	0	0	0	0
	European subsidies (CAP)	0	0	0	0	487	487
	VAT over-compensation	0	0	0	0	0	0
	MARIBEL scheme - non-market sector	0	0	0	911	0	911
	Other subsidies on production n.e.c.	84	2769	384	157	0	3393

4.10 GROSS OPERATING SURPLUS

As already indicated, the gross operating surplus (B2g) and mixed income (B3g) are calculated as a balancing item (cf. 4.1.1).

The total of gross operating surplus and mixed income by sector has already been shown in 4.0

	S11	S12	S13	S14	S15	S1
B2g+B3g	85.256	9.605	8.936	46.954	460	151.211

Sectors S11, S12, S13 and S15 only generate operating surplus.

In S13 and S15 the gross operating surplus corresponds to the consumption of fixed capital (see 4.12) because production is valued as the sum of costs in the case of non-market producers:

$$P1 = P2 + D1 + P51c + D29 - D39$$

$$P1 - P2 - D1 - (D29-D39) = B2g = P51c$$

Sector S14 generates operating surplus (the balance of the generation of income account in the industry dwelling services) as well as mixed income (the balance of the generation of income account in all the other industries in S14).

The amount for operating surplus in S14 corresponds to the sum of corrections (x1) and (x2) in S14_L minus the amount of fisim allocated to the intermediate consumption in S14_L (€ 21.892 million).

(in € million)

S14_L	C_70	C_71	C_72	C_73	C_74-740	C_A	C_600/8+61	C_609	C_641/8	C_B	C_62	C_640	C_740	C_C	C_D
(x1)	8.100	0	21.424	0	0	29.524	2.936	0	0	2.936	0	2.791	0	26.588	23.797
(x2)	1.345	0	0	0	0	1.345	178	0	0	178	0	127	0	1.166	1.039

Operating surplus (B2g) in S14	
	C_D
(x1)	23.797
(x2)	1.039
P2_fisim (dwelling services) (-)	-2.944
B2g_S14	21.892

4.11 MIXED INCOME

Mixed income (income earned in the production process by unincorporated businesses) corresponds to the balance of the generation of income account in S14 not taking into account the income earned in the production of dwelling services (which is considered to be an operating surplus because this activity does not require any labour input). In 2012 the gross mixed income was estimated at € 25.062 million.

Gross mixed income in S14 (€ million)

		S11	S12	S13	S14	S15	S1
Gross operating surplus + gross mixed income	B2g+B3g	85.256	9.605	8.936	46.954	460	151.211
Gross operating surplus	B2g	85.256	9.605	8.936	21.892	460	126.149
Gross mixed income	B3g	0	0	0	25.062	0	25.062

A brief description of the estimation of the number of self-employed is given in 4.11.1

4.11.1 SUMMARY OF THE METHODOLOGY FOR CALCULATING SELF-EMPLOYED ACTIVITY

4.11.1.1 Self-employed activity in terms of persons

Self-employed activity is estimated on the basis of the data compiled by the National Institute for the Social Security of the Self-Employed (RSVZ/INASTI). There are three specific groups: self-employed persons, unpaid helpers and paid helpers, each of whom may come under one of the following categories: main activity, secondary activity, post-retirement-age activity.

Various adjustments are made to these data in order to bring them into line with the ESA 2010 definitions.

These adjustments are intended to avoid double counting with employees (principally within the group pursuing a secondary activity on a self-employed basis) and to exclude self-employed persons who are

not actually working (particularly self-employed persons active after retirement age). In practice, those included are determined on the basis of the data from the Central Social Security Databank.

Child minders registered with the NSSO [National Social Security Office] and the RSZPPO [National Social Security Office for Provincial and Local Authorities] are added to the adjusted RSVZ/INASTI totals. In the national accounts they are regarded as self-employed and therefore not as employees.

The table below shows the various adjustments:

Number of self-employed persons

	2012 <i>(thousand persons)</i>
Number of self-employed persons: source RSVZ/INASTI on 31/12/2012	979
ESA adjustments	
<i>Adjustment for double counting</i>	-194
<i>Exclusion of non-active self-employed persons</i>	-44
<i>Other adjustments + child minders</i>	+6
<i>Switch from end-of-quarter data to average annual data</i>	-4
Number of self-employed persons according to national accounts (annual average)	743

Since it is not possible to use the individual RSVZ/INASTI data, and the RSVZ/INASTI classification of occupations is not directly compatible with the nomenclature of branches of activity (NACE-BEL) used in the national accounts, distribution keys are applied to allocate the number of self-employed persons among the branches of activity. Those formulas are devised on the basis of value added tax (VAT) data linked with the directory or – in the case of persons not liable for VAT – specific sources concerning particular sub-groups.

4.11.1.2 Self-employed activity in terms of hours worked

In the absence of administrative data, an indirect method of calculation is applied to estimate the hours worked of self-employed persons. It is based on the labour force survey (LFS) conducted by the General Directorate of Statistics plus several other data sets concerning the labour market.

The first phase entails drawing up transition coefficients so that hours worked per person in the case of employees can be converted to hours worked for self-employed persons:

- The labour force survey data are used to arrive at the hours worked per person for employees and self-employed persons per branch of activity at A64 level.
- To ensure that both data sets have an acceptable profile, outliers are eliminated with the aid of specific software.
- The resulting figures for hours worked per person in the case of employees and self-employed persons are used to calculate coefficients per branch of activity (A64).

- Those coefficients in turn undergo an outlier test and the adjusted data sets are converted to three-year moving averages.

The next phase uses figures from the National Accounts on number of employees and hours worked by employees in order to obtain the average hours worked per employee. These figures are then multiplied by the transition coefficients to arrive at the estimated hours worked per self-employed person.

As in the case of the number of employees, it is necessary to add to these figures the hours worked by child minders, which are calculated separately. For that group, data are available in the source files for employees, but they are treated as self-employed workers.

The next table shows how the work volume for self-employed persons is derived at national level.

Number of hours worked by self-employed persons

	2012
Number of self-employed workers excluding child minders (x 1000) (a)	734
Average time worked per employee based on national accounts (b)	1.431
Transition coefficient (ratio hours worked self-employed/employees) ©	1,553
Average time worked per self-employed person (d) = (b)*(c)	2.223
Hours worked by self-employed persons excluding child minders (millions of hours) (e) = (a)*(d)/1000	1.640
Hours worked by child minders (millions of hours) (f)	11
Total work volume of self-employed persons (millions of hours) (g) = (e) + (f)	1.651

4.12 CONSUMPTION OF FIXED CAPITAL

Consumption of fixed capital is estimated on the basis of capital stock in accordance to ESA 2010 (see § 3.141).

Capital stock needs therefore to be estimated when preparing national accounts: on the one hand, consumption of fixed capital is needed in order to estimate the production (and value added) of non-market sectors, (as the sum of costs), and, on the other hand, it allows to derive “net” aggregates from “gross” ones in the sequences of accounts of the various institutional sectors.

In Belgium, there is no exhaustive data measuring stocks directly; following international recommendations, the capital stock is therefore computed using the Permanent Inventory Method (PIM).

4.12.1 DEFINITION OF CAPITAL STOCK

Capital stock is the total value of fixed assets at a given point in time and in a given area.

4.12.1.1 Fixed assets

Non-financial assets (AN.1) are defined as outputs from production processes. The classification of produced non-financial assets (AN.1) is designed to distinguish among assets on the basis of their role in production. It consists of fixed assets which are used repeatedly or continuously in production for more than one year (AN.11), inventories which are used up in production as intermediate consumption, sold or otherwise disposed of (AN.12), and valuables (AN.13)¹⁴⁰.

Fixed capital formation occurs when these fixed assets (AN.11) are bought by resident producers or produced for own final use. It is fixed capital formation that is used when estimating capital stock.

Fixed capital formation includes acquisitions less disposals of the following assets¹⁴¹:

- AN.1110 Dwellings
 - AN.112 Other buildings and structures, broken down into the following two assets:
- AN.1121 Non-residential buildings
- AN.1122 Other buildings and structures
- AN.1123 Land improvements:
 - This novelty in ESA 2010 is not yet estimated separately in the Belgian accounts¹⁴²
- AN.1131 Transport equipment
- AN.1132 ICT equipment, which must be broken down into the following two assets:
 - AN.11321 Computers and hardware
 - This new category in ESA2010 was formerly included in the sub-heading "AN.111321 Office machinery and hardware" in ESA 1995; this implies that office equipment other than computer and hardware will now be recorded under asset AN.1139 "Other machinery and equipment".
 - AN.11322 Telecommunication equipment
- AN.1139 Other machinery and equipment
- AN.1140 Weapons systems

¹⁴⁰ For the time being, there is no estimation for this last item due to lack of data.

¹⁴¹ The classification mentioned here is the official one according to ESA 2010. As will be seen later, the National Accounts Institute (NAI) has adopted a harmonized 5 digits classification for all detailed items.

¹⁴² An accurate separate estimate of this item is not possible as long as there is no data for non-produced asset AN.211 « Land ». According to the ESA 2010 transmission program, the first transmission of this asset is due in 2017; the NAI will thus work in the coming years to meet this new deadline. For the time being, it is considered that major improvements to land are included in the fixed asset that lies above it (AN.1110 or AN.112). Such an assumption is in fact in accordance with a practical approach that states that if improvement is impossible to separate from land itself, it has to be registered as a composite asset in category with highest value (source: Eurostat, «Training on general introduction to ESA 2010», Luxembourg, December 2013).

Following ESA 2010, the boundary of military capital assets is extended to include military weapons and supporting systems, even if they have no equivalent civilian purpose. Vehicles and other equipment such as warships, submarines, military aircrafts, tanks, missile carriers and launchers are fixed assets, used continuously for more than one year in the production of defence services¹⁴³.

- AN.1151 Animal resources yielding repeat products
- AN.1152 Tree, crop and plant resources yielding repeat products
- AN.1710 Research and development

This is the main new asset in ESA 2010.

The former (produced) intangible fixed assets (mineral exploration, computer software, entertainment, literary and artistic originals and other intangible fixed assets) come under the new heading of “intellectual property products” (AN.117). ESA 2010 continues the expansion of the asset boundary by including results of research and development (AN.1711) as intellectual property produced assets. It recognises expenditures for both purchased and own-account R&D as gross fixed capital formation and the depreciation of these assets as consumption of fixed capital. This includes government R&D expenditure either protected via patents or made freely available to the public.

The newly recognised output and assets are difficult to measure. In theory, the value of the output of R&D is equal to the value of discounted future benefits a corporation gets from their R&D investment. These future benefits are difficult to estimate. Furthermore, most R&D is produced on own-account. Therefore the sum of cost approach for valuation of output is applied.

The specific treatment of R&D is explained in full in section 5.10.4.1

- AN.1720 Mineral exploration and evaluation
This item is not relevant for Belgium
- AN.1730 Computer software and databases
- AN.1740 Entertainment, literary or artistic originals
- AN.1790 Other intellectual property products.
This item is not relevant for Belgium

4.12.1.2 Gross and net

Gross capital stock is the value of all of the fixed assets at “as new prices” (or “current replacement costs”), i.e. the prices which would have to be paid if the same fixed assets were bought at the current time.

¹⁴³ Single-use items, such as ammunition, missiles, rockets and bombs are supposed to be treated as military inventories. However, in agreement with Eurostat and for practical reasons, it was decided that all military purchases (not treated as gross fixed capital formation) are directly registered as intermediate consumption whether directly used or not.

By contrast, net capital stock is the gross capital stock less the cumulative value of consumption of fixed capital¹⁴⁴ at a given moment. The manner in which the consumption of fixed capital is estimated is explained in more detail in section 4.12.2.4. below.

4.12.1.3 Current and constant prices

Both gross and net capital stock can be valued at current prices or in volume.

Capital stock at current prices values the fixed assets at the prices for the period in question.

The capital stock at constant prices values the fixed assets at the prices of one year in particular; in the Belgian accounts, this is the year 2000. Like the other aggregates of the national accounts, it is however published in chain-linked volumes.¹⁴⁵THE PERPETUAL INVENTORY METHOD (PIM)

The PIM is a method which enables the gross capital stock to be estimated based on historical series of gross fixed capital formation, the average service life of fixed assets and survival functions.

When depreciation functions are also used, it is also possible to estimate consumption of fixed capital and the net capital stock.

In practical terms, the PIM is used to estimate the value of gross fixed capital formation made in the past and which 'survives' in the current period (i.e. which is still used in a process of production).

4.12.2.1 Gross fixed capital formation – historical series

Historical series of gross fixed capital formation are used to estimate the capital stock in accordance with the PIM.

Those series are available by institutional sector (2 positions), crossed by industries (A*38) and by assets (AN*).

For the model used by the National Accounts Institute (NAI), it is necessary to have series which are at least twice¹⁴⁶ as long as the average service life of the fixed assets. These must also conform to the ESA 2010 methodology.

¹⁴⁴ Consumption of fixed capital represents the decline in the value of fixed assets, in the course of a period, as a result of physical deterioration and foreseen obsolescence, including a provision for losses of fixed assets as a result of accidental damage which can be insured against.

¹⁴⁵ This feature has not yet been changed for technical reasons linked to the IT program used to compute the PIM. Since 2006 however, in accordance with European practice, investments in volume are valued at previous year's prices in Belgian national accounts, and published in chain-linked volumes.

¹⁴⁶ This is due in particular to the characteristics of the probability density which is used to establish the survival function.

To this end, backward calculations of gross fixed capital formation have been carried out mainly based on the following sources:

- gross fixed capital formation series of the national accounts estimated directly in accordance with ESA2010 (from 2009 onwards);
- gross fixed capital formation series of the national accounts in accordance with ESA 1995 converted to ESA 2010 (for the period 1995-2008);
- evolution of gross fixed capital formation series prepared by the Federal Planning Bureau for previous estimates of capital stock, combined with specific sectorial estimates of NBB for branches that are present in public as well as private sector (for the period 1853-1994).

In this way, a gross fixed capital formation series has been estimated for the period 1853-2014, at 2000 prices, covering 5 institutional sectors, 38 branches of activity and 13 assets.

4.12.2.2 Average service lives

In addition to historical series regarding gross fixed capital formation, the PIM also uses the average service lives of fixed assets. On that basis the longevity of fixed assets is determined in the PIM, and therefore the period during which these assets contribute to the capital stock.

For these reasons, it is important that the service life is estimated as accurately as possible and in as much detail as possible.

In Belgium, average service lives are estimated by branch of activity (A*38) and by asset (AN.11).

These were initially based on a combination of previous service lives, used by the Federal Planning Bureau, and European 'best practice'. This 'best practice' is developed by the 'Centraal Bureau voor de Statistiek' (CBS) in the Netherlands. The average service lives obtained in this way were compared with international average service lives¹⁴⁷ by product and by branch. If the Belgian average service lives differ greatly from the international averages, they were adjusted¹⁴⁸.

For instance, new shortened reference values were set in 2003 for the asset "Other machinery and equipment" (then labelled "Pi2 -Metal products and machinery") in all branches of industry. These new reference values gradually have an impact on estimates from 1985 onwards (previous reference values are reduced by 1 year each year until they reach their new reference value).

For the assets that are new in ESA 2010, services lives have been determined as follows:

- for the "Computer hardware" sub-heading in ITC, average service live has been set to 5 years;

¹⁴⁷ Cf. the OECD publication 'Methods Used by OECD Countries to Measure Stocks of Fixed Capital', from the 'National Accounts: Sources and Methods' series, 1993, Paris.

¹⁴⁸ This was for example the case for the service lives of 'metal products and machines' in industry.

- for “Weapons systems”, the following information has been given by the Ministry of Defence: 10 years for weapons and land vehicles, 15 years for ships and 20 years for aircrafts;
- for “Research and development”, the default service live of 10 years recommended by Eurostat in the dedicated Taskforce on R&D manual is used.

Moreover, for the “Telecommunications equipment” sub-heading in ITC, average service live has been shortened to 11 years (against 15 to 25 years in ESA 1995).

Table 1 shows the service lives¹⁴⁹ by asset and by A*38 branches of activities used from 2014 on by the NAI in the national accounts.

Table 1 - Average service lives (in years) by A*38 branch of activity and by fixed asset (AN)¹⁵⁰

A38	AN. 11110	AN. 11210 & 11220	AN. 11310	AN. 11321	AN. 11322	AN. 11390 ¹⁵¹	AN. 11400	AN.11510 & 11520	AN. 11710	AN. 11730	AN. 11740
AA		37	12	5	11	15		3	10	3	7
BB		33	10	5	11	20		3	10	3	7
CA		34	10	5	11	20		3	10	3	7
CB		38	10	5	11	19		3	10	3	7
CC		45	10	5	11	19		3	10	3	7
CD		38	10	5	11	18		3	10	3	7
CE		34	10	5	11	18		3	10	3	7
CF		34	10	5	11	18		3	10	3	7
CG		30	10	5	11	19		3	10	3	7
CH		35	10	5	11	21		3	10	3	7
CI		35	10	5	11	19		3	10	3	7
CJ		35	10	5	11	19		3	10	3	7
CK		35	10	5	11	19		3	10	3	7
CL		35	10	5	11	18		3	10	3	7
CM		35	10	5	11	18		3	10	3	7
DD		42	10	5	11	25		3	10	3	7
EE (S13) ¹⁵²		60	8	5	11	15		3	10	3	7
EE (others)		40	8	5	11	15		3	10	3	7
FF		42	10	5	11	20		3	10	3	7
GG		40	8	5	11	15		3	10	3	7
HH (S13)		(a)	8	5	11	15		3	10	3	7
HH (others)		40	15	5	11	15		3	10	3	7

¹⁴⁹ Note that investments in dwellings appear in two A*38 branches only: “KK Financial and insurance activities” and “LL Real estate activities”. The first branch (more specifically insurance companies – S.128) is obliged under a European directive to invest a minimum amount in dwellings, whereas the second branch includes investments in dwellings by household (S.14) and non-financial corporations (S.11).

¹⁵⁰ Since mineral exploration is only a marginal activity in Belgium, asset AN.11720 is not taken into account for estimating gross fixed capital formation and capital stock. AN.11790 is assumed to be negligible and set to zero.

¹⁵¹ New reference values were set for “Other machinery and equipment” in industry for the February 2003 publication (then labelled “Pi2 -Metal products and machinery”). These new reference values gradually have an impact on estimates from 1985 onwards. This table shows the services lives applicable from 2003 onwards.

¹⁵² S.13 = Public sector; others = other domestic institutional sectors (S.11, S.12, S.14 and S.15).

A38	AN. 11110	AN. 11210 & 11220	AN. 11310	AN. 11321	AN. 11322	AN. 11390 ¹⁵¹	AN. 11400	AN.11510 & 11520	AN. 11710	AN. 11730	AN. 11740
II		40	8	5	11	15		3	10	3	7
JA (S13)		60	8	5	11	15		3	10	3	7
JA (others)		40	8	5	11	15		3	10	3	7
JB		40	15	5	11	15		3	10	3	7
JC		40	8	5	11	15		3	10	3	7
KK	60	40	8	5	11	15		3	10	3	7
LL	60	40	8	5	11	15		3	10	3	7
MA		40	8	5	11	15		3	10	3	7
MB		40	8	5	11	15		3	10	3	7
MC		40	8	5	11	15		3	10	3	7
NN		40	8	5	11	15		3	10	3	7
OO		(a)	8	5	11	15	(b)	3	10	3	7
PP		60	8	5	11	15		3	10	3	7
QA		40	8	5	11	15		3	10	3	7
QB		40	8	5	11	15		3	10	3	7
RR		40	8	5	11	15		3	10	3	7
SS		40	8	5	11	15		3	10	3	7

(a) 55 years for roads, 70 years for shipping and inland waterway works, 60 years for other construction work

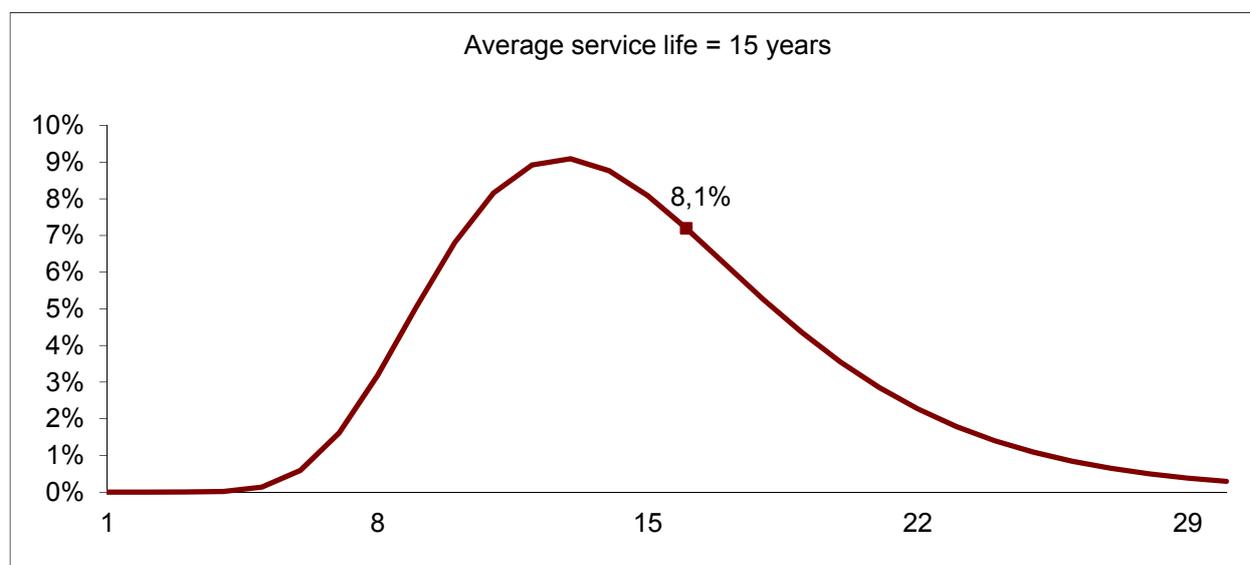
(b) 10 years for weapons and land vehicles, 15 years for ships and 20 years for aircrafts (source: Ministry of Defence)

4.12.2.3 Survival function

Although the average service life of fixed assets is an important parameter of the PIM, it provides little information if the dispersion around the average is not known. In fact, the asset will wear out more or less rapidly depending on the intensity with which it is used. However, it is possible that some assets will be subjected to exceptional conditions or that they are not as well maintained as others. All of these factors influence the service life of assets, in such a way that they can be used for more, less or for exactly three years in the process of production. In order to characterise this dispersion around the average value, a bell-shaped probability density function is often used. This density indicates which part of the gross fixed capital formation realised previously has been discarded during a specific period.

In Belgium, the log-normal probability density function is used¹⁵³. The choice of a log-normal density is dictated in particular by Eurostat's preference for this approach. The chart below shows an image of a log-normal density for a fixed asset with an average service life of 15 years.

CHART LOG-NORMAL PROBABILITY DENSITY FUNCTION

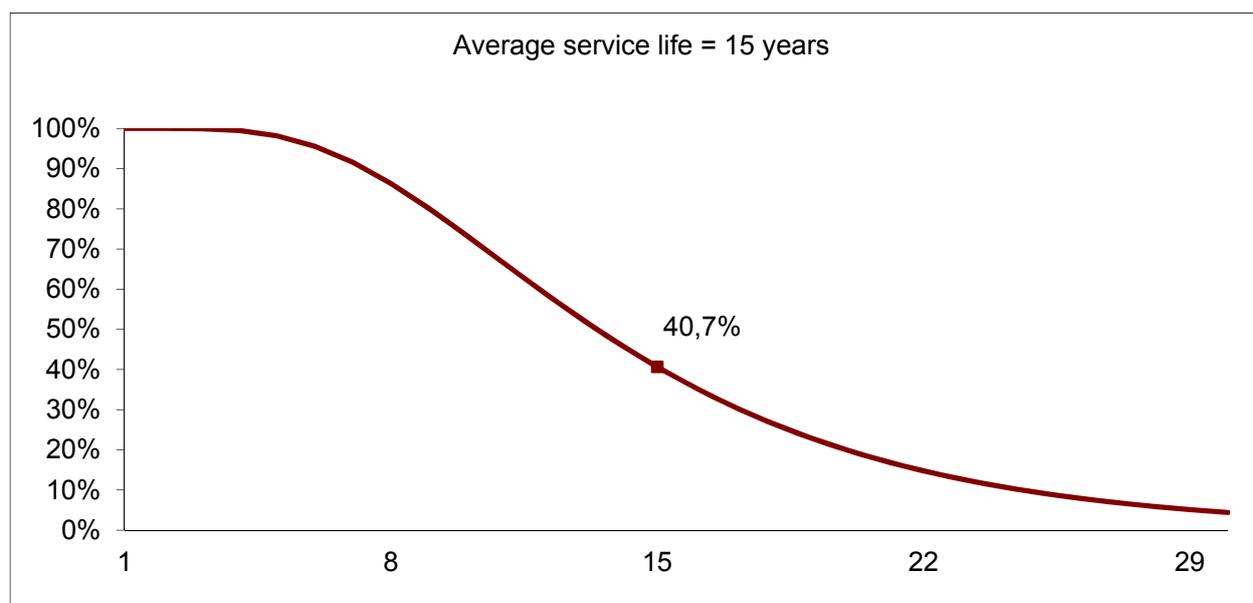


As the chart above shows, the log-normal density is asymmetrical but more right-sided. The interpretation of this is that during the fifteenth year of the life of fixed assets of the same type (with an average service life of 15 years), just over 8 % of these fixed assets will be discarded.

¹⁵³ A variable x is distributed as log-normal if $\text{Ln}(x)$ is distributed according to the normal law. Here there is a direct relationship between the normal and log-normal distribution. Moreover, a whole series of normal distribution characteristics applies to the log-normal. In fact, for a log-normal distribution, just as for a normal distribution, 95 % of the probabilities lie within a two standard deviation interval around the median.

Although the density indicates which part of the fixed assets is discarded during a specific period, it is essential, as regards the PIM, to know which part of the gross fixed capital formation, realised several periods previously, currently remains. It is measured by deducting from the total gross fixed capital formation for the first period, equal to 100 %, the part discarded for each subsequent period. In other words, a survival function must be estimated. The survival function is derived from the density (log-normal in Belgium) and takes the form shown in the chart below.

CHART LOG-NORMAL SURVIVAL FUNCTION



Using the survival function described above, it is possible to determine which part of the gross fixed capital formation, produced during period 1, survives in each subsequent period. After 15 years, 40.7 % of the fixed assets are therefore still being used¹⁵⁴.

Once the gross fixed capital formation series, average service life and survival function are known, it is possible to estimate the gross capital stock with the PIM.

At last, the depreciation function of fixed assets will be used to compute consumption of fixed capital, and to estimate the net capital stock.

4.12.2.4 Depreciation function

The survival function determines which part of the gross fixed capital formation realised is still surviving.

¹⁵⁴ The asymmetrical form (tending to the right) of the corresponding probability density explains why, after 15 years, only 40.7 % of the fixed assets are still used whereas the average service life is 15 years.

However, the condition of this gross fixed capital formation is not known. It is highly likely that after a certain number of years of use, it will no longer be able to provide the same services as when it was bought and it will therefore lose value. In order to illustrate the reduction over time of the services that the fixed assets can provide (and therefore their value too), the PIM uses a depreciation function. In accordance with paragraph 3.143 of ESA 2010, Belgium uses a 'straight line' function.

As a result, the value of the fixed asset is written off at a constant rate over its service life; consumption of fixed capital of a given investment is thus a constant share ($1/\text{service life}$) of the value of this investment.

CHART 'STRAIGHT LINE' DEPRECIATION FUNCTION



Chart 4.12.2.4.1 illustrates a 'straight line' depreciation function and shows the value of the fixed asset, expressed as a percentage of its as new value, for each period.

4.12.3 CONSUMPTION OF FIXED CAPITAL FOR NON MARKET PRODUCERS

Output of non-market producers is estimated by summing up their production costs, of which consumption of fixed capital.

The PIM delivers data at the A*38 level for each 2-digits institutional sector (S.11, S.12, S.13, S.14 and S.15); non market sectors are thus clearly and separately identified.

However this breakdown is not detailed enough for the purpose of calculating production -by summing the costs- at the common level of detail (i.e. SUT branches, which is a finer detail than the NACE 2 digits).

In order to reach such a detail, some specific computations must be developed for the non-market sectors S.13 and S.15.

4.12.3.1 Consumption of fixed capital of S.13

Consumption of fixed capital of S.13 is estimated along the PIM as described above, but the computation is made at a higher level of detail.

Therefore investments series specific to S.13 have been developed in order to be able to compute its consumption of fixed capital by sub-sector (S.1311, S.1312, S.1313 and S.1314) and SUT-branches of activities.

Furthermore, a specific repartition by product is used, so that the recommendations of GNP Committee on the Consumption of Fixed Capital on Roads, Bridges etc. (GNIC 011) are largely followed. Indeed, government GFCF in construction works is split into residential buildings, non-residential buildings and other civil engineering works; at computation level, roads are separated from other infrastructure assets, as well as hydraulic works.

Every time there has been market/non-market reclassifications, the consistency of the GFCF time series has been ensured also for the early years (both in S.13 and in the counterpart sector), and each sub-period with a different perimeter is calculated separately in the PIM with a coherent set of historical series of investments.

In the Belgian accounts, PIM is therefore computed along 4 different subsets:

- one for the years 1995-2001: until 2001 the television companies belonged to the private sector, while the wastewater treatment company Aquafin was part of the public sector;
- one for 2002-2004: since 2002, the televisions companies are part of S.13 (and Aquafin is still in the public sector);
- one for 2005- 2008: since 2005, Aquafin has returned to private sector;
- one last for the years 2009 and after: the numerous reclassifications operated in 2014 and 2015 towards S.13 are fully taken into account.

Service lives per asset are identical to those described above (4.12.2.2.); more specifically, they are set at 55 years for roads (precisely the recommended average lifetime estimate), 70 years for shipping and inland waterway works, and 60 years for other construction work.

Availability of basic data does not however allow distinguishing between the main components of infrastructure assets (earthwork, foundations, bridges, tunnels, surface layers for roads).

As said above, the Belgian MIP uses log normal survival functions (no simultaneous exit assumption is used) and linear depreciation functions.

4.12.3.2 Consumption of fixed capital of S.15

Consumption of fixed capital of S.15 is estimated along the PIM as described above, each asset being computed for all relevant A*38 activities. In order to make estimates at a finer activity level (A*64 and SUT branches), a key is calculated on the basis of the relative weight of over 10 years cumulated investments of any sub-branch in a given A*38 branch.

Note that this breakdown method is also used to split the consumption of fixed capital of other sectors (S.11, S.12 and S.14) from A*38 to finer disaggregation levels (A*64 for example), and that CFC of dwellings is available separately for S11, S.128 and S.14.

4.12.4 CONSUMPTION OF FIXED CAPITAL BY INDUSTRY AND SECTOR

Consumption of fixed capital by industry (A*21)

	P51c, 2012 (€million)
Agriculture, forestry and fishing (A)	875
Mining and quarrying (B)	83
Manufacturing (C)	14.615
Electricity, gas, steam and air conditioning supply (D)	2.057
Water supply; sewerage, waste management and remediation activ. (E)	1.311
Construction (F)	2.561
Wholesale and retail trade; repair of motor vehicles and motorcycles (G)	5.823
Transportation and storage (H)	6.943
Accommodation and food service activities (I)	1.055
Information and communication (J)	3.488
Financial and insurance activities (K)	3.233
Real estate activities (L)	16.340
Professional, scientific and technical activities (M)	4.342
Administrative and support service activities (N)	3.652
Public administration and defence; compulsory social security (O)	3.139
Education (P)	2.893
Human health and social work activities (Q)	2.846
Arts, entertainment and recreation (R)	4890
Other service activities (S)	629
Total	76.382

Consumption of fixed capital by institutional sector

	P51c, 2012 (€million)
Non-financial corporations (S.11)	46.468
Financial corporations (S.12)	3.343
General government (S.13)	8.889
Households (S.14)	17.222
Non-profit institutions serving households (S.15)	460
Total	76.382

5 THE EXPENDITURE APPROACH

5.0 GDP ACCORDING TO THE EXPENDITURE APPROACH

GDP according to the expenditure approach		2012
(mln €)		
P3	Final consumption expenditure	295.182
P3S13	Final consumption expenditure of general government	93.999
P31S13	Individual consumption expenditure	60.071
P32S13	Collective consumption expenditure	33.928
P3S14	Final consumption expenditure of households	196.018
P3S15	Final consumption expenditure of NPI's serving households	5.164
P5	Gross capital formation	89.848
P51g	Gross fixed capital formation	87.670
P511	Acquisitions less disposals of fixed assets	87.670
S11	Non-financial corporations	52.542
S12	Financial corporations	2.691
S13	General government	9.642
S14	Households	22.343
S15	NPI's serving households	452
P512	Costs of ownership transfer on non produced assets	0
P52	Changes in inventories	2.177
P53	Acquisitions less disposals of valuables	0
P6	Exports of goods and services	318.935
P61	Exports of goods	234.928
P62	Exports of services	84.007
P7	Imports of goods and services	316.546
P71	Imports of goods	239.849
P72	Imports of services	76.697
P3+P5+P6-P7	GDP	387.419

5.1 THE REFERENCE FRAMEWORK

Consumption expenditure by households is mainly based on the household budget survey and on administrative data. These sources are discussed further below (cf. 5.7.2).

Consumption expenditure by general government is based on administrative sources (cf. 5.9). As regards final consumption expenditure by Non-profit institutions serving households (P3.S15), this is extrapolated by combining administrative data and the results of the structure survey of NPAs (cf. 5.8).

To estimate *gross capital formation* three main sources are used: the annual accounts from the Central Balance Sheets Office of the National Bank of Belgium, the VAT returns and the structure business survey (cf. 5.10.2).

The amounts of the imports and exports of goods and services are based on the data in the balance of payments drawn up by the National Bank of Belgium. This information is gathered via administrative sources (extrastat) and specific surveys (intrastat and imports and exports of services) (cf. 5.13 and 5.14).

5.2 THE BORDERLINE CASES

5.2.1 THE BORDERLINE CASES FOR HOUSEHOLD FINAL CONSUMPTION EXPENDITURE

The following borderline cases are included in final consumption expenditures of households:

- a) Dwelling services produced by owner-occupiers (cf. 5.7.3.2.4);
- b) Domestic services produced by employing staff (cf. 5.7.3.2.5);
- c) Agricultural goods produced for own consumption by households (cf.5.7.2.1);
- d) Income in kind (advantages company cars and other income in kind) (cf. 5.7.3.2.7)
- e) Items not treated as intermediate consumption:
 - o Materials for small repairs to and interior decoration of dwelling of a kind carried out by tenants as well as owners (cf. 5.7.3.2.4);
 - o Materials for repairs and maintenance of consumer durables: estimates for these types of services are included in HBS estimates and used for P.31 S.14. Examples are “maintenance and repair of vehicles” (cf. 5.7.3.2.7) and “maintenance and repair of other major durables for recreation and culture” (cf. 5.7.3.2.9);
- f) Value of any goods purchased under hire-purchase agreements;
- g) Purchases and sales of second-hand vehicles (cf. 5.7.3.2.7) and other goods (implicitly included in HBS results);
- h) FISIM used for final consumption purposes by households (cf.5.7.3.2.12);
- i) Insurance services by the amount of the implicit service charge (cf.5.7.3.2.12);
- j) Direct payment from insurer to repairer and other service providers, if relevant;
- k) The amount of car registration taxes as part of the taxes on products (cf. 5.7.3.2.7);
- l) Pension funding services by the amount of the implicit service charge (cf.5.7.3.2.12);
- m) Payments by households for licences, permits etc. which are regarded as purchases of services (cf. 5.7.3.2.12);

The following borderline cases are excluded from final consumption expenditures of households:

- a) Social transfers in kind (example: health services cf. 5.7.3.2.6);
- b) All those payments by households which are to be regarded as taxes (cf. 5.7.2.1);
- c) Subscriptions, contributions and dues paid by households to NPISH; voluntary transfers in cash or in kind by households to charity etc. (cf. 5.7.2.1);
- d) Expenditures that an owner-occupier incurs on the decoration, maintenance and repair of the dwelling not typically carried out by tenants (cf. 5.7.3.2.4).

5.2.2 THE BORDERLINE CASES FOR GROSS FIXED CAPITAL FORMATION

The following border cases are included in gross fixed capital formation (GFCF) in accordance to ESA 2010; more details over sources and methods will be found in section 5.10.3. and 5.10.4

- a) R&D (with the exception of the R&D acquired to be used solely in the creation of further products of R&D and registered as intermediate consumption);
- b) structures and equipment used by the military;
- c) improvements to existing fixed assets beyond ordinary maintenance and repairs are included in our estimates for all assets. Note that, as far as land is concerned, the major improvements cannot yet be identified as a separated asset (AN 1123 “Land improvement”) and are therefore imbedded in the asset they are related to (AN1110 dwellings, AN1121 non-residential buildings or AN1122 other structures);
- d) computer software and databases;
- e) entertainment, literary or artistic originals;
- f) other intellectual property rights;
- g) changes in livestock used in production year after year;
- h) changes in trees that are cultivated year after year;
- i) the acquisition of fixed assets by financial leasing;
- j) as car registration taxes are part of the purchaser price of cars and investment goods are always valued at acquisition costs in the corporate accounts, the acquisition of cars by enterprises (GFCF in cars) is valued at purchaser prices (including these taxes on products).

The following borderline cases, that should be included in GFCF, are however not estimated due to lack of data or lack of pertinence in the Belgian case:

- a) no information in the private sector data sources is available on light weapons and armoured vehicles used by non-military units;
- b) mineral exploration and evaluation are supposed to be non-existent in Belgium;

- c) other intellectual property rights are supposed to be negligible, and there is no information available;
- d) terminal costs, i.e. large costs associated with disposal, as those are up to now considered to be negligible.

The following borderline cases are excluded from GFCF (in accordance with ESA2010 §3.130):

- a) transactions included in intermediate consumption, like;
 - i. purchase of small tools for production purposes;
 - ii. ordinary maintenance and repairs;
 - iii. the acquisition of fixed assets to be used under an operational leasing contract
- b) transactions recorded as changes in inventories (animals raised for slaughter, trees grown for timber);
- c) catastrophic losses on fixed assets;
- d) machinery and equipment acquired by households for the purposes of final consumption. As far as unincorporated enterprises are concerned VAT records provide GFCF in a separate item, which allows isolating investments from intermediate consumption).

5.3 VALUATION

- 1) Final consumption expenditures are valued in the various sources at purchasers' prices. If output estimates are used, VAT and other net taxes on products are added, to ensure a correct registration in purchasers' prices. Own-produced products are estimated using the HBS data and valued in purchasers' prices. Details on how vehicles supplied as employee compensation in kind are valued can be found in section 5.7.3.2.7.
- 2) The procedures applied to ensure that GFCF is valued at purchasers' prices including installation charges and other costs of ownership transfer are described in the section 5.10.2 where the data sources and their treatment are presented.
- 3) The steps taken to ensure that GFCF produced on own-account is valued at the basic prices of similar fixed assets, and if such prices are not available, at the costs of production plus a mark-up (except for non-market producers) for net operating surplus or mixed income is described in the dedicated sections for each of the relevant assets (R&D see 5.10.4.1; software see 5.10.4.2, originals 5.10.4.3)
- 4) In the same sections, the valuation of acquisitions of intellectual property products (computer software, entertainment, literary or artistic originals) is also described.
- 5) The steps taken to value disposals of existing fixed assets by sale at basic prices, deducting any costs of ownership transfer incurred by the seller are also described in the section 5.10.2 where the data sources and their treatment are presented.

- 6) The valuation of changes in inventories is addressed in Section 5.11.
- 7) The valuation of export and imports of goods and services is described in 5.13 and 5.14.

5.4 TRANSITION FROM PRIVATE ACCOUNTING AND ADMINISTRATIVE CONCEPTS TO ESA2010 NA CONCEPTS

This depends on the type of final expenditure transaction. More details can be found in the chapters describing the different expenditure components (chapters 5.7 to 5.14).

5.5 THE ROLES OF DIRECT AND INDIRECT ESTIMATION METHODS AND OF BENCHMARKS AND EXTRAPOLATIONS

5.5.1 DIRECT AND INDIRECT ESTIMATION

The various components of the expenditure approach can be estimated using direct or indirect methods.

Direct methods are methods based on sources directly giving the amount of the variable to be estimated. They include variables coming directly from the results of surveys or from administrative data. Indirect methods correspond to all other methods. The various methods likely to be used are set out in the table below. The majority of the components of the expenditure approach (P5, P6, P7 and part of P3) is estimated using direct methods/sources.

Methods	Abbreviation	Sources	Abbreviation
Direct methods:			
Survey	S	Household Budgets Survey	HBS
		Structural Business Survey	SBS
		R&D Survey	RDS
		Other surveys (Intrastat, BOP)	OTS
Administrative	AD	Annual Accounts/Reports	AA
		Public administration budget	PUB
		VAT administration	VAT
		Extrastat	
		Other administrative sources	OAD
Indirect methods:			
Commodity flow	CF	Supply and use table	SUT
Extrapolation base year	IPQ	Estimate of price x volume based on various survey or administrative sources	Miscellaneous
Extrapolation direct measurement	VPQ	Estimate of price x volume based on various survey or administrative sources	Miscellaneous

The table below summarises the methods and sources used to estimate the various expenditure components.

Expenditure aggregate	Method	Source
P.31_S.13	AD	PUB
P.32_S.13	AD	PUB
P.3_S.14	S	HBS
	AD	PUB/BP/OAD/AA
	CF	SUT
	IPQ	S/VAT/AD/Miscellaneous
	VPQ	S/VAT/AD/Miscellaneous
P.3_S.15	S	S
	AD	AD
P.51g	S	SBS/RDS
	AD	AA/VAT
P.52	AD	AA
P.6, P.7	AD	Extrastat
	S	Intrastat and BOP survey for P62/P72

5.5.2 MODEL BASE ESTIMATION

In the expenditure approach, no item is estimated based on models for a definitive year (t-2 or older).

5.5.3 BENCHMARK YEAR ESTIMATION

Estimates for P.31 S.14 for which HBS is the main source are extrapolated from a base year. The most recent base year is 2010. The methodology is explained in full in section 5.7.3.

Actual and imputed rents are also extrapolated from a benchmark year (2011 for the stock of dwellings and 2002 for the rents).

5.5.4 DIRECT ESTIMATION

The other components of final expenditure (P3S13, P3S15, P51, P52, P6, P7) and the part of P3S14 for which no benchmark year estimation is used are estimated in a direct way using administrative and survey information.

5.6 THE MAIN METHODS USED IN THE EXPENDITURE APPROACH TO ENSURE EXHAUSTIVENESS.

These are explained in chapter 7. The following summary table shows the size of the various exhaustiveness adjustments (breakdown by expenditure components and types of non-exhaustiveness (N1-N7). This information is consistent with the Process Tables and Chapter 7.

	N1	N2	N3	N4	N5	N6	N7	TOTAL
P3 S.13								0
P3 S.14	466	1.366		5.778			1.268	8.877
P3 S.15								0
P51g			206	414				620
P52								0
P61		650						650
P62		42						42
P71		244						244
P72		57						57
TOTAL	466	1.757	206	6.192	0	0	1.268	9888

5.7 HOUSEHOLD FINAL CONSUMPTION EXPENDITURE (P3S14)

5.7.1 OVERVIEW

Final consumption expenditure of households is estimated in two stages. First, a basic estimate is made for each product according to the domestic concept of final consumption expenditure of households (including expenditure of non-residents in Belgium and excluding expenditure of residents outside Belgium). Next, adjustments are made when validating the basic estimates to ensure exhaustiveness and when balancing the GDP output and expenditure approaches.

The next table shows the results, main sources and estimation method used by COICOP. The following section will describe the main sources used for the estimation of final consumption expenditure of households and their conversion to national accounts concepts, followed by a detailed discussion on the results and methods used by COICOP group.

Detailed breakdown by COICOP group: results, method and sources

Year 2012, in million

COICOP		RESULTS 2012	Extra Estimation detail	METHOD	SOURCE Reference year	SOURCE Intermediate year
01	FOOD AND NON-ALCOHOLIC BEVERAGES	24.530				
01.1	Food	22.417		Extrapolation HBS	HBS	VAT Turnover
01.2	Non-alcoholic beverages	2.113	01.2.1	Extrapolation HBS	HBS	Excise duties
			01.2.2	PxQ	CPI and federations	professional
02	ALCOHOLIC BEVERAGES, TOBACCO AND NARCOTICS	7.345				
02.1	Alcoholic beverages	3.034		PxQ	CPI and FPS Finance (+ professional federations)	
02.2	Tobacco	3.704	SUT 12A01	PxQ	CPI and FPS Finance	
			SUT 17A06	Extrapolation HBS	HBS	Evolution COICOP 02.2
02.3	Narcotics	606		Commodity flow method	Various	
03	CLOTHING AND FOOTWEAR	9.044				
03.1	Clothing	7.487		Extrapolation HBS	HBS	VAT Turnover
03.2	Footwear	1.556		Extrapolation HBS	HBS	VAT Turnover
04	HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS	47.546				
04.1	Actual rentals for housing	8.995		Specific method	Housing census 2011	
04.2	Imputed rentals for housing	21.424		Specific method	Housing census 2011	
04.3	Maintenance and repair of the dwelling	2.507		Extrapolation HBS	HBS	CPI and stock of dwellings

04.4	Water supply and miscellaneous services relating to the dwelling	2.968	Various	Extrapolation HBS	HBS	CPI and stock of dwellings
			SUT 38A01	Administrative data	Administrative data	
04.5	Electricity, gas and other fuels	11.652		Extrapolation HBS	HBS	CPI, FPS Economy and professional federations
05	FURNISHINGS, HOUSEHOLD EQUIPMENT AND ROUTINE HOUSEHOLD MAINTENANCE	11.904				
05.1	Furniture and furnishings, carpets and other floor coverings	3.840		Extrapolation HBS	HBS	VAT Turnover
05.2	Household textiles	1.111		Extrapolation HBS	HBS	VAT Turnover
05.3	Household appliances	1.876		Extrapolation HBS	HBS	VAT Turnover
05.4	Glassware, tableware and household utensils	846		Extrapolation HBS	HBS	VAT Turnover
05.5	Tools and equipment for house and garden	1.120		Extrapolation HBS	HBS	VAT Turnover
05.6	Goods and services for routine household maintenance	3.112	Various	Extrapolation HBS	HBS	VAT Turnover
			SUT 88A02; 81B01; 97A01	Commodity flow method	ONSS	
06	HEALTH	11.747				
06.1	Medical products, appliances and equipment	3.084		Administrative data	NSDII; SUT and VAT turnover	
06.2	Out-patient services	2.375		Commodity flow method	Various	
06.3	Hospital services	6.288		Commodity flow method	Various	
07	TRANSPORT	22.101				
07.1	Purchase of vehicles	5.773	29A02	PxQ	CPI and number of registration (FPS Mobility and Transport)	
			30D02	Extrapolation HBS	HBS	VAT Turnover
07.2	Operation of personal transport equipment	14.120	07.2.1 & 07.2.3	Extrapolation HBS	HBS	VAT Turnover
			07.2.2 (SUT 19A02; 19A05; 19A07)	Other extrapolations	CPI, FPS Mobility and Transport	
			07.2.2_other	Extrapolation HBS	HBS	CPI
			07.2.3_45A01	PxQ	HBS & insurance companies	
			07.2.4_SUT 77	Other extrapolations	FPS Mobility & Transport & CPI	
			07.2.4_85A01	Administrative data	VAT Turnover	
			07.2.4_52A01 & 68B03	Extrapolation HBS	HBS	VAT Turnover & average kilometres

07	TRANSPORT	22.101					
07.3	Transport services	2.209	07.3.1 & 07.3.2.1	Administrative data	Accounting of general government		
			07.3.2_other & 07.3.4 & 07.3.6	Extrapolation HBS	HBS	VAT Turnover; CPI; number of households	
			07.3.3_79A01	Ratio	Balance of Payment		
			07.3.3_51A01	Administrative data	Balance of Payment		
08	COMMUNICATION	4.762					
08.1	Postal services	168		Extrapolation HBS	HBS	BIPT	
08.2	Telephone and telefax equipment	210		Extrapolation HBS	HBS	BIPT	
08.3	Telephone and telefax services	4.385		Extrapolation HBS	HBS	BIPT	
09	RECREATION AND CULTURE	16.931					
09.1	Audio-visual, photographic and information processing equipment	2.392		Extrapolation HBS	HBS	VAT Turnover	
09.2	Other major durables for recreation and culture	537		Extrapolation HBS	HBS	VAT Turnover	
09.3	Other recreational items and equipment, gardens and pets	3.454	Various	Extrapolation HBS	HBS	VAT Turnover	
			09.3.5	Extrapolation HBS	HBS	CPI and number of households	
09.4	Recreational and cultural services	5.069	Various	Extrapolation HBS	HBS	VAT Turnover, output estimates,	
			SUT 93A91; 91A91; 59A01; 60A01; 92A01	Administrative data	Non-market accounts (S.13 and S.15); FPS Economy; BIPT; annual accounts		
09.5	Newspapers, books and stationery	2.386		Extrapolation HBS	HBS	VAT Turnover	
09.6	Package holidays	3.094		Commodity flow method	Production estimates, Balance of Payment statistics, ABTO		

10	EDUCATION	754				
10.1	Pre-primary and primary education	138	SUT 85A93	Administrative data	Accounting of general government	
			SUT 79A01	Commodity flow method	Production estimates, Balance of Payment statistics, ABTO	
10.2	Secondary education	193	SUT 85A93	Extrapolation HBS	HBS	Evolution 10.1
			SUT 79A01	Commodity flow method	Production estimates, Balance of Payment statistics, ABTO	
10.3	Post-secondary non-tertiary education	227		Administrative data	Accounting of general government	
10.4	Tertiary education	151		Administrative data	Accounting of general government	
10.5	Education not definable by level	44		Administrative data	Accounting of general government	
11	RESTAURANTS AND HOTELS	11.061				
11.1	Catering services	9.774		Extrapolation HBS	HBS	VAT Turnover
11.2	Accommodation services	1.286		Extrapolation HBS	HBS	Survey FPS Economy (number of nights)
12	MISCELLANEOUS GOODS AND SERVICES	24.732				
12.1	Personal care	3.762		Extrapolation HBS	HBS	VAT Turnover
12.2	Prostitution	900		Commodity flow method	Extrapolations	
12.3	Personal effects n.e.c.	883		Extrapolation HBS	HBS	VAT Turnover
12.4	Social protection	2.917		Commodity flow method	Various	
12.5	Insurance	6.544		Commodity flow method	Various	
12.6	Financial services n.e.c.	5.842		Commodity flow method	Various	
12.7	Other services n.e.c.	3.884	84A91; 94A91	Administrative data	Accounting of general government	
				Extrapolation HBS	HBS	VAT Turnover
				Extrapolation HBS	HBS	CPI and number of households
P.31 S.14	TOTAL FINAL HOUSEHOLD CONSUMPTION - DOMESTIC CONCEPT	192.454				
P.33	Resident consumption abroad	+ 10.889		Other extrapolation	Balance of Payment	
P.34	Non-resident consumption in Belgium	- 7.325		Other extrapolation	Balance of Payment	
P.31 S.14	TOTAL FINAL HOUSEHOLD CONSUMPTION - NATIONAL CONCEPT	196.018				

5.7.2 MAIN DATA SOURCES AND THEIR CONVERSION TO NATIONAL ACCOUNTS FIGURES

Estimates of final consumption expenditure of households by COICOP group are based on multiple sources, namely the household budget survey, various administrative sources (general government, professional federations, and balance of payments) and specific surveys. More detail on each of these sources is given below.

5.7.2.1 The household budget survey (HBS)

The household budget survey is organised by DGS (FPS Economy) since 1995. It was a yearly survey until 2010, after which the survey became biannual. The survey provides information on average expenditure of households on a very detailed product level. A representative sample of all Belgian households is chosen each year, taken into account various criteria namely, place of residence, socio-professional status and age of the reference person and the number of persons in the household (cf. 10.3.2). The sample consisted of around 6 500 households in 2012.

The raw data provided by DGS are processed through various steps for national accounts purposes.

First, annual average consumption expenditure per product is multiplied by the total number of private households in Belgium to obtain the total annual expenditure by COICOP group. In 2010, which is the latest reference year that was introduced, there were 4 650 037 private households in Belgium, in comparison with 4 743 055 private households in 2012.

Next, differences in definitions and concepts between the HBS and ESA 2010 are analysed. If expenditure booked in the survey data may not be treated as final consumption expenditure according to ESA 2010, they are excluded from the estimation. This is, for example, the case for fees to architects (P.51 Gross fixed capital formation), death duties (D.91 taxes on capital) and various taxes levied by local authorities (D.59 Other current taxes). A full list of excluded expenditure is shown below

List of excluded HBS categories

Code HBS		Type ESA 2010	
311106	Rent on land - not-agricultural	D45	Rent
624203	Road tax - cars	D59	Other current taxes
624205	Road tax - motorcycles	D59	Other current taxes
624206	Road tax - mobile homes/trailers	D59	Other current taxes
624207	Road tax - other vehicles	D59	Other current taxes
717303	Agricultural rents	D45	Rent
860108	Contributions to political parties and unions	D75	Miscellaneous current transfers
860109	Cultural and social contributions	D75	Miscellaneous current transfers

Code HBS		Type ESA 2010	
860111	Fees for architects	P51	Gross fixed capital formation
860201	Succession taxes and donation taxes	D91	Capital taxes
860202	Fines and tickets, legal costs, bailiff costs	D75	Miscellaneous current transfers
860206	Taxes on pets	D59	Other current taxes
860209	Other taxes (not specified)	D59	Other current taxes

In a third step, links between the different classifications used in national accounts are established – namely, the COICOP classification, the classification for products in the supply and use tables (SUT) and the purchasing power parities (PPP) classification. Since 2012, a better correspondence is found between the HBS and national accounts classifications, as the HBS now also uses the COICOP-BE¹⁵⁵ classification.

Fourthly, all imprecise survey headings, such as “non-specified expenditure” and “pocket money” are distributed over specifically chosen COICOP headings which were deemed most likely to be concerned. These are mostly food and drinks (COICOP 01), tobacco (COICOP 02), clothing (COICOP 03), cultural and recreational services (COICOP09) and hotels and restaurants (COICOP 11), as shown below

Not-sorted expenditure: repartition by COICOP

Reference year 2010, in million and %

COICOP01		Key	Results
01	Food and non-alcoholic beverages	6,9 %	181
02	Alcoholic beverages, tobacco and narcotics	8,7 %	229
03	Clothing and footwear	18,2 %	481
04	Housing, water, electricity, gas and other fuels	0,0 %	0
05	Furnishings, household equipment and routine household maintenance	9,1 %	241
06	Health	1,1 %	29
07	Transport	1,7 %	45
08	Communication	0,5 %	12
09	Recreation and culture	26,1 %	687
10	Education	0,0 %	0
11	Restaurants and hotels	18,8 %	496
12	Miscellaneous goods and services	8,9 %	235
TOTAL		100,0 %	2.637

¹⁵⁵ COICOP-BE classification is the ECOICOP classification with an added level of detail (“sixth digit”).

A final step is the conversion of the results of the HBS from a national concept to a domestic concept. The HBS provides data which match the national concept of final consumption (final consumption by Belgian households) and allows identification of expenses by residents in Belgium and expenses by residents in the rest of the world. The figures have to be converted from the national concept to the domestic concept of final consumption (final household consumption on Belgian territory), using the estimates for consumption of residents in the rest of the world (P.33) and non-residents' consumption on Belgian territory (P. 34) which are based on Balance of Payment data. Tourism expenditure abroad by resident households (P.33) is deducted from the HBS, whereas non-residents' expenditure in Belgium (P.34) is added to the final consumption of resident households in Belgium. To break down the adjustment linked to the domestic concept of final consumption, non-residents' tourism expenditure in Belgium is split using the same repartition as the consumption of resident households in the rest of the world which is available in the HBS data.

5.7.2.2 Administrative sources

All administrative data likely to provide quality information are used. An overview is given below, and more detailed information is available in §5.7.3:

- Excise duties on purchases of beverages and tobacco (FPS Finance);
- Statistics supplied by Ministries: vehicle registrations, transport by air and sea (FPS Mobility and Transport), hotel overnights and other short-duration accommodation, energy consumption (FPS Economy);
- Statistics supplied by professional federations: gas, electricity, petroleum and water producers and distributors, Belgian Automotive and Cycle Industry Federation (FEBIAC), Belgian Tour Operators Association (ABPTO);
- Statistics from supervisory bodies such as the Belgian Institute of Posts and Telecommunications (IBPT), the Gaming Commission, and the National Bank of Belgium (NBB);
- Consumer price indices, and related average prices, per COICOP-BE calculated by the FPS Economy;
- Detailed annual accounts and operating reports of transport and gaming enterprises;
- Annual accounts of insurance enterprises and schedules A filed by banks;
- Accounting of general government;
- Accounting of NPISH;
- Turnover declared for VAT by retail trade, hotels, restaurants, hairdressers and all other branches of activity in which households are the main customers.

5.7.2.3 Specific surveys

Beside HBS and administrative data, estimates arising from specific surveys are also used for some COICOP groups. An overview is given below, more detailed information is available in §5.7.3.

- Retail trade survey (FPS Economy, DGS) data are used to validate calculated evolutions in intermediate years for certain COICOP groups;
- The structural survey for insurance companies is used to identify the share of private final consumption in total production;
- The population and housing Census 2011 is used to estimate consumption of dwelling services.

A short description of these surveys can be found in chapter 10.

5.7.3 DETAILED CALCULATIONS BY COICOP ITEMS

Final consumption expenditure of households is estimated by COICOP group, based on either extrapolations of reference years from the HBS or alternative methods, such as administrative sources, commodity flow estimates or other extrapolation methods. Estimations are done at a very detailed level, combining COICOP, PPP and SUT classifications.

The following section first describes the general method. A second part runs through the various sources and methods applied by COICOP group. Thirdly, exhaustiveness adjustments are explained. Next, the estimations for non-resident consumption in Belgium and resident consumption in the rest of the world are described. Finally, a summary table is given.

5.7.3.1 General method

Generally speaking, the HBS is used for estimating final consumption expenditure of goods and services purchased frequently by Belgian households, and for which no particular valuation difficulties are present. Valuation difficulties could include:

- Involvement of a disbursing third party: health care (social security refund), vehicle repair (involving insurance enterprises);
- Substantial differences between ESA 2010 concepts and survey headings: gaming, FISIM, insurance services;
- Expenditure where there may be confusion between different survey headings: rest home expenses compared to health care provided in rest homes, leasing compared with the provision of a vehicle by the employer.

Whenever these types of difficulties are present alternative methods are used, as explained below per COICOP group.

For the goods and services selected, the HBS allows an estimate of final consumption expenditure by COICOP, PPP and SUT classifications for a certain year with an acceptable error margin. Analysis however shows that using the HBS estimates yearly can pose problems in evolutions. On the one hand, HBS results are only available after a certain delay, which is often too late for introduction in the national accounts. Moreover, as the survey is only biannual since 2010, yearly use is not possible anymore. On the other hand, given the limited size of the sample survey, year-on-year evolutions between two versions of the HBS can reflect an evolution in sample rather than an evolution in average consumption.

As a consequence, it was decided to introduce the HBS results only for certain reference years. The following reference years were chosen: 1995 – 2000 - 2005 - 2010.

For intermediate years, the HBS results are interpolated using various types of evolution (VAT turnover, retail trade survey statistics, production estimates and price and volume indicators) as discussed below by COICOP group, and extrapolated for the years following the latest benchmark year¹⁵⁶.

When a new reference year is introduced, the period between the two most recent reference years is reviewed. Linear interpolation between the two reference years allow us to smooth the estimates using the estimated evolutions per year and avoid ruptures. A theoretical example of this method is shown below.

Theoretical example of the introduction of a new reference year

Period 2005-2012 of which 2005 and 2010 are considered to be reference years

	2005	2006	2007	2008	2009	2010	2011	2012
(1) HBS (source)	1.500	1.600	1.540	1.470	1.400	1.550	n/a	1.560
(2) Estimated evolution intermediate years	2,0 %	1,5 %	3,0 %	-1,0 %	-1,5 %	2,0 %	1,0 %	3,0 %
(3) Base estimate (Extrapolation HBS 2005 using estimated evolutions)	1.500	1.523	1.568	1.552	1.529	1.560	1,575	1,623
(4) Ratio HBS/Base estimate in reference years	1,000					0,994		
(5) Correction coefficient: Ratio HBS/Base estimate for 2012, linear interpolation over five years	1,000	0,999	0,997	0,996	0,995	0,994		
(6) Final estimates: Base estimate multiplied by correction coefficient	1.500	1.521	1.564	1.547	1.522	1.550		
Evolutions of final estimates		1,4 %	2,9 %	-1,1 %	-1,6 %	1,9 %		

¹⁵⁶ To simplify, we will later use « extrapolation » for all non-benchmark years

Alternative methods are applied if HBS results are deemed unreliable or higher quality sources are available.

- In some cases, administrative sources have an estimate for final consumption expenditure, which is then directly used;
- Commodity flow methods are also sometimes applied. The results for final consumption expenditure of households are obtained by subtracting uses other than P.31 S.14 (intermediate consumption, final consumption of general government and NPISH, gross capital formation and exports) from supplies (production, imports, net taxes on products);
- Sometimes a combination of sources available (HBS, administrative data, commodity flow) is used. This often includes price time volume approaches.

5.7.3.2 Estimation by COICOP group

The following section describes the methods and sources used by COICOP group, before adjustments.

5.7.3.2.1. COICOP 01 – Food and non-alcoholic beverages

A. FOOD (COICOP 01.1)

Final consumption expenditure on food products are estimated via the HBS method. For reference years expenditure is equal to HBS data. The intervening years are extrapolated from the reference years by evolution combining information from reported turnover to VAT authorities of non-specialised (NACE 47.1) and specialised (NACE 47.2) retail trade shops and reported sales of food products in the retail trade survey.

Results COICOP 01.1

Year 2012, in million

COICOP	Reference year (HBS)	Evolution 2011	Evolution 2012	Result 2012 before final adjustments	Adjustments (§5.7.3.3) ¹⁵⁷	Final result 2012
01.1	19.510	-0,3 %	4,7 %	20.379	2.038	22.417

B. NON-ALCOHOLIC BEVERAGES (COICOP 01.2)

For non-alcoholic beverages, a distinction is made between “coffee, tea and cocoa” (COICOP 01.2.1) and “mineral waters, soft drinks, fruit and vegetable juices” (COICOP 01.2.2).

Estimates for COICOP 01.2.1 “coffee, tea and cocoa” are calculated using the HBS method. Reference years are equal to HBS estimates. Intermediate years are extrapolated using the evolution of excise duties on these products (D.2122.C and D.2114.A).

¹⁵⁷ Adjustments refer to exhaustiveness adjustments of HBS estimates, balancing items, SUT corrections applied when validating data and exhaustiveness adjustments as mentioned in the process tables, such as the allocation of FISIM, the illegal economy etc. A more detailed description can be found in § 5.7.3.3. Tables such as this one will be presented throughout the text.

Results COICOP 01.2.1*Year 2012, in € million*

COICOP	Reference year (HBS)	Evolution 2011	Evolution 2012	Result 2012 before final adjustments	Adjustments (\$5.7.3.3)	Final result 2012
01.2.1	389	9,2 %	-4,2 %	407	34	441

A price times quantity method is developed for “mineral waters, soft drinks, fruit and vegetable juices” (COICOP 01.2.2). Prices correspond with average prices calculated by the FPS Economy (division CPI) and volumes (hectolitres) are available via the “Belgian Brewers federation” and the “Fédération Royale de l’Industrie des Eaux et des Boissons rafraîchissantes”.

A distinction between final and intermediate consumption expenditure is needed and made using the HBS. For reference years the share of final consumption expenditure is equal to the ratio between HBS estimates for these products and the calculated total consumption (five years moving average). For intermediate years, a linear extrapolation between reference years is applied. This method combines HBS results and administrative sources.

Finally, consumption expenditure of non-alcoholic beverages which are usually alcoholic, such as non-alcoholic beers, is moved from COICOP 01.2.2 to COICOP 02.1 based on the share of these beverages in the HBS data.

Results COICOP 01.2.2*Year 2012*

	P.31 S.14
	<i>In € million</i>
Mineral or spring waters	439
Soft drinks and concentrates	917
Fruit and vegetable juices	316
TOTAL COICOP 01.2.2	1.672

5.7.3.2.2. COICOP 02 – Alcoholic beverages, tobacco and narcotics

A. ALCOHOLIC BEVERAGES (COICOP 02.1)

A similar method as the one for COICOP 012 non-alcoholic beverages is used to estimate final consumption expenditure of alcoholic beverages. First a total consumption is estimated using other extrapolation methods. Next the share of final consumption expenditure is identified using indicators of professional federations or the HBS, the rest being considered as intermediate consumption of productive units.

For spirits (COICOP 02.1.1) and wine (COICOP 02.1.2), expenditure are calculated using extrapolations of excise duties revenues. The total value of excise duties received by the public administration for each type of product is extrapolated using the ratio between the average price of each product and the excise duty tariff. Final consumption expenditure is identified using HBS, as is the case for non-alcoholic beverages (COICOP 01.2.2).

Total consumption expenditure of beers is estimated by multiplying average prices received from the FPS Economy (division CPI) and volumes provided by the Belgian Brewers Federation. A yearly survey on direct and indirect sales of beers from the Belgian Brewers Federation also allows us to identify the share of final consumption expenditure.

Finally consumption expenditure of non-alcoholic beverages which are usually alcoholic, such as non-alcoholic beers, are added to COICOP 02.1 (cf. §5.1.3.2.1).

Results COICOP 02.1

		Year 2012	
		% P.31 S.14	P.31 S.14 Final result
0211	Spirits	32,7 %	288
0212	Wine	61,8 %	1.797
0213	Beer	54,0 %	949

B. TOBACCO (COICOP 02.2)

Consumption of tobacco products is also estimated using a price time volume method, where prices are provided by the FPS Economy (division CPI) and volumes are delivered by the Belgian Customs and Excise Office. It is assumed that all consumption expenditure of tobacco products is final consumption expenditure of households.

Table 1: Results COICOP 02.2

Year 2012	
	P.31 S.14
	In € million
Cigarettes	2.702
Cigars	116
Tobacco	793
TOTAL	3.611

Consumption of tobacco paper, used to roll own cigarettes (SUT 17A06) is estimated using the HBS in reference years and extrapolated on the basis of the evolution of consumption of tobacco products. In 2012, expenditure on this product was equal to € 11 million.

Consumption expenditure of smuggled tobacco products are added to COICOP 022. In 2012 the quantity of smuggled cigarettes was estimated as 6.5 % of legal sales and the street value was set at

half the official price. A detailed description of the methodology can be found in §7.1.3.2. In 2012, € 82 million was added to expenditure to take smuggling into account.

C. NARCOTICS (COICOP 02.3)

Household final consumption expenditure of narcotics is estimated per type of drugs, namely cannabis, XTC, amphetamines, cocaine and heroin. A method is developed based on prevalence ratios, average consumption, population statistics and expert estimates. A detailed description of the methodology can be found in §7.1.3.2. In 2012, drugs consumption expenditure was equal to € 606 million.

5.7.3.2.3. COICOP 03 – CLOTHING AND FOOTWEAR

Estimates for clothing and footwear expenditure are based on the HBS method. In reference years, the estimates are equal to those of the HBS. For intermediate years the estimates follow the evolution of the following indicators:

- Clothing (COICOP 03.1): evolution of the reported turnover to the VAT administration of shops specialised in clothing (NACE 47.71), verified with the evolution of turnover reported in the retail trade survey for textile;
- Footwear (COICOP 03.2): evolution of the reported turnover to the VAT administration of shops specialised in footwear (NACE 47.721), verified with the evolution of turnover reported in the retail trade survey for textile.

Results COICOP 03

In € million, Year 2012

COICOP	Reference year (HBS)	Evolution 2011	Evolution 2012	Result 2012 before adjustment	Adjustments (§5.7.3.3)	Final Result 2012
03.1	6.043	5,4%	4,3%	6.645	842	7.487
03.2	1.630	2,1%	2,6%	1.708	-151	1.556

5.7.3.2.4. COICOP 04 – Housing, water, electricity, gas and other fuels

A. HOUSING (COICOP 04.1 and COICOP 04.2)

Final consumption of housing services is obtained directly from the estimate of output of housing services (cf. § 3.18.2), which comprises services produced by the renting of houses as measured by the value of rents (COICOP 04.1) and services provided by owner-occupiers as measured by the value of comparable rents (COICOP 04.2).

In Belgium, imputed and actual rents are estimated using a direct extrapolation method. Total production is estimated with the help of a volume times price approach, multiplying the number of dwellings by the rents. For owner-occupied dwellings, actual rentals for similar rented housing are used. Estimates are based on two reference years, corresponding with resp. the General Socio-

Economic Survey 2001 and the NSI population and housing Census 2011. Final consumption expenditure of households consists of the production in the household sector, a share in the production in the non-financial enterprise sector that corresponds with social housing services and excludes the estimates for final consumption expenditure of general government, as is shown in the next table

Results COICOP 04.1 and COICOP 04.2

In million, 2012

	COICOP 04.1 SUT 68B02	COICOP 04.2 SUT 68B01
P.1 S.14	8.100	21.424
P.1 S.11 (social rents)	989	
P.31 S.13 (-)	95	
P.31 S.14	8.995	21.424

B. MAINTENANCE AND REPAIR OF THE DWELLING (COICOP 04.3)

The level of maintenance and repair expenses usually borne by tenants (COICOP 04.3) is equal to the results of the HBS for reference years.

The estimates for intervening years is obtained by applying to the reference year a price times volumes index, where the volume index is determined by the evolution of the housing stock and the price index comes from the consumer price index.

Results COICOP 04.3

In € million, 2012

COICOP	Reference year (HBS)	Evolution 2011	Evolution 2012	Result 2012 before adjustment	Adjustments (§5.7.3.3)	Final Result 2012
04.3	2.167	3,2%	3,5%	2.316	192	2.507

C. WATER SUPPLY AND MISCELLANEOUS SERVICES RELATED TO THE DWELLING (COICOP 04.4)

Apart from refuse collection (COICOP 04.4.2 - SUT 38A01), the HBS is the preferred method for calculating the amounts paid for water distribution and other services relating to the dwelling for the reference years. The alternative method is to subject the reference years to extrapolation of price times volume evolutions.

In the case of water supply (COICOP 04.4.1) and sewer collection (COICOP 04.4.3) the trend in volume of water consumed by households is available in water distributors operating reports. The price trend is supplied by the FPS Economy (CPI). The ventilation between water and sewer collection is based on the analysis from the SUT for 2010.

For other services related to the dwelling (COICOP 04.4.4) the price evolution is also determined by FPS Economy data (CPI), while the volume index used is equal to the evolution of the stock of dwellings. Further ventilation per SUT product is determined by the HBS.

Refuse collection charges paid (COICOP 04.4.2) represent market services invoiced by general government. Final consumption of households is provided directly by administrative data from the accounting of general government.

Results COICOP 04.4

In € million, 2012

COICOP	Reference year (HBS)	Evolution 2011	Evolution 2012	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
04.4.1	831	5,7 %	5,5 %	926	49	975
04.4.2				489	0	489
04.4.3	328	5,7 %	5,5 %	366	19	385
04.4.4	965	3,3 %	3,6 %	1.033	85	1.119

D. ELECTRICITY, GAS AND OTHER FUELS (COICOP 04.5)

Final consumption of energy products is estimated via the HBS method for reference years. Intervening years are estimated by extrapolation of the base years using a price times volume index. Price trends are supplied by the FPS Economy (CPI). The trend in volume consumed is provided by various professional federations (SYNERGRID, Belgian Petroleum Federation) and by the FPS Economy (Energy balances). The breakdown by SUT products is that of the HBS.

Results COICOP 04.5

In € million, 2012

COICOP	Reference year (HBS)	Evolution 2011	Evolution 2012	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
04.5.1.0	3.507	7,9 %	0,8 %	3.816	252	4.068
04.5.2.1	2.775	-2,5 %	20,7 %	2.263	270	3.533
04.5.2.2	104	-2,5 %	20,7 %	122	11	133
04.5.3.0	2.496	24,1 %	12,0 %	3.470	286	3.756
04.5.4.1	44	-11,2 %	-3,9 %	37	3	41
04.5.4.9	104	3,4 %	4,8 %	113	9	122

5.7.3.2.5

COICOP 05 – Furnishings, household equipment and routine household maintenance

With the exception of domestic services (COICOP 05.6.2.1), the HBS is the preferred method to estimate expenditure on furnishings, household equipment and routine household maintenance. The

alternative method to estimate intervening years is to extrapolate from the reference years on the basis of the evolution of VAT turnover for specific commercial activities, sometimes verified with the evolution of retail trade turnover as provided by the FPS Economy in the retail trade survey. The following indicators are used per COICOP:

- Furniture and furnishings, carpets and other floor coverings (COICOP 051): VAT turnover of retail trade in furniture, lighting equipment and other household goods in specialised shops (NACE 47.591) verified with the evolution of household goods in the retail trade survey;
- Household textiles (COICOP 052): VAT turnover of retail trade in lighting equipment (NACE 47.592) and glass-, china- and stoneware (NACE 47.593) in specialised shops;
- Household appliances (COICOP 053): VAT turnover of retail trade in electronic household appliances in specialised shops (NACE 47.540);
- Glassware, tableware and household utensils (COICOP 054): VAT turnover of retail trade in lighting equipment (NACE 47.592) and glass-, china- and stoneware (NACE 47.593) in specialised shops;
- Tools and equipment for house and garden (COICOP 055): VAT turnover of retail trade in lighting equipment (NACE 47.592) and glass-, china- and stoneware (NACE 47.593) in specialised shops;
- Non-durable household goods (COICOP 0561): VAT turnover of retail trade in non-specialised shops (NACE 47.114) and verified with the results of the retail trade survey for divers products;
- Domestic services by paid staff (COICOP 05621): alternative method discussed below;
- Other domestic services and household services (COICOP 05622_3_9): VAT turnover of retail trade in non-specialised shops (NACE 47.114) and verified with the results of the retail trade survey for divers products;
- Cleaning services (COICOP 05622 96A01): VAT turnover of services for cleaning textile and fur products (NACE 96.01).

Results COICOP 05

In € million, 2012

COICOP	Reference year (HBS)	Evolution 2011	Evolution 2012	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
05.1	3.436	4,4%	-1,1%	3.546	294	3.840
05.2	951	4,7%	3,1%	1.026	85	1.111
05.3	1.994	3,9%	-5,8%	1.950	-75	1.875
05.4	724	4,7%	3,1%	781	64	845
05.5	959	4,7%	3,1%	1.034	86	1.120
05.6	1.458	-0,3%	5,1%	1.503	123	1.626
05.6_96A01	64	1,3%	1,7%	90	57	147

Regarding domestic services, final consumption expenditure are estimated using a specific method. Total final consumption is calculated biyearly based on HBS. This amount corresponds partially to services provided within the framework of “cheques for household services” and local employment

agencies and is ventilated between cleaning services (PSUT 81B01) and social protection services without overnight stay and excluding child care services (PSUT 88A02) based on information from the ONEM. The estimate calculated on balance is appropriated to domestic services produced by individuals of which households are deemed the employers (PSUT 97A01) (cf. 4.7.4).

Domestic services

In € million, 2012

PSUT		Results
81B01	Cleaning services	653
88A02	Social protection services without overnight stay and excluding child care	220
97A01	Domestic services produced by individuals of which households are deemed the employers	466
TOTAL	Final consumption expenditure of households on domestic services (COICOP 05.6.2.1)	1.339

5.7.3.2.6 COICOP 06 – Health

Households' final consumption expenditure on health services are estimated using the commodity flow method, where final consumption expenditure is calculated as the balance obtained by subtracting uses other than households' final consumption (intermediate consumption, final consumption of general government and/or NPISH, exports) from resources (production, net taxes on products, imports).

A. MEDICINE AND OTHER PHARMACEUTICAL PRODUCTS (COICOP 06.1)

For medicine and other pharmaceutical products (COICOP 06.1) total consumption expenditure is known from the detailed analysis of the quinquennial SUT for the products medicine (21A02), other pharmaceutical products (21A03) and medical and dental appliances (32B04).

Government consumption expenditure (P.31 S.13) is identified on the basis of detailed information on refunds for medicine and certain pharmaceutical products of the National Sickness and Disability Insurance Institute (NSDII). Expenses of NPISH are known via the accounting of this sector and are reported as social transfers in kind – market production (P.31 S.15 = D.632). Final consumption of households of the corresponding products is calculated as a balance.

For intervening years, estimates for households' consumption expenditure are extrapolated using the reported turnover of pharmacists (NACE 47.730), specialised shops in retail trade of medical and orthopaedic products (NACE 47.740) and specialised retail shops in photographic and optical

products (NACE 47.782) to VAT authorities. The yearly information on P.31 S.13 and P.31 S.15 allows a verification of the ratio P.31 S.14 to total P. 3.

Results COICOP 06.1

In € million, 2012

	P.3 Total	P.3 S.13	P.3 S.15	P.3 S.14
21A02 + 21A03	4.929	2.846	3	2.080
32B04	1.354	344	6	1.004

B. OUT-PATIENT SERVICES (COICOP 06.2)

Out-patient services include medical services (COICOP 06.2.1), dental services (COICOP 06.2.2) and paramedical services (COICOP 06.2.3) provided directly to outpatients. These types of services may be delivered at home, in individual or group consulting facilities, dispensaries or the outpatient clinics of hospitals and the like.

The production of out-patient services corresponds to the output produced of the branches “general and specialised practitioners” (86B), “dental practitioners” (86C) and “other human health care practitioners” (86D). Out-patient services produced in hospital facilities (86A) are identified using the detailed accounting information of hospitals, available via the FPS Health and are added to the estimation of out-patient services production. Moreover, some blood bank services (86D02) are identified as enterprises classified in the non-market branch of social protection services without overnight stay (88A). The next table shows how the production per branch is converted to a production per product. Estimations also cover software produced for own account.

Intermediate consumption of these products is known thanks to the detailed analysis of the quinquennial SUT, where information of the Structural Business Survey (SBS) is used to estimate consumption of enterprises for industrial medicine (86B01), ambulant services in elderly homes (86B01) and consumption of medical laboratories and diagnostic images (86D01). The structure of the intermediate consumption of hospitals for these products and services is known yearly through the detailed annual accounting information available via the SPF Health.

The balance of payments provides us with estimates for imports and exports per product. Only imports and exports of general and specialist medical services are noted for out-patient care (86B01). Net taxes are available in the accounting of general government, and are equal to zero in 2012 for out-patient services.

Consumption expenditure of the general government for out-patient health care services is equal to the reimbursements made in the framework of the obligated health insurance (NSDII). Detailed

information on the reimbursements is available and is set equal to the individual consumption expenditure of general government for out-patient health care per SUT product.

Finally, consumption expenditure of NPISH for out-patient health care services is zero in Belgium.

Conversion of production per branch to production per product

in € million, 2012

		Production Branches								
Sutprod		86A	86B	86C	86D	87A market	87A non-market	88A market	88A non-market	TOTAL
		Hospitals	Medical Practitioners	Dental Practitioners	Other human health care providers	Social protection services with overnight stay		Social protection services without overnight stay		
Other									39	39
62A01	Software	61	83	9	16	3	1	7	4	183
86A01	Hospital services (excl. 86A02)	11.513								11.513
86A02	Hospital services: geriatrics, psychiatry, rehabilitation	2.231								2.231
86B01	General and specialised medical services	3.439	7.979							11.417
86C01	Dental services			1.536						1.536
86D01	Services of medical labs, blood banks and diagnostic images	380			773					1.153
86D02	Services of nurses and other human health care providers	41			2.374				106	2.521
87A01	Nursing care facilities for elderly	389				4.985				5.374
87A02	(Nursing) homes excl. facilities for elderly, market	1.729				2.728				4.456
88A01	Child care facilities							368		368
88A02	Social protection services without overnight stay, market							1.904		1.904
87A92	(Nursing) homes excl. facilities for elderly, non-market						214			214
88A92	Social protection services without overnight stay, non-market								1.634	1.634
Total		19.782	8.061	1.545	3.163	7.716	215	2.279	1.782	44.543

The balance obtained by subtracting from the resources (production, imports, net taxes on products), the uses excluding final household consumption expenditure (intermediate consumption, exports, final consumption expenditure of general government and NPISH), is equal to P.31 S.14.

Estimation of P.31 S.14 for out-patient health services using the commodity flow approach

By SUT product, in € million, 2012

	86B01	86C01	86D01	86D02	Total 06.2
P.1	11.417	1.536	1.153	2.521	
P.7	4	0	0	0	
D.21	0	0	0	0	
D.31	0	0	0	0	
S	11.421	1.536	1.153	2.521	
P.2	3.544	57	256	20	
P.2_86A	3.261	57	112	20	
P.2_87A	46	0	0	0	
P.2_other	237	0	144	0	
P.3	7.868	1.479	897	2.5	
P.31 S.13	6.387	830	759	2.396	
P.31 S.14	1.482	650	138	105	2.375
P.31 S.15	0	0	0	0	
P.6	9	0	0	0	
U	11.421	1.536	1.153	2.521	

C. HOSPITAL SERVICES (COICOP 06.3)

Hospital services cover the services of general and specialist hospitals, the services of medical centres, maternity centres, nursing homes and convalescent homes which chiefly provide in-patient health care, the services of institutions serving elderly in which medical monitoring is an essential component and the services of rehabilitation centres providing in-patient care and rehabilitative therapy where the objective is to treat the patient rather than provide long-term support.

Production of in-patient care, including day-hospital services, is provided by hospitals and nursing care facilities for elderly. The repartition of the production per branch and per product was shown above. Products included in in-patient care are general hospital services (86A01), specific hospital services for rehabilitation, psychiatry and geriatrics (86A02) and services in nursing care facilities for elderly care (87A02).

Intermediate consumption of in-patient care services is set at zero due to the nature of the service. The balance of payment statistics reports neither imports nor exports of these services. Subsidies on products (D.31) are known via the accounting of general government and are equal to € 49 million for general hospital services (86A01) and € 75 million for nursing care homes.

Finally, individual consumption expenditure of general government is equal to the reimbursements noted in the data of the NSDII. There is no consumption expenditure of NPISH for these services.

The estimates for final consumption expenditure of households are calculated as a balance.

Estimating P.31 S.14 for in-patient services using the commodity flow method

By SUT product, year 2012, in € million

	86A01	86A02	87A01	COICOP 06.3
P.1	11.513	2.231	5.374	
P.7	0	0	0	
D.21	0	0	0	
D.31	49	0	75	
S	11.463	2.231	5.299	
P.2	0	0	0	
P.2_86A	0	0	0	
P.2_87A	0	0	0	
P.2_other	0	0	0	
P.3	11.463	2.231	5.299	
P.31 S.13	8.547	1.649	2.510	
P.31 S.14	2.917	582	2.790	6.288
P.31 S.15	0	0	0	
P.6	0	0	0	
U	11.463	2.231	5.299	

5.7.3.2.7. COICOP 07 – Transport

A. PURCHASE OF VEHICLES (COICOP 07.1)

Final consumption expenditure on new motor cars (COICOP 07.1.1.1), second-hand motor cars (COICOP 07.1.1.2) and motor cycles (COICOP 07.1.2) are calculated yearly based on a price times volume approach, as is explained in more detail below.

Purchases of bicycles (COICOP 07.1.3) are estimated using the HBS method in reference years. Intermediate years are extrapolated from the reference years for this category using reported VAT turnover of shops specialising in the retail sales of bicycles (NACE 47.785). This corresponded with € 355 million in 2012. It is assumed that in Belgium purchased of animal drawn vehicles (COICOP 07.1.4) are equal to zero.

- *Purchases of new cars (COICOP 07.1.1.1)*

Final consumption expenditure on new cars is obtained by multiplying the number of newly registered cars for that year with an average price.

The number of registered new cars is available yearly via the FPS Mobility and Transport (DIV). The data allows us to exclude cars that were registered for less than one month and to ventilate by type of user (physical person or enterprise), by type of fuel (petrol, diesel, other) and by type of engine power (kW). The hypothesis, based on information from DGS, is set that 89 % of registered vehicles by physical persons are used for private goals. The other 11 % are deemed purchases of self-employed used for professional reasons (and registered as P51).

Average prices are based on statistics estimated in the framework of the consumer price index, delivered by the FPS Economy (CPI). Starting from this information, an annual average price per type of engine power (kW) and fuel can be determined. This average price takes into account the advertised discount on the catalogue prices (“*ristourne*”), VAT and the one-time registration tax.

Final consumption expenditure on new cars is as a consequence equal to the average price multiplied by the number of newly registered cars for each combination of engine power and fuel category.

Car scrap schemes were in place in Belgium between 2007 and 2013. Estimations were available in the accounting of the general government and subtracted from the total final consumption expenditure of new cars (€ 18 million in 2012). In total, final household consumption expenditure on new cars was estimated at € 4 784 million in 2012.

- *Purchases of second hand cars (COICOP 07.1.1.2)*

Expenditure on second hand cars (COICOP 07.1.1.2) are estimated by multiplying prices and quantities. However, a distinction needs to be made between:

- Cars traded between households, without any intermediate trader (such as a garage): these transactions are considered to be internal operations within the household sector (S.14) and are not taken into account in the estimation of final consumption expenditure;

- Cars traded between households via an intermediate trader (such as a garage): in this case, only the trade margin of the garage owner (intermediary) is taken into account in the estimation of final consumption expenditure of households;
- Cars sold by enterprises to households, with or without an intermediary: the full amount of the purchase is booked as final consumption expenditure of households (and negative investment in S11).

Registration data is available yearly via the FPS Mobility and Transport. The number of newly registered second-hand cars is ventilated according to type of user (physical person, enterprise), type of fuel and age. The data also allows us to identify purchases where VAT was levied, as a special vignette “904” is then given. This facilitates the identification and exclusion of purchases within the sector of households, without an intermediary, as no VAT is levied on these transactions. Consequently, only transactions where VAT was levied are booked in the national accounts. The total number of second-hand cars purchased by households is thus equal to the sum of total purchases with VAT by physical persons, ventilated by type of fuel and age.

As no direct information is available on the prices of second-hand cars at the FPS Economy (CPI), the average prices of new cars, corrected for age with a depreciation rate, are used, as shown in the next table. The depreciation rate is based on a comparative analysis of the value when bought new and the value when bought second-hand for some of the most popular models sold. The value when bought second-hand is based on information on prices from the “Moniteur Automobile”. Using these depreciation rates, an average price (including VAT, excluding registration taxes) is obtained for each age category.

Estimating average prices of second-hand cars

2012

Age	Residual value	Average price
00-01	59 %	13.818
01-02	52 %	12.069
02-03	46 %	10.597
03-04	37 %	8.616
04-05	32 %	7.469
05-10	25 %	5.815
10-15	10 %	2.326
15+	5 %	1.163

Consequently, the total value of newly purchased second-hand cars is estimated by multiplying the number of registrations by physical persons, ventilated by age category, and the average price by age category. This corresponds with the total value of all purchases by private persons, whether sold by enterprises or by other private persons via an intermediary agent. A distinction between these two types of transactions needs to be made, as they are booked differently in final consumption expenditure.

The hypothesis is made that all purchases of cars younger than five years are sold by enterprises; this corresponds with the life cycle of leased cars and seems plausible. For these purchases, the full value of the exchange is booked in final consumption expenditure.

All transactions of cars older than five years are considered to be transactions between households, via an intermediary agent. The trade margin applied is estimated based on the difference in the recommended sales prices for professionals (Federauto) and the prices recommended by the « Moniteur automobile » for transactions between households. The analysis was done for some of the most popular models. The final consumption expenditure of purchases of second-hand car between households, via an intermediary agent are equal to the value of purchases of second-hand cars older than five years, multiplied by the trade margin, which was equal to 35.5 % in 2012.

This estimated value of purchases of second-hand cars does not include registration taxes paid on all second-hand cars, which need to be included, as is shown in the table below. The amounts of this tax are known through the accounting of general government.

Results COICOP 07.1.1
In € million

	2012
<i>New cars</i>	<i>4.784</i>
Of which car scrap scheme	-18
<i>Second hand-cars</i>	<i>417</i>
Sales professionals to private persons (full amount)	250
Sales private person to private person via a professional intermediary agent (35.5 % margin only)	21
Registration tax (all transactions)	146
Total P.31 S.14 07.1: purchases of cars before adjustment	5.201
Adjustments (§5.7.3.3)	0
Total P.31 S.14 07.1: purchases of cars: final result	5.201

- *Purchases of motorcycles (COICOP 07.1.2)*

Purchases of motorcycles are estimated using a price times quantity approach. Quantities correspond to the number of new motorcycles registered (FPS Mobility and Transport, DIV). Prices are equal to an average price calculated on the basis of the most popular models sold (analysis of the FPS Economy in the framework of the CPI). It is assumed that all purchases of second-hand motorcycles occur between private households offsetting each other, implying that no amount is registered in the final consumption expenditure of households.

Results COICOP 07.1.2

Year 2012

Motorcycles	Number of registrations	Result before adjustments	Adjustments (§ 5.7.3.3)	Final Result 2012
New	24.864	217	0	217
Second-hand	75.495			

B. OPERATION OF PERSONAL TRANSPORT EQUIPMENT (COICOP 07.2)

Expenditure on the operation of personal transport equipment (COICOP 07.2) is ventilated in four different categories, each analysed below.

- *Spare parts and accessories for personal transport equipment (COICOP 07.2.1)*

Expenditure on spare parts and accessories is estimated using the HBS method for reference years. Intermediate years are extrapolated from the reference years on the basis of the evolution of reported VAT turnover of retail trade shops specialised in spare parts and accessories of motor vehicles (NACE 45.320).

- *Fuels and lubricants for personal transport equipment (COICOP 07.2.2)*

The consumption of petrol (19A02), diesel (19A05) and LPG (19A07) is estimated by multiplying prices and quantities. Average prices are obtained through the FPS of Economy. Quantities are estimated by multiplying the yearly average kilometres driven in Belgium by personnel vehicles (FPS Mobility and Transport), with the number of private vehicles (cars and motorcycles) in the car park of Belgium for that year (Federal Planning Bureau) – including the number of leased cars - and an average consumption of fuel by category per kilometre as estimated yearly by the consumer organisation “Test-Achats” and the FPS Mobility and Transport. It is assumed that the consumption of non-residents in Belgium is offset by the consumption of residents in the rest of the world, as no information on these items is available.

Estimates COICOP 07.2.2
Year 2012

	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
07.2.2.1	4.537	0	4.537
07.2.2.2	2.062	-12	2.050
07.2.2.3	65	2	68
07.2.2.4	28	2	30

Consumption of other types of fuel (SUT 19A06 and 20F05) is estimated using the HBS for reference years. Intermediate years are extrapolated from the reference years using the consumer price index.

- *Maintenance and repair of personal transport equipment (COICOP 07.2.3)*

In general, the HBS method is used to estimate expenditure for the maintenance and repair of personal transport equipment. Intermediate years are extrapolated from reference years on the basis of the evolution of reported VAT turnover of retail trade shops specialised in spare parts and accessories of motor vehicles (NACE 45.320).

For the repair and maintenance of motor vehicles (SUT 45A01) - the most important category- results of the HBS are however supplemented with administrative data on settlements with insurance companies. The HBS allows us to identify the share actually paid by the households for maintenance and repair services of motor vehicles. The amount is first fixed in reference years and then extrapolated in intermediate years using the evolution of yearly average kilometres driven in Belgium and the CPI.

Settlements of insurance companies are treated as transfers between households and/or enterprises depending on the insured party (broken down based on the car park). Compensation awarded to households, which amounted to € 1 509 million in 2012, is therefore added to the estimation of final consumption expenditure for maintenance and repair of motor vehicles which was initially only based on HBS data.

Results COICOP 07.2.3.
In € million

	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
SUT 45A01	3.797	0	3.797
Others	252	21	273

- *Other services in respect of personal transport equipment (COICOP 07.2.4)*

Expenses on other services of personal transport equipment (COICOP 07.2.4) consist of leasing (SUT 77A01 and 77C01), depots (SUT 52A01) and garages (SUT 68B03) and driving school (SUT 85A01).

Expenditure on driving school lessons (85A01) are equal to reported VAT turnover of driving schools (NACE 85.531), including VAT (21 %), or € 138 million in 2012.

Expenses for depots (52A01) and garages (68B03) are estimated using the HBS method in reference years. Intermediate years are extrapolated from the reference years. For depots extrapolation is done using price evolutions from CPI and the evolution of average kilometres driven. Expenses on garages are extrapolated using reported VAT turnover of retail trade shops specialising in car parts and accessories (NACE 45.320).

Concerning leasing of motor vehicles, final consumption expenditure of households are not limited to leased vehicles by households, but should also include leased vehicles by enterprises made available to employees for final use. In national accounts, company vehicles used by employees are booked as follows:

- costs attributed to enterprises and imputed to the professional activity should be booked as either intermediate consumption or investment depending on the type of leasing;
- costs attributed to enterprises and not linked to the professional activity should be booked as salary from the point of view of the enterprise (payment in kind) and as a final consumption from the point of view of the employee (user of the vehicle);
- all costs attributed to the employee should be booked as final consumption expenditure.

Since 2002, costs related to company cars attributed to households, including the associated payment in kind, are identified in the HBS. Moreover, data from the FPS Mobility and Transport (DIV) allows identification of cars bought with operational leasing.

Final consumption expenditure is, as a consequence, estimated on the basis of the HBS for available reference years. Intermediate years are extrapolated using the evolution of the leased car park (DIV) and the consumer price index (CPI) for new cars. The leased car park corresponds with the sum of registered leased cars in the last four years, implying a life cycle of four years.

Results COICOP 07.2.4.
In € million

	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
SUT 85A01	138	0	138
SUT 52A01 + 68B03	318	-78	241
SUT 77A01 + 77C01	2.255	0	2.255

C. TRANSPORT SERVICES (COICOP 07.3)

Public transportation services by train (COICOP 07.3.1) and by bus (COICOP 07.3.2.1) are estimated on the basis of the annual accounts and supplementary statistics of the enterprises in charge of the exploitation - namely the SNCB for trains and De Lijn, TEC and STIB for busses, tramway and metro; expenditure was equal to € 1.383 million in 2012.

Final consumption expenditure for passenger transport by air (COICOP 07.3.3) is based on the purchases of flight tickets via Belgian flight operators and tour operators. Purchases of flight tickets by non-residents in Belgium are estimated on the basis of credit card information provided by the Balance of Payment.

Purchases of flight tickets via tour operators in Belgium are estimated as a share of the production, taken into account the following information:

- the ratio between private and business travels as reported in the travel section of the Balance of Payments;
- the share of transactions related to direct purchases of flight tickets (excluding package holidays), as available in the information of the Belgian Tour Operators Association;
- an assumed 10 % trade margin percentage.

Total final consumption expenditure of households on flight tickets corresponded to € 438 million in 2012.

For other transportation services, such as taxi services (COICOP 07.3.2.2), transport by sea (COICOP 07.3.4), the HBS is the privileged method for estimating consumption expenditure in reference years. Intervening years are calculated by extrapolating from the reference year on the basis of the following indicators:

- for taxi services (COICOP 07.3.2.2; SUT 49B02), the evolution of the reported VAT turnover of taxi drivers (NACE 49.39) is used;
- for other transportation by road (COICOP 07.3.2.2; SUT 49B01 and 49B02), the evolution of reported turnover of other passenger transport by road (NACE 49.39) is used;
- for transport services by sea (COICOP 07.3.4), a price times volumes indicator is developed, where price evolutions correspond with the CPI and volume evolutions correspond with the evolution of the number of people boarding a ship (FPS Economy - DGS);
- other transportation services (COICOP 07.3.6), such as removal services, funiculars etc., fluctuate based on the CPI and the evolution of the number of private households.

Results COICOP 07.3.*In € million*

	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
07.3.1	800	0	800
07.3.2	698	10	707
07.3.3	438	112	550
07.3.4	12	1	13
07.3.5	0	0	0
07.3.6	68	69	138

5.7.3.2.8 COICOP 08 – Communication

The HBS is the preferred method for estimating goods and services relating to communication. Extrapolation from the reference years is based on FPS Economy consumer price indices and volume statistics from resp. the annual accounts of BPost, several large telecommunications providers and the Belgian Institute of Postal and Telecommunications Services.

Results COICOP 08*In € million*

	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
08	4.399	364	4.762

5.7.3.2.9 COICOP 09 – Recreation and culture

The HBS is the privileged source for estimating expenditure on recreational and cultural services in the base years. Results for intermediate years are extrapolated from the reference years using different sources.

- Expenditure on audio-visual, photographic and information processing equipment (COICOP 09.1) are extrapolated using the reported VAT turnover of retail trade shops specialised in electronical household equipment (NACE 47.540);
- Expenses on other major durables for recreation and culture (COICOP 09.2) are extrapolated based on the evolution of reported VAT turnover of retail trade shops specialised in sports and outdoor equipment (NACE 47.640);
- Consumption expenditure on games, toys and hobbies (COICOP 09.3.1) and equipment for sport, camping and open-air recreation (COICOP 09.3.2) follow the evolution of the VAT turnover of retail trade shops, specialised in games and toys (NACE 47.650);
- Expenditure on gardens, plants and flowers (COICOP 09.3.3) are extrapolated using the VAT turnover evolution of shops specialised in flowers, plants and seeds (NACE 47.761);

- Expenses on pets and related products (COICOP09.3.4) are extrapolated using the general evolution of VAT turnover of retail trade shops (NACE 47.1; 47.2) due to lack of more specific information;
- Veterinary costs and expenses on other services for pets (COICOP 09.3.5) are extrapolated from reference years using a price times volume indicator, where the price evolution is equal to the CPI for veterinary services (FPS Economy - DGS) and the volume indicator is equal to the evolution of the number of private households.
- Expenses on newspapers, books and stationery (COICOP 09.5) are extrapolated on the basis of VAT turnover of bookshops (NACE 47.61) and newspaper shops (NACE 47.62);

Expenditure on other recreational and cultural services (COICOP 09.4) is estimated based on various sources:

- Recreational and sporting services (COICOP 09.4.1) are estimated using the HBS method in reference years. Reference years are extrapolated using the evolution of output according to national accounts of the branch “sports, leisure and recreation” (SUT 93A). An exception are non-market sales from NPISH, which are known in the accounting of the sector (NACE 93A91);
- Services of cinemas (COICOP 09.4.2.1, SUT 59A01) are estimated based on revenues of movie theatres in Belgium (information received from DGS);
- Services of theatres and concerts (COICOP 09.4.2.1, SUT 90A01) are estimated using the HBS method for reference years. These base years are extrapolated using the evolution of VAT turnover of creative activities, art and entertainment (SUT 90A).
- Market services of libraries, museums and zoological gardens (COICOP 09.4.2.2, SUT 91A01) are estimated using the HBS method for reference years. The reference years are extrapolated using the evolution of VAT turnover for creative activities, art and entertainment (SUT 90A). Non-market services of theatres and concerts (COICOP 09.4.2.2, SUT 91A91) are known via the accounting of NPISH and amounted to € 5 million in 2012;
- Radio and television services (COICOP 09.4.2.3) are estimated based on information on revenues in the annual accounts of several large telecommunications enterprises. Moreover, telecommunication services (SUT 61A01) are estimated using the HBS method for reference years and are extrapolated in intermediate years on the basis of information of the Belgian Institute for Postal services and Telecommunications;
- Other cultural services (COICOP 09.4.2.4; 09.4.2.5 and 09.4.2.9) are estimated using the HBS method for reference years. Intermediate years are extrapolated from the base year, using the evolution of VAT turnover for creative activities, art and entertainment (SUT 90A).
- Expenses on games of chance (COICOP 09.4.3) are estimated on the basis of the annual accounts of the national lottery and “tierces” enterprises, as well as information on net revenues reported to the gaming commission for casinos, gaming halls and bingo in bars.

An exception in COICOP 09 is final consumption expenditure of packaged holidays, i.e. the bundling of both transport and accommodation in one package. In national accounts the consumption should be booked as consumption on Belgian territory, if the bundling was done by a resident producer, even if it consists of a trip to somewhere outside Belgium. The details of the trip (accommodations and transport) are considered intermediate consumption of the bundling producer (touroperator).

Expenditure on packaged holidays corresponds with a fraction of the production of tour operators in Belgium (SUT 79A). This fraction is estimated, taken into account the share of private travels in total travels, according to the Balance of payments. 85 % of output of tour operators is considered to be related to personal travels. Adding VAT (3.8 % in 2012), this total value of final consumption expenditure can then be divided by COICOP, using the share of transactions linked to the direct sales of plane tickets or other travel accommodations, not in a package, according to the Belgian Tour Operators Association (ABTO). Finally, ABTO data also allows a repartition of consumption between travels in Belgium and in the rest of the world and HBS data permits identification of travels related to education.

Consumption of travel services
In € million, 2012

			Results
P.1 (excl. VAT)			3.879
	Business travel (P.2)	BOP 15 %	567
	Personal travel (P.31 S.14)	BOP 85 %	3.312
VAT			3,8 %
P.31 S.14 (incl. VAT)			3.437
COICOP 07	Flight tickets (margin 10 %)	ABTO 9,6 %	33
COICOP 09	Travel in Belgium	ABTO 3,8 %	131
COICOP 09	Travel in the rest of the world	Balance	3.077
COICOP 10	Travel - education	HBS	197

Estimates for COICOP 09, before final adjustments, thus summarize as follows.

Results COICOP 09
In € million

	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
09.1	1.936	457	2.392
09.2	496	41	536
09.3	3.190	264	3.454
09.4	4.782	287	5.069
09.5	2.204	182	2.386
09.6	3.207	-113	3.094

5.7.3.2.10 COICOP 10 – Education

Education expenditure consist primarily of the contribution of households to non-market education services (SUT 85A92 and 85A93) produced by general government and NPISH, mainly comprising course enrolment, examination fees and school monitoring. The amount of these items is therefore determined when the accounts of general government and NPISH are compiled; this corresponded with € 418 million in 2012.

In addition, two other education expenses are estimated using the HBS for reference years, namely organised school excursions (79A01 – cf. 5.7.3.9) and private lessons (85A02). Estimates for intervening years depend on the evolution of the non-market services.

Results COICOP 10*In € million*

	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
SUT 85A92	44	0	44
SUT 85A93	418	0	418
SUT 79A01	197	0	197
SUT 85A02	87	7	94

5.7.3.2.11 COICOP 11 – Restaurants and hotels

The HBS is the preferred method for estimating final consumption of catering services (COICOP 11.1) and accommodation services (COICOP 11.2) in reference years. The alternative method for catering services is to extrapolate from the reference years based on the VAT turnover of restaurants, cafes and caterers (NACE 56A). For accommodation services a price times volume index is constructed using the CPI and the number of nights spend in an accommodation for personal reasons which are survey results provided by the FPS Economy.

Results COICOP 11*In € million*

	Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
11.1	8.946	828	9.774
11.2	1.318	-32	1.286

5.7.3.2.12 COICOP 12 – Miscellaneous goods and services

A. PERSONAL CARE (COICOP 12.1)

The HBS is the preferred method for estimating final consumption expenditure of personal care for reference years. The alternative method for care services is to extrapolate from the reference years on the basis of the VAT turnover of hairdressers and beauty care establishments (NACE 96.02). For goods associated with body care, the VAT global turnover of retailers is used, verified with results of the retail trade survey and the VAT turnover evolution of retail trade in specialised shops for cosmetics and personal care products (NACE 47.750).

B. PROSTITUTION (COICOP 12.2)

Household final consumption expenditure of prostitution services are estimated per type of services, namely street prostitution, window prostitution, private and escort services, brothels and clubs, massage parlours and male prostitution services. A method is developed based on the number of services provided in a base year, the evolution of the male population and average prices. A detailed description of the methodology can be found in §7.1.3.2. In 2012, consumption of prostitution services was equal to € 900 million.

C. PERSONAL EFFECTS N.E.C (COICOP 12.3)

Household final consumption expenditure of personal effects n.e.c. is estimated via the HBS for reference years. For intermediate years, the results of the reference years are extrapolated using the evolution of the VAT turnover of jewellers and clock and watch suppliers (NACE 47.77) and the VAT global turnover of retail trade, as no other specific information is available.

D. SOCIAL PROTECTION (COICOP 12.4)

Final consumption expenditure on social protection services are estimated via the commodity flow method by SUT product. It consists of social protection services with overnight stay, where health care is not the primary goal (market 87A02 and non-market 87A92), child care facilities (88A01) and social protection without overnight stay, excluding child care (market 88A02 and non-market 88A92).

Production of social protection services corresponds with production of the branch “social protection activities with overnight stay” (87A) and “social protection services without overnight stay” (88A). A part of hospital production (Branch 86A) is also allocated to social protection services with overnight stay, excluding nursing care for elderly (87A02). The repartition of the production of these branches per SUT product is shown above (cf. 5.7.3.2.6). To the non-market production of social protection services without overnight stay, excluding child care (88A92) a production of the general government (84A) is added. This was equal to € 125 million in 2012.

Intermediate consumption of social protection services is set at zero due to the nature of the service. The balance of payment statistics also report neither imports nor exports of these services. Net taxes on products are known via the accounting of general government and are equal to zero.

Finally, individual consumption expenditure of general government and of NPISH is known via the accounts of these sectors.

The estimates for final consumption expenditure of households are calculated on balance, as is shown in the table below for the year 2012. For SUT product 88A02, the amount estimated is equal to the total final consumption of households. Household services (COICOP 05.6.2, SUT 88A02) are estimated separately and deducted from this total. The balance of product 88A02 remains in COICOP 12.4 social protection services and amounted to € 273 million in 2012.

Estimating social protection services using the commodity flow method
Year 2012, in € million

	87A02	87A92	88A01	88A02	Household services (COICOP 05 88A02)	88A92	TOTAL 12.4
P.1	4.456	214	368	1.904		1.759	
P.7	0	0	0	0		0	
D.21	0	0	0	0		0	
D.31	0	0	0	0		0	
S	4.456	214	368	1.904		1.759	
P.2	0	0	0	0		0	
P.2_86A	0	0	0	0		0	
P.2_87A	0	0	0	0		0	
P.2_other	0	0	0	0		0	
P.3	4.456	214	368	1.904		1.759	
P.31 S.13	2.297	0	177	1.411		0	
P.31 S.14	2.160	34	191	492	-220	259	2.917
P.31 S.15	0	180	0	0		1.499	
P.6	0	0	0	0		0	
U	4.456	214	368	1.904		1.759	

E. INSURANCE (COICOP 12.5)

Estimates for final consumption expenditure of households on insurance services are determined via the commodity flow method and based on information from the structural survey for insurance enterprises (SSIE?).

Individual life insurances (65A01) can only be consumed by households. This implies that the sum of total output and imports, minus exports is equal to private consumption. Imports and exports are known via the balance of payment data.

Output of indemnity insurances (65A02) - such as fire, health, transportation and others - can be consumed by households (P.31 S.14 or P.2), by general government (P.2), enterprises (P.2), NPISH (P.2) or foreign entities (exports). The repartition of the premiums minus paid services for the different types of non-life insurance services is available in the statistics on detailed non-life insurance published by the National Bank of Belgium. By combining this information with the results of the SSIE on the repartition of non-life premiums paid per type and per sector, the amount of non-life insurance services consumed by sector can be calculated by type of non-life insurance. The results for final consumption expenditure of households are thus deducted from the general allocation of the production of non-life insurance services.

COICOP 12.5 Insurance
Year 2012, in € million

	P11	Taxes	P2	P3
Life insurance	3.208	351	0	3.559
<i>Private life insurance (COICOP 12.5)</i>				2.774
<i>Pension funds and group insurance (COICOP 12.6)</i>				785
Non-life insurance	5.211	1.872		
<i>Insurance connected with the dwelling</i>			1.196	465
<i>Insurance connected with health</i>			428	1.666
<i>Insurance connected with transport</i>			1.555	1.266
<i>Other insurance</i>			493	373
Total	8.777	2.223	3.672	7.328
<i>In COICOP 12.5</i>				6.544
<i>In COICOP 12.6</i>				785

F. FINANCIAL SERVICES N.E.C. (COICOP 12.6)

Final consumption expenditure of financial services corresponds to a share of total production of financial services computed at a NACE 5-digits level.

Concerning financial services (COICOP 12.6.2; SUT 64A01 and 64A02), the following hypotheses are set for the repartition of the estimated market supply between intermediate and final consumption¹⁵⁸:

¹⁵⁸ Also taking into account possible amounts of imports and exports which is exogenous information (BOP).

- activities of the central bank (NACE 64.110): all production is allocated to intermediate consumption;
- activities of deposit-taking corporations except the central Bank (S122/NACE 64.190): the production of this NACE code, other than FISIM, is identified at a detailed level via the Structural Survey for credit institutions. Commission revenues (SUT 64A01) are allocated between intermediate and final consumption using information of the Structural Survey for credit institutions. Other monetary intermediaries also have production of auxiliary services (66A01 and 66A02) as explained below;
- activities of holdings (NACE 64.200): all production is allocated to intermediate consumption;
- activities of collective investment funds (NACE 64.300): the share of final consumption expenditure is determined by the proportion of shares held by households¹⁵⁹ ;
- activities of leasing companies (NACE 64.910): all production is allocated to intermediate consumption;
- consumer credit facilities (NACE 64.921): all production is allocated to final consumption expenditure of households;
- mortgage facilities (NACE 64.922): all production is allocated to final consumption expenditure of households;
- other credit facilities (NACE 64.929): for the enterprises in this NACE code, a nearly 0 % allocation to P.31 S.14 is taken into account;
- factoring (NACE 64.991): all production is allocated to intermediate consumption;
- activities of stock exchange companies (NACE 64.992): a fraction of production (31.1 % in 2012) is allocated to P.31 S.14, calculated on the basis of a survey. Taxes levied on this production are also allocated accordingly;
- other financial service activities (NACE 64.999): a ratio P.2/P.31 S.14 is estimated for the enterprises in this NACE code.

Final consumption expenditure of FISIM (COICOP 12.6.1.0; SUT 64A03) is calculated on the basis of the share of households as consumers in total loans. Data are available by type of loan (mortgage loans or other loans) but not by client of the loans (household or self-employed). Therefore the mortgage loans are assumed to be associated to producers of housing services while the residual loans are divided between households and self-employed, on the basis of a survey.

Consumption of auxiliary financial services (COICOP 12.6.2; SUT 66A01) is based on the share of revenues attributed to households of the branch “auxiliary activities for financial services, excluding pension funds and insurances” (66A), identical to the share calculated for banks (64A). Furthermore, a fixed ratio of 2/3 of the production of auxiliary activities realised in S.14 is added to the total final

¹⁵⁹ The import of financial services corresponding to management costs of non-resident mutual funds is also allocated to P2 and P3S14 according to the ownership of these funds (resident corporations or households).

consumption expenditure of households derived from the production figures in S.12_66A. Finally, where other branches also produce auxiliary financial services (based on SUT analyses, notably for operational leasing (77A)), their production is also allocated between final and intermediate consumption, using the same hypothesis as for branch 66A.

It is assumed that private final consumption expenditure of auxiliary services for insurances and pension funds (66A02) is equal to zero, because households pay directly to the pension funds and insurance companies, which then compensate auxiliary enterprises.

Finally, consumption expenditure on pension funds (COICOP 12.6.2; SUT 65A04) are calculated using the commodity flow approach. As the sum of total output and imports are either consumed by households or exported - and imports and exports are known in the balance of payment data - final consumption is equal to output plus imports minus exports.

G. OTHER SERVICES N.E.C. (COICOP 12.7)

Apart from non-market services of general government and NPISH, the HBS is the preferred method for estimating final consumption of other services. The alternative method used to extrapolate from the reference years relies on a price times volume indicator or on the turnover of a corresponding branch of activity, as shown below.

- For legal services and accounting (COICOP 12.7.0.2) the price times quantity indicator is a combination of the evolutions of the consumer price index (DGS) and of the number of private households;
- Funeral services (COICOP 12.7.0.4) are extrapolated using the evolution of turnover reported to VAT authorities for the branch funeral services (NACE 96.03);
- In other fees and services (COICOP 12.7.0.4) different types are distinguished with, different indicators:
 - For sauna, solarium and other personal services, extrapolation of the HBS reference years results are done, using the evolution of the reported VAT turnover of the branch other personal services (NACE 96);
 - For advertisement (73A01) and other printing services (18A02) the volume indicator is the number of private households and the price indicator, the consumer price index.

The final consumption expenditure of households on administrative fees (COICOP 12.7.0.1) is known via the accounting of general government. It corresponds with sales of the general government of administrative documents delivered to households, such as identity cards etc.

In other fees and services (COICOP 12.7.0.4), other non-market services of general government and NPISH are also included. It concerns other sales of general government and sales of NPISH for services furnished by trade unions and other membership organisations (SUT 94A91).

Estimates for COICOP 12 thus summarize as follows.

Results COICOP 12.
In € million

		Result 2012 before adjustments	Adjustments (§5.7.3.3)	Final result 2012
12.1	Personal care	3.475	287	3.762
12.2	Prostitution	0	900	900
12.3	Personal effects n.e.c.	816	67	883
12.4	Social protection	2.917	0	2.917
12.5	Insurance	6.544	0	6.544
12.6	Financial services n.e.c.	4.188	1.655	5.842
12.7	Other services n.e.c.	3.519	365	3.884

5.7.3.3 Adjustments

The basic estimates are subjected to three types of adjustments: exhaustiveness of basic data, arbitrage of the production and expenditure approaches and balancing of the supply and use table. A detailed breakdown of the estimates is shown in section 5.7.3.5.

The first adjustments consist of the validation and exhaustiveness of amounts estimated. These corrections correspond with items N in the GNI process table.

First, the illegal economy (N2) and consumption expenditure that should have been registered (N1) are added to the total estimates.

Secondly, given that the HBS only questions private households, it is necessary to include expenditure of collective households (mostly people living in nursing homes, in religious orders, in prisons or for a permanent stay in hospitals). Moreover, the highest income categories are underrepresented in the sample of the HBS and not all revenues (and linked consumption) are declared (underground consumption), giving concerns of biased estimates.

As a result, final consumption expenditure are levelled up on the basis of the ratio between disposable income of households as estimated in HBS and disposable income of households as estimated in national accounts. Conceptual differences are taken into account by adding imputed rents and consumption specific for collective household member (nursing care and homes). Finally a five-year moving average is used to smooth the sometimes strong fluctuations from the HBS results (that can be

due to variations in sampling rather than economic changes). In 2012, this coefficient was equal to 6.6 %. This adjustment is included in the GNI process table under N4.

A final correction for exhaustiveness of data (N7 in the GNI process table) is a compensation for statistical deficiencies in the data, given experience of previous arbitrages. In 2012 the amount added is equal to 1.268 million euro and is distributed under expense categories which use the HBS as main source.

A second type of adjustment to the estimates arises from arbitrage between the GDP production and expenditure perspectives. Household final consumption is compared with the other GDP components, and analysed in the context of the income accounts of households. If considered necessary, an adjustment of final consumption expenditure is then introduced to balance GDP production and expenditure approaches. It is distributed pro rata among the headings estimated from the HBS. COICOP groups estimates based on alternative methods, such as administrative data or commodity flow methods, are excluded in the repartition. That arbitrage, which fluctuates over time, amounted to € 150 million in 2012.

A final type of adjustment can be made, if deemed necessary, in balancing the production and expenditure approaches by product when compiling the SUT, when validating data. These types of adjustments are mostly limited to years where all hypotheses underlying the supply and use tables are scrutinized (quinquennial SUT). Each adjustment is then extrapolated over time to avoid breaks in series.

5.7.3.4 National and domestic concepts

Final consumption expenditure by COICOP group is estimated according to the domestic concept, meaning that all consumption (by residents and non-residents) on the Belgian territory is taken into account.

To estimate final consumption expenditure according to national concept (meaning consumption of all residents in Belgium and in the rest of the world), the expenditure of Belgian residents abroad (P.33) are added and the expenditure of foreigners in Belgium (P.34) are deducted.

The values of consumption of residents in the rest of the world (P.33) and of non-residents in Belgium (P.34) are estimated on the basis of balance of payments statistics for private travels. Two corrections are carried out: exclusion of packaged holidays sold by resident tour operators of which the costs need to be considered as intermediate consumption according to ESA 2010 (as calculated in COICOP 09.6) and inclusion of transportation expenses (calculated on the basis of BOP data for transport). The estimates for P.33 and P.34 are shown in the tables below

Estimates for P.33
In € million, 2012

NA code	IMF code		BOP	Correction Packages holidays	Correction flight tickets	Results
P.72_P.2	239	Other business travel	1.955	3.274	-303	4.925
P.72_P.33			13.859	-3.274	303	10.889
	238	Expenditure cross-border workers	597			
	241	Health travel expenses	268			
	242	Educational travel expenses	24			
	243	Other travel expenses	12.969			

Estimates for P.34
In € million, 2012

NA code	IMF code		BOP	Correction Packages holidays	Correction flight tickets	Results
P.62_P.2	239	Other business travel	1.959	567	-132	2.395
P.62_P.34			7.761	-567	132	7.325
	238	Expenditure cross-border workers	212			
	241	Health travel expenses	500			
	242	Educational travel expenses	14			
	243	Other travel expenses	7.035			

5.7.3.5 Summary

The next table shows a detailed breakdown by COICOP group of the estimates for final household consumption expenditure. A distinction is made between estimates based on the HBS method and other methods. Exhaustiveness corrections as reported in the process tables are isolated, as well as corrections made on the basis of SUT analysis and data validation. Finally, any needed correction in the framework of balancing GDP between production and expenditure approaches is also identified.

Detailed breakdown P.31 S.14 by COICOP group
in € million, 2012

COICOP02		Base estimates HBS	Base estimates other methods	Data validation: SUT corrections	Exhaustiveness corrections and FISIM	Balancing	TOTAL
01.1	Food	20.379	0	348	1.654	36	22.417
01.2	Non-alcoholic beverages	407	1.672	0	33	1	2.113
02.1	Alcoholic beverages	0	3.034	0	0	0	3.034
02.2	Tobacco	10	3.611	0	83	0	3.704
02.3	Narcotics	0	0	0	606	0	606
03.1	Clothing	6.645	0	292	538	12	7.487
03.2	Footwear	1.708	0	-292	138	3	1.556
04.1	Actual rentals for housing	0	8.995	0	0	0	8.995
04.2	Imputed rentals for housing	0	21.424	0	0	0	21.424
04.3	Maintenance and repair of the dwelling	2.316	0	0	188	4	2.507
04.4	Water supply and miscellaneous services relating to the dwelling	2.325	489	0	152	2	2.968
04.5	Electricity, gas and other fuels	10.821	0	108	705	19	11.652
05.1	Furniture and furnishings, carpets and other floor coverings	3.546	0	0	287	6	3.840
05.2	Household textiles	1.026	0	0	83	2	1.111
05.3	Household appliances	1.950	0	-236	158	3	1.876
05.4	Glassware, tableware and household utensils	781	0	0	63	1	846
05.5	Tools and equipment for house and garden	1.034	0	0	84	2	1.120
05.6	Goods and services for routine household maintenance	1.593	873	48	596	3	3.112
06.1	Medical products, appliances and equipment	0	3.084	0	0	0	3.084
06.2	Out-patient services	0	2.375	0	0	0	2.375
06.3	Hospital services	0	6.288	0	0	0	6.288
07.1	Purchase of vehicles	328	5.417	0	27	1	5.773
07.2	Operation of personal transport equipment	1.300	12.828	-104	93	2	14.120
07.3	Transport services	196	1.821	176	16	0	2.209
08.1	Postal services	155	0	0	13	0	168
08.2	Telephone and telefax equipment	194	0	0	16	0	210
08.3	Telephone and telefax services	4.050	0	0	328	7	4.385

09.1	Audio-visual, photographic and information processing equipment	1.936	0	296	157	3	2.392
09.2	Other major durables for recreation and culture	496	0	0	40	1	537
09.3	Other recreational items and equipment, gardens and pets	3.190	0	0	258	6	3.454
09.4	Recreational and cultural services	3.281	1.500	14	267	6	5.069
09.5	Newspapers, books and stationery	2.204	0	0	178	4	2.386
09.6	Package holidays	0	3.207	-113	0	0	3.094
10.1	Pre-primary and primary education	0	138	0	0	0	138
10.2	Secondary education	87	98	0	7	0	193
10.3	Post-secondary non-tertiary education	0	227	0	0	0	227
10.4	Tertiary education	0	151	0	0	0	151
10.5	Education not definable by level	0	44	0	0	0	44
11.1	Catering services	8.946	0	88	724	16	9.774
11.2	Accommodation services	1.318	0	-140	107	2	1.286
12.1	Personal care	3.475	0	0	281	6	3.762
12.2	Prostitution	0	0	0	900	0	900
12.3	Personal effects n.e.c.	816	0	0	66	1	883
12.4	Social protection	0	2.917	0	0	0	2.917
12.5	Insurance	0	6.544	0	0	0	6.544
12.6	Financial services n.e.c.	0	4.188	0	1.655	0	5.842
12.7	Other services n.e.c.	872	2.647	288	75	2	3.884
P.31 S.14	TOTAL FINAL HOUSEHOLD CONSUMPTION - DOMESTIC CONCEPT	86.093	93.572	773	10.574	150	192.454
P.33	Resident consumption abroad	0	10.889	0	0	0	10.889
P.34	Non-resident consumption in Belgium	0	7.283	0	42	0	7.325
P.31 S.14	TOTAL FINAL HOUSEHOLD CONSUMPTION - NATIONAL CONCEPT	86.093	97.178	773	10.532	150	196.018

5.8 FINAL CONSUMPTION EXPENDITURE OF NPISH (P3S15)

5.8.1 SCOPE

The NPISHs (non-profit institutions serving households) sector (S.15) covers the following units:

- NPAs classified to S15;
- Certain public utility enterprises not classified in S.13;
- International scientific organisations;
- Trade-unions;
- Political organisations;
- Church workshops and equivalents in other religions;

Activities of NPISHs are confined to the following SUT-branches:

- 72A: Research and Development
- 85A: Education
- 87A: Social work with accommodation
- 88A: Social work without accommodation
- 91A: Library, museum and other cultural activities
- 93A: Activities pertaining to sport and leisure
- 94A: Various membership activities

5.8.2 SOURCES

The sources used comprise:

- NSSO data (wages) for units classified to S.15;
- Annual Accounts for large and very large NPISHs
- Annual structure survey of associations classified to S.15;
- Data from general government account and various administrative sources.

5.8.3 METHODOLOGY

Final consumption expenditure of NPISHs is equal to the sum of their non-market output (P.13) and their expenditure on goods and services provided by market producers with a view to supplying them to households as social transfers in kind (D.632).

The value of NPISH total output (P.1) is calculated by branch of activity as the sum of production costs, i.e. the sum of compensation of employees (D.1), intermediate consumption (P.2), fixed capital consumption (P.51c) and other taxes on production less other subsidies on production (D.29-D.39).

In 2012, the total output of NPISHs is the following:

<i>Variable</i>	<i>Amount 2012</i>
P.2	2.897
D.1	3.165
D.29	48
D.39 (-)	136
P.51c	460
P.1	6.433

The non-market output is then calculated by subtracting P.11 and P.12 from P.1. The amount of P.11 is derived from accounting data of NPISHs and the amount for P12 represents own account production of software and R&D.

For 2012, the calculation of P.13 is the following:

<i>Variable</i>	<i>Amount 2012</i>
P.1	6.433
P.11 (-)	1.218
P.12 (-)	60
P.13	5.155

Final consumption expenditure of NPISHs is equal to the sum of their non-market output (P.13) and their acquisition of goods and services provided by market producers with a view to supplying them to households as social transfers in kind (D.632). The social transfers in kind are derived from information in the annual structure survey destined to (non-market) NPI's.

For the year 2012, the final consumption expenditure of S.15 is the following:

<i>Variable</i>	<i>Amount 2012</i>
P.13	5.155
D.632	9
P.3	5.164

5.9 FINAL CONSUMPTION EXPENDITURE OF GOVERNMENT (P3S13)

5.9.1 CALCULATION OF FINAL CONSUMPTION EXPENDITURE

<i>Data for 2012 (millions of euros)</i>	
Output (P1)	73 629
Market output (P11)	- 2 157
of which:	
- market branches of activity	55
- non-market branches of activity	2102
Output for own final use (P12)	- 2546
Other non-market output (P13)	68 926
Payments in respect of other non-market output (P131)	- 5 639
Social benefits in kind provided by market producers (D632) ¹⁰¹	+ 30 712
Final consumption expenditure (P3)	93 999

The methods for evaluating the output of non-market branches of general government have already been explained (cf. 3.21, 3.22). In brief, this output is measured as the sum of production costs. To arrive at final consumption expenditure, we must subtract market output, output for own final use and payments in respect of other non-market output, and then add social benefits in kind provided by market producers. The method of determining these variables is described below.

5.9.2 MARKET OUTPUT (P11) AND PAYMENTS IN RESPECT OF OTHER NON-MARKET OUTPUT (P131)

5.9.2.1 Description of basic data

In the Benelux economic regrouping, sales appear under economic codes¹⁰² 16 and 18.

(i) Code 16 - Sales of non-durable goods and services

This group comprises income from sales of non-durable goods and services by the general government sector, and income from the renting of buildings, premises, means of transport, technical equipment and other assets (income from the renting of land is coded 28.3).

¹⁰¹ All social benefits in kind include social benefits in kind provided directly by general government as part of its non-market output, which in Belgium are currently estimated at zero.

¹⁰² Cf. 3.1.4. for description of economic codes.

Where a subsector of the general government sector which produces non-market services also has marginal, occasional sales of market goods and services, the resulting income is recorded under code 16.

Taxes paid by households or enterprises on the ownership or use of vehicles, boats or aircraft, shooting, hunting or fishing licences, etc. are regarded either as taxes or as purchases of services. The distinction between a tax and the purchase of a service from general government is based on the following criterion: if authorisation is granted automatically upon payment of the amount due, it is treated as a tax, but if general government uses an authorisation procedure to implement a regulatory function (e.g. verifying the competence or qualifications of the person concerned), the amount paid has to be regarded not as a tax but as payment for the purchase of a non-market service from general government, unless the amount is clearly disproportionate to the cost of providing the service.

(ii) Code 18 - Income from civil engineering work and other investment goods produced

This group covers work done by one subsector of the general government sector for another of its subsectors or for another sector. From the point of view of the subsector or sector for which the work is done, it may be investment work (e.g. new work or major maintenance) or maintenance work; from the point of view of the department that does the work, the income is current income.

5.9.2.2 Calculation of sales by non-market branches of general government

<i>Data for 2012 (millions of euros)</i>		
Federal Government (S1311) without the Belgian Official Gazette Publishing Office (market branche)		
Code 16		3028
Sales by Belgian Official Gazette Publishing Office	-	55
Redevance Apetra/ondraf/ventes de terrains	-	261
Guarantee fees receivable/fees interbancaires	-	1882
Differences in definition of "Federal Government"	+	489
<i>Subtotal</i>		<i>1318</i>
Communities and Regions (S1312)		
Code 16		1467
Indirectly estimated income (course enrolment and examination fees, school monitoring expenses, income of boarding schools and school refectories, income from research contracts with industry)	+	751
RTBF, VRT, BRF	+	252
De Lijn, STIB, TEC	+	129
Differences in definitions of "Communities" and "Regions"	+	537
<i>Subtotal</i>		<i>3136</i>
Local authorities (S1313)		
Accounting data of local authorities		1759
Differences in the definition of local government	+	1257
<i>Subtotal</i>		<i>3016</i>
Compulsory social security (S1314)		
Sales		272
<i>Subtotal</i>		<i>272</i>
Total (P11 + P131)		7741

5.9.2.3 Breakdown of sales by product

This is based on more detailed analysis of certain budgets. Owing to a certain shortage of data on Communities and Regions (S1312) and local authorities (S1313), our knowledge of sales by product is incomplete.

5.8.2.3.1. Calculation of market output (P11)

Only certain sales by non-market branches of general government are regarded as market sales of goods and services.

<i>2012 amounts (millions of euros)</i>		
SUT branch of activity	SUT product	
General government, except defence and social security (84A)	Renting of buildings	518
	Ship pilotage fees	73
	Charges for public hygiene services - refuse collection	489
	Other	42
	<i>Subtotal</i>	<i>1122</i>
Compulsory social security (84C)	Renting of buildings	12
Public-sector education (85A)	Meals taken by outsiders in school refectories	125
	Boarding school fees	39
	University research contracts	508
	<i>Subtotal</i>	<i>671</i>
Waste (38A)		44
RTBF, VRT, BRF (92A3)		253
Total (P11)		2102

5.8.2.3.2. Calculation of payments in respect of other market output (P131)

All other sales are regarded as payments in respect of other non-market output.

The item "Others n.e.c" (75A01) is quite substantial and is calculated as a balancing item. It comprises income from the delivery of documents to households (identity cards, driving licences, etc.), searches in population registers, renting of barriers of the "Nadar" type, kiosks and festivity equipment, work done by civil protection services (removal of wasp nests), sales of admission tickets to museums, halls, swimming pools, sale of administrative forms, photocopies and various publications, miscellaneous work for third parties (statistical or computer work, road works, etc.).

<i>2012 amounts (millions of euros)</i>		
SUT branch of activity	SUT product	
Public transport (49B)	Transport tickets	578
Transport infrastructure management (52A)	Others n.e.c.	150
General government, except defence and social security (80A)	Non-market social assistance	125
	Others n.e.c.	4032
	<i>Subtotal</i>	4157
Compulsory social security (80C)	Others n.e.c.	260
Waste (38A)		75
Public education (85A)	Course enrolment and examination fees	379
	School monitoring	40
	<i>Subtotal</i>	418
Total (P131)		5639

5.9.3 OUTPUT FOR OWN FINAL USE (P12)

In Belgium, output for own account mainly comprises the production of computer software and major databases and investment in originals for films and, also since the implementation of the ESA 2010, the research and development (R&D). The own-account output of fixed capital goods produced by some public enterprises consolidated in the general government sector is also taken into account (this information is available in their annual accounts). No adjustment is made to estimate other own-account output of fixed capital goods. Wage and other costs are recorded as final consumption expenditure, which is therefore over-estimated, whereas public-sector investments are underestimated. It is difficult to say whether this results in a material under-estimate of GDP (because P51c is underestimated), but it should be noted that the staff of most Belgian communes deal only with maintenance and minor repairs, whereas major repairs and new investments are systematically contracted out to public works enterprises.

The estimation of output for own account of software, investment in originals and R&D is discussed in section 5.10.

<i>Data for 2012 (millions of euros)</i>		
General Government (S13)		
Software		520
Originals		11
R&D		1958
Own-account output of fixed capital goods produced by some public enterprises consolidated in the general government sector		57
Total		2546

5.9.3.1 Social benefits in kind provided by market producers (D6311+D63121+D63131)

5.9.3.2 Description of basic data

In the economic regrouping, social benefits in kind appear under code 34, "Transfers of household income", comprising payments to households to cover costs arising from certain risks and needs, without any equivalent and simultaneous counterpart from the recipient.

This group arises mostly in the social security administrations subsector in the form of allocations paid by them to households under insurance schemes, whether directly to households or to production units (for example, hospital care establishments) as full or partial remuneration of services rendered to eligible persons.

Social insurance administrations are not in a position to meet every risk and need, so central and local authorities also make allocations to households in need of government assistance. A particular part of this group is survivors' pensions (paid to the surviving dependants of Belgian officials) and war pensions.

34.1 Widows' and orphans' pensions

In Belgium, there is no autonomous fund for widows' and orphans' pensions, so their gross amounts are recorded under code 34.1. Withholdings from wages (included in gross pay) are recorded as government income under code 37.5 (social security contributions payable by employees).

34.2 War pensions

These comprise all pensions, annuities and ex gratia payments granted by government for psychological or physical injury arising from acts of war and risks incurred.

In Belgium, war disability compensation included in military pensions is not regarded as a transfer, since it cannot be isolated, but as an old-age pension (code 11.33).

34.3 Other social benefits

Social benefits in this group are broken down into benefits in cash (code 34.31) and in kind (code 34.32).

By convention, the risks or needs which can give rise to social benefits are:

- a. sickness,
- b. disability or infirmity,
- c. industrial accident or occupational disease,
- d. old age,
- e. bereavement,
- f. maternity,
- g. family,
- h. job creation,
- i. unemployment,
- j. housing,
- k. education,
- l. destitution.

The majority of social benefits are paid in cash. Benefits in kind include:

- state contributions towards daily cost of hospitalization;
- direct contributions: pharmaceuticals, prostheses, appliances provided directly to military and civilian victims of war or political turmoil;
- medical, surgical and hospital care provided directly to the disabled, the destitute, refugees, etc.

34.4 Other benefits to households as consumers

These are likewise broken down into benefits in cash (code 34.41) and in kind (34.42).

This group comprises, by convention:

- a. travelling scholarships, awards;
- b. compensation for the loss of consumer goods (e.g. loss of furniture due to natural disaster);
- c. savings premiums granted periodically (those paid to an enterprise's own personnel are coded 11.12).

34.5 Other benefits to households as producers

These comprise benefits other than operating subsidies, e.g. prizes and awards for artistic activities.

5.9.3.3 Calculation of social benefits in kind provided by market producers (D632)

Social benefits in kind (D631) payable by general government include those provided directly by it within the framework of its non-market output, which in Belgium are currently estimated at zero.

<i>Data for 2012 (millions of euros)</i>	
Federal Government (S1311)	
National Institute of War Invalids, Veterans and Victims of War (INIG): medical expenses	26
Benefis in kind to specific categories of travelers by rail	26
Benefis in kind for particular groups of people to energy consumption	351
<i>Subtotal</i>	403
Communities and Regions (S1312)	
Birth and childhood assistance (antenatal consultations, consultations for infants and 3 to 6 year-olds, creches and day nurseries, etc.). Help for the disabled and elderly (reception and accommodation, assistance with daily life etc.)	3543
<i>Subtotal</i>	3543
Local authorities (S1313)	
Help for the destitute (rents, pharmaceutical expenses, medical and paramedical care, living expenses in rest homes, cost of domiciliary meals, etc.) and refugees	379
<i>Subtotal</i>	379
Compulsory social security (S1314)	
Health care assistance within the framework of compulsory health insurance	26310
Other assistance (family help and creche facilities, medical expenses arising from industrial accidents and occupational diseases, etc.)	76
<i>Subtotal</i>	26386
Total social security benefits in kind provided by market producers (D632)	30712

5.9.4 FINAL CONSUMPTION EXPENDITURE AND ACTUAL FINAL CONSUMPTION

5.9.4.1 General

There is a distinction between two types of final consumption: final consumption expenditure and actual final consumption.

Final consumption expenditure (P3) comprises the consumption expenditure for which each sector ultimately pays. The final consumption expenditure of general government (P3S13) is divided into individually identifiable final consumption expenditure (P31S13: the individual consumer is identifiable) and collective consumption expenditure (P32S13). The first, conventionally broken down in line with a list of headings in the COFOG classification of the functions of government, includes, for example, expenditure on education and health¹⁰³. The second, which comprises all other items in

¹⁰³ In ESA 2010, all final consumption expenditure of general government, except expenditure on general administration, regulations, research, etc., attributed to one of the following COFOG headings (revised version of 1998) is treated as consumption expenditure on individual services: 07 Health, 08.1 Sport and leisure activities, 08.2 Culture, 09 Education, 10 Social protection.

the COFOG classification, comprises expenditure on the "traditional" or "core" functions of government (defence, justice, police, general administration) and a residue of non-market services to enterprises and households, such as transport infrastructure, which cannot be, by convention, individually identified.

Final consumption expenditure therefore does not include the health expenditure of households that is initially borne by them but subsequently refunded by social security. These refunds are included in the final consumption expenditure of general government.

Actual final consumption (P4), likewise for each institutional sector, comprises goods and services actually used (consumed), irrespective of how they are funded. The actual final consumption of households is therefore the sum of their final consumption expenditure and social transfers in kind (D63) from general government or NPISHs¹⁰⁴ ($P4S14 = P3S14 + P31S13 + P3S15$). Social transfers in kind from general government to households correspond exactly to its individually identifiable final consumption expenditure. Conversely, the actual final consumption of general government comprises only goods and services that are included in collective final consumption expenditure.

5.9.4.2 Split between individual consumption expenditure (P31S13) and collective consumption expenditure (P32S13 = P4S13)

The distinction between individual consumption expenditure (P31) and collective consumption expenditure (P32) is made when the final tables of general government expenditure by function and transaction are compiled.

The table below provides details of the final consumption expenditure of general government by subsector. Items that cover individual services are indicated by outside borders.

The collective consumption expenditure of general government corresponds to all its other final consumption expenditure.

¹⁰⁴ According to ESA 2010, consumption expenditure by NPISHs is regarded, by definition, as individually identifiable.

Final consumption expenditure (P.3)			Federal government	Communities and regions	Local government	Social security funds	General government
Government function							
Total Final consumption expenditure (P.3)			12239	33360	19659	28741	93998
Total Individual consumption expenditure (P.31)			1260	22094	8208	28688	60248
	07 Health		322	242	74	27393	28030
	08 Recreation, culture and religion		98	253	1320	0	1670
	09 Education		0	17771	5031	0	22802
	10 Social protection		841	3828	1783	1295	7747
Total Collective consumption expenditure (P.32)			10979	11267	11451	53	33750
Total	01 General public services		3107	2228	4780	0	10114
	01 General public services	01.1 Executive and legislative organs, financial and fiscal affairs, external affairs	2387	494	2172	0	5053
		01.2 Foreign economic aid	53	3	1	0	57
		01.3 General services	333	254	2462	0	3050
		01.4 Basic research	150	1222	2	0	1374
		01.5 R&D General public services	0	24	1	0	25
		01.6 General public services n.e.c.	62	27	14	0	102
		01.7 Public debt transactions	122	203	128	0	454
		01.8 Transfers of a general character between different levels of government	0	1	0	0	1
	02 Defence		3572	0	0	0	3572
	02 Defence	02.1 Military defence	3460	0	0	0	3460
		02.2 Civil defence	0	0	0	0	0
		02.3 Foreign military aid	90	0	0	0	90
		02.4 R&D Defence	22	0	0	0	22
		02.5 Defence n.e.c.	0	0	0	0	0
	03 Public order and safety		3218	87	3277	0	6581
	03 Public order and safety	03.1 Police services	1287	0	2577	0	3863
		03.2 Fire-protection services	43	87	625	0	755
		03.3 Law courts	1055	0	2	0	1057
		03.4 Prisons	604	0	0	0	604
		03.5 R&D Public order and safety	10	0	0	0	10
		03.6 Public order and safety n.e.c.	219	0	73	0	292
	04 Economic affairs		740	6769	1976	0	9485
	04 Economic affairs	04.1 General economic, commercial and labour affairs	332	956	418	0	1706
		04.2 Agriculture, forestry, fishing and hunting	12	88	18	0	118
		04.3 Fuel and energy	90	37	-72	0	56
		04.4 Mining, manufacturing and construction	0	3	-1	0	2
		04.5 Transport	130	5341	1508	0	6979
		04.6 Communication	39	5	1	0	45
		04.7 Other industries	0	39	85	0	125
		04.8 R&D Economic affairs	135	296	9	0	440
		04.9 Economic affairs n.e.c.	0	5	10	0	15
	05 Environment protection		93	694	614	0	1401
	05 Environment protection	05.1 Waste management	59	180	484	0	724
		05.2 Waste water management	0	14	-91	0	-77
		05.3 Pollution abatement	8	203	9	0	219
		05.4 Protection of biodiversity and landscape	1	60	2	0	62
		05.5 R&D Environmental protection	13	23	0	0	36
		05.6 Environmental protection n.e.c.	13	214	211	0	438
	06 Housing		0	145	245	0	390
	06 Housing	06.1 Housing development	0	11	8	0	19
		06.2 Community development	0	42	108	0	150
		06.3 Water supply	0	1	-7	0	-7
		06.4 Street lighting	0	46	132	0	178
		06.5 R&D Housing and community amenities	0	2	0	0	2
		06.6 Housing and community amenities n.e.c.	0	42	4	0	46

07 Health		435	385	77	27445	28341
07 Health	07.1 Medical products, appliances and equipment	42	0	0	3319	3361
	07.2 Outpatient services	1	17	39	10780	10837
	07.3 Hospital services	37	1	15	13275	13328
	07.4 Public health services	242	224	20	19	504
	07.5 R&D Health	29	2	0	0	31
	07.6 Health n.e.c.	84	141	3	53	280
08 Recreation, culture and religion		121	1105	1339	0	2565
08 Recreation, culture and religion	08.1 Recreational and sporting services	0	114	697	0	811
	08.2 Cultural services	98	139	623	0	859
	08.3 Broadcasting and publishing services	0	786	2	0	787
	08.4 Religious and other community services	0	0	18	0	18
	08.5 R&D Recreation, culture and religion	23	0	0	0	23
	08.6 Recreation, culture and religion n.e.c.	0	67	0	0	67
09 Education		0	18100	5098	0	23198
09 Education	09.1 Pre-primary and primary education	0	4789	2627	0	7416
	09.2 Secondary education	0	8062	1356	0	9418
	09.3 Post-secondary non-tertiary education	0	0	0	0	0
	09.4 Tertiary education	0	2994	200	0	3194
	09.5 Education not definable by level	0	1672	733	0	2404
	09.6 Subsidiary services to education	0	254	116	0	370
	09.7 R&D Education	0	4	0	0	4
	09.8 Education n.e.c.	0	325	68	0	393
10 Social protection		954	3847	2254	1295	8350
10 Social protection	10.1 Sickness and disability	133	1968	9	330	2439
	10.2 Old age	160	24	247	190	622
	10.3 Survivors	0	0	16	0	16
	10.4 Family and children	67	1615	318	195	2195
	10.5 Unemployment	0	0	1	560	561
	10.6 Housing	0	102	4	0	105
	10.7 Social exclusion n.e.c.	482	119	1188	20	1808
	10.8 R&D Social protection	1	1	1	0	3
	10.9 Social protection n.e.c.	112	18	471	0	600

5.10 GROSS FIXED CAPITAL FORMATION (P51G)

5.10.1 OVERVIEW

The following tables shows acquisitions less disposals of fixed assets by NACE sections (A*21) and types of assets.

Table 5.10.1.1 Acquisitions less disposals of fixed assets by activity (A*21)

	P51g, 2012 € million
Agriculture, forestry and fishing (A)	1.169
Mining and quarrying (B)	44
Manufacturing (C)	12.141
Electricity, gas, steam and air conditioning supply (D)	2.748
Water supply; sewerage, waste management and remediation activities (E)	1.701
Construction (F)	3.119
Wholesale and retail trade; repair of motor vehicles and motorcycles (G)	6.496
Transportation and storage (H)	6.452
Accommodation and food service activities (I)	1.069
Information and communication (J)	3.951
Financial and insurance activities (K)	2.657
Real estate activities (L)	25.171
Professional, scientific and technical activities (M)	4.888
Administrative and support service activities (N)	3.457
Public administration and defence; compulsory social security (O)	4.424
Education (P)	2.808
Human health and social work activities (Q)	3.987
Arts, entertainment and recreation (R)	632
Other service activities (S)	757
Total	87.670

Table 5.10.1.2 Acquisitions less disposals of fixed assets by asset (AN*)

	P51g, 2012 €million
Dwellings (AN.11100)	22.854
Non-residential buildings & other structures (AN.11210 + AN.11220)	21.297
Machinery and equipment & weapon systems (AN.11310 + AN.11321 + AN.11322 + AN.11390 + AN.11400)	28.388
Transport equipment (AN.11310)	6.760
Computer & hardware (AN.11321)	3.330
Telecoms (AN.11322)	1.706
Other machinery and equipment & weapon systems (AN.11390 + AN.11400)	16.593
Cultivated biological resources (AN.11500)	202
Intellectual property products (AN.11700)	14.929
Research and development (AN.11710)	8.617
Computer software and databases (AN.11730)	5.751
Other intellectual property products (AN.11740 + AN.11790)	561
Total	87.670

Table 5.10.1.3 Acquisitions less disposals of fixed assets by activity (A*21) and assets

P51g, 2012 € million	AN.111	AN.112	AN.113 & AN.114	AN.115	AN.117	Total
Agriculture, forestry and fishing (A)		119	835	202	12	1.169
Mining and quarrying (B)		3	41		1	44
Manufacturing (C)		955	5.976		5.210	12.141
Electricity, gas, steam and air conditioning supply (D)		1.287	1.203		258	2.748
Water supply; sewerage, waste management and remediation activities (E)		673	962		67	1.701
Construction (F)		1.044	1.925		150	3.119
Wholesale and retail trade; repair of motor vehicles and motorcycles (G)		1.622	3.636		1.238	6.496
Transportation and storage (H)		4.231	1.816		405	6.452
Accommodation and food service activities (I)		248	799		22	1.069
Information and communication (J)		225	1.800		1.925	3.951
Financial and insurance activities (K)	66	794	901		897	2.657
Real estate activities (L)	22.788	1.807	560		16	25.171
Professional, scientific and technical activities (M)		791	2.733		1.363	4.888
Administrative and support service activities (N)		1.151	1.959		347	3.457
Public administration and defence; compulsory social security (O)		2.667	1.017		741	4.424
Education (P)		884	101		1.823	2.808
Human health and social work activities (Q)		2.261	1.479		247	3.987
Arts, entertainment and recreation (R)		257	261		114	632
Other service activities (S)		278	386		93	757
Total	22.854	21.297	28.388	202	14.929	87.670

As far as additions to the value of non-produced non-financial assets, the following can be mentioned.

An accurate separate estimate of major improvements to land is not possible as long as there is no data for non-produced asset AN.211 « Land ». According to the ESA 2010 transmission program, the first transmission of the asset Land is due in 2017; the NAI will thus work in the coming years to meet this new deadline. For the time being, it is considered that major improvements to land (AN.1123) are included in the fixed asset that lies above it (AN.1110, AN.1121 or AN.1122). Such an assumption is in accordance with a practical approach that states that if improvement is impossible to separate from land itself, it has to be registered as a composite asset in category with highest value (source: Eurostat, «Training on general introduction to ESA 2010», Luxembourg, December 2013).

Some aggregate estimate of purchases and sales of land is made in the capital account, that is registered in NP1 “acquisition less disposals of natural resources”:

- S.11: estimates on the base of a ratio between dedicated rubrics in SBS ($INVTER/(INVTER+INVBUTEREX+INVBUNE)$) of the SBS;
- S13: specific rubric from public accounting (see infra section 5.10.3.3);
- S.122: specific rubric in the structural survey of banks;
- S.128: specific rubric in the structural survey of insurance companies;
- balancing item of the above operations is attributed to S.14.

Capital account also covers NP2 “acquisition less disposals of contracts, leases and licences”, which are only estimated the following sectors:

- S128: specific rubric in the structural survey of insurance companies
- S13: licences of mobile phone (counterpart S.11), purchases of carbon credits (counterpart S.2)...
- S2: rubric 480 of balance of payment
- balancing item of the above operations is attributed to S.11

NP3 “Purchases less sales of goodwill and marketing assets” is supposed to be negligible and is set to zero due to lack of data.

Costs of ownership transfer on non-produced asset land are registered with investments in dwellings of S.14 (see infra 5.10.3.4.2).

NP* 2012							
€ million							
	S.11	S.12	S.13	S.14	S.15	S.1	S.2
NP1 acquisition less disposal of natural resources	502	2	78	-582	0	0	0
NP2 acquisition less disposal of contracts, leases and licenses	-318	0	-56	0	0	-374	374
NP3 Purchases less sales of goodwill and marketing assets	0	0	0	0	0	0	0
<i>Pm registration duties (on land)</i>	0	0	3.487	0	0	3.487	0

The following table shows total acquisitions less disposals of tangible fixed assets by (sub)-sector:

Table 5.10.1.4 Acquisitions less disposals of fixed assets by sector

	P51g, 2012 € million
Non-financial corporations (S.11)	52.543
Financial corporations (S.12)	2.691
Central bank, deposit-taking corporations and money market funds (S.121 + S.122 + S.123)	759
Non-monetary investment funds, other fin. Intermediaries, except insurance corporations and pension funds, and captive financial institutions and money lenders (S.124+125+127)	1.069
Financial auxiliaries (S.126)	446
Insurance corporations and pension funds (S.128 + S.129)	418
General government (S.13)	9.642
Households (S.14)	22.343
Non-profit institutions serving households (S.15)	452
Total	87.670

Total acquisitions less disposals of tangible fixed assets by sector and assets are as follows:

Table 5.10.1.5 Acquisitions less disposals of fixed assets by sector and assets

P51g, 2012						
€ million						
	S.11	S.12	S.13	S.14	S.15	S.1
AN.111 Dwellings	2.583	66	0	20.205	0	22.854
AN.112 Other buildings and structures	14.374	802	5.423	493	205	21.297
AN.113 & AN.114 Machinery and equipment and weapons systems	24.163	922	1.635	1495	173	28.388
AN.115 Biological resources	130	0	0	72	0	202
AN.117 Intellectual property products	11.293	902	2.584	77	74	14.929
Total	52.543	2.691	9.642	22.343	452	87.670

An excerpt from the Process Table is shown hereafter, showing the values derived from individual categories of sources and values of conceptual, exhaustiveness and balancing adjustments.

Table 5.10.1.4 Process table for gross fixed capital formation (P.51g)

€ million

GDP & GNI components		Basis for NA Figures					Adjustments				Final Estimate
		Surv +Cn	Adm. Rec.	Comb. Data	Extrap + Models	Other	Data val.	Conceptual	Exhaustiveness (= N3 +N4)	Balancing	
P51g		8.335	53.082	21.144	4.181	0	-1.607	1.600	620	314	87.671
Dwellings	AN.111	66	1.584	21.144	0	0	0	0	0	60	22.854
Other buildings and structures	AN.112	194	20.433	0	49	0	6	245	116	95	21.297
Machinery and equipment	AN.113	212	28.179	0	149	0	-1.033	743	90	160	28.339
Weapons systems	AN.114	0	50	0	0	0	0	0	0	0	50
Cultivated biological resources	AN.115	0	194	0	7	0	0	2	0	0	202
Intellectual property products	AN.117	7.864	2.643	0	3.976	0	-579	611	414	0	14.929

5.10.2 MAIN DATA SOURCES AND THEIR CONVERSION TO NATIONAL ACCOUNTS FIGURES

Three main sources are used to estimate gross capital formation: the annual accounts from the Central Balance Sheets Office of the National Bank of Belgium, the VAT declaration and the Structural Business Survey (SBS). In those three sources, the ‘one year’ rule is embedded in the definition of what must be registered in rubrics related to GFCF.

5.10.2.1 The Central Balance Sheets Office of the National Bank of Belgium

As indicated in the description of the calculation of GDP via the output approach, every Belgian corporation is legally obliged to submit its annual accounts to the Central Balance Sheets Office (CBSO) of the National Bank of Belgium.

An important benefit of using the CBSO data is that the information provided for large corporations, the so-called A1 corporations (H1 if non-profit), contains a relatively great amount of detail. This is not the case for the majority of small and medium-sized corporations (SMEs), for which a distinction is only made between total tangible and total intangible fixed assets. It must however be underpinned that investments of A1 corporations form the overwhelming majority of total investments.

The annual accounts of an A1 corporation include different headings that relate directly to the estimate of investments according to ESA 2010 methodology. These headings can be included in four groups, all pertaining to six types of tangible fixed assets, as described in table 5.10.2.1.1:

- Acquisitions
- Sales and disposals
- Depreciation and amounts written down
- Cancelled revaluation gains

In the case of a small corporations (the B and C units), an abridged schedule of the annual accounts will have to be submitted, where only the headings related to totals of tangible fixed assets (8169/8179/8309/8239) are present.

Table 5.10.2.1.1: Data relating to investments in annual accounts (full accounting schedules)

	Heading	Acquisitions of:
Tangible fixed assets	8161	Land and buildings
	8162	Plant, machinery and equipment
	8163	Furniture and vehicles
	8164	Leasing and similar rights
	8165	Other tangible fixed assets
	8166	Assets under construction and advance payments
	8169	Total tangible fixed assets
Other	6503	Interests recorded under assets =(capitalized)
		Sales and disposals of:
Tangible fixed assets	8171	Land and buildings
	8172	Plant, machinery and equipment
	8173	Furniture and vehicles
	8174	Leasing and similar rights
	8175	Other tangible fixed assets
	8176	Assets under construction and advance payments
	8179	Total tangible fixed assets
	Heading	Depreciation and amounts written down of:
Tangible fixed assets	8301	Land and buildings
	8302	Plant, machinery and equipment
	8303	Furniture and vehicles
	8304	Leasing and similar rights
	8305	Other tangible fixed assets
	8306	Assets under construction and advance payments
	8309	Total tangible fixed assets
	8299	Acquired from third parties

	Heading	Cancelled revaluation gains of:
Tangible fixed assets	8231	Land and buildings
	8232	Plant, machinery and equipment
	8233	Furniture and vehicles
	8234	Leasing and similar rights
	8235	Other tangible fixed assets
	8236	Assets under construction and advance payments
	8239	Total tangible fixed assets

The abovementioned rubrics will be used in the following way to compute administrative ESA 2010 aggregates.

Table 5.10.2.1.2: Computing basis data for NA figures

	Detailed schedule (categories A1 and H1)	Abridged schedule (categories B1, B2, C1, C2, H2 and H3)
P51111 acquisition of new tangible assets at purchaser's prices	8161+8162+8613+8164+8165+8166	8169
P51131 disposal of existing tangible assets at book value	(8171 - 8301 + 8231) + (8172 - 8302 + 8232) + (8173 - 8303 + 8233) + (8174 - 8304 + 8234) + (8175 - 8305 + 8235) + (8176 - 8306 + 8236)	8179 - 8309 + 8239

5.10.2.1.1 Acquisitions

The rubrics 816* of the annual accounts cover acquisition of new (P.51111) as well as existing (P.51112) tangible assets; those two types of assets cannot however be distinguished, so that the whole amount is registered under P.51111.

5.10.2.1.2 Disposals

Corporations must also report in their annual accounts the disposals of tangible assets valued at acquisition prices (rubrics 817*), as well as amounts written down (rubrics 830*) and revaluation gains or losses (rubrics 823*).

Combining those information ($817^* - 830^* + 823^*$) allows obtaining the book value of disposals.

For the computation of the disposals of year Y, all accounts closing in September, October, November and December Y, but also those closing in January, February and March of Y+ 1, are taken into account. This is done in order to extend the population covered for this aggregate: for the units where VAT is used for acquisition (in particular for those that have a book year that does not coincide with the calendar year), their own individual annual account will be used to estimate disposals, since there is no information on disposals in the VAT returns.

Note that withdrawals of assets must be excluded from GFCF because there is no counterpart transaction involved. The rubrics of annual accounts used do cover these withdrawals; this is however not a problem in practice because the accounting value of such an operation is zero (or is set to zero at the moment of withdrawal by writing off an exceptional amount or by accounting a revaluation loss). Therefore withdrawals are taken into account, but with a zero book value.

5.10.2.2 The VAT returns

Every business, the activity of which is liable to VAT, is legally obliged to submit a VAT return (collected by Federal Public Service Finances). This implies that the VAT returns have a very wide coverage.

In the VAT return, one variable is dedicated for recording investments (code 83). Only a global amount has to be indicated, that is not further specified in any way. The amounts that are indicated for this variable in the VAT return must normally be coherent with the data reported in the annual accounts.

If the wide scope of the VAT statistics is a great advantage, the lack of detail is however a significant disadvantage so that the VAT data are not in themselves sufficient to make estimates relating to investments according to ESA 2010 methodology.

5.10.2.3 The Structural Business Survey (SBS)

In Belgium, the General Directorate of Statistics (GDS) is entrusted with the practical organisation of the SBS. The information that is requested in this survey is largely in accordance with the regulations and requirements of ESA 2010, and in theory completely coherent with the totals shown in annual accounts.

The following table shows which data from the SBS relating to investments are used in the calculation of investments along ESA.

The GD-survey is destined to (non-financial) corporations, the GS-survey to unincorporated businesses and the GV-survey to non-profit institutions.

Table 5.10.2.3.1: Data on investments in the SBS

Rubric	Heading	Detailed survey (GD)	Simplified survey (GS)	NPI survey (GV) ¹	ESA component	Used to compute administrative aggregate	Used to compute adjustment
INVTER	Purchase of Land included in rubric 8161 of annual accounts	x	x	x	P.51111		x
PURSOFT	Purchase of software included in rubric 61 ²	x		x	P.51112	x	
INVSOFT	Purchase of software included in acquisition of intangible assets	x		x	P.51112	x	
INV	Total acquisitions (excluding leasing) of tangible assets	(x)	x	(x)	P.51111		x
REVMFIA	Capital gain on sales of tangible assets registered as operating income	x		x	P.51131		x
COSTMFIA	Capital loss on sales of tangible assets registered as operating charges	x		x	P.51131		x
EXCREVMFIA	Capital gain on sales of tangible assets registered as extraordinary income	x		x	P.51131		x
EXCCOMFIA	Capital loss on sales of tangible assets registered as extraordinary charges	x		x	P.51131		x

(x) means that this variable is not directly available in SBS but that it can be computed by summing up other variables

¹ Starting in 2010

² Rubric 61 of annual accounts relates to “Operating charges – services and other good”, and is used to compute intermediate consumption (P.2, see section 3.4.1.1)

Note that for both the simplified and detailed survey, the data relating to tangible fixed assets is recorded excluding investments in leasing.

5.10.3 ESTIMATE OF GROSS FIXED CAPITAL FORMATION IN TANGIBLE ASSETS

This section further discusses the specific estimates of gross capital formation in tangible assets.

It covers the following headings of the AN asset classification (which has been harmonized into a 5-digits classification in the Belgian national accounts):

- AN.1121 (AN.11210) Non-residential buildings
- AN.1122 (AN.11220) Other structures
- AN.1131 (AN.11310) Transport equipment
- AN.11321 Computer & hardware
- AN.11322 Telecoms
- AN.1139 (AN.11390) Other machinery and equipment
- AN.114 (AN.11400) Weapons systems
- AN.115 (AN.11500) Cultivated biological resources (animal & vegetal)

For each sector, it describes which sources are used for the estimate, and how they are processed.

The specific methods used to estimate AN.11100 Dwellings will be addressed when describing S.14. (see section 5.10.3.4.2 below)

5.10.3.1 S.11 Non-financial institutions

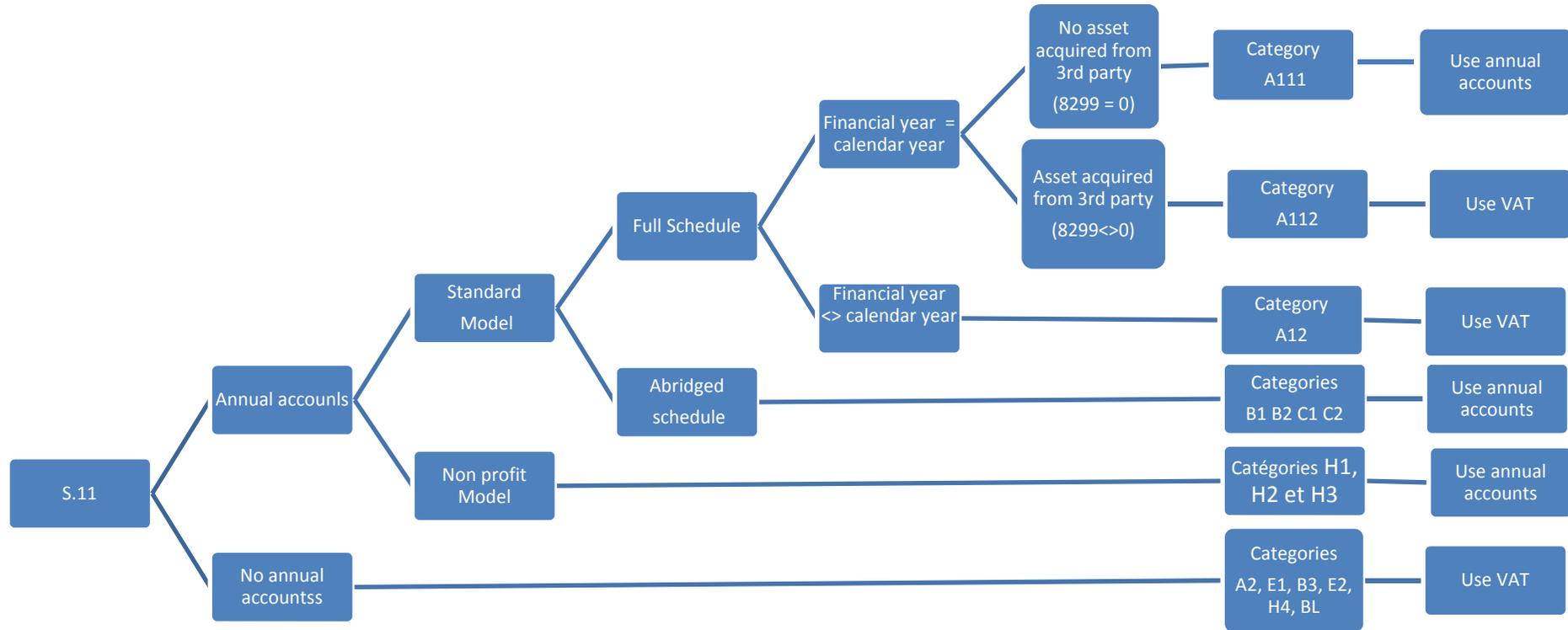
The general procedure to discriminate the different methods to be used to compute investments in S.11¹⁶⁰ is described in diagram 5.9.3.1.1

We will first describe the computation of basic data for NA figures for acquisitions (P.51111) and disposals (P.51131) of tangible assets.

We will then review the various conceptual adjustments.

¹⁶⁰ This method is also applied to sectors S.125, S.126, S.127 and S.15.

5.10.3.1.1: Procedure to discriminate the different methods to be used to compute investments



5.10.3.1.2 Administrative aggregates

a. Corporations with full accounting schedules (A1)

When estimating the gross capital formation for category A1, a distinction is made between two subcategories, namely A11* and A12.

The difference between the two categories lies in the timescale of the annual accounts filed by the institutional units in this sector and category. Unlike the national accounts (which are set up per calendar year) a corporation may draw up annual accounts that do not coincide with the calendar year¹⁶¹.

- When the financial year coincides with the calendar year there is no problem and the value of the investments can be read from the annual accounts relatively easily. These units form subcategory A11*.
- When the financial year does not coincide with the calendar year it is not so easy to deduce the investments for the calendar year from the annual accounts. Unlike some variables such as output (P.1) or intermediate consumption (P.2), it is not desirable to use a pro rata value to estimate investments. After all, it can be stated a priori that investments are not necessarily made at the same steady rate as can be expected for example for P.1 and P.2. A corporation whose financial year runs from 1 July Y to 30 June Y+1 may for example make a single large investment in machinery in October Y. If pro rata data are then used to estimate the investments in Y, half of the investment amount would be allocated to Y and the other half to Y+1 whereas the whole amount should be allocated to Y. Corporations whose financial year does not coincide with the calendar year are therefore included in a specific category A12.

A11*: financial year = calendar year

According to the accounting law, corporations that have taken over other corporations (or parts of them) must record the value of the tangible fixed assets taken over as acquisitions/investments. According to ESA 2010 these amounts are however not considered as GFCF but only reflect a transfer of existing assets induced by legal restructuration operations¹⁶². Therefore, the 'real' investments must be distinguished from the amounts of take-overs.

In practice the annual accounts offer no absolute certainty as to whether or not a corporation has taken over other corporations. If however an amount is indicated in heading 829* of the annual accounts (i.e. the depreciation and amounts written off on assets acquired from third parties

¹⁶¹ The financial year may for example run from 1 July Y to 30 June Y+1.

¹⁶² If company A buys the stock of company B, company A acquires a participation (financial asset) in B and the tangible assets of A are not influenced by this operation. What is considered here are absorptions, scissions and the like which give rise to the incorporation of tangible fixed assets in the balance sheet of the overtaking/absorbing company?

recorded during the financial year), it can be assumed that a take-over has occurred. That enables subcategory A11* to be further broken down into:

- A111: corporation that has not carried out any take-overs
and
- A112: corporation that has carried out take-overs

A111: The corporation has not carried out any take-overs

Acquisition and disposals of tangible fixed assets of corporations in category A111 are estimated using the data from the annual accounts filed with the CBSO along the formula set out in table 5.10.2.1.2.¹⁶³

Acquisition less disposals of tangible assets for sector S.11 and category A111	
€ million, 2012	
P.51111 Acquisition of tangible asset from the annual accounts	19.843
P.51131 Disposal of tangible asset from the annual accounts	- 3.373
Acquisition less disposals of tangible assets	= 16.470

A112: The corporation has carried out take-overs

If it is suspected that a corporation has carried out take-overs (i.e. if amounts are indicated in heading 829 of the annual accounts), the annual accounts are not used to estimate the gross fixed capital formation. For units in category A112, the VAT returns are used as the main data source. Because of the difference in legislation for annual accounts and VAT returns, heading 83 of the VAT return does not contain the amounts of any take-overs made by the corporation. Acquisition of tangible assets is therefore estimated through the values of heading 83. Disposals of the unit carrying out the takeover are however not affected by this operation and are thus estimated using annual accounts.

Acquisition less disposals of tangible assets for sector S.11 and category A112	
€ million, 2012	
P.51111 Acquisition of tangible asset from VAT returns	2.511
P.51131 Disposal of tangible asset from the annual accounts	- 665
Acquisition less disposals of tangible assets	= 1.846

¹⁶³ Note that all the amounts for basic data presented in the text are amounts after data validation.

A12: financial year \leftrightarrow calendar year

Category A12 consists of units for which the financial year does not coincide with the calendar year. In this case the VAT returns are used as the main data source because they always relate to the calendar year. For disposals however, there is no alternative source, and annual accounts are used along the standard method.

Acquisition less disposals of tangible assets for sector S.11 and category A12 € million, 2012	
P.51111 Acquisition of tangible asset from VAT returns	1.978
P.51131 Disposal of tangible asset from the annual accounts	- 224
Acquisition less disposals of tangible assets	= 1.754

b. Large corporations with no annual accounts (A2)

This category includes (large) institutional units that do not have annual accounts. To estimate acquisition less disposals of tangible assets, heading 83 of the VAT return is used (no information is available for disposals which are assumed to be 0).

Acquisition less disposals of tangible assets for sector S.11 and category A2 € million, 2012	
P.51111 – P51131 Acquisition less disposals of tangible assets from VAT return	261

c. Large corporations without annual accounts but with full SBS (E1)

This category includes large institutional units that do not have annual accounts but have a full SBS; here also, the rubric 83 of VAT returns is used.

Acquisition less disposals of tangible assets for sector S.11 and category E1 € million, 2012	
Acquisition less disposals of tangible assets from VAT returns	136

For large corporations, the total of acquisitions less disposals of tangible fixed assets amounts to:

Acquisitions less disposals for large corporations in sector S.11 € million, 2012	
A1: with annual accounts	20.069
A11: financial year = calendar year	18.316
A111: no take-overs in financial year	16.470
A112: take-overs in financial year	1.846
A12: financial year <> calendar year	1.754
A2: without annual account and no ESE	261
E1: without annual account but with ESE	136
Total acquisitions less disposals large corporations (categories A* and E1)	20.466

d. SME's with an abridged accounting schedule (B1, B2, C1 and C2)

The investments for categories B1, B2, C1 and C2 are estimated using the data from CBSO. From those categories, abridged schedules only are available for the annual accounts; computation is therefore simplified (see formulas in table 5.10.2.1.2.).

Acquisitions less disposals for sector S.11 and categories B1, B2, C1 and C2 € million, 2012		
P.51111 Acquisition of tangible asset from the annual accounts B1	+	2.464
P.51131 Disposal of tangible asset from the annual accounts B1	-	290
Acquisition less disposals of tangible assets B1	=	2,175
P.51111 Acquisition of tangible asset from the annual accounts B2	+	12.589
P.51131 Disposal of tangible asset from the annual accounts B2	-	1.869
Acquisition less disposals of tangible assets B2	=	10.720
P.51111 Acquisition of tangible asset from the annual accounts C1	+	161
P.51131 Disposal of tangible asset from the annual accounts C1	-	39
Acquisition less disposals of tangible assets C1	=	123
P.51111 Acquisition of tangible asset from the annual accounts C2	+	1.115
P.51131 Disposal of tangible asset from the annual accounts C2	-	363
Acquisition less disposals of tangible assets C2	=	752
Total SMES's with annual accounts	=	13.770

e. SME's with no annual accounts (B3, BL and E2)

To estimate the gross capital formation of B3, BL and E2 units (E2 units don't have annual account but do have an SBS), the heading 83 of VAT returns is used.

Acquisition less disposals of tangible assets for sector S.11 and category B3 and BL € million, 2012	
P.51111 – P51131 Acquisition less disposals of tangible assets from VAT return B3	1.359
P.51111 – P51131 Acquisition less disposals of tangible assets from VAT return BL	22
P.51111 – P51131 Acquisition less disposals of tangible assets from VAT return E2	68
Total SMES's without annual accounts	1.448

f. Non-profit associations (H1, H2, H3 and H4)

Since 2009, non-profit institutions must submit their annual accounts to the Central Balance Sheets Office (CBSO) of the National Bank of Belgium. The large ones must fill in a detailed schedule (category H1) and the small ones, an abridged schedule (categories H2 and H3).

For the non-profit units without annual accounts (category H4), a distinction must be made between units that are or are not VAT-registered. For VAT-registered units that do not file annual account, the VAT returns are used.

For non-VAT-registered units, an estimate is made for hospitals only.

Hospitals belong in NACE 861 "Hospital activities" (SUT industry 86A). Unlike commercial enterprises and given their legal status, most of these units should not file conventional annual accounts to the CBSO and are not VAT-registered. But they have the obligation to transmit to the FPS Health statistical and accounting data in a standardized scheme that is inspired by the structure of the annual accounts filed with CBSO. These data are the basis for the estimation of acquisitions less disposals of tangible assets of hospitals.

Two adjustments are made to these data:

- Administrative data on acquisition of tangible fixed assets are adjusted to exclude land purchases by applying a correction factor of 1.6 %¹⁶⁴.
- Since the accounting data do not cover the entirety of the activities of hospitals¹⁶⁵, an upward adjustment is made to take into account the whole of these activities. This adjustment is

¹⁶⁴ Average percentage observed for the share of land acquisition in S.11 for the years 2002 to 2006 according to SBS.

proportional to the ratio of total wages estimated from Social security data (D1 NSSO) to wages from hospital activities found in the accounts of hospitals (D1 accounting) :

$$\text{D1 NSSO} / \text{D1 accounting} = 1.089$$

Acquisitions less disposals for hospitals € million, 2012		
Acquisitions	+	2.164
Administrative data	+	2.020
Adjustment for purchase of land	-	32
Adjustment for non-hospital activities	+	176
Disposals	-	9
Administrative data	-	8
Adjustment for non-hospital activities	-	1
Acquisitions less disposals	=	2.155

It should be noted that acquisitions and disposals initially estimated for SUT 86A on the basis of partial data from annual accounts and VAT (and the adjustments thereof), must be cancelled out as they are covered by the more complete estimates made on the basis of hospitals' accounting data. The affected units may be found in the category H, as well as in other categories.

Acquisitions and disposals of tangible fixed assets for all non-profit institutions are shown in the table below.

Acquisitions less disposals for sector S.11 and categories H* € million, 2012		
P.51111 Acquisition of tangible asset from the annual accounts Hospitals	+	2.164
P.51131 Disposal of tangible asset from the annual accounts Hospitals	-	9
Acquisition less disposals of tangible assets Hospitals	=	2,155
P.51111 Acquisition of tangible asset from the annual accounts H1 - others	+	646
P.51131 Disposal of tangible asset from the annual accounts H1 - others	-	42
Acquisition less disposals of tangible assets H1 - others	=	604
P.51111 Acquisition of tangible asset from the annual accounts H2 - others	+	181
P.51131 Disposal of tangible asset from the annual accounts H2 - others	-	25
Acquisition less disposals of tangible assets H2- others	=	156

¹⁶⁵ Some hospitals transmit to the FPS Health that data on hospital activities only, while others report their hospital as well as non-hospital activities. By non-hospital activities it is meant ambulances, nursing homes, rest and care homes, schools of nursing, psychiatric nursing homes...

Acquisitions less disposals for sector S.11 and categories H* € million, 2012		
P.51111 Acquisition of tangible asset from the annual accounts H3 - others	+	170
P.51131 Disposal of tangible asset from the annual accounts H3 - others	-	18
Acquisition less disposals of tangible assets H3 - others	=	152
Acquisition less disposals of tangible assets from VAT returns H4 - others	=	88
Total Non-profit institutions H*	=	3.156

The totals of basic data for NA figures regarding acquisitions less disposals of tangible assets for sector S.11 are summarized in the following table.

Acquisitions less disposals of tangible assets for sector S.11 - basic data for NA figures* € million, 2012		
Total A1	+	20.069
Total A2	+	261
Total B1	+	2.175
Total B2	+	10.720
Total B3	+	1.359
Total BL	+	22
Total C1	+	123
Total C2	+	752
Total E1	+	136
Total E2	+	68
Total H1 (including hospitals)	+	2.760
Total H2	+	156
Total H3	+	152
Total H4	+	88
Total S.11	=	38.840

**After data validation and balancing*

5.10.3.1.3 Investments in dwellings in S.11

Gross fixed capital formation in the form of dwellings is mainly done by S.14 and is therefore addressed below in section 5.10.3.4.2.

Nevertheless, a portion of these investments has to be attributed to S.11 to take into account the investments made by them in social housing intended for renting. Investments of social housing enterprises in dwellings intended for acquisition by households have to be classified among the investments of sector S.14. It is assumed that the investments in social dwellings are already

included in the acquisitions of fixed tangible assets computed on the basis of administrative data so that no correction is needed. On the contrary, investments of social housing enterprises in dwellings intended for acquisition by households have to be excluded from investments of S.11.

Moreover, according to ESA2010, if an existing dwelling (owned by a household) is sold to a non-resident, the convention is that the ROW acquires a financial asset representing the capital of a fictitious resident unit (in S.11) which has acquired the dwelling. Purchases and sales of real estate is therefore an operation between two resident units. The amount of sales of buildings by resident households to non-residents (which are assumed to cover dwellings only) is based on balance of payments data; it is registered with a positive sign in S.11 and a negative sign in S.14.

Acquisitions of dwellings by sector S.11 € million, 2012		
Building of new social dwellings (included in administrative data)	+	588
Building of social dwellings intended for acquisition by households	-	142
Transformations of social dwellings intended for renting	+	311
Acquisitions of dwellings by renting enterprises, excluding social dwellings	+	684
Acquisitions (by fictitious units) of existing dwellings from households (from balance of payments data)	+	1.141
Total	=	2.583

5.10.3.1.4 Conceptual adjustments

The aggregates computed above using administrative data (further addressed as “P.51111_admin” and “P51131_admin”) do not however fully meet the requirements of ESA 2010 in defining gross fixed capital formation.

In order to comply as far as possible with ESA 2010, six further adjustments are made.

The following table summarizes the conceptual adjustments made on acquisition and disposals of tangible assets. Those adjustments are operated in S.11, but also in other sectors where units file standard annual accounts in the CBSO (i.e. S.125, S.126, S.127 and S.15).

Conceptual adjustments	Computed at enterprise level	SBS inputs	ESA aggregate	Sectors
Members of VAT units	x		P.51111	S.11 / S.125 / S.126 / S.127 / S15*
Capitalized interest	x		P.51111	S.11 / S.125 / S.126 / S.127 / S15*
Land	x	x	P.51111	S.11 / S.125 / S.126 / S.127 / S15*
			P.51131	S.11 / S.125 / S.126 / S.127 / S15*
Buildings for resale	x		P.51111	S.11 / S.125 / S.126 / S.127 / S15*
Mark-up on output for own final use	x		P.51111	S.11
Valuation of disposals				
<i>Negative results</i>	x		<i>P.51131</i>	<i>S.11 / S.125 / S.126 / S.127 / S15*</i>
<i>Take-overs</i>	x		<i>P.51131</i>	<i>S.11 / S.125 / S.126 / S.127 / S15*</i>
<i>Market price</i>	x	x	<i>P.51131</i>	<i>S.11 / S.125 / S.126 / S.127</i>

* For S.15, for the years 2009 and after, in line with availability of annual accounts for non-profit institutions

a. P.51111 of VAT-units and its members

For the members of a VAT-unit, the VAT source is not usable¹⁶⁶. This has an impact for the members not filing an annual account, or with unusable annual accounts (categories A112 and A12). A correction must therefore be computed at enterprise level.

This correction relies on an alternative method combining the following data:

- VAT returns for the VAT-unit itself (category= BE) and for the members of the unit (category = BL if no annual accounts, A1, B1, B2, C1, C2 otherwise);
- annual accounts possibly filed by the members of the unit;
- a key computed on salary data (D1 NSSO) to breakdown the rest.

Members of a VAT-unit can belong to the various categories and sectors. For members where the method would impose the use of VAT returns, another way to compute the administrative aggregates is used, relying on annual accounts data available for other members on the unit:

1st step : for each VAT unit active in a given year, the list of its members for that year must be defined

2nd step : for each VAT unit, the total investments from the VAT returns must be computed: this is the sum of code 83 of VAT unit itself and remaining codes 83 for the members of the unit:

$$83_{BE}^{glob} = 83_{BE} + \sum 83_{members}$$

3rd step : Estimate of P.51111 for each unit member depending on its category:

Computation of adjustment for VAT units		
Category	P.51111_admin of the member ¹	Correction
A111	8161 + 8162 + 8163 + 8164 + 8165 + 8166	correction = 0
A112	if (rub8299 * 2) > 8169 then P.51111_admin_new = 0 else P.51111_admin_new = 8169 - (rub8299 * 2 ²)	correction = P.51111_admin_new - P.51111_admin
A12	P.51111_admin_new = 8169 _p ³	correction = P.51111_admin_new - P.51111_admin
B1, B2, C1,	8169	correction = 0

¹⁶⁶ Normally, a member of a VAT unit does not file VAT returns anymore (that is the very purpose of a VAT unit), but if it has become a member during the year, it may have filed VAT returns for some months.

Computation of adjustment for VAT units		
Category	<i>P.51111_admin of the member</i> ¹	Correction
C2, H1, H2, H3		
A2, E1, E2, B3, H4, BL	if $\sum_{A1,B1,B2,C1,C2,H1,H2,H3} P.51111_admin_new \geq 83_{BE}^{glob}$ then $P.51111_adm_new = 0$ else $P.51111_admin_new =$ $(83_{BE}^{glob} - \sum_{A1,B1,B2,C1,C2,H1,H2,H3} P.51111_adm_new) * D1 / \sum_{A2,E1,E2,B3,H4,BL} D1$ ⁴	correction = $P.51111_adm_new$ - $P.51111_admin$

¹ In the shaded cell, same calculation as in the standard method described before.

² It is assumed that 50 % of the assets taken over are written down.

³ 8169_p = determined pro rata to match calendar year

⁴ D1 = wages from NSSO

This correction is operated on an individual basis in sectors S11, S124, S125, S126, S127 and S15.

Adjustment for VAT units € million, 2012	
S.11	1.132
S.125	13
S.126	22
S.127	0
S.15	0
Total adjustment for VAT units	1.167

b. P.51111 Capitalized interest

A second adjustment concerns capitalized interest (heading 6503). According to Belgian accounting legislation, interest payable on loans incurred with the purpose of constructing assets for own use must be capitalized, i.e. included in the acquisition value of the capital asset. According to ESA 2010, these amounts must be transferred back to the interest paid (D.41) and are therefore deducted from the total of heading 8169.

This correction is done in a similar manner for sectors S.11, S.15, S.126, S.127 and S.15 (for the latest, for years 2009 and after).

Computation of adjustment for capitalized interest	
Large enterprises with annual accounts (A111, A112, A12)	P.51111_admin - 6503
SME's with annual accounts (B1, B2, C1, C2)	P.51111_admin - 6503
Large enterprises without annual accounts (A2, E1)	/
SME's without annual accounts (B3, E2)	/

Since no annual accounts are available for A2, E1, B3 and E2 corporations and in view of their relatively low importance, no adjustment is made for capitalised interest for those units.

Adjustment for capitalized interest €million, 2012	
S.11	-75
S.125	0
S.126	0
S.127	0
S.15	0
Total adjustment for capitalized interest	-76

c. Acquisitions (P.51111) and disposals (P51131) of land

The third adjustment relates to the content of heading 8161¹⁶⁷ of the annual accounts, which includes acquisitions of both buildings and land. According to ESA 2010, acquisition of land is not an investment, as land is not a produced asset, so that an adjustment must be made. Since there is no direct information in the annual accounts relating to the acquisition of land, other source data are used to make this adjustment. The heading INVTER of the SBS is deducted from administrative data on an individual basis for large corporations filing a SBS (A1, A2, E1 and H1).

Since a SBS is not available for every SME, adjustments cannot be made on an individual basis. For these types of corporations, the acquisitions of land found in the available SBS (INVTER) are totalled for each industry; these amounts are then related to the corresponding total investments (INV) from SBS. The proportions obtained can be applied to the total investments per industry calculated beforehand (P51111_admin).

For disposals, a similar approach could be followed until 2007, when a dedicated rubric (INVSL02 or 04) was available in the SBS; since then, the latest correction ratio available is used to adjust P51131_admin.

¹⁶⁷ 8161 for detailed schedules, 8169 for abridged schedules

Computation of adjustment for acquisitions and disposals of land	
Acquisitions	
Large enterprises & non-profit institutions (A1*, A2, E1, H1)	If $INVTER > P.51111_admin$ Then correction = $P.51111_admin * -1$ Else correction = $INVTER * -1$
SME's (B1, B2, C1, C2, B3, H2, H3, H4, and A2 in S.14)	correction = $P.51111_admin * \%land * -1$ with $\%land = INVTER/INV$ computed by industry
Disposals	
All categories	correction = $P.51131_admin * \% disp land * -1$ with $\% disp land = INVSL02 \text{ or } 04/INV$ computed by industry (in 2007)

The total adjustments to exclude acquisitions and disposals of land are as follows:

Adjustment for acquisition and disposals of land € million, 2012)	
Exclusion of acquisitions of land	-1.339
S.11	-1182
S.125	0
S.126	-46
S.127	0
S.14	-99
S.15	-12
Exclusion of disposals of land	-196
S.11	-191
S.125	-1
S.126	-3
S.127	0
S.15	0
Total adjustment for acquisition of land	-1.143

d. P.51111 Buildings for resale

Changes in stocks of buildings purchased or constructed for resale must be recorded as investments (P.51111 of acquisitions tangible assets) and not as changes in inventories (as is the case in the administrative data), because the acquired or constructed buildings that are held for resale will be ultimately sold and considered investment by buyers.

Detailed schedules

In the balance sheet of the detailed schedules, the rubric 3 “stocks” is broken down in the different types of inventories, of which rubric 35 of "Stocks - Immovable property intended for sale". The acquisitions will be computed on an individual basis as the annual change in rubric 35.

Abridged schedules

For companies with an abridged schedule, information on changes of inventories in immovable property intended for sale does not exist; it must be estimated from the structure observed in the detailed schedules of the corresponding sector-SUT combination.

The correction is as follows:

Computation of adjustment for buildings for resale	
Detailed schedules	For each unit with rub 35 <>0 Correction in year Y = rub 35 _Y - rub 35 _{Y-1}
Abridged schedules	For each combination sector / SUT Correction = [rub 3 _{abridged} * (rub35 _{detailed} / rub 3 _{detailed})] _Y - [rub 3 _{abridged} * (rub35 _{detailed} / rub 3 _{detailed})] _{Y-1}

As a result, the corrections in the various sectors are:

Adjustment for buildings for resale € million, 2012			
	Detailed schedule	Abridged schedules	Total
S.11	373	515	888
S.125	5	1	5
S.126	5	21	26
S.127	0	0	1
S.15	2	0	2
Total adjustment for buildings for resale	385	537	921

e. P.51111 Mark up on output for own final use

Output for own final use of tangible fixed assets is, in line with business accounting practices, valued at cost. This implies that a mark-up has to be estimated for this type of investment goods produced on own account. This is done by combining data from annual accounts and SBS, in sector S.11 only.

The population of enterprises with positive own-account production of fixed assets (heading 72 > 0 in their annual account) can be broken down into two groups: those with a SBS and those without a SBS. The SBS provides information on the split-up of the output for own final use between research and development (PRODRND), software (PRODSOFT), other intangible assets (PRODIFIA), buildings & construction (PRODBUCO), and other tangible assets (PRODMFIA). Consequently, detailed data is available for the first group which will enable to calculate the mark-up of tangible assets produced on own account precisely. For the second group (enterprises without a SBS, representing less than 7 % of the total amount of heading 72), an estimate of the split-up of heading 72 is made using annual accounts information (total acquisitions per type of tangible and intangible asset) and the results of the enterprises with a SBS.

The results of the distribution of own-account production for enterprises are the following.

Distribution of own-account production - heading 72 of annual accounts in S.11							
	R&D	software	other intangible assets	Tangible assets		Total	
					<i>buildings & other structures</i>	<i>other tangible assets</i>	
with SBS	3.327	279	148	1.413	446	968	5.167
without SBS	89	153	0	117	37	81	359
Total	3.416	432	148	1.531	482	1049	5.526

To determine the mark-up added to the tangible production and investments of « buildings & construction » and « other tangible assets », we use the gross margin on sales (further referred to as “*bm*”) calculated by the CBSO, for the construction industry (PU300) and other investment goods industry (PU250). The estimated mark-up (*mu*) of tangible assets produced on own account is calculated as:
$$mu = \frac{1}{1 - bm}$$

Gross margin and mark-up for tangible assets %, 2012		
	PU300, used for asset « buildings & other structures »	PU250, used for « other tangible assets »
Gross margin	7,3 %	10,8 %
Mark-up	7,9 %	12,0 %

The total correction on output for own final use concerning tangible fixed assets¹⁶⁸ amounted to € 164 million in 2012:

buildings and other structures: € 482 million * 0.079 = € 38 million

other tangible assets: € 1.049 million * 0.120 = € 126 million

Adjustment for mark-up on tangible assets for own final use in S.11 € million, 2012	
Correction « buildings & other structures »	38
Correction « other tangible assets »	126
Total adjustment for mark-up on tangible assets for own final use	164

f. P.51131 Valuation of disposals

The book value of disposals ($817^* - 830^* + 823^*$) always has to be greater than or equal to zero. If this is not the case (because of errors in the annexes to the annual accounts), adjustments have to be made (book value is set to 0).

Annual accounts allow to value disposals of tangible assets at book value (see above, section 5.10.2.1.1.). In national accounts they must however be valued at market prices (more specifically at basic prices - ESA 2010 §3.137), so that adjustments are needed, that will rely on information from the SBS.

Adjustments must also be made to correctly assess disposals in case of restructuring operations between resident units or sales abroad.

¹⁶⁸ See correction (o4) in the transition table.

f1. Adjustment to avoid negative values

It happens that the administrative aggregate computed by company for P51131 is negative. This is however not correct so the individual data must be rectified; the adjustment is as follows, depending on the category.

Computation of adjustment for negative values		
Sectors	Category	
S11+S124+S125+S126+S127	A1	If $\sum_{x=1}^6 830x > \sum_{x=1}^6 817x + \sum_{x=1}^6 823x$, then adjustment = $\sum_{x=1}^6 830x - (\sum_{x=1}^6 817x + \sum_{x=1}^6 823x)$
S11+S124+S125+S126+S127+S15	H1	
S11+S124+S125+S126+S127	B1 + B2 + C1 + C2 + H2 + H3	if $8309 > 8179 + 8239$ then adjustment = $8309 - (8179 + 8239)$

f2. Companies restructuring and sales of assets abroad

Asset disposals carried out as part of corporate restructuring operations between two resident units cannot be included in the disposals of fixed assets (accordingly, acquisitions of assets occurring in the same context cannot be recorded as acquisitions of fixed assets - cf. 5.10.3.1.1.). The most common forms of restructuring are absorptions and scissions.

A sale of assets abroad is recorded as disposals of fixed assets (P.51: -) and as exports (P.61: +). But, if a group of fixed assets (e.g. a production unit) is sold abroad, the transaction is normally recorded as a direct investment transaction from the rest of the world in Belgium in the financial accounts; to avoid double counting, this operation must not be recorded as a disposal of fixed assets in the real accounts.

i. Absorption

When a take-over occurs, the absorbing company takes the assets of the absorbed company in its balance sheet: if there is a transfer of assets, the acquiring company will record an acquisition of assets and depreciation acquired from third parties in its financial statements, in accordance with the requirements of business accounting. Since this “acquisition” of assets cannot be recorded in gross fixed capital formation in the national accounts, VAT will be preferred to annual accounts as a source (cf. 5.10.3.1.1.).

The absorbed company, meanwhile, legally disappears and doesn't file any financial statements anymore; the disposal of asset therefore appears nowhere so that no adjustment is needed.

ii. Scission

When a company is split, part of its assets is brought into a new or existing company, whereas the original company continues to exist and to file annual accounts. So the split company will record significant amounts of disposals, while the absorbing company will record corresponding large acquisitions, coupled with depreciation acquired from third parties. According to the National Accounts, these movements are not to be recorded as gross fixed capital formation. As far as acquisitions of the absorbing company are concerned, VAT will be the source (cf. 5.10.3.1.1.). But for disposals of assets by the split company, it is necessary to analyse case by case to detect and exclude them.

iii. Assets sold abroad

The sale of a Belgian establishment (in its entirety or in part) commonly takes the form of a stock transaction. In this case, no transaction appears in the disposal of assets in the annual accounts and estimation of gross fixed capital formation is therefore not affected. In other cases, only an analysis on an individual basis can reveal the sale of assets to a non-resident unit in order to exclude it from the estimate of disposals of fixed assets.

iv. Adjusting the administrative aggregates

- Detailed schedules

It is necessary to analyse the largest operations of asset disposals on an individual basis in order to detect transactions related to a corporate restructuring or a sale of assets abroad and to exclude them from the administrative aggregates.

Relying on that analysis, an adjustment coefficient is computed, which is then applied to the global amount of disposals of other corporations (that have not been analysed):

- specific coefficients are applied to disposals in industries 68 and 77 in S.11, as well as in sectors S.125, S126 and S.127¹⁶⁹;
- a global coefficient is applied to the other industries.

Computation of adjustment for restructuring			
Category	Sector	industry	
			Adjustment coefficient %restr
A1 + H1	S11	68	$\%restr_{detailed} = \frac{\sum_{analysed\ units} P.5113_{adm\ after\ analysis}}{\sum_{analysed\ units} P.5113_{adm\ before\ analysis}} - 1$
	S11	77	
	S11 + S15	All others	
	S125	all	
	S126	all	
	S127	all	
	B1 + B2 + C1 + C2 + H2 + H3	S11 + S15		68 & 77 All others	Idem A1 & H1 $\%restr_{abridged} = \frac{\sum rub\ 8299}{\sum P.5113_{adm}} * -1$
			Adjustment for restructuring
A1 + H1	all	all	Adjustment = P51131* x %restr _{detailed}
B1 + B2 + C1 + C2 + H2 + H3	S11 + S15	68 & 77 All others	Adjustment = P51131* x %restr _{detailed} Adjustment = P51131* x %restr _{abridged}

* P51131 corrected for all previously described adjustments

In practice, due to lack of resources, these analyses have been performed for the data for years 2005 and after only. For years prior to 2005, an average coefficient has been defined on the basis of analyses effectively carried out for the later years.

¹⁶⁹ Industries and sectors where corporation structurally show high amounts of disposals:
 68: Real estate activities
 77: Rental and leasing activities
 S.125: Other financial intermediaries, except insurance corporations and pension funds
 S.126: Financial auxiliaries
 S.127: Captive financial institutions and money lenders

- Abridged schedules

- For industries 68 and 77, the above-mentioned adjustments is applied to disposals in abridged schedules;
- For other industries in S.11 and S.15, the portion of disposals related to the restructuring is estimated indirectly on the basis of depreciation acquired from third parties (rubric 8299). Indeed, given that about half of the capital stock is amortized for companies filing abridged schedules, the value of the transferred assets related to a restructuring operation can be assumed to represent twice the depreciation shown in rubric 8299. Therefore, we can further assume that the book value (= disposal at purchasing price - depreciation) of disposals related to restructuring is equal to the amount recognized as depreciation acquired from third parties. It is therefore possible to set a correction coefficient for restructuring as the ratio between rubric 8299 and the total amount of disposals.

f3 From book value to market prices

For most companies, the sale of an asset is an extraordinary transaction. Therefore, gains or losses in this context will give rise to the booking of extraordinary income or charges. In the detailed SBS, the extraordinary gains/ losses realized on the sale of fixed assets (rubrics 663 and 763 in detailed schedules) are broken down over tangible¹⁷⁰, intangible¹⁷¹ and financial¹⁷² assets. By combining this information with the booking value of disposals, it is possible to define a correction factor for the market value of disposals.

For industries where the sale of an asset is a current transaction (for example 77 “Rental and leasing activities”), any gains or losses will instead be recognized as operating income or charges. Again, the structural survey allows knowing the amount of gains/losses related to operating transactions in tangible assets¹⁷³.

By combining these data, it is possible to compute an adjustment coefficient to transform book value into market value of disposals. Such coefficient is defined for industries 68 and 77 in S.11 and in sectors S.125, S.126 and S.127.

¹⁷⁰ EXCREVMFIA for capital gains registered in exceptional income and EXCCOMFIA for capital losses registered in exceptional charges.

¹⁷¹ EXCREVIFIA for capital gains registered in exceptional income and EXCCOIFIA for capital losses registered in exceptional charges.

¹⁷² EXCREVFFIA for capital gains registered in exceptional income and EXCCOFFIA for capital losses registered in exceptional charges.

¹⁷³ REVMFIA for capital gains registered in operating income and COSTMFIA for capital losses registered in operating charges.

Computation of adjustment for market prices			
Category	Sector	Industry	
			adjustment coefficient %market
A1 + H1	S11	68	$\%market = \frac{\sum (REVEMFIA - COSTMFIA + EXCREVMFIA - EXCCOMFIA)}{\sum P.51131 *}$
	S11	77	
	S125	64	
	S126	66	
	S127	64	
			adjustment for market prices
all	S11	68 & 77	correction = %market x P.51131*
all	S125, S.126 S.127	& 64 & 66	correction = %market x P.51131*

* : P51131 corrected for all previously described adjustments to disposals

The corrections made to adjust the valuation of disposal for negative values, restructuration and market prices can be summarized as follows:

Adjustment for valuation of disposals (impact on P.51131) € million, 2012				
	<i>negative value</i>	<i>restructuration</i>	<i>market prices</i>	<i>Total</i>
S.11	28	-291	220	-44
S.125	84	0	6	90
S.126	0	0	7	7
S.127	0	0	-2	-2
S.15	0	-3		-3
Total adjustment for valuation of disposals	113	-294	230	49

The following table synthetises the conceptual adjustments made on acquisitions and disposals of tangible assets in S.11.

Net impact (P.51111- P. 51131) of conceptual adjustments for tangible assets in S.11 € million, 2012	
	S.11
Members of VAT units	1.132
Capitalized interest	-75
Land	-991
Buildings for resale	888
Mark-up on output for own final use	164
Valuation of disposals	44
Total	1.162

5.10.3.1.5 Summary of investments in tangible assets in S.11

All in all, the investments in tangible assets by non-financial corporations amount to € 41.256 million in 2012.

Acquisitions less disposals of tangible fixed assets for sector S.11 € million, 2012		
Acquisitions	+	47.936
Disposals	-	6.681
Acquisitions less disposals	=	41.256

5.10.3.2 S.12 Financial institutions

5.10.3.2.1 Central bank (S121)

The investments of sector S.121 are estimated on the basis of the annual accounts of the National Bank of Belgium. Rubrics regarding purchases and sales of tangible assets are supplied by the Controlling Department of the Bank; any sale of land is excluded.

Acquisitions less disposals of tangible assets for S.121 € million, 2012		
Acquisitions of tangible fixed assets (P.5111)	=	15
Disposal of tangible assets (P.5113)	-	0
Acquisitions less disposals*	=	15

*Excluding land

5.10.3.2.2 Deposit-taking corporations except the central bank (S122)

For sector S.122, all acquisitions and disposals of tangible assets are estimated on the basis of the results from the exhaustive Bank Structural Business Survey.

Acquisitions less disposals of tangible assets for S.122 € million, 2012		
Acquisitions of tangible fixed assets* (P.5111)		500
Sales of new buildings	-	163
Sales of existing buildings	-	24
Sales of other tangible assets	-	37
Disposal of tangible assets (P.5113)		224
Acquisitions less disposals	=	276

*Excluding land

5.10.3.2.3 Other financial intermediaries, except insurance corporations and pension funds S125, Financial auxiliaries S126 and Captive financial institutions and money lenders S127

The administrative aggregates acquisitions and disposals of tangible assets for sectors S.125, S.126 and S.127 are estimated using the annual accounts and VAT. The approach is fully comparable with that in S.11 (see section 5.10.3.1.1). The results are shown in the table below.

Acquisitions less disposals of tangible assets for S.125, S.126 and S.127 - basic data for NA figures € million, 2012					
		S.125	S.126	S.127	Total
Acquisitions		1.463	471	24	1.958
<i>Total A111, H1, B1, B2, C11 and C2</i>	+	1.167	450	17	1.634
<i>Other categories (VAT)</i>	+	296	22	7	325
Disposals	-	462	115	10	587
Acquisitions less disposals	=	1.000	356	14	1.371

The following conceptual adjustments are made on acquisitions and disposals of tangible assets for those sectors, using the method described in section 5.10.3.1.3:

- Exclusion of interests;
- VAT-units;
- Exclusion of land;
- Buildings for resale (from P.52);
- Valuation of disposals.

Net impact (P.51111- P. 51131) of conceptual adjustments for tangible assets in S.125, S.126 & S.127 € million, 2012				
	S.125	S.126	S.127	S.12
Members of VAT units	13	22	0	35
Capitalized interest	0	0	0	0
Land	1	-43	0	-42
Buildings for resale	5	26	1	32
Valuation of disposals	-90	-7	2	-95
Total	-70	-3	3	-71

5.10.3.2.4 *Insurance corporations (S.128)*

To estimate the investments in sector S.128, the exhaustive structure survey for insurance corporations is used as a source.

Note that a marginal amount of housing investment is done by insurance enterprises under a European Directive requiring them to invest a minimum amount in dwellings.

Acquisitions less disposals of tangible assets for S.128 € million, 2012		
Purchase of new assets	+	144
Purchase of existing assets*	+	197
Acquisitions of tangible fixed assets (P.51111)		341
<i>pm of which dwellings</i>		66
Disposal of tangible assets* (P.5113)	-	145
Acquisitions less disposals	=	195

*Excluding land

5.10.3.2.5 *Summary of investments in tangible assets in S.12*

Acquisitions less disposals of tangible fixed assets for sector S.12 € million, 2012							
	Acquisitions P.51111			Disposals P.51131			Total
	Sources*	adjustments	Total	Sources*	adjustments	Total	
S.121	15	0	15	0	0	0	15
S.122	500	0	500	224	0	224	276
S.125	1.463	19	1.482	462	89	552	930
S.126	471	1	473	115	4	119	353
S.127	24	1	25	10	-2	8	17
S.128	341	0	341	145	0	145	195
S.12	2.813	21	2.834	957	91	1.048	1.786

*After data validation

5.10.3.3 General government (S.13)

To estimate the gross fixed capital formation of the general government sector, detailed government accounts are used as the main source. The following description covers investments in tangible fixed assets and intangible fixed assets. The detailed analysis for public-private partnerships often indicated that the investment has to be considered as government investment. These investments are generally not directly included in basic information the NAI has developed a specific questionnaire to identify the investments made within the context of each individual PPP and adds this to the government investment.

5.10.3.3.1 Federal Government (S.1311) and Communities and Regions (S.1312)

In the Benelux economic regrouping, investments appear under economic Main Group 7 - Investments and disinvestments.

This main group comprises operations relating to gross capital formation by general government. Ancillary costs (e.g. registration fees associated with the purchase of fixed assets and intangible assets, architect's fees, etc.) and the cost of modernising fixed assets that increases their value are also treated as investments.

Purchases and sales by general government of real-estate abroad, and construction outside of territorial enclaves, are not classified to main group 7, but groups 84 and 88, "acquisition and disposal of holdings outside Belgium ". Conversely, construction in these territorial enclaves (e.g. construction of embassies) is regarded as investment.

The following borderline cases are regarded as investments:

- animals used for production purposes for several years: breeding stock, dairy cattle, sheep raised for wool and draught animals;
- permanent production plantations: fruit trees, vines, palm trees, etc;
- improvements to existing fixed assets which are significantly beyond the scope of current maintenance and repair;
- fixed assets acquired by financial leasing;
- literary and artistic original works;
- purchases of or user licences for software have to be recorded as investments if used repetitively or continuously in the production process u for more than one year. Development of customised software must also meet this condition, whether developed by an external firm or on own account. If produced on own account, it is valued at cost price.

The following are not regarded as investments and are classified as intermediate consumption:

- purchases of inexpensive small tools for fairly simple tasks or operations: hand tools, such as saws, hammers and screwdrivers, and small accessories such as pocket calculators (recorded in group 12);
- current maintenance and repair work;

(i) Group 71 – Purchase of land and buildings in Belgium

Group 71 concern purchases of land and existing buildings and structures by general government in Belgium.

- Code 71.1 covers purchases of land¹⁷⁴
- Code 71.2 covers purchases of existing civil engineering work roads and hydraulic works
- Code 71.3 covers purchases of existing buildings

(ii) Group 72 - Construction of buildings

This mainly comprises buildings intended for civilian administrative services and schools. It also includes other civilian buildings constructed by government, such as laboratories, museums and staff living accommodation. Any demolition work prior to construction is also included. All integral parts of buildings, central heating, sanitary facilities, lifts, air-conditioning, etc. are included in "construction of buildings".

Major work on existing buildings which results in an increase in their value, as well as major maintenance works, are also considered as investments.

The repair of damage resulting from war or natural disasters is regarded as construction.

Group 72 covers work done in-house or by third parties (other administrations or other sectors).

(iii) Group 73 - Civil engineering

This item covers the construction of roads, streets, ports, canals, dikes, sanitation facilities, sewage treatment plants, other hydraulic engineering works, site modification works and all associated technical structures and installations, such as bridges, tunnels, viaducts, dams, road signage, road lighting and landscaping. Demolition work and the repair of damage resulting from war or natural disasters also fall within group 73.

Group 73 covers work done in-house or by third parties (other administrations or other sectors).

Code 73.1 Roads

¹⁷⁴ Land is a non-produced non-financial asset which implies that purchases (and sales) of land are registered as NP (and not P51g).

This comprises highways (from motorways to cycle tracks), civil engineering works, viaducts, tunnels, bridges, drains and various mechanical and electro technical equipment, and landscaping. Parking areas also come under 73.1, unless operated by enterprises.

Code 73.2 Hydraulic engineering

This comprises construction of ports, canals, bodies of water, ferry crossings, dikes and other hydraulic works and the construction of sewage treatment plants, sanitation systems and the modification of natural waterways (e.g. by canalisation).

Ancillary amenities, e.g. landscaping, and mechanical and electro technical equipment, are also classified as "hydraulic engineering" unless operated by enterprises (e.g. cranes).

Code 73.3 Pipelines

Code 73.4 Other works

These include site preparation and levelling before construction, and ground modification work (consolidation, sanitation, etc.) and creation of sports grounds. Demolition work prior to works in 73.1 to 73.4 is also classified under this code.

Code 73.9 Infrastructure works for own account

These include civil engineering work produced by a public unit for its own use (estimated by summing-up costs of production).

(iv) Group 74 - Acquisition of other investment goods, including intangible assets

Purchases of capital goods other than construction assets are recorded here.

Code 74.1 Purchase of means of transport

These include purchases of equipment to transport goods or persons, except military equipment (see 74.7)

Code 74.2 Acquisition of other equipment

This code includes purchases of all other tangible equipment: machines, computers, office equipment, electrical appliances...

It also covers purchases of some intangible assets such as software & databases

Code 74.3 Expenses associated with purchases and sales of land and buildings

These include expenses relating to transfers of ownership, such as notarial fees, taxes, other dues and surveyors' fees.

Code 74.4 Acquisition of licences, patents and other intangible assets

Code 74.5 Acquisition of valuables

Code 74.6 Acquisition of cultivated assets (plants and animals)

Code 74.7 Purchase of military equipment (from 2015 on)

Code 74.8 Purchase of R&D (from 2015 on)

Code 74.9 Operations carried out in-house (from 2015 on)

(v) Group Code 76 - Sales of land and buildings in Belgium

Code 76 covers sales of land and buildings by general government in Belgium (cf. code 71).

(vi) Group Code 77 - Sales of other investment goods, including intangible assets

Sales of investment goods under code 77 correspond to purchases of them under code 74.

Since the implementation of the ESA 2010: the codes 13 and 17 are also considered as investment and no longer as intermediate consumption.

(vii) Code 13 - Purchases of durable military assets not regarded as gross fixed capital formation¹⁷⁵

Purchases of durable military assets which are not part of gross fixed capital formation (in ESA95) are attributed code 13 (weapons of war and their launching equipment, other than light weapons or armoured vehicles acquired by police and security forces, which are treated as gross fixed capital formation), whereas acquisitions of military assets representing gross fixed capital formation are attributed code 7 (investments). These include acquisitions of land and buildings (71), construction of buildings (72), civil engineering structures (73), and acquisitions of other investment assets (74) comparable to those in the civilian sector (airports, roads, hospitals etc.).

The following items of expenditure are not classified as military investment expenditure:

- expenditure on civilian protection;
- military service allowances and family support (code 34.3);
- war pensions and similar payments, as described under code 34.2;
- cash gifts from one country to another for general military purposes are classified as transfers of income (group 35 or 39), e.g. contributions to joint projects or joint infrastructure or maintenance of NATO's administrative apparatus.

¹⁷⁵ According to ESA1995.

(viii) Code 17 - Sales of durable military assets

Sales of durable military assets are classified here if their purchase falls within group 13. This involves surplus or scrapped military equipment.

5.10.3.3.2. Local authorities (S.1313)

Investments by local authorities (S.1313) are calculated on the basis the economic groupings available in the individual accounts.

5.10.3.3.3. Social security administrations (S.1314)

Investments by social security administrations are estimated on the basis of data from the Federal Ministry of Social Security.

Acquisitions less disposals of fixed assets (P51g) for sub-sectors of S.13 is shown below

<i>Data for 2012 (millions of euros)</i>		
Federal Government (S1311)		
Code 71, exclusief code 71.1	+	4
Code 72	+	237
Code 73	+	0
Code 74, excluding contracts, leases and licences	+	238
Code 13	+	51
Code 76, excluding land (76.1)	-	41
Code 77, excluding contracts, leases and licences	-	1
Code 17	-	0
Differences in definitions of "Federal government"	+	16
R&D	+	137
Other intangible fixed assets (production for own account)	+	320
<i>Subtotal</i>		<i>959</i>
Communities and Regions (S1312)		
Code 70	+	0
Code 71, exclusief code 71.1	+	100
Code 72	+	255
Code 73	+	731
Code 74	+	459
Code 76, excluding land (76.1)	-	148
Code 77	-	2
Investment in private education	+	691
PPP	+	129
Differences in definitions of "Communities" and "Regions"	+	485
R&D	+	1915
Other intangible fixed assets (production for own account)	+	185
<i>Subtotal</i>		<i>4801</i>
Local authorities (S1313)		
Investments		3804
R&D		2
<i>Subtotal</i>		<i>3806</i>
Compulsory social security (S1314)		
Investments		50
Other intangible fixed assets (production for own account)		26
<i>Subtotal</i>		<i>76</i>
Grand total (S13)		9642

The capital grants to investments in private education recorded in the economic regrouping cover only 60 to 70 % of the investments of these schools, so that an extrapolation is made.

5.10.3.4 Households (S.14)

5.10.3.4.1 Administrative aggregates

Because of the nature of units in sector S.14, i.e. self-employed persons, categories A2 and B3 only are present in S.14. For VAT-registered units the same methodology is followed as that used in categories A2 and B3 within sector S.11 (see section 5.10.3.1.1.e), i.e. estimating investments via VAT returns.

Acquisition of tangible assets for sector S.14 (excl. dwellings), basis for NA figures* € million, 2012		
Total A2	+	4
Total B3	+	1.946
Total administrative data	=	1.950

**After data validation*

5.10.3.4.2 The specific estimates of investments in dwellings (AN.111)

Estimate of GFCF in residential property: working framework and subdivisions

Gross fixed capital formation in residential property (housing) comprises dwellings in residential buildings, the construction of social housing, corresponding transformations, dwellings in non-residential buildings and registration fees.

The purpose of the method used is to comply as much as possible with the recommendations of the Construction Task Force of the GNP Committee (differentiating between types of structure, cost of each type and average construction length per type). It also recommends using statistics on actually used building permits that would include type of structure, start and completion dates.

New dwellings in residential buildings

Investments in new dwellings in residential buildings are estimated in volume terms via monthly GDS statistics on actual housing starts (i.e. building permits that are actually used) and in price terms via an average output price index obtained from the Bank's survey of general building contractors that have signed up to the Charter of General Building Contractors¹⁷⁶ (cf. 10.1.15 and 10.1.16).

Eurostat's Construction Task Force indeed recommended:

¹⁷⁶ The sample is supplemented by any large contractor that has not signed the charter but does answer to NBB's construction business survey.

- establishing a relationship between building permits granted and those used, hence the usefulness of statistics on housing starts;
- estimating an average construction period, hence the survey of general building contractors referred to below.

Statistics on dwellings in residential and non-residential buildings and related transformations published by the GDS cover both building permits and housing starts, but only the latest is used. Information on total and living area by type of dwelling is also available.

The transition from statistics on starts to statistics on completions is done by spreading payments over an average construction period. The average construction period and the spread of payments of new dwellings are estimated, since 1996, via the specific survey of general building contractors. The survey has a sample of about 100 contractors and has been carried out every two years since 1996. The questionnaire is kept short to limit the administrative burden on firms.

On the one hand, the contractors provide data on construction times broken down by single-unit and multi-unit structures. We use a weighted average based on the number of dwellings of each type built, as recommended by the Construction Task Force of the GNP Committee.

The spread of payments, on the other hand, gives an indication of the proportion of the total building price paid in each month of construction. It means that, for any given month, the number of dwellings includes only some of those started in that month plus some of those started in previous months. Given a certain estimated average construction time, the number of previous months whose production is partly included in the total for the given month will not exceed the rounded average construction time.

Since 1996, the year of the first survey, new data on prices have also been used. This price index of new dwellings is obtained from the average overall price of shell works for each type of dwelling, weighted by the number of dwellings of each type. In line with Eurostat recommendations, the survey provides results broken down by type of dwelling.

Based on information from ABEX¹⁷⁷, it is then possible, from the price per m² for the shell, to estimate a price for the various other components of the construction cost, i.e. finishing works and charges (architect's fees, fees covering the security and VAT). This gives a total price that can be decomposed into price per m² for shell work, for finishing works and for charges.

The value of new housing is then obtained by combining the price for the shell with the average total area and the price for finishing with the actual living area, by type of dwelling.

¹⁷⁷ ABEX = Association of Belgian Experts

Furthermore, the index of construction input prices (ABEX cost index) is used to split the biennial output index obtained from the survey into single years, as well as to estimate the price evolution for the most recent year (after the last survey). The input index includes a labour cost index and price index of industrial products used in the construction process.

Transformations (including social housing)

Volume of transformation works on non-social dwellings is estimated via the related GDS housing start statistics (given the lack of information, it is assumed that transformations works begin and end in the same year), whereas that on social housing is computed with data from the annual reports of social housing enterprises.

Prices are derived as a proportion of the average total price of new dwellings in residential buildings.

Construction of new social housing

In terms of volume, construction of social housing is estimated directly from information contained in the operating reports of the Brussels, Walloon and Flemish regional housing associations. In S.14, it only concerns dwellings meant to be bought (while the ones to be rented are registered in S.11, see 5.10.3.1.2). In terms of price, it is estimated using the same index as that for ordinary new dwellings.

Dwellings in non-residential buildings

The volume of dwellings in non-residential buildings is estimated from GDS statistics on non-residential housing starts. It is assumed that a construction started in the year ends in the course of that year, and that the construction cost of housing in non-residential building amounts to one third of the average building cost of a dwelling in a residential building.

Dwelling sold to a non-resident

In accordance with ESA 2010, an existing dwelling sold by a household to a non-resident is treated as a sale of a produced non-financial asset in S14 (P.51: -) and an acquisition in S11 (P.51: +) followed by an acquisition by the ROW of a financial asset representing the capital of a fictitious resident unit which has acquired the dwelling. The amount of sales of buildings by resident households to non-residents (assumed to cover dwellings only) is based on balance of payments data (see 5.10.3.1.2).

Registration duties

In Belgium, registration duties are payable on acquisition of land, as well as on transactions in buildings on the secondary market. Thus costs of ownership transfer on non-produced assets land (AN.116) are included in the GFCF estimates as requested by ESA2010 §3.127(6). The amount registered in S.14 also covers costs related to deeds.

Gross fixed capital formation in residential property thus breaks down as shown in the following table:

Gross capital formation in dwellings in S.14 (AN.111) € million, 2012		
Construction of residential buildings	+	11.528
Transformation of residential buildings	+	6.016
Construction of social residential buildings	+	142
Construction of dwellings in non-residential buildings	+	173
Sales of dwelling to a non-resident	-	1.141
Subtotal	=	16.718
Registration duties	+	3.488
Total S.14	=	20.205

Investments in dwellings by non-financial corporations (S.11) mainly cover those by social housing enterprises in dwellings meant to be rented (cf. 5.10.3.1.2). A marginal amount of housing investment is done by insurance enterprises (S.128) under a European Directive requiring them to invest a minimum amount in dwellings (cf. 5.10.3.2.4).

pm Investments in dwellings (AN.111) by sector € million, 2012	
S.14	20.205
S.11 (see section 5.10.3.1.2)	2.583
S.128 (see section 5.10.3.2.4)	66
Total	22.854

5.10.3.4.3 *Extrapolation & models*

For the liberal professions who are mainly non-VAT-registered entities, investments are estimated on the basis of the SBS. The proportion of investments to production in SBS is calculated for all declarants in category B3 within the particular NACE activities. This ratio is then applied to the production of the whole NACE in order to estimate its investments.

$$\begin{aligned} \text{Ratio} &= \text{Investments} / \text{production from SBS} \\ &= (\text{INV-INVTER}) / (\text{REVFREEPRO} + \text{TURN} - \text{TURNTRADE} + \text{STOCKFINI} \\ &\quad + \text{PERSUSE} + \text{PROD} + \text{PROFIT}^{178}) \end{aligned}$$

$$\text{P.51111-P.51131} = \text{P.1} \times \text{ratio}$$

Extrapolation for liberal professions in S.14 € million, 2012	
69A Legal and accounting activities (NACE 691+692)	73
71A Architectural and engineering activities; technical testing and analysis (NACE 711+712)	43
75A Veterinary activities (NACE 750)	9
86B Medical practice activities (NACE 8621)	39
86C Dental practice activities (NACE 8623)	10
86D Other human health activities (NACE 86901+86903)	32
Total	205

5.10.3.4.4 *Conceptual adjustments*

There is insufficient basic information for sector S.14 to make an accurate estimate of the disposals of existing fixed assets. To avoid overestimating the gross fixed capital formation, it is assumed that the economic units dispose each year of an amount of existing fixed assets equal to 3 % the value of their acquisitions of fixed assets (already corrected for purchases of land).

Due to scarcer availability of data, only one other conceptual adjustment is made in S.14, namely an estimate for acquisitions of lands, using data from SBS as explained before (see section 5.9.3.1.3.c).

¹⁷⁸ REVFREEPRO = income from liberal professions ; TURN = turnover; TURNTRADE= turnover from commercial activities ; STOCKFINI = increase(+) or decrease (-) of stocks and work and contracts in progress; PERSUSE= ; PROD = production for own final use ; PROFIT = operating profit

Net impact (P.51111- P. 51131) of conceptual adjustments for sector S.14 (excl. dwellings) € million, 2012	
Disposals (P.51131)	-56
Exclusion of acquisition of land (P.51111)	-39
Total adjustments	-94

5.10.3.4.5 Summary of investments on tangible assets in S.14

Acquisitions less disposals of tangible fixed assets sector S.14 thus breaks down as follows:

Acquisitions less disposals of tangible fixed assets for sector S.14 € million, 2012	
Acquisitions of other tangible assets, administrative data	+ 1.950
Investments in dwellings	+ 20.205
Acquisitions less disposals of other tangible assets, extrapolation	+ 205
Conceptual adjustments	- 94
Acquisitions less disposals	= 22.266

5.10.3.5 NPIs serving households (S.15)

5.10.3.5.1 Administrative aggregates

The administrative aggregates of acquisitions and disposals of tangible assets for sector S.15 are estimated using the annual accounts and VAT returns. The approach is fully comparable with that followed in S.11 (see section 5.10.3.1.1).

Acquisitions less disposals of tangible assets for sector S.15 – administrative data*	
Acquisitions H1	+ 66
Disposals H1	- 2
Total H1	= 63
Acquisitions H2	+ 66
Disposals H2	- 13
Total H2	= 54
Acquisitions H3	+ 90
Disposals H3	- 28
Total H3	= 62
Total S.15	= 179

5.10.3.5.2 Extrapolation & models

Moreover, extrapolation is made for small non-profit units which are not VAT registered (category H4). For those units, the most exhaustive source is wage data; therefore a ratio of investments (rubric 8169 of annual accounts) to wages (D1 according from the Department of Social Security – DSS) is computed for categories H2 and H3 (SMEs with abridged schedules) in each of the industry of S.15. The average ratio of the last 3 years is then applied to the wage data of H4 units to estimate their investments. In 2012, this extrapolation amounts to € 206 million.

5.10.3.5.3 Conceptual adjustments

The following conceptual adjustments are made for S.15 using the method described in section 5.9.3.1.3:

- Exclusion of interests
- VAT-units
- Exclusion of land
- Valuation of disposals
- Buildings for resale (from P52)

Net impact (P.51111- P. 51131) of conceptual adjustments in S.15 € million, 2012	
Members of VAT units	0
Capitalized interest	0
Land	-12
Buildings for resale	2
Valuation of disposals	3
Total	-7

5.10.3.5.4 Summary of investments on tangible assets in S.15

Sector S.15 acquisitions less disposals of tangible fixed assets breaks down as follows:

Acquisitions less disposals of tangible fixed assets for sector S.15 € million, 2012	
Acquisitions less disposals of tangible assets, administrative data	+ 179
Acquisitions less disposals of tangible assets, extrapolation (exhaustiveness N3)	+ 206
Conceptual adjustments	- 7
Acquisitions less disposals	= 378

5.10.4 ESTIMATE OF GROSS FIXED CAPITAL FORMATION IN INTANGIBLE ASSETS

In Belgium the relevant intangible fixed assets are R&D, computer software and original works. The methods for estimating investments in those three categories are described below.

The following table breaks down by sector the total acquisitions less disposals of intangible fixed assets.

Total acquisitions less disposals of intangible fixed assets (AN.117) €million, 2012	
S.11	11.293
S.12	902
S.13	2.584
S.14	77
S.15	74
P.5112	14.929

5.10.4.1 Research and development (AN.1171)

Data sources

Three sources of data have been used for calculating output and GFCF in R&D:

1. Belgian Science Policy Office (Belspo)
2. Balance of payments (BoP)
3. Annual accounts

1. Belgian Science Policy Office (Belspo)

Upon request of international authorities such as Eurostat and the OECD, each of the federated entities has been instructed to collect information on R&D within the bodies under its competence. The data are gathered in even-number years with the help of a biennial voluntary survey on companies' expenditure on R&D.

The federal State, and more specifically the federal science policy, then has the task of producing statistics at national level. This obviously requires close collaboration between the different levels of power, as set out in a cooperation agreement between all parties involved. Its application is ensured by the *Commission de coopération CFS/Stat*.

The biennial survey is backward-looking and targeted at companies that have carried out R&D activities in Belgium. To get the best possible measure of firms' R&D activities, a combination of the two following methods is used:

- an inventory method comprising firms that are known to or assumed to carry out R&D activities on a permanent or occasional basis, either internally or through sub-contracting
- a survey method for obtaining data on R&D activities carried out by firms that are not included in the inventory

In practice, the target population does not include firms employing less than 10 people or companies operating in certain sectors that have a very low R&D intensity rate.

In the case of firms included in the inventory, estimates are made on the basis of their replies to the latest survey, after a consistency check. In the event of partial or complete non-response, an estimate of the firm's figures is made.

Belspo is the main data source for compiling the R&D satellite accounts in Belgium.

More details on this data source can be found in Chapter 10

2. Balance of payments

Belgium's balance of payments corresponds to statistics that systematically sum up all economic and financial transactions between residents of Belgium and non-residents over a given period

As part of the R&D project, the balance of payments has been used in order to estimate imports and exports of R&D. The system consists of a mixture of techniques with limited coverage and sampling for the non-financial sector. It is composed of two main sub-systems:

- a full survey amongst the biggest companies (monthly) ;
- a set of specific surveys amongst other companies (monthly and/or quarterly).

3. Annual accounts

Belgian companies are required to file their annual accounts with the National Bank of Belgium's Central Balance Sheet Office each year. These accounts must, in principle, be drawn up according to one of the following two standardized models:

- the abridged schedule for small enterprises
- the detailed schedule for large enterprises

Item 8021 of the annual accounts, namely “R&D acquisition, including produced fixed assets”, gives information on capitalised R&D expenses. The activation of R&D expenses is optional in Belgian accounting law which implies that annual accounts cannot be used as such in this domain of the national accounts. Unlike the detailed schedule, the abridged schedule does not give any specific information on research and development expenses (only the total acquisitions of intangible fixed assets are known in the abridged schedule).

Treatment of R&D

In the light of the changes to ESA 2010 compared to ESA 95, Eurostat set up two task forces on the capitalization of R&D. One of the main products of the first Eurostat task force was a set of templates that Member States should use to submit data for their first estimates of R&D as capital formation. Indeed, in view of the reservations expressed by several countries about the method of capitalizing R&D in their national accounts, these supplementary R&D tables are a response to Eurostat's search for solutions for establishing a sufficiently high degree of confidence in the measures finally adopted and its concern for the change in treatment of R&D to be made in a harmonized manner. The second Task Force consisted to make methodological recommendations in order to fill in the supplementary R&D tables.

Belspo is the main data source for compiling the R&D satellite accounts in Belgium, except for the imports and exports of R&D for which the Balance of Payments data are used.

The treatment of Belspo data is based on the propositions formulated by the two Task Forces set up by Eurostat and the “Manual on measuring Research and Development in ESA 2010” (i).

A specific treatment, reconciling in the best possible way all available sources, is made to estimate output and GFCF in R&D for two large companies operating in the pharmaceuticals industry (ii).

In Belgium, national accounts use the enterprise/legal unit as the basic unit and not the KAU. Indeed, most of the reference data (annual accounts, VAT-declarations, SS-declarations, SBS) is only available at this level. The activity classification is therefore determined by the core

business/dominant activity of the legal unit. No separate (local) KAU's are set up for R&D activities.

(i) Belspo and BoP data

R&D output is estimated as follows:

R&D output	=	+ Intramural expenditure on R&D
	-	Payments for licences to use IPPs
	-	Expenditure on own-account production of software
	+	Payments to postgraduate students
	-	Capital expenditure
	+	Other taxes less subsidies on production
	+	Extramural purchases of R&D that should be recorded as P2
	+	Consumption of fixed capital
	+	Net operating surplus
	+	Adjustment for exhaustiveness
	+	Other adjustments

Intramural expenditure on R&D

The Belspo survey supplies data on intramural expenditure on R&D by units active in the field of research.

As will be explained below, it has been decided to use data from Balance of Payments in place of Belspo data for imports and exports of R&D. Given the considerable lack of comparability between the two data sources and the necessity to reconcile them, an adjustment has been made on the intramural expenditure on R&D provided by the Belspo. In fact, on the basis of the supply and use table, an unbalance occurs by integrating the Balance of Payments data.

Table: Intramural expenditure on R&D in 2012 (€million, current prices)

2012	S.11	S.12	S.13	S.14	S.15	Total
Initial intramural expenditure ¹⁷⁹	5,247	166	2,291	0	39	7,742
Adjustment	1,256	-4	8	0	6	1,266
Adjusted intramural expenditure	6,503	162	2,299	0	44	9,008

Payments for licences to use intellectual property products

Belspo's experts points out that payment for licences to use IPPs are not included in other current costs. So, no change in treatment has to be made for this category.

Expenditure on own-account production of software

In order to estimate the expenditure on own-account production of software to be subtracted, the following assumptions are made:

- expenditure on software R&D is zero for universities
- expenditure on software R&D is negligible for general government, households and NPISHs

These assumptions mean that the deduction is only made for corporations.

Belspo supplies data on intramural R&D expenditure by type of costs, including compensation of employees. If one looks at the wage bill in the information technology industry, namely the "computer programming, consultancy and related activities" (NACE 62), it is possible to get an estimate of the R&D expenditure needed for developing software. In order to take into account the time spent by the IT staff to develop software, a coefficient of 50 % is applied on the salary costs of the NACE 62, in line with the Eurostat's recommendation (indeed, IT staff also spends time on trainings, existing software maintenance, operating systems, etc).

Given that own-account production of software is valued at production costs, intermediate consumption also has to be taken into account along with the gross operating surplus related to own-account production of software. For the national accounts, it is assumed that intermediate consumption accounts for 33 % of compensation of employees in Belgium. This assumption is based on the general government cost structure characterised by a labour intensive activity, just like

¹⁷⁹ Except two large companies active in the pharmaceutical industry for which annual accounts are used.

the development of software. As far as the gross operating surplus is concerned, a mark-up of 12 % is chosen based on the cost structure of the computer programming activities branch.

In 2012, expenditure on R&D for developing software produced for the own-account of non-financial corporations comes to € 352 million.

Payments to postgraduate students

Information on external grants received by postgraduate students at PhD level are given in the annual report of the NFSR¹⁸⁰ for the Wallonia-Brussels Federation only from 2009 onwards and in the RFF¹⁸¹ annual report in the case of Flanders.

It should also be noted that the availability of NFSR data is not guaranteed in the future. And there is also some doubt as to the relevance of this data.

Therefore, the value for this heading has been put at zero.

Capital expenditure

Belspo also provides intramural expenditure on R&D by type of cost, thus including capital expenditure by sector.

Table: Capital expenditure on R&D in 2012 (€million, current prices)

2012	S.11	S.12	S.13	S.14	S.15	Total
Capital expenditure	608	7	151	0	2	769

Other taxes less subsidies on production

Taxes on production are actually already included in the data on intramural expenditure supplied by Belspo.

As far as subsidies for R&D are concerned, the OECD recommends estimating the scale of subsidies to R&D by using the breakdown of sources of R&D funding. Belspo provides data on intramural expenditure by source of funding. The OECD recommendation has therefore been taken into consideration for Belgium.

¹⁸⁰ National Fund for Scientific Research (Fonds de la Recherche scientifique, including the FRIA pour la formation à la Recherche dans l'Industrie et dans l'Agriculture; www.frs-fnrs.be)

¹⁸¹ Research Foundation - Flanders (Fonds Wettenschappelijk Onderzoek; www.fwo.be).

Table: Subsidies on production (D.39) in 2012 (€million, current prices)

2012	S.11	S.12	S.13	S.14	S.15	Total
D39	622	14	1	0	16	654

The general government sector (S.13) is not represented here because the financing that takes place within this sector - for various different purposes (environment, health care, national defence, etc.) - is treated as current transfers in the national accounts and not as subsidies on production.

Extramural purchases of R&D that should be recorded as intermediate consumption

Data on extramural expenditure on R&D by economic activity are published by Belspo for business enterprises only. So, by taking into account extramural expenditure of the R&D industry (NACE 72), information can be obtained on the R&D work that is sub-contracted (intermediate consumption in the R&D industry) by the non-financial corporations sector.

In 2012, the amount of R&D sub-contracted out by the business enterprise sector came to €256 million.

Consumption of Fixed Capital (CFC, P.51c) and Net Operating Surplus (NOS, B.2n)

Eurostat proposes two different methods for estimating the CFC and NOS related to the production of R&D services:

- **Option 1:** CFC and NOS are calculated as a percentage of current expenditure on R&D or as percentage of compensation of employees
- **Option 2:** CFC and NOS are estimated as cost of capital services measured by the Perpetual Inventory Method (PIM)

Consumption of fixed capital

Turning to the Perpetual Inventory Method (PIM), Eurostat had stressed at the R&D Task Force meeting on 31 March 2011 that, while the valuation of CFC requires prior calculation of stocks of R&D-related fixed assets, using the PIM implies estimating all fixed assets, including existing R&D assets used to produce R&D. However, since stocks of R&D are not available for the majority of countries, the Task Force on the Capitalization of Research and Development recommends not taking into consideration, at least for the time being, R&D assets used in the production of R&D services. The PIM had originally been the preferred option for Belgium for defining CFC related to the production of R&D services. Effectively, by taking into account the details available on capital expenditure from the Frascati surveys, it was possible to estimate CFC. But this breakdown is not available for Belgium.

In the absence of any detailed data on capital expenditure, option 1 was finally chosen for Belgium for estimating CFC.

Net operating surplus

Eurostat recommends deriving the net operating surplus of market producers of R&D as a mark-up including unsuccessful R&D. The method used to obtain the mark-up may be based on the consideration of an industry-specific mark-up or a single mark-up for all industries taken together. So as to ensure stability of the mark-up time series, an average or a weighted moving average of several years should be used. If a weighted moving average is used, the weightings and the durations should be derived from an appropriate function like the geometric depreciation function used for calculating consumption of fixed capital of R&D, for example.

The method envisaged in Belgium relies on the use of a single mark-up for all industries. To this end, there has been a ranking of the market-oriented industries by level of R&D intensity. Branches with a level of intensity above 10 % were selected for working out the mark-ups. An average mark-up was then calculated on the basis of these R&D-intensive industries for each year over the period 1995-2012.

Table: Classification of R&D-intensive industries in 2012

	SUT08	Description	R&D intensity (%)
1	72A	Scientific research and development	94
2	20B	Production of basic inorganic chemicals	37
3	27B	Manufacture of domestic electric appliances; Manufacture of other electrical equipment	32
4	21A	Pharmaceuticals industry	27
5	26A	Manufacture of electronic components and cards; Manufacture of computers and peripheral equipment	26
6	30C	Aircraft construction and space	20
7	26B	Manufacture of communication equipment; Manufacture of consumer electronics	15
8	26C	Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks; Manufacture of medical radiation equipment, electromedical and electrotherapeutic equipment; Manufacture of optical and photographic material; Manufacture of magnetic and optical media	14
9	28B	Manufacture of agricultural and forestry machinery; manufacture of metal forming machinery and machine-tool; manufacture of other special purpose machinery	12

Once the mark-ups have been obtained, they are applied on the R&D current expenditures (line 9 of the Eurostat Table 2), which include unsuccessful R&D.

For the market sectors (S.11 and S.12), CFC and NOS have been calculated as follows:

$$CFC_{i,R\&D} + NOS_{i,R\&D} = \left(\frac{B2g}{D1 + P2} \right)_{NA} \times \text{current expenditure on R\&D}_i$$

with:

- $CFC_{i,R\&D}$ = consumption of fixed capital used in the production of R&D in industry i
- $NOS_{i,R\&D}$ = net R&D operating surplus of industry i
- $\{B2g/(D1+P2)_{NA}\}$ = average weighted $B2g/(D1+P2)$ ratios for the different industries with an R&D intensity higher than 10%

For the non-market sectors (S.13 and S.15), the NOS is by definition zero. As for CFC, this is estimated as follows:

$$CFC_{i,R\&D} = \left(\frac{P51c}{D1 + P2} \right)_{NA} \times \text{current expenditure on R\&D}_i$$

with:

- $\{P.51c/(D1+P2)\}_{NA}$ = average weighted P.51c/(D1+P2) ratios for the different industries with an R&D intensity higher than 10 %

In 2012, the net R&D operating surplus and consumption of fixed capital came together to € 570 and € 16 million for S.11 and S.12 respectively, while consumption of fixed capital was put at € 198 and € 2 million for S.13 and S.15 respectively.

Adjustment for exhaustiveness

The two main problems that countries have encountered when it comes to exhaustiveness are non-coverage in the estimates of micro-enterprises carrying out R&D activities and the lack of consistency between data sources. In Belgium's case, the calculations for adjustment for exhaustiveness have already been made by Belspo experts in 2012. Therefore, the value for this heading has been put at zero.

Other adjustments

For Belgium's accounts, this heading was intended to be used for taking account of corrections concerning multinational enterprises. The main problem with these multinationals is the non-posting of intra-company flows of R&D services by a large number of them.

However, Belspo experts claim that transfers of R&D between, say, the parent company and one of its subsidiaries, are taken into account as far as possible in intramural R&D expenditure. In fact, when a company has subsidiaries in Belgium, Belspo questions each unit separately. By considering "funds from other companies within the same group in Belgium" as an indication of funding by these units, it is possible to identify current transfers of R&D between these entities and also avoid double counting of R&D expenditure. Belspo's experts also take account of any possible inconsistencies with current transfers for estimating intramural expenditure on R&D. In conclusion, no adjustment will therefore have to be made for multinationals.

R&D output in 2012: results (Eurostat table 2)

€ million, current prices		S.11		S.12		S.13		S.14		S.15		TOTAL	
		+	-	+	-	+	-	+	-	+	-	+	-
1	Frascati Manual Intramural expenditures on R&D	6,503		162		2,299		0		44		9,008	
2	Subtract payments for licenses to use intellectual products (principally R&D assets, such as patents) that should be recorded as GFCF		0		0		0		0		0		0
3	Subtract expenditure on own-account production of software		352		0		0		0		0		352
4	Add payments to postgraduate students not included in FM data	0		0		0		0		0		0	
5	Subtract capital expenditures		608		7		151		0		2		768
6	Add other taxes on production not included in FM data	0		0		0		0		0		0	
7	Subtract other subsidies on production		622		14		1		0		16		653
8	Add extramural purchases of R&D that should be recorded as intermediate consumption. Applies only to R&D industry	256		0		0		0		0		256	
9	Sub-Total (1 to 8): current expenditures ¹⁸²	5,179		141		2,147		0		26		7,493	
10	Add estimate of consumption of fixed capital plus a return to capital (for non-market producers only consumption of fixed capital):												
11	- Option 1: As percentage of current expenditures (line 9) or compensation of	570		16		198		0		2		786	

¹⁸² Computations are made at unit level. Current expenditure is fixed at 0 when negative.

€ million, current prices		S.11		S.12		S.13		S.14		S.15		TOTAL	
		+	-	+	-	+	-	+	-	+	-	+	-
	employees												
12	- Option 2: As cost of capital services measured with a PIM	0		0		0		0		0		0	
13	Adjustment for exhaustiveness	0		0		0		0		0		0	
14	Other adjustments	0		0		0		0		0		0	
15	Balance : Output of R&D		5,749		157		2,345		0		28		8,279

The estimation process for output (and GFCF) of R&D for most units (whatever the institutional sector to which they belong) is based on the R&D satellite accounts. De facto, R&D by government units and non-profit research institutes is valued as the sum of costs of production.

Since production of R&D cannot be valued on the basis of the estimated basic prices that would be paid if the research were subcontracted commercially, it is valued on the basis of the total production costs.

After having determined the value of R&D output for the different institutional sectors, table 3 enables the value of R&D output that must be capitalised to be obtained. This table is taking a supply/use approach for the R&D product.

R&D GFCF = + R&D output

- + R&D imports
- R&D exports
- + Trade margins
- + Taxes less subsidies on products
- Extramural purchases of R&D that should be recorded as P2
- Acquisitions of R&D not expected to provide a benefit
- Changes in inventories of finished R&D
- + Net purchases of R&D between domestic sectors

Imports and exports of R&D

Belspo provides data on extramural expenditure on R&D by type of performer. By considering the "Rest of the world" as performing unit, imports of R&D can be estimated. However, extramural R&D expenditure statistics are only available for the business enterprise sector. Information on imports of R&D is thus only available for firms.

In order to estimate exports of R&D, statistics for intramural expenditure on R&D by source of funding, with "foreign units" as the source of finance, have to be taken into consideration. This information is supplied by Belspo and available for each institutional sector.

Another source that can also be used is the Balance of Payments (BP).

However, there is a considerable lack of comparability between data from the balance of payments and figures published by Belspo.

After several discussions with the balance of payments and the Belspo experts on the reasons behind these differences, it has finally been decided to use data from Balance of Payments.

For the sake of consistency, an adjustment should be made on production coming from the individual data provided by the Belspo, as on the basis of the supply and use table, an unbalance occurs by integrating the Balance of Payments data.

Imports and exports of R&D by institutional sector in 2012 (€million)

2012	S.11	S.12	S.13	S.14	S.15	Total
Imports of R&D	919	1	95	0	6	1,020
Exports of R&D	2,338	27	124	0	18	2,506

Sources: Balance of Payments data

Trade margins

This heading is included in the table mainly for consistency with the theoretical calculation of GFCF in R&D. As R&D can hardly be considered as a "product destined for resale" trade margins are set a priori at 0.

Taxes less subsidies on products

Since no information is available for Belgium, the amount of taxes less subsidies on products has been set at zero.

Extramural purchases of R&D that should be recorded as intermediate consumption

Extramural acquisitions of R&D that have been recorded as intermediate consumption for calculating R&D output must be subtracted for estimating R&D-related GFCF.

Acquisition of R&D not expected to provide a benefit

All freely available R&D which is intended for use in the production for more than one year is capitalised in Belgium, which is in line with Eurostat's final recommendation.

In Belgium's case, the amount filled in for this heading has thus been fixed at 0.

Changes in inventories of finished R&D

It is not possible to make a distinction between finished R&D and research work in progress. The value for this heading has thus been put at 0.

Net purchases of R&D between domestic sectors

Belspo publishes data on intramural expenditure of R&D by source of funding and R&D performing sector.

If the sector that is funding the R&D is considered to be the same one that buys it afterwards, it is possible to deduct net purchases of R&D between domestic sectors.

However, it is advisable to make the assumption that funding of R&D by the general government sector (S.13) does not correspond to purchases of R&D from other institutional sectors but rather to R&D subsidies granted to these other sectors.

Net purchases of R&D between domestic sectors in 2012 (€million, current prices)

2012	S.11	S.12	S.13	S.14	S.15	TOTAL
Net purchases of R&D	249	7	-269	0	13	0

Gross Fixed Capital Formation of R&D in 2012: results (Eurostat table 3)

€ million, current prices		S.11		S.12		S.13		S.14		S.15		TOTAL	
		-	+	-	+	-	+	-	+	-	+	-	+
1	R&D output		5,749		157		2,345		0		28		8,279
2	Add imports of R&D		919		1		95		0		6		1,021
3	Add trade margins		0		0		0		0		0		0
4	Add taxes on products		0		0		0		0		0		0
5	Subtract subsidies on products	0		0		0		0		0		0	
6	Subtract extramural purchases of R&D that should be recorded as intermediate consumption. Applies only to R&D industry	256		0		0		0		0		256	
7	Subtract acquisitions of R&D not expected to provide a benefit	0		0		0		0		0		0	
8	Subtract changes in inventories of finished R&D	0		0		0		0		0		0	
9	Subtract exports of R&D	2,338		27		124		0		18		2,507	
10	Add net purchases of R&D between domestic sectors		249		7		-269		0		13		0
11	Sub-Total	2,594	6,917	27	165	124	2,171	0	0	18	47	2,763	9,300
12	Balance: Total GFCF of R&D		4,323		138		2,048		0		29		6,538
13	Add/subtract capital transfers of R&D assets between sectors in capital account												

R&D by specialised commercial research laboratories and institutes is valued in the same way as for the other units. The intramural expenditure on R&D obtained according to the Frascati Manual concepts is the starting point for measuring R&D output by summing costs and the part of this R&D output that is to be capitalized in the national accounts.

(ii) Annual accounts data

In 2012, expenditure on R&D that companies recorded on the assets side of their annual accounts represented roughly 43 % of total expenditure on R&D by the whole corporations sector. This finding is not at all surprising since firms capitalize only a part of their R&D expenses in their annual accounts. This is why data from Belspo are used and not the information from the annual accounts, except for two large companies operating in the pharmaceutical industry (a) and for

companies for which no information is available in the belspo sample (b). The amounts for (a) and (b) are given in the table below for the year 2012.

€ million	(a)		(b)		Total	
	P.1	P.51	P.1	P.51	P.1	P.51
S.11	1,484	1,882	180	190	1,665	2,071
S.12			3	3	3	3
S.13			5	5	5	5
S.14			0	0	0	0
S.15			0	0	0	0
S.1	1,484	1,882	189	198	1,673	2,080

Furthermore, a breakdown of this expenditure in terms of R&D produced and R&D purchased from third parties can be obtained from the SBS. This information is useful to break down output of R&D (estimated via R&D satellite accounts or annual accounts) in market production (P.11) and production for own final use (P.12).

(iii) Total output and GFCF of R&D

2012 - € million	P.1	P.51
S.11	7.414	6.394
S.12	160	141
S.13	2.350	2.053
S.14	0	0
S.15	29	30
S.1	9.953	8.617

Stock of R&D and consumption of fixed capital

Since most R&D is produced on an own-account basis, in the majority of cases, it is not possible to measure R&D stocks directly and they are instead valued on the basis of accrued costs. So, the method that will be used to construct the stock of R&D for Belgium is the perpetual inventory method (PIM), as for all other assets.

i) R&D deflator

Owing to the difficulties in identifying R&D output units and as no unit value indices exist, Eurostat recommends using the input method to obtain volume measures of R&D.

For the period 1995-2012, the two inputs taken into account for calculating the deflators are compensation of employees and intermediate consumption. To this end, the price indices of the two components have been calculated (with 2000 as base year) from a limited number of industries which have high R&D wage costs¹⁸³. The two indices have then been weighted to obtain an overall deflator for all industries¹⁸⁴.

The results obtained are given in the table below.

Table: R&D deflators for the period 1995-2012 (2000=1)

t	Deflators
1995	0.896
1996	0.913
1997	0.935
1998	0.957
1999	0.976
2000	1.000
2001	1.027
2002	1.066
2003	1.090
2004	1.105
2005	1.133
2006	1.173
2007	1.209
2008	1.261

¹⁸³ These are the following A64 branches: 20,21,26,27,28,71,72,84,85,62-63

¹⁸⁴ For the period 1995-2012, figures from the national accounts have been used for both components.

2009	1.279
2010	1.311
2011	1.369
2012	1.412

For the period from 1981 to 1994, needed as input to the PIM, GDP deflators are used.

ii) Service lives of R&D

Choosing the duration of a service life for R&D poses major problems because there is no direct information available on this subject.

At the meeting of the R&D Task Force on 22 March 2012, Eurostat urged the countries to carry out a survey on R&D service life lengths or base their own work on other countries' results when the industry-level characteristics are similar. In cases where no such information can be found, Eurostat recommends using a single service life of 10 years. R&D service lives should be reviewed every 10 years.

At the current juncture, a 10-year service life has been taken into account by default.

iii) Survival and depreciation functions

For calculating consumption of fixed capital of R&D, Eurostat recommends using a geometric depreciation function. However, in the ESA 2010 transmission program we had to transmit to Eurostat the cross classification of fixed assets by industry and by asset (table 20), both in gross and in net terms. R&D assets as such didn't have to be transmitted but it was required to provide a gross capital stock for intellectual property products as a whole. This implies that gross capital stock needs to be computed for R&D. As the retirement function cannot be separated out from the geometric depreciation function, we come to the conclusion it is not possible to estimate gross capital stocks for R&D with such a function. Therefore, Belgium has finally opted for the log-normal survival function and a straight line depreciation function.

Table: Net stock of R&D and consumption of fixed capital (P.51c) in 2012

€ million, current prices		CFC	R&D net capital stock
1	S.11	5.678	30.739
2	S.12	161	895
3	S.13	1.808	10.080
4	S.14	0	0
5	S.15	57	262
6	TOTAL	7.703	41.976

Gross fixed capital formation in R&D (AN.1171)		
€ million, 2012		
S.11	+	6.394
S.12	+	141
S.13	+	2.053
S.15	+	30
Total	=	8.617

From reference year 2000 on, we follow the methodology described above.

For time span 1995 to 1999, a simplified estimation method is used, as we do not have individual microeconomic data before 2000. A back casting on the basis of macroeconomic data and the structure of the R&D satellite accounts is estimated.

Concretely, for the period before 2000, we only have intramural expenditure on R&D at macroeconomic level per Frascati sector at our disposal. In a first step, a conversion to ESA classification (sector/branches) is introduced using the repartition of intramural expenditure on R&D of the year 2000 (first year for which individual data on R&D are available). Secondly, the total amount of each correction of the R&D satellite accounts by ESA sector (i.e. expenditure on own-account production of software, capital expenditure, other taxes less subsidies on production, extramural purchases of R&D that should be recorded as intermediate consumption, etc.) is calculated on the basis of the structure of the corrections made for the year 2000 (for example amount of capital expenditure against the intramural expenditure on R&D for the year 2000, etc.). Finally, once we have simplified R&D satellite accounts per ESA sectors for 1995-1999, a breakdown of each correction for each year into ESA subsector/branches is carried out on the basis of average weights estimated for each correction of the R&D satellite accounts for the period 2000-2011. The corresponding weights are then applied on the different corrections of the R&D satellite accounts for the corresponding year and ESA sector.

5.10.4.2 Computer software and databases (AN.1173)

The gross fixed capital formation in software covers both purchased and self-produced software. In this context, account is taken of the recommendations of Eurostat's Software Measurement Task Force, mainly concerning the self-produced output of software.

5.10.4.2.1 Purchased software

For most sectors, purchased software is estimated on the basis of SBS data on software acquisitions recorded as intermediate consumption on the one hand (= conceptual adjustment for misreporting of software as intermediate consumption), and those correctly recorded as fixed assets on the other hand.

- The SBS data on software acquisitions recorded as intermediate consumption (rubric PURSOFT) are first collected on an individual basis. They are then extrapolated to the whole population, on the basis of the ratio observed in the SBS sample between purchased software and turnover (cf. adjustment (i1) partim - purchased software accounted for as current purchases of goods and services reclassified from intermediate consumption to GFCF, in section 3.4). This method is computed for each SUT-industry in sectors S11, S.125, S.126, S.127 and S.15. Largest individual amounts are scrutinized, and removed from the extrapolation ratio if needed, as to ensure that extrapolation is appropriate.
- The SBS data on software acquisitions (rubric INVSOFT) recorded as fixed assets on an individual basis are taken as such in acquisition of intangible assets (P.51112).

Gross fixed capital formation in purchased software from SBS € million, 2012	
<i>Purchased software recorded as intermediate consumption (PURSOFT+ extrapolation)</i>	1.025
<i>of which: extrapolation (N4)</i>	<i>414</i>
S.11	1.002
S.12 (S.125+S.126+S.127)	19
S.15	4
<i>Purchased software recorded as acquisition of fixed assets (INVSOFT)</i>	565
S.11	548
S.12 (S.125+S.126+S.127)	16
S.15	1
Total purchased software from SBS	1.590

For the central bank (S.121), deposit taking corporations (S.122) and insurance corporations (S.128), specific rubrics from the annual accounts or dedicated surveys provide information on purchases of software.

Gross fixed capital formation in purchased software, other sources € million, 2012	
S.121	2
S.122	90
<i>Purchased software recorded as intermediate consumption</i>	31
<i>Purchased software recorded as acquisition of fixed asset</i>	59
S.128	93
Total purchased software from other sources	185

5.10.4.2.2 Software produced for own account

Administrative data for estimating software produced for own account are lacking.

Following the Task Force's recommendations, it is assumed that this type of investment is equal to the sum of the costs pertaining to this activity, covering computer staff remuneration, intermediate consumption, fixed capital consumption and operating surplus (by applying a mark-up).

Two kinds of information are used for calculating computer staff wages:

- the number of such staff in each branch of activity (NACE 2-digits) coming from the Labour Force Survey (LFS) of the DGS, by summing up activity-codes 251 "Software and applications developers and analysts", 252 "Database and network professionals" and 50 % of code 133 "ICT managers";
- the average wage per person in NACE 6201 "Computer programming activities" coming from NSSO returns.

Total computer staff wage bill is obtained by multiplying the number of computer staff in each branch by the corresponding average wage per person. A 50 % coefficient is then applied to the resulting amount to correct for the time such staff actually spends on software development.

As regards inputs not related to employment, intermediate consumption for self-produced output of software is assumed to represent 33 % of wages, based on the cost structure of general government whose activities are, as software development, very labour intensive.

A mark-up is then applied to the results to take into account the gross operating surplus (which combines fixed capital consumption and net operating surplus).

The latter is defined as the gross margin on sales (further referred to as “*bm*”) calculated by the CBSO for grouping “DE722 - Production of computer programmes and systems ready for use”, that covers the NACE 582 “Software publishing” and 6201 “Computer programming activities”.

The estimated mark-up (*mu*) is calculated as $mu = 1/(1-bm)$

For the IT industry (branch 62), the coefficient used for estimating the time spent by computer staff on software development cannot be used as such, since some of the software developed in this way is intended for sale. It is therefore necessary to take only the time spent on developing software originals (copies of which are subsequently sold) and the time spent on developing software that will only be used by the same enterprise.

On the basis of VAT turnover and SBS annex data on turnover (table OC) for this branch, it is assumed that 12 % of computer staff in branch 62 are actively involved in the development of originals:

- it is supposed that only computer staff in the " Computer programming activities" (NACE 6201) are likely to be actively engaged in the development of originals; this NACE represents 48 % of the whole IT industry's turnover according to VAT data;
- moreover, about 25 % of turnover in this branch is from software development (product 6201).

Gross fixed capital formation in software produced for own account	
€ million, 2012	
S.11	2.875
S.12	542
S.13	520
S.15	39
Total	3.976

Total investments in software are as follows:

Gross fixed capital formation in software (AN.1173) € millions, 2012	
Software produced for own account	3.976
Purchased software recorded as intermediate consumption	1.056
Purchased software recorded as fixed assets	719
Total	5.751

5.10.4.3 Entertainment, Literary and Artistic Originals (AN.1174)

As recommended by the Task Force on Entertainment, Literary and Artistic Originals, the estimation of gross fixed capital formation in the form of originals covers literary and musical work, production of films and those TV and radio programmes that can be assimilated to stocks. Film production comprises both cinema and television. Radio and TV programmes may be rebroadcast over time and therefore have a longer life¹⁸⁵. The four criteria set by the Task Force on Entertainment, Literary and Artistic Originals (1: covered by copyright; 2: has a primary artistic intent; 3: satisfies the capitalisation criteria; 4: not covered elsewhere in NA) have been taken into account to define the items estimated.

Following the recommendation of the Task Force, two different methods of estimation are applied according to the existence or otherwise of royalties associated with such originals and managed by copyright management societies.

- Where copyright and related rights generated by a work are collected mainly via management societies, the output of original works is estimated on the basis of the royalties paid by all the Belgian management societies to Belgian recipients¹⁸⁶. This applies to publishing of newspaper (NACE 58.13), publishing of journals and periodicals (NACE 58.14), sound recording and music publishing activities (NACE 59.2) and performing arts (NACE 90.01).
- Where copyright and related rights are managed only partially or not at all by a management society, the production of original works is estimated on the basis of creation costs plus a net operating surplus. Creation costs comprise compensation of employees, intermediate consumption and fixed capital consumption. The branches of activity where a cost method is used comprise book publishing (NACE 58.11), motion picture, video and television

¹⁸⁵ This is for example documentaries, plays or some musical programme. Average service life for originals is 7 years (in accordance with recommendation of TF Originals of service life between 5 and 10 years).

¹⁸⁶ Information gathered from copyright management societies by the Federal Public Service Economy that supervises them and from The Belgian Society of Authors, Composers and Editors (SABAM).

programme production activities (NACE 59.111 and 59.112) and artistic creation (NACE 90.03).

Moreover, administrative data (annual accounts of the main radio and television companies) is used to estimate the production of original works for programming and broadcasting activities (NACE 60).

Gross fixed capital formation in original works (AN.1174) € million, 2012		
S.11 58A	+	50
S.11 59A	+	414
S.11 60A	+	10
S.13 60A	+	11
S.14 90A	+	77
Total	=	561

5.11 CHANGES IN INVENTORIES (P52)

5.11.1 OVERVIEW

The classification of assets in ESA2010 can be summarised as follows:

AN	Non-financial assets
AN.1	Produced non-financial assets
AN.11	Fixed assets
AN.12	Inventories
AN.13	Valuables
AN.2	Non-produced non-financial assets
AN.21	Natural resources
AN.22	Contracts, leases and licences
AN.23	Purchases less sales of goodwill and marketing assets
AF	Financial assets

The classification of inventories in ESA2010 is as follows

AN.12	Inventories
AN.121	Materials and supplies
AN.122	Work-in-progress
AN.1221	<i>Work-in-progress on cultivated biological assets</i>
AN.1222	<i>Other work-in-progress</i>
AN.123	Finished goods
AN.124	Military inventories
AN.125	Goods for resale

In this part of the inventory we will focus on the estimate of the inventories (outstanding amounts: AN.12) and the changes in inventories (P52). These are estimated by institutional sector, type of inventory and industry (nace2). Stocks and flows are estimated in an integrated way (also taking into account holding gains and other changes in volume).

5.11.2 ESTIMATE OF OUTSTANDING AMOUNTS BY INSTITUTIONAL SECTOR AND INDUSTRY

5.11.2.1 Non-financial corporations (S11)

The source used to estimate inventories for the non-financial corporations are the balance sheet data deposited at the CBSO by corporations (which predominantly are sectorised in S11) and NPI's (part of which is sectorised in S11).

The amounts involved according to the statistical publications of the CBSO are the following (outstanding amount of stocks at the end of 2012)

Inventories and orders in progress for corporations and NPI's											
outstanding amounts end of year 2012											
PU450: all industries (mIn €)	account	ESA2010	corporations			NPI's			TOTAL		
			full-format	abridged	total	full-format	abridged	total	full-format	abridged	total
Inventories and orders in progress	3		64.270	23.270	87.539	211	44	254	64.480	23.313	87.794
Inventories	30/36		56.687	21.624	78.311	182	36	218	56.869	21.660	78.530
materials and supplies	30/31	AN.121	11.172	n.a.	n.a.	126	n.a.	n.a.	11.298	n.a.	n.a.
work in progress	32	AN.122	4.604	n.a.	n.a.	4	n.a.	n.a.	4.608	n.a.	n.a.
finished goods	33	AN.123	7.990	n.a.	n.a.	9	n.a.	n.a.	7.999	n.a.	n.a.
goods for resale	34	AN.125	26.746	n.a.	n.a.	30	n.a.	n.a.	26.776	n.a.	n.a.
immovable property intended for sale	35	AN.112	5.845	n.a.	n.a.	14	n.a.	n.a.	5.859	n.a.	n.a.
advance payments	36	n.s.	331	n.a.	n.a.	0	n.a.	n.a.	331	n.a.	n.a.
orders in progress	37	AN.122	7.582	1.646	9.228	29	7	36	7.611	1.653	9.264
source: CBSO NBB											

Account 3 consists of the inventories (30/36) and orders in progress (37). The total book value of these inventories held by corporations and NPI's amounts to 87.8 billion of € in 2012. NPI's only hold a marginal amount of total inventories in the economy.

Large firms (full-format accounts) are required to report their inventories by type: materials and supplies (30/31), work in progress (32), finished goods (33), goods for resale (34), immovable property intended for sale (35) and advance payments on stocks (36). That is not the case for SMEs (abridged format) for which only the total of inventories is known (30/36) as well as the amount for orders in progress (37). We can assume that the composition of the inventories depends on the type of activity pursued (industry) and not on the size of the firm (full-format or abridged accounts) within particular industries. For each industry (NACE 2 digit) we shall therefore assume that the composition of the inventories of SMEs (abridged format) is the same as that of large firms (full format). It should be noted that SMEs only hold about a quarter of the total inventories in the economy, so that a relatively large margin of error in the breakdown by type of inventories for this group will nevertheless have little impact on the breakdown of the total inventories.

It is possible to link the business accounting classification of inventories to the ESA2010 classification as is shown in the table. A number of corrections on the business accounting aggregates are made to ensure consistency with ESA2010 classifications and transactions.

Inventory headings to be regarded as fixed assets

Commercial property intended for resale (35) will be reclassified as fixed assets (and changes in this type of asset as gross fixed capital formation). Orders in progress (37) in the construction and real estate industry is already treated as gross fixed capital formation in the accounts of the companies for which the work is done and also has to be reclassified as fixed assets/gross fixed capital formation.

Immovable property intended for sale

Treatment in business accounts

In the Belgian Minimum Standard Chart of Account, immovable property acquired or constructed for resale is treated as a stock/inventory (balance sheet account 35) and not as fixed assets (balance sheet account 22 or 27).

Immovable property for resale is whether purchased from other companies or constructed.

Purchases of immovable property for resale are registered in account 605 and changes in stocks of immovable property purchased for resale in account 6095.

The construction of immovable property for resale is accounted for in account 715 (change in stock of immovable property constructed for resale) valued at their cost of acquisition.

The sale of commercial property is registered in turnover (account 705). If the corresponding acquisition was made in the previous accounting period this sale will give rise to a decrease in stock of immovable property purchased (6095) or constructed for resale (715).

Treatment in national accounts

Commercial real estate is treated as part of fixed assets (AN.11) and not as part of inventories/goods for resale (AN.12). Changes in stocks in real estate (dwellings, other buildings) are consequently reclassified as gross fixed capital formation (acquisitions less disposals of tangible fixed assets).

Analysis of some specific cases

One real estate company buys a building from a construction company with the purpose of reselling it

profit and loss account of real estate company			
705	sale of immovable property acquired for resale	0	
605	purchase of immovable property for resale	1000	
6095	change in stocks of immovable property for resale	-1000	(increase)
60	cost of immovable property sold	0	

Production and intermediate consumption derived from the profit and loss account of the real estate company are zero (account 70 and 60 = 0).

In the balance sheet cash (-) is substituted for stocks (+).

These changes in stocks are reclassified as gross fixed capital formation in the national accounts.

The construction company realizes the production and the real estate company the investment:

	P1 nace 41-43	P51 nace 68
cpa		
building	1000	1000

One real estate company sells the building to an end user (e.g. in nace 84)

We suppose that the building is sold with a margin of 50 (selling price = 1050)

705	sale of immovable property acquired for resale	1050	
605	purchase of immovable property for resale	0	
6095	change in stocks of immovable property for resale	1000	(decrease)
60	cost of immovable property sold	1000	
70-60	margin on immovable property sold	50	

Business accounting information is transformed to national accounts information: the cost of commercial property sold is deducted from the total cost of goods sold and from total turnover. In doing so a margin is left as production (P1) and intermediate consumption (P2) becomes 0 (in this example: because purchases of services- account 61- is supposed to be 0). A specific correction exists in this respect (cor(s)).

			cor(s)		
turnover	705	1050	-1000	50	P1 (= margin)
purchases of commercial property	605	0	0	0	
changes in stocks of commercial property	6095	1000	-1000	0	
cost of commercial property sold	60	1000	-1000	0	P2
value added		50	0	50	

In the national accounts the decrease in stocks is treated as a disinvestment (negative P51) in nace 68. The end user registers the purchase of the building as an investment.

	P1	P51	P51
cpa	N_68 margin	N_68	N_84
building	50	-1000	1050
margin (on commercial property)	50	-50	

One real estate company constructs a building for resale

profit and loss account of real estate company			
715	change in stocks of immovable property constructed for resale	1000	(increase)
60	purchases of raw materials	600	
62	compensation of employees	400	

Account 71 is treated as part of production and the changes in stocks are reclassified as P51

	P1 N_68	P51 N_68
building	1000	1000

One real estate company sells a building constructed for resale

We suppose that the building is sold with a margin of 50 (selling price = 1050)

705	sale of immovable property acquired for resale	1050
715	change in stocks of immovable property constructed for resale	-1000 (decrease)
605	purchase of immovable property for resale	0
6095	change in stocks of immovable property for resale	0
60	cost of immovable property sold	0
P1=	margin on immovable property sold	50

	P1 N_68	margin	P51 N_68	P51 N_84
building		50	-1000	1050
margin (on commercial property)	50	-50		

Orders in progress

Orders in progress in the construction and real estate industry have to be removed from the inventories/changes in inventories, because otherwise double counting would occur in the expenditure approach of the national accounts (production in the construction industry is recorded in the change in inventories of the construction sector itself and as gross fixed capital formation by the client). We illustrate this with an example.

A construction firm executes a project for a client. The project is funded by advance payments made by the client. The investor records these advance payments as an investment in his annual accounts (acquisitions of assets under construction and advance payments: account 271). The construction firm records the advance payments received under the debts (account 46: advances

received on orders) and the counterpart of the production that has been realised (but not yet finalised/sold) as work in progress (account 37).

In the example we assume advance payments amounting to 1000 used to purchase building materials (600) and to pay construction workers (400). At the end of the financial year, the construction firm has carried out work worth 1000 which is recorded both in the profit and loss account (account 71) and in the balance sheet (increase in heading 37). As the project is totally (pre)financed by the investor, the construction firm has no borrowing requirement ($B.9 = 0$)

Construction firm (nace 41-43)

annual accounts	ESA2010		annual accounts	ESA2010
60	P2	600	71	P1 1000
62	D1	400		
$\Delta 37$	P52	1000	$\Delta 46$	F8 1000

Investor

$\Delta 27$	P51	1000
$\Delta 55$	F2	-1000

It is clear from the example that the production realised by the construction firm appears twice on the expenditure side, namely as a change in inventories/orders in progress of the construction industry itself and as gross fixed capital formation by the client. The construction firm's output should therefore be treated as a sale (71- and 70+), the order in progress should be deleted from the change in inventories ($\Delta 37=0$ and $P52=0$) and the investment by the client is recorded correctly ($P51=1000$)

Advance payments (heading 36)

It was decided to disregard advance payments taking into consideration the (immaterial) amounts involved.

Overview of the adjustments made on the business accounting information in S11

Corporations			2012
Heading 3 before adjustment			84.490,5
Adjustments	Heading 35	(-)	10.265,4
	Heading 36	(-)	460,5
	Heading 37	(-)	4.550,4
	Branch 41 - 43		3.972,2
	Branch 62		227,9
	Branch 68		350,4
Heading 3 after adjustment			69.214,1
% Adjustment			18 %

The difference between the amount for "heading 3 before adjustment" for S11 only (84.490) and that for "inventories and orders in progress for all corporations in the CBSO statistics" (account 3 – 87.539) in the first table of section 5.11.2 is due to a limited number of units sectorised in S12 and S13.

**Inventories in S11 by type according to business accounts
(in €million)**

	Heading 3	Heading 30-36	Heading 30/31	Heading 32	Heading 33	Heading 34	Heading 35	Heading 36	Heading 37
2012	69.214,1	64.569,4	13.490,7	5.366,7	8.939,8	36.772,1	0,0	0,0	4.644,7

Inventories in S11 by type according to the ESA2010 classification

	Heading 30 + 31 AN.121 Materials and supplies	Heading 32 + 37 AN.122 Work-in-progress	Heading 33 AN.123 Finished goods	Heading 34 AN.125 Goods for resale	Total
2012	13.490,70	10.011,4	8.939,8	36.772,1	69.214,1

**Inventories in S11 by industry
in €million**

A21	2012
A	712,3
B	85,1
C	26.068,9
D	649,7
E	1.031,0
F	2.036,0
G	32.966,7
H	1.043,8
I	231,8
J	665,3
K	0,0
L	805,1
M	1.810,2
N	703,9
O	0,0
P	12,5
Q	218,8
R	62,1
S	111,0
Total	69.214,1

5.11.2.2 Financial corporations (S12)

In the financial sector we will, according to the Dutch practice, only estimate stocks for financial leasing companies (nace 65210). They amount to € 128.2 million in 2012.

5.11.2.3 General government (S.13)

Under ESA2010 inventories in S.13 cover both military inventories (AN.124) and other types of inventories. However, for practical reasons, it was decided that all military purchases (not treated as gross fixed capital formation) are directly registered as intermediate consumption whether directly used or not.

A limited number of S13-units deposit normalised annual accounts (de Lijn/SRWT, STIB/MIVB, RTBF/VRT, Apetra etc.). However, the number of units has increased over the last years due to a revision of the market/non-market boundary. For S13-units with normalised annual accounts inventories and changes in inventories can be estimated in the same way as for S11-units.

Inventories in S13
(€ million)

A21	End of 2012
E	20,6
H	2.123,4
J	75,5
M	5,5
N	5,6
O	22,6
P	11,7
Q	0,1
Total	2.265,0

The large amount of inventories in section H is explained by APETRA, the S13-unit which manages the strategic oil reserves in Belgium.

5.11.2.4 Households (S14)

Since there are no specific surveys in Belgium which can be used to estimate the inventory positions of self-employed entrepreneurs, the inventories in S14 will be derived indirectly.

For each branch (NACE2) a turnover/inventories ratio is calculated for SMEs (categories B1 and B2) in S11.

Sales (per industry) of self-employed entrepreneurs are known from the VAT records.

By taking the VAT sales figure and dividing it by the ratio sales/inventory it is possible to derive the inventory position in S14 (per branch). The underlying assumption is that the stock turnover is an industry specific characteristic (and is the same for unincorporated businesses and small and medium sized companies within the same industry).

sales figures per nace 2 digit in S14

In branches with sales of less than € 10 million, no inventories will be estimated in practice because they are not significant (< € 0.4 million)¹⁸⁷.

For activities not liable to VAT (medical and juridical professions) professional income declared in the personal income tax declaration is used as a proxy for turnover.

¹⁸⁷ The average sales/inventories ratio is 25. € 10 million sales therefore corresponds to € 0.4 million inventories (10/25).

In NACE 70 the professional income of directors and business managers¹⁸⁸ are put at 0. In other words, we assume that these self-employed do not hold any inventories in connection with their professional activities, which is a plausible assumption.

sales/inventories ratio of SMS corporations per nace 2 digit

For branches below the turnover threshold (€ 10 million) this ratio is not significant.

In NACE 66 a sales/inventories ratio was estimated via the statistics published by the Central Balance Sheet Office for NACE 662 (insurance auxiliary activities: abridged formats).

In NACE 68 (real estate) the sales/inventories ratio is very low (about 2) because here, in the case of corporations, very large amounts of commercial property are included in the inventories. Self-employed persons active in this branch are real estate agents who arrange the sale of property without being the owner. The ratio derived from information on corporations is therefore meaningless for estimating the inventories of self-employed persons; it is replaced by the ratio for NACE 77.

In NACE 69, part of the activity (nace 69.1: legal activities) is not liable for VAT and part of the activity (69.2 auditors, accountants and tax consultants) is liable to VAT. The VAT sales /inventories ratio is therefore underestimated (because the volume of business by lawyers, notaries, bailiffs, etc. is missing) and had to be corrected.

In NACE 86 (medical services)¹⁸⁹ hardly any of the activities are liable for VAT. The VAT sales/inventories ratio is therefore meaningless here. In this branch the ratio sales/inventories is derived from the annual accounts. This can only be calculated for a minority of abridged format firms, namely those that report their sales (category B1).

In NACE 87 the inventories are set at 0 and in NACE 88 the sales/inventories ratio is multiplied by a factor of 7.1 (the ratio between VAT sales and annual accounts sales is 0.141 in cat B1 here, implying that VAT sales are underestimated by a factor of 7.1).

¹⁸⁸ The amounts involved are large (€ 5.1 billion in 2008).

¹⁸⁹ The old NACE 85 (health and social work) is divided in the new NACE between 86 (medical services), 87 (residential care activities) and 88 (social work activities without accommodation).

Inventories in S14 per industry (€million)

A21	2012
A	494,6
C	154,3
E	2,6
F	435,4
G	1.344,0
H	5,5
I	70,3
J	9,8
K	0,2
L	6,2
M	101,3
N	66,9
P	1,6
Q	0,1
R	13,5
S	61,7
Total	2.768,1

Total inventories for unincorporated businesses thus derived amount to € 2 768 million in 2012 or 4.0 % of inventories held in S11. The largest amounts are found in agriculture, construction and trade.

The composition of these inventories (work in progress, finished goods, and goods for resale) is supposed to be the same as for corporations in similar industries.

5.11.2.5 Non-profit institutions serving households (S15)

Direct information is available via their annual accounts.

The total amounts involved are small.

Inventories in S15 (in €million)

A21	2012
M	0,3
P	0,9
Q	4,7
R	1,6
S	13,2
Total	20,7

5.11.3 ESTIMATE OF THE CHANGES IN INVENTORIES (P52)

5.11.3.1 Non-financial corporations (S11)

Changes in inventories of produced goods are taken into account in determining total output, and changes in inventories of purchased goods are a factor affecting intermediate consumption:

operating income = 70+71+72+74-740

consumption of goods and services = 600/8 +609 +61+640/8-640

For large corporations (full-format accounts), the information is obtained directly from the profit and loss account e.g. 71: change in inventories of produced goods (work in progress, finished goods, orders in progress), and 609 change in inventories of purchased goods (materials and supplies, goods for resale).

SME's (abridged accounts) give no information in the profit and loss account; only the outstanding amounts on the balance sheet – heading 30-36 with no breakdown (inventories) and heading 37 (orders in progress) – are available. In the case of abridged accounts, the change in inventories is estimated as the difference between two consecutive balance sheet positions:

$P52 = 71-609$ (full-format accounts) + $\Delta 3$ (abridged accounts)

To ensure that the changes in inventories derived from business accounts conform as closely as possible to the valuation principles of the national accounts, valuation differences are estimated and taken into account. In practice they are only estimated for purchased inventories for firms which value their inventories according to the FIFO system. In practice the published amount of P52 also contains in some years an element of arbitrage (to bridge the difference between the production approach estimate and the expenditure estimate of GDP).

$P52$ (published) = 71-609 (full-format accounts) + $\Delta 3$ (abridged formats) - valuation differences + arbitrage. The adjustments concerning commercial real estate, orders in progress (in certain industries) and advance payments are done as well on the amounts outstanding (stocks) as on the flows (changes in inventories P52).

Estimate P52 in S11 for 2012**(€million)**Changes in stocks derived from annual accounts

		2011	2012
<u>Abbreviated schemes</u>			
3_abbr_before correction		22.576	23.485
37_construction (41-43) (-)	av	918	984
37_real estate (68) (-)	av	154	186
37_computer programming (62) (-)	av	22	13
35_all industries (-)	est	4.731	5.246
36_all industries (-)	est	157	145
3_abbr_after correction		16.595	16.911
Δ3_abbr_after correction	a		+317
<i>p.m.: P51 buildings for resale (Δ35)</i>			<i>515</i>
<u>Full schemes</u>			
609_full (change in stocks purchased goods) (increase -; decrease +)	b	n.s.	-1.036
71_full (change in stocks produced goods) (increase +; decrease -)	c	n.s.	1.050
total change in stocks_full	d = c-b	n.s.	2.086
37_construction (41-43) (-)	av	2.631	2.988
37_real estate (68) (-)	av	91	165
37_computer programming (62) (-)	av	253	215
37_full (41_43 + 68 + 62)	av	2.975	3.368
Δ37 (= correction on account 71)	e		393
35_vol_totaal	av	4.353	4.725
36_vol_totaal	av	388	315
35+36_full total	av	4.740	5.040
Δ 35/36 (= correction on account 609)	f		300
<i>p.m.: P51 buildings for resale (Δ35)</i>			<i>373</i>
<u>Abbreviated + full schemes after correction</u>			
609_full_after correction	b+f		-736
71_full_after correction	c-e		656
change in stocks full schemes after correction	(c-e)-(b+f)		+1.392
change in stocks abbr. schemes after correction	a		+317
total change in stocks (according to annual accounts)	g		+1.709

Estimate P52 in S11 for 2012**(€million)**Changes in stocks derived from annual accounts

	2011	2012
<i>P52 in national accounts</i>		
holding gains (cf infra)	h (est)	135
total change in stocks (according to national accounts)	i = g-h	1.574
change in stocks published in national accounts	j	1.615
<i>p.m.: arbitrage</i>	<i>j-i</i>	<i>41</i>

av: available in annual accounts

est: estimated using other information and/or hypotheses

35: immovable property intended for resale

36: advance payments on inventories

37: orders in progress

Table 5.10.1.4 Process table for change in inventory (P.52) in S11
€ million

GDP & GNI components	Basis for NA Figures					Adjustments				Final Estimate
	Surv +Cn	Adm. Rec.	Comb. Data	Extrap + Models	Other	Data val.	Conceptual	Exhaustiveness (= N2)	Balancing	
P52	0	1.709	0	0	0	0	-135	0	41	1.615
121 Materials and supplies		56					0		1	
122 Work-in-progress		286					-37		7	
123 Finished goods		90					0		2	
125 Goods for resale		1277					-98		31	

5.11.3.2 Other institutional sectors

The changes in inventories in S12, S13 and S15 are also derived from annual accounts information in the same way as in S11 (resp. € 11 million, € 535 million and € 3 million). No holding gains/losses are however estimated in these sectors taking into account the marginal amounts of inventories in these sectors (3 % of the total amounts).

The changes in inventories in S14 (€ 13 million) are derived as a balance: Δ AN12 – other volume changes. The “other volume changes” reflect the shift of (existing) inventories between S14 (unincorporated businesses) and S11 (corporations) when self-employed persons transform their business into a limited liability corporation. The amount for other volume change in S14 is set at -€ 40 million in 2012. The other volume changes in S12 and S15 are derived as a residual (Δ AN12 – P52) and also reflect intersectoral flows of assets caused by changes in sectorisation of units in the business register (see also the part on integration of flows and stocks).

5.11.4 HOLDING GAINS/LOSSES ON STOCKS

As already explained, the (semi) definitive estimates heavily rely on the use of annual accounts and other administrative sources. These “administrative” aggregates have to be transformed into ESA2010 aggregates. One of the conceptual adjustments is the estimate and elimination of holding gains in the changes in stocks derived from the annual accounts.

Belgian accounting law allows different kinds of stock valuation systems:

- FIFO: first in first out

- LIFO: last in first out
- Average prices
- Individual prices (in the case of non-standardized products)

The method chosen will influence the value of the stock at closing date and consequently also the changes in stocks (final stock minus initial stock), the gross margin (value added) and the reported profit/loss.

We illustrate this using a fictitious example. At 31/12/N-1 a company holds a stock of purchased goods (raw materials or commercial goods) of 500 units valued at 1 €/unit. During years N and N+1 the enterprise realizes monthly purchases of 500 units which are transformed to finished products (in the case of raw materials) or resold as such (commercial goods). There are no (changes in) stocks of finished products. This implies that physical changes in stocks are zero for the year N and N+1. Prices of purchased goods increase by 12 % in N (Dec N compared to Dec N-1) and decrease by 2 % in N+1.

period	Price-index
December N-1	100,0
December N	112,0
December N+1	109,8

The value of the final stock in case of FIFO and LIFO valuation (the most common used stock valuation systems) is as follows:

Stock (in €) at	FIFO	LIFO
31/12/N-1	500	500
31/12/N	560	500
31/12/N+1	549	500

In the case of **FIFO valuation** the opening inventory (oldest products) is first taken into account to establish the cost price of the goods being sold and afterwards the purchases of January to November. The 500 units purchased in December N appear as final inventory on the balance sheet of 31/12/N valued at € 560 (500 units * € 1.12 /unit). In the year N+1 this stock (€ 560) is deemed to be first consumed and afterwards the purchases of January till November. The purchases of December N+1 appear as final inventory on the balance sheet of 31/12/N+1 valued at € 549 (500 units * € 1.098/unit).

In the case of **LIFO valuation** the goods last purchased (those of December) are first taken into account to establish the cost price of the goods being sold and afterwards those of November till

February. This implies that the 500 units in stock keep the same valuation (€ 1/unit or € 500) which is the value at 31/12/N-1 year after year.

The effects of FIFO and LIFO on the balance sheet and profit and loss account can be seen in the next table¹⁹⁰:

BALANCE SHEET AT 31/12

		N-1	N		N+1	
			FIFO	LIFO	FIFO	LIFO
Assets	Inventory	500	560	500	549	500
	Bank	200	1.800	1.800	3.500	3.500
Liabilities	Capital	700	700	700	700	700
	Reserves	0	1.660	1.600	3.349	3.300
Balance Sheet Total		700	2 360	2 300	4 049	4 000

PROFIT AND LOSS ACCOUNT

	N		N+1	
	FIFO	LIFO	FIFO	LIFO
Turnover (1)	8.000	8.000	8.300	8.300
Purchases (2)	6.400	6.400	6.600	6.600
Changes in stocks (3) (increase -, decrease +)	-60	0	+11	0
Cost of goods sold (4) = (2) + (3)	6.340	6.400	6.611	6.600
Gross margin/operating profit (1) - (4)	1.660	1.600	1.689	1.700

Only in the case of LIFO changes in stocks are 0 which corresponds to the physical reality.

FIFO valuation results in a stock increase (in value) in N and a decrease in N+1. These changes are only induced by valuation differences of the final stocks at the end of the successive years (the inventory position end N-1 has been revalued at prices prevailing at the end of the years N and N+1). The gross margin (value added) according to the annual accounts is influenced by the changes in stocks: for N (increase in prices) value added resulting from FIFO valuation is higher than value added resulting from LIFO valuation, for N+1 (decrease in prices) the opposite is true.

This illustrates the fact that the level and growth of value added depends on the system of stock valuation:

¹⁹⁰ We suppose that all purchases and sales have been paid for, profit has been reserved and accounts 71, 72, 74, 61 62 and 64-640 are 0.

**VALUE ADDED IN CASE OF FIFO AND LIFO
VALUATION**

	N	N+1	ΔN	%
FIFO	1.660	1.689	+29	+1.75 %
LIFO	1.600	1.700	+100	+6.25 %

The adjustment for holding gains/losses on stocks is intended to correct changes in stocks and value added derived from business accounts if the valuation in business accounts (FIFO) is not appropriate for national accounts purposes (ESA2010).

5.11.4.1 Valuation of inventories/changes in inventories in national accounts (ESA 2010)

In national accounts it is important to make a distinction between holding gains/losses on assets (e.g. inventories) and transactions influencing asset positions (e.g. P52 changes in inventories which by definition exclude holding gains/losses). In the example developed before LIFO stock valuation resulted in a situation which is compatible with national accounts and FIFO stock valuation resulted in changes in stocks (in business accounts) to be qualified as holding gains/losses. If no correction for holding gains (in the FIFO situation) is made, the production approach (value added) as well as expenditure approach (P52) will be biased as is shown in the next table¹⁹¹. Production/exports and imports are the same because turnover and purchases reflect invoice flows and are not influenced by stock valuation policies. Intermediate consumption however is underestimated in FIFO valuation because raw materials consumed are lower than raw materials purchased/imported (counterpart of increase in stocks of 60). This increase in stocks however has to be reclassified as a holding gain which results in flows according to LIFO.

Year N		P1	P71	P2	P52	P61
FIFO (without correction)	Raw materials		6 400	6 340	60	
	Finished goods	8 000				8 000
	GDP	Production	$P1 - P2 = 8\,000 - 6\,340 = 1\,660$			
		Expenditure	$P52 + P61 - P71 = 60 + 8000 - 6400 = 1660$			
LIFO	Raw materials		6 400	6 400	0	
	Finished goods	8 000				8 000
	GDP	Production	$P1 - P2 = 8\,000 - 6\,400 = 1\,600$			
		Expenditure	$P52 + P61 - P71 = 0 + 8\,000 - 6\,400 = 1\,600$			

¹⁹¹ The underlying assumptions are that the total of turnover/production concerns finished products sold abroad (exported) and that the total of purchases of raw materials are imported.

The corresponding adjustment is treated as cor (w) in the transition table

		before correction	cor(w)	after correction	
70	turnover	8.000	0	8.000	P1
600/8	purchases	6.400	0	6.400	
609	changes in stocks (increase -, decrease +)	-60	60	0	P52
60	cost of goods sold	6.340	60	6.400	P2
70-60	gross margin/value added	1.660	-60	1.600	B1g

5.11.4.2 The correction for holding gains/losses on inventories for 2012

In 2012 the correction for holding gains/losses on inventories added up to € 136,9 million.

In order to calculate that amount, several data are needed:

- the level of inventories of raw materials and goods for resale;
- the inventory valuation methods used;
- the price evolution (January 2012 – Dec 2012).

The above mentioned information is collected for all industries with significant inventory positions in raw materials and goods for resale. In practice, all industries of the processing industry and trade are involved. The most common inventory valuation methods used are LIFO and FIFO; enterprises using average prices and individual prices are very rare

The calculations are done for each industry based on data from enterprises (non-financial corporations (S11)) with annual accounts (categories A1, B1, B2, C1, C2). The inventories of the enterprises that value their inventory according to the FIFO method are isolated. The value of these ends of year inventories is determined by the value of the goods bought (and not consumed/resold) at the most recent price. The difference between the actual and the deflated inventory position are the holding gains/losses.

We illustrate this with an example for a specific industry. In wholesale trade (NACE 46) the inventory position at 31/12/2012 according to the annual accounts is € 16.507 million. The average prices of goods for resale were 1,7 % higher in December 2012 than in Jan 2012. The inventory position valued at the prices of the beginning of the book year (deflated inventories) is $16.507/1.017 = € 16.235$ million. The difference between the actual inventories and the deflated inventories is the potential holding gain (+) or loss (-) (in the case of 100 % FIFO valuation). The actual holding gain/loss is lower because LIFO is also used as valuation method of part of the stocks and this valuation method corresponds to ESA2010 valuation methods:

(Actual inventories – deflated inventories)* FIFO % = holding gain (+) or loss (-)

NACE 46: $(16.507 - 16.235)*0.32 = € 87$ million.

Estimation of holding gains/losses on inventories for the year 2012 (€ million)

Industry Class	Inventories 31/12/2012 (a)	Price evolution Jan 2012 - Dec 2012 (b)	Deflated Inventories (c)=(a)/(b)	% FIFO (d)	Holding gain (+) Loss(-) (e)=[(a)-(c)]*(d)
01	299,3	1,007	297,3	50 %	1,0
02	71,6	0,986	72,6	50 %	-0,5
03	1,1	1,000	1,1	50 %	0
08	39,2	1,013	38,7	50 %	0,3
10	1.362,6	1,020	1.335,40	62 %	16,9
11	154,7	0,990	156,2	62 %	-0,9
12	141,8	0,993	142,8	66 %	-0,7
13	348,3	1,010	344,8	33 %	1,1
14	59,9	1,019	58,8	59 %	0,6
15	59,2	1,003	59	81 %	0,2
16	312,9	1,026	305,1	34 %	2,7
17	249,5	1,022	244,1	17 %	0,9
18	122,7	1,026	119,6	26 %	0,8
19	817,3	0,943	867,1	1 %	-0,5
20	1.737,1	1,003	1.732,50	43 %	2,0
21	903,2	1,006	897,8	43 %	2,3
22	438,8	1,020	430,1	43 %	3,8
23	472,6	0,997	474,1	30 %	-0,4
24	1.273,10	0,972	1.309,9	11 %	-4,0
25	717,2	0,970	739,5	46 %	-10,1
26	204,4	1,001	204,1	40 %	0,1
27	265,4	0,995	266,7	40 %	-0,5
28	983,6	1,006	978	40 %	2,3
29	462,6	0,981	471,5	48 %	-4,2
30	134,9	0,989	136,4	4 %	-0,1
31	187,2	1,009	185,5	37 %	0,6
32	344,5	0,997	345,6	37 %	-0,4
33	194,9	0,992	196,4	37 %	-0,5
35	562,4	0,995	565,3	1 %	0
36	36,6	1,011	36,2	5 %	0
37	2,1	1,000	2,1	0 %	0
38	231,4	1,015	227,9	0 %	0
39	6,1	1,017	6,0	0 %	0
41	315,3	0,998	315,8	33 %	-0,2
42	233,1	0,996	234,1	33 %	-0,3
43	1.003,0	1,000	1.002,9	33 %	0
45	7.200,	1,007	7.146,9	26 %	14,1

Industry Class	Inventories 31/12/2012 (a)	Price evolution Jan 2012 - Dec 2012 (b)	Deflated Inventories (c)=(a)/(b)	% FIFO (d)	Holding gain (+) Loss(-) (e)=[(a)-(c)]*(d)
46	16.507,3	1,017	16.234,9	32 %	86,5
47	7.513,5	1,014	7.410,8	25 %	23,3
TOTAL	45.970,80		45.593,60		136,9

5.11.5 INTEGRATION OF FLOWS AND STOCKS

We illustrate this for the years 2011 and 2012

Integration of stocks and flows						
(mln €)	S11	S12	S13	S14	S15	S1
AN12_2011	67.747	142	1.730	2.795	21	72.384
Changes in stocks (P52) (*)	1.615	11	535	13	3	2.177
valuation differences (holding gains)	135					135
other volume changes and E&O	-283	-24		-40	-3	-351
AN12_2012	69.214	128	2.265	2.768	21	74.374
(*) including arbitrage of +41 mln € in S11						

The amounts outstanding per sector at the end of 2011 and 2012 are estimated using direct annual accounts/balance sheet information (S11, S12, S13 and S15) or in an indirect way (S14).

The changes in stocks for S11, S12, S13 and S15 are also derived from the annual accounts; profit and loss account for large companies and balance sheet information (Δ inventories) for SMS companies/NPI's. In S13 there is a significant amount of P52 generated by the S13-unit that manages the crude oil reserves.

In S11 holding gains/losses on inventories are estimated as well. The amount of P52 integrated in the national accounts de facto comprises an element of arbitrage. The other changes in volume (including errors and omissions) are deduced as a residual in S11 (Δ AN12 – P52 – valuation differences) and S12 and S15 (Δ AN12 – P52). For these last mentioned sectors they reflect intersectoral flows of assets caused by changes in sectorisation of units in the business register.

In S14 the other volume change is set at –€ 40 million. Every year self-employed entrepreneurs transform their unincorporated business into a company (to limit their liability and/or for tax purposes). As a result, existing assets (including inventories) shift from S14 to S11. This shift has

to be recorded in “other volume changes”. An amount of -40 seems plausible. This implies changes in stocks (P52) of € 13 million.

Although not all the underlying elements of the table are known and arbitrage adjustments cannot always be avoided, the simultaneous estimate of stocks and flows (transactions, valuation differences and other volume changes) guarantees a consistent compilation of the balance sheet item inventories (AN12) and the changes in inventories (P52) in the national accounts.

5.12 ACQUISITION LESS DISPOSALS OF VALUABLES (P53)

No estimate was done for this type of transaction in the accounts of 2012. Under the transmission programme Regulation, Belgium obtained derogation until 2017 for the transmission of data on acquisitions less disposals of valuables (P.53). Consequently, an estimate of this operation was introduced in the accounts published in September 2017.

The sources are very poor: neither the business accounts nor the structural surveys on non-financial corporations record specific data on valuables as defined in ESA. The household budget survey is also very restrictive on this topic.

Therefore an estimation method which combines the available information was developed, acknowledging that the results must be considered merely indicative. The proposed method is based on the (*simplified*) *commodity flow principle*, plus a number of inevitable assumptions, given the lack of usable data.

The idea is to build supply and demand data for a selection of products which best conform to the SNA/ESA definition of valuables. Supply consists of imports; demand consists of exports and domestic demand.

5.12.1 ESTIMATION OF SUPPLY

5.12.1.1 Imports of valuables

The data on imports of valuables can be extracted from the foreign trade statistics, available per product (very detailed CN8 nomenclature). The product selection adopted is as follows: the whole of chapter 97 relating to works of art, collectors’ pieces and antiques, and a selection of products from chapter 71.

Products taken into account for estimating P.53

Code CN8	
7101	Pearls, natural or cultured , whether or not worked or graded but not strung, mounted or set ; ungraded pearls, natural or cultured, temporarily strung for convenience of transport

7103 91 00	Precious stones (other than diamonds) and semi-precious stones , whether or not worked or graded but not strung, mounted or set ; ungraded precious stones (other than diamonds) and semi-precious stones, temporarily strung for convenience of transport: rubies, sapphires and emeralds
7103 99 00	Idem: other
7113	Articles of jewellery and parts thereof, of precious metal or of metal clad with precious metal
7114	Articles of goldsmiths' or silversmiths' wares and parts thereof, of precious metal or of metal clad with precious metal
7116 10 00	Articles of natural or cultured pearls
7118 10 00	Coin (other than gold coin), not being legal tender
97	WORKS OF ART, COLLECTORS' PIECES AND ANTIQUES
	9701 Paintings, drawings and pastels, executed entirely by hand, other than drawings of heading No 4906 and other than hand-painted or hand-decorated manufactured articles ; collages and similar decorative plaques
	9701 10 00 – Paintings, drawings and pastels
	9701 90 00 – other
	9702 00 00 Original engravings, prints and lithographs
	9703 00 00 Original sculptures and statuary, in any material
	9704 00 00 Postage or revenue stamps, stamp postmarks, first-day covers, postal stationery (stamped paper), and the like, used, or if unused not of current or new issue in the country to which they are destined
	9705 00 00 Collections and collectors' pieces of zoological, botanical, mineralogical, anatomical, historical, archaeological, palaeontological, ethnographic or numismatic interest
	9706 00 00 Antiques of an age exceeding 100 years

Code 7102 relating to diamonds was excluded insofar as it can be considered to concern a product which is essentially the subject of trading on the Antwerp diamond market. While diamonds can be imported and held by economic agents as valuables, the available data do not permit those instances to be specifically identified.

We have also deliberately excluded items referring to valuable commodities in unwrought or semi-manufactured form, considering that the products concerned are used in production and processing and therefore do not conform to the definition of valuables.

The foreign trade data on this selection of products were also limited to conform to the concepts of ESA2010 and BpM6: imports of goods for processing (code 4), imports relating to repairs or maintenance (code 61, 62, 63 and 64) and other movements of goods not involving any transfer of ownership (code 9) were excluded. The results are set out in the table below:

Imports of valuables

(2012 - € million)

	Imports of valuables	Detail :	
		Products 71x	Products 97
2012	338.2	250.3	87.9

5.12.1.2 Production of valuables

The very nature of valuables makes it reasonable to assume that production is zero or marginal: Belgium does not produce antiques or extract precious metals. Conversely, it is true that there could be national production of art, but the high value or artistic significance of the goods would have to be recognised¹⁹². It would not distort the commodity flow too much if we assume that is not the case.

The research conducted on the most famous Belgian items showed that it is impossible to identify within the turnover of any companies the part relating to sales of works of art. The turnover figure in fact includes the proceeds from other activities such as income derived from exhibitions, and not directly relating to the sale of works of art.

5.12.2 ESTIMATION OF DEMAND

5.12.2.1 Exports of valuables

The exports aspect was developed in the same way as that relating to imports (see above).

Exports of valuables

(2012 - € million)

	Exports of valuables	Detail :	
		Products 71x	Products 97
2012	274.5	140.4	134.1

In the end, Belgium proves to be a net importer of valuables.

¹⁹² The SNA states (§12.16) : For valuables, such as precious stones, antiques and other art objects, when the high value or artistic significance of an object not already recorded in the balance sheet is first **recognised**, it is classified as an economic appearance. Hitherto, the object may have been of little value and not considered an asset. For example, the item might have been considered an ordinary good whose purchase had been included in household final consumption expenditure or been regarded as a consumer durable. Recognition of its worth as a store of value leads to its entrance into the balance sheet as a valuable. The recognition of the value of a previously unvalued item is often associated with a sale (at auction, for instance). The sale is recorded in the capital account as the sale and purchase of a valuable, it having been entered first into the balance sheet of the seller.

5.12.2.2 Net acquisitions of valuables by corporations and the government

The business accounts and the structural survey for non-financial corporations do not contain specific data on the subject. No data source is available. It was suggested that a specific question on net acquisitions of valuables might be included in the structural survey, but it will be several years before the data collected can be used.

It is reasonable to suppose that companies (for instance, large firms and multinationals buying works of art for their collection) record acquisitions of valuables under their investment, in accounts heading 8165 (“other tangible fixed assets”). If that is correct, it means that firms’ acquisitions of valuables will be recorded under P.51 (and not P.53 as the ESA intends).

In the absence of information, it is not possible to estimate net acquisitions of valuables by sector S11. If an amount is attributed to sector S.11, it can lead *to double counting with the figures already included as investments under P.51*.

On the basis of the available information, net acquisitions of valuables are already recorded in the national accounts for sector S.121 (central bank) and S.122 (deposit-taking corporations except the central bank). For deposit-taking corporations, the data on purchases of valuables come from the exhaustive structural survey. The survey only mentions purchases excluding leasing; there are no data on lease purchases or on sales.

For insurance corporations (S.128), data are available in the structural survey of enterprises under Belgian law (supervised by the Bank), both for purchases excluding leasing and for lease purchases and sales. Since the data are available, they can therefore be included in the commodity flow.

Purchases and sales of valuables by general government have been identifiable since 1999. Up to now, these transactions were recorded as gross fixed capital formation of general government (P.51). With effect from publication of the October 2017 detailed accounts, these figures are published under heading P.53 instead of P.51.

Net acquisitions of valuables by the corporate sector and the government

(2012 - € million)

	P.53_S.11	P.53_S.121+S.122 (1)	P.53_S.128	P.53_S.13 (2)
2012	na	1.7	0.0	1.8

(1) These figures already appear in the Belgian national accounts.

(2) These figures already appeared in the national accounts, but under investment.

5.12.2.3 Net acquisitions of valuables by households

The data that we have on the purchase of valuables by households are also fairly poor. Purchases of “genuine” jewels and precious stones are recorded in COICOP 12.3.1.1 (output SUT 32A02). They are estimated on the basis of the household budget survey (HBS) for the reference years and via the movement in the VAT turnover of specialist shops for intermediate years. These purchases are currently recorded under final consumption expenditure of households (P31_S14).

The other types of goods cannot be separately identified and it is reasonable to assume that they are not even taken into account at all in the estimation of household final consumption. In fact, “works of art” as a type of product do not exist in COICOP.

Purchases of genuine jewels and precious stones currently included in household final consumption

(€ million)				
Household budget survey heading	1996	2000	2005	2010
12311 A	109.7	101.0	160.0	55.8

It seems that the estimate of “genuine” jewels and precious stones included in household final consumption stands at around €60 million in 2010. Ideally, this estimate which is compatible with COICOP should exclude metals, precious stones and jewels made from them if they are acquired as an investment. It is obviously very difficult to make that distinction, especially as the data are obtained from a survey which is subject to interpretation by the respondents.

All in all, apart from the fact that some purchases of “genuine” jewels and precious stones have to be redirected to P53, the final balancing of supply and demand is attributed to the household account (P53_S14). True, this involves strong assumptions, but we have no more reliable way of determining the proportion of the balance that could be attributed to non-financial corporations (without causing double counting; see above) or to NPISHs. That could be improved in the future once we have data from the structural survey for non-financial corporations.

5.12.3 COMMODITY FLOW AFTER BALANCING

On the basis of the above considerations, the commodity flow after balancing (in the household sector)) is as follows:

Balanced commodity flow (2012 - € million)

Imports	total supply	Exports	P.53_S.121+ S.122	P.53_S.128	P.53_S.13	P.53_S.14 (balancing)	total demand (= total supply)	P.53_S1	P.53_S1 % of GDP
338.2	338.2	274.5	1.7	0.0	1.8	60.2	338.2	63.7	0.02%

The estimate of P3 for households would need to be modified from 1995 onwards in order to remove the part to be allocated to P53. Since the 2017 edition of the national accounts does not include occasional revisions for the whole 1995-2016 time-span, P31_S14 will not be revised from 1995 onwards. The estimates for P53 will be offset by an entry in changes in inventories 1995-2012, pending the next occasional revision. However, there is an exception in the case of the P53 of general government, since public investment in the general government accounts (P51_S13) will decline by an amount equivalent to the public investment included under P53_S13.

5.13 EXPORTS AND IMPORTS OF GOODS (P61 AND P71)

The following table gives the total amount of imports and exports of goods in the Belgian annual national accounts for the year 2012 broken down into intra-EU and extra-EU imports and exports.

€ Million	Intra-EU	Extra-EU	Total
Import of goods (P71)	176.551	63.298	239.849
Export of goods (P61)	162.958	71.970	234.928

In order to estimate the imports and exports of goods in the Belgian annual national accounts use is made of the annual Belgian balance of payments data, published by the National Bank of Belgium. This statistic includes the economic and financial transactions between Belgian residents and non-residents over the period of one year.

5.13.1 DESCRIPTION OF THE SOURCE

5.13.1.1 General information

For the compilation of the balance of payments data on intra and extra-EU trade in goods, the statistic makes use of the Belgian foreign trade data. This statistic captures the cross-border movements in Belgium. A distinction is made between trade flows of goods between EU Member States (Intrastat) and good movements with countries that do not belong to the European Union (Extrastat).

Extrastat data are collected via the Belgian customs and are exhaustive. A customs form or Extrastat declaration must be completed by the customs office every time when a good is being

sent to a non-EU member country or coming from a non-EU member country. This means that there is no need to extrapolate these data.

Intra-EU trade is collected via the Intrastat declarations. In Belgium, all enterprises subject to VAT have to fill in this Intrastat declaration themselves concerning their trade with EU member states, unless the total traded amount does not exceed a threshold value on an annual basis. This declaration includes all data regarding imports and exports of goods from and to other EU Member States (weight, value, flow, VAT-number, country of destination/origin ...).

As earlier mentioned, the Intrastat data are not exhaustive since a threshold value is used. An enterprise is required to declare their imports when the total annual arrivals are equal to or more than € 700,000 (applicable from 01/01/2012, from 01/01/2015 on: € 1.500.000). For the exports, a threshold value of € 1.000.000 is used (applicable from 01/01/2012). In this system, an enterprise may be obliged to declare none, one or two trade flows¹⁹³. From the moment a company exceeds the threshold, they are obliged to declare their imports and exports immediately and they must continue this process until the end of the following year, then the whole process starts again. During the year, checks are made to see if all companies that exceed the threshold have declared their exports and imports. The enterprises obliged to declare are selected on the basis of their VAT returns for the previous and the current year. Companies are contacted when they forgot to declare their flows.

Quality checks are also performed on the data for example, correcting transaction codes, product codes, correcting false import and export figures by contacting the declarers.

5.13.1.2 Extrapolations and non-response

Since companies only have to declare their flows when they exceed a certain value, some adjustments are made to the Intrastat-data in order to respect the completeness of the data. There is a computation in order to capture the flows below the threshold value. Some adjustments are also made for the non-response.

The estimation of trade below the Intrastat threshold is based on VAT-declaration information and is calculated as follows for respectively imports and exports:

$$\text{Trade below Intrastat threshold export}^{\text{mx}} = \sum 46^{\text{m;q/3}} - \sum (\text{gas}^{\text{m}} + \text{diamonds}^{\text{m}}) - \sum (46^{\text{servicetraders}^{\text{m;q/3}}} - \sum (46^{\text{triangulartraders}^{\text{m;q/3}}} - \sum 48^{\text{m}})$$

¹⁹³ In the case of a VAT-unit, all the separate companies are obliged to declare their flows themselves and not collectively.

$$\text{Trade below Intrastat threshold import}^{mi} = (\sum 86^{m;q/3} - \sum 84^{m;q/3}) - \sum (\text{gas}^m + \text{diamonds}^m) - \sum (86 - 84 \text{servicetraders}^{m;q/3}) - \sum (86 - 84 \text{triangulartraders}^{m;q/3})$$

Where

46 = monthly/quarterly totals of intra-EU dispatches of goods

86 = monthly/quarterly totals of intra-EU arrivals of goods

48 = credit-notes related to box 46 (credit-notes related to box 86 are in box 84 but those totals are already deducted from box 86 by the VAT declarants).

An estimate for trade below the Intrastat threshold is obtained by making the sum of all intra-EU trade in goods stated in the VAT declarations for a given month for all traders not registered as Intrastat declarants. For (small) companies filing a quarterly VAT-declaration, the above mentioned boxes are divided by 3 and added to the monthly declarants.

Gas and diamonds are not subject to the Intrastat threshold, the trade flows concerning these goods are eliminated from the boxes 46 and 86 when making the calculations.

As a certain number of identified declarants declare services trade in their boxes 46 and 86, a correction is made through deducting these VAT-declarations from the calculations.

A correction is also made for triangular trade since this should not be included in the foreign trade data but is registered in the boxes 46 and 86. The total for these operations is estimated on the basis of the VIES-declaration which contains these operations separately. This amount is afterwards deducted from the total amount of the boxes 46 and 86.

For enterprises engaged in a VAT-unit and where some units are not subject to the Intrastat obligation, the missing value is estimated by summing up the Intrastat declarations of the members. This sum is then deducted from the totals of boxes 46 and 86 of these units. This gives an estimate of the missing value.

Besides the estimation in order to capture the flows below the threshold value, an adjustment is also made for the late or non-response. This concerns companies which exceed the threshold value, but do not have an Intrastat declaration.

If a VAT declaration is available, the missing value is estimated on the basis of this VAT-declaration taking into account the specific corrections made above. If no VAT-declaration is available, data for the same calendar month of the year t-1 are used and corrected for the trade cycle (i.e. multiplied by a growth factor calculated on the basis of a constant sample of traders that have declared in both the reference month and the same month for the year-1).

5.13.1.3 Corrections for exhaustiveness

A correction incorporating the import and export of illegal drugs and smuggling is added to the foreign trade figures. These amounts are estimated by the National Accounts Division (for more details see chapter 7).

5.13.1.4 Valuation

The valuation of the imports and exports of goods is different in Intrastat and Extrastat. In Intrastat the basis for the valuation is the value of the invoice. Depending on the agreements between the buyer and seller concerning the transportation, the valuation of the import and export will be different (CIF or FOB). The costs for transportation can be related to transport till the border of the exporting, importing country or till the address of delivery. Since most of the Intrastat imports and exports are related with sales to our neighbour countries (77.9 % of exports and 81 % of imports in 2012, including the United Kingdom), the value of the transport will be negligible and a CIF-FOB correction will not have a great impact.

In Extrastat the import and exports are valued respectively on a CIF- and FOB-basis. Since there isn't enough detailed information on the price of the transport, it is not possible to value the imports on a FOB-basis.

5.13.2 FROM SOURCE DATA TO NATIONAL ACCOUNTS FIGURES

The source-data collected in the foreign trade statistics includes all the transactions that cross the border (community concept) irrespective of the fact that there is a change of economic ownership between a resident and a non-resident. Since in the balance of payments/national accounts, an import and export of goods only takes place when there is a change of economic ownership between a resident and a non-resident, the foreign trade figures need to be adjusted before they are integrated in the balance of payments and the national accounts. This means that transactions between non-residents (quasi-transit) and transactions without a change in economic ownership are included in the foreign trade data and need to be eliminated for balance of payments/national accounts purposes. A third problem is that transactions without goods crossing the borders but with a change of ownership between a resident and a non-resident are not captured by the foreign trade data. Therefore, the foreign trade data in community concept need to be corrected before implementation in the balance of payments/national accounts.

5.13.2.1 Elimination of transit flows

In order to eliminate the transactions between non-residents, the data in community concept from the foreign trade department are converted to the national concept (transactions between residents

and non-residents that cross the border). In order to establish figures in national concept, a distinction is made between:

- (a) non-residents that conduct trade which may be described solely as "quasi-transit" in Belgium: imports followed by re-exports,
- (b) non-residents that also undertake transactions with residents (and, for example, export goods they first purchase from residents, or import goods which they then sell to residents).

In order to do so, the population of declaring companies is broken down into 6 categories, with a specific method being used for each category in order to derive the figures in national concept.

- Category 1: Belgian branch office of foreign enterprise;
- Category 2: tax representative with significant staff (> 4)
- Category 3: tax representative without significant staff that has answered an ad hoc survey (see above);
- Category 4: individually investigated units (key entities);
 - 41 resident enterprise
 - 42 non-resident enterprise
 - 43 mixed enterprise
- Category 5: tax representative without significant staff which has not answered an ad hoc survey
- Category 6: resident enterprise

For each category a specific method is used in order to derive the figures in national concept:

- Category 1: the firm is resident; the figures in national concept are equal to the figures in community concept (after the elimination of return deliveries). The treatment is the same as for other resident units (category 6);
- Category 2: the firm is resident; the figures in national concept are equal to the figures in community concept (after the elimination of return deliveries);
- Category 3 and 5: the figures in national concept are derived on the basis of the VAT supplier Database;
- Category 4: figures in national concept are established after an in depth analysis of all available sources;
- Category 6: the firm is resident; the figures in national concept are equal to the figures in community concept (after the elimination of return deliveries).

The treatment of resident enterprises (population in cat. 1 and in cat. 6) is straightforward. The import and export flows of declarants are fully retained in national concept.

Tax representatives with (significant) staff (population in cat. 2) are considered as resident. This involves a small group of declarants. Category 2 comprises tax representatives that developed an activity in Belgium as time went by and are therefore treated as resident entities.

Category 3 and 5 units are regarded as pure tax representatives, i.e. enterprises that have a Belgian VAT number in order to complete the administrative formalities. They have no other production activity then fulfilling these administrative obligations. Two situations may arise with this group of enterprises.

The first one includes enterprises that undertake transactions only as part of quasi-transit trade. These are enterprises importing products into Belgium where they are declared for free circulation before being exported abroad. Consequently, no Belgian counterparty is involved. The tax representative's declarations should therefore be completely eliminated from the national concept.

The second situation comprises tax representatives that, apart from quasi-transit trade, also undertake transactions with Belgian enterprises, as in the case of an enterprise importing goods to be subsequently delivered in part to a Belgian counterparty, with the rest being exported. In this case only part of the imports must be eliminated (and the remaining part considered as imports in national concept). To take account of these two situations use is made of a source covering both cases.

The estimate according to the national concept for categories 3 and 5 relies on the VAT supplier database, which comprises all sales of VAT taxpayers to other Belgian VAT taxpayers, thus also including tax representatives. The database can therefore serve as a basis for identifying the purchases and sales of tax representatives with Belgian counterparties, so a check can be made of how many of the tax representatives' imports and exports involve actual transactions with Belgian parties and consequently have to be reflected in the national concept and how many involve quasi-transit trade.

More specifically, this means that the value in national concept for imports is equal to the sum of the sales in the VAT supplier database. The value in national concept for exports is equal to the sum of purchases in the VAT supplier databases. Where the indicated Intrastat or Extrastat value is lower than the value in the VAT supplier database the minimum of the 2 is used for reasons of caution.

Tax representatives are pure administrative units that do not produce or use goods themselves. A sale may therefore only originate from imports while purchases are the only possible source of exports in national concept. This implies that imports and exports in national concept of tax representatives solely relate to the activity (purchase/sale of commercial goods, intermediate consumption, investment, production) of the resident companies the tax representative is linked to and for which amounts are reported in its declaration. There is no conceptual difference between

category 3 (units for which results are available from an ad hoc survey conducted in 2008) and category 5 (not surveyed units or units for which no survey results are available). In both cases, these are tax representatives for which the amounts in national concept are indirectly estimated (via the VAT supplier database).

The category 4 units have declarations with very large export and/or import amounts and deserve an in-depth individual analysis where all the available sources for the fiscal representatives (Intrastat declaration, customs declaration, VAT declarations, VAT supplier file) and the linked resident units (Intrastat declaration, customs declaration, Balance of payments survey (imports and exports of services), VAT declarations, VAT supplier file, social security declarations (wages and employment), annual accounts and annual reports, Prodcom declarations (industrial production), structural business surveys (turnover by product/activity, purchases by product) are compared and reconciled.

If the analysis reveals that the enterprise has the characteristics of a resident enterprise it is ranked in category 41 and the imports and exports in national concept are equal to those in Community concept. Enterprises that apparently engage only in quasi-transit trade are assigned to category 42 where imports and exports in national concept are equal to 0. In the case of an enterprise both undertaking transactions with Belgian residents and involved in quasi-transit trade, an annual analysis of the available sources provides a basis for inferring a percentage of how much has to be taken into account according to the national concept.

For the year 2012, the correction made for the elimination of the transit flows equals € 93.3 billion on the import side and € 111 billion on the export side¹⁹⁴.

5.13.2.2 Elimination of flows without a change of ownership

The second problem consists in the fact that goods that pass borders but do not change ownership are included in the foreign trade figures. Following the new ESA 2010, only transactions with a change of ownership are included in the imports and exports of goods. ESA 2010 states explicitly that goods sent abroad for processing and repair/maintenance without a change of ownership need to be excluded from the foreign trade figures.

In order to do so, all the transactions concerning goods for processing are identified on the basis of the transaction codes. This means that all the transactions with TTA-code 4 (import or export before processing Intrastat), 41 (import or export before processing Extrastat), 5 (import or export after processing Intrastat) and 51 (import or export after processing Extrastat) are excluded from the foreign trade figures when establishing the balance of payments and national accounts.

¹⁹⁴ This is only a rough estimation of the transit flows since the community concept will only be revised in the year 2016. The national concept already takes into account these revisions.

For the benchmark year 2010 a reconciliation exercise was done in order to check the quality of the transaction codes. In this respect, the fee obtained on the basis of the foreign trade data was compared with the information on the fee in the BOP-survey and Prodcop. Companies with contradicting information between sources were individually investigated in order to reconcile all the data. If necessary, adjustments were made on the foreign trade data. For the identified group of enterprises with large differences, corrections are made every year on the basis of the conclusions for the year 2010.

In the near future, there are plans to further improve the quality of data concerning processing in foreign trade and balance of payments. The new methodology will be based on micro-reconciliation of different data sources by individual declarant and consultation of the concerned firms. This will be done on the basis of an ad-hoc survey concerning the goods for processing activities. Via this survey, enterprises will be asked to explain the difference between their data in different sources (e.g.: why is the fee in the balance of payments higher than the value obtained by making the difference between the value of the goods before and after processing?). By using this information, it will be possible in the future to make the information in the foreign trade statistics and balance of payments coherent for all declarants. There will also be an adequate correction for the goods that are sold after processing in the processing or other economy and goods that are acquired in the economy of processing or other economy. Without the information in the ad-hoc survey, it is not possible to make an adequate estimate for these flows.

Published foreign trade figures in Belgium do not include transactions concerning maintenance and repair and are therefore in compliance with ESA 2010. Since this information is however collected in their databases for balance of payments purposes, the transactions with TTA-code 6, 60, 61, 62, 63 and 64 (goods that are sent abroad for maintenance or repair, Intrastat and Extrastat) are excluded from the foreign trade figures when using the databases for the establishment of the balance of payments and national accounts.

Besides goods for processing and repairs, ESA 2010 also states that the following transactions have to be excluded from the imports and exports of goods even if they cross the border:

- Goods which leave a country temporarily, being generally returned within a year in their original state and without change of economic ownership.

Goods which leave a country temporarily (e.g. hire, loan, operational leasing) do not have to be declared in Intrastat, when the following conditions are met: no processing is or was planned or carried out, the expected duration of the temporary use was or is not intended to be longer than 24 months and the dispatch/arrival has not to be declared as a supply/acquisition for VAT purposes. Therefore the above mentioned goods are not integrated in the figures of the foreign trade, which is consistent with ESA 2010. No adjustments are necessary.

- Transportation equipment and other movable kinds of equipment which leave a country temporarily, without any change of economic ownership, e.g. construction equipment for installation or construction purposes abroad;

Since goods which leave a country temporarily do not have to be declared, the foreign trade figures are already consistent with ESA 2010 (see above).

- Goods shipped to or from a country's own embassies, military bases or other enclaves inside the national frontiers of another country

A correction is made on the foreign trade figures concerning the goods that are delivered to or bought from enclaves, namely European institutions. If these institutions buy or sell goods here in Belgium, there will not be a cross-border movement. So, this information is not integrated in the foreign trade database.

These transactions are therefore calculated on the basis of information that is originating from the EU. This information contains all the sales to and purchases from Belgian residents.

- Goods on consignment lost or destroyed after crossing a frontier before change of ownership occurs.

No data are available on this item. Since this is an extraordinary situation, we assume that the impact is limited in terms of national accounts.

Besides goods for processing and repair, a correction is also made for goods that are dispatched from Belgium to a foreign site and where the value of the goods is included in the total value of the construction project declared to the balance of payments survey. Since these figures are included in the services account, the imports and exports of goods need to be corrected. Otherwise, there will be a double counting problem. An estimation of these transactions is based on information coming from the balance of payments survey.

Inclusion of economic ownership change without cross-border movement

The third problem occurs when goods do not cross the Belgian border but change ownership anyway. These flows are generally not declared as such in the figures of the foreign trade, but have to be included in the figures according to BPM6/ESA 2010. ESA 2010 specifies the following cases:

- Goods produced by resident units operating in international waters are sold directly to non-residents in foreign countries. Examples of such goods are oil, natural gas, fishery products, maritime's salvage;

Data concerning the import and exports of fishery products and gas are already included in the Belgian foreign trade data. In order to capture the export and import of fishery products, the foreign trade department makes use of the data from the Flemish ministry for agriculture and fishery. This department has information on the fishery products that are delivered by a resident ship in the port of another country. For the imports, the ministry gives information on the fishery products that are delivered by a foreign ship in the Belgian ports. The registration of fishery products is therefore independent from the fact if the goods are directly sold to non-residents or not.

In the foreign trade data, the import and export flows of gas are registered on the basis of information coming from Fluxys, the Belgian grid operator. Every month, the grid operator sends the positions of the interconnector points at the Belgian borders to the foreign trade department. The monthly consumption is then multiplied with the average monthly gas market price in order to make an estimate of the value of import and export of gas. Due to this registration method, transit of gas is included in the figures. Since the balance of payments (until 2014) didn't make a correction for this transit, the national accounts department estimated these transit flows on the basis of structural business survey information.

For the estimation of the gas transit, all structural business surveys of declarants in branch 35B are collected. In this survey, information is provided on the turnover and the part of this turnover realized in foreign countries. For the part realized in foreign countries, additional information is collected on which part concerns goods and which part services.

Firstly, we estimate the real export of the declarants in branch 35B by multiplying the turnover with the part of the turnover realized in foreign countries. Since this export can also concern services, the amount is then multiplied with the part of foreign turnover concerning goods. This amount gives an estimate of the real gas export with change of ownership. It is then compared with the export flows in the foreign trade data. The difference between the two values is considered as transit and deducted from the import and export flows in the foreign trade and balance of payments data.

Starting from January 2014, the estimation of the imports and export of gas is based on a survey from the balance of payments (F01ENE). On the basis of the new survey only transactions with a change of ownership between a resident and non-resident are questioned and included in the figures. The survey is intended for companies which are authorized to deliver energy in Belgium or companies which participate on a market where energy is traded. In the survey, the purchases from and sales to non-residents are asked. These figures are introduced in the balance of payments, while the imports and exports of gas in the foreign trade database are eliminated. Therefore, in the future transit of gas is already eliminated in the source data.

- transportation equipment or other movable equipment not tied to a fixed location:

Transportation equipment or other movable equipment not tied to a fixed location is by hypothesis limited to the exports and imports of ships and airplanes in the Belgian national accounts. These data are already integrated in the Belgian foreign trade data. The imports and exports of ships are registered on the basis of the maritime's register that is owned by the mortgage office in Antwerp. This register contains all the official purchase and delivery certificates of ships. Information concerning the registration date, the VAT-number of the buyer or purchaser is also included. If a private person becomes the owner of a ship, the information is registered via the customs office, which transfers the information to the foreign trade department. In the case of Extra-Community trade in ships, customs declarations are always available and therefore included in the figures of the exports and imports of goods.

For the estimation of the export and import of airplanes, the foreign trade department makes use of the aviation register. This register is managed by the Belgian ministry of mobility. The register contains the new registrations of airplanes in Belgium.

- Goods after changing ownership, which are lost or destroyed before they have crossed the frontier of the exporting country;

No data are available on this item. Since this is an extraordinary situation, we assume that the impact is limited in terms of national accounts.

- Merchanting, i.e. the purchase of a good by a resident from a non-resident and the subsequent resale of the good to another non-resident, without the good entering the merchant's economy

In order to capture the merchanting transactions in the national accounts use is made of the data collected by the F01MER-survey of the balance of payments. Enterprises meeting one the following conditions can be subject to the merchanting survey:

all residents declaring merchanting activities for an amount higher than € 5 million in their VAT-declarations of exempted intra-Community deliveries of goods (VIES-listing)
 all residents declaring merchanting activities for an amount lower than or equal to € 5 million in their VAT-declarations of exempted intra-Community deliveries of goods (VIES-listing)
 all residents not declaring merchanting activities in their VIES-listing and where the total annual amount of the Intrastat declarations is higher than € 10 million.
 all residents that do not meet the previous conditions and where the total amount of the Extrastat declarations is higher than € 1 million.
 All residents that do not meet the previous conditions and are classified in the following nace

Companies are obliged to declare their purchases and resales of goods under merchanting. The margin realized by the resale of the goods under merchanting is calculated by subtracting the purchases of the resales. These data are used to estimate the merchanting activity in the balance of payments and are added to the foreign trade data. The data are also extrapolated using the standard extrapolation method described in section 5.14.1.1.4.

5.13.2.3 Other special cases in the imports and exports of goods specified by ESA 2010

Following ESA 2010, imports and exports of goods include transactions between residents and non-residents in the following items:

- non-monetary gold;

In the Belgian Balance of payments, transactions in non-monetary gold are estimated on the basis of foreign trade data. The correction equals the sum under the following CN8-codes 2843.30xx (gold compounds), 71081.xxxx (non-monetary gold: powder, other unwrought forms, other semi-manufactured forms) and 7112.9xx (waste and scrap of gold).

These foreign trade data are supplemented with information coming from the BOP-survey addressed to financial institutions concerning non-monetary gold that does not cross the border but changes ownership, including allocated gold accounts.

- silver bullion, diamonds and other precious metals and stones;

Transactions concerning the above mentioned goods are included in the foreign trade data. The import and export of diamond is largely based on declarations coming from the Antwerp World Diamond Centre. This institution represents and coordinates the Antwerp Diamond Sector. They also streamline the vast import and export flow of diamonds in and out of Belgium. In their declaration, the import and export of raw and processed diamonds can be found. Also the value of the diamonds before and after processing is given.

- paper money and coins not in circulation and unissued securities (valued as goods, not at face value);

These data are included in the foreign trade statistics as far as they cross the border.

- electricity, gas and water;

The registration of the export and import of gas is described in the previous section. The import and export of electricity is registered via the transmission system operator Elia. Elia manages all the interconnectors at the Belgian borders. Every month, they send the position of the interconnector points to the foreign trade department. The monthly consumption is multiplied with the average market price for that month to estimate the value of the imports and exports of electricity.

- parcel post;

In the balance of payments, a correction is made to take into account the purchases and sales via the internet, mail-order, direct marketing and telemarketing. This information is gathered via a survey by the institutions that issue payment cards or manage a payment card system. The institutions are asked to give the total sales and purchases via mail-order, internet, direct marketing and telemarketing.

- government exports including goods financed by grants and loans;

These goods are included in foreign trade data as far as they cross the border.

- goods transferred to or from the ownership of a buffer stock organization;

These goods are included in foreign trade data as far as they cross the border.

- goods delivered by a resident enterprise to its non-resident affiliates, except for goods for processing;
- goods received by a resident enterprise from its non-resident affiliates, except for goods for processing;

ESA 2010 foresees a special treatment for the deliveries between affiliated enterprises. More specifically, for deliveries between affiliated enterprises (branch or subsidiary, or foreign affiliate) a change of economic ownership is imputed whenever goods are delivered between affiliated enterprises. This applies only when the establishment receiving the goods assumes responsibility for making the decisions about the levels of supply and prices at which their output is delivered for the market.

In Belgian foreign trade data deliveries between affiliated enterprises are recorded. In order to correctly incorporate these deliveries between affiliated enterprises, an in-depth research for some international groups is done collectively by experts of the national accounts, balance of payments and foreign trade statistics. All the resident units from this international group are identified as also the non-resident/fiscal representatives registered in Belgium. Since mostly annual accounts are available, this source is used in order to determine if the subsidiary/branch assumes responsibility

for making the production and price decisions or not. We assume that the branch has responsibility for making the decisions if the value of the goods is registered in the annual accounts of that branch. If only a fee is registered, we assume that the responsibility for making decisions is located abroad. If the Belgian company does not register the total value of the goods, the good flows of the company and fiscal representatives are eliminated from the foreign trade figures. In the case of an import, the same reasoning is followed.

- smuggled goods or products not reported for taxes like import duties and VAT;

Smuggled goods and the imports and exports of illegal drugs are incorporated in the figures of the balance of payments. They are estimated by the national accounts division and added up to the imports and exports of goods stated in the balance of payments. More information on the estimation method can be found in chapter 7.

- other unrecorded shipments, such as gifts and those of less than a stated minimum value.

The hypothesis is taken that the transactions are integrated in the extrapolations made on the foreign trade figures.

Besides the corrections mentioned above, the foreign trade data are also adjusted for goods procured in ports by carriers. On the export side, the information is partially integrated in the foreign trade data and supplemented with information coming from the balance of payments. This is not the case on the import side where only information from the balance of payments survey is used. More specifically, declarants are asked to declare their purchases and sales of fuel and supplies. This concerns provisioning goods (bunkering). These data are afterwards extrapolated via the standard extrapolation method and added to the imports and exports of goods.

5.13.2.4 Adjustments on imports and exports of goods in national accounts

The basis for the estimation of imports and exports of goods in the national accounts is the balance of payments. The obtained figures are checked as much as possible and corrections are made to the data if necessary. These corrections are also communicated to the balance of payments and are sometimes already integrated before the balance of payments is published.

The final figures obtained after correction are afterwards influenced by the balancing process of the national accounts. In the following table, the different steps in calculating the imports and exports of goods are given with the corresponding figures for the year 2012.

	Imports	Exports
FOREIGN TRADE		
Imports and exports of goods: community concept	341.788	347.326
- transit and quasi-transit flows	-93.290	-111.026
Imports and exports of goods: national concept (basis for BoP)	248.498	236.300
BALANCE OF PAYMENTS		
Imports and exports of goods: national concept (basis for BoP)	248.498	236.300
Conceptual BOP/NA-adjustments		
- goods sent abroad for and after processing	-4.039	-4.614
- goods sent abroad for and after repair	-116	-283
- goods dispatched from Belgium to a foreign construction site and included in the total value of construction project	-10	-92
+ goods procured in ports by carriers	1.086	330
+ net exports of goods under merchanting	0	3.038
+ export to foreign enclaves in Belgium	1	124
+ sales via internet, mailorder, direct marketing and telemarketing	287	46
+ sales of goods to foreign enterprises	4	2
Exhaustiveness adjustments		
+ smuggling	12	46
+ illegal drugs	142	604
Data validation balance of payments	-1.343	/
Data validation national accounts (integrated in BOP)	-853	-1.458
Imports and exports of goods: balance of payments (basis for NA figures)	243.671	234.042
NATIONAL ACCOUNTS		
Imports and exports of goods: balance of payments (basis for NA figures)	243.671	234.042
Conceptual NA-adjustment		
- transit of gas	-4.393	-4.393
Data validation national accounts (not integrated in BOP)	49	524
Imports and exports of goods: national accounts before balancing	239.327	230.173
+ balancing national accounts	522	4.754
Imports and exports of goods: national accounts after balancing	239.849	234.928

5.13.2.5 Special remarks

According to the recommendations from the GNP Committee Task Force on Intrastat (CPNB 203), the quality of foreign trade data is checked in the supply- and use-framework. For products with severe imbalances between supply and use, foreign trade data are amongst others confronted with other information in order to give an indication of the over- or understating of the imports and exports. The figures can be adjusted if they cannot be reconciled with other information if this other information is believed to be of better quality (e.g. production is mostly estimated on the basis of annual accounts, if the exports are much higher than the turnover value in the annual accounts, the foreign trade data can be adjusted).

The supply- and use-framework is also used in a reconciliation working group consisting of experts from the balance of payments, foreign trade and national accounts. This working group confronts all the possible data for big international groups in a supply- and use framework.

5.14 EXPORTS AND IMPORTS OF SERVICES (P62 AND P72)

In order to estimate the imports and exports of services in the Belgian annual national accounts use is made of the annual Belgian balance of payments data, published by the National Bank of Belgium. This statistic includes the economic and financial transactions between Belgian residents and non-residents over the period of one year.

5.14.1 BALANCE OF PAYMENTS: GENERAL INFORMATION

For the compilation of the balance of payments data on intra and extra-EU trade in services, information is gathered via different **BOP-surveys** complemented with data from other **external sources** (Eurostat, foreign trade, etc.) to guarantee the exhaustiveness.

5.14.1.1 BOP-surveys

Sampling techniques

In order to guarantee the completeness of the imports and exports of services, the population of possible importers and exporters of services is carefully determined. Therefore, the BOP system uses a mixture of cut-off and sampling techniques. A distinction has to be made between the financial and non-financial sector.

NON-FINANCIAL SECTOR

For the non-financial sector, the system is made up of two main subsystems, namely a full survey of the major enterprises relevant for the import and export of services and a set of specific surveys for the other enterprises.

The full survey for the major enterprises (F01DGS) is sent to all the companies that exceed a certain threshold value concerning their imports and exports of services. This threshold value is determined on the basis of VAT-information concerning the imports and exports of services. More specifically, the grids that indicate an ex- or import of services are taken into account (grids 44 (export), 47 (export), 56 (import), 87 (import), 88 (import))¹⁹⁵. Companies are considered as a 'major enterprise' if the following conditions are met:

195 Outgoing transactions:

grid 44: Services for which the foreign VAT is payable by the contractor

grid 47: Other exempt transactions and other acts carried out abroad

Incoming transactions:

grid 87: Other incoming transactions for which VAT is payable by the declarant

grid 88: Intracommunity services with reverse charge grid 56: VAT to the transactions indicated in grid 87, with exemption of import with reverse charge

grid 56: VAT to the transactions indicated in grid 87, with exemption of import with reverse charge

- Activity code concerning services and VAT-grid 47 is annually greater than € 5 million
- VAT-grid 56 is annually greater than € 1 million or grid 87 is annually greater than € 5 million
- VAT-grid 44 or VAT-grid 88 is annually greater than € 5 million

This population is examined monthly in an exhaustive way. They have to declare their imports and exports concerning all the services listed in the balance of payments.

Enterprises not considered 'major' in terms of imports and exports of services can be subject to another survey. There are 2 types of 'other' surveys, more specifically surveys where a threshold value is used to determine the declarants (exhaustive) and surveys where a stratified selection method is used to determine the declarants (non-exhaustive).

Specific surveys for specific populations where a (VAT or other) threshold value is used to determine the declarants (exhaustive) is used for coordination centers/head offices (F01CDC), audiovisual media companies (F03AVS), tour operators (F02TRA) and insurance brokers (F02BRO) where there is an indication that they import and export services on the basis of their VAT-declarations or size. These companies have to declare their imports and exports when they meet the following criteria:

F01CDC

- All resident coordination centers on 1 January 2004
- Activity code assumes head office and VAT-grid 44 and/or 88 is annually greater than € 1 million

F03AVS

- Activity code assumes audiovisual activity and VAT-grid 44 and/ or 47 or 87 and/or 88 is annually greater than € 100.000.

F02BRO

- Activity code assumes insurance broker and depositing a full scheme of the Belgian annual accounts or employing more than 10 persons

F02TRA

- Activity code assumes tour operator or travel agency and turnover greater than € 10 million

All the companies that meet the criteria above are obliged to fill in the specific BOP-survey and are therefore exhaustive. The coordination centers/head offices have to report on the imports and exports of all services in the balance of payments. The other 3 groups report mainly on their primary activity. In the case of the audiovisual media companies especially the import and export of audiovisual services is asked. The tour operators have to declare the import and export of travel services. Besides this, other relevant services are added such as transport of persons. The insurance brokers are asked to declare the import and export of insurance and reinsurance services. Also other

relevant services are asked for such as accounting, management services. The total value of imports and exports of other services is asked as well.

Besides the specific surveys where a threshold value is used to determine the declarants (exhaustive), the BOP also makes use of surveys where a stratified selection method is used to determine the declarants (non-exhaustive). Analysis of the previous settlement based system has shown that the import and export of construction and transport services is highly concentrated in respectively the construction and transport branches. This is why these branches are inquired on the basis of a specific survey focused on construction services (F13CON) and on transport services (F03TRP). Additionally enterprises in some specific sectors are surveyed as potential principals to obtain information among other services on import of construction services (F23CON).

For the remaining smaller enterprises that do not belong to the abovementioned surveys but where there is an indication of import and export of services, a specific (stratified sample based) survey (F03CMS) is designed to obtain information on the import and export of services.

The following conditions have to be met in order to belong to the population of possible declarants of the different specific surveys where a stratified selection method:

F03TRP

- Activity code assumes transport and VAT-grids 44 and/or 47 or 87 and/or 88 annually greater than € 5.000

F13CON

- Activity code assumes construction and industrial installation and VAT-grids 87 and/or 88 or 44 and/or 47 annually greater than € 5.000

F23CON

- Activity code assumes industry, energy, real estate, waste treatment and VAT-grids 87 and/or 88 or 44 and/or 47 annually greater than € 5.000

F03CMS

- Activity code assumes services (other than transport, construction, audiovisual) and VAT-grids 44 and/or 47 annually greater than € 5.000 or 87 and/or 88 greater than € 5.000

The enterprises which have to fill in the survey are determined on the basis of a stratified aselect sampling method.

FINANCIAL SECTOR

For the financial sector, different surveys are defined, each covering a specific subsector. In practice, the following subsectors are examined:

Credit institutions (F01PKI)

- Questioned about mostly all services on the balance of payments

Insurance companies (F02INS)

- Questioned about insurance and a limited number of other relevant services such as legal, accounting, business and computer services

Reinsurance companies (F02RIN)

- Questioned about insurance and a limited number of other relevant services such as legal, accounting, business and computer services

Institutions for occupational retirement provision (F02PSF)

- Questioned about reinsurance and pension services

Collective investment undertakings (F02OPC)

- Questioned about financial and a limited number of other relevant services

Stockbroking firms (F02STB)

- Questioned about financial and a limited number of other relevant services

Asset management companies (F02INV)

- Questioned about financial and a limited number of other relevant services

Credit card issuers (F02CCI)

- Questioned about the total amount and type of credit card expenditures abroad by Belgian residents and expenditures in Belgium by foreigners

These surveys are addressed to the full population of the sub-sectors and are therefore exhaustive.

Requested information in BOP-surveys

In the BOP-surveys the information is collected on the basis of survey headings which are more detailed than the headings in the balance of payments (for an overview of the BOP-survey headings for F01DGS: see annex) are asked:

- value of the imported or exported service
- currency
- country of the opposite party (in order to obtain the geographical breakdown for example intra- and extra-EU – the geographical breakdown is calculated on the basis of the composing countries in the reference year)

Valuation principles

The system of the BOP-survey is linked with the annual accounts (profit and loss account) of the declaring companies. Therefore, the imports and exports of services are taken into account from the moment the figures appear in the accounts of the companies. Since in Belgium, revenues are reported in the accounts when they are earned (accrual basis), the exports and imports are valued at the time they are rendered and are therefore in compliance with ESA 2010.

Extrapolations and non-response

Since companies only have to declare their flows when their trade on an annual basis exceeds a certain value, some adjustments are made to the data in order to respect the completeness. There is a computation in order to capture the flows of companies below the threshold value. Some adjustments are also made for the non-response.

Estimations for the non-response are done on the basis of the weight of the missing enterprise in the sample. This weight is mainly determined on the basis of the VAT-grids 44 and 88 and is then multiplied by the total declared imports and exports in the concerning survey in order to obtain the estimated value.

Extrapolations are made for the non-exhaustive surveys: F03TRP, F13CON, F23CON, F03CMS. These adjustments are based on weighting coefficients. The populations for a specific survey are divided into different strata. Some strata are questioned exhaustively. For other strata a sample is composed. In this last case, the declared imports and exports for the enterprises in the stratum are extrapolated on the basis of a weighting coefficient, which is equal to the chance that a company will belong to the sample (total number of enterprises in the sample/total number of enterprises in the stratum) in order to obtain the total import and export for the concerned stratum.

Corrections for exhaustiveness

Besides the corrections for the non-response and the extrapolations, there is also an adjustment related to the import and export of prostitution services. The estimation of these services is explained in chapter 7.

5.14.1.2 External information

Besides the information in the BOP-surveys, the balance of payments makes use of other sources for certain headings.

Import and export from and to European Institutions

Sales to and purchases from European Institutions with Belgian residents need to be considered as an export or import of services. This information is extracted from the Eurostat website. These data are added to the data from the surveys.

Import and export of travel services

- Business travel

In order to estimate the expenses and revenues for the business travel use is made of the number of overnight business stays in Belgium (collected by DGS), the expenses statistic from Belgian business tourists in foreign countries (collected by DGS) and the declarations of credit card issuers.

The expenses of Belgian cross-border workers employed in Luxemburg are estimated on the basis of figures of STATEC. The number of foreign cross-border workers active in Belgium and Belgian cross-border workers in other neighbour countries are coming from the National Social Security Office (NSSO).

- Health-related travel

Health-related expenditures of foreigners in Belgium and expenditures of Belgian residents in foreign countries are mainly registered through declarations of the National institute for sickness and disability insurance.

- Educational travel

The imports and exports of educational travel are estimated on the basis of information from credit card issuers. All the payments in schools, universities and other educational institutions in Belgium or other countries are regarded as exports and imports of educational travel.

- Tourism

In order to estimate the expenses and revenues for the private travel use is made of the number of overnight stays in Belgium (collected by DGS), the expenses statistic from Belgian tourists in foreign countries (collected by DGS), the declarations of credit card issuers and information of the rental of holiday homes by real estate offices.

Import and export of government services and goods

The import of government services and goods are for a significant part calculated on the basis of data coming from the National Bank of Belgium. The Bank centralizes the revenue and expenditure of the federal State in the account maintained by the Belgian Treasury at the National Bank. Through these accounts, the import of government services and goods can be calculated.

Concerning the exports, declarations on the purchases of the NATO from the Belgian public sector and Eurostat-information is used.

5.14.1.3 The way ahead

From reference year 2014 on, a couple of changes were introduced to the BOP-survey system:

- Reduction of the number of surveys

A gradual reduction of the number of different surveys from 16 surveys in the old system (F02CCI excluded) to 7 surveys in 2015. In the old system, most of the surveys were intended for a specific target group with headings specific for these groups. From 2014 on, more general surveys were developed questioning all the headings of the balance of payments and intended for different target groups.

Reference Year 2013	Reference Year 2014	Reference Year 2015
F01PKI	F01PKI	F01PKI
F02INS F02RIN	F02INS F02RIN	F02INS
F02OPC F02INV F02PSF F02STB	F02OPC F02INV F02PSF F02STB	F02OFI
F02BRO	F02BRO	F02BRO
F02TRA	F02TRA	F02TRA
F01DGS (M)	F01DGS (M)	F01DGS (M)
F01CDC F03TRP F13CON F23CON F03AVS F03CMS	F01DGS (M) F01DGS (Q) F02CMS (Q)	F01DGS (M) F01DGS (Q) F02CMS (Q)
16	11	7

- Change-over to one uniform survey list questioning all the services mentioned on the balance of payments
- The use of new threshold values

Old method (reference year 2012)				New method (from 2014 on)								
Method	Survey	Frequency	Mode	VAT-grids					Frequency	F01DGS		F02CMS
				Threshold in millions of euros						Exh-M	Exh-Q	Sel-Q
				G44	G88	G47	G87	G56					G44/G47/G87/G88		G44/G88
Threshold	F01DGS	M	Exh	>5	>5	>5	>5	>1	M	>5		
	F01CDC	M	Exh	>1	>1				M/Q	>5	>1 <5	>0 <1
	F03AVS	Q	Exh	>0,1	>0,1	>0,1	>0,1		M/Q	>5	>1 <5	>0 <1
Sample	F03TRP	M	Exh	>1	>1	>1	>1		M/Q	>5	>1 <5	>0 <1
		Q	Sel	>0,005 <1	>0,005 <1	>0,005 <1	>0,005 <1		Q			>0 <1
	F13CON	M	Exh	>1	>1	>1	>1		M/Q	>5	>1 <5	>0 <1
		Q	Sel	>0,005 <1	>0,005 <1	>0,005 <1	>0,005 <1		Q			>0 <1
	F23CON	M	Exh	>1	>1	>1	>1		M/Q	>5	>1 <5	>0 <1
		Q	Sel	>0,005 <1	>0,005 <1	>0,005 <1	>0,005 <1		Q			>0 <1
F03CMS	Q	Exh	>1	>1	>1	>1		Q	>5	>1 <5		
	Q	Sel	>0,005 <1	>0,005 <1				Q			>0 <1	

- New selection and estimation method

In the new method, 2 subpopulations are designed. One group with “large enterprises” and one group with ‘small enterprises’. The very large enterprises are still questioned exhaustively on a monthly basis, the other large enterprises are questioned exhaustively on a quarterly basis. The

group with the small enterprises is questioned non-exhaustively and with a lower frequency. The declarations of the sample of small enterprises are only used for the geographical and BOP-heading breakdown of the part that all the small enterprises represent. The VAT-grids 44 and 88 of the small enterprises are used for their values in order to become the extrapolations. The estimation method for the non-response is identical to the method in the old system.

5.14.2 BALANCE OF PAYMENTS: BREAKDOWN

The following table (in € million) gives the total amount of imports and exports of services in the Belgian annual accounts for the year 2012 broken down into intra-EU and extra-EU exports:

	Intra-EU	Extra-EU	Total
Imports of services in NA	57.410	19.287	76.697
Exports of services in NA	55.963	28.044	84.007

Concerning the imports and exports of services, the balance of payments includes the following transactions¹⁹⁶:

5.14.2.1 Manufacturing services on physical inputs owned by others

Overview

Manufacturing services on physical inputs owned by others occur when a company processes goods (assembling, packing, labelling, etc.) that are owned by other enterprises. The processor is paid a fee by the owner and the principal maintains ownership of the goods throughout the transformation process.

¹⁹⁶ The figures mentioned for the BOP-headings are extracted from the balance of payments and do not compromise the results from the balancing process in the national accounts

Figures

Imports

Description	S21	S22	S2
Goods for processing abroad	1.421	107	1.528
Goods for processing in reporting economy	.	.	.

Exports

Description	S21	S22	S2
Goods for processing abroad	.	.	.
Goods for processing in reporting economy	1.951	2.462	4.412

Detailed estimation

Manufacturing services on physical inputs owned by others includes the service fee charged in the case when goods are sent abroad for processing. Inward processing is registered as an export of services. Outward processing gives rise to an import of services. The fee is calculated on the basis of the fee mentioned in the BOP-surveys under the following headings:

- A2300 On contract processing of goods, if the gross movement of goods before or after the processing of these goods has not been declared as such to Intrastat, Extrastat and customs
- A2301 On contract processing of goods, , if the gross movement of goods before or after the processing of these goods has been declared as such to Intrastat, Extrastat and customs

For enterprises that are not subject to the BOP-survey or do not declare manufacturing services in the survey (small part), the fee is calculated as the difference between the goods before and after processing. For the benchmark year 2010 a reconciliation exercise was done in order to check the quality of the BOP and foreign trade data. In this respect, the fee obtained on the basis of the foreign trade data was compared with the information on the fee in the BOP-survey and prodcom. Companies with large differences between the several sources were individually investigated in order to reconcile all the data. If necessary, adjustments were made on the fee (e.g. missing fees). For the identified group of enterprises with large differences, corrections are made every year on the basis of the conclusions of the year 2010. Several companies were informed on the errors in their data and will report from 2015 on the correct information.

5.14.2.2 Maintenance and repair services not included elsewhere

Overview

This heading contains the costs of repairing goods (ships, aircrafts, devices, ...) which are owned by non-residents and repaired by residents (and vice versa), excluding computer equipment which is recorded under "computer services". Repairs to real estate (buildings, bridges, roads) are on the other hand included into the "construction services". The cleaning of transport equipment is integrated under transport services. Only the value of the work done is recorded under the heading 'maintenance and repair services not included elsewhere', and contains on-site technical support/repair as well as repairs where the goods cross the borders.

Figures

Imports

Description	S21	S22	S2
Maintenance and repair services	447	78	525

Exports

Description	S21	S22	S2
Maintenance and repair services	705	138	844

Detailed estimation

The repair fee is calculated on the basis of the fee mentioned in the BOP-survey under the following headings:

A3300 Maintenance and repair services, with on-site technical support

A3301 Maintenance and repair services, with the goods concerned being imported or exported

For enterprises that are not subject to the BOP-survey or do not declare repair services in the survey, the information in the ITGS-database with transaction codes 6, 60, 61, 62, 63 and 64 concerning repairs is used to supplement the information in the BOP-survey. These codes contain the value of the repairing service and are therefore already in accordance with the valuation principles of BPM6/ESA 2010.

5.14.2.3 Transport services*Overview*

The general heading "transport services" combines three modes and three categories of transport. The modes of transport are sea transport, air transport and other transport. The last of these three includes international road transport, railways, pipelines, electricity transmission, space transport (satellites), inland water transport and other supporting and auxiliary transport services.

Each mode of transport is subdivided in 3 categories, namely 'passenger transport', 'freight transport' and 'other'. The terms "passenger transport" and "freight transport" need no further explanations. The 'other' services include a broad spectrum of services that are provided in ports, airports and other distribution centers, such as cleaning, loading and unloading, storage (e.g. refrigerated rooms), packaging for final distribution, rental services, and, more generally, all payments relating to transfer from one mode of transport to another.

Postal and courier services are also included in the heading "transport services". This concerns all payments for the collection and delivery of letters and packages, both by official postal companies and by delivery and courier businesses.

*Figures*Imports

Description	S21	S22	S2
Passenger transport by sea	4	11	15
Freight transport by sea	3.141	2.033	5.174
Other	1.227	847	2.073
Passenger transport by air	943	700	1.643
Freight transport by air	516	356	872
Other transport by air	166	114	280
Passenger	46	1	47
Freight	4.339	290	4.629
Other	1.702	306	2.008
Postal and courier services	207	239	446
Total	12.291	4.895	17.187

Exports

Description	S21	S22	S2
Passenger transport by sea	24	0,016	23,75
Freight transport by sea	3.046	4.056	7.102
Other	1.670	1.175	2.845
Passenger transport by air	620	229	849
Freight transport by air	184	382	566
Other transport by air	409	321	730
Passenger	62	3	65
Freight	4.120	621	4.741
Other	2.606	689	3.296
Postal and courier services	277	243	520
Total	13.017	7.720	20.736

Detailed estimation

In order to estimate the total amount of import and exports of transport services the transport related headings of the BOP-survey are used. This information is supplemented with information coming from Eurostat concerning the sales to and purchases from European Institutions of transport services. Revenue and expenditure relating to freight transport in the Belgian balance of payments, as an exception to the IMF/ESA 2010 recommendations, only include that part of transport costs that are reported as such by the companies. Perhaps part of these are already included in the goods heading.

The postal services are estimated via the headings postal and messaging services of the BOP-survey

5.14.2.4 Travel services*Overview*

The heading includes all services (hotels, restaurants, rented accommodation, local excursions etc.) purchased by non-residents when they stay for less than one year in Belgium for professional or personal reasons (including health reasons and educational purposes). Services purchased by Belgian residents abroad are recorded as imports.

Figures

Imports

Description	S21	S22	S2
Business travel	1.760	552	2.312
Health-related expenditure	292	16	308
Education-related expenditure	14	10	24
Other personal travel	10.955	2.169	13.124
Total	13.020	2.748	15.768

Exports

Description	S21	S22	S2
Business travel	1.652	519	2.171
Health-related expenditure	493	6	500
Education-related expenditure	10	4	14
Other personal travel	6.500	558	7.059
Total	8.655	1.088	9.743

Detailed estimation

For the estimation of the travel services use is made of data coming from the BOP-survey concerning costs for participating in seminars and symposiums supplemented with the following external information:

- Business travel

In order to estimate the expenses and revenues for business travel use is made of the number of overnight business stays in Belgium (collected by DGS), the expenses statistic from Belgian business tourists in foreign countries (collected by DGS) and the declarations of credit card issuers. The BOP-survey is used for the estimation of the seminar and symposium costs.

The expenses of border workers employed in Luxemburg are estimated on the basis of figures of STATEC and the number of border workers in Belgium and other neighbouring countries is coming from the National Social Security Office.

- Health-related expenditure

Health-related expenditures of foreigners in Belgium and expenditures of Belgian residents in foreign countries are mainly registered through declarations of the National institute for sickness and disability insurance.

- Education-related expenditure

The imports and exports of educational travel are estimated on the basis of information from credit card issuers. All the payments in schools, universities and other educational institutions in Belgium or other countries are regarded as exports and imports of educational travel.

- Other personal travel

In order to estimate the expenses and revenues for the private travel, use is made of the number of overnight stays in Belgium (collected by DGS), the expenses statistic from Belgian tourists in foreign countries (collected by DGS), the declarations of credit card issuers and information of the rental of holiday homes by real estate offices.

On the export side, prostitution services are also added to the tourism component. This information is externally calculated by the National Accounts Division.

5.14.2.5 Construction services

Overview

Recorded under the heading "Construction" are all civil engineering works or maintenance of real estate. i.e.: construction, repair and maintenance of buildings, roads, bridges and ports (including dredging works) located in Belgium, and which are carried out for account of residents by non-residents (or vice versa). Also included are the costs for hiring construction equipment and the costs for the assembling and disassembling of industrial installations. Also the locally purchased goods and services which are included in the value of the construction contract are included.

Figures

Imports

Description	S21	S22	S2
Construction	1.271	342	1.613

Exports

Description	S21	S22	S2
Construction	1.349	680	2.029

Detailed estimation

The heading construction is exclusively based on BOP-survey information that measures the construction services and installations for more and less than 1 year carried out abroad by a resident company on behalf of a foreign owner (export) and the services carried out in Belgium by a foreign party (import) for more or less than 1 year. Also the subcontracting contracts are surveyed. Repair of transport infrastructure, industrial installation or maintenance and the locally purchased goods and services are questioned. The construction projects for less than and more than 1 year are integrated in the balance of payments because it is not possible to correctly value the different long-term (i.e. over one year) projects in order to include them in the direct investments. To improve the total coherence between the accounts, all construction projects are integrated in the services account of the balance of payments. An exercise over the years 2011, 2012 and 2013 gives the following estimates (in € million) for the construction services of more than 1 year integrated in the BOP and the national accounts (based on the BOP-survey headings concerning construction services over more than 1 year):

	2011	2012	2013
P62_construction services > 1 year	-435	-508	-356
P72_construction services > 1 year	-441	-345	-402
P62-P72_construction services > 1 year	6	-164	46

Given the fact that the net imports of these services is smaller than 0,1 % of GNI and in order to maintain the coherence between the national accounts and the balance of payments, the whole heading construction is integrated in the national accounts.

5.14.2.6 Insurance and pension services

Overview

The heading insurance and pension services includes various kinds of insurance contracts such as life insurance, nonlife insurance, reinsurance, freight insurance, pensions and standardized guarantees. Auxiliary insurance services are also taken into account.

Only the part of premiums paid and received which is deemed to represent payment for the service rendered is included under services transactions. The remaining component of premiums, as well as claims paid or received, are recorded either as current transfers (if they relate to freight and other direct insurance) or in the financial account (when this involves life insurance and pension services).

Figures

Imports

Description	S21	S22	S2
Life insurance	1	2	3
Freight insurance	59	21	80
Other direct insurance	690	40	730
Reinsurance	569	224	793
Auxiliary insurance services	179	65	244
Total	1.499	351	1.850

Exports

Description	S21	S22	S2
Life insurance	14	0	14
Freight insurance	81	50	131
Other direct insurance	424	134	558
Reinsurance	309	62	371
Auxiliary insurance services	180	109	289
Total	1.007	355	1.362

Detailed estimation

The estimation of the insurance and pension services is based on the BOP-survey information concerning the premiums paid and received for the different insurance categories. In order to become the part that has to be declared as an import or export of services, the premiums are multiplied with a ratio to distinguish between the part that has to be registered in the services account and the part that has to be registered in the financial account (for life insurance and pension services) or current transfers (for all other insurance).

These ratios are calculated on the basis of the following formula and were revised following the implementation of BPM6 and ESA 2010:

$$\text{Non - life insurance} = \frac{\text{insurance service non - life insurance}}{\text{gross premiums non - life insurance}}$$

$$\text{Life insurance} = \frac{\text{insurance service life insurance}}{\text{gross premiums life insurance}}$$

The service component of the gross data is calculated using long term ratios from the annual accounts of the insurance companies themselves. In the calculation of the insurance service of non-life insurances, premium supplements (income generated from investment of technical reserves by

the insurance companies) are taken into account in accordance with BPM6 and ESA 2010. Adjustments for claim volatility are included in the calculation.

For the reinsurances, a similar formula is used.

The calculation of the insurance service of life insurances is similar to the non-life insurances, where the premiums supplements are also taken into account. Only the adjusted claims incurred are replaced by the actual benefits due.

The standardized guarantee services are supposed to be negligible for the Belgian economy and are therefore set to 0.

5.14.2.7 Financial services

Overview

This item includes a wide range of financial services consumed by non-residents (exports) or vice versa (imports). These are commission fees, brokerage fees and all costs relating to financial intermediation.

Besides the explicitly charged financial services, the balance of payments takes the implicitly charged financial services into account, such as financial intermediation services indirectly measured (FISIM). Asset management costs taken out of income are also included under the heading of explicitly charged financial services.

Figures

Imports

Description	S21	S22	S2
Financial services	2.889	488	3.377
<i>of which FISIM</i>			408
<i>of which management costs mutual funds</i>			1.269

Exports

Description	S21	S22	S2
Financial services	3.132	1.732	4.863
<i>of which FISIM</i>			1.764
<i>of which management costs mutual funds</i>			152

Detailed estimation

The explicitly charged financial services are measured via BOP-survey information supplemented with information from Eurostat. In order to obtain the exports of the asset management costs taken out of income, the production of the investment funds is first estimated on the basis of the costs incurred. The part of this production that is exported is based on the ownership share of each sector (S11, S12, S2) in these funds.

On the import side, the asset management costs taken out of income are estimated based on the assumption that the rate (implicit asset management rate expressed as a proportion of assets) for both foreign and Belgian investment funds are identical: implicit asset management rate * assets abroad = imports.

FISIM is calculated as the difference between the interest rates actually received on deposits and paid on loans and a reference rate supposed to represent a "pure" interest rate exclusive of risk premiums and intermediation services. Outstanding amounts of deposits and loans and the corresponding interest are broken down by counterpart sector in order to distribute FISIM among user sectors. The majority of the data used for FISIM calculation stem from quarterly financial accounts and from interest matrices, which give information by counterpart sector (who-to-whom). The internal reference rate is the implicit rate on interbank claims between resident financial intermediaries. The external reference rate used for calculating FISIM imports and exports is calculated as a weighted average of the rates on interbank claims and debts between resident and non-resident financial intermediaries. Only interbank claims and debts (and relating interest) are taken into account in calculating the reference rates. The data concerning imports and exports of FISIM are calculated by the National Accounts Division of the National Bank of Belgium.

5.14.2.8 Charges for the use of intellectual property n.i.e.

Overview

This heading includes:

- Franchise fees and similar fees for the use of registered trade marks
- Royalties and license fees for the use of patents, copyrights and industrial processes and designs (included R&D) and licenses for reproduction and distribution.

Licenses to use software and audio-visual and related products on the other hand are registered under the relevant service items and not in the heading charges for the use of intellectual property n.i.e.

Figures

Imports

Description	S21	S22	S2
Charges for the use of intellectual property rights	1.418	780	2.197

Exports

Description	S21	S22	S2
Charges for the use of intellectual property rights	1.365	703	2.067

Detailed estimation

The BOP-survey is the source for the estimation of the charges for the use of intellectual property rights supplemented with Eurostat data on the use of these rights. In the BOP-survey description, a clear difference is made between the licenses for reproduction and distribution and the licenses to use software and audio-visual and related products in order to correctly classify these services.

The sales and purchases of franchises and registered trademarks are also surveyed but are registered in the capital account and not in the current account. The sales and purchases of ownership rights concerning the outcomes of R&D are registered under the heading ‘research and development services’ of the current account.

5.14.2.9 Telecommunications, computer and information services

Overview

Telecommunications include all costs of hiring and using telecommunication equipment and means of data exchange, including internet, fax, satellite transmission and e-mail. The heading computer and information services includes all revenue and expenditure relating to computer and IT services as well as services provided by press agencies and other information services (such as databases).

Figures

Imports

Description	S21	S22	S2
Telecommunications services	915	1.237	2.152
Computer services	2.302	920	3.223
Information services	105	28	133
Total	3.323	2.186	5.508

Exports

Description	S21	S22	S2
Telecommunications services	1.469	1.311	2.780
Computer services	3.163	883	4.047
Information services	183	44	227
Total	4.815	2.238	7.053

Detailed estimation

The telecommunication services are estimated via Eurostat and BOP-survey information. For the compilation of the information services use is made of the press agency and other information services headings of the BOP-survey and Eurostat information concerning the sale and purchases of these services.

Under computer services, the following transactions are included:

- Services relating to computer hardware, software and data processing (support, training, programming, ...)
- Maintenance and repair of computer hardware, software and data processing
- Sale/purchase of software property rights
- Licenses to use software except the no customized software (mass production) on physical media (DVD, CD-ROM) with a permanent user's license and a one-off payment. This is part of the goods account.

Special attention is drawn on the distinction between the license to use and to reproduce/distribute and the different types of software in order to correctly classify these goods in the BOP-survey. The heading computer services is the sum of all the amounts declared under the heading 'IT-services' with the following clarifications in the survey:

BOP- heading IT-services: services relating to computer hardware, software and data processing.

includes among other things:

- advice and implementation
- management of computers and peripherals
- IT tool management support
- analysis, design and programming of systems ready for use
- support and training
- data processing, such as data entry and tabulating
- web page hosting service
- development, production, supply and documenting of customized software (as well as its associated license to use)
- electronically delivered (e.g. downloaded) non-customized software (i.e. mass production) (as well as its associated license to use)
- acquisition or assignment of software property rights
- Non-customized software (i.e. mass production) on physical media (DVD, CD-ROM) with a license to use payable in regular instalments.
- maintenance and repair with regard to computer hardware, software and data processing

does not include:

- operational leasing and hire of computer hardware (code F6003)
- financial leasing of computer hardware (code F6303)
- database services (code G1002)
- licenses for the reproduction and distribution of software and audio-visual products (code G6000)
- non-customized software (mass production) on physical media (DVD, CD-ROM) with a permanent license to use and a one-off payment (this is not a service, but a good)

Special focus on report GNP Committee on Software Measurement

The data in the foreign trade/balance of payments statistics are not examined systematically to identify the software content itself, rather some efforts were done to inform the declarants on the correct registration of these goods. In the manual accompanying the Intrastat declarations, the treatment of software is described. For goods used as carriers of customized information, including software and software downloaded from the internet is clearly mentioned that they belong to the list of goods movements not to be declared to Intrastat.

In the FAQ-part of the manual, the different treatment of packaged and custom software and the valuation is also treated:

Has to be declared in Intrastat?	
Data media	No. If used as carriers of customized information, including software. Yes. Standard software.
Hardware in combination with software	Yes, report the total value.
Software (standard traded programs)	Yes. Value of goods, based on the invoice value. No, if supply is effected via e-mail or Internet (no physical data medium).
Software (tailor-made programs)	No, as long as the "service" element is predominant.
Software downloaded via e-mail or from the Internet	Given that no physical transaction takes place, this type of "goods" is not to be recorded for INTRASTAT.

For the year 2012, an analysis of the foreign trade figures was also executed. The total imported and exported value under the relevant CN codes was respectively 235,8 and € 79,8 million. For the analysis, the declarants above € 10 million were examined. For the imports, € 101,9 million was covered and on export side € 27,2 million. The analysis of these declarants showed that they were all classified in the wholesale branch. Since the main activity of these companies is trading and not delivering software services, we can make the assumption that the software registered under the relevant CN codes concerns packaged software and not custom software and is therefore correctly classified in the goods statistics.

Concerning the valuation, we confronted the import and export figures of the relevant CN codes with the information in the annual accounts and the structural business survey. In the annual accounts we can find information on the total purchases (heading 600/8+61) and sales (heading 70/74) of software products. The structural business survey on the other side gives information on the total sales and purchases realized abroad. The multiplication of the two variables above gives an indication on the expected import- and export value. For 2 companies on the import side, we saw that the value reported in the foreign trade statistics was lower than the estimated import- and export value. The total underestimation accounts to € 583,9 million. On the export side, 1 company reported lower values in the foreign trade statistics than estimated on the basis of the alternative information for a value of € 458,9 million. This gives an impact on the trade balance of € 125 million. Since this value is lower than 0,1 % of GNI and the Intrastat manual states clearly that the full value needs to be reported no further corrections or quality controls are made.

The data on computer services and royalties and license fees in the BOP and national accounts is not examined individually, rather some efforts were done to inform the declarants on the correct classification of the different scenarios. For each heading in the BOP is mentioned which type of information should be included and which part not.

5.14.2.10 Other business services*Overview*

This general heading covers a wide range of transactions, such as research and development services, professional and management consulting services (legal services, accounting, consulting, advertising) and technical, trade-related and other business services not included elsewhere.

*Figures*Imports

Description	S21	S22	S2
Trade-related services	2.104	593	2.697
Operating leasing services	883	129	1.012
Legal services	270	124	394
Accounting, auditing, bookkeeping	427	85	512
Business and management consulting	7.564	2.746	10.309
Advertising, market research and public opinion polling	3.499	859	4.358
Research and development service	1.168	1.647	2.815
Architectural, engineering, scientific and other technical services	1.315	280	1.596
Waste treatment and de-pollution	145	5	150
Agricultural and mining services	117	17	135
Other business services n.i.e.	401	89	490
Total	17.894	6.573	24.467

Exports

Description	S21	S22	S2
Trade-related services	1.581	523	2.104
Operating leasing services	806	261	1.067
Legal services	320	181	500
Accounting, auditing, bookkeeping	394	138	532
Business and management consulting	8.175	4.622	12.797
Advertising, market research and public opinion polling	1.350	2.187	3.536
Research and development service	2.154	1.239	3.393
Architectural, engineering, scientific and other technical services	1.271	685	1.955
Waste treatment and de-pollution	156	10	165
Agricultural and mining services	72	90	162
Other business services n.i.e.	482	90	572
Total	16.760	10.025	26.785

Detailed estimation

The heading trade related services is composed of the commission and brokerage services relating to trade declared in the BOP-survey.

For the estimation of the operational leasing services, use is made of the BOP-survey headings concerning the renting of transport vehicles (other than cars) without driver or crew for the transport of passengers, and any means of transport for the transport of goods. Also the operational leasing of computer hardware and other movable property is used to compose the aforementioned heading.

The total for research and development services is based on the BOP-survey and consists of the acquisition or sale of R&D-related property rights and the 'pure' research- and development services.

The headings legal services, accounting, business consulting, advertising and architectural services are also estimated using information of the BOP-survey questioning explicitly the import and export of the aforementioned services.

Waste treatment and de-pollution is calculated on the basis of the declared amounts under the BOP-heading waste processing, pollution clean-up and environmental services. Agricultural and mining services is the total of the BOP-headings agricultural and mining services and on-site processing.

The other business services is the aggregate of the following services declared in the BOP-survey:

- Services of social secretary's offices and (temporary) employment agencies
- Security and investigation services
- Translation and interpreting services
- Photographic services, print-outs
- Cleaning of buildings
- Call center services
- Real estate management services

All the headings, except the trade-related services, are also supplemented with Eurostat information.

5.14.2.11 Personal, cultural and recreational services*Overview*

This heading includes audiovisual/related services and other personal, cultural and recreational services such as health and educational services, heritage and recreational services (expenses for exhibitions, festivals, concerts or sporting events). Also other personal services are registered under this heading.

*Figures*Imports

Description	S21	S22	S2
Audiovisual and related services	441	97	538
Other personal , cultural and recreational services	155	31	186
Total	596	128	724

Exports

Description	S21	S22	S2
Audiovisual and related services	335	109	443
Other personal , cultural and recreational services	98	37	135
Total	432	146	578

Detailed estimation

The information concerning the import and export of audiovisual and related services is collected on the basis of the homophonic heading in the BOP-survey and supplemented with Eurostat information concerning the sale and purchases to European institutions. Included in the audiovisual and related services BOP-heading are the following transactions:

- pay TV services
- hire of audio-visual and related products
- customized audio-visual and related products (and their associated license to use)
- electronically supplied (e.g. downloaded) non-customized (mass production) audio-visual and related products (and their associated license to use)
- acquisition or assignment of property rights with respect to audio-visual products, i.e. purchase and sale of original manuscripts, audio clips, films etc.
- remunerations for artists (including actors, musicians, dancers), authors, composers, producers involved in theatrical and musical productions, sporting events, circuses and other similar events
- design and development of advertising films

This detailed description of the content of the heading is also included in the BOP-survey in order to correctly classify the licenses to use, the licenses to reproduce and distribute and the sale/purchases of the audiovisual rights as prescribed by BPM6 and ESA 2010.

The heading other personal, cultural and recreational services is the aggregate of the BOP-survey information on educational, health-related and culture/leisure services provided remotely or abroad. The Eurostat information concerning the sale and purchases of the aforementioned services to European institutions is added. On the import side, the heading also contains the imported prostitution services.

5.14.2.12 Government goods and services, n.i.e.

Overview

Government goods and services not included elsewhere is a residual category in which the services provided by the general government that cannot be allocated to other balance of payments headings are recorded; the main items in this category are goods and services delivered to or by embassies/consulates, military bases and other organs.

Figures

Imports

Description	S21	S22	S2
Embassies and consulates	3	69	72
Military units and agencies	0	115	115
Other government goods and services	39	0	38,969
Total	42	184	226

Exports

Description	S21	S22	S2
Embassies and consulates	13	5	17
Military units and agencies	0	134	134
Other government goods and services	1.437	0	1436,982
Total	1.450	139	1.589

Detailed estimation

For the estimation of the heading government goods and services, n.i.e. use is made of BOP-survey information and external information.

The heading embassies and consulates on export side is based on BOP-survey information concerning the renting of immovable property in Belgium to international institutions such as NATO, SHAPE or foreign diplomatic or consular representations in Belgium. On import side, this information is supplemented with information coming from the National Bank of Belgium that interacts as State Cashier. In this function, the National Bank centralizes the revenue and expenditure of the federal State in the account maintained by the Belgian Treasury. That account records also the transactions carried out by the National Bank on behalf of the government and more specifically also the goods and services purchased abroad by the government or costs made by Belgian embassies abroad.

Concerning the heading military units and agencies, the export is estimated on the basis of information coming from the NATO. On import side, the information is obtained by the National Bank of Belgium in her role as State Cashier.

The import and export of other government goods and services is based on Eurostat information.

5.14.2.13 Services not allocated

Overview

This heading is a residual category which summarizes all the services that cannot be allocated to other headings of the balance of payments.

Figures

Imports

Description	S21	S22	S2
Services not allocated	977	320	1.296

Exports

Description	S21	S22	S2
Services not allocated	519	216	735

Detailed estimation

The estimation of the imports and exports of services not allocated is based exclusively on BOP-survey information with heading “services not specified elsewhere”. Research is done regularly in order to minimize this heading.

5.14.2.14 Special remark

The balance of payments does not include the import and export of services of owner-occupied holiday homes of non-residents, nor the associate property income flows (D422) and financial transactions and outstanding amounts (IIP). These flows, which are very difficult to estimate but are deemed to be immaterial relative to GNI, are also not integrated in the national accounts. More information can be found in section 3.18.

5.14.3 ADJUSTMENTS TO IMPORTS AND EXPORTS OF SERVICES IN NATIONAL ACCOUNTS

The basis for the estimation of imports and exports of services in the national accounts is the balance of payments. The obtained figures are checked as much as possible and corrections are made to the data if necessary. These corrections are also communicated to the balance of payments and are sometimes already integrated before the balance of payments is published¹⁹⁷.

The final figures obtained after correction are afterwards influenced by the balancing process of the national accounts. The following table gives the breakdown of this process:

	Imports of services (P72_S2)	Exports of services (P62_S2)
Total Balance of Payments (basis for NA figures)	76.267	82.796
Data validation National Accounts (not integrated in BoP)	-254	-548
Total National Accounts before balancing	76.013	82.248
Balancing National Accounts	684	1.759
Total National Accounts after balancing	76.697	84.007

¹⁹⁷ For the year 2012, a part of the corrections made by the national accounts division are already integrated in the balance of payments. This causes a discrepancy between the total amount mentioned for data validation in the process table and the amount mentioned in the table which only includes the corrections not integrated in the Bop

6 THE BALANCING OR INTEGRATION PROCEDURE, AND VALIDATING THE ESTIMATES

6.1 INTEGRATION AND VALIDATION

Mechanisms in place to integrate the three approaches to GDP

In Belgium separate estimates are made for the production approach, the expenditure approach and the income approach (part D1). This is done independently from each other, except for the interaction of income approach and production approach: the mixed revenue/operating surplus resulting from the production approach is used as an input for that part of the income approach.

Each approach uses its own sources and compilation methods (cf. preceding chapters).

Estimates of GDP based on the production approach make use of an almost exhaustive business register in which all economic active agents are registered, except the self-employed persons not required to register for VAT. The estimate based on the repertory is completed for the missing units (self-employed persons not liable to VAT) using the personal income tax declaration, what makes the population complete.

The comprehensive business register combined with the excellent quality and exhaustiveness of the administrative data sources make that predominance is given to the production approach.

Exhaustiveness adjustments are applied across the three measures of GDP. Every adjustment to ensure exhaustiveness is calculated using the proper sources and in applying the methodology put in place. In calculating the adjustments the supply and use approach is used in order to ensure consistency across all measures. More detailed information on this subject can be found in the chapter 7.

Balancing the SUT

The SUT are the best available framework to integrate the calculations of GDP from the output, expenditure and income perspectives.

In the elaboration of the Belgian national accounts, the SUT are not yet fully integrated into the annual compilation process of the accounts, partly due to the lack of availability of the necessary data, partly due to the internal organisation and lack of resources (until recently).

SUT are prepared once a year, respecting the ESA 2010 transmission program; i.e. in T+3 the tables concerning year T are prepared.

In the following points more information is given about (i) the structure of the SUT table, (ii) the source data and their conversion to national accounts concepts and classifications, (iii) the balancing of the SUT in current prices.

6.1.1 STRUCTURE OF THE SUPPLY AND USE TABLE

6.1.1.1 Introduction

The SUT which are sent to Eurostat have a standard format which has to be respected so that comparisons can be made between Member States, and ESA 2010 variables can be compiled at EU level.

For the actual compiling of the SUT, however, the *reporting format* (A64 x P64) is inadequate, because not detailed enough on the product-level as well as on the industry-level. The *work format* distinguishes a large number of industries and products, which ensures a higher degree of homogeneity and hence facilitates detailed analysis and adjustment of statistical discrepancies between supply and use. In practice, however, the quantity and quality of the source data impose constraints on the work format.

Note

In the national accounts in general, and in the compilation of the SUT in particular, various price definitions are used.

	Basic price	
	excl. D21	Taxes on products
	Incl. D31	Subsidies on products
+	D211	Non-deductible VAT
+	D212	Import taxes (excl. VAT) D2121 Import duties D2122 Other import levies
+	D214	Other taxes on products
-	D311	Import subsidies
	D319	Other subsidies on products
+	Trade Margins	
=	Purchase price	

In the supply table, output is valued at basic prices and imports at c.i.f. prices. In order to obtain total supply per product at purchase price, the margins and taxes on products (less subsidies on products) have to be added. In the use table, intermediate consumption and final expenditure are valued at purchase price, and exports are expressed in f.o.b. prices.

6.1.1.2 Industries and products

6.1.1.2.1. Industries

The reporting format identifies 64 industries (A64). The SUT work format identifies 139 industries (cf. 9.5.1).

The way in which NACE-BEL industries are grouped in the SUT takes account of Eurostat's A64 structure, the importance of the various NACE-BEL 4-digit classes (turnover being the criterion), and the homogeneity of SUT industries.

We established an n-1 relationship between SUT industries and A64.

As has already been explained every production unit is given a NACE- code and a sector code. Following the transition from administrative to national accounts aggregates, institutional sectors can now be distinguished within each SUT industry. In the SUT itself, however, the distinction is not used. The output of market industries is therefore treated globally during integration.

6.1.1.2.2. Products

The reporting format identifies 64 products (P64). The number of products in the work format is 354 (cf. 9.5.2).

Goods in the SUT are generally defined at CPA 4-digit level, and services at CPA 3-digit level. This rule is sometimes departed from if the product is important for the Belgian economy, or in order to distinguish between products in respect of which trade margins are or are not possible.

6.1.1.2.3. Overview of selected industries and products

The share of service SUT- industries (belonging to sections G to T) in the total number of SUT- industries is 47 %. The source data for services however, are not very detailed. If the number of service products is over-extended, too many assumptions would have to be made in order to estimate intermediate consumption per product in the use table. This is the reason why the share of service products in the total number of products is relatively low (32 %).

NACE-BEL	SUT industries	%	SUT product groups	%
A, B Agriculture, forestry, fisheries	3	2 %	12	3 %
C Mineral extraction	1	1 %	7	2 %
D Industry	57	41 %	193	55 %
E Electricity, gas & water	7	5 %	10	3 %
F Construction	6	4 %	18	5 %
G Trade	5	4 %	2	1 %
H Transport	8	6 %	25	7 %
I Hotels and catering	2	1 %	5	1 %
J Communication	6	4 %	11	3 %
K Financial institutions	8	6 %	9	3 %
L Real estate	2	1 %	5	1 %
M - N Business Services	16	12 %	21	6 %
O - P Government and Education	4	3 %	8	2 %
Q Medical and social services	6	4 %	12	3 %
R - T Other services	8	6 %	16	5 %
TOTAL	139	100 %	354	100 %

6.1.1.3 Partition of other variables

6.1.1.3.1 Imports and exports

In the reporting format submitted to Eurostat, exports (P6) and imports (P7) are subdivided into:

- EU Member States (evolving composition) including EU institutions
- Euro area (Member States and Institutions of the euro area) evolving composition
- Intra EU Extra euro area (EU Member States and institutions not belonging to the euro area) evolving composition
- Extra-EU (evolving composition)

The subdivisions listed above are all applied as from the elaboration of the SUT in working format.

Separate columns are provided for goods and services, each subdivided for the geographical area. This approach has the advantage that total trade in goods or services can be obtained automatically as the sum of the columns, thereby making consistency checks with balance of payments data easier.

6.1.1.3.2. Trade margins

The reporting format contains the supply table plus a column for total trade margins. In the work format, the margins are presented in two different ways: as the output of certain industries, and as a component of supply (at purchase prices) of certain products (goods). The sum of the margins produced by resident producers (on domestically produced and imported goods) is equal to the sum of the margins on products.

Only trade margins are calculated. Every five years, in elaborating the IOT, output of trade margins is further subdivided into margins related to retail trade, related to wholesale trade and related to trade of vehicles.

In order to make the transition from the work format to the Eurostat reporting format, the output of margins by a particular industry can be transferred to the relevant P64 headings in the reporting format.

6.1.1.3.3. Taxes and subsidies on products

The reporting format asks only for the balance of all taxes on products (D21) and subsidies on products (D31). The work format makes a further subdivision of taxes and subsidies on products. This makes it possible to monitor the consistency of the amounts in the SUT table with the source data.

D21 and D31:

D21 taxes on products

D211 value added taxes (VAT)

D212 import taxes (excl. VAT)

D2121 Import duties

D2122 other import levies

D214 other taxes on products,

D31 subsidies on products

D311 subsidies on imports

D319 other subsidies on products

6.1.1.3.4. Final consumption expenditure

ESA 2010 distinguishes between final consumption *expenditure* and *actual final consumption*. The former relates to the person who incurs the expenditure, whereas the latter relates to the person who acquires the consumption goods or services.

Consumer expenditure by general government is further subdivided into individual (P31) and collective (P32) expenditure.

Schematic representation:

	S14 Households	S13 General government	S15 NPISHs serving S14
P3 Final consumption Expenditure	P3 by S14	Collective P32 by S13 + Individual P31 by S13	P32 by S15 = 0 P31 by S15
P4 Actual Consumption	P4 by S14 = P3 by S14 + P31 by S13 + P31 by S15	P4 by S13 = P32 by S13	

The SUT uses the concept of final consumption expenditure, whereas the sector accounts use both concepts. The SUT reporting format makes no distinction between individual and collective consumption expenditure.

As consumption expenditure in the sector accounts is derived from the SUT, it is appropriate to make the following distinction in the use table of the work format: P3S14 consumer expenditure by households

- P31S13 individual consumption expenditure by general government
- P32S13 collective consumption expenditure by general government
- P3S15 (individual) consumption expenditure by NPISHs.

Consumption expenditure by households means the expenditure of resident households. For practical reasons, however, the SUT uses expenditure in the economic territory, i.e. purchases by non-residents in the Belgian economic territory are included in P3S14, whereas purchases by Belgian residents abroad are not included (cf. also 5.7.1)

This necessitates two adjustments for the transition from the SUT to the sector accounts. Firstly, consumer expenditure by resident households in the rest of the world (P33) is added to total imports in the supply table and to consumer expenditure by households in the use table. Secondly, consumer expenditure by non-resident households in the economic territory (P34) is deducted from consumer expenditure by households in the use table, and the same amount is added to exports.

6.1.1.3.5. Gross capital formation

ESA 2010 divides gross capital formation (GCF) (P5) into:

- P51 gross fixed capital formation (GFCF)
- P52 changes in inventories
- P53 acquisitions less disposals of valuables

The SUT reporting format requires the distinction between the three types mentioned above, whereas some reporting tables require a further subdivision (by industry) and sometimes even a cross classification of P51/AN.11 and industries.

P51 Gross fixed capital formation

In order to establish which items of GFCF are the prime candidates for balancing, and in order to maintain a link to the sector accounts, the GFCF in the SUT work format is further subdivided into sectors. In this special investment module, GFCF is estimated for each industry and product, and these amounts are (automatically) grouped by sector and transferred to the use table.

P52 changes in inventories

The use table in the work format has special columns for:

- work in progress and finished products: P52S ('supply')
- commodities and semi-manufactured goods: P52U ('use')
- commercial goods: P52C ('commerce')

P53 Acquisitions less disposals of valuables

Valuables are non-financial goods which are not used mainly for production or consumption purposes, which are not subject to wear and tear, and which, most importantly, are acquired as stores of value. Acquisitions and disposals of valuables (P53) are stated separately in the SUT reporting table, as they are stated in the sector accounts and industry reporting tables. The work format has a separate column. For the total economy $P53=0$

6.1.1.3.6. Components of value added

The reporting format divides gross value added into:

- Compensation of employees (D1)
 - Of which wages and salaries (D11)
- Other taxes on production (D29) less other subsidies on production (D39)
- Consumption of fixed capital (P51c)
- Net operating surplus (B2n) and mixed income (B3n)
- Gross operating surplus (B2g) and gross mixed income (B3g)

The work format further subdivides the compensation of employees into wages and salaries (D11), employers' actual social contributions (D121) and employers' imputed social contributions (D122). Other taxes on production (D29) and other subsidies on production (D39) are stated separately.

6.1.2 SOURCE DATE AND INITIALISATION

6.1.2.1 Output and intermediate consumption

6.1.2.1.1. Elements of output and intermediate consumption

ESA 2010 concepts of output (P1) and intermediate consumption (P2) are not available as such in administrative or survey data, but can be derived from them once a number of adjustments have been made. For a detailed discussion of the transition from commercial aggregates to national accounts aggregates, cf. 3.4.

Output (P1) is the sum of turnover (P11/V), output for own final use (P12), changes in inventories of finished products and work in progress (P11/P52S) and non-market output (P13). Separate estimates are made for each of these four components¹⁹⁸.

Intermediate consumption (P2) comprises purchases for intermediate consumption (P2/A) less changes in inventories of raw materials and supplies (P2/P52U). Both components are calculated separately¹⁹⁹.

6.1.2.1.2. Calculation of distribution keys

The description of the calculation of distribution keys applies above all to those years for which the structural business survey (SBS) form has annexes asking for detailed product information for

¹⁹⁸ Turnover per product and investments for own final use per product are combined in SUT work table "V", and changes in inventories in table "P52S".

¹⁹⁹ Acquisitions for intermediate consumption per product are included in SUT work table "A", and changes in inventories in table "P52U".

turnover and purchases²⁰⁰. In other years, full use is made of all other available product information.

Distribution keys relating to the most detailed product division of the SUT (354 products) are calculated for turnover, purchases for intermediate consumption and changes in inventories. The calculation is done in various stages and is standardised for most industries. Specific calculations are made for general government, agriculture, health care (hospitals) and financial institutions and insurance companies. The specific calculations will not be looked at in any further detail here.

6.1.2.1.3. Selection of usable enterprises

In order to calculate the keys for turnover and purchases, "usable" enterprises first have to be selected based on the quality of their responses to the SBS. Regarding product information, an enterprise is regarded as usable if the following criteria are satisfied:

- the consistency of the information (e.g. between general and product-related information) has been validated.
- the share of completely unknown products, i.e. product codes which cannot be associated with a SUT product, is within reasonable boundaries (compared to total turnover or total purchases)

The latter criterion sometimes has to be applied flexibly in order to ensure the representativeness of the enterprises in the survey sample per industry. The selection of suitable enterprises is made separately for turnover and purchases.

6.1.2.1.3.1. Distribution keys for turnover

When the results of the SBS pass the checks mentioned above, it has to be decided by the industry specialists whether the results of the SBS of a certain enterprise reflect the activities of the industry where it is classified in. If so, the enterprise is considered to be "typical" for the industry and the results are fully taken into account in the calculating of the distribution keys. If not, the enterprise is considered to be "atypical" for the industry where it is classified and the results are not used in the calculation of the distribution keys of the industry where it is classified. The results of the atypical enterprise, however, are used as such (without extrapolation) in initialising the production by product of the industry.

The distribution keys are calculated on the level of the working format of the SUT framework: 354 products x 139 industries. That means that the SBS information, which is initially more detailed, has to be aggregated to this aggregation levels.

²⁰⁰ This is the case every five years starting from 1995

Once the distribution keys are calculated, they are applied to the total production (P1) per industry minus:

- The trade margins per industry, which are a separate product in the SUT work format
- The production of atypical enterprises which are not distributed via the distribution keys
- The output for own final use (P12) for several products: housing services by owner occupiers, software, originals, domestic services produced by paid household personnel
- The output of FISIM and R&D per industry

6.1.2.1.3.2. Distribution keys for purchases (intermediate consumption)

Basically, these keys are calculated in the same way as the distribution keys for production.

Once the distribution keys are calculated, they are applied to the total of intermediate consumption (P2) per industry minus amounts that can be attributed directly to products as is the case for FISIM.

6.1.2.1.3.3. Distribution keys for changes in inventories

a) Changes in inventories of finished products and work in progress

The SBS does not provide information on changes in inventories.

Provisionally, a distribution is estimated for each SUT industry on the basis of the main products (goods) resulting from the keys for turnover.

b) Changes in inventories of raw materials and consumables

The SBS provides information on changes in inventories of goods destined to intermediate consumption for each industry. Provisionally, a breakdown to SUT-products is estimated for each SUT industry on the basis of the most important SUT-products – only goods – that were purchased.

6.1.2.2 Imports and exports

Total imports and exports of goods and services in the SUT table are determined on the basis of balance of payments data (cf. also 5.13 and 5.14).

6.1.2.2.1. Breakdown of service groups from the balance of payments to SUT products

The balance of payments is the only source of data on imports and exports of services. These data are published in accordance with the IMF classification, with a distinction being made between 11 service groups. If the most highly detailed level of reporting is used, it is possible to distinguish about 55 service groups. Even this most detailed level does not make it possible to complete the SUT, which contains considerably more service products.

The breakdown of the balance of payments service groups to SUT products is based on the description of the service groups and the possible relations between the groups and the SUT-products.

Two situations are possible:

- a “1-to-1” relation between an IMF service group and a SUT-product, which is the case for 22 IMF service groups (out of 55)
- a “1-to-N” relation between an IMF service group and SUT-products: In this case the allocation of the service group to several SUT-products is done using the survey-data that are underlying the IMF-service group.

A special approach which differs from the general method was adopted for four elements (tourism, financial services and general government services):

- The balance of payments heading "travel" is broken down into intermediate consumption (business travel) and household consumer expenditure (private travel). Given that household consumer expenditure is defined in the SUT in accordance with the domestic concept, only intermediate consumption (business travel) should be broken down into SUT products. The key for this breakdown is derived from information on private travel obtained from the HBS.
- The information gathered by the SBS for banks is used to determine the breakdown of the IMF-heading “financial services” to SUT-products.
- As regards general government services not elsewhere specified, the distribution key is based not on balance of payments data, but on the general key for general government purchases.

6.1.2.2.1. Distribution key for goods

The breakdown of goods transactions with the rest of the world into SUT products is based on product-specific data in the foreign trade statistics. The basic files on imports and exports of goods in accordance with the GN8 nomenclature of foreign trade are grouped by SUT products using 6-digit CPA codes. The distribution keys per SUT product are applied to the balance of payments totals.

6.1.2.3 Trade margins

The calculation of trade margins is described in the discussion of the output approach (cf. 3.13)

SUT industries for which trade margins of more than € 1 billion are recorded:

- 46A Wholesale trade and trade intermediation
- 47A Retailing, repair of consumer articles
- 45A Trade in cars, maintenance and repair of cars, trade in car parts and accessories, trade in and repair of car wheels
- 46B Wholesale trade of fuels and petroleum products

6.1.2.4 Taxes and subsidies on products

6.1.2.4.1. Taxes on products

6.1.2.4.1.1. Value added tax

VAT (D211) is a tax on products which is collected by enterprises at the various stages of delivery and ultimately passed on to the final user. Producers pay only the difference between the VAT on their sales and the VAT on their purchases for intermediate consumption or gross investments in fixed assets.

VAT is recorded in line with the principle of net recording:

- output and imports are valued net of the VAT charged.
- the purchase of goods and services is valued inclusive of non-deductible VAT.

This means that VAT is charged to the buyers for whom the tax is not deductible.

As the option was taken to integrate the SUT in prices net of VAT (cf. below), the initialisation of VAT in the SUT entails the elimination of non-deductible VAT from the use table components for which the initial estimate includes non-deductible VAT. In practice, this means that VAT has to be eliminated from final use (consumer expenditure and gross fixed capital formation) and from the intermediate consumption of industries for which VAT is not fully deductible. To this end, the VAT legislation is translated into the work format of the use table.

6.1.2.4.1.2. Taxes on imports, excl. VAT

a) Import duties (D2121)

Data on import duties, which are collected via an automated customs system, are available from the foreign trade statistics²⁰¹.

²⁰¹ Customs duties are coded in line with the TARIC classification (Integrated Tariff of the European Communities) and are grouped by SUT products via the CN (Combined Nomenclature).

b) Other taxes on imports (D2122)

Agricultural levies (D2122R2) are available via the computerised customs system. Excise duties on imports (D2122R1) are not distinguished during the initialisation phase from excises on domestic output (D214R1A). Following integration of the SUT, the breakdown for the reporting format is obtained with the help of various sources of information.

6.1.2.4.1.3. Other taxes on products

Excise duties and consumer taxes paid to the institutions of the European Union (D214R1B) are available from the general government accounts. Excise duties and consumer taxes on domestic output paid to general government (D214R1A), which are initialised together with excise duties on imports, are also derived from the general government accounts. The same is true of a residual group, "other taxes on products" (D214RR)

6.1.2.4.2. Subsidies on products

This concerns only other subsidies on products (D319). There are currently no subsidies on imports (D311). Detailed information on agricultural subsidies (D319R1) is obtained from the CAE. Data on other subsidies on products (D319RR) are available from the general government accounts.

6.1.2.5 Other components

The initial estimates of consumer expenditure by households (P3S14), NPISH (P3S15) and general government (P3S13) are explained in chapters 5.7, 5.8 and 5.9

The calculation of the aggregates for gross fixed capital formation (GFCF) is explained in the chapter 5.10. The information on which the initial estimate is based is obtained mainly from the annual business accounts (breakdown into large categories) and the structural business survey (SBS) for further breakdown into SUT products.

The calculation of compensation of employees (D1), other taxes on production (D29), and other subsidies on production (D39) was described as part of the discussion of the income approach (cf. 4.7, 4.8 and 4.9). Consumption of fixed capital (P51c) is calculated using the perpetual inventory method (4.12)

6.1.3 BALANCING

6.1.3.1 General aspects

The calculation of aggregates, the breakdown of those aggregates to produce accurate estimates of output, intermediate consumption and investments per product, the calculation, per SUT product, of trade margins, taxes and subsidies on products, imports- and exports, and the initial estimate of consumer expenditure, are important components of the method of integrating the SUT.

Some imbalances between the supply and use of individual products remain after the initial integration of all data in the SUT framework. These imbalances are examined and corrected during the balancing phase, which means that the initial estimates of aggregates can also change. The balancing operation leads ultimately to a consistent estimate of GDP in accordance with the three approaches.

Essentially, all variables can be adjusted by balancing, which means that there are no constraints with regard to the initialised amounts or to amounts published in a provisional version.

As has already been pointed out in the discussion of the income approach, operating surplus (B2) and mixed income (B3) in the Belgian SUT are calculated as residuals. The aggregates compensation of employees (D1), other taxes on production (D29) and other subsidies on production (D39) are calculated from detailed *source* information, and are not changed during the balancing process. The income perspective does not, therefore, play a significant role in balancing the SUT. When balancing changes the output and/or intermediate consumption of an industry, B2/B3 also changes.

Balancing is done net of VAT. VAT per product is not initialised in the supply table, and is eliminated from the initial use table, which makes it possible to compare the supply and use of each product (excluding VAT). In the course of the balancing operation, VAT has to be continually recalculated so that intermediate consumption can be calculated at purchase price, and so that the theoretical VAT can be compared with actual VAT receipts.

For the time being, balancing is limited to the integration of the SUT at current prices.

6.1.3.2 Balancing of the output and expenditure perspectives

As part of the operation to balance the output and expenditure approaches, adjustments can be made either in the columns or in the rows/products. The SUT software can be set to either option, as required. The decision on whether to make an adjustment is made for each individual SUT

cell²⁰². The manner in which adjustments are made can therefore be described as "computer-assisted manual adjustment".

When balancing is done in the columns, the officials responsible for the industry make adjustments to output and/or intermediate consumption in their respective industries. Where balancing is applied to the rows, the officials make adjustments to their respective products.

In the first balancing phase, the supply table is stabilised as much as possible. Any anomalies in the product-mix per industry are corrected, and the trade margins per product are again verified. Uncertainties surrounding the supply table relate mainly to the adjustment for the black economy and imports of services per SUT product. Product imbalances are then examined. For some products, the balance between groups is also examined (e.g. all foodstuffs and chemical products, and products related to the use of motor vehicles). When a balance between supply and use can be achieved within a group, further balancing is done within the products in that group.

An adjustment for intermediate consumption of a product in an industry can give rise to a counterpart adjustment for a related product in the same industry, or for the same product in a different industry. This is not necessarily so, however: in other words, intermediate consumption can change because of balancing. The input structure of the industries, however, is monitored by the official responsible for the industry, which means that the officials responsible for products receive feedback from their colleagues who are responsible for the industry, and that there is consultation about the adjustments which still have to be made.

The initial accounts for household consumer expenditure, apart from products for which the account is based on specific sources, are compiled centrally. The coordinator for household consumption expenditure monitors trends in total consumer expenditure and in its main components (e.g. food, the use of means of transport, financial services). The officials responsible for products can make suggestions to change the consumer expenditure for specific products. However, the final decision on whether or not to adjust the expenditure per product is decided on by the official responsible for the household consumer expenditure.

Adjustments for investment products are made jointly by the official responsible for the product and the official responsible for investments. Balancing relates mainly to substitution between investment products within the major categories (buildings, machines, etc.).

Changes in inventories can be balanced with respect to initialised amounts, but the share of inventories in GDP is fairly limited. In the SUT framework, when adjustments are made to imports

²⁰² The amount of an adjustment is therefore not automatically distributed among all the components of, say, the intermediate consumption of an industry, or of all industries in which a given product appears as intermediate consumption. The SUT software allows several cells to be selected and an adjustment to be distributed over all of these cells, if required. This option is only used if it is justified by the cell content.

and exports of goods and services, a counterpart entry is made for other goods and services. The total for imports and exports of goods and services is therefore unaffected by balancing.

Imbalances regarding products which satisfy one or more of the following criteria are the first to be resolved (balanced):

- products which occur as expenditure in only a few SUT cells and for which:
 - the margins are sufficiently reliable or are not significant
 - the estimate of imported services is reasonably reliable or is not significant
 - the initial estimate of consumer expenditure is reliable or is not significant. The initial estimate is regarded as reliable if the products are frequently bought by households and/or if the estimate is based on administrative sources.
 - fixed capital formation is reliable or is not significant;
- products whose supply is accounted for exclusively or predominantly by imports.
- products with only one type of use (e.g. only P2 or only P3)
- products with a minor difference between supply and use, if the structure of supply and use does not differ significantly from a previous SUT (and if there are no indications that it might).

In the last phase, when the differences between the supply and use of each product are small, the RAS method is used. In this way, the intermediate totals for intermediate consumption are changed. There is a possibility of leaving some cells of intermediate consumption out of the RAS procedure.

To summarise, balancing is a complex process, in which the steps which have to be taken and the adjustments which have to be made are determined as a function of the results of an earlier phase of balancing. It is difficult to determine the extent to which individual adjustments contribute to a more consistent estimate of GDP in accordance with the three approaches. Adjustments may temporarily exacerbate the discrepancy between the output and expenditure approaches, but are necessary in order ultimately to obtain the same GDP via both approaches.

6.2 OTHER APPROACHES TO VALIDATING GDP

Some countries base their GDP calculation to a greater or lesser extent on employment data, with value added for a number of enterprises being extrapolated to the entire industry. Research into the consistency between employment data in the surveys used for the calculation of value added, and in specific employment statistics (Labour Force Survey, census, etc.) is therefore a crucial test of the exhaustiveness of GDP data. In the Belgian national accounts, employment plays no part in the calculation of value added. This is why the results are compared only indirectly with employment data, by evaluating value added per employee and/or self-employed person in each (in future: per full time equivalent).

In some countries, fiscal audits have made it possible to validate adjustments for the black economy. Application of this exhaustiveness test in Belgium has failed to yield any usable results.

Adjustments for tax fraud in certain industries where there is known to be considerable fraud were not significant. The tax authorities are not interested in objective, representative estimates of fraud per NACE category, but focus their attention on specific enterprises or industries.

Given that the supply and use table incorporates information from various sources, it is the best method of arriving at an exhaustive estimate of GDP, and will therefore be the focus of efforts to improve exhaustiveness in the future.

7 OVERVIEW OF THE ALLOWANCES FOR EXHAUSTIVENESS

7.0 INTRODUCTION

Exhaustiveness of the GDP is obtained by extrapolating the results of sampling and other investigation as correctly as possible for the population using registers, applying the definitions of ESA 2010 as accurately as possible, and more specifically including the underground economy in the calculation methods.

"In general we can say that the criteria for completeness are: the existence of an accurately determined reference universe of production units; the possibility of determining whether units are missing; the possibility of making adjustments for missing units; and the existence of general systematic adjustments for evasion and for undeclared labour."²⁰³

An important aspect for achieving an exhaustive GDP concerns the performance of the register of production units. In the sections "Business register and directory" (cf. 3.1.1) and "Sources" (cf. 11.1.1) there was an explanation of how a directory is constructed from the DGSEI business register, in which at present only non-VAT-registered enterprises which are not incorporated *and* which have no staff are missing. The aggregates for these units are calculated via another register, namely the personal income tax return file. It can therefore be stated that the calculation of the GDP via the output approach is based on an exhaustive register.

The underground economy consists of the black economy plus the illegal economy.

Black economy consists of clandestine enterprises plus unreported activities (undeclared turnover/production and/or overstatement of expenses/intermediate consumption). The illegal economy includes activities that fall within the production boundary of the national accounts but are not legally permitted. An estimate for the production and trade in drugs, prostitution and smuggling is introduced in the Belgian national accounts since sept 2014.

Clandestine enterprises are non-registered producing units, (non-registered = "non-recording in the statistical registers of economically active units"²⁰⁴). These units do not meet the legal requirements concerning payment of taxes, social security contributions, etc. The adjustment for estimating the activity of clandestine enterprises is called adjustment for hidden labour. Apart from units active in illegal activities we believe that clandestine enterprises are a negligible phenomenon in the Belgian economy.

²⁰³ GNP Committee, CPNB/166. Report to the Council and the European Parliament on the application of the Council Directive on the determination of GNP at market prices, 1995. §2.4.

²⁰⁴ Order of the Commission on the treatment of VAT fraud in national accounts 24.07.98.

Unreported activities means: the failure to declare all activities by enterprises, for which the production and value added should have been included via the calculations based on the registers of production units. The adjustment on value added to correct for unreported activities is called adjustment for tax fraud (and evasion).

The adjustment for tax fraud consists partly of an adjustment for undeclared taxable income and partly of an adjustment for VAT fraud. The adjustment for VAT fraud relates to VAT fraud without complicity.

In the case of VAT fraud with complicity the seller and the purchaser agree not to invoice the sale and VAT. There is therefore no transaction relating to the legally applicable VAT, and the amount of the VAT-fraud has not to be included in GDP²⁰⁵. In the case of VAT fraud without complicity on the other hand, the purchaser pays the VAT, but the seller does not pay this over to the general government.

Apart from adjustments related to the non-observed economy (illegal and legal) adjustments are also made to take into account wages in kind and tips. Because these corrections also have an upward impact on value added/GDP they are also considered as exhaustiveness corrections.

As the production and primary distribution of income account are compiled simultaneously, the exhaustiveness adjustments (which occur in the second phase of the compilation process) are a priori compatible in the production and income approach. In the expenditure approach the exhaustiveness corrections are more difficult to isolate because the estimate of the underlying expenditure categories relies on sources which also capture undeclared activities (e.g. the household budget survey for P3S14 or a price*quantity approach in the estimation of gross fixed capital formation in dwellings by households).

The plausibility of the assumptions regarding the non-observed economy is tested within a SUT framework. In 2014 the estimate for the NOE was revised in the construction industry as well as in other industries as a result of work done in the framework of the SUT in order to lift two specific ESA95 GNI reservations.

7.1 ALLOWANCES FOR EXHAUSTIVENESS IN THE PRODUCTION APPROACH

7.1.1 IDENTIFICATION OF TYPES OF NON-EXHAUSTIVENESS

The following types of non-exhaustiveness are often used in order to structure the analysis and compilation of adjustments:

²⁰⁵ An adjustment to capture the hidden sale/production and purchase/expenditure however is necessary.

N1	Producer should have registered
N2	Illegal producer that fails to register
N3	Producer is not obliged to register
N4	Registered legal person is not included in statistics
N5	Registered entrepreneur is not included in statistics
N6	Mis reporting by the producer
N7	Statistical deficiencies in the data

Cat N1 covers producers that should have registered but did not (in order to avoid tax or social security obligations or because they do not exceed a threshold regarding their activity (turnover) and are exempt to file income or VAT-declarations.

Because the threshold for turnover under which VAT-declarations do not have to be filed is very low²⁰⁶, there is no need to make an explicit estimate of activity for units with turnover below the threshold value. For the income tax declarations (used for self-employed workers when the activities are not liable to VAT) no threshold exists. The estimate made of (black) wages paid by households to domestic personnel (cleaning ladies, gardeners etc.) is treated under N1. This is the only adjustment for hidden labour in the Belgian national accounts.

Cat N2 covers producers active in prostitution, drugs and smuggling (other domains of the illegal economy have not been estimated in Belgium).

Cat N3 covers producers (households) involved in the production of goods for own final use (e.g. the production of vegetables in gardens for own consumption or the construction and renovation of own dwellings). The production of agricultural products for own final use by households is treated under N3, as are the estimates for small units in S15 that are exempted from any reporting. Note that work on own dwellings has not been isolated and is included in the amounts registered under combined source data.

Cat N4 and N5 are empty because all active units (incorporated or not) are present in the repertory/business register (which is compiled every year).

Cat N6 covers the adjustment for tax-fraud/evasion (which results in an upward adjustment for value added and wages because these aggregates are underreported in official administrative sources).

Cat N7 covers the adjustments linked to wages in kind and tips.

²⁰⁶ Annual turnover of 5.580 € (reference year 2012).

7.1.2 ADJUSTMENTS MADE FOR THE DIFFERENT TYPES OF NON-EXHAUSTIVENESS

The overall adjustment for non-exhaustiveness amounts to € 18.8 billion or 4.85 % of GDP

Exhaustiveness adjustments in terms of value added in mln € and as % of GDP (2012)								
					mln €	% GDP		
Non observed economy					16.179	4,18%		
illegal economy (N2)					1.757	0,45%		
other (N1+N3+N6)					14.422	3,72%		
Other exhaustiveness adjustments (N7)					2.622	0,68%		
Total					18.801	4,85%		
<i>p.m.: GDP</i>					387.419			

The separate amounts for P1, P2 and B1g by industry and sector are shown in the next tables.

Exhaustiveness corrections for P1 by industry and sector

(€ million)

P1 Row Labels	Column Labels					Total
	N1	N2	N3	N6	N7	
A	100	176		76	0	353
S11				47	0	47
S14	100	176		29		305
B					0	0
S11					0	0
C	678			990	22	1.690
S11	678			686	22	1.386
S14				304		304
D					0	0
S11					0	0
E				29	0	29
S11				28	0	28
S14				1		1
F				9.884	0	9.884
S11				7.484	0	7.484
S14				2.400		2.400
G	406			6.340	0	6.746
S11				5.070	0	5.070
S14	406			1.270		1.677

Exhaustiveness corrections for P2 by industry and sector

(€ million)

P2 Row Labels	Column Labels					Total
	N1	N2	N3	N6	N7	
A		40	65	46	-2	149
S11				29	-2	27
S14		40	65	17		122
B					-2	-2
S11					-2	-2
C		50		539	-437	152
S11		50		360	-437	-27
S14				179		179
D					-43	-43
S11					-43	-43
E				17	-17	0
S11				17	-17	0
S14				1		1
F				5.613	-121	5.493
S11				4.318	-121	4.197
S14				1.296		1.296
G		12		2.115	-525	1.601
S11				1.758	-525	1.232
S14		12		357		369

Exhaustiveness corrections for P1 by industry and sector

(€ million)

P1 Row Labels	Column Labels					Total
	N1	N2	N3	N6	N7	
H				333	8	341
S11				270	7	278
S14				63	1	63
I				2.017	548	2.566
S11				978	443	1.421
S14				1.040	105	1.145
J				221	0	221
S11				210	0	210
S14				10		10
K				19	0	19
S12					0	0
S14				19		19
L				518	0	518
S11				498	0	498
S14				20		20
M				1.489	0	1.489
S11				814	0	814
S12					0	0
S14				675		675
N				770	0	770
S11				540	0	540
S14				231		231
P				19	0	19
S11					0	0
S14				19		19
Q				1.370	0	1.370
S11				992	0	992
S14				378		378
S15					0	0
R				300	0	300
S11				217	0	217
S14				83		83
S		843		329	12	1.184
S11				152	6	158

Exhaustiveness corrections for P2 by industry and sector

(€ million)

P2 Row Labels	Column Labels					Total
	N1	N2	N3	N6	N7	
H				132	-109	24
S11				107	-109	-2
S14				26	0	26
I				726	-21	705
S11				305	-21	285
S14				421	0	421
J				68	-210	-142
S11				66	-210	-144
S14				2		2
K				0	-58	-58
S12					-58	-58
S14				0		0
L				168	-16	153
S11				164	-16	149
S14				4		4
M				513	-247	266
S11				283	-241	43
S12					-6	-6
S14				229		229
N				283	-125	158
S11				194	-125	69
S14				89		89
P				1	-4	-3
S11					-4	-4
S14				1		1
Q				467	-62	404
S11				347	-61	286
S14				120		120
S15					-1	-1
R				80	-11	70
S11				59	-11	48
S14				22		22
S		169		91	-23	236
S11				42	-23	19

Exhaustiveness corrections for P1 by industry and sector

(€ million)

P1	Column Labels					
Row Labels	N1	N2	N3	N6	N7	Total
S14		843		177	7	1.026
S15					0	0
T	466					466
S14	466					466
Total	466	2.027	176	24.704	591	27.964

P1							Grand
	N1	N2	N3	N6	N7	Total	Total
S11		678		17.987	479	19.143	
S12					0	0	
S14	466	1.349	176	6.717	113	8.821	
S15					0	0	
Grand							
Total	466	2.027	176	24.704	591	27.964	

Exhaustiveness corrections for P2 by industry and sector

(€ million)

P2	Column Labels					
Row Labels	N1	N2	N3	N6	N7	Total
S14		169		49	0	217
S15					-1	-1
T	0					0
S14	0					0
Total	0	270	65	10.859	-2.031	9.163

P2							Grand
	N1	N2	N3	N6	N7	Total	Total
S11		50		8.048	-1.966	6.132	
S12					-64	-64	
S14	0	220	65	2.811	0	3.096	
S15					-2	-2	
Grand Total	0	270	65	10.859	-2.031	9.163	

In terms of value added we obtain the following amounts.

Exhaustiveness corrections for B1g by industry and sector

(€ million)

B1g						
Row Labels	N1	N2	N3	N6	N7	Total
A		60	111	30	2	204
S11				18	2	21
S14		60	111	12		183
B					2	2
S11					2	2
C		628		451	459	1.538
S11		628		326	459	1.413
S14				125		125
D					43	43
S11					43	43
E				11	17	29
S11				11	17	28
S14				1		1

Exhaustiveness corrections for B1g by industry and sector

(€ million)

B1g						
Row Labels	N1	N2	N3	N6	N7	Total
F				4.270	121	4.391
S11				3.166	121	3.287
S14				1.104		1.104
G		395		4.226	525	5.145
S11				3.312	525	3.838
S14		395		913		1.308
H				201	117	318
S11				164	116	280
S14				37	1	38
I				1.291	569	1.860
S11				672	464	1.136
S14				619	105	724
J				153	210	362
S11				145	210	354
S14				8		8
K				19	58	76
S12					58	58
S14				19		19
L				350	16	365
S11				334	16	350
S14				16		16
M				976	247	1.223
S11				531	241	772
S12					6	6
S14				445		445
N				487	125	612
S11				346	125	471
S14				141		141
P				18	4	22
S11					4	4
S14				18		18
Q				903	62	966
S11				645	61	706
S14				259		259
S15					1	1
R				220	11	231

Exhaustiveness corrections for B1g by industry and sector

(€ million)

B1g						
Row Labels	N1	N2	N3	N6	N7	Total
S11				158	11	169
S14				62		62
S		674		238	36	948
S11				110	28	139
S14		674		128	7	809
S15					1	1
T	466					466
S14	466					466
Total	466	1.757	111	13.844	2.622	18.801

B1g	Column Labels					Grand
Row Labels	N1	N2	N3	N6	N7	Total
S11		628		9.938	2.444	13.010
S12					64	64
S14	466	1.129	111	3.906	113	5.725
S15					2	2
Grand						
Total	466	1.757	111	13.844	2.622	18.801

The amount in **N1** represents the black wages paid by households for employing domestic personnel. The amounts in **N2** represent the value added generated by illegal producers (production of marihuana in S14_A, production of other drugs in S11_C, trade margins on drugs and smuggled goods in S14_G and the production of prostitution services in S14_S).

The amount in **N3** represents the growing of vegetables by households in their own garden for own consumption (S14_A).

The largest amounts appear in **N6** which is the correction for fiscal fraud/under-reporting of producers. All industries in S11 and S14 are impacted with high adjustments for construction (F), trade and repair of motor vehicles (G), and Accommodation and food service activities (I).

In **N7** adjustments for tips and wages in kind appear. The amounts for tips only appear in a limited number of industries (taxis: 49B, hotels and restaurants: 55A and 56A, hairdressers: 96A) and amount to € 529 million (of which € 508 million in I)

Adjustment in value added for tips (part of N7)

(€ million)	H	I	S	total
S11	7	409	6	422
S14	1	100	7	107
total	8	508	12	529

The other part relates to wages in kind ($2.622 - 529 = 2.093$) and is estimated in most industries. Only a small amount of these wages in kind represent goods or services produced by the employer, the largest part concerns goods and services purchased by the employer. This explains the negative correction on P2 in column N7 (the purchase of goods and services originally registered as intermediate consumption has been reclassified as wages (in kind): P2- and D1+).

The exhaustiveness adjustments in the sectors S13, S15 and S12 are non-existent or immaterial²⁰⁷. In S11 and S14 they are important and represent resp. 6.1 % and 11 % of total value added in these sectors. Taking into account the importance of dwelling services (branch 68B which is a fraud insensitive part of value added) in S14, the grossing up for unincorporated enterprises is even more articulate (21.1 %).

Exhaustiveness adjustments as % of value added by sector			
(mln €)			
	$\sum Ni$ (a)	B1g (b)	(a)/(b)
S11	13.010	212.451	6,12%
S12	64	21.763	0,29%
S13	0	56.917	0,00%
S14	5.725	51.978	11,01%
S15	2	3.537	0,05%
S1	18.801	346.646	5,42%
GDP	18.801	387.419	4,85%
(b) including exhaustiveness adjustments			

²⁰⁷ For S12 and S15 the only adjustment made is for wages in kind.

Exhaustiveness adjustments as % of value added in S14

€ million

S14	ΣNi (a)	B1g (b)	(a)/(b)
68B	0	24.811	0,00 %
other	5.725	27.167	21,07 %
total	5.725	51.978	11,01 %

7.1.3 EXHAUSTIVENESS METHODS

7.1.3.1 Employment method

Employment per industry plays no part in the compilation of the Belgian GDP (except to calculate the wages/value added of NACE 97 private households with employees). Data on employment are available from the National Social Security Offices and in the labour force survey (Statistics Belgium). Only administrative sources are used to compile the labour market statistics (number of employees and self-employed workers, hours worked) in Belgium.

The LFS is only used to estimate the hours worked by self-employed workers.

The following adjustments are made to the administrative figures relating to employment to arrive at the figures published in the national accounts (year 2012 in thousands of persons)

	<u>2012</u>
Figures that can be deduced from administrative sources	
employees	3.750
self-employed persons	975
total	4.725
Adjustments to administrative figures	
addition of units missing in administrative registers (employees)	+ 83
addition of unregistered units active in the black economy (employees)	+ 11
adjustments for double counting and other corrections	- 268
employees	-36
self-employed persons	-232
total adjustments	- 173
Figures included in the national accounts	
employees	3.809
self-employed persons	743
Total	4.552
<i>p.m. Employment according to labour force survey (LFS)</i>	<i>4.524</i>

As can be seen from the table the adjusted employment figures derived from administrative sources (used in national accounts) are higher than the corresponding figures in the LFS. This is a strong

indication that the business register is exhaustive and that all registered incorporated and unincorporated units (and their associated employment, wages/mixed income and value added) are included in the accounts (N4 and N5 = 0).

7.1.3.2 Illegal activities (N2)

Illegal activities – namely prostitution services, drugs and smuggling of tobacco products - are included in Belgian national accounts, as recommended by Eurostat. The following sections describe the methodology used to estimate each type of activity.

A. Prostitution services

Estimates for prostitution services are constructed on the basis of the reference year 2015, for which a detailed supply-based study was conducted²⁰⁸ by the University of Leuven in collaboration with the National Bank of Belgium. Services are divided in different market segments, namely window prostitution, street prostitution, services in clubs and brothels, services in massage parlour and sauna establishments, escort and private services, and services provided by male sex workers. For each segment, production in the reference year is estimated by multiplying the segment specific price by its corresponding specific volume.

Transactions for window prostitution are estimated for the reference year on the basis of direct window counts of known prostitution areas in Belgium (Ghent, Liège, Ostend, Seraing, Antwerp and Brussels). More detailed counts of hours worked per window and duration of transactions were conducted in Antwerp and Brussels. The combination of these data allows making an estimate of the number of transactions for the year 2015.

For all other segments, market shares for the reference year are estimated based on Internet advertisement. These market shares are subsequently combined with the number of transactions estimated for the segment of window prostitution to obtain a number of transactions per segment. The total number of transactions is back casted using the evolution of the male population between 18 and 64 years old. Moreover, the difference in the distribution of market shares between 2000 (estimate based on data from organisations helping prostitutes) and 2015 (study University of Leuven) is used as well, so that the evolution of the market share across different segments could be captured in the estimation.

Average prices per segment in the reference year are also estimated on the basis of data from specialised websites and are back casted using the general index for conventional wages, which will also be used for extrapolation of future years.

²⁰⁸ Adriaenssens, S., Hendrickx, J., Heylen, W. & Machiels, T. (2015)., “A direct measure of output in prostitution in Belgium”, *Research paper KULeuven*, in <<https://lirias.kuleuven.be/handle/123456789/508655>>.

An exception is the male sex workers segment, where Internet advertisement was not deemed reliable. A general, conservative, estimate is made, by uplifting female prostitution services with 5 %.

Intermediate consumption is estimated by adopting the hypothesis that the intermediate consumption amounts to 20 % of the production generated by sex workers. To avoid double-counting, it is assumed that this expenditure was already included in final consumption expenditure estimates for housing services (COICOP 04) and needs to be deducted from this expenditure group.

The hypothesis is made that 5 % of all clients are non-residents. The percentage of non-resident sex workers was estimated per segment in the study and held constant for the period 1995 - 2015. On average, 8.9 % of all sex workers are deemed non-resident. This estimate allows discriminating between domestic production, importations and exportations.

All consumption of prostitution services is considered to be final consumption expenditure of households. Services consumed by non-residents, and produced by residents, are considered to be exportations and consumption of non-residents on domestic territory. Services consumed by residents, and produced by non-residents, are considered to be importations and domestic consumption. Services consumed by residents abroad are considered to be already included in the estimates of the tourist balance (BOP), as the basis of this estimate is expenditure made with credit cards and cash estimates. They are therefore not added separately.

The next table summarises the estimates for prostitution services by segment for the year 2012. In total, prostitution services created a value-added of € 674 million in 2012. The activity is classified in SUT product 96A05 and the corresponding branch in the household sector (S.14) 96A.

Estimates for prostitution services by segment
In € million, 2012

			Window	Street	Clubs/ Brothels	Massage/ Sauna	Escort and private	Male	Total
Market share			30 %	1 %	15 %	14 %	39 %	n/a	
Number of transactions	in thousands		2.492	76	1.255	1.187	3.269	414	8.725
Average prices	in €		64	78	100	95	143	75	
Turnover (*)	transactions x price	a	160	6	126	112	468	31	903
Non-resident		b	18 %	13 %	7 %	4 %	3 %	9 %	
Resident		c	82 %	88 %	93 %	96 %	97 %	91 %	
Production (P.1)	turnover if resident	d = a*c	132	5	117	107	453	28	843
Intermediate consumption (P.2)	20 % of P.1		26	1	23	21	91	6	169
Value-added (B1g)	P.1 - P.2		106	4	93	86	362	23	674
Importations (P.72) (on Belgian territory)	turnover if prostitute is non-resident and consumer is resident	e = 0.95*a*b	27	1	9	5	14	3	57
Exportations (P.62)	turnover if prostitute is resident and consumer is non-resident	f = 0.05*a*c	7	0	6	5	23	1	42
Final consumption of households, national (P.31 S.14)	if consumer is resident	g = 0.95*a	152	6	120	107	444	30	858
Consumptions of residents abroad (P.33)	turnover if consumer is resident and prostitute is non-resident		0	0	0	0	0	0	0
Consumption of non-residents in Belgium (P.34)	turnover if consumer is non-resident and prostitute is resident	h = 0.05*a	7	0	6	5	23	1	42
Final household consumption, domestic (P. 31 S.14)	if consumed on Belgian territory	i = g + h	159	6	126	112	467	31	900
<i>Memorandum item: Compensation of P.2 in P.31 S.14 COICOP 04</i>			-26	-1	-23	-21	-91	-6	-169

(*) of which 5 % sales to non-resident clients

B. Drugs

Estimates concerning drugs in Belgium are compiled per type of drug on the basis of a limited range of data available and various assumptions. A distinction is made between the following drug categories: cannabis, ecstasy (XTC), amphetamines, cocaine and heroin. The approach used is demand-based; comparison between supply and demand is made insofar as this is possible.

The available information comes mainly from the European Monitoring Centre for Drugs and Drug Addiction, various charities, the federal police and the Belgian National Report on Drugs (BNRD), a national-level report compiled by the Public Health Institute (Institut scientifique de santé publique).

For Belgium, there is information on the cannabis and XTC users, in the form of a monthly prevalence of drug use, and several sources of information on the prices of the different types of drugs. Then again, there are no data available concerning the number of drug users, the quantity of drugs used per drug taking session and the frequency of these sessions per person and per year. Missing parameters are therefore estimated on the basis of information from abroad, or hypotheses.

Household final consumption expenditure (P.31 S.14) on drugs is calculated using a “price times quantity” method, whereby the street price is estimated based on the range of prices reported in the annual study by the Institut scientifique de santé publique, supplemented and verified with the help of several other sources. As for the quantity consumed, an estimate has been made for the number of users and the average consumption per type of drug.

The number of consumers is deduced from demographic statistics and from an estimated prevalence. Potential drug users are found among the population aged between 15 and 65. This finding is multiplied by a prevalence rate per type of drug, which varies each year in line with the data extracted from the BNRD. This prevalence takes account of both occasional users and regular users. The exception is heroin, for which there is no information on prevalence. An estimate of a hard core of users has been made for this type of drug, producing a figure of 5 000 consumers.

Next, an estimate of average consumption per user needs to be made. The following assumptions, in line with the scientific reports and other information, were used. For cannabis, an average consumption of 250 g per consumer per year is taken into account, the average consumption of XTC is estimated at 104 pills per user per year and that for amphetamines is put at 208 grams per consumer per year. For cocaine, a distinction has been made between occasional users and drug addicts, as the former consume 1 g roughly 40 times a year, while drug addicts, which account for 5 000 consumers, use 0.5 g per drug-taking session on a daily basis. And, finally, the average consumption of heroin per user is thought to be 135 g per year.

Output (P.1) of drugs is assumed to be nil for cocaine and heroin. An estimate in value terms has been made in the case of cannabis. For XTC as well as amphetamines, an estimate has been made

on the basis of the price multiplied by the quantity produced. For all categories, profit margins have been estimated on imports and production when output is not nil, on the basis of the difference between the street price and the import price as well as between the street price and the production price.

Regarding intermediate consumption (P.2) of drug traffickers and producers, there is very little information at hand. Since output of heroin and cocaine is nil, it is assumed that for these types of drugs intermediate consumption is also nil. For XTC, there is actually an estimate of the unit production cost that has fluctuated over the years between € 0.25 and € 0.40 per pill. Finally, for cannabis and amphetamines, an estimate is made on the basis of output, i.e. respectively 40 % and 4 % of P.1. In the case of cannabis, this method is the same as the Dutch method and, for amphetamines; the proportion is taken from the estimate used in the case of XTC.

A limited compensation of employees (D.1) is also estimated for people employed in XTC laboratories. An average wage figure is multiplied by the estimated number of employees. The average conventional wage level is used as there is no specific information available.

As for imports (P.7) of cannabis, an estimate of net imports is used to avoid any transit-related effects. Imports of the other types of drugs are estimated using the "price-times-quantity" method, where the price always varies in relation to the street price and where the quantity is estimated depending on the volume consumed and possibly the quantity produced, if any.

The last aggregate that needs to be estimated is exports (P.6) of drugs. Exports are assumed to be non-existent in the case of cannabis (estimate of net imports), amphetamines, cocaine and heroin. As far as XTC is concerned, a "price-times-quantity" method has been developed.

The next table shows the estimates for drugs in the national accounts by type of drugs. The activity amounted to a total value-added of € 978 million in 2012 and is classified in SUT products 01A01 (cannabis) and 20F05 (all other drug types). The corresponding branches are in the household sector's (S.14) agricultural activities (01A) for the production of cannabis, retail trade (47A) for trade margins produced on all types of drugs, and in the non-financial enterprise sector's (S.11) other chemical industry (20F) for the production of XTC and amphetamines. An illegal dividend is transferred from the non-financial sector to the household sector corresponding with the operating surplus.

Estimates for drugs by type

In € million, 2012

	XTC	Cocaine	Heroine	Amphetamines	Cannabis	Total
P.1_product	639	0	0	39	100	778
<i>Quantity</i>	120.000	0	0	6	17	
<i>Price on domestic market</i>	3	0	0	6	6	
<i>Export price</i>	6	0	0	0	0	
P.1_Trade margins	43	79	16	26	125	289
<i>on P.1_product</i>	34	0	0	19	25	
<i>on P.7</i>	9	79	16	7	99	
P.2_producer	48	0	0	2	40	90
Total value-added	634	79	16	63	185	978
P.31 S.14	86	104	19	73	325	606
<i>Quantity</i>	16.666	2	1	8	40	
<i>Price (per gram/pill)</i>	5	56	28	9	8	
P.7_imports	9	25	2	7	99	142
<i>Quantity</i>	3.333	1	0	2	n/a	
<i>Import price</i>	3	23	7	5	4	
P.6_export	604	0	0	0	0	604
<i>Quantity</i>	106.667	0	0	0	0	
<i>Export price</i>	6	0	0	0	0	

C. Smuggling of tobacco products

The estimate of smuggling in Belgium is confined to tobacco products, particularly cigarette smuggling. Since cigars represent a very small share of total household consumption expenditure, at only 3 to 5 % of the tobacco products consumed, the level of cigar smuggling is considered negligible. That assumption is borne out by the lack of cigar seizures and the declining popularity of cigars as the years go by. The approach used is demand-side oriented.

There is very little to no information on the illicit consumption or trade of cigarettes, implying that several hypotheses were necessary. Consumption of smuggled cigarettes is estimated using a price times quantity approach. Street prices are set at half the official price. Quantities are equal to a proportion of the legally sold quantities (based on information of FPS Finance), which was equal to 6.5 % in 2012. This share of illegal consumption is analysed yearly based on information available.

The production of illicit cigarettes is set at zero. Only trade margins are produced and calculated based on price differences between imports, exports and consumption. Intermediate consumption is considered to be 10 % of the produced trade margins. To avoid double-counting, it is assumed that this expenditure was already included in final consumption expenditure estimates for transport

(COICOP 07) and needs to be deducted. As stocks would increase the risk of being caught, we consider them to be negligible and set them to zero.

Imports and exports are estimated on the basis of a price times quantity approach combining seizure data with hypotheses on the risk of being caught, transit rates and market values.

For imports, seized quantities are extrapolated using a risk rate, which was set at 10 % in 2012. A five year moving average is applied to avoid fluctuations that reflect changes in seizure patterns rather than changes in smuggling. Transit is excluded from the estimates. As Belgium is historically considered to be an important transit country for smuggled goods, the transit rate is set high, at 65 % of all smuggled exports in 2012. Prices are set at 10 % of the street value (which are set at 50 % of official prices) in 2012.

For exports, total quantities are estimated as the difference between imported quantities (incl. transit) and consumed quantities. Total exported quantities allow us then to estimate quantities that are immediately re-exported (transit) after importation (65 % of total exports), and exclude these from the estimates. The export price is calculated based on the price differences with the main country of destination and set at 60 % of the official price in 2012.

The next table shows the main results. In 2012, a value-added of € 105 million was estimated and attributed to the retail trade branch (47A) in the household sector (S.14), with the corresponding SUT product 12A01 (tobacco).

Main results smuggling

2012

	Quantities (total)	Transit	Quantities (excl. transit)	Prices (€)	Values (in €million)
P.31 S.14			651.300	0,13	82
<i>Memorandum item: Compensation of P.2 in P.31 S.14 COICOP07</i>					-12
P.71	1.513.973	560.737	953.235	0,01	12
P.61	862.673	560.737	301.935	0,15	46
P.1 (Margin)					116
P.2					12
B1g					105

7.1.3.3 Income in kind and gratuities (N7)

In addition adjustments are also made for wages and salaries in kind and tips.

In hotels, restaurants and cafés (free meals) and manufacturing of motor vehicles (discounts on the purchase of a car produced by the employer) amounts are estimated for wages and salaries in kind produced (€ 57 million in S.11 and € 6 million in S.14). Turnover (production) and wages and salaries are increased by these amounts.

In virtually all S.11 industries and in S12 amounts are estimated for wages and salaries in kind purchased (goods and services purchased by the employer and made available to employees). In total the amounts involves are € 1.966 € million in S11 and € 64 million in S12 (which are transferred from purchases (P2) to wages and salaries (D1)). In S15 an amount of € 2 million is estimated.

In some industries (hotels, restaurants, cafés, hairdressers, taxis) the turnover/production is increased because of gratuities/tips given. In S.11 and S.14 the amounts involved are respectively € 422 million and € 107 million. This adjustment is completely imputed in wages and salaries in S.11 and partly in wages and salaries and mixed income in S.14 (respectively € 42 million and € 65 million).

Adjustments for wages in kind and tips have an overall impact on value added of 2.622 million.

7.1.3.4 Use of fiscal audits and other approaches to estimate the black economy (N6)

In practice, there is an overlap between hidden labour and tax fraud.

A registered enterprise may commit tax fraud by working with undeclared labour: undeclared overtime work by registered staff, or activities performed by unregistered staff.

An unregistered enterprise that (by definition) works purely with hidden labour is at the same time committing tax fraud. Note that it may be assumed that the VAT fraud that is committed in this case, is pure VAT fraud with complicity. Should this relate to VAT fraud without complicity, and VAT is deductible by the purchaser, then the clandestine corporation runs the risk of being discovered²⁰⁹.

In practice it is also not possible at present to make a separate estimate for VAT fraud and tax fraud excluding VAT fraud. Both types of fraud moreover go together: income related to VAT fraud is not declared by the producers.

²⁰⁹ Conversely it does not necessarily apply that all VAT fraud with complicity is committed by clandestine corporations.

One of the corrections made to transform “administrative aggregates” into “ESA 2010 aggregates” is the adjustment for the black economy (adjustments (y) in S.11 and S.14).

Since there is no information available that permits a separate adjustment to be made for value added resulting from unregistered labour, undeclared taxable income and VAT fraud, an overall adjustment per SUT-branch and sector is estimated.

Because of the nature of the NOE, the estimate is largely based on indirect information and expert opinion, rather than hard observations. These opinions are gathered not only in the field of statistics and national accounts, but also in the fields of tax audit, social audit and scientific research.

A number of key assumptions are put forward in order to estimate the value added realized in the NOE:

- General government (S13) and public corporations are not involved in the NOE;
- Financial corporations (S12) are not involved in the NOE;
- Non-profit institutions serving households (S15) are not involved in the NOE
- Industries or transactions that are estimated using a price times quantity approach need no adjustment for the NOE; it is supposed that the hidden activities and enterprises are included in this approach (e.g. dwelling services and investment in dwellings by households)
- Large companies, which have to be audited, are unlikely to hide turnover and/or overstate expenses. Large companies have to deposit a “full” accounting scheme. An enterprise is regarded as large if it has exceeded more than one of the following ceilings in the last two financial years: annual average employment: 50; turnover (excluding VAT):€ 7.300.000; balance sheet total: € 3.650.000, or, if the annual average employment exceeds 100 units. In all other cases, enterprises are considered to be medium sized or small (abbreviated scheme). Only for these units grossing up for the NOE takes place²¹⁰.
- Small and medium sized businesses - incorporated (S11) and unincorporated (S14) - are more likely to contribute to the NOE. For these units an adjustment for turnover, purchases and wages is estimated. This results in an estimate for “black” value added and wages.
- The major contributors to the NOE are the industries that produce goods and services destined to final consumption or gross fixed capital formation of households
- Activities of the NOE (apart from illegal activities), do not generate import nor export flows.

This overall adjustment is calculated by applying coefficients to turnover and purchases calculated in phase 1 of the compilation process (administrative aggregates) on a very detailed level, often Nace 3-digit or 4-digit level. The coefficients used for the non-financial corporations (S11) are different from those used for the unincorporated businesses (S14).

²¹⁰ Only for SMEs which may or may not file annual accounts (categories B.1+B.2+B3+C1+C2+ E2).

The official turnover and purchases figures for large corporations known via the annual accounts, SBS or VAT (categories A1+A2+ E1) are not adjusted

For most industries, both turnover and purchases are adjusted. The rationale behind the adjustment of both is that producers who produce “hidden” output (which they do not declare to the (tax) authorities) want to ensure that the ratio between declared turnover and declared purchases remains acceptable to the (tax) authorities. In the scenario that they would not declare the “hidden” output but would register the intermediate consumption used in the “hidden” production in their official accounts, (tax) auditors would soon find out, or at least there is a high risk they would, that the input/output ratio is not in accordance to the normal production process. In doing so they would suffer a high risk of discovery. As we assume that producers involved in the NOE are rational and want to reduce the risk of being discovered, they will not register the intermediate consumption that is linked to the hidden output in their accounts. Hence in calculating the NOE, the intermediate consumption should be estimated as well as the production.

In determining the percentage to gross up the intermediate consumption the input/output ratio as can be derived from the administrative aggregates is a valuable item. However this ratio is corrected by changing the input in the sense that all products that can be considered as “overhead” are eliminated from the input. The information to do so is retrieved from the latest available SUT. The logic behind this choice is that in generating non-reported output, the input of goods and services that are not involved in the production process would not evolve accordingly, only the inputs directly needed to realize the non-reported output should be estimated.

Furthermore, in determining the percentage of the grossing up of the intermediate consumption, the overstating of expenses (intermediate consumption) in order to evade income tax, value added tax, social contributions or other taxes is taken into account. The percentage applied per branch (on average 0,15 % of total purchases of goods and services) is based on the expert opinion of fiscal auditors who have the recurrent experience that producers, especially households and small and medium sized enterprises, tend to overstate their expenses in order to reduce the taxable base. Hard facts to determine the exact importance of this practice are impossible to find.

The percentages used to gross up the administrative aggregates are determined on a detailed level and are based on every available kind of information. This initially was not always hard information in the sense of precise figures, but often involves indications, opinions and common sense. The percentages that are now used to determine the NOE in the national accounts are tested on their plausibility using the framework of the supply and use tables (SUT).

In this framework the supply of goods and services is put against the use of them in the national economy. A satellite account of the NOE is made using this framework to test in particular the percentages and assumptions used to calculate the NOE in the Belgian national accounts.

As in most other European countries the black economy is most greatly developed in industries that supply the majority of their production to households (private individuals). This applies among other things for the construction industry (in particular for building installation and building

completion), the retail trade, the maintenance and repair of motor vehicles, Hotels and restaurants, the activities of doctors, dentists and veterinarians, and other services to private individuals.

In SUT sectors 45D.1 building installation and 45E1 building completion, part of the total adjustment relates to unregistered labour (associated with own account construction and renovation/repair of dwellings).

7.1.3.5 Integration of the non-observed economy in the SUT-framework

The calculation via the production approach using administrative data and grossing up percentages as described above presents the initial estimate of the NOE. In order to check whether this estimate is valid and realistic when being confronted with the expenditure approach, all estimates are put together in the supply and use tables (SUT) framework.

An integrated calculation of GDP from the output, expenditure and income side takes place in the framework of the SUT, which covers 135 branches and 350 products.

In view of the integration of data from various sources, using the SUT-framework is the most appropriate method of obtaining an exhaustive estimate of GDP. The efforts to improve exhaustiveness estimates in the future will therefore be developed further primarily within this framework.

The supply that is generated by producers operating in the NOE (excl. illegal producers) has to be used within the economy. Hence, the supply consists of output of goods and services and the trade margins generated on goods.

In principle all kinds of domestic use would be possible as destinations of the output produced in the NOE:

- Intermediate consumption: this is the input of goods and services needed in the production process;
- Final consumption expenditure of households: the largest part of the output generated by “hidden” producers is used as final consumption by households. There are almost no traces to the hidden activities as households do not have the possibility to deduct VAT paid nor to deduct their expenses to reduce their income taxes.
- Gross fixed capital formation: part of the GFCF is produced in “hidden” activities. This is in particular the case in the construction or renovation of dwellings that will be occupied by the owners. The construction of the dwellings is considered as a GFCF of households, and a fair part of the construction is done by the owner himself or with the help of family and friends, who are not registered producers.

For the GFCF in other assets (acquired by corporations or unincorporated businesses) one could expect that there would be only a marginal fraction that comes from hidden activities, as VAT paid

on these acquisitions is deductible from the VAT received from customers and investments lower the income tax base over time via the annual fiscal depreciations.

The plausibility check is done using the latest benchmark SUT.

The results of the check show that:

- Domestic output is grossed up with more than 3 %. The biggest adjustments are made in construction, wholesale and retail trade, repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities, arts, entertainment, repair of household goods and other services and professional, scientific and technical activities; administrative and support service activities.
- The trade margins, as part of the domestic output, increase with around 8 % as a result of the NOE-activities;
- The intermediate consumption is adjusted accordingly; the most important adjustments are in the construction industry
- Figures for GFCF include an overall adjustment to take the NOE into account; especially the construction of dwellings is responsible for this adjustment.
- An adjustment of more than 4 pct. is integrated in the final consumption of households in order to take into account the NOE.

A more elaborate analysis of the NOE within the SUT framework has been done for the construction industry. The construction industry gathers all enterprises that are producing non-residential buildings and dwellings and that do the finishing and equipping (heating, electricity work, plumbing,...) of those constructions. Enterprises that are involved in the construction of engineering work (nace 42: bridges, railroads, dredgers etc.) are also part of this industry. Because civil engineering companies almost exclusively work for the government or for other companies (in Belgium and abroad) no adjustments for the NOE is made in the case of civil engineering companies.

The construction industry is generating € 65.947 million of output resulting in € 19.633 million of value added. More than a fifth of this value added (€ 4.270 million) is produced within the NOE.

The “hidden” output of the construction industry adds up to € 9.884 million consuming hidden inputs of goods and services totaling € 5.614 million.

In using the SUT-framework, the intermediate consumption is ventilated into manufactured goods (i.e. building materials) and construction services. The users of these construction services are in fact subcontractors also active in the construction industry but also households, who are not obliged to register as a producer, building/renovating their own dwellings. The portion of the output of construction services that is not used in the production process of construction services is attributed to gross fixed capital formation.

The GFCF in buildings is estimated using a different methodology, depending on the sort of construction:

- For dwellings, a price times quantity method is used. Quantities are derived from the number of building permits allowed and prices are gathered via a bi-annual survey, specially designed and targeted to contractors specialized in the construction of dwellings.
- For non-residential buildings the sources used are the annual accounts and the VAT-statements of the investing companies.

For the construction services produced in the NOE, the assumption is made that no more than 10 % of the output that cannot be attributed to intermediate consumption should be attributed to the capital formation of non-residential buildings while at least 90 % should be attributed to the capital formation of dwellings. There is the logical assumption that enterprises require an invoice of the assets – in this case buildings - purchased in order to claim the expenses in their tax statements. So they will not excessively purchase these kinds of goods when they are produced in the NOE and thus delivered without invoice.

The households on the other hand do not have the possibility to claim their expenses so the need for invoices is not present in the same way as it is for the enterprises.

The capital formation of dwellings by households is estimated roughly by multiplying the number of permits obtained to construct dwellings (and renovations) and the price of the construction of a dwelling. The sources of the data that allow the estimation of the expenditure approach are totally different to those used to estimate the production approach. Information on the number of building permits is obtained at the official government bodies, while information about the price of dwellings is gathered via a survey targeting building contractors.

The confrontation of the capital formation of dwellings and the output of construction services related to the production of dwellings showed that on the production side there was a lack of around € 5.2 billion, the equivalent of the hidden output estimated.

Part of NOE in constructions and buildings (€ million)

Constructions and Buildings		Total GFCF	NOE	Part of NOE in GFCF
Dwellings	By households	20.205	4.445	22 %
	By non-financial corporations	2.583	0	0 %
	By Insurance Companies	66	0	0 %
Non-residential Buildings				
	By households and non-financial corporations	13.774	555	4 %

Using the SUT-framework and all available information, it appears that a share of 22 % of the GFCF in dwellings is attributed to activities in the NOE.

7.1.3.6 Analysis of the VAT-Gap

In elaborating the Belgian SUT, non-deductible VAT is calculated for intermediate consumption, final consumption and Gross Fixed Capital Formation (GFCF) using VAT matrices. That amount is due to the government as the economic agent involved is not able to deduct VAT because he is the final user, or, is considered to be the final user.

In the Belgian SUT-matrices, 325 products and 135 industries are taken into account. The matrix for the final consumption does not have the dimension for the industries but has the full product detail. In these VAT matrices, a non-deductible VAT-rate is determined for each combination Product/Industry. That has been done by converting all VAT regulations existing in Belgian law to a single VAT rate for every combination Product/Industry. In applying the above mentioned “theoretical” VAT-rate to the use-components, the theoretical VAT-amount is calculated.

That amount does not reflect the amount really collected by government due to several reasons of which transactions in the NOE are an important one.

In elaborating the SUT, however, we have to consider the amount of VAT that is really collected by the tax administration. In order to obtain that effectively collected VAT amount, changes are made to the theoretically determined VAT rates for several combinations Product/Industry. Those changes in rates are done for:

- the intermediate consumption of the industry ‘production of owner occupied dwelling services’
- the final consumption by households (P31/S14)
- the GFCF (P51).

The analysis of the theoretical VAT against the effective VAT collected has proved to be an interesting and useful exercise in order to support the estimates of the exhaustiveness adjustments in the Belgian national accounts. The VAT-gap analysis suggests that the value added realised within the NOE is consistent with the estimated VAT-gap.

7.2 ALLOWANCE FOR EXHAUSTIVENESS IN THE EXPENDITURE APPROACH

type	description	expenditure
N1	Producer should have registered	P3S14
N2	Illegal producer that fails to register	P3S14, P6, P7
N3	Producer is not obliged to register	P51S15
N4	Registered legal person is not included in the statistics	P3S14, , P51S11, P51S12, P51S15
N7	Statistical deficiencies in the data	P3S14

Taking into account the nature of the adjustments (which has already been explained) the imputation in the expenditure side for items N1 (domestic personnel not reported), is clear: final consumption expenditure by households (€ 466 million).

For N2, apart from P3S14 (€ 1.366 million), import (€ 301 million) and export (€ 692 million) of goods and services are also impacted.

Adjustment N3 includes estimated investments of small NPI's which do not have to file any reporting (€ 206 million).

Adjustment N4 covers estimates extrapolated from the benchmark year 2010 and based on HBS results that are levelled up to take into account collective households (P3S14 - € 5.778 million). It also includes extrapolation of purchased software for units that did not fill any SBS (P51- € 414 million)

Adjustment N7 covers a compensation for statistical deficiencies in the data, given experience of previous arbitrages. In 2012 the amount added is equal to 1.268 million euro.

7.3 ALLOWANCE FOR EXHAUSTIVENESS IN THE INCOME APPROACH

The next table shows the split-up of the exhaustiveness adjustment (€ 18.801 million) over wages and operating surplus/mixed income by industry and sector.

Exhaustiveness adjustments by industry, sector and type							Exhaustiveness adjustments by industry, sector and type						
(impact on compensation of employees)							(impact on operating surplus/mixed income)						
D1	Column Labels						B2g+B3g	Column Labels					
Row Labels	N1	N2	N3	N6	N7	Total	Row Labels	N1	N2	N3	N6	N7	Total
A		0	0	2	2	5	A		60	111	28	0	199
S11				2	2	4	S11				16	0	16
S14		0	0	0		0	S14		60	111	11		183
B					2	2	B					0	0
S11					2	2	S11					0	0
C		8		54	459	521	C		620		396	0	1.017
S11		8		47	459	514	S11		620		278	0	899
S14				7		7	S14				118		118
D					43	43	D					0	0
S11					43	43	S11					0	0
E				1	17	18	E				10	0	10
S11				1	17	18	S11				10	0	10
S14				0		0	S14				0		0
F				753	121	874	F				3.517	0	3.517
S11				742	121	863	S11				2.424	0	2.424
S14				11		11	S14				1.093		1.093

Exhaustiveness adjustments by industry, sector and type

(impact on compensation of employees)

D1 Row Labels	Column Labels					
	N1	N2	N3	N6	N7	Total
G		0		249	525	775
S11				233	525	758
S14		0		16		16
H				25	117	141
S11				23	116	139
S14				2	0	2
I				76	509	584
S11				64	464	528
S14				11	45	56
J				22	210	232
S11				22	210	232
S14				0		0
K				1	58	59
S12					58	58
S14				1		1
L				18	16	33
S11				15	16	30
S14				3		3
M				74	247	321
S11				65	241	306
S12					6	6
S14				8		8
N				68	125	193
S11				62	125	187
S14				6		6
P				0	4	4
S11					4	4
S14				0		0
Q				24	62	86
S11				22	61	83
S14				1		1
S15					1	1
R				15	11	26
S11				15	11	25
S14				0		0

Exhaustiveness adjustments by industry, sector and type

(impact on operating surplus/mixed income)

B2g+B3g Row Labels	Column Labels						
	N1	N2	N3	N6	N7	Total	
G				395	3.976	0	4.371
S11					3.079	0	3.079
S14				395	897		1.291
H					176	1	176
S11					141	0	141
S14					35	1	35
I					1.216	60	1.276
S11					608	0	608
S14					608	60	668
J					131	0	131
S11					123	0	123
S14					8		8
K					18	0	18
S12						0	0
S14					18		18
L					332	0	332
S11					319	0	319
S14					13		13
M					903	0	903
S11					466	0	466
S12						0	0
S14					437		437
N					419	0	419
S11					284	0	284
S14					135		135
P					18	0	18
S11						0	0
S14					18		18
Q					880	0	880
S11					623	0	623
S14					257		257
S15						0	0
R					205	0	205
S11					144	0	144
S14					61		61

Exhaustiveness adjustments by industry, sector and type

(impact on compensation of employees)

D1 Row Labels	Column Labels					
	N1	N2	N3	N6	N7	Total
S		0		20	32	52
S11				15	28	43
S14		0		5	3	8
S15					1	1
T	466					466
S14	466					466
Total	466	8	0	1.402	2.558	4.433

D1						
	N1	N2	N3	N6	N7	Total
S11		8		1.328	2.444	3.780
S12					64	64
S14	466	0	0	73	48	587
S15					2	2
Total	466	8	0	1.402	2.558	4.433

Exhaustiveness adjustments by industry, sector and type

(impact on operating surplus/mixed income)

B2g+B3g Row Labels	Column Labels						
	N1	N2	N3	N6	N7	Total	
S				674	218	4	896
S11					95	0	95
S14		674			123	4	801
S15						0	0
T	0						0
S14	0						0
Total	0	1.749	111	12.443	65	14.368	

B2g+B3g						
	N1	N2	N3	N6	N7	Total
S11		620		8.610	0	9.230
S12					0	0
S14	0	1.129	111	3.833	65	5.138
S15					0	0
Total	0	1.749	111	12.443	65	14.368

The largest part of the extra value added appears as operating surplus in S11 (€ 9.230 million) and mixed income in S14 (€ 5.138 million). Only a relatively small amount appears as compensation of employees (€ 4.433 million).

The employment of non-registered domestic personnel (N1) has only an impact on wages.

It is assumed that no material amounts of wages - only € 8 million - are paid in producing illegal goods and services (N2) which implies that virtually all income generated in illegal activities appears as operating surplus (in S11) and mixed income (in S14). The production of home grown vegetables for own consumption (N3) generates a mixed income and the payment of tips and wages and salaries in kind is reflected in higher wages (part of the tips received by unincorporated businesses is reflected in mixed income). The correction for fiscal fraud (N6) is supposed to give rise to the payment of € 1.402 million of black wages and generates € 8.610 million of operating surplus and € 3.833 million of mixed income. The black wages paid in S14 are relatively unimportant because most unincorporated businesses have no personnel. Black wages are supposed to be 5 % of official wages in S14. In S11 black wages are estimated taking into account the fact that they are paid “net” (without social contributions or income tax). This explains why the ratio D1/B1g is much lower in the black economy than in the white economy (reflected in official administrative sources e.g. annual accounts). Nevertheless there are indications that “black” wages are actually underestimated and the NA division intends to revise the split of the black value added

(amount in N6) between wages and operating surplus/mixed income in the future. This revision, however, will have no impact on the level of GDP but only on its composition (in the income approach).

7.4 SUMMARY OF THE EXHAUSTIVENESS ADJUSTMENTS

The following table gives an overview of the exhaustiveness adjustments by sector and industry for the year 2012 (in € million)

Exhaustiveness adjustments by sector and industry							
(B1g in mln €)		exhaustiveness adjustments				B1g	
		N2	N1+N3+N6	N7	total N	other	total
Non-financial corporations (S11)		628	9.938	2.444	13.010	199.441	212.451
A	Agriculture, forestry and fishing	0	18	2	21	985	1.005
B_E	Manufacturing, energy, water	628	337	521	1.485	55.519	57.004
F	Construction	0	3.166	121	3.287	14.083	17.370
G_H	Trade, repair of motor vehicles, transportation and storage	0	3.476	641	4.117	50.830	54.947
I	Accommodation and food service activities	0	672	464	1.136	3.628	4.764
J_T	Other services	0	2.269	695	2.964	74.397	77.361
Households (S14)		1.129	4.484	113	5.725	46.253	51.978
A	Agriculture, forestry and fishing	60	123	0	183	1.851	2.035
B_E	Manufacturing, energy, water	0	126	0	126	481	607
F	Construction	0	1.104	0	1.104	1.160	2.263
G_H	Trade, repair of motor vehicles, transportation and storage	395	950	1	1.346	1.536	2.882
I	Accommodation and food service activities	0	619	105	724	715	1.439
J_T	Other services of which	674	1.562	7	2.243	40.510	42.752
L	real estate activities	0	16	0	16	24.917	24.933
T	households as employers	0	466	0	466	0	466
	other	674	1.080	7	1.761	15.593	17.354
Financial corporations (S12)		0	0	64	64	21.699	21.763
Government (S13)		0	0	0	0	56.917	56.917
NPI's serving households (S15)		0	0	2	2	3.535	3.537
Total economy (S1)		1.757	14.422	2.622	18.801	327.845	346.646
D21-D31							40.773
GDP							387.419

N2: illegal economy

N7: wages in kind and tips

N1+N3+N6: other adjustments (mainly adjustments for underreporting of income/value added)

Expressed as a % of value added we obtain the following results

Exhaustiveness adjustments by sector and industry as % of value added						B1g	
		N2	N1+N3+N6	N7	total N	other	total
Non-financial corporations (S11)		0,3%	4,7%	1,2%	6,1%	93,9%	100%
A	Agriculture, forestry and fishing	0,0%	1,8%	0,2%	2,1%	97,9%	100%
B_E	Manufacturing, energy, water	1,1%	0,6%	0,9%	2,6%	97,4%	100%
F	Construction	0,0%	18,2%	0,7%	18,9%	81,1%	100%
G_H	Trade, repair of motor vehicles, transportation and storage	0,0%	6,3%	1,2%	7,5%	92,5%	100%
I	Accomodation and food service activities	0,0%	14,1%	9,7%	23,9%	76,1%	100%
J_T	Other services	0,0%	2,9%	0,9%	3,8%	96,2%	100%
Households (S14)		2,2%	8,6%	0,2%	11,0%	89,0%	100%
A	Agriculture, forestry and fishing	3,0%	6,0%	0,0%	9,0%	91,0%	100%
B_E	Manufacturing, energy, water	0,0%	20,7%	0,0%	20,7%	79,3%	100%
F	Construction	0,0%	48,8%	0,0%	48,8%	51,2%	100%
G_H	Trade, repair of motor vehicles, transportation and storage	13,7%	33,0%	0,0%	46,7%	53,3%	100%
I	Accomodation and food service activities	0,0%	43,0%	7,3%	50,3%	49,7%	100%
J_T	Other services of which	1,6%	3,7%	0,0%	5,2%	94,8%	100%
L	real estate activities	0,0%	0,1%	0,0%	0,1%	99,9%	100%
T	households as employers	0,0%	100,0%	0,0%	100,0%	0,0%	100%
	other	3,9%	6,2%	0,0%	10,1%	89,9%	100%
Financial corporations (S12)		0,0%	0,0%	0,3%	0,3%	99,7%	100%
Government (S13)		0,0%	0,0%	0,0%	0,0%	100,0%	100%
NPI's serving households (S15)		0,0%	0,0%	0,0%	0,0%	100,0%	100%
Total economy (S1)		0,5%	4,2%	0,8%	5,4%	94,6%	100%

Expressed as a % of GDP we obtain the following figures

Exhaustiveness adjustments by sector and industry as % of GDP		N2	N1+N3+N6	N7	total N
Non-financial corporations (S11)		0,16%	2,57%	0,63%	3,36%
A	Agriculture, forestry and fishing	0,00%	0,00%	0,00%	0,01%
B_E	Manufacturing, energy, water	0,16%	0,09%	0,13%	0,38%
F	Construction	0,00%	0,82%	0,03%	0,85%
G_H	Trade, repair of motor vehicles, transportation and storage	0,00%	0,90%	0,17%	1,06%
I	Accommodation and food service activities	0,00%	0,17%	0,12%	0,29%
J_T	Other services	0,00%	0,59%	0,18%	0,77%
Households (S14)		0,29%	1,16%	0,03%	1,48%
A	Agriculture, forestry and fishing	0,02%	0,03%	0,00%	0,05%
B_E	Manufacturing, energy, water	0,00%	0,03%	0,00%	0,03%
F	Construction	0,00%	0,28%	0,00%	0,28%
G_H	Trade, repair of motor vehicles, transportation and storage	0,10%	0,25%	0,00%	0,35%
I	Accommodation and food service activities	0,00%	0,16%	0,03%	0,19%
J_T	Other services of which	0,17%	0,40%	0,00%	0,58%
L	real estate activities	0,00%	0,00%	0,00%	0,00%
T	households as employers	0,00%	0,12%	0,00%	0,12%
	other	0,17%	0,28%	0,00%	0,45%
Financial corporations (S12)		0,00%	0,00%	0,02%	0,02%
Government (S13)		0,00%	0,00%	0,00%	0,00%
NPI's serving households (S15)		0,00%	0,00%	0,00%	0,00%
Total economy (S1)		0,45%	3,72%	0,68%	4,85%

The integration of the illegal economy and of wages in kind and tips has a relatively modest impact on GDP (resp. 0.45 % and 0.68 %); the adjustments for underreporting/fiscal fraud (incl. the estimate of black wages paid to domestic personnel) however are more substantial (3.72 % of GDP).

A significant part of GDP is fraud-insensitive: no adjustment is made for the value added of the general government, the financial sector and units belonging to S15. The estimation method for agriculture (nace 01 to 05) and dwelling services is a price*quantity approach which is not distorted by possible fraud either.

The adjustment for fiscal fraud (N1+N3+N6) in S.11 is € 9.938 million or 4,7 % of total value added produced by non-financial corporations. The adjustment in manufacturing industry, energy and water is low because large corporations - whose value added is not adjusted – represent more than 90 % of the total value added here. In the other branches within S11 the grossing up for underreporting is more considerate.

For households (S.14) the adjustment for fiscal fraud (N1+N3+N6) is estimated at € 4 484 million or 8.6 % of total value added. The calculation of value added in agriculture is based on detailed quantity and price data derived from the economic accounts of agriculture and is therefore largely

fraud-insensitive (only for nace codes 016 (support activities to agriculture), 02 (forestry) and 03 (fishing), adjustments are estimated because in these industries value added is also compiled on the basis of administrative sources (annual accounts and VAT-declarations). The estimate of value added relating to the production of housing services is also a price*quantity approach and therefore fraud-insensitive²¹¹ For the private households with employees (NACE 97), an average hourly rate is applied to an estimated number of hours worked. The adjustment for fiscal fraud is considerable in construction, trade and transportation and hotels, restaurants and cafés (between 1/3 and half of total value added). When dwelling services are excluded the average adjustment for underreporting in S14 amounts to more than 1/5 of total value added.

²¹¹ An adjustment is only estimated for self-employed real estate agents whose activity is also included in this NACE heading.

8 THE TRANSITION FROM GDP TO GNI

8.0 INTRODUCTION

Variables		Data for 2012 (€million)
GDP	(a)	387 419
Compensation of employees received from RoW	D1	8 155
Compensation of employees paid to RoW	D1	-2 798
Taxes on production and imports paid to EUI	D2	-1 270
Subsidies granted by EUI	D3	643
Property income received from RoW	D4	46 855
Property income paid to RoW	D4	-42 696
Net primary income received from Row	(b)	8.888
GNI	(a)+(b)	396 307

All items are estimated in cooperation with the Bop compilers. There is consistency between Bop and national accounts for the year 2012²¹² (publication September 2015). More recent years might show discrepancies due to vintage differences. Both statistics (national accounts and Bop) are compiled within the same institution.

8.1 COMPENSATION OF EMPLOYEES (D.1)

The number of in and out cross-border workers by country are known through statistics from the National institute for sickness and invalidity insurance (INAMI). We obtain this information once a year, that is to say the number of cross-border workers by counterpart countries at June 30. These numbers are multiplied by the average compensation of employee (D.1) per capita of the corresponding country (found in the national accounts of the respective countries), in order to obtain total compensation of employees by country. However, in the case of resident cross-border workers working in Luxembourg, direct information from STATEC is used. We receive direct information on cross border remuneration of employees²¹³ from Luxembourg BoP only. We receive monthly data, updated twice a year. The use of this data from Statec ensures that there is European consistency at least on the biggest portion of cross border wages received by Belgium.

As regards non-resident workers who are not cross-border workers, information from the balance of payments is used.

For resident employees working for the European institutions, information coming from the balance of payments of the EUI is used, and we assume that the BoP of EUI is compiled on the

²¹² Minor discrepancies might appear.

²¹³ We receive data for D.1, D.11, D.12, D.51, D.61 and D.62 related to resident cross-border workers working in Luxembourg.

basis of BoP/NA concepts. Finally, for resident employees working for the NATO, we use information from NATO payroll.

As the sources used to estimate compensation for employees are national accounts or Bop data, they are consistent with the definitions of ESA2010, i.e. include actual and imputed social contribution payable by employers, include social contributions, income taxes and other payments payable by employees and are calculated on accrual basis.

The methodology is detailed below.

(a) Incoming workers

Variables	Sources or calculation	Data for 2012
(1) Number of incoming cross-border workers (FR, DE, NL, LU)	INAMI	46 484
(2) Average private-sector remuneration in Belgium	National accounts	€ 50.394 thousand
(3) Total remuneration of incoming cross-border workers	(1) x (2)/10 ⁶	€2.343 million
(4) Total remuneration of incoming other workers	Bop	€455 million
(5) Total remuneration of incoming workers		€2.798 million

(b) Outgoing workers and EU and NATO employees

Variables	Country	Source	Data for 2012
(1) Number of cross-border workers	France	INAMI	6 699
(2) Average remuneration	France	French national accounts	€ 44 555 thousand
(3) Total remuneration of outgoing workers	France	(1) x (2)/10 ⁶	€299 million
(4) Number of cross-border workers	Netherlands	INAMI	34 560
(5) Average remuneration	Netherlands	Dutch national accounts	€ 43 687 thousand
(6) Total remuneration of outgoing cross-border workers	Netherlands	(4) x (5)/10 ⁶	€1.510 million
(7) Number of cross border workers	Germany	INAMI	5 933

Variables	Country	Source	Data for 2012
(8) Average remuneration	Germany	German national accounts	€ 37 003 thousand
(9) Total remuneration of outgoing workers	Germany	(7) x (8)/10 ⁶	€220 million
(10) Total remuneration of outgoing workers	Luxembourg	STATEC, Luxembourg	€2.428 million
(11) Total remuneration of all cross-border workers:		(3) + (6) + (9) + (10)	€4.456 million
(12) Total EU remuneration to resident workers		Balance of payments of the European institutions	€3.259 million
(13) Total NATO remuneration to resident workers		NATO	€249 million
(14) Total remuneration to outgoing other workers	All countries except FR, DE, NL and LU	Bop	€191 million
(15) Total remuneration to outgoing workers and EU and NATO remuneration to resident workers		(11) + (12) + (13) + (14)	€8.155 million

8.2 TAXES ON PRODUCTION AND IMPORTS (D2)

Taxes on production and imports paid to the Institutions of the EU come mainly from statistics established by the Ministry of Finances (MoF), but also from the BIRB²¹⁴. They are established on accrual basis.

Taxes on production and imports cover the following items:

- Entry duties on imports from non-member countries passed on to EU;
- Taxes on imports from non-member countries passed on to EU (agricultural levies);
- Taxes on products: sugar levy.

These D2 taxes are collected on behalf of the EU and are recorded in the transition from GDP to GNI in the full amount, i.e. including amounts retained by the Member State as collection cost.

²¹⁴ BIRB : Bureau d'intervention et de restitution belge : organism in charge of the implementation of the common agriculture policy (CAP).

Definition		Source	2012 €million
Entry duties	D2121	MoF	1.214
Taxes on imports	D2122	MoF	47
Taxes on products	D214	BIRB	9
Total taxes on production and imports			1 270

According to ESA 2010, GNI and VAT based EU own resources are recorded in a specific other transfer item (D.76). For year 2012, the amount of this item is equal to € 3 676 million. The data comes from the Ministry of Finance and the Ministry of Budget.

8.3 SUBSIDIES (D3)

Data on subsidies granted by the institutions of the EU within the framework of the CAP are provided by the BIRB. A correction for pre-financing is applied in order to obtain data on accrual basis²¹⁵. These subsidies are paid directly by EUI to resident producer units, and do not impact general government accounts.

Subsidies cover the following items:

Definition		Source	2012 data (€ million)
Subsidies on products (PAC)	D319	BIRB	155
Subsidies on production (PAC)	D39	BIRB	487
Total subsidies			643

In the sector accounts, other EU transfers granted to Belgium are recorded in the following transactions:

- International cooperation (D.74) (€ 291 million in 2012)
- Miscellaneous current transfers (D.75) (€ 365 million in 2012)
- Investment grants (D.92) (€ 165 million in 2012)
- Other capital transfers (D.99) (€ 23 million in 2012)

Miscellaneous current transfers cover EUI transfers to households, NPISH's and non-financial corporations as recorded in the EUI balance of payments. Investment grants, international cooperation and other capital transfers paid to general government are calculated on the basis of public accounts. Investment grants to households and non-financial corporations cover EAGGF and Objective 1 grants.

²¹⁵ The agriculture year goes from the 1st of October to the 30th of September.

8.4 PROPERTY INCOME (D4)

The property income flows with the Row by type are summarized in the next table.

Sources and compilation methods for each type of income are described below.

Property income flows with S2 (2012)				
(mln €)		(a)	(b)	(a)-(b)
		received	paid	Net
Interest	D41	29.380	18.958	10.422
Distributed income of corporations	D42	11.806	14.485	-2.679
Dividends	D421	11.806	14.485	-2.679
withdrawals of income from quasi-corporations	D422	0	0	0
Reinvested earnings on FDI	D43	2.170	8.799	-6.630
Other investment income	D44	3.500	454	3.045
Investment income attributable to insurance policy holders	D441	1.157	176	981
Investment income payable on pension entitlements	D442	0	0	0
Investment income attributable to collective investment fund shareholders	D443	2.343	278	2.065
dividends	D4331	285	34	251
retained earnings	D4332	2.058	245	1.814
Rent	D45	0	0	0
Total	D4	46.855	42.696	4.159

8.4.1 INTEREST (D41)

Principle of establishment of interest matrices

In the sector accounts, the interest received and paid by each institutional sector is recorded in the primary income allocation account with no information on the counterpart sector that received or paid the interest concerned, but the totals are estimated from interest matrices that show interest flows by counterpart sector.

The basic principle for the establishment of interest matrices relies on identifying the counterpart sector that received or paid the interest. Failing direct information on interest flows between sectors, each matrix cell is estimated from data on claims and debts available in the financial accounts (estimated through a debtor approach) to which theoretical yield rates are applied (depending on the creditor sector, the debtor sector and the financial instrument). The theoretical yield rates are gross; they do not contain any payment of taxes. Using theoretical yield rates allows calculating the interests at the moment they become due, as it is imposed by ESA2010, and not at the moment they are effectively distributed. There are very few index-linked debt securities in Belgium. It was therefore chosen to treat these as the other transactions in F.3. The result is an interest matrix with totals in rows and columns representing the total interest received and paid by institutional sectors.

Outstanding amounts for financial lease are included in instrument AF4. Interests are therefore automatically calculated for these amounts. On the opposite, swaps and forward rate agreements are included in the instrument AF71, and their income is consequently not included in the matrix.

Interests are recorded including grants for interest relief. There are two cases in our method:

- Sectors which are constrained (S122, S13, etc.): the total interests are given by accounting data which do not specify the counterpart of the payment of interest. A grant for interest relief is always accounted as an interest received from the bank as well, and is therefore included in the interests.
- Sectors which are not constrained: we apply interest rates to outstanding amounts, and do take into account total interest rates without any grant for interest relief. Therefore grants for interest relief are here also included in interests.

In our national accounts, grants for interest relief are recorded as subsidies (D39) paid by government sector (S13) to other sectors.

The general method used (stocks*interest rate on quarterly basis) ensures that interest flows are broadly estimated on accrual basis.

Some interest flows are known or estimated from other sources and therefore do not have to be estimated from the matrix of claims and debts of the financial accounts. This applies particularly to the flows of certain financial institutions (S.121, S.122, S.123, S.124, S.128, S.129) and general government (S.13), for which accounting data on total interest received and paid are available. These accounting data represent constraints on the rows and columns of the interest matrix. The constraints for sectors S.121, S.122, S.123, S.124, S.128 and S.129 are used for aligning the results of the theoretical calculation, thereby making it possible to determine the interest received and paid by counterpart sector corresponding to the accounting data. The data for general government are from general government accounts that show the source and destination of interest flows.

There is also accounting information on non-financial corporations (S.11), other financial intermediaries and financial auxiliaries (S.125 and S.126) and NPISHs (S.15), but it needs further treatment to extract the interest component from investment income and from financial charges. The flows of interest received and paid estimated from the accounting data of sectors S.125, S.126 and S.15 are less reliable and therefore less constraining than the accounting data of sectors S.121, S.122, S.123, S.124, S.128 and S.129 and general government.

In sectors where there are no accounting constraints on interest received and paid, specifically households (S.14) and the rest of the world (S.2), interest flows are determined from calculated counterparts of other sectors and from the results of the theoretical calculation done on the matrix of current financial claims and debts.

The introduction of various external sources for calculating the interest matrix means that the system is no longer "closed" and that the sum of all the interest received and paid is not balanced. Balancing is applied to the interest received or paid of sectors for which there are no constraints.

Interest matrices are established for nine sectors:

- non-financial corporations (S.11+S.126²¹⁶)
- the National Bank of Belgium (S.121)
- monetary financial institutions (S.122)
- mutual funds (S.123 and S.124)
- other financial intermediaries (S.125 + S.127)
- insurance corporations and pension funds (S.128 + S.129)
- general government (S.13)
- households and NPISH (S.14+S.15)
- rest of world (S.2)

A theoretical calculation of interest received and paid by each of these sectors to other sectors is made for the following financial instruments²¹⁷:

- AF22 Transferable deposits
- AF29 Other deposits
- AF3 Debt Securities
- AF4 Loans

This theoretical calculation is aligned on interest received and paid by S.121, S.122, mutual funds (S.123, S.124), S.128, S.129 and S.13. At the same time, a ranking of sources is also established. We give preference to sources that are based on more reliable and/or more exhaustive data.

This ranking implies that, even when aligned, the total interest paid and received by a sector may differ slightly from the accounting constraints if a cell is replaced by information obtained elsewhere for a higher-ranking sector.

The "theoretical" interest matrix does not correspond directly to the sectorisation of accounts. A conversion is necessary and takes place at the time of balancing, when the accounting constraints are applied. Matrix balancing involves three stages:

Starting point: A "theoretical" matrix (theoretical calculation, aligned for certain sectors) which is balanced.

Stage 1: Breaking down the matrix totals according to the sectorisation of national accounts and applying the accounting constraints, which introduce an imbalance between interests paid and received.

Stage 2: Rebalancing the matrix by re-estimating the interest of sectors where there is no constraint. Balancing is applied to sectors that are substantial in terms of interest

²¹⁶ S.126 is included in the non-financial corporations, due to a lack of data on financial auxiliaries. New available data sources will make it possible in the next production campaign (CN2016) to distinguish S.11 and S.126.

²¹⁷ The interest calculation is done at the most disaggregated level of the classification of financial accounts in order to take into account the most appropriate yields according to the instrument.

flows (S.14, S.2 and S.11), taking into account the implicit yields and the accounting data, even if the latter are not regarded as constraints;

Stage 3: Applying a RAS method to balance the interior of the matrix with respect to the row and column totals established in stage 2, using the interior of the theoretical matrix as the starting point of the iterative process.

Interest matrices after adjustment for FISIM

Since 1 January 2005²¹⁸, interest recorded in the national accounts has to be adjusted for FISIM (financial intermediation services indirectly measured). This adjustment is equivalent to reclassifying part of interest payments as payment for services.

With respect to gross interest flows (before FISIM adjustment), the impact of applying FISIM is as follows:

For FISIM producers

- a decrease of resources of D.41 (decrease of interest received on credits)
- an increase of uses of D.41 (increase of interest paid on deposits).

Overall, FISIM producers record a decrease in net resources of D.41.

For FISIM consumers

- an increase of resources of D.41 (more interest received on deposits)
- a decrease of uses of D.41 (less interest paid on credits).

Overall, FISIM consumers record an increase in net resources of D.41.

The FISIM adjustment is neutral as regards the balance of the interest matrices, but it does affect the total interest received and paid by all sectors. The balance of interests received and paid to the ROW exactly offset that of imports and exports.

Results for 2012

Interest paid to and received from the rest of the world S.2 is obtained after balancing the interest matrix and applying the adjustment for FISIM:

²¹⁸ Effective date of Commission Regulation (EC) No 1889/2002 stating the modalities for FISIM allocation to user sector.

Interest from and to the rest of the world (2012, €million)			
	gross flow	adjustment FISIM (-)(*)	D41 in National Accounts
D.41 received from S.2	30.299	919	29.380
D.41 paid to S.2	18.521	-437	18.958
D.41 net received	11.778	1.356	10.422

(*) export of fisim (1.764) minus import of fisim (408) = 1.356

8.4.2 DISTRIBUTED INCOME OF CORPORATIONS (D42)

Dividends (D.421)

Dividends paid to and received from the rest of the world are calculated per institutional sector and recorded in the year they are effectively paid or received. The dividends exclude the super dividends which are treated as a financial transaction (cf. 1.1.1.3.)

The general meeting of shareholders may decide to pay out a dividend in cash or in the form of additional shares. Regardless of the instrument they choose, both are considered as a distribution of dividends by the Belgian accounting standards (BEGAAP). They enter both in the same section in the income statement as distribution of dividends of the Belgian entity. The payments received from the ROW in the form of shares are treated in the same manner and are registered as dividends in the national accounts. The shares issued to shareholders (stock dividend) are thus included in cross border flows of property income.

Contrary to the stock dividend, bonus shares are excluded in the registration of dividends. The incorporation of reserves may involve the issue of bonus shares to the shareholders. The equity of the firm remains the same and there is no actual distribution to the shareholder. The change in equity of the company doesn't reflect an enrichment of the shareholder. If a Belgian company decides to issue bonus shares there will be no entry as distribution of dividends in the income statement and thus there is no registration in the national accounts. The dividend concept in the FDI survey and for portfolio investments is established so that all sources are coherent. The bonus shares received from entities of the ROW are excluded because of this requested alignment between the FDI survey, the securities database and the annual accounts.

Dividends are recorded before deduction of current taxes on income and wealth.

Time of recording

For ESA 2010 § 4.57, the time of recording of dividends is the point in time at which the share price starts to be quoted on an ex-dividend basis.

In Belgium, a share is quoted ex-dividend once the dividend has been paid to the share's owner. This occurs after the closing date of the annual accounts followed by the share holders' general assembly.

For companies closing their accounting year on 31 December of year t, the dividends paid out of the profits generated in year t are recorded in the annual accounts of the same year and submitted to the general meeting early in t+1 and therefore recorded in the national accounts of t+1 (as they are paid in t+1). For companies closing their book year in the period January to November (overlapping two calendar years), the dividends are prorated to the period covered by their annual accounts²¹⁹.

Sources and calculation methods

Dividends paid by Belgium to the rest of the world

For dividends paid by Belgium (S1) to the rest of the world (S2), a distinction is made between dividends resulting from direct investments and dividends resulting from portfolio investments.

Direct investments dividends

Paid dividends for both S11 and S12 are collected from the individual annual accounts filed to the NBB (Central Balance Sheet Office)

For non-financial and financial corporations with the exception of S128 (*Insurance corporations*)²²⁰, the foreign control percentages per company are provided by the Balance of payment service. For companies falling below the threshold applied to the Balance of Payment survey, the information is provided by the Ministry of Economy. The control percentage multiplied by the dividend paid mentioned in the individual annual accounts (code 694) gives the amount of dividends paid to the rest of the world.

Portfolio investments dividends

Dividends from portfolio investments are estimated by the Balance of payments service. The general method consists in determining the "current volume" of Belgian shares held by the rest of

²¹⁹ If, for instance, a company closes its book year on 30/6/T (covering a period of 12 months), half of the dividends (account 694) will be allocated to year T-1 (and paid in year T), and half will be allocated to year T (and paid in year T+1).

²²⁰ The foreign control percentage is derived from information gathered in the SBS for insurance companies.

the world, which is then multiplied by an average dividend distribution rate to arrive at the total amount of dividends paid to the rest of the world.

The *current volume* is defined as the number of shares multiplied by their value at the latest market price. The calculation occurs per share and is based on the price estimated and reported by the declarants at the end of each month.

The *dividend distribution rate* is based on information (average dividend paid/average share price) from the Centralised Securities Database (CSDB).

Dividends paid by the rest of the world to Belgium

Dividends paid by the rest of the world (S2) to Belgium (S1) are calculated by the Balance of payments service for the institutional sectors S11 and S12. A distinction is made between those resulting from direct investments and those resulting from portfolio investments.

Direct investments dividends

The direct investments survey conducted by the Balance of payment service contains information on the dividends paid by the direct investment corporations; the amount paid to Belgium (S11 and S12) is estimated by applying the control percentage of resident companies in non-resident FDI companies.

Portfolio investments dividends

Dividends from portfolio investments of Belgian corporations (S11 and S12) in the ROW are estimated by the Balance of payments service in the same way as described above (outstanding amounts * dividend distribution rate).

Dividends received by the general government (S.13) from the rest of the world are known from the general government account.

Dividends received by Households (S.14) are determined as a residual, i.e. after calculation of all other dividend flows, including those from and to the rest of the world. Consequently, the dividends received from S2 cannot separately be identified from those received from other resident sectors. The dividends received by Households include the gross operating surplus generated by non-observed and illegal activities sectorised in S11.

Dividends RECEIVED FROM and paid to the rest of the world in 2012

<i>€ million</i>	2012
Dividends received from ROW (a)	11.806
of which direct investments	8.058
Dividends paid to ROW (b)	14.485
of which direct investments	13.724
Net dividends received from ROW (a)-(b)	-2.679

Super dividends (F5)

According to ESA2010; if the level of dividends declared is greatly in excess of profits, the dividends causing the excess are classified as ‘super dividends’ and treated as a financial transaction (withdrawal of owners’ equity: F5)

Super dividends paid by Belgium to the ROW

A pragmatic method has been developed in order to classify part of the dividends paid by Belgian companies to their foreign shareholders as extraordinary dividends and therefore exclude them from transaction heading D.421. This method is applied to all companies filing a standard accounting scheme with the Central Balance Sheet Office (companies falling under S.11, S.125, S.126 or S.127)²²¹.

Dividends recorded in a company’s annual accounts are (partly) reclassified as super dividends if, at the same time, they generate a decrease in shareholders’ equity. The basic idea is that the payment of all or part of the dividends, in such cases, gives rise to a decrease in net worth (loss of wealth) of the company.

The detection of super dividends is based on an individual analysis of the annual accounts filed by companies. The following algorithm is applied:

- If the dividend paid (item 694 of the annual accounts) is higher than the decrease in equity (item 791/2)²²², the super dividend equals the decrease in equity (791/2), with the balance being an ordinary dividend;
 - 694 = 100 and 791/2 = 40
 - 694 – 791/2 = dividend (D421) = 60

²²¹ It should be noted that a more precise method of identification is applied to dividends that affect the general government account (S.13), in accordance with the rules of ESA2010 (notably §4.56) and the Manual on Government Deficit and Debt.

²²² 791: transfers from capital and share premium account; 792: transfers from reserves.

- 791/2 = super dividend (F5) = 40
- If the dividend paid (item 694) is lower than or equal to the decrease in equity (item 791/2), the super dividend is equal to the dividend paid (694); the ordinary dividend being nil.
 - 694 = 20 and 791/2 = 50
 - 694 = super dividend (F5) = 20
 - dividend (D421) = 0

As in the case of dividends, super dividends paid to the ROW are estimated taking into account the control % of non-resident companies in Belgian affiliates. For the year 2012 an amount of € 5.171 million of super dividends paid to the ROW was estimated.

Super dividends paid by the rest of the world to Belgium

Super dividends paid by the rest of the world (S2) to Belgium (S1) are identified and calculated by the Balance of payments service on the basis of information collected via its direct investments survey. As in the case of dividends, super dividends received from the ROW are estimated taking into account the control % of resident companies in foreign affiliates. For the year 2012 the amount is 0.

Withdrawals from the income of quasi-corporations (D422)

As explained in chapter 3.18, the net property income flows associated with dwellings abroad (holiday homes located abroad owned by Belgians and holiday homes located in Belgium owned by foreigners) are immaterial (between 0.01 and 0.02 % of GNI) and have therefore not been integrated in the national accounts.

8.4.3 REINVESTED EARNING ON FOREIGN DIRECT INVESTMENT (D43)

Reinvested earnings on foreign direct investment (D.43) are estimated by the national accounts division according to the general framework of the national accounts. Efforts have been made in the recent past to compare and bring more in line the implementation methods followed by national accountants and by b.o.p. compilers. The work is still ongoing and additional harmonisation is still foreseen in the near future.

D.43 is the part of the profit from a foreign subsidiary that is not distributed in the form of dividend to the parent company. Direct investments of corporation A in B are involved when A controls at least 10 percent of the share capital of B (corporation B is called « direct investment corporation»). This definition is in line with the international standards.

The relevant profit concept is the net current operating profit (NCOP) concept, i.e. excluding exceptional income and costs (such as e.g. liquidation dividends, holding gains and losses in the profit and loss account, etc.)

$D.43$ in year $t = (\text{NCOP in } t - \text{dividends paid out in } t) * \text{control percentage}$. If the dividend is greater than the profit $D.43$ will be negative.

For a direct investment corporation resident in Belgium for which the difference between operating profits and distributed dividend is positive (amount a), the GNI is adversely affected by amount (a) multiplied by the control percentage of the foreign direct shareholder in the Belgian corporation. This amount is entered as if it is paid out to the foreign shareholder and invested by the direct investor back in the Belgian economy (via heading F513 Other equity in the financial accounts). Retained profits of foreign direct investment corporations are deemed to be paid out to the resident corporations and have a positive impact on GNI.

Resources

Data for calculating $D.43$ originating from the rest of the world (direct investment of a Belgian company abroad) are extracted from the direct investments surveys drawn up by the Balance of payments division. Separate survey forms are available for financial and non-financial corporations. The results of the survey are taken over in the national accounts on an individual basis. The appropriate institutional sector code is allocated to each company in accordance with the register (annual repertory) used in the national accounts.

The following surveys are used:

- 23FDI – Credit institutions : results of direct investments
- R33FDI – Insurance and reinsurance companies : results of direct investments and equity position of non-resident enterprises directly held
- R43FDI – Stockbroking firms and asset management companies: results of direct investments and equity position of non-resident enterprises directly held.

The difference between the aggregate item J0016 (reserved profit of the year) and the aggregate item J0017 (loss of the year to be deferred) reported in the survey as coming from the business accounts of the non-resident companies is considered in the national accounts as proxy for reinvested earnings²²³.

²²³ In the future, this formula will be modified to be consistent with the formula used in b.o.p. since 2013 which is the following :

$[J0013 - J0014 - (J0019 - J0020)] - [\text{dividends paid in year } t]$ with

J0013 : profit for the financial year (after taxation); J0014 : loss for the financial year (after taxation)

J0019: extraordinary profit; J0020 : extraordinary loss

On an individual basis : $J0016 = J0013 - J0018$; $J0017 = J0014 + J0018$ with J0018 equal to allocated dividends

Reinvested earnings as resources (2012, € millions)			
	Reserved profit of the year (aggregate J0016)	Loss to be deferred of the year (aggregate J0017)	Reinvested earnings (J0016-J0017)
S11	6.087	6.168	-81
S122	1.045	1.007	37
S125	846	598	248
S126	2.267	1.069	1.199
S127	808	547	261
S128	520	14	506
Total S1	11.573	9.404	2.170

Uses

Non-financial corporations (S.11), other financial intermediaries (S.125), financial auxiliaries (S.126) and captive financial institutions (S.127)

The population of direct investment corporations (FDI population) is composed by combined use of the direct investments survey organised by the Balance of payments division and the structural business survey (SBS) for non-financial corporations. BOP and SBS are combined to obtain a FDI population as exhaustive as possible. Both surveys also give information on the control percentage exercised by non-resident corporations over resident corporations.

Detailed information is available for the corporations included in the FDI population that allows the net current result to be calculated on an individual basis. The NCOP and dividends are compiled for each individual enterprise on the basis of a selection of appropriate items extracted from the business accounts (profit and loss account). In this way an estimate as accurate as possible of NCOP after deduction of corporation taxes is obtained for each enterprise included in the FDI population.

NCOP is calculated as follows:

Full schemes	(large enterprises)
<i>Operating income</i>	
70/74	turnover; changes in inventories of finished goods and work in progress; own construction of fixed assets; other operating income
<i>Operating costs</i>	
60 (-)	raw materials, consumables and goods for resale
61 (-)	services and other goods (not recorded under 60)
62 (-)	remuneration, social charges and pensions
630 (-)	depreciation on tangible and intangible fixed assets
640/8 (-)	other operating costs
<i>Financial income</i>	
750 (+)	income from financial fixed assets
751 (+)	income from current assets
<i>Financial charges</i>	
650(-)	interest and other debt charges
653 (-)	charges for discounting amounts receivable
<i>[Extraordinary income (when appropriate)</i>	
764/9 (+)	other extraordinary income only if it relates to transactions recorded in the sequence of accounts
<i>Extraordinary charges income (when appropriate)</i>	
<i>Income taxes</i>	
67/77 (-)	

Abbreviated schemes	(small and medium enterprises)
9900 = 70/74 - 60/61	gross operating margin
62(-)	remuneration, social charges and pensions
630 (-)	depreciation on tangible and intangible fixed assets
640/8 (-)	other operating costs
75 (+)	financial income; no information available to eliminate other operations than transactions
65 (-)	financial charges; no information available to eliminate other operations than transactions
67/77 (-)	income taxes

Realised holding gains and losses are, in the Belgian business accounts, registered under specific items (item 763 and 663). These items are excluded from the formula used to calculate the net operating profit.

It appears that “other extraordinary income/charges” (items 764/9 and 664/8) can also include holding gains and losses. Those two items are a priori excluded from the formula. Transactions above € 100 million are nevertheless individually examined to evaluate (when information is available) if they relate to a transaction that is registered in the framework of the sector accounts.

After reducing the distributable profit of year t with the dividend registered in year t (payable in year t+1) one gets the retained profit, upon which by applying the control percentage the reinvested profit per corporation can be calculated²²⁴.

Dividends are corrected to exclude extraordinary dividends in accordance to the general method developed to estimate super dividends.

Deposit-taking corporations except the central bank (S.122)

For monetary financial institutions subject to Belgian law the calculation is also carried out on an individual basis. Information on these monetary financial institutions is available: annual accounts of financial institutions (Schedule A collected by the National Bank of Belgium) and control percentages via the direct investments survey of the balance of payments.

²²⁴ This method could be amended in a near future by reducing the distributable profit of year t with the dividend paid in year t (and registered by the enterprise in the business accounts of year t-1). This amendment should bring national accounts implementation rules closer to the ones applied in b.o.p. statistics.

From the Schedule A for each corporation information is available on profits (after depreciation and taxes), losses, exceptional income, exceptional costs and dividends paid out, which permits the current result to be compiled.

After reducing the current net result by the dividends paid out, and applying the control percentage, one gets the reinvested earnings “paid” to the rest of the world.

More specifically, the NCOP for banks is obtained by adding the following items:

- 540 : total net profits (after corporation taxes)
 - or 440 total losses of the enterprise
- 529 : extraordinary charges (+)
- 429 : extraordinary income (-)

By including the extraordinary charges and excluding the extraordinary income from the total profit of the enterprise, a profit concept is obtained which does not take into account holding gains and losses nor other extraordinary profits and losses.

Dividends of the financial institutions subject to Belgian law are available by enterprise under accounting code 669.

Reinvested earnings on FDI are obtained by summing over the difference between NCOP and dividends for each enterprise, multiplied by the FDI control percentage.

The *monetary financial institutions subject to foreign law* are calculated on a global basis.

Information on the profits (after depreciation and taxes), losses, exceptional income and exceptional costs, is available in the annual accounts of the financial institutions. These branches are by definition fully controlled by the foreign parent company; they have no separate juridical personality. There is no share capital relating to the branch office, and no dividends are therefore paid out. The profits obtained are in practice found to be fully reinvested.

Insurance corporations (S.128)

The control percentage of insurance corporations is deduced from data for the relevant individual corporations. This percentage is applied to the net current result of the entire sector. This net result can be deduced from the annual accounts of the insurance corporations.

The compilation is based on exhaustive balance sheet information of enterprises under the prudential control of the National Bank of Belgium, and on information provided by the structural business survey for branches not subject to Belgian supervision.

For each of these two categories, the NCOP is obtained by estimating the net operating surplus, adding property income and current transfers receivable, and deducting property income and transfers payable (including dividends) of the enterprises belonging to each category.

For enterprises controlled by the National Bank the NCOP calculated for the concerned population is multiplied by the foreign control percentage, defined as a capital weighted average of the individual control percentages. This results in the RIE outflow.

For Belgian branches of foreign corporations the whole NCOP can be considered to be reinvested earning on FDI.

Reinvested earnings recorded as uses (2012, €million)	
S11	4.510
S122	1.040
S125	-145
S126	82
S127	2.497
S128	816
Total S1	8.799

8.4.4 OTHER INVESTMENT INCOME (D44)

8.4.4.1 Investment income attributable to insurance policy holders (D.441)

INCOME PAID TO THE REST OF THE WORLD

The amount of investment income attributed to insurance policy-holders paid out to the rest of the world is calculated as part of insurance output, as described in chapter 3.17.7

Given that insurance output is calculated in detail for non-life insurance, life insurance and reinsurance, the investment income corresponding to these three types of insurance is identified separately and the share paid out to the rest of the world can be singled out.

In the case of non-life (liability and transport) insurance, the figures for insurance premiums paid by the rest of the world to insurance companies in Belgium are estimated on the basis of Balance of Payments surveys. On the other hand, an 'investment income/gross premiums' ratio is calculated each year using data obtained from calculating domestic production of liability and transport insurance. A moving average of this ratio is then calculated over three years. The amount of investment income paid out to policy-holders from the rest of the world is then estimated by multiplying the ratio obtained (three-year moving average) by the premiums paid by the rest of the world to insurance companies in Belgium.

The same methodology is applied to life insurance. Figures for life insurance premiums received from the rest of the world are estimated on the basis of Balance of Payments (BOP) surveys.

An ‘investment income/gross premiums’ ratio is calculated each year using data obtained from calculating domestic production of life insurance. A moving average of this ratio is then calculated over three years. The amount of investment income paid out to policy-holders from the rest of the world is then estimated by multiplying the ratio obtained (three-year moving average) by the life insurance premiums paid by the rest of the world to insurance companies in Belgium.

For reinsurance, investment income paid out to the rest of the world is calculated as part of the wider concept of reinsurance output. The amount can be deduced directly by using the method of calculation (Eichmann method) described in the chapter on reinsurance (chapter 3.17.7). To recap, premiums received from abroad are estimated on the basis of the structural survey results. A supplement-to-premium ratio calculated for specialist reinsurers is estimated and applied to the figure for premiums received to obtain the premium supplements. The amount for premium supplements effectively corresponds to the amount of investment income paid out to the rest of the world, since this is then paid back in premium supplements in accordance with the methodology for reinsurance.

Resource S2

Income paid to the rest of the world	Source	2012
Non-life (liability) insurance		
<i>Gross premiums received from the RoW</i>	BOP survey	953
<i>Ratio of investment income to premiums received</i>		5.2 %
<u>Investment income paid to the RoW</u>		<u>50</u>
Transport insurance		
<i>Gross premiums received from the RoW</i>	BOP survey	218
<i>Ratio of investment income to premiums received</i>		3.0 %
<u>Investment income paid to the RoW</u>		<u>7</u>
Life insurance		
<i>Gross premiums received from the RoW</i>	BOP survey	294
<i>Ratio of investment income to premiums received</i>		37.4 %
<u>Investment income paid to the RoW</u>		<u>110</u>
Reinsurance		
<i>Gross premiums received from the RoW</i>	Structural survey	753
<i>Ratio of supplements to premiums received</i>		1.2 %
<u>Investment income paid to the RoW</u>		<u>9</u>
TOTAL		176

INCOME RECEIVED FROM THE REST OF THE WORLD

Investment income attributed to insurance policy-holders paid by the rest of the world to Belgium is estimated by applying a long-term rate of return in euro on the net life insurance and annuity entitlements of households held abroad (AF.62).

Use S.2

Income paid by the rest of the world	Source	2012
Life insurance and annuity entitlements (a)	Financial accounts (AF.62)	27.744
Long-term rate (b)		4.17 %
TOTAL	(a) x (b)	1.157

8.4.4.2 Investment income attributable to collective investment fund shareholders (D.443)

Sources

The following sources and procedures are used to identify and cover cross-border flows of investment income attributable to domestic shareholders of foreign collective investment funds (CIF) (broken down by dividends attributable to collective investment funds' shareholders (D.4431) and retained earnings attributable to collective investment funds' shareholders (D.4432)):

- International investment position (IIP)
- Financial balance sheets
- Statistics on investment funds gathered by the Belgian prudential authority (Financial Services and Market Authority-FSMA)
- Security-by-security database (SbS)

The starting point of the estimation is the outstanding amount of foreign CIF hold by domestic shareholders as recorded in the IIP. In order to obtain the income attributable to the domestic shareholders, the rate of return of the domestic CIF is applied on this outstanding amount. Then, in order to distinguish D.4431 from D.4432, we use information from SbS. The whole procedure is applied on a quarterly basis, and distinguishes monetary from non-monetary CIF.

The calculation on an annual basis is shown below.

Variables	Sources or calculation	Data for 2012
(1) Average outstanding amount of foreign CIF hold by domestic shareholders	IIP	€ 111 888 million
(2) Average annual rate of return of domestic CIF	FSMA and financial balance sheets	2,1 % (1 779/84 586)
(3) Total D443 paid by the rest of the world	(1)*(2)	€2 343 million
(4) Share of distribution IF	SbS	12,1 %
(5) Total D4431 paid to the rest of the world	(3)*(4)	€ 285 million
Total D4432 paid to the rest of the world	(3)-(5)	€ 2 058 million

For years after 2012, the investment income attributable to the domestic shareholders of foreign CIF is directly derived from balance of payments data.

The following sources are used to identify and cover cross-border flows of investment income attributable to foreign shareholders of domestic collective investment funds (broken down by dividends attributable to collective investment funds' shareholders (D.4431) and retained earnings attributable to collective investment funds' shareholders (D.4432))

- Financial balance sheets
- Statistics on investment funds gathered by the Belgian prudential authority (Financial Services and Market Authority-FSMA)
- Security-by-security database (SbS)

The total investment income of domestic collective investment funds (CIF) is available in FSMA statistics. In order to calculate which share of this total income goes to foreign shareholders, we use the share of foreign shareholders in domestic CIF recorded in the financial balance sheets. Then, in order to distinguish D.4431 from D.4432, we use information from SbS. The whole procedure is applied on a quarterly basis, and distinguishes monetary from non-monetary CIF. The calculation on an annual basis is shown below.

Variables	Sources or calculation	Data for 2012
(1) Total investment income of resident CIF	FSMA	€ 1 779 million
(2) Average annual share of foreign owners of domestic CIF	Financial balance sheets	15,6 %
(3) Total D443 paid to the rest of the world	(1)*(2)	€278 million
(4) Share of distribution IF	SbS	12,1 %
(5) Total D4431 paid to the rest of the world	(3)*(4)	€ 33 million
Total D4432 paid to the rest of the world	(3)-(5)	€ 245 million

9 MAIN CLASSIFICATIONS USED

This section gives an overview of the main classifications used to prepare the national accounts, and the relation between these classifications and the European classifications indicated in ESA2010.

9.1 CLASSIFICATIONS USED IN THE OUTPUT APPROACH

9.1.1 INDUSTRY CLASSIFICATION

In ESA2010 the European industry classification NACE Rev. 2225, is grouped by industry classifications A64, A38, A21, A10 and A3. The NACE-BEL 2008, drawn up by the General Directorate of Statistics, is the Belgian version of NACE Rev. 2 and is identical to NACE Rev. 2 up to and including classification into classes (4-digits), but includes a further classification of the classes into subclasses (5-digits).

The Belgian industry classification in the national accounts groups categories of the NACE-BEL into 140 industries for the supply and use table. As there is no activity in mining of coal and lignite (nace 05), extraction of crude petroleum and natural gas (nace 06) and mining of metal ores (nace 07) in Belgium, these industries do not appear in the SUT.

The different aggregation levels for industry classification used in Belgium are shown in 9.5.1.

9.1.2 PRODUCT CLASSIFICATION

The product classification in ESA2010 is based on the European product classification CPA226, that for reporting purposes is grouped to the classifications P.64, P.38, P.21, P.10 and P.3.

For the integration of the supply and use table this classification is however aggregated. The CPA headings (6 digit level) were therefore grouped into 354 SUT products²²⁷.

For industries reporting to the Prodcom survey²²⁸ the data can be grouped by the SUT classification via the CPA. The Prodcom classification is after all a further breakdown of the first 4 digits of the CPA.

²²⁵ Statistical classification of economic activities in the European Community, Rev. 2, Eurostat, 2008

²²⁶ Statistical classification of products by activity in the European Economic Community, 2008 version, Eurostat

²²⁷ Coding of SUT products: the first 3 positions correspond with the first 3 of the SUT sector where the product is mainly produced, the following 2 are sequential

²²⁸ Prodcom: community survey of industrial production, Eurostat

The nomenclature used in the business structure survey to obtain detailed information on turnover, purchases and investments per product, is based on the CPA, which makes it possible to link it to the SUT classification.

The correspondence between CPA-products and SUT-products is shown in 9.5.2.

9.2 CLASSIFICATIONS USED IN THE INCOME APPROACH

The income components of value added are compiled according to the same industry classification (SUT-industries) as in the production approach.

9.3 CLASSIFICATIONS USED IN THE EXPENDITURE APPROACH

A consistent estimate of GDP is obtained by integrating the three approaches to GDP in the supply and use table. The SUT product classification (cf. 9.1.2) is therefore also relevant for the expenditure approach.

To initialize the SUT source data are grouped by SUT product classification.

The nomenclature of the household budget survey (cf. 10) contains more than 1000 headings, and is linked at a detailed level with both the SUT classification and the COICOP²²⁹.

The Belgian nomenclature for imports and exports of goods is more detailed for some headings than the European nomenclature GN, and contains more than 9000 headings. The link to the SUT product classification is possible via the CPA.

Data relating to imports and exports of services are available in 'International trade in services' (cf. 9.5.3).

After integration of the SUT the gross fixed capital formation according to the SUT classification is grouped by the Eurostat classification AN_F6. The final consumption expenditure of households can be grouped via the household budget survey nomenclature into Eurostat classification COICOP.

²²⁹ COICOP: classification of individual final consumption by purpose (households).

Classification P3S13

PPP classification		SUT classification	
C	Individual consumption expenditure by government		
C.01.0.0.0	Housing - GG		Equal to zero
C.02.0.0.0	Health - GG		
		21A01	Basic pharmaceutical products
		21A02	Medicaments
		21A03	Other pharmaceutical preparations; Sub-contracted operations as part of manufacturing of pharmaceutical preparations
		32B04	Medical and dental instruments and supplies
		86A01	Hospital surgical services (except rehabilitation, psychiatry and geriatrics)
		86A02	Hospital rehabilitation services; Hospital psychiatric services; Other hospital services
		86B01	General medical and specialist medical practice services
		86C01	Dental practice services
		86D01	Medical laboratory, blood, sperm and transplant organ bank services; Diagnostic imaging services
		86D02	Nursing and physiotherapeutic services and other human health services n.e.c.
		87A01	Residential nursing care and welfare services delivered through residential institutions to elderly persons
		87A02	Residential care services (except residential nursing care and welfare services delivered through residential institutions); market
C.03.0.0.0	Recreation and culture - GG		
		90A91	Creative, arts and entertainment services;

PPP classification		SUT classification	
			non-market
		91A91	Library, archive, museum and other cultural services; non-market
		93A91	Sporting services and amusement and recreation services, non-market
C.04.0.0.0	Education - GG		
		85A93	Pre-primary, primary, secondary, higher education services; non-market
C.05.0.0.0	Social protection - GG		
		35B01	Manufactured gas; distribution services of gaseous fuels through mains
		68B02	Rental and operating services of own or leased residential real estate, renters
		84A91	Administration services, except Defence services and Compulsory social security services
		84C91	Compulsory social security services
		87A02	Residential care services (except residential nursing care and welfare services delivered through residential institutions); market
D	Collective consumption expenditure by government		
		38A01	Waste; waste collection services
		39A01	Remediation services and other waste management services
		49B91	Urban and suburban passenger land transport services, non-market
		52A92	Services incidental to land transportation, non-market
		60A91	Programming and broadcasting services; non-market
		72A91	Scientific research and development services; non-market

PPP classification	SUT classification	
	84A91	Administration services, except Defence services and Compulsory social security services
	84B91	Defence services

Classification P31S14



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9.4 CLASSIFICATIONS USED IN THE TRANSITION FROM GDP TO GNI

No specific classifications are used in this respect.

9.5 ANNEXES

9.5.1 INDUSTRY CLASSIFICATION (SUT)

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
1	1	A	AA	01	01A		Crop and animal production, hunting and related service activities
						01.1	<i>Growing of non-perennial crops</i>
						+ 01.2	<i>Growing of perennial crops</i>
						+ 01.3	<i>Plant propagation</i>
						+ 01.4	<i>Animal production</i>
						+ 01.5	<i>Mixed farming</i>
						+ 01.6	<i>Support activities to agriculture and post-harvest crop activities</i>
				+ 01.7	<i>Hunting, trapping and related service activities</i>		
				02	02A		Forestry and logging
02.1	<i>Silviculture and other forestry activities</i>						
+ 02.2	<i>Logging</i>						
+ 02.3	<i>Gathering of wild growing non-wood products</i>						
+ 02.4	<i>Support services to forestry</i>						
03	03A		Fishing and aquaculture				
		03.1	<i>Fishing</i>				
+ 03.2	<i>Aquaculture</i>						
2	2	B	BB	05-09	X		Mining of coal and lignite
						05.1	<i>Mining of hard coal</i>
				+ 05.2	<i>Mining of lignite</i>		
		X		Extraction of crude petroleum and natural gas			

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						06.1	<i>Extraction of crude petroleum</i>
						+ 06.2	<i>Extraction of natural gas</i>
					X		Mining of metal ores
						07.1	<i>Mining of iron ores</i>
						+ 07.2	<i>Mining of non-ferrous metal ores</i>
					08A		Other mining and quarrying
						08.1	<i>Quarrying of stone, sand and clay</i>
						+ 08.9	<i>Mining and quarrying n.e.c.</i>
					09A		Mining support service activities
						09.1	<i>Support activities for petroleum and natural gas extraction</i>
						+ 09.9	<i>Support activities for other mining and quarrying</i>
		C	CA	10-12	10A	10.1	Processing and preserving of meat and production of meat products
					10B	10.2	Processing and preserving of fish, crustaceans and molluscs
					10C	10.3	Processing and preserving of fruit and vegetables
					10D	10.4	Manufacture of vegetable and animal oils and fats
					10E	10.5	Manufacture of dairy products
					10F	10.6	Manufacture of grain mill products, starches and starch products
					10G	10.7	Manufacture of bakery and farinaceous products
					10H		Manufacture of sugar, cocoa, chocolate and sugar confectionery
						10.81	<i>Manufacture of sugar</i>
						+ 10.82	<i>Manufacture of cocoa, chocolate and sugar confectionery</i>
					10I		Manufacture of other food products
						+ 10.83	<i>Processing of tea and coffee</i>
						+ 10.84	<i>Manufacture of condiments and seasonings</i>

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						+ 10.85	<i>Manufacture of prepared meals and dishes</i>
						+ 10.86	<i>Manufacture of homogenised food preparations and dietetic food</i>
						+ 10.89	<i>Manufacture of other food products n.e.c.</i>
					10J	10.9	Manufacture of prepared animal feeds
					11A		Manufacture of beverages, excl. waters and soft drinks
						11.01	<i>Distilling, rectifying and blending of spirits</i>
						+ 11.02	<i>Manufacture of wine from grape</i>
						+ 11.03	<i>Manufacture of cider and other fruit wines</i>
						+ 11.04	<i>Manufacture of other non-distilled fermented beverages</i>
						+ 11.05	<i>Manufacture of beer</i>
						+ 11.06	<i>Manufacture of malt</i>
					11B	11.07	Manufacture of soft drinks; production of mineral waters and other bottled waters
					12A	12.0	Manufacture of tobacco products
			CB	13-15	13A		Preparation and spinning of textile fibres; Weaving of textiles; Finishing of textiles
						13.1	<i>Preparation and spinning of textile fibres</i>
						+ 13.2	<i>Weaving of textiles</i>
						+ 13.3	<i>Finishing of textiles</i>
					13B	13.9	Manufacture of other textiles
					14A		Manufacture of wearing apparel
						14.1	<i>Manufacture of wearing apparel, except fur apparel</i>
						+ 14.2	<i>Manufacture of articles of fur</i>
						+ 14.3	<i>Manufacture of knitted and crocheted apparel</i>
					15A		Manufacture of leather and related products

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						15.1	<i>Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur</i>
						+ 15.2	<i>Manufacture of footwear</i>
			CC	16	16A		Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
						16.1	<i>Sawmilling and planing of wood</i>
						+ 16.2	<i>Manufacture of products of wood, cork, straw and plaiting materials</i>
				17	17A		Manufacture of paper and paper products
						17.1	<i>Manufacture of pulp, paper and paperboard</i>
						+ 17.2	<i>Manufacture of articles of paper and paperboard</i>
				18	18A		Printing and reproduction of recorded media
						18.1	<i>Printing and service activities related to printing</i>
						+ 18.2	<i>Reproduction of recorded media</i>
			CD	19	19A		Manufacture of coke and refined petroleum products
						19.1	<i>Manufacture of coke oven products</i>
						+ 19.2	<i>Manufacture of refined petroleum products</i>
			CE	20	20A	20.1 excl. 20.13	Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms, excl. manufacture of other inorganic basic chemicals
					20B	20.13	Manufacture of other inorganic basic chemicals
					20C	20.2	Manufacture of pesticides and other agrochemical products
					20D	20.3	Manufacture of paints, varnishes and similar coatings, printing ink and mastics
					20E	20.4	Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
					20F	20.5	Manufacture of other chemical products

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
					20G	20.6	Manufacture of man-made fibres
			CF	21	21A	21.1 + 21.2	Manufacture of basic pharmaceutical products and pharmaceutical preparations <i>Manufacture of basic pharmaceutical products</i> <i>Manufacture of pharmaceutical preparations</i>
			CG	22	22A	22.1	Manufacture of rubber products
					22B	22.2	Manufacture of plastics products
				23	23A	23.1	Manufacture of glass and glass products
					23B	23.2	Manufacture of refractory products; Manufacture of clay building materials; Manufacture of other porcelain and ceramic products <i>Manufacture of refractory products</i>
						+ 23.3	<i>Manufacture of clay building materials</i>
						+ 23.4	<i>Manufacture of other porcelain and ceramic products</i>
					23C	23.5	Manufacture of cement, lime and plaster
				23D	23.6 + 23.7 + 23.9	Manufacture of articles of concrete, cement and plaster; Cutting, shaping and finishing of stone; Manufacture of abrasive products and non-metallic mineral products n.e.c. <i>Manufacture of articles of concrete, cement and plaster</i> <i>Cutting, shaping and finishing of stone</i> <i>Manufacture of abrasive products and non-metallic mineral products n.e.c.</i>	
			CH	24	24A	24.1 + 24.2	Manufacture of basic iron and steel and of ferro-alloys; Manufacture of tubes, pipes, hollow profiles and related fittings, of steel <i>Manufacture of basic iron and steel and of ferro-alloys</i> <i>Manufacture of tubes, pipes, hollow profiles and related fittings, of steel</i>
							24B		Manufacture of other products of first processing of steel; Manufacture of basic precious and other non-ferrous metals; Casting of metals

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						24.3	<i>Manufacture of other products of first processing of steel</i>
						+ 24.4	<i>Manufacture of basic precious and other non-ferrous metals</i>
						+ 24.5	<i>Casting of metals</i>
				25	25A		Manufacture of structural metal products; Manufacture of tanks, reservoirs and containers of metal; Manufacture of steam generators, except central heating hot water boilers; Manufacture of weapons and ammunition; Forging, pressing, stamping and roll-forming of metal; powder metallurgy
						25.1	<i>Manufacture of structural metal products</i>
						+ 25.2	<i>Manufacture of tanks, reservoirs and containers of metal</i>
						+ 25.3	<i>Manufacture of steam generators, except central heating hot water boilers</i>
						+ 25.4	<i>Manufacture of weapons and ammunition</i>
						+ 25.5	<i>Forging, pressing, stamping and roll-forming of metal; powder metallurgy</i>
					25B	25.6	Treatment and coating of metals; machining
					25C		Manufacture of cutlery, tools and general hardware; Manufacture of other fabricated metal products
						25.7	<i>Manufacture of cutlery, tools and general hardware</i>
						+ 25.9	<i>Manufacture of other fabricated metal products</i>
			CI	26	26A		Manufacture of electronic components and boards; Manufacture of computers and peripheral equipment
						26.1	<i>Manufacture of electronic components and boards</i>
						+ 26.2	<i>Manufacture of computers and peripheral equipment</i>
					26B		Manufacture of communication equipment; Manufacture of consumer electronics
						26.3	<i>Manufacture of communication equipment</i>
						+ 26.4	<i>Manufacture of consumer electronics</i>

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
					26C		Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks; Manufacture of irradiation, electromedical and electrotherapeutic equipment; Manufacture of optical instruments and photographic equipment; Manufacture of magnetic and optical media
						26.5	<i>Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks</i>
						+ 26.6	<i>Manufacture of irradiation, electromedical and electrotherapeutic equipment</i>
						+ 26.7	<i>Manufacture of optical instruments and photographic equipment</i>
						+ 26.8	<i>Manufacture of magnetic and optical media</i>
			CJ	27	27A		Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus; Manufacture of batteries and accumulators; Manufacture of wiring and wiring devices; Manufacture of electric lighting equipment
						27.1	<i>Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus</i>
						+ 27.2	<i>Manufacture of batteries and accumulators</i>
						+ 27.3	<i>Manufacture of wiring and wiring devices</i>
						+ 27.4	<i>Manufacture of electric lighting equipment</i>
					27B		Manufacture of domestic appliances; Manufacture of other electrical equipment
						27.5	<i>Manufacture of domestic appliances</i>
						+ 27.9	<i>Manufacture of other electrical equipment</i>
			CK	28	28A		Manufacture of general-purpose machinery; Manufacture of other general-purpose machinery
						28.1	<i>Manufacture of general-purpose machinery</i>
						+ 28.2	<i>Manufacture of other general-purpose machinery</i>
					28B		Manufacture of agricultural and forestry machinery; Manufacture of metal forming machinery and machine tools; Manufacture of other special-purpose machinery
						28.3	<i>Manufacture of agricultural and forestry machinery</i>

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						+ 28.4	<i>Manufacture of metal forming machinery and machine tools</i>
						+ 28.9	<i>Manufacture of other special-purpose machinery</i>
			CL	29	29A	29.1	Manufacture of motor vehicles
					29B		Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers; Manufacture of parts and accessories for motor vehicles
						29.2	<i>Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers</i>
						+ 29.3	<i>Manufacture of parts and accessories for motor vehicles</i>
				30	30A	30.1	Building of ships and boats
					30B	30.2	Manufacture of railway locomotives and rolling stock
					30C	30.3	Manufacture of air and spacecraft and related machinery
					30D		Manufacture of military fighting vehicles; Manufacture of transport equipment n.e.c.
						30.4	<i>Manufacture of military fighting vehicles</i>
						+ 30.9	<i>Manufacture of transport equipment n.e.c.</i>
			CM	31-32	31A	31.0	Manufacture of furniture
					32A	32.1	Manufacture of jewellery, bijouterie and related articles
					32B		Manufacture of musical instruments; Manufacture of sports goods; Manufacture of games and toys; Manufacture of medical and dental instruments and supplies; Manufacturing n.e.c.
						32.2	<i>Manufacture of musical instruments</i>
						+ 32.3	<i>Manufacture of sports goods</i>
						+ 32.4	<i>Manufacture of games and toys</i>
						+ 32.5	<i>Manufacture of medical and dental instruments and supplies</i>
						+ 32.9	<i>Manufacturing n.e.c.</i>
				33	33A		Repair and installation of machinery and equipment

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						33.1	<i>Repair of fabricated metal products, machinery and equipment</i>
						+ 33.2	<i>Installation of industrial machinery and equipment</i>
		D	DD	35	35A	35.1	Electric power generation, transmission and distribution; Steam and air conditioning supply <i>Electric power generation, transmission and distribution</i>
						+ 35.3	<i>Steam and air conditioning supply</i>
					35B	35.2	Manufacture of gas; distribution of gaseous fuels through mains
		E	EE	36	36A	36.0	Water collection, treatment and supply
				37-39	37A	37.0	Sewerage
					38A		Waste collection; Waste treatment and disposal
						38.1	<i>Waste collection</i>
						+ 38.2	<i>Waste treatment and disposal</i>
					38B	38.3	Materials recovery
					39A	39.0	Remediation activities and other waste management services
	3	F	FF	41-43	41A		Construction of buildings
						41.1	<i>Development of building projects</i>
						+ 41.2	<i>Construction of residential and non-residential buildings</i>
					42A		Civil engineering
						42.1	<i>Construction of roads and railways</i>
						+ 42.2	<i>Construction of utility projects</i>
						+ 42.9	<i>Construction of other civil engineering projects</i>
					43A	43.1	Demolition and site preparation
					43B	43.2	Electrical, plumbing and other construction installation activities
					43C	43.3	Building completion and finishing
					43D	43.9	Other specialised construction activities

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
3	4	G	GG	45	45A		Wholesale and retail trade and repair of motor vehicles and motorcycles
						45.1	<i>Sale of motor vehicles</i>
						+ 45.2	<i>Maintenance and repair of motor vehicles</i>
						+ 45.3	<i>Sale of motor vehicle parts and accessories</i>
						+ 45.4	<i>Sale, maintenance and repair of motorcycles and related parts and accessories</i>
				46	46A		Wholesale trade, except of motor vehicles and motorcycles and of solid, liquid and gaseous fuels and related products
						46.1	<i>Wholesale on a fee or contract basis</i>
						+ 46.2	<i>Wholesale of agricultural raw materials and live animals</i>
						+ 46.3	<i>Wholesale of food, beverages and tobacco</i>
						+ 46.4	<i>Wholesale of household goods</i>
+ 46.5	<i>Wholesale of information and communication equipment</i>						
		+ 46.6	<i>Wholesale of other machinery, equipment and supplies</i>				
		+ 46.7 excl. 46.71	<i>Other specialised wholesale</i>				
		+ 46.9	<i>Non-specialised wholesale trade</i>				
	46B	46.71	Wholesale of solid, liquid and gaseous fuels and related products				
47	47A		Retail trade, except of motor vehicles and motorcycles and of automotive fuel in specialised stores				
		47.1	<i>Retail sale in non-specialised stores</i>				
		+ 47.2	<i>Retail sale of food, beverages and tobacco in specialised stores</i>				
		+ 47.4	<i>Retail sale of information and communication equipment in specialised stores</i>				
		+ 47.5	<i>Retail sale of other household equipment in specialised stores</i>				
		+ 47.6	<i>Retail sale of cultural and recreation goods in specialised stores</i>				
		+ 47.7	<i>Retail sale of other goods in specialised stores</i>				

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						+ 47.8	<i>Retail sale via stalls and markets</i>
						+ 47.9	<i>Retail trade not in stores, stalls or markets</i>
					47B	47.3	Retail sale of automotive fuel in specialised stores
		H	HH	49	49A	49.1	Rail transport <i>Passenger rail transport, interurban</i>
						+ 49.2	<i>Freight rail transport</i>
					49B	49.3	Other passenger land transport
					49C	49.4	Freight transport by road and removal services; Transport via pipeline <i>Freight transport by road and removal services</i>
						+ 49.5	<i>Transport via pipeline</i>
				50	50A	50.1	Sea and coastal water transport <i>Sea and coastal passenger water transport</i>
						+ 50.2	<i>Sea and coastal freight water transport</i>
					50B	50.3	Inland water transport <i>Inland passenger water transport</i>
						+ 50.4	<i>Inland freight water transport</i>
				51	51A	51.1	Air transport <i>Passenger air transport</i>
						+ 51.2	<i>Freight air transport and space transport</i>
				52	52A	52.1	Warehousing and support activities for transportation <i>Warehousing and storage</i>
						+ 52.2	<i>Support activities for transportation</i>
				53	53A	53.1	Postal and courier activities <i>Postal activities under universal service obligation</i>

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						+ 53.2	<i>Other postal and courier activities</i>
		I	II	55-56	55A	55.1 + 55.2 + 55.3 + 55.9	Accommodation <i>Hotels and similar accommodation</i> <i>Holiday and other short-stay accommodation</i> <i>Camping grounds, recreational vehicle parks and trailer parks</i> <i>Other accommodation</i>
					56A	56.1 + 56.2 + 56.3	Food and beverage service activities <i>Restaurants and mobile food service activities</i> <i>Event catering and other food service activities</i> <i>Beverage serving activities</i>
	5	J	JA	58	58A	58.1 + 58.2	Publishing activities <i>Publishing of books, periodicals and other publishing activities</i> <i>Software publishing</i>
				59-60	59A	59.1 + 59.2	Motion picture, video and television programme production, sound recording and music publishing activities <i>Motion picture, video and television programme activities</i> <i>Sound recording and music publishing activities</i>
					60A	60.1 + 60.2	Programming and broadcasting activities <i>Radio broadcasting</i> <i>Television programming and broadcasting activities</i>
			JB	61	61A	61.1 + 61.2 + 61.3	Telecommunications <i>Wired telecommunications activities</i> <i>Wireless telecommunications activities</i> <i>Satellite telecommunications activities</i>

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						+ 61.9	<i>Other telecommunications activities</i>
			JC	62-63	62A	62.0	Computer programming, consultancy and related activities
					63A	63.1	Information service activities
						+ 63.9	<i>Data processing, hosting and related activities; web portals</i> <i>Other information service activities</i>
6	K	KK	64	64A	64.1		Monetary intermediation
				64B	64.2		Activities of holding companies
				64C	64.3		Trusts, funds and similar financial entities
				64D	64.9		Other financial service activities, except insurance and pension funding
			65	65A	65.1		Insurance, reinsurance and pension funding, except compulsory social security
					+ 65.2		<i>Insurance</i>
					+ 65.3		<i>Reinsurance</i>
							<i>Pension funding</i>
			66	66A	66.1		Activities auxiliary to financial services, except insurance and pension funding
				66B	66.2		Activities auxiliary to insurance and pension funding
				66C	66.3		Fund management activities
7	L	LL	68	68A	68.1		Buying and selling of own real estate; Real estate activities on a fee or contract basis
					+ 68.3		<i>Buying and selling of own real estate</i>
							<i>Real estate activities on a fee or contract basis</i>
				68B	68.2		Renting and operating of own or leased real estate
8	M	MA	69-70	69A	69.1		Legal and accounting activities
					+ 69.2		<i>Legal activities</i>
							<i>Accounting, bookkeeping and auditing activities; tax consultancy</i>
				70A			Activities of head offices; management consultancy activities

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						70.1	<i>Activities of head offices</i>
						+ 70.2	<i>Management consultancy activities</i>
				71	71A	71.1	Architectural and engineering activities; technical testing and analysis <i>Architectural and engineering activities and related technical consultancy</i>
						+ 71.2	<i>Technical testing and analysis</i>
			MB	72	72A	72.1	Scientific research and development <i>Research and experimental development on natural sciences and engineering</i>
						+ 72.2	<i>Research and experimental development on social sciences and humanities</i>
			MC	73	73A	73.1	Advertising and market research <i>Advertising</i>
						+ 73.2	<i>Market research and public opinion polling</i>
				74-75	74A	74.1	Other professional, scientific and technical activities <i>Specialised design activities</i>
						+ 74.2	<i>Photographic activities</i>
						+ 74.3	<i>Translation and interpretation activities</i>
						+ 74.9	<i>Other professional, scientific and technical activities n.e.c.</i>
					75A	75.0	Veterinary activities
		N	NN	77	77A	77.1	Renting and leasing of motor vehicles
					77B	77.2	Renting and leasing of personal and household goods
					77C	77.3	Renting and leasing of other machinery, equipment and tangible goods; Leasing of intellectual property and similar products, except copyrighted works <i>Renting and leasing of other machinery, equipment and tangible goods</i>
						+ 77.4	<i>Leasing of intellectual property and similar products, except copyrighted works</i>
				78	78A		Employment activities

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry	
						78.1 + 78.2 + 78.3	<i>Activities of employment placement agencies</i> <i>Temporary employment agency activities</i> <i>Other human resources provision</i>	
				79	79A	79.1 + 79.9	Travel agency, tour operator reservation service and related activities <i>Travel agency and tour operator activities</i> <i>Other reservation service and related activities</i>	
				80-82	80A	80.1 + 80.2 + 80.3	Security and investigation activities <i>Private security activities</i> <i>Security systems service activities</i> <i>Investigation activities</i>	
			81A			81.1 + 81.3	Combined facilities support activities; Landscape service activities <i>Combined facilities support activities</i> <i>Landscape service activities</i>	
						81B	81.2	Cleaning activities
			82A		82.1 + 82.2 + 82.3 + 82.9	Office administrative, office support and other business support activities <i>Office administrative and support activities</i> <i>Activities of call centres</i> <i>Organisation of conventions and trade shows</i> <i>Business support service activities n.e.c.</i>		
9	O	OO			84	84A	84 excl. 84.22, 84.3	Public administration excl. defence and compulsory social security
							84B	84.22	Defence activities
			84C	84.3		Compulsory social security activities		
	P	PP	85	85A		Education		

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry	
						85.1 + 85.2 + 85.3 + 85.4 + 85.5 + 85.6	<i>Pre-primary education</i> <i>Primary education</i> <i>Secondary education</i> <i>Higher education</i> <i>Other education</i> <i>Educational support activities</i>	
		Q	QA	86	86A	86.1	Hospital activities	
						86B	86.21 + 86.22	Medical practice activities <i>General medical practice activities</i> <i>Specialist medical practice activities</i>
						86C	86.23	Dental practice activities
						86D	86.9	Other human health activities
		QB	87-88	87A	87.1 + 87.2 + 87.3 + 87.9	Residential care activities <i>Residential nursing care activities</i> <i>Residential care activities for mental retardation, mental health and substance abuse</i> <i>Residential care activities for the elderly and disabled</i> <i>Other residential care activities</i>		
				88A	88.1 + 88.9	Social work activities without accommodation <i>Social work activities without accommodation for the elderly and disabled</i> <i>Other social work activities without accommodation</i>		
	10	R	RR	90-92	90A	90.01 + 90.02 + 90.03	Creative, arts and entertainment activities <i>Performing arts</i> <i>Support activities to performing arts</i> <i>Artistic creation</i>	

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						+ 90.04	<i>Operation of arts facilities</i>
					91A		Libraries, archives, museums and other cultural activities
						91.01	<i>Library and archives activities</i>
						+ 91.02	<i>Museums activities</i>
						+ 91.03	<i>Operation of historical sites and buildings and similar visitor attractions</i>
						+ 91.04	<i>Botanical and zoological gardens and nature reserves activities</i>
					92A	92.0	Gambling and betting activities
				93	93A		Sports activities and amusement and recreation activities
						93.1	<i>Sports activities</i>
						+ 93.2	<i>Amusement and recreation activities</i>
		S	SS	94	94A		Activities of membership organisations
						94.1	<i>Activities of business, employers and professional membership organisations</i>
						+ 94.2	<i>Activities of trade unions</i>
						+ 94.9	<i>Activities of other membership organisations</i>
				95	95A		Repair of computers and personal and household goods
						95.1	<i>Repair of computers and communication equipment</i>
						+ 95.2	<i>Repair of personal and household goods</i>
				96	96A		Other personal service activities
						96.01	<i>Washing and (dry-)cleaning of textile and fur products</i>
						+ 96.02	<i>Hairdressing and other beauty treatment</i>
						+ 96.03	<i>Funeral and related activities</i>
						+ 96.04	<i>Physical well-being activities</i>
						+ 96.09	<i>Other personal service activities n.e.c.</i>
		T	TT	97-98	97A	97.0	Activities of households as employers of domestic personnel

A3	A10	A21	A38	A64	SUT	NACE-BEL	Name of industry
						98	Undifferentiated goods- and services-producing activities of private households for own use
		U	UU	99		99	Activities of extraterritorial organisations and bodies

9.5.2 PRODUCT CLASSIFICATION (SUT)

SUT product	CPA 2008										Name of SUT product
01A01	01.11.00	01.12.00	01.14.00	01.15.00	01.16.00						Cereals (except rice), leguminous crops and oil seeds; Rice, not husked; Sugar cane; Unmanufactured tobacco; Fibre crops
01A02	01.13.00	01.19.00	01.30.00								Vegetables and melons, roots and tubers; Other non-perennial crops; plantmaterial: Planting material: live plants, bulbs, tubers and roots, cuttings and slips; mushroom spawn
01A03	01.20.00										Perennial crops
01A04	01.41.10	01.42.00									Dairy cattle, live; Other cattle and buffaloes, live and their semen
01A05	01.41.20										Raw milk from dairy cattle
01A06	01.46.00										Swine, live
01A07	01.47.10										Poultry, live
01A08	01.47.20										Eggs, in shell, fresh
01A09	01.43.00	01.44.00	01.45.00	01.49.00							Horses and other equines, live; Camels and camelids, live; Sheep and goats, live; raw milk and shorn wool from sheep and goats; Other farmed animals and animal products
01A10	01.60.00	01.70.00									Agricultural and animal husbandry services (except veterinary services);

SUT product	CPA 2008									Name of SUT product
										Hunting and trapping and related services
02A01	02.00.00									Products of forestry, logging and related services
03A01	03.00.00									Fish and other fishing products; aquaculture products; support services to fishing
05A01	05.00.00									Coal and lignite
06A01	06.00.00									Crude petroleum and natural gas
07A01	07.00.00									Metal ores
08A01	08.11.00									Ornamental and building stone, limestone, gypsum, chalk and slate
08A02	08.12.00									Gravel, sand, clays and kaolin
08A03	08.90.00									Mining and quarrying products n.e.c.
09A01	09.00.00									Mining support services
10A01	10.11.11	10.11.31								Meat of bovine animals, fresh or chilled; Meat of bovine animals, frozen
10A02	10.11.12	10.11.32								Meat of swine, fresh or chilled; Meat of swine, frozen
10A03	10.11.13	10.11.14	10.11.15	10.11.20	10.11.33	10.11.34	10.11.35	10.11.39		Other meat, fresh or chilled (except poultry, rabbit or game)
10A04	10.11.40	10.11.50	10.11.60	10.11.90						Pulled wool and raw hides and skins of bovine or equine animals, sheep and goats; Fats of bovine animals, sheep, goats or pigs; Raw offal, inedible; Sub-contracted operations as part of manufacturing of processed and preserved meat
10A05	10.12.00									Processed and preserved poultry meat
10A06	10.13.00									Meat and poultry meat products

SUT product	CPA 2008										Name of SUT product
10B01	10.20.00										Processed and preserved fish, crustaceans and molluscs
10C01	10.31.00										Processed and preserved potatoes
10C02	10.32.00										Fruit and vegetable juices
10C03	10.39.00										Other processed and preserved fruit and vegetables
10D01	10.41.00										Oils and fats
10D02	10.42.00										Margarine and similar edible fats
10E01	10.51.30										Butter and dairy spreads
10E02	10.51.40	10.51.50	10.51.90								Cheese and curd; Other dairy products; Sub-contracted operations as part of manufacturing of dairy and cheese products
10E03	10.51.10	10.51.20									Processed liquid milk and cream; Milk in solid forms
10E04	10.52.00										Ice cream
10F01	10.61.00										Grain mill products
10F02	10.62.00										Starches and starch products
10G01	10.71.00										Bread; fresh pastry goods and cakes
10G02	10.72.00										Rusks and biscuits; preserved pastry goods and cakes
10G03	10.73.00										Macaroni, noodles, couscous and similar farinaceous products
10H01	10.81.00										Sugar

SUT product	CPA 2008										Name of SUT product
10H02	10.82.10	10.82.30	10.82.90								Cocoa paste, whether or not defatted, cocoa butter, fat and oil, cocoa powder; Cocoa shells, husks, skins and other cocoa waste; Sub-contracted operations as part of manufacturing of cocoa, chocolate and sugar confectionery
10H03	10.82.21	10.82.22									Chocolate and food preparations containing cocoa (except sweetened cocoa powder), in bulk forms
10H04	10.82.23	10.82.24									Sugar confectionery, not containing cocoa; Fruit, nuts, and other, preserved by sugar
10I01	10.83.00										Processed tea and coffee
10I02	10.84.00										Condiments and seasonings
10I03	10.85.00										Prepared meals and dishes
10I04	10.86.00	10.89.00									Homogenised food preparations and dietetic food; Other food products n.e.c.
10J01	10.91.00										Prepared feeds for farm animals
10J02	10.92.00										Prepared pet foods
11A01	11.01.00										Distilled alcoholic beverages
11A02	11.05.00										Beer
11A03	11.06.00										Malt
11A04	11.02.00	11.03.00	11.04.00								Wine from grape; Cider and other fruit wines; Other non-distilled fermented beverages
11B01	11.07.00										Soft drinks; mineral waters and other bottled waters
12A01	12.00.00										Tobacco products

SUT product	CPA 2008										Name of SUT product
12A02	12.00.00?								x	n.s.	Drugs
13A01	13.10.00										Textile yarn and thread
13A02	13.20.00										Woven textiles
13A03	13.30.00										Textile finishing services
13B01	13.91.00										Knitted and crocheted fabrics
13B02	13.92.00										Made-up textile articles, except apparel
13B03	13.93.00										Carpets and rugs
13B04	13.94.00	13.95.00	13.96.00	13.99.00							Other textiles n.e.c.
14A01	14.11.00	14.20.00									Leather clothes; Articles of fur
14A02	14.12.00										Workwear
14A03	14.13.00	14.14.00	14.19.00								Other outerwear; Underwear; Other wearing apparel and accessories
14A04	14.30.00										Knitted and crocheted apparel
15A01	15.11.00										Tanned and dressed leather; dressed and dyed fur
15A02	15.12.00										Luggage, handbags and the like, saddlery and harness
15A03	15.20.00										Footwear
16A01	16.10.00										Wood, sawn and planed
16A02	16.21.00										Veneer sheets and wood-based panels

SUT product	CPA 2008										Name of SUT product
16A03	16.22.00	16.23.00								Assembled parquet floors; Other builders' carpentry and joinery	
16A04	16.24.00									Wooden containers	
16A05	16.29.00									Other products of wood; articles of cork, straw and plaiting materials	
17A01	17.11.00									Pulp	
17A02	17.12.00									Paper and paperboard	
17A03	17.21.00									Corrugated paper and paperboard and containers of paper and paperboard	
17A04	17.22.00									Household and sanitary goods and toilet requisites	
17A05	17.23.00									Paper stationery	
17A06	17.24.00	17.29.00								Wallpaper; Other articles of paper and paperboard	
18A01	18.11.00									Newspaper printing services	
18A02	18.12.00									Other printing services	
18A03	18.13.00									Pre-press and pre-media services	
18A04	18.14.00									Binding and related services	
18A05	18.20.00									Reproduction services of recorded media	
19A01	19.10.00	19.20.10								Coke oven products, Briquettes, ovoids and similar solid fuels	
19A02	19.20.21	19.20.22								Motor spirit (gasoline), including aviation spirit, Spirit type (gasoline type) jet fuel	

SUT product	CPA 2008										Name of SUT product
19A03	19.20.23										Light petroleum oils, light preparations n.e.c.
19A04	19.20.24	19.20.25									Kerosene; Kerosene-type jet fuel
19A05	19.20.26										Gas oils
19A06	19.20.27	19.20.28	19.20.29								Medium petroleum oils; medium preparations n.e.c.; Fuel oils n.e.c.; Lubricating petroleum oils; heavy preparations n.e.c.
19A07	19.20.30										Petroleum gases and other gaseous hydrocarbons, except natural gas
19A08	19.20.40	19.20.90									Other petroleum products; Sub-contracted operations as part of manufacturing of refined petroleum products
20A01	20.11.00										Industrial gases
20A02	20.12.00										Dyes and pigments
20A03	20.14.00	20.15.00									Other organic basic chemicals; Fertilisers and nitrogen compounds
20A04	20.16.00	20.17.00									Plastics in primary forms; Synthetic rubber in primary forms
20B01	20.13.00										Other inorganic basic chemicals
20C01	20.20.00										Pesticides and other agrochemical products
20D01	20.30.00										Paints, varnishes and similar coatings, printing ink and mastics
20E01	20.41.00										Soap and detergents, cleaning and polishing preparations
20E02	20.42.00										Perfumes and toilet preparations
20F01	20.51.00										Explosives

SUT product	CPA 2008										Name of SUT product
20F02	20.52.00										Glues
20F03	20.53.00										Essential oils
20F04	20.59.10										Photochemical preparations for photographic uses
20F05	20.59.20	20.59.30	20.59.40	20.59.50	20.59.60	20.59.90					Other chemical products n.e.c.
20G01	20.60.00										Man-made fibres
21A01	21.10.00										Basic pharmaceutical products
21A02	21.20.10										Medicaments
21A03	21.20.20	21.20.90									Other pharmaceutical preparations; Sub-contracted operations as part of manufacturing of pharmaceutical preparations
22A01	22.11.00										Rubber tyres and tubes; retreading and rebuilding of rubber tyres
22A02	22.19.00										Other rubber products
22B01	22.21.00										Plastic plates, sheets, tubes and profiles
22B02	22.22.00										Plastic packing goods
22B03	22.23.00										Builders' ware of plastic
22B04	22.29.00										Other plastic products
23A01	23.11.00	23.12.00									Flat glass; Shaped and processed flat glass
23A02	23.13.11	23.13.92									Bottles, jars, phials and other containers, of glass, except ampoules; stoppers, lids and other closures, of glass; Finishing services of glass containers

SUT product	CPA 2008										Name of SUT product
23A03	23.13.12	23.13.13	23.13.14	23.13.91	23.13.99						Other hollow glass, finishing services of drinking glasses and other glassware of a kind used for table or kitchen purpose
23A04	23.14.00										Glass fibres
23A05	23.19.00										Other processed glass, including technical glassware
23B01	23.20.00	23.40.00									Refractory products; Other porcelain and ceramic products
23B02	23.31.00										Ceramic tiles and flags
23B03	23.32.00										Bricks, tiles and construction products, in baked clay
23C01	23.51.00										Cement
23C02	23.52.00										Lime and plaster
23D01	23.61.00	23.62.00									Concrete products for construction purposes; Plaster products for construction purposes
23D02	23.63.00	23.64.00									Ready-mixed concrete; Mortars
23D03	23.65.00	23.69.00									Fibre cement; Other articles of concrete, plaster and cement
23D04	23.70.00										Cut, shaped and finished stone
23D05	23.90.00										Other non-metallic mineral products
24A01	24.10.10	24.10.90									Primary materials of iron and steel; Sub-contracted operations as part of manufacturing of basic iron and steel and of ferroalloys
24A02	24.10.20										Crude steel

SUT product	CPA 2008										Name of SUT product	
24A03	24.10.30	24.10.40	24.10.50	24.10.60	24.10.70							Flat rolled products of steel, clad, plated or coated and flat rolled products of high speed steel and of silicon-electrical steel, bars and rods of steel, and railway or tramway track material, of steel
24A04	24.20.00											Tubes, pipes, hollow profiles and related fittings, of steel
24B01	24.31.00	24.32.00	24.33.00									Cold drawn bars; Cold rolled narrow strip; Cold formed or folded products
24B02	24.34.00											Cold drawn wire
24B03	24.41.00											Precious metals
24B04	24.42.00	24.43.00	24.44.00	24.45.00								Aluminium, Lead, zinc and tin; Copper; Other non-ferrous metal
24B05	24.46.00											Processed nuclear fuel
24B06	24.51.00	24.52.00										Casting services of iron and steel
24B07	24.53.00	24.54.00										Casting services of light metals and other non-ferrous metals
25A01	25.11.00	25.12.00										Metal structures and parts of structures; Doors and windows of metal
25A02	25.21.00											Central heating radiators and boilers
25A03	25.29.00											Other tanks, reservoirs and containers of metal
25A04	25.30.00											Steam generators, except central heating hot water boilers
25A05	25.40.00											Weapons and ammunition
25A06	25.50.00											Forging, pressing, stamping and roll-forming services of metal; powder metallurgy
25B01	25.60.00											Treatment and coating services of metals; machining

SUT product	CPA 2008										Name of SUT product
25C01	25.70.00										Cutlery, tools and general hardware
25C02	25.91.00	25.92.00									Steel drums and similar containers; Light metal packaging
25C03	25.93.00	25.94.00	25.99.00								Wire products, chain and springs; Fasteners and screw machine products; Other fabricated metal products n.e.c.
26A01	26.10.00										Electronic components and boards
26A02	26.20.00										Computers and peripheral equipment
26B01	26.30.00										Communication equipment
26B02	26.40.00										Consumer electronics
26C01	26.50.00										Measuring, testing and navigating equipment; watches and clocks
26C02	26.60.00										Irradiation, electromedical and electrotherapeutic equipment
26C03	26.70.00										Optical instruments and photographic equipment
26C04	26.80.00										Magnetic and optical media
27A01	27.10.00										Electric motors, generators, transformers and electricity distribution and control apparatus
27A02	27.20.00										Batteries and accumulators
27A03	27.30.00										Wiring and wiring devices
27A04	27.40.00										Electric lighting equipment
27B01	27.50.00										Domestic appliances

SUT product	CPA 2008										Name of SUT product
27B02	27.90.00										Other electrical equipment
28A01	28.11.00	28.15.00									Engines and turbines, except aircraft, vehicle and cycle engines; Bearings, gears, gearing and driving elements
28A02	28.12.00	28.13.00	28.14.00								Fluid power equipment; Other pumps and compressors; Other taps and valves
28A03	28.21.00	28.29.00									Ovens, furnaces and furnace burners; Other general-purpose machinery n.e.c.
28A04	28.22.00										Lifting and handling equipment
28A05	28.25.00										Non-domestic cooling and ventilation equipment
28A06	28.23.00										Office machinery and equipment (except computers and peripheral equipment)
28A07	28.24.00										Power-driven hand tools
28B01	28.30.00										Agricultural and forestry machinery
28B02	28.40.00										Metal forming machinery and machine tools
28B03	28.91.00										Machinery for metallurgy
28B04	28.92.00										Machinery for mining, quarrying and construction
28B05	28.93.00										Machinery for food, beverage and tobacco processing
28B06	28.94.00										Machinery for textile, apparel and leather production
28B07	28.95.00	28.99.00									Machinery for paper and paperboard production; Other special-purpose machinery n.e.c.

SUT product	CPA 2008										Name of SUT product
28B08	28.96.00										Plastics and rubber machinery
29A01	29.10.10										Internal combustion engines of a kind used for motor vehicles
29A02	29.10.20										Passenger cars
29A03	29.10.30										Motor vehicles for the transport of 10 or more persons
29A04	29.10.40	29.10.50	29.10.90								Motor vehicles for the transport of goods; Special-purpose motor vehicles; Sub-contracted operations as part of manufacturing of motor vehicles
29B01	29.20.00										Bodies (coachwork) for motor vehicles; trailers and semi-trailers
29B02	29.30.00										Parts and accessories for motor vehicles
30A01	30.10.00										Ships and boats
30B01	30.20.00										Railway locomotives and rolling stock
30C01	30.30.00										Air and spacecraft and related machinery
30D01	30.40.00										Military fighting vehicles
30D02	30.90.00										Transport equipment n.e.c.
31A01	31.00.00	31.01.00	31.02.00	31.09.00							Seats and parts thereof; parts of furniture; Office and shop furniture; Kitchen furniture; Other furniture
31A02	31.03.00										Mattresses
32A01	32.12.12										Industrial diamonds, worked

SUT product	CPA 2008									Name of SUT product
32A02	32.11.00	32.12.11	32.12.13	32.12.14	32.12.90	32.13.00				Coins; Cultured pearls, precious or semi-precious stones, including synthetic or reconstructed, worked but not set; Articles of jewellery and parts thereof; articles of goldsmiths' or silversmiths' wares and parts thereof; Other articles of precious metal; articles of natural or cultured pearls, precious or semi-precious stones; Sub-contracted operations as part of manufacturing of jewellery and related articles; Imitation jewellery and related articles
32B01	32.20.00									Musical instruments
32B02	32.30.00									Sports goods
32B03	32.40.00	32.90.00								Games and toys; Manufactured goods n.e.c.
32B04	32.50.00									Medical and dental instruments and supplies
33A01	33.11.00									Repair services of fabricated metal products
33A02	33.12.00									Repair services of machinery
33A03	33.13.00									Repair services of electronic and optical equipment
33A04	33.14.00									Repair services of electrical equipment
33A05	33.15.00									Repair and maintenance services of ships and boats
33A06	33.16.00									Repair and maintenance services of aircraft and spacecraft
33A07	33.17.00									Repair and maintenance services of other transport equipment
33A08	33.19.00									Repair services of other equipment
33A09	33.20.00									Installation services of industrial machinery and equipment
35A01	35.10.00									Electricity, transmission and distribution services

SUT product	CPA 2008										Name of SUT product
35A02	35.30.00										Steam and air conditioning supply services
35B01	35.20.00										Manufactured gas; distribution services of gaseous fuels through mains
36A01	36.00.00										Natural water; water treatment and supply services
37A01	37.00.00									p	Sewerage services; sewage sludge; market
37A91	37.00.00									x p	<i>Sewerage services; sewage sludge; non-market</i>
38A01	38.11.10	38.11.20	38.11.60	38.12.10	38.12.30	38.21.10	38.21.20	38.22.00			Waste; waste collection services
38A02	38.11.30	38.11.40	38.11.50	38.12.20	38.21.30	38.21.40					Waste (products)
38B01	38.30.00										Materials recovery services; secondary raw materials
39A01	39.00.00										Remediation services and other waste management services
41A01	41.00.10	41.00.30									Residential buildings; Construction works for residential buildings (new works, additions, alterations and renovation works)
41A02	41.00.20	41.00.40									Non-residential buildings; Construction works for non-residential buildings (new works, additions, alterations and renovation works)
42A01	42.11.00	42.12.00									Roads and railways; construction works for roads and railways
42A02	42.13.00										Bridges and tunnels; construction works for bridges and tunnels
42A03	42.21.00	42.22.00	42.99.00								Constructions and construction works for utility projects for fluids; Constructions and construction works for utility projects for electricity and telecommunications; Constructions and construction works for other civil engineering projects n.e.c.
42A04	42.91.00										Constructions and construction works for water projects
43A01	43.10.00										Demolition and site preparation works

SUT product	CPA 2008										Name of SUT product
43B01	43.21.00										Electrical installation works
43B02	43.22.00										Plumbing, heat and air-conditioning installation works
43B03	43.29.00										Other construction installation works
43C01	43.31.00										Plastering works
43C02	43.32.00										Joinery installation works
43C03	43.33.00										Floor and wall covering works
43C04	43.34.10										Painting works
43C05	43.34.20										Glazing works
43C06	43.39.00										Other building completion and finishing works
43D01	43.91.00	43.99.10									Roofing works; Waterproofing works
43D02	43.99.20	43.99.30	43.99.40	43.99.50	43.99.60	43.99.70	43.99.90				Other specialised construction works n.e.c.
45A01	45.20.00	45.40.50									Maintenance and repair services of motor vehicles and motorcycles
46A01	46.10.00	45.11.40	45.19.40	45.31.20	45.40.40						Wholesale trade services on a fee or contract basis (Motor vehicles, motorcycles, motor vehicles and motorcycles parts and accessoires)
X											
49A01	49.10.00										Passenger rail transport services, interurban
49A02	49.20.00										Freight rail transport services
49B01	49.31.00								p		Urban and suburban passenger land transport services, market

SUT product	CPA 2008								Name of SUT product	
49B91	49.31.00								x p	<i>Urban and suburban passenger land transport services, non-market</i>
49B02	49.32.00									Taxi operation services
49B03	49.39.00									Other passenger land transport services n.e.c.
49C01	49.41.10	49.42.00	-	-	-	-	-	-		Freight transport services by road and Removal services
49C02	49.41.20									Rental services of trucks with operator
49C03	49.50.00									Transport services via pipeline
50A01	50.10.00									Sea and coastal passenger water transport services
50A02	50.20.00									Sea and coastal freight water transport services
50B01	50.30.00									Inland passenger water transport services
50B02	50.40.00									Inland freight water transport services
51A01	51.10.00									Passenger air transport services
51A02	51.20.00									Freight air transport and space transport services
52A01	52.10.00									Warehousing and storage services
52A02	52.21.00								p	Services incidental to land transportation, market
52A92	52.21.00								x p	<i>Services incidental to land transportation, non-market</i>
52A03	52.22.00								p	Services incidental to water transportation, market
52A93	52.22.00								x p	<i>Services incidental to water transportation, non-market</i>

SUT product	CPA 2008										Name of SUT product
52A04	52.23.00										Services incidental to air transportation
52A05	52.24.00										Cargo handling services
52A06	52.29.00										Other transportation support services
53A01	53.10.00										Postal services under universal service obligation
53A02	53.20.00										Other postal and courier services
55A01	55.10.00										Hotel and similar accommodation services
55A02	55.20.00	55.30.00	55.90.00								Camping ground and other short stay accommodation services
56A01	56.10.00										Restaurant and mobile food serving services
56A02	56.20.00										Event catering services and other food serving services
56A03	56.30.00										Beverage serving services
58A01	58.11.00	58.12.00									Book publishing services; Publishing directories and mailing lists
58A02	58.13.00	58.14.00									Publishing services of newspapers; Publishing services of journals and periodicals
58A03	58.19.00										Other publishing services
58A04	58.20.00										Software publishing services
59A01	59.10.00										Motion picture, video and television programme services
59A02	59.20.00										Sound recording and music publishing services
60A01	60.00.00								p		Programming and broadcasting services; market

SUT product	CPA 2008										Name of SUT product
60A91	60.00.00								x	p	<i>Programming and broadcasting services; non-market</i>
61A01	61.00.00										Telecommunications services
62A01	62.00.00										Computer programming, consultancy and related services
63A01	63.00.00										Information services
64A01	64.11.00	64.19.00									Central banking services; Other monetary intermediation services
64A02	64.20.00	64.30.00	64.90.00								Services of holding companies; Services of trusts, funds and similar financial entities; Other financial services, except insurance and pension funding
64A03	64.00.00								x	p	FISIM
65A01	65.11.00										Life insurance services
65A02	65.12.00										Non-life insurance services
65A03	65.20.00										Reinsurance services
65A04	65.30.00										Pension funding services
66A01	66.10.00	66.30.00									Services auxiliary to financial services, except insurance and pension funding; Fund management services
66A02	66.20.00										Services auxiliary to insurance and pension funding
68A01	68.10.00										Buying and selling services of own real estate
68A02	68.30.00										Real estate services on a fee or contract basis
68B01	68.20.11								x	p	Rental and operating services of own or leased residential real estate, owners

SUT product	CPA 2008										Name of SUT product
68B02	68.20.11								p	Rental and operating services of own or leased residential real estate, renters	
68B03	68.20.12									Rental and operating services of own or leased non-residential real estate	
69A01	69.10.00									Legal services	
69A02	69.20.00									Accounting, bookkeeping and auditing services; tax consulting services	
70A01	70.00.00									Services of head offices; management consulting services	
71A01	71.00.00									Architectural and engineering services; technical testing and analysis services	
72A01	72.00.00							p		Scientific research and development services; market	
72A91	72.00.00							x	p	<i>Scientific research and development services; non-market</i>	
73A01	73.10.00									Advertising services	
73A02	73.20.00									Market research and public opinion polling services	
74A01	74.20.00									Photographic services	
74A02	74.10.00	74.30.00	74.90.00							Specialised design services; Translation and interpretation services; Other professional, scientific and technical services n.e.c.	
75A01	75.00.00									Veterinary services	
77A01	77.10.00									Rental and leasing services of motor vehicles	
77B01	77.20.00									Rental and leasing services of personal and household goods	
77C01	77.30.00									Rental and leasing services of other machinery, equipment and tangible	

SUT product	CPA 2008										Name of SUT product
											goods
77C02	77.40.00										Licensing services for the right to use intellectual property and similar products, except copyrighted works
78A01	78.00.00										Employment services
79A01	79.00.00										Travel agency, tour operator and other reservation services and related services
80A01	80.00.00										Security and investigation services
81A01	81.10.00	81.30.00									Combined facilities support services; Landscape services
81B01	81.20.00										Cleaning services
82A01	82.00.00										Office administrative, office support and other business support services
84A91	84.10.00	84.21.00	84.23.00	84.24.00	84.25.00						<i>Administration services, except Defence services and Compulsory social security services</i>
84B91	84.22.00										<i>Defence services</i>
84C91	84.30.00										<i>Compulsory social security services</i>
85A01	85.53.00										Driving school services, Flying and sailing school services
85A02	85.51.00	85.52.00	85.59.00	85.60.00						p	Sports and recreation education services; Cultural education services; Other education services n.e.c.; Educational support services; market
85A92	85.52.00	85.59.00	85.60.00						x	p	<i>Sports and recreation education services; Cultural education services; Other education services n.e.c.; Educational support services; non-market</i>
85A03	85.10.00	85.20.00	85.30.00	85.40.00						p	Pre-primary, primary, secondary, higher education services; market

SUT product	CPA 2008										Name of SUT product
85A93	85.10.00	85.20.00	85.30.00	85.40.00					x	p	<i>Pre-primary, primary, secondary, higher education services; non-market</i>
86A01	86.10.11	86.10.12	86.10.15								Hospital surgical services (except rehabilitation, psychiatry and geriatrics)
86A02	86.10.13	86.10.14	86.10.19								Hospital rehabilitation services; Hospital psychiatric services; Other hospital services
86B01	86.21.00	86.22.00									General medical and specialist medical practice services
86C01	86.23.00										Dental practice services
86D01	86.90.15	86.90.16	86.90.17								Medical laboratory, blood, sperm and transplant organ bank services; Diagnostic imaging services
86D02	86.90.11	86.90.12	86.90.13	86.90.14	86.90.18	86.90.19					Nursing and physiotherapeutic services and other human health services n.e.c.
87A01	87.10.00	87.30.11									Residential nursing care and welfare services delivered through residential institutions to elderly persons
87A02	87.20.00	87.30.12	87.30.13	87.90.00						p	Residential care services (except residential nursing care and welfare services delivered through residential institutions); market
87A92	87.20.00	87.30.12	87.30.13	87.90.00					x	p	<i>Residential care services (except residential nursing care and welfare services delivered through residential institutions); non-market</i>
88A01	88.91.00										Child day-care services
88A02	88.10.00	88.99.00								p	Social work services without accommodation (except child day-care services) , market
88A92	88.10.00	88.99.00							x	p	<i>Social work services without accommodation (except child day-care services) , non-market</i>

SUT product	CPA 2008										Name of SUT product		
90A01	90.00.00										p	Creative, arts and entertainment services; market	
<i>90A91</i>	<i>90.00.00</i>										x	p	<i>Creative, arts and entertainment services; non-market</i>
91A01	91.00.00											p	Library, archive, museum and other cultural services; market
<i>91A91</i>	<i>91.00.00</i>										x	p	<i>Library, archive, museum and other cultural services; non-market</i>
92A01	92.00.00												Gambling and betting services
93A01	93.00.00											p	Sporting services and amusement and recreation services, market
<i>93A91</i>	<i>93.00.00</i>										x	p	<i>Sporting services and amusement and recreation services, non-market</i>
94A01	94.10.00	94.90.00										p	Services furnished by business, employers and professional membership organisations; market
<i>94A91</i>	<i>94.20.00</i>	<i>94.90.00</i>									x	p	<i>Services furnished by trade unions and other membership organisations, non-market</i>
95A01	95.00.00												Repair services of computers and personal and household goods
96A01	96.01.00												Washing and (dry-)cleaning services of textile and fur products
96A02	96.02.00												Hairdressing and other beauty treatment services
96A03	96.03.00												Funeral and related services
96A04	96.04.00	96.09.00										p	Physical well-being services; Other personal services n.e.c.
96A05	96.09.00										x	p	Prostitution
97A01	97.00.00												Services of households as employers of domestic personnel
99MGR												n.s.	Wholesale margins
99MDR												n.s.	Retail trade margins
99MTR												n.s.	Transport margins

9.5.3 International TRADE IN SERVICES

Compensation of employees

Personal transfers

Workers' remittances

SERVICES

Manufacturing services on physical inputs owned by others

Maintenance and repair services not included elsewhere

Transport

Sea transport

Passenger transport on sea

Freight transport on sea

Other

Air transport

Passenger transport by air

Freight transport by air

Other

Other modes of transport

Passenger

Freight

Other

Extended classification of 'Other modes of transport'

Space transport

Rail transport

Passenger on rail

Freight on rail

Other

Road transport

Passenger on road

Freight on road

Other

Inland waterway transport

Passenger on inland waterway

Freight on inland waterway

Other

Pipeline transport

Electricity transmission

Other supporting and auxiliary transport services

Postal and courier services

Travel

Business travel

- Acquisition of goods and services by border, seasonal, and other short- term workers

- Other business travel

Personal travel

- Health-related expenditure

- Education-related expenditure

- Other personal travel

Construction

- Construction abroad

- Construction in the reporting economy

Insurance and pension services

Direct insurance

- Life insurance

- Freight insurance

- Other direct insurance

Reinsurance

Auxiliary insurance services

Pension and standardised guarantee services

- Pension services

- Standardised guarantee services

Financial services

Explicitly charged and other financial services

Financial intermediation service indirectly measured (FISIM)

Charges for the use of intellectual property n.i.e.**Telecommunications, computer, and information services**

Telecommunications services

Computer services

Information services

- News agency services

- Other information services

Other business services

Research and development services

- Work undertaken on a systematic basis to increase the stock of knowledge

- Provision of customised and non-customised R&D services

- Sale of proprietary rights arising from R&D

- Other

Professional and management consulting services

- Legal, accounting, management consulting and public relations

- Legal services

- Accounting, auditing, bookkeeping and tax consulting services

- Business and management consulting and public relations services

- Advertising, market research and public opinion polling

Technical, trade-related, and other business services

- Architectural, engineering, scientific and other technical services

- Architectural services

- Engineering services

- Scientific and other technical services

- Waste treatment and de-pollution, agricultural and mining services

Of which: Waste treatment and de-pollution
 Operating leasing services
 Trade-related services
 Other business services not included elsewhere

Personal, cultural and recreational services

Audiovisual and related services
 Other personal, cultural and recreational services
 Health services
 Education services
 Heritage and recreational services
 Other personal services

Government goods and services, n.i.e

Embassies and consulates
 Military units and agencies
 Other government goods and services

9.5.4 ESA 2010 CLASSIFICATIONS

9.5.4.1 Classification of institutional sectors (S)

Code	Description
S.1	Total economy
S.11	Non-financial corporations
S.11001	Public non-financial corporations
S.11002	National private non-financial corporations
S.11003	Foreign controlled non-financial corporations
S.12	Financial corporations
S.121	Central bank
S.122	Deposit-taking corporations except the central bank
S.12201	Public
S.12202	National private
S.12203	Foreign controlled
S.123	Money market funds
S.12301	Public
S.12302	National private
S.12303	Foreign controlled
S.124	Non-MMF investment funds
S.12401	Public
S.12402	National private
S.12403	Foreign controlled
S.125	Other financial intermediaries, except insurance corporations and pension funds
S.12501	Public
S.12502	National private
S.12503	Foreign controlled

S.126	Financial auxiliaries
S.12601	Public
S.12602	National private
S.12603	Foreign controlled
S.127	Captive financial institutions and money lenders
S.12701	Public
S.12702	National private
S.12703	Foreign controlled
S.128	Insurance corporations
S.12801	Public
S.12802	National private
S.12803	Foreign controlled
S.129	Pension funds
S.12901	Public
S.12902	National private
S.12903	Foreign controlled
S.13	General government
S.1311	Central government
S.1312	State government
S.1313	Local government
S.1314	Social security funds
S.14	Households
S.141	Employers
S.142	Own-account workers
S.143	Employees
S.144	Recipients of property and transfer income
S.1441	Recipients of property income
S.1442	Recipients of pensions
S.1443	Recipients of other transfers
S.15	Non-profit institutions serving households
S.15002	National private
S.15003	Foreign controlled
S.2	Rest of the world (ROW)
S.21	Member States and institutions and bodies of the European Union
S.211	Member States of the European Union
S.2111	Member States of the euro area
S.2112	Member States outside the euro area
S.212	Institutions and bodies of the European Union
S.2121	The European Central Bank (ECB)
S.2122	European institutions and bodies, except the ECB

S.22 Non-member countries and international organisations non-resident in the European Union

9.5.4.2 Classification of transactions and other flows

9.5.4.2.1. Classification of balancing items²³⁰ (B)

Code	Description
B.1g	Value added, gross/Gross domestic product
B.2g	Operating surplus, gross
B.3g	Mixed income, gross
B.4g	Entrepreneurial income, gross
B.5g	Balance primary incomes, gross/National income, gross
B.6g	Disposable income, gross
B.7g	Adjusted disposable income, gross
B.8g	Saving, gross
B.9	Net lending (+) or net borrowing (-)
B.9N	Net lending (+)/net borrowing (-) of the non-financial accounts
B.9F	Net lending (+)/net borrowing (-) of the financial accounts
B.10	Changes in net worth
B.101	Changes in net worth due to saving and capital transfers
B.102	Changes in net worth due to other changes in volume of assets
B.103	Changes in net worth due to nominal holding gains and losses
B.1031	Changes in net worth due to neutral holding gains and losses
B.1032	Changes in net worth due to real holding gains and losses
B.11	External balance of goods and services
B.12	Current external balance
B.90	Net worth
BF.90	Financial net worth

9.5.4.2.2. Transactions in products (goods and services) (P)

Code	Description
P.1	Output
P.11	Market output
P.119	Financial intermediation services indirectly measured (FISIM)
P.12	Output for own final use
P.13	Non-market output
P.2	Intermediate consumption
P.3	Final consumption expenditure

²³⁰ All balancing items can be measured gross or net of consumption of fixed capital. The code for gross balancing items is constituted of the code of the item plus the letter 'g'. Similarly, the letter 'n' attached to a code indicates the net value.

P.31	Individual consumption expenditure
P.32	Collective consumption expenditure
P.4	Actual final consumption
P.41	Actual individual consumption
P.42	Actual collective consumption
P.5	Gross capital formation/P.5n net capital formation
P.51g	Gross fixed capital formation
P.511	Acquisitions less disposals of fixed assets
P.5111	Acquisitions of new fixed assets
P.5112	Acquisitions of existing fixed assets
P.5113	Disposals of existing fixed assets
P.512	Costs of ownership transfer on non-produced assets
P.51c	Consumption of fixed capital (–)
P.51c1	Consumption of fixed capital on gross operating surplus (–)
P.51c2	Consumption of fixed capital on gross mixed income (–)
P.51n	Net fixed capital formation
P.52	Changes in inventories
P.53	Acquisitions less disposals of valuables
P.6	Exports of goods and services
P.61	Exports of goods
P.62	Exports of services
P.7	Imports of goods and services
P.71	Imports of goods
P.72	Imports of services

9.5.4.2.3. Distributive transactions (D)

Code	Description
D.1	Compensation of employees
D.11	Wages and salaries
D.12	Employers' social contributions
D.121	Employers' actual social contributions
D.1211	Employers' actual pension contributions
D.1212	Employers' actual non-pension contributions
D.122	Employers' imputed social contributions
D.1221	Employers' imputed pension contributions
D.1222	Employers' imputed non-pension contributions
D.2	Taxes on production and imports
D.21	Taxes on products
D.211	Value added type taxes (VAT)
D.212	Taxes and duties on imports excluding VAT
D.2121	Import duties
D.2122	Taxes on imports excluding VAT and duties

D.214	Taxes on products except VAT and import taxes
D.29	Other taxes on production
D.3	Subsidies
D.31	Subsidies on products
D.311	Import subsidies
D.319	Other subsidies on products
D.39	Other subsidies on production
D.4	Property income
D.41	Interest
D.42	Distributed income of corporations
D.421	Dividends
D.422	Withdrawals from income of quasi-corporations
D.43	Reinvested earnings on foreign direct investment
D.44	Other investment income
D.441	Investment income attributable to insurance policy holders
D.442	Investment income payable on pension entitlements
D.443	Investment income attributable to collective investment fund shareholders
D.4431	Dividends attributable to collective investment fund shareholders
D.4432	Retained earnings attributable to collective investment fund shareholders
D.45	Rent
D.5	Current taxes on income, wealth, etc.
D.51	Taxes on income
D.59	Other current taxes
D.6	Social contributions and benefits
D.61	Net social contributions
D.611	Employers' actual social contributions
D.6111	Employers' actual pension contributions
D.6112	Employers' actual non-pension contributions
D.612	Employers' imputed social contributions
D.6121	Employers' imputed pension contributions
D.6122	Employers' imputed non-pension contributions
D.613	Households' actual social contributions
D.6131	Households' actual pension contributions
D.6132	Households' actual non-pension contributions
D.614	Households' social contribution supplements
D.6141	Households' pension contribution supplements
D.6142	Households' non-pension contribution supplements
D.61SC	Social insurance scheme service charges (-) (1)
D.62	Social benefits other than social transfers in kind
D.621	Social security benefits in cash
D.6211	Social security pension benefits in cash

D.6212	Social security non-pension benefits in cash
D.622	Other social insurance benefits
D.6221	Other social insurance pension benefits
D.6222	Other social insurance non-pension benefits
D.623	Social assistance benefits in cash
D.63	Social transfers in kind
D.631	Social transfers in kind — non-market production
D.632	Social transfers in kind — purchased market production
D.7	Other current transfers
D.71	Net non-life insurance premiums
D.711	Net non-life direct insurance premiums
D.712	Net non-life reinsurance premiums
D.72	Non-life insurance claims
D.721	Non-life direct insurance claims
D.722	Non-life reinsurance claims
D.73	Current transfers within general government
D.74	Current international cooperation
D.75	Miscellaneous current transfers
D.751	Current transfers to NPISHs
D.752	Current transfers between households
D.759	Other miscellaneous current transfers
D.76	VAT- and GNI-based EU own resources
D.8	Adjustment for the change in pension entitlements
D.9	Capital transfers
D.9r	Capital transfers, receivable
D.91r	Capital taxes, receivable
D.92r	Investment grants, receivable
D.99r	Other capital transfers, receivable
D.9p	Capital transfers, payable
D.91p	Capital taxes, payable
D.92p	Investment grants, payable
D.99p	Other capital transfers, payable
	9.5.4.2.4. Other changes in assets (K)

Code	Description
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K.1-5	Total changes in volume
K.1	Economic appearance of assets
K.2	Economic disappearance of non-produced assets
K.21	Depletion of natural resources
K.22	Other economic disappearance of non-produced assets
K.3	Catastrophic losses
K.4	Uncompensated seizures

K.5	Other changes in volume n.e.c.
K.6	Changes in classification
K.61	Changes in sector classification and structure
K.62	Changes in classification of assets and liabilities
K.7	Nominal holding gains and losses
K.71	Neutral holding gains and losses
K.72	Real holding gains and losses
	9.5.4.2.5. Classification of non-financial assets (AN)

Code	Description
AN.1	Produced non-financial assets
AN.11	Fixed assets by type of asset
AN.111	Dwellings
AN.112	Other buildings and structures
AN.1121	Buildings other than dwellings
AN.1122	Other structures
AN.1123	Land improvements
AN.113	Machinery and equipment
AN.1131	Transport equipment
AN.1132	ICT equipment
AN.1139	Other machinery and equipment
AN.114	Weapons systems
AN.115	Cultivated biological resources
AN.1151	Animal resources yielding repeat products
AN.1152	Tree, crop and plant resources yielding repeat products
(AN.116)	(Costs of ownership transfer on non-produced assets)
AN.117	Intellectual property products
AN.1171	Research and development
AN.1172	Mineral exploration and evaluation
AN.1173	Computer software and databases
AN.11731	Computer software
AN.11732	Databases
AN.1174	Entertainment, literary or artistic originals
AN.1179	Other intellectual property products
AN.12	Inventories by type of inventory
AN.121	Materials and supplies
AN.122	Work-in-progress
AN.1221	Work-in-progress on cultivated biological assets
AN.1222	Other work-in-progress
AN.123	Finished goods
AN.124	Military inventories
AN.125	Goods for resale

- AN.13 Valuables
 - AN.131 Precious metals and stones
 - AN.132 Antiques and other art objects
 - AN.133 Other valuables
- AN.2 Non-produced non-financial assets
 - AN.21 Natural resources
 - AN.211 Land
 - AN.2111 Land underlying buildings and structures
 - AN.2112 Land under cultivation
 - AN.2113 Recreational land and associated surface water
 - AN.2119 Other land and associated surface water
 - AN.212 Mineral and energy reserves
 - AN.213 Non-cultivated biological resources
 - AN.214 Water resources
 - AN.215 Other natural resources
 - AN.2151 Radio spectra
 - AN.2159 Other
 - AN.22 Contracts, leases and licences
 - AN.221 Marketable operating leases
 - AN.222 Permits to use natural resources
 - AN.223 Permits to undertake specific activities
 - AN.224 Entitlement to future goods and services on an exclusive basis
- AN.23 Purchases less sales of goodwill and marketing assets

10 MAIN DATA SOURCES USED

10.1 STATISTICAL SURVEYS AND OTHER DATA SOURCES USED FOR THE PRODUCTION APPROACH

10.1.1 THE REPERTORY/BUSINESS REGISTER

Identification

Name of source:	Repertory of economically active units
Supervisory body:	National Bank of Belgium
Purpose of data collection:	Identification and classification of economically active units in Belgium

Basic characteristics of source

Definition

The national accounts directory of production units covers all the enterprises in the DBRIS register of statistical information providers compiled by the DGS. It is a consistent and exhaustive basis for compiling the national accounts.

The directory currently contains two types of units: legal units and enterprises.

"Legal unit" within the meaning of section II - A.3 of the Annex to Regulation (EEC) No 696/93:

Legal units comprise:

- *legal persons whose existence is recognized by law independently of the individuals or institutions which own or are members of them,*
- *natural persons who engage in an economic activity in their own right.*

A legal unit always constitutes, either by itself or sometimes in combination with other legal units, the legal basis for the statistical unit known as the "enterprise".

"Enterprise" within the meaning of section III - of the Annex to the above-mentioned Regulation:

"An enterprise is the smallest combination of legal units that constitutes an organizational unit for production of goods or services, with a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise engages in one or more activities at one or more locations. An enterprise may be a single legal unit."

A legal unit, unlike an enterprise, is not a production unit for national accounts purposes.

Legal units appear in DBRIS if they are recorded in one of the administrative source files.

The legal units in DBRIS comprise:

- legal persons appearing in KBO
- legal persons appearing in the National Register of Legal Persons (NRLP)
- units which are subject to VAT
- NSSO employers
- employers registered with the NSSOPLA.

A newly created legal entity or new legal person subject to VAT is regarded as an enterprise. NSSO/NSSOPLA units are enterprises only if they are not in the file of legal and other persons subject to VAT.

Most enterprises are a single legal unit, an NSSO/NSSOPLA employer and/or subject to VAT. However, an enterprise may be attached to one or more legal units.

Role of directory in calculation of national accounts

The primary role of the repertory is to ensure **exhaustiveness** and **consistency** of results. It contains all production units except self-employed persons not subject to VAT and without personnel. All individual data on production units are aggregated according to the **unique characteristics** of the directory, thereby ensuring consistency of results. The repertory is therefore used on a systematic basis for calculating national accounts aggregates.

Creation of repertory

The national accounts repertory is based on the DBRIS register of enterprises and is renewed annually. On the basis of DBRIS data (characteristics of legal units and links between each legal unit and an enterprise), the directory is created by attributing to each enterprise a number of unique characteristics and unique links with one or more of its legal units.

What variables are we trying to measure?

The repertory distinguishes two types of data:

Enterprise identifiers and the link between them

The various identifiers of an enterprise are as follows:

- RIS number: unique identifier assigned by the DGS
- VAT number or national number: identifier used for legal and other persons subject to VAT. (The NRLP identifier for legal persons is also used by the VAT authorities)
- NSSO number: identifier used by the NSSO for NSSO employers
- NSSOPLA number: identifier used by the NSSOPLA for NSSOPLA employers.

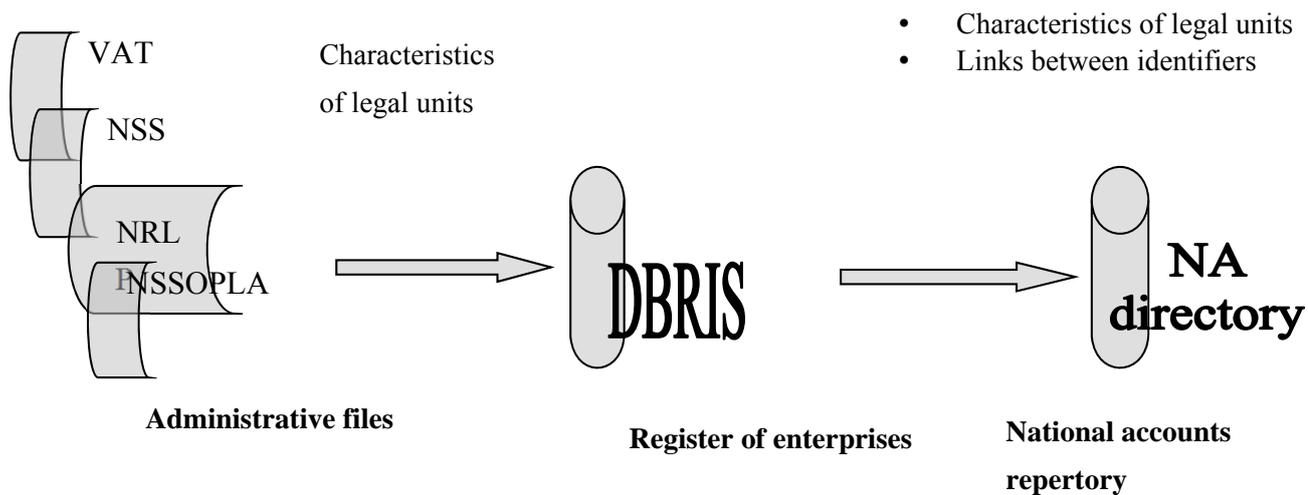
Characteristics of enterprises

Each year, the following set of characteristics is defined for each enterprise:

- Activity code (NACE-BEL code), indicating the branch of activity to which the enterprise belongs
- Sector code, indicating the institutional sector²³¹ to which the enterprise belongs
- Category of enterprise, indicating which basic data are preferred for calculation purposes
- Municipal code, the first two digits being the district (*arrondissement*) code
- Quality code, indicating whether the enterprise's annual accounts are usable for national accounts purposes
- 'Uni/multi-arrondissement' code, indicating whether all of the enterprise's local units are situated in one or several districts.
- 'Uni/multi-legal units' code, indicating whether the enterprise is attached to one or several legal units.

The four most important characteristics are the NACE-BEL code, the sector code, the category and the district code. All aggregations of administrative data are done using the combination of NACE-BEL, sector, category and district at the most detailed level.

²³¹ For units belonging to S12 and S13 the subsector according to ESA2010 is attributed.

Diagram

The composition of the repertory of 2012 according to some criteria (employer or not, institutional sector, category) is given in the next table. The sources used to compile the “administrative aggregates” (phase 1) for the different sub-populations (category) is also mentioned.

Composition of active resident units in repertory for 2012								
<u>Employer or not</u>								
employers			251.917					
units without personnel			611.885					
total			863.802					
<u>Repartition by sector and category</u>								
	S11	S121_S124	S125_S127	S128_S129	S13	S14 (*)	S15	S1
A1	21.998	2	1.357	0	327	0	0	23.684
A2	204	29	13	27	701	5	0	979
B1	52.306	0	1.388	0	31	0	1	53.726
B2	250.989	0	7.664	0	93	2	2	258.750
B3	88.225	182	1.166	461	1.966	341.780	1	433.781
BE	1.682	6	12	4	2	0	0	1.706
BL	268	12	16	21	5	33	0	355
C1	6.311	0	98	0	10	0	0	6.419
C2	43.572	0	1.187	2	48	1	1	44.811
E1	65	0	2	0	0	0	0	67
E2	282	0	6	0	2	0	0	290
H1	904	0	2	0	317	0	161	1.384
H2	1.325	0	2	2	149	0	915	2.393
H3	1.670	0	12	1	214	0	1.046	2.943
H4	16.269	0	11	6	1.162	11	7.349	24.808
RF	5.987	0	2	0	0	567	0	6.556
TV	1.138	0	1	0	0	11	0	1.150
Total	493.195	231	12.939	524	5.027	342.410	9.476	863.802
(*) excl. self employed persons not liable to VAT								

Sources used for the different sub-populations in repertory							
	S11	S121_S124	S125_S127	S128_S129	S13	S14	S15
A1	AA_nfc		AA_nfc		AA_nfc		
A2	VAT/ONSS(APL)		VAT/ONSS(APL)			VAT/PIT	
B1	AA_nfc		AA_nfc		AA_nfc		
B2	AA_nfc		AA_nfc		AA_nfc		
B3	VAT/ONSS(APL)		VAT/ONSS(APL)			VAT/PIT	
BE (a)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
BL	ONSS/APL		VAT/ONSS(APL)				
C1	AA_nfc		AA_nfc		AA_nfc		
C2	AA_nfc		AA_nfc		AA_nfc		
E1	SBS		SBS				
E2	SBS		SBS				
H1	AA_npi		AA_npi				AA_npi
H2	AA_npi		AA_npi				AA_npi
H3	AA_npi		AA_npi				AA_npi
H4	ONSS/APL		ONSS/APL				ONSS/APL
RF	ONSS/APL		ONSS/APL				0
TV (b)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Total	AA_nfc/VAT/ONSS/SBS	AA_fc	AA_nfc/ONSS/SBS	AA_fc	SS/AA_nfc	VAT/PIT	_npi/ONSS
AA_nfc	Annual accounts for non-financial corporations						
AA_fc	Annual accounts for financial corporations						
	specific accounts for S121, S122 (scheme A) for investment funds (S123 and S124) and insurance companies and pension funds (S128/S129)						
AA_npi	Annual accounts for non profit institutions						
VAT	Value added tax declarations						
NSSO	National Social Security Office declarations						
NSSOAPL	National Social Security Office for Provincial and Local Authorities declarations						
SBS	Structural Business Survey						
PIT	Personal income tax declarations						
SS	Specific administrative sources used in S13						
(a) The activity of enterprises belonging to VAT-units (cat BE) is estimated via the AA (they are categorised in A1, B1, B2, C1 or C2) If members of VAT-units do not deposit annual accounts they are categorised as BL and their activity is estimated via the wage bill							
(b) The activity of "tijdelijke verenigingen" (TV) is reflected in the accounts of the companies which are part of these TV							

10.1.2 STANDARDISED MINIMUM STATUTORY ACCOUNTS SYSTEM

Identification

Name of source:	Standardised statutory minimum accounts system
Supervisory body:	Accounting Standards Commission
Purpose of data collection:	To structure and organise statutory compulsory accounting records (RD of 7.03.1978, superseded by RD of 12.09.1983, RD of 6.11.1987 and RD of 31.12.1991)

Basic characteristics of source

The standardised minimum statutory system of accounts does not collect data but metadata. It is laid down by the Accounting Standards Commission. The purpose is to structure and organise statutory compulsory accounting records. The existence of a standardised minimum statutory

system of accounts permits detailed aggregates to be calculated for very different businesses, without thereby threatening the reliability or interpretation of the figures.

At the highest level all the accounts are broken down into 10 classes indicated with a single digit. The great majority of the data from the annual accounts which are used in the calculation of the national accounts belong to class 6 (input) or 7 (output). These two classes together form the profit and loss accounts of a corporation. Other items that are taken over from the annual accounts describe the state of the tangible and intangible assets.



Figure 1: Minimum Standard Chart of Accounts

10.1.3 THE ANNUAL ACCOUNTS OF COMPANIES

Identification

Name of source:	the annual accounts
Supervisory body:	Central Balance Sheets Office (National Bank of Belgium)
Purpose of data collection:	compulsory publication under Royal Decree of 8.10.1976 in execution of the Accounting Act.

Basic characteristics of source

Reporting units

Most corporations for which the responsibility of the shareholders or partners is limited to their contribution to the corporation, as well as some other corporations must each year file their annual accounts and/or their consolidated annual accounts with the Central Balance Sheets Office of the National Bank of Belgium.

A distinction is always made between full accounts (large corporations) and abridged accounts (small and medium-sized corporations). A corporation is regarded as large by the Accounting Act if:

- its average workforce on an annual basis is more than 100 or
- it exceeds more than one of the following thresholds:
 - annual average of the workforce: 50
 - annual turnover (excluding VAT): € 3.650.000
 - balance sheet total: € 7.300.000

For the financial year 2012 23.628 corporations filed a full accounting schedule and 357.269 corporations an abridged accounting schedule, which brings the total number of annual accounting schedules filed to 380.897.

Frequency 1 x/year

What variables are we trying to measure?

Set out below is an overview of the sections of the annual accounts that are used within the framework of the national accounts as well as the specific variables that serve as a basis for the calculations. Only the headings used to estimate the production account, the primary generation of income account and the gross capital formation are indicated.

Full accounting schedules

Name of corporation

- Name of firm
- Legal form
- Address
- National or VAT number

Profit and loss account

Operating results

- 70: Turnover
- 71: Change in inventories of partly finished and finished goods and work-in-progress
- 72: Produced fixed assets
- 74: Other operating income
- 600/8: purchase of raw materials, consumables and goods for resale
- 609: Changes in inventories of purchased goods
- 61: Services and other goods
- 62: Wages and salaries, social security contributions and pensions
- 640/8: Other operating costs

Extraordinary results

- 763: gain on disposal of fixed assets
- 663: loss on disposal of fixed assets

Appropriation of results

695: Profit distributable to directors and managers

Statement of formation expenses

- 8002: new expenses incurred

Statement of intangible fixed assets

- 802: Acquisitions, including the produced fixed assets
- 8021: Costs of research and development

Statement of tangible fixed assets

- 816: Acquisitions, including the produced fixed assets
- 8161: Land and buildings
- 8162: Plant, machinery and equipment
- 8163: Furniture and vehicles
- 8164: Leasing and similar rights
- 8165: Other tangible fixed assets
- 8166: Assets under construction and advance payments
- 817: Sales and disposals
- 827: Depreciation

Annex regarding operating results

- 624: pensions
- 640: Operating taxes and similar levies (other than income tax)
- 740: Operating subsidies and compensatory amounts received from the general government

Annex regarding financial results

- 9126: Interest subsidies
- 6503: Capitalised interest

Social balance sheet

- 1023: compensation of employees in Belgian establishments
- 1033: advantages in addition to wages

Abridged accounting schedules**Name of corporation**

- Name
- Legal form
- Address
- National or VAT number

Profit and loss account

- 9900 Gross margin
- 70 Turnover(*)
- 60/61 raw materials, consumables, goods for resale and services and other goods(*)
- 62 Wages and salaries, social security contributions and pensions
- 640/8 Other operating costs

(*) These items are optional in the abridged schedule. Only a minority of companies mention them.

Appropriation of results

695: Profit distributable to directors and managers

Statement of fixed assets

- 8029/8169: Acquisitions of intangible/tangible fixed assets
- 8039/8179: Sales and disposals of intangible/tangible fixed assets
- 8079/8279: Depreciation recorded on intangible/tangible fixed assets

Financial results

- 9126: Interest subsidies
- 6503: Capitalised interest

Social balance sheet

- 1023: compensation of employees in Belgian establishments

Adjustments

Production of pro rata administrative data as a proxy for calendar year flows

Because not all corporations close their financial year on 31/12/N and the financial year does not always cover 12 months (may be more or less) in addition to the original book year data, pro rata data are also calculated. The latter are used in the compilation process of the annual accounts (turnover, purchases, wages etc.)

Example 1: a corporation is set up in June N-1 and closes its first annual accounts in December N. All flows from the profit and loss account are recalculated for 12 months (pro rata turnover = turnover of financial year *12/18). In this way one gets figures that are more in line with calendar year data for N.

Example 2: a corporation closes its annual accounts on 31/03/N and 31/03/N+1. The pro rata flows for calendar year N are obtained by totalling 1/4 of the amounts for financial year N with 3/4 of the amounts for financial year N+1.

Annual accounts that close in September, October and November of year N and cover 12 months are not retreated because, in practice, this is not possible in most cases (the accounts of the

following financial year are not yet available when starting the calculations in Q1N+2). In these cases the original book year flows are considered to be a good proxy for the calendar year flows.

Conversion of administrative aggregates into ESR95 aggregates

Please refer for this to 3.3



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Figure 2: schéma complet entreprises



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Figure 3: schéma abrégé entreprises

10.1.4 ANNUAL ACCOUNTS OF NPI'S

Identification

Name of source:	Annual accounts (of NPI's)
Supervisory body:	Central Balance Sheets Office (National Bank of Belgium)
Purpose of data collection:	Specific accounting legislation for NPI's.

Basic characteristics of source

Reporting units

Very large and large NPI's and foundations must each year file their annual accounts with the Central Balance Sheets Office of the National Bank of Belgium. A distinction is made between full schemes (very large NPI's) and abridged schemes (large NPI's).

A NPI or foundation is regarded as very large if:

- its average workforce on an annual basis is more than 100 or
- it exceeds more than one of the following thresholds:
 - annual average of the workforce: 50
 - annual revenue (excluding exceptional revenue): € 6.250.000
 - balance sheet total: € 3.125.000

A NPI (which is not regarded as very large) is regarded as large if:

- it attains or exceeds more than one of the following thresholds:
 - annual average of the workforce: 5
 - annual revenue (excluding exceptional revenue): € 250.000
 - balance sheet total: € 1.000.000

Small and medium sized NPI's do not have to file annual accounts.

For the financial year 2012, 1.384 NPI's filed a full accounting schedule and 5 337 an abridged accounting one. The majority of small and medium sized NPI's did not file annual accounts.

Frequency 1 x/year

What variables are we trying to measure?

Set out below is an overview of the sections of the annual accounts that are used within the framework of the national accounts as well as the specific variables that serve as a basis for the calculations. Only the headings used to estimate the production account, the primary generation of income account and the gross capital formation are indicated. The most important difference between the schemes for non-financial corporations and NPI's is the existence of a specific operating revenue account for NPI's: 73 - membership fees, gifts, legacies and subsidies. This item does not exist in the accounting schedules for companies.

Full accounting schedules

Name of corporation

- Name of NPI
- Legal form
- Address
- National or VAT number

Profit and loss account

Operating results

- 70: Turnover
- 71: Change in inventories of partly finished and finished goods and work-in-progress
- 72: Produced fixed assets
- 73: membership fees, gifts, legacies and subsidies
- 74: Other operating income
- 600/8: purchase of raw materials, consumables and goods for resale
- 609: Changes in inventories of purchased goods
- 61: Services and other goods

- 62: Wages and salaries, social security contributions and pensions
- 640/8: Other operating costs

Extraordinary results

- 763: gain on disposal of fixed assets
- 663: loss on disposal of fixed assets

Statement of formation expenses

- 8002: new expenses incurred

Statement of intangible fixed assets

- 802: Acquisitions, including the produced fixed assets
- 8021: Costs of research and development

Statement of tangible fixed assets

- 816: Acquisitions, including the produced fixed assets
- 8161: Land and buildings
- 8162: Plant, machinery and equipment
- 8163: Furniture and vehicles
- 8164: Leasing and similar rights
- 8165: Other tangible fixed assets
- 8166: Assets under construction and advance payments
- 817: Sales and disposals
- 827: Depreciation

Annex regarding operating results

- 624: pensions
- 640: Operating taxes and similar levies (other than income tax)
- 730/1: membership fees
- 732/3: gifts
- 734/5: legacies
- 736: subsidies

Annex regarding financial results

- 6503: Capitalised interest

Social balance sheet

- 1023: compensation of employees in Belgian establishments

Abridged accounting schedules

Name of corporation

- Name
- Legal form
- Address
- National or VAT number

Profit and loss account

- 9900 Gross margin
- 70/74 operating income (*)
- 70 Turnover (*)
- 73 membership fees, gifts, legacies and subsidies (*)
- 60/61 raw materials, consumables, goods for resale and services and other goods (*)
- 62 Wages and salaries, social security contributions and pensions
- 640/8 Other operating costs

(*) These items are optional in the abridged schedule. Only a minority of NPI's mention them.

Statement of fixed assets

- 8029/8169: Acquisitions of intangible/tangible fixed assets
- 8039/8179: Sales and disposals of intangible/tangible fixed assets
- 8079/8279: Depreciation recorded on intangible/tangible fixed assets

Financial results

- 6503: Capitalised interest

Social balance sheet

- 1023: compensation of employees in Belgian establishments

Adjustments**Production of pro rata administrative data as a proxy for calendar year flows**

The annual accounts of NPI's are treated in the same way as the accounts of corporations if the book year does not correspond to the calendar year (cf supra)

Conversion of administrative aggregates into ESA2010 aggregates

Please refer for this to 3.3



Figure 4: associations schéma complet



Figure 5: associations schéma abrégé

10.1.5 ACCOUNTING SCHEDULE OF CREDIT INSTITUTIONS

Identification

Name of source:	Periodic information schedule filed by credit institutions regarding their financial situation (Schedule A) ²³² ;
Supervisory body:	National Bank of Belgium (NBB);
Purpose:	Prudential supervision of credit institutions and periodic information on the financial situation of credit institutions to be supplied to the NBB.

Basic characteristics

All credit institutions governed by Belgian law and Belgian branches of those established under foreign law must provide accounting information. Reporting by banks includes the balance sheet, off-balance-sheet items, the profit and loss account, the accumulation account and various annexes which provide information on inter-bank transactions, loan and deposit operations broken down by sector and instrument, share portfolio, geographical breakdown of assets, breakdown of assets and liabilities by duration, compliance with rules governing own resources, and situation regarding commercial and major risks.

The frequency for the components of Schedule A varies:

- monthly: balance sheet, off-balance-sheet items, summary of inter-bank transactions, summary of current volumes of loans and deposits;
- quarterly: profit and loss account and full annexes;
- annual: accumulation account.

²³² As opposed to schedule B, which covers the published annual accounts.

There are three forms of schedule A reporting:

- reporting on corporate basis, covering the activities of Belgian credit institutions and their foreign branches (Schedule A - tables 00.10-00.60);
- reporting on territorial basis, covering the activities of institutions established on Belgian territory (Schedule A - tables 00.10b-00.50b);
- reporting on consolidated basis (Schedule A - tables 00.10c-00.50c)

Credit institutions governed by Belgian law file their balance sheet on both corporate and territorial basis, but their profit and loss accounts are only available on corporate basis. Foreign credit institutions only report to the Belgian supervisory authorities on their transactions on Belgian territory. For national accounts purposes, the profit and loss account data (and details on some of their headings obtained from the SBS) of credit institutions governed by Belgian law have to be converted to territorial basis by applying a coefficient.



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Annex:

10.1.6 ANNUAL ACCOUNTS OF INSURANCE COMPANIES

Identification

Name of source: Annual accounts/accounting schedule
Supervisory body: NBB
Purpose of data collection: Supervision of insurance enterprises

Basic characteristics of source

Reporting units

All insurance enterprises governed by Belgian law or by the law of a non-EEA country have to complete an accounting schedule and submit it to the NBB by 30 June of year t+1. The form of the schedule is laid down by Royal Decree of 17 November 1994 (copy hereto appended) and is very detailed and comprehensive.

Frequency Annual (filed on 30 June)

What variables are we trying to measure?

The calculation of output and intermediate consumption of insurance enterprises which file an accounting schedule is based mainly on the following data:

- premiums
- investment income
- reserves, claims paid
- operating expenses.

For details of the headings used, cf. 3.17.2.

Adjustments

Various adjustments ESA2010, mainly on the basis of the structure survey of insurance enterprises. These adjustments are described elsewhere (cf. 3.17.2).



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Annex:

10.1.7 ANNUAL ACCOUNTS OF PENSION FUNDS

Identification

Name of source:	Annual accounts
Supervisory body:	FSMA
Purpose of data collection:	Supervision on institutions for occupational pensions

Basic characteristics of source**Reporting units**

All pension funds operating in Belgium must obtain FSMA approval before they can conduct business. Pension funds are subject to FSMA supervision and have to file their annual accounts by 30 June of year t+1 in the form of a schedule defined by Royal Decree of 19 April 1991 (hereto appended). In 2012, there were 256 pension funds subject to BFIC supervision. This source of information is exhaustive.

Frequency Annual (filed on 30 June)

What variables are we trying to measure?

The output and intermediate consumption of pension funds are calculated mainly on the basis of the following data from the accounting schedule:

- pension contributions
- investment income
- reserves
- benefits paid
- operating expenses.

For more detail on the headings used, cf. 3.17.2.

10.1.8 VAT RETURNS

Identification

Name of source:	VAT returns
Supervisory body:	Ministry of Finance
Purpose of data collection:	To determine the amount of value added tax due on the basis of sales and purchases data contained in the returns

Basic characteristics of source

Reporting units

All enterprises liable to VAT except

- farmers who as taxpayers are subject for all their work to the special scheme introduced by Article 57, §1, of the VAT code.
- small corporations subject to the exemption scheme referred to in Article 56, §2 of the VAT code (annual turnover without VAT of 5.580 € in 2012)
- certain enterprises subject to special schemes.
- Enterprises that are closely bound to each other by financial, economic and organisational links, although legally independent, are regarded as a single taxable person (VAT-unit). The VAT-unit files a declaration which replaces the declarations of the individual members of the VAT-unit. This exemption was specified in article 11 of the European Guideline 2006/112/EG on the common system of value added tax, which was transferred into national regulation by article 4 of the VAT law code and by Royal decree n° 55.

The VAT return includes full name and address details of the corporation or natural person:

- Name
- Legal form
- Address
- VAT number

Frequency

- Monthly if annual turnover (excluding VAT) > € 1000 000
- Quarterly if annual turnover (excluding VAT) ≤ € 1 000 000
 - Exception 1: monthly declarations in case of annual turnover without VAT higher than € 200.000 for deliveries of:
 - Energy products (mineral oil or other products meant to be used as fuel);
 - Appliances for mobile communication, computers, peripheral devices, accessories and components;
 - Motorised land vehicles subject to the registration regulation;
 - Exception 2: monthly declarations in case of annual intracommunal deliveries exceeding € 400.000.

What variables are we trying to measure?

VAT returns are used for certain industries to estimate the output and intermediate consumption in an exhaustive way.

The layout of the monthly and quarterly returns is the same, so the note or explanation of the following codes and variables applies for both types of returns.

Estimate of OUTPUT (according to administrative concepts)

VAT return frame II:

- A. Amount of transactions (sales, services, etc.), excluding VAT
- Box 00: subject to zero rate
 - Box 01: subject to tax of 6 %
 - Box 02: subject to tax of 12 %
 - Box 03: subject to tax of 21 %

B. Activities for which the co-contractor is liable

Box 45: amount excluding VAT

C. VAT exempted activities and related positive corrections.

Box 44: intra-community supply of services

Box 46: intra-community deliveries of goods and similar transactions. Delivery of goods including installation in another Member State and distance sales.

Box 47: exports to non-EU Member States, transactions carried out abroad and other exempted transactions.

D. Amount of credit notes issued and negative corrections (excluding taxes):

Box 48: relating to the transactions referred to in box 44 and 46

Box 49: relating to transactions referred to in the other boxes of frame II

$\text{OUTPUT} = 00 + 01 + 02 + 03 + 44 + 45 + 46 + 47 - 48 - 49$

Estimate of INTERMEDIATE CONSUMPTION (according to administrative concepts)

VAT return Frame III

Amount of incoming transactions taking into account credit notes received and other corrections.

Box 81: Goods for resale, materials and supplies

Box 82: Services, miscellaneous goods and other costs

$\text{INTERMEDIATE CONSUMPTION} = 81 + 82$

•Adjustments

The miscellaneous adjustments made to impute missing data are described in the section "Valuation S.11 and S.14" (cf. 3.2.1). The adjustments made to arrive at an ESA 2010 aggregates (P1 and P2) are described in the section "Transition from administrative aggregates to ESA 2010 concepts" (cf. 3.3).

Estimate of Gross fixed capital formation

VAT return frame III:

Box 83: acquisition of fixed assets from €250 onwards

GFCF = 83



VAT_formulier.pdf

10.1.9 PERSONAL INCOME TAX RETURNS

Identification

Name of source	Income tax returns by physical persons
Supervisory body	Federal Ministry of Finance
Purpose of data collection	The purpose is to levy tax on the incomes of physical persons in Belgium, including the unincorporated businesses (part 2 of the return).
Reporting unit	Physical person

Basic characteristics

Variables collected:

Gross operating profit: A6000 – B6000

Income from liberal professionals: A6500 – B6500

Arrears of fees: A6520 – B6520

Occupational expenses of industrial, commercial and agricultural activities: A6060 – B6060

Actual occupational expenses of liberal professionals: A6570 – B6570

Depreciation: A9540 – B9540

Wages: A9550 – B9550

Remuneration: A4000 – B4000

Remuneration for period of notice: A4300 – B4300

Compensation for breach of contract: A4310 + A4320 – B4310 + B4320

Professional expenses: A4060 – B4060

Note: The first of each pair of codes (beginning with A) relates to an unmarried taxpayer or the head of family, the second (beginning with B) to a spouse only.

Estimate of OUTPUT and INTERMEDIATE CONSUMPTION (administrative concepts)**A. Company executives**Calculation of output

Output is the sum of remuneration plus severance payments.

$$\text{OUTPUT} = \text{CODES A4000} + \text{B4000} + \text{A4300} + \text{B4300} + \text{A4310} + \text{B4310} + \text{A4320} + \text{B4320}$$

Calculation of intermediate consumption

Intermediate consumption corresponds to professional expenses.

$$\text{INTERMEDIATE CONSUMPTION} = \text{CODES A4060} + \text{B4060}$$

B. Liberal professionsCalculation of output

Output is the sum of professional earnings, arrears of fees and supplementary income from commercial or agricultural activities.

$$\text{OUTPUT} = \text{CODES A6000} + \text{B6000} + \text{A6500} + \text{B6500} + \text{A6520} + \text{B6520}$$

Calculation of intermediate consumption

Intermediate consumption comprises actual expenses and flat-rate expenses less depreciation and wages paid by the taxpayer. The last two items need to be excluded as they are not part of intermediate consumption according to ESA 2010.

$$\text{INTERMEDIATE CONSUMPTION} = \text{CODES A6060} + \text{B6060} + \text{A6570} + \text{B6570} - (\text{A9540} + \text{B9540} + \text{A9550} + \text{B9550} \text{ or D1})$$

Results available

t+18 months (for NA purposes t+36 months)



IPP self
employee.pdf

10.1.10 STRUCTURAL BUSINESS SURVEY (SBS)

Identification

Name of source:	Annual structural business survey
Supervisory body:	National Statistical Institute
Aim:	The aim of the European Regulation is to establish a common framework for the collection, transmission and evaluation of Community statistics on the structure, activity, competitiveness and performance of enterprises in the Community. A Royal Decree prescribing an annual survey on the structure of enterprises was published in the Belgian Official Gazette on 22 August 1996.

Basic characteristics

The survey examines the structure of enterprises. The survey population is therefore all enterprises located in Belgium. The data required cover business activity, employment, income, expenditure and investments, and refer to the previous accounting year, which does not necessarily coincide with the calendar year. The survey data are intended to provide comparable, comprehensive, reliable and recent statistics on the structure of enterprises at European level. The other EU Member States conduct similar surveys. The purpose of these statistics is to analyse:

- the structure and business trends of enterprises
- production factors used and other elements for measuring the activity, performance and competitiveness of enterprises
- regional, national and international trends in enterprises and markets
- business policy of enterprises
- small and medium-sized enterprises
- specific characteristics of enterprises in particular domains of activity.

This survey covers all the activities in sections B to N and P to S of the Standard Classification of Economic Activities in the European Community (**NACE Rev.2**)²³³. Sections A (agriculture forestry and fishing) and O (public administration and defence) are not surveyed.

Description of questionnaires

As not all enterprises are under the same legal obligations as regards accounting, three types of questionnaires had to be developed: a simplified questionnaire for small unincorporated businesses (self-employed), a detailed one for corporations which compile a complete set of accounts (using the Minimum Standard Chart of Accounts) and a specific survey for NPI's.

²³³ The nomenclature used in the Belgian national accounts is NACE-BEL 2008 (cf. 10.1).

The questionnaires are composed of two parts:

- general data for identifying each enterprise as regards personnel and activities,
- accounting data: information on various elements of the enterprise's accounts (turnover, purchases, investments etc).

The detailed questionnaire is closely related to the standardised minimum accounting plan which serves as the basis for all the accounts of large enterprises. A reference in the questionnaire establishes the link with their accounts.

For the simplified questionnaire, the approach is quite different and is based on the data required in the tax return.

The questionnaire for associations is used to gather specific information on NPI's which is important in the compilation of the S15-account (and parts of S11).

Sampling frame

An enterprise is part of the population of SBS if it meets at least one of the following criteria during the reference period:

- a positive turnover declared to VAT
- employment/wages declared to NSSO
- annual accounts filed with the CBSO of the NBB
- for natural persons not liable to VAT income declared in the income tax declaration

The universe of the enterprises is stratified by two criteria: the economic sector (Nace Rev. 2 classification.) and the size. This is based on two factors: the level of employment and turnover according to VAT.

ADS distinguishes 6 size classes as shown in the table below.

Class	Number of employees	And/or	Turnover (€ million)
0	0	and	< 0,80
1	1 - 4	or	0,80 - 2,00
2	5 - 9	or	2,00 - 4,00
3	10 - 19	or	4,00 - 8,00
4	20 - 49	or	> 8,00
5	+ 50	-	-

The total sample consists of an exhaustive part and a part selected by sampling. All enterprises with more than 50 employees (class 5) are surveyed each year.

When companies at NACE four-digit level do not represent 50 % of total turnover of the whole industry, one should add enterprises with 20-49 employees or with a turnover of over € 8 million (class 4).

Other companies (belonging to classes 0, 1, 2, 3 and part of class 4) are interrogated randomly by means of a rotating sample. These companies are divided into three groups according to their economic activity: 1) the industry and construction, 2) trade and catering and 3) services.

Enterprises of all three groups are included in the sample, but each year, only companies from one of these industries receive a survey form.

So only large enterprises are surveyed annually and the survey of smaller businesses (classes 0-3 and part of class 4) is significantly reduced; thanks to the rotation system, these enterprises receive a survey form once every three years (if they are sampled of course).

Type of documents and response rate

Here is the response rate for the general section at the end of the SSE 2010:

Type doc	Number of questionnaires	Response rate
P26GDTRA	3.620	65,4 %
P26BNBVOL	8.891	94,2 %
P26BNBVKT	15.061	87,0 %
P26041	1.650	94,8 %
P26011	3.919	77,9 %

Where:

P26GDTRA: General document and forms sent to newly created companies where the general part has not been pre-filled; it may be enterprises type "full format" without annual accounts, or type "non-profit associations".

P26BNBVOL: Enterprise filing a full annual account

P26BNBVKT: Enterprise filing an abbreviated annual account

P26041: NPI's

P26011: for small self-employed persons

Apart from the main questionnaire, an enterprise receives one or more annexes (most of them are quinquennial).

The annexes give more (product) detail for certain headings in the detailed questionnaire:

- IE form: annual annex on investment outlays for environmental protection (not used by the national accounts). Only for sections B to E.
- CE form: quinquennial annex on current expenditure for environmental protection (not used by the national accounts). Only for sections B to E
- OC form: quinquennial annex on the turnover by product: Industrial activities (prodcom data), construction activities, commercial activities, service activities.
- AI or AS form: quinquennial annex on the purchases of goods and services by product: some of the variables of the general part are found within this framework: e.g. raw materials, energy, subcontracting, custom work, purchase of goods, purchase of buildings for sale, discounts, rent of land, buildings, plants, machinery, equipment, furniture and vehicles, rental miscellaneous articles, purchased software, ...
- IM form: quinquennial annex on the breakdown of investment in tangible fixed assets by type of asset/product.

The information from annexes OC, AI/AS and IM is used to calculate distribution keys by product for P1, P2 and P51 in the SUT by industry.

Here is the response rate for the annexes “purchases of goods and services”, “turnover” and “investment” of the SBS 2010:

Type doc	Number of questionnaires	Response rate
AS - AI	5.083	91,2 %
OC	4.630	91,8 %
IM	4.996	92,3 %

Validation of SBS data

Checks are necessary in order to verify the consistency and accuracy of the collected data. The basic aim is to automate (i.e. computerise) these checks. They include logical tests and checks on consistency between variables, total or subtotal calculations, arithmetical sign checks, comparisons and the plausibility of certain values.

Depending on the source of data used for checks, a distinction is made between external checks (using data not obtained from the survey: e.g. annual accounts or NSSO) and internal checks (using only data obtained via the survey). Plausibility checks for certain values (unit values of products, average hours worked per person, etc.) are also regarded as a separate category.

The choice of checks also depends on the questionnaires and whether they are accompanied by annexes.

Deadline for transmission of results and reference year

All results are transmitted within 18 months of the end of the reference calendar year. For some business statistics, preliminary national results or estimates are transmitted within 10 months of the end of the reference calendar year.

Use of the SBS in the national accounts:

These surveys are used:

- To estimate P1, P2 and B1g for units for which annual accounts are lacking
- To extract supplementary information (not available in the annual accounts) in order to convert administrative aggregates to national accounts aggregates (in S11, S12, S14, S15)
- To distribute output, intermediate consumption and investments over products in the SUT via the annexes on turnover, purchasing and investments.

SBS corporations (FR)



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SBS indepentend (FR)



Adobe Acrobat Document

SBS associations (FR)



Adobe Acrobat Document

10.1.11 STRUCTURE SURVEY OF CREDIT INSTITUTIONS

Identification

Name of survey

Annual structure survey of credit institutions

Basic characteristics

Main variables

The structure survey (survey form for 1999 and explanatory notes hereto annexed) provides detail for some headings in schedule A that are necessary for compiling the national accounts for sector S122. The survey variables used to determine output and intermediate consumption are set out in the table on the use of schedule A data for national accounts purposes.

Frequency

Annual

Results available

t+9 months

Is the survey compulsory?

Yes

Main survey characteristics – method

whole population - Online reporting via Onegate

Sample and population

Units covered

All banks active during the year

Sample/population

Whole population.

Response

96 out of 104 banks responded to the 2012 survey, i.e. 92 % of the population.

Adjustment methods

Variables used for extrapolation?

The breakdown of schedule A headings for the respondent banks is applied to the whole population

Other adjustments?

Automatic checks on internal and external consistency of data (comparison with schedule A data) before sending to Onegate. Quality checks after receiving the data. In the (rare) event of a problem, the enterprise is contacted.



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Annex:

10.1.12 STRUCTURE SURVEY OF INSURANCE ENTERPRISES SUBJECT TO NATIONAL BANK SUPERVISION

Identification

Name of survey

Structure survey of insurance enterprises subject to NBB supervision

Basic characteristics

Main variables

- detail between turnover realised abroad directly and via an establishment abroad
- breakdown of reinsurance accepted and ceded between Belgium and rest of world
- breakdown of non-life insurance premiums by sector
- detail of intermediate consumption by product
- investments and disinvestments
- various other details.

Frequency

Annual

Results available

t+12 months

Is the survey compulsory?

Yes

Main characteristics of survey method

- limited population
- On line reporting via Onegate.

Sample and population

Units covered

Insurance enterprises subject to NBB supervision

Sample/population

Whole population

Response 87 of 92 insurance companies responded to the 2012 survey (95 % of the population)

Adjustment methods

How are missing data estimated? None

Variables used for extrapolation? None

Other adjustments? As the questionnaire is directly related to the annual accounts of enterprises, checks to ensure consistency between the annual accounts and the survey. In the (rare) event of a problem, the enterprise is contacted.



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Annex:

10.1.13 STRUCTURE SURVEY OF INSURANCE ENTERPRISES NOT SUBJECT TO NBB SUPERVISION

Identification

Name of survey Structure survey of Belgian branches of other EEA foreign insurance enterprises.

Basic characteristics

Main variables Belgian branches of insurance and reinsurance enterprises governed by the law of other EEA Member States are not subject to NBB supervision and do not file annual accounts with the CBSO. The survey is the only source of information on them. In practice, it follows the simplified annual accounts schedule filed by insurance enterprises covered by the Royal Decree of 27 November 1994 (see annex).

Frequency Annual

Results available t+12 months

Is the survey compulsory? Yes

Main characteristics of survey method

- limited population
- On line reporting via One gate.

Sample and population

Units covered Insurance enterprises not subject to NBB supervision

Sample/population Whole population

Response 26 of 33 enterprises responded to the 2012 survey i.e. 79 % of the total population.

Adjustment methods

How are missing data estimated?	None
Variables used for extrapolation?	None
Other adjustments?	The form incorporates a number of internal electronic checks. In cases of flagrant inconsistency, the enterprise is contacted.



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Annex:

10.1.14 STATISTICS ON BUILDING PERMITS

Identification

Name of survey Statistics on building permits

Organisation collecting data Statistics Belgium

Basic characteristics

Main variables

- Type of construction (new dwelling, public sector, etc.)
- 2. Date of issue of permit

Frequency

Continuous survey; monthly statistics

Sample and population

Units covered

All new construction in Belgium for which building permits are issued: totally exhaustive source

Adjustment methods

How are missing data estimated? None

Variables used for extrapolation? No extrapolation needed

Other adjustments? None

10.1.15 STATISTICS ON HOUSING STARTS

Identification

Name of survey Statistics on housing starts

Organisation collecting data Statistics Belgium

Basic characteristics

Main variables

Type of construction (new dwelling, public sector, etc.)
Date of issue of building permit
Date of start of work

Frequency

Continuous survey; monthly statistics

Sample and population

Units covered

All building starts in Belgium

Adjustment methods

How are missing data estimated? None

Variables used for extrapolation? No extrapolation needed

Other adjustments? None

10.1.16 QUESTIONNAIRE FOR GENERAL BUILDING CONTRACTORS

Identification

Name of survey Questionnaire for general building contractors

Organisation collecting the data NBB

Basic characteristics**Main variables**

- Breakdown of turnover by type of construction (new dwelling, renovation, public sector)
- Average price or sq. metre price, average surface area and number of dwellings completed by type of dwelling,
- Duration of construction of private dwellings (in weeks)
- Spread of monthly payments
- Intended use of private dwellings: private use or resale.

Frequency

Every two years

Results available

t+8 months

Is the survey compulsory?

No

Main characteristics of survey method

- Same form for every contractor
- Paper form sent by e-mail
- Respondents may give approximate or average data on duration of construction (in weeks), spread of monthly payments (proportion of total invoice paid per month), price (thousands of euros) and surface area (m²).
- Prices are used as indices only (relative values) and durations of construction and spread of payments as averages. Results from sample are applied to whole population.

Sample and population**Units covered**

Construction enterprises

Sample

90-100 (among the largest construction enterprises)

Response

About 25 %

Adjustment methods**How are missing data estimated?**

None

Variables used for extrapolation?

None

Other adjustments?

Adjustments are made in the case of inconsistencies in replies. They may be based on replies from previous years or on contact with contractors concerned or be made by ignoring maverick data.

10.1.17 ECONOMIC ACCOUNTS FOR AGRICULTURE

Identification

Name of survey Economic Accounts for Agriculture

Organisation collecting the data Statistics Belgium

Basic characteristics**Main variables**

Production in nace codes 011 to 015

Frequency Intermediate consumption in nace codes 011 to 015
Is the survey compulsory? Annual
 Yes

Sample and population

Units covered Farmers (physical or legal person)
Sample/population Whole population
Response 100 %

10.1.18 PRODCOM

Identification

Name of survey Prodcom – Monthly survey of industrial output
Organisation collecting the data Statistics Belgium

Basic characteristics

Main variables

Part 1

- ✓ **Processing and industrial services:** provided to third parties (not including industrial services declared in the ProdCom list)
- ✓ **Commercial deliveries:** when the purchased goods are sold in the same condition in a purely commercial purpose.
- ✓ **Custom work** provided by the business to companies located in Belgium

Part 2

- ✓ **Production:** for each product manufactured by the enterprise
- ✓ Total production in volume
- ✓ Deliveries to third parties in volume and value
- ✓ Custom work provided by the company to businesses located abroad in volume and value

Frequency Monthly

Is the survey compulsory? Yes

Main characteristics of survey method Survey done at local unit level. For any local unit engaging in two or more activities, a return for each activity, i.e. by NACE rev. 2 division (2 digits).

Sample and population

Units covered

Enterprises that produce goods which occur on the ProdCom list (a list containing all products - mainly commodities, but also a number of industrial services - resulting from industrial activity).

This survey covers all the activities of section B (Mining and Quarrying) and C (Manufacturing) from NACE rev 2, except division 05 (Mining of coal and lignite), 06 (Extraction of crude petroleum and natural gas) and 19 (Manufacture of coke and refined petroleum products)

Sample

The Survey only covers enterprises above a certain threshold: industrial enterprises employing at least 20 persons and/or with an annual turnover of at least € 3.928.000.

Selection of enterprises is based on the DBRIS register, which covers the previous year's returns to the NSSO (for employment) and VAT data (for turnover) of the previous year.

Response General coverage of about 90 %

Adjustment methods

Variables used for extrapolation? Total industrial output is estimated as the sum of output defined according to Prodcom and the VAT turnover of all enterprises that are involved in industrial activity but are below the survey thresholds.

Within the framework of the SUT table, the breakdown of industrial output by branch of activity is applied to the whole population.

Other adjustments? None

10.1.19 THE ECONOMIC GROUPINGS

Identification

Name of source: Economic groupings

Supervisory body: General Documentary Base

Purpose of data collection: Basic information of the compilation of the non-financial government accounts

Basic characteristics of source

For the compilation of non-financial Accounts the main data source used by the NAI is the [Economic Grouping](#), which is a report according to a codification based on the economic nature of revenues and expenditures (consumption, transfers, investment, etc) in the Budget. The Economic Grouping is compiled by the budget authorities of each of the entities concerned and are then sent to the secretariat of the Base documentaire générale/Algemene Gegevensbank²³⁴ (General Documentary Base), set up by a cooperation agreement between the State, the Communities, the regions and the Community Commissions. All federated entities use the same economic classification for the reporting. The Economic grouping of State Authorities covers the budgetary transactions of the main state and the transactions of several units consolidated with the state authorities. All entities use the same economic classification for the reporting.

The purpose of the General Documentary Base is to manage public finance (revenue and expenditure) statistics, establish criteria enabling these statistics to be compiled uniformly for each entity, and transmit the data it receives to the National Accounts Institute to allow it to incorporate them in the macro-economic framework of the national accounts.

The Economic grouping is transmitted for the first time before 15 February (data t-1year), an update is sent 15 May and if necessary an update can be transmitted in April of T+2 year.

²³⁴ The secretariat of the General Documentary Base is provided by the Service Macrobudgétaire du Service Public Fédéral Budget et Contrôle de Gestion/Macrobudgettaire Dienst van het Federal Overheidsdienst Budget en Beheerscontrole (Macro-budgetary Department of the Federal Budget and Corporate Governance Office).

10.2 STATISTICAL SURVEYS AND OTHER DATA SOURCES USED FOR THE INCOME APPROACH

10.2.1 NATIONAL SOCIAL SECURITY OFFICE

Identification

Name of source:	Quarterly Multi-Functional declaration (Dmfa)
Supervisory body:	NSSO
Purpose of data collection:	Collection of social security contributions

Basic characteristics of source

Reporting units

The vast majority of employers active in Belgium

The NSSO is charged with managing social security for the vast majority of employees and officials employed in Belgium. NSSO data are the most important source for the income approach in the Belgian national accounts. These data are exhaustive and are highly detailed.

All incorporated and unincorporated enterprises, NPI's etc. employing personnel with a labour agreement (employment contract) are subject to the social security system and are required to pay social security contributions. In this sense, the NSSO data are exhaustive.

Data on the compensation of employees are available at the level of individual enterprises/employers. With a view to calculating social security contributions, enterprises are required to complete an electronic form (Multi-Functional declaration)

What variables are we trying to measure?

The following table gives an overview of the variables taken from the Multifunctional Declaration.

No **ABBREVIATED**
NAME

TITLE

IDENTIFICATION OF QUARTER

1	ANTRIM	SURVEY QUARTER
2	VERSION	VERSION(*)

EMPLOYER DESCRIPTORS

3	MATRIC	NSSO MEMBERSHIP NUMBER
4	CODNAC	NACE CODE – EMPLOYEES' ACTIVITY CODE ACCORDING NSSO
5	CODIMP	SIZE CODE
6	INSEMP	CODE OF MUNICIPALITY WHERE DE COMPANY IS LOCATED
7	SECEMP	SECTOR (1-PRIVATE 2-PUBLIC)

No **ABBREVIATED**
NAME

TITLE

ACCOUNTING DATA (EMPLOYER)

8	REDTOT	VALUE OF TOTAL REDUCTIONS IN EMPLOYER CONTRIBUTIONS
9	COTPAT	VALUE OF EMPLOYERS' CONTRIBUTIONS
10	COTTOT	VALUE OF TOTAL CONTRIBUTIONS
11	COTSPE	VALUE OF SPECIAL CONTRIBUTIONS
12	COTAUT	VALUE OF OTHER CONTRIBUTIONS
13	MNTAEL	VALUE OF THE AMOUNT OF EXTRALEGAL ADVANTAGE
14	COTAEL	VALUE OF CONTRIBUTIONS ON EXTRALEGAL ADVANTAGE
15	COTONS	VALUE OF NSSO CONTRIBUTIONS
16	COTVEH	VALUE OF CONTRIBUTIONS FOR PRIVATE USE OF COMPANY CARS
17	MNTVEH	VALUE OF BENEFIT (COMPANY CARS)
18	COTPPC	VALUE OF CONTRIBUTIONS BY WORKERS IN CONTRACTUAL EARLY RETIREMENT
19	COTFSE	VALUE OF SOCIAL PROTECTION FUND CONTRIBUTIONS
20	COTVO-C	CONTRIBUTIONS TO WORKERS' HOLIDAYS (BUILDING INDUSTRY)
21	COTVO-NC	CONTRIBUTIONS TO WORKERS' HOLIDAYS (NOT CAT. 024)

STUDENTS

22	STUEFF	STUDENTS: NUMBER DECLARED
23	STUCOT	VALUE OF EMPLOYERS' SOCIAL CONTRIBUTIONS FOR STUDENT
24	STUSAL	STUDENT WAGES

(*) T+4 MONTHS OR T+7 MONTHS

VARIABLE PART

(GROUP OF WORKERS BROKEN DOWN BY CLASS, SEX, TYPE)

25	NB-ELEM	NUMBER OF COMBINATIONS OF VARIABLE PART (MAX .400) (CLASS OF WORKER X SEX X CATEGORY X (1 SALARY + 19 REDUCTIONS)
26	CLATRA	CLASS OF WORKER: 1=BLUE COLLAR, 2=WHITE COLLAR, 3=OFFICIAL, 4=APPRENTICE BLUE COLLAR., 5=TRAINEE WHITE COLLAR
27	SEXTRA	WORKERS' GENDER CODE 1=MALE, 2=FEMALE
28	NOTION	CATEGORY OF WORKER 1=FRONTIER WORKER, 2=OTHER

GENERAL DATA (GROUP OF WORKERS)

29	JRSREM	STANDARD NUMBER OF DAYS PAID
30	JRSVAC	NUMBER OF HOLIDAYS
31	EFF-FT	NUMBER OF FULLTIME WORKERS THE LAST DAY OF QUARTER
32	EFF-PT	PART-TIME WORKERS THE LAST DAY OF QUARTER
33	EFFVTE	FULL TIME EQUIVALENT WORKFORCE
34	EFFREL	MAXIMUM WORKFORCE DURING THE QUARTER

<i>No</i>	<i>ABBREVIATED NAME</i>	<i>TITLE</i>
36	EFFAPR	NUMBER OF EMPLOYEES IN MAIN PROFESSION
37	SAL100	SALARY 100 %
38	PREAVI	SALARY CODES 01,02,03
39	PRIMES	SALARY CODES 04
40	PECVAC	HOLIDAY ALLOWANCE
41	SALFOR	CONTRACTUAL FIXED WAGE (for certain industries)
42	SALATT	STAND-BY WAGES (code 05)
43	COTPER	VALUE OF EMPLOYEES' SOCIAL CONTRIBUTION
44	CODRED	SOCIAL CONTRIBUTION REDUCTION CODE
45	NBRRED	NUMBER OF SOCIAL CONTRIBUTION REDUCTION FOR EMPLOYEES
46	MNTRED	AMOUNT OF SOCIAL CONTRIBUTION REDUCTION FOR EMPLOYEES

Adjustments

The various adjustments made to the basic data serve to ensure exhaustiveness (see chapter 4.7 and chapter 7)

Annex:



ONSS Q SIL 2016 4
307.xlsx

10.2.2 NATIONAL SOCIAL SECURITY OFFICE FOR PROVINCIAL AND LOCAL AUTHORITIES

Name of data source:	Quarterly multifunctional declaration (DmfAPPL)
Organisation collecting the data:	National Social Security Office for Provincial and Local Authorities ²³⁵
Purpose of data collection:	Collection of social security contributions from local and provincial government officers

Basic characteristics of the source

Reporting units

²³⁵ Since 1st January 2015, the National Social Security Office for Provincial and Local Authorities is known as the Special Social Security Schemes Office (SSSSO) after its merger with the Overseas Social Security Office.

As a social security institution, the National Social Security Office for Provincial and Local Authorities (NSSOPLA) is entrusted with the collection of social security contributions for the members of the staff of the provincial and local administrations. These administrations include municipal authorities and municipal public utilities, public centres for social welfare, local police zones, intermunicipal companies and provincial authorities.

The multifunctional declaration (DmfAPPL) means that the declaration is not confined simply to the calculation of applicable social security contributions. The data collected are also used by the institutions responsible for paying social security benefits (health insurance, unemployment, pensions, work-related accidents, occupational diseases and family allowances).

With a view to calculating social security contributions, provincial and local authorities are required to complete an electronic form (Multifunctional Declaration) where every employee is distinguished. As a consequence, data on the remuneration and occupation of employees are available at the level of individual enterprises and by employee.

Periodicity 4x/year (quarterly)

What variables are measured?

The data extracted from the Multifunctional Declaration are processed for NAI's statistical purposes and supplied in the form of specific quarterly files. The following table gives an overview of the variables taken from the NSSOPLA declaration. Those variables are used to estimate the compensation and the number of employees for the population of employers covered by this source.

This source has the particularity to provide information for each person occupied per employer and for each job per employee.

Main file (information available by employee and job)

Name	Description EN	Description FR
Antrim	quarter to which the declaration relates	trimestre sur lequel portent les déclarations
Matric	NSSOPLA membership number	Matricule de l'entreprise
codtra	category of the employee (46 possible values)	code travailleur (46 valeurs possibles)
NaceOcc	employees' activity code according to NSSOPLA	Code de l'activité du travailleur selon l'ONSS-APL
COT_DPVS	total social contributions on double vacation fee, except for local officers and police personnel	Cotisations sur le double pécule de vacances (DPV), à l'exception des mandataires et

Name	Description EN	Description FR
		du personnel de la police
COT_DPV2	total social contributions on double vacation fee for local officers and police personnel	Cotisations sur le DPV des mandataires et du personnel de la police
Cot_301	total pension contributions – unified pension fund – former common pension plan	Cotisations de pension – fonds de pension solidarisé – ex-régime commun de pension
Cot_302	total pension contributions – unified pension fund – former pension plan for new affiliated members + members after 31/12/2011 at the higher rate	Cotisations de pension – fonds de pension solidarisé – ex-régime des nouveaux affiliés + adhérents après le 31-12-2011 au taux supérieur
Cot_303	total pension contributions – unified pension fund – local police	Cotisations de pension – fonds de pension solidarisé – police locale
Cot_304	total pension contributions – unified pension fund – affiliated after 31/12/2011 at the lower rate	Cotisations de pension – fonds de pension solidarisé – adhérents après le 31-12-2011 au taux inférieur
Cot_306	total pension contributions – unified pension fund – former pension institution with specific contribution rate	Cotisations de pension – fonds de pension solidarisé – ex-institution de prévoyance avec taux de cotisation spécifique
LMS_301	wages submitted to pension contributions– unified pension fund – former common pension plan	Masse salariale, soumise aux cotisations de pension – ex-régime commun de pension
LMS_302	wages submitted to pension contributions – unified pension fund – former pension plan for new affiliated members + members after 31/12/2011 at the higher rate	Masse salariale, soumise aux cotisations de pension – fonds de pension solidarisé – ex-régime des nouveaux affiliés + adhérents après le 31-12-2011 au taux supérieur
LMS_303	wages submitted to pension contributions – unified pension fund – local police	Masse salariale, soumise aux cotisations de pension – fonds de pension solidarisé – police locale
LMS_304	wages submitted to pension contributions – unified pension fund – affiliated after 31/12/2011 at the lower rate	Masse salariale, soumise aux cotisations de pension – fonds de pension solidarisé – adhérents après le 31-12-2011 au taux inférieur
LMS_306	wages submitted to pension contributions – unified pension fund – former pension institution with specific contribution rate	Masse salariale, soumise aux cotisations de pension – fonds de pension solidarisé – ex-institution de prévoyance avec taux de cotisation spécifique
LMS_DPV	amount of the double vacation fee, except for local officers and police personnel	Montant du DPV, à l'exception des mandataires et du personnel de la police

Name	Description EN	Description FR
LMS_DPV2	amount of the double vacation fee for local officers and police personnel	Montant du DPV des mandataires et du personnel de la police
LMS_IX	wages not submitted to social security contributions	Masse salariale exonérée des cotisations de sécurité sociale
STctrAmt	total social security contributions – students	Cotisations de sécurité sociales – Etudiants
STremAmt	wages submitted to social security contributions – students	Masse salariale soumise aux cotisations de sécurité sociale – Etudiants
cotpat	employers' social contributions	Cotisations patronales
cotper	employees' social contributions	Cotisations personnelles
mntdedocc	reductions to employers' social contributions	Réductions de cotisations patronales
mntdedwr	reductions to employees' social contributions	Réductions de cotisations personnelles
preavi	resignation fee	Indemnités de préavis
salcot	wages submitted to social security contributions	Masse salariale soumise aux cotisations de sécurité sociale
vehsoc	value of the advantage of receiving a company car	Avantage lié au véhicule de société
pp_rrn_onss	code indicating if, for the employee, this is the main job	Code indiquant que la ligne travailleur (= emploi) est ou non la plus importante.
pp_rrnmc_onss	code indicating if the job is the most important or not for a given employer in the case that an employee has multiple jobs	Code indiquant que la ligne d'occupation (n') est (pas) la plus importante auprès d'un employeur donné.
r_exclus_onss	code indicating if the record has to be taken into account or not (indicates if the employee is still at work at the end of the quarter)	Code indiquant qu'un enregistrement doit être comptabilisé ou non

Supplementary file (information only available by employer)

Name	Description EN	Description FR
Antrim	quarter to which the declaration relates	trimestre sur lequel portent les déclarations
Matric	NSSOPLA membership number	Matricule de l'entreprise
CuLMS_PX_WG	wages on which a special social contribution has to be paid by the employer for the constitution of an extralegal pension within an overall business plan	Masse salariale sur laquelle une cotisation spéciale est due par l'employeur pour la constitution d'une pension extralégale dans le cadre d'un plan d'entreprise

Name	Description EN	Description FR
CuLMS_PX_WN	wages on which a special social contribution has to be paid in case of direct payments of an extralegal pension to former employees	Masse salariale sur laquelle une cotisation spéciale est due dans le cadre de versements directs d'une pension extralégale à des anciens travailleurs
CuCOT_PX_WG	special social contribution paid by the employer for the constitution of an extralegal pension within an overall business plan	Cotisation spéciale due par l'employeur pour la constitution d'une pension extralégale dans le cadre d'un plan d'entreprise
CuCOT_PX_WN	special social contribution on the direct payments of an extralegal pension to former employees	Cotisation spéciale sur les versements directs d'une pension extralégale à des anciens travailleurs
CuLMS_CS	wages on which an employer's solidarity contribution has to be paid for the use of a company car for private purposes or for home-work trips	Masse salariale sur laquelle une cotisation patronale de solidarité est due pour l'usage d'un véhicule à des fins privées ou pour le déplacement domicile-travail
CuCOT_CS	employers' solidarity contribution for the use of a company car for private purposes or for home-work trips	Cotisation de solidarité pour l'usage d'un véhicule à des fins privées ou pour le déplacement domicile-travail
CuCOT_DPV	employers' social contribution on the double vacation fee for employees not on duty any more, for as far it does not concern local officers and police personnel	Cotisations patronales sur le DPV, à l'exception des mandataires et du personnel de la police
CuCOT_DPV2	employers' social contribution on the double vacation fee for local officers and police personnel not on duty any more	Cotisations patronale sur le DPV des mandataires et du personnel de la police
CuLMS_DPV	amount of the double vacation fee for employees not on duty any more, for as far it does not concern local officers and police personnel	Masse salariale sur laquelle une cotisation est due sur le DPV, à l'exception des mandataires et du personnel de la police
CuLMS_DPV2	amount of the double vacation fee for local officers and police personnel not on duty any more	Masse salariale cotisation due sur le DPV des mandataires et du personnel de la police

Adjustments

Given the exhaustiveness of the NSSOPLA data, no adjustments are made.

10.3 STATISTICAL SURVEYS AND OTHER DATA SOURCES USED FOR THE EXPENDITURE APPROACH

The primary sources to estimate gross fixed capital formation are the annual accounts and the VAT-declarations (see 10.1). For estimating investment in R&D a specific R&D survey is used. The estimate of final consumption expenditure of household is based on the Household Budget

Survey (HBS) (and other specific sources) and imports and exports are estimated using extrastat²³⁶ data and intrastat²³⁷ surveys (goods) and specific balance of payments surveys (services).

10.3.1 BELSPO R&D SURVEY

Name of survey: Belspo ²³⁸ R&D survey
Link to surveys undertaken at the European level: R&D surveys in other European countries based on the Frascati Manual, OECD, 2002.
Reporting units: Units which carry out R&D on a regular or an occasional basis or that are likely to carry out R&D activities.
Periodicity: Biennial
Time of availability of results: t+18 months
Sampling frame (e.g. name of business register used/ population census): The Belspo register contains all enterprises involved in R&D activities. All enterprises in this register are asked to participate to the survey.
Survey is compulsory or voluntary? Voluntary
Main features of survey methodology (e.g. PPS sampling/ panel of respondents/ use of a size threshold for sampling/ postal questionnaire/ telephone interview): <ul style="list-style-type: none"> • The forms are different whether the unit is market or non-market. • The form is sent by email
Population size: 24,757 units
Sample size: 7,720 units
Survey response rate: about 50 %
Method used to impute for missing data: In general three methods are used: Enterprises that completed the survey partially (1) Enterprises for which Belspo experts have data from previous surveys (2) Enterprises that never participated to the Belspo survey (3) For (1) Belspo experts try to impute with the help of ratio's based on the available information For (2) Belspo experts calculate growth rates based on the available information from previous surveys. For (3) Belspo experts calculate historical sectorial trends
Variable used for grossing-up to the population (e.g. turnover/ employment): Total expenditure on R&D
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers

²³⁶ Covering imports and exports of goods with non EU-member countries.

²³⁷ Covering imports and exports of goods with EU-member countries.

²³⁸ Belgian Science Policy administration.

60 % of employment recorded on the sampling frame):

Grossing-up is only done for enterprises in the sample on the intramural R&D expenditure. The weight of an enterprise in the sample is based on the frequency of R&D active enterprises in certain sectors of the economy. Sampling covers approximately 5 %-10 % (differs from one survey to another) of the total expenditure on R&D.

Main variables collected:

- Intramural R&D expenditure by type of costs and source of funding
- Extramural R&D expenditure by type of performer
- 3. Total R&D staff

Further adjustments made to the survey data:

Adjustments are sometimes necessary to integrate this information with the other sources used in national accounts (annual accounts and Bop)



Survey Belgium
RD2014 English.pdf

10.3.2 HOUSEHOLD BUDGET SURVEY

Name of survey: Household Budget Survey
Link to surveys undertaken at the European level Household Budget Surveys in the EU: Methodology and recommendations for harmonisation (Eurostat)
Reporting units Private households
Periodicity The survey was conducted annually until 2010 and is biennial since 2012.
Time of availability of results Available between t+6 months and t+12 months.
Sampling frame Labour Force Survey since the second quarter of 2012. Before 2012 the sampling frame was based on the population registry.
Survey is compulsory or voluntary? Voluntary
Main features of survey methodology Survey organised by DGS (FPS Economy- Statistics Belgium) <ul style="list-style-type: none"> • Households are asked to state all expenditures and revenues of one month in a very detailed booklet. • A specific questionnaire is also filled in with questions about the composition of the household, the dwelling which it inhabits and periodic expenses such as energy, insurances and durable goods (in possession and if bought in the last four months). • The results are verified by DGS enumerators who provide explanations to the households and check that the booklets and questionnaire are filled in properly.
Population size In 2012, there were 4 753 055 private households in Belgium.
Sample size

2010: around 3 600

2012: 6 581

Survey response rate

15.1 %

Method used to impute for missing data

Grouping of population strata and extrapolation

Variable used for grossing-up to the population

Extrapolation based on detailed stratification of the sample. Criteria applied are:

- Region;
- Socio-economic status;
- Age;
- Number of persons in a household;
- Number of economically active persons in a household.

Sample coverage

Distribution de la taille des ménages répondants

MS_Size	HBS 2012				Population d.d. 1/07/2012	
	Unweighted		Weighted		Freq.	%
	Freq.	%	Freq.	%		
1	1619	24.60	1582083	33.18	1635810	34.30
2	2065	31.38	1447046	30.34	1501951	31.50
3	1171	17.79	718135	15.06	708144	14.85
4	1093	16.61	648650	13.60	601519	12.61
5	448	6.81	267869.60	5.62	220741	4.63
6	146	2.22	84227.04	1.77	68131	1.43
7	24	0.36	10507.69	0.22	20304	0.43
8	10	0.15	6875.87	0.14	7100	0.15
9	2	0.03	1174.95	0.02	2710	0.06
10	2	0.03	1922	0.04	1059	0.02
11 +	1	0.02	166.24	0.00	1188	0.02
Total	6581	100.00	4768657	100.00	4768657	100.00

Main variables collected

- * Average expenditure per household for one year
- * Information on over 1 000 detailed consumer items.

Further adjustments made to the survey data:

Adjustments made to the survey data for use in national accounts are described in §5.7.



Direction Générale Statistique et Information économique

Unité "Enquêtes Budgets des Ménages"

WTC III – Bd. Simon Bolivar, 30 – 1000 Bruxelles

Tel.: 0800 13717 entre 9.00 et 12.00 h

E-mail : HBS@economie.fgov.be

Numéro d'entreprise : 0314.595.348

ENQUETE SUR LES BUDGETS DES MENAGES

2012

Questionnaire ménage

N° de ménage

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Date à laquelle le questionnaire a été rempli

						2	0		
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Mois de référence

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Numéro d'enquêteur :

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Click to open

10.3.3 RETAIL TRADE SURVEY

Name of survey: Retail trade survey
Link to surveys undertaken at the European level : Short term retail trade statistics
Reporting units (e.g. enterprise/ local KAU/ household): Enterprise
Periodicity (e.g. annual/quarterly/other- to be specified): Monthly
Time of availability of results : One month + 20 days after reference period
Sampling frame: All enterprises which have their principal activity in NACE 47 (retail trade) and all enterprises which have another principal activity but have at least five points of sale in retail trade.
Survey is compulsory or voluntary? The survey is compulsory, based on the following legal framework: <ul style="list-style-type: none"> • Council regulation (EC) No 1165/98 of 19 May 1998 • Royal Decree of 12 October 2015 (C – 2015/11393)
Main features of survey methodology: <ul style="list-style-type: none"> • Survey organised by the FPS Economy; • Large enterprises are questioned exhaustively and smaller enterprises are part of a three-year rotating panel. The size of an enterprise is determined based on turnover; • Online declaration questioning total turnover, with limited additional detail for larger enterprises (distinction of activities between food/textile/household equipment/others). • The aim of the survey is to construct a retail trade index which indicates the evolution of retail sales in Belgium.
Population size: +/- 9000
Sample size: 2840
Survey response rate: 100 %
Method used to impute for missing data: /
Variable used for grossing-up to the population (e.g. turnover/ employment): /
Sample coverage, as % in terms of variable used for grossing-up (e.g. sample covers 60 % of employment recorded on the sampling frame): /
Main variables collected: Turnover
Further adjustments made to the survey data: /

10.3.4. EXTRASTAT

Name of data source
Extrastat
Organisation collecting the data
Customs Office. Between the Customs Office and the National Bank of Belgium (foreign trade department) a service level agreement is signed (in accordance with European regulations nr. 471/2009, 92/201, 113/2010) in order to obtain the data collected by the Customs Office.
Reporting units
Enterprise
Periodicity
Daily (via PLDA – Paperless Douane en Accijnzen)
Variables collected
All the information of the customs SAD (single administrative document). For an overview of the demanded information in the case of Belgium, see annexed pdf
Methods used to allow for missing data
The data are exhaustive
Adjustments made for conceptual differences from national accounts concepts
none
Further adjustments made to the data
Validation control of all the variables. In case of errors: correction.



Figure 6: single administrative document

10.3.5 INTRASTAT

Name of survey
Intrastat
Reporting units
Enterprise
Periodicity
Monthly
Time of availability of results
20 days after the end of the reference month
Sampling frame
VAT-declarations
Survey is compulsory or voluntary?
Compulsory
Main features of survey methodology
The Intrastat data are not exhaustive since a threshold value is used. An enterprise is required to declare its imports when the total annual arrivals are equal to or more than € 700,000 (applicable from 01/01/2012, from 01/01/2015 on: € 1.500.000). For the exports, a threshold value of € 1.000.000 is used (applicable from 01/01/2012).
Population size
Arrivals 263.400 – Dispatches 75.000 – Total : 276.100
Sample size
Arrivals 13.583 – Dispatches 8.394 – Total : 16.117
Survey response rate
99 % after 85 days
Method used to impute for missing data
To estimate non-response in the flash estimates, data for the same calendar month of the year t-1 are used and corrected for the trade cycle (i.e. multiplied by a growth factor calculated on the basis of a constant sample of traders that have declared in both the reference month and the same month for the year-1). From the moment that the VAT declarations are available, the missing values are estimated on the basis of these VAT-declarations taking into account the specific corrections made above.
Variable used for grossing-up to the population
VAT-turnover
Sample coverage
Coverage rate: for arrivals 95 % - for dispatches 97 %
Main variables collected:
<ul style="list-style-type: none"> • VAT Number • Value of the imported goods • Value of the exported goods • Nature of transaction code • Combined nomenclature code 8-digits (CN8-code) • Weight or supplementary units of the imported goods • Weight or supplementary units of the exported goods

<ul style="list-style-type: none"> • Country of counterparty • Statistical regime
<p>Further adjustments made to the survey data:</p> <p>For the purpose of national accounts flows of P61 and P71 are derived in “national concept” (see 5.13)</p>

10.3.6 BALANCE OF PAYMENTS SURVEYS

<p>Name of survey</p> <p>Balance of payments surveys</p>
<p>Reporting units</p> <p>Enterprise</p>
<p>Periodicity</p> <p>Monthly for major enterprises, quarterly for smaller enterprises, annual for less relevant financial subsectors/enterprises</p>
<p>Time of availability of results</p> <p>In principle 20 days after the end of the reference month, quarter or year</p>
<p>Sampling frame</p> <p>Crossroad bank for enterprises, VAT-data, annual account data</p>
<p>Survey is compulsory or voluntary?</p> <p>Surveys are compulsory</p>
<p>Main features of survey methodology</p> <p><u>Financial sector</u></p> <p>For the financial sector, different surveys are defined, each covering a specific subsector (F01PKI, F02INS, F02RIN, F02PSF, F02OPC, F02STB, F02INV, F02CCI). These surveys are addressed to the full population of the sub-sectors and are therefore exhaustive.</p> <p><u>Non-financial sector</u></p> <p>The full survey for the major enterprises (F01DGS) is send to all the companies that exceed a certain threshold value concerning their imports and exports of services. Companies are considered as a 'major enterprise' if the following conditions are met:</p> <ul style="list-style-type: none"> • Activity (nace) code concerning services + VAT-grid 47 greater than € 5 million/year • VAT-grid 56 is greater than € 1 million/year or grid 87 is greater than 5 million/year • VAT-grid 44 or VAT-grid 88 greater than € 5 million/year <p>Next to the survey for major enterprises, there are 2 groups of ‘other’ surveys. More specifically surveys where a threshold value is used to determine the declarants (exhaustive: F03AVS, F01CDC, F02TRA, F02BRO) and surveys where a stratified selection method is used to determine the declarants (non-exhaustive: F03TRP, F13CON, F23CON, F03CMS).</p>

Population size:

Survey	Population size
NON-FINANCIAL SECTOR	
Exhaustive surveys with threshold value	
F01DGS	1.759
F01CDC	115
F03AVS	178
F02BRO	146
F02TRA	59
Non-exhaustive surveys with stratified selection method	
F03TRP	3.193
F13CON	3.669
F23CON	2.082
F03CMS	39.695
FINANCIAL SECTOR	
Exhaustive surveys	
F01PKI	101
F02INS	138
F02RIN	7
F02OPC	104
F02INV	18
F02PSF	213
F02STB	23

Sample size:

Survey	Sample size
NON-FINANCIAL SECTOR	
Exhaustive surveys with threshold value	
F01DGS	1.759
F01CDC	115
F03AVS	178
F02BRO	146
F02TRA	59
Non-exhaustive surveys with stratified selection method	
F03TRP	1.249
F13CON	1.221
F23CON	529
F03CMS	4.151
FINANCIAL SECTOR	
Exhaustive surveys	
F01PKI	101
F02INS	138
F02RIN	7
F02OPC	104
F02INV	18
F02PSF	213
F02STB	23

Survey response rate (for December 2012):

Survey	Response rate
NON-FINANCIAL SECTOR	
Exhaustive surveys with threshold value	
F01DGS	97,84%
F01CDC	98,26%
F03AVS	100,00%
F02BRO	98,63%
F02TRA	100,00%
Non-exhaustive surveys with stratified selection method	
F03TRP	94,32%
F13CON*	77,48%
F23CON*	90,55%
F03CMS	96,39%
FINANCIAL SECTOR	
Exhaustive surveys	
F01PKI	100,00%
F02INS	100,00%
F02RIN	100,00%
F02OPC	100,00%
F02INV	100,00%
F02PSF	100,00%
F02STB	100,00%

* The survey response rate in the month December is rather low due to reorganizations at the External Statistics Department (closing and migration of data control unit). The survey response rate for the month November is equal to 90,69 % and 95,34 % for respectively the surveys F13CON and F23CON.

Method used to impute for missing data

Estimations for the non-response are done on the basis of the weight of the missing enterprise in the sample. This weight is mainly determined on the basis of the VAT-grids 44 and 88 (and in some cases also 47 and 87) and is then multiplied by the total declared imports and exports in the concerning survey in order to obtain the estimated value.

Variable used for grossing-up to the population

Extrapolations are made for the non-exhaustive surveys: F03TRP, F13CON, F23CON, F03CMS. These adjustments are based on weighting coefficients. The populations for a specific survey are divided into different strata. Some strata are questioned exhaustively. For other strata a sample is composed. In this last case, the declared imports and exports for the enterprises in the stratum are extrapolated on the basis of a weighting coefficient, which is equal to the chance that a company will belong to the sample (total number of enterprises in the sample/total number of enterprises in the stratum) in order to obtain the total import and export for the concerned stratum.

Sample coverage, as % in terms of variable used for grossing-up

F03TRP: on average 9,9 % of the enterprises in the strata are questioned
 F13CON: on average 15,5 % of the enterprises in the strata are questioned
 F23CON: on average 17,1 % of the enterprises in the strata are questioned
 F03CMS: on average 10,6 % of the enterprises in the strata are questioned

Main variables collected

- VAT-number
- Name of survey
- BOP-survey heading
- Country of counterparty
- Value of exported service (in EUR and original currency)
- Value of imported service (in EUR and original currency)

For a description at the most detailed level of the headings used in the balance of payments/international trade in services, reference is made to section 9.5.3.

Further adjustments made to the survey data

Data are checked and corrected in consultation with the concerned enterprises.



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10.4 STATISTICAL SURVEYS AND OTHER DATA SOURCES USED FOR THE TRANSITION FROM GDP TO GNI.

The estimate of D1, D2 and D3 paid to/received from the Row depends on administrative data and balance of payments information. We refer to chapters 8.1, 8.2 and 8.3 for more details.

The estimate of D4 paid to/received from the RoW makes use of information collected by the financial accounts (different types of financial claims/assets of resident sectors on the Row and financial liabilities of resident sectors to the Row and corresponding yield %), information derived from the annual accounts (e.g. dividends and reinvested earning paid to the RoW) and information from the Balance of payments derived from specific surveys (FDI-survey: dividends and reinvested earning received from the RoW).

A description of the sources and methods used in the compilation of the financial accounts in Belgium (according to ESA1995) can be found on the website of the NBB:

https://www.nbb.be/doc/dq/e_method/m1_seb07i.pdf

The contents of the FDI-survey can be consulted on the website of the NBB:

https://www.nbb.be/doc/dq/f_pdf_bb/f13fdifo_man_f_2014.pdf.

ANNEX 1 GNI PROCESS TABLE



ESA 2010 GNI
Process Tables (BE_2)

Report on compiling the process table

1. INTRODUCTION

This report describes the nature and importance of the different sources, estimation methods and adjustments in the compilation process of the Belgian GDP and GNI in value.

The process table is constructed following the 3 classical estimates of GDP: production, expenditure and income approach.

We will also comment briefly on the sources, estimation methods and adjustments concerning primary income paid to and received from the rest of the world (transition from GDP to GNI).

2. PREPARATION FOR COMPLETING THE PROCESS TABLE

Different persons in the National accounts division were involved in the compilation of the table.

In the **production approach** the work was split up over different persons:

- branch A (agriculture, forestry and fishing) relies on specific sources for agriculture
- branches O and P (public administration and education): these are (primarily) S13-branches the compilation of which relies on specific public accounting information;
- branch K (financial and insurance activities): a detailed decomposition was made by subsector. This information was aggregated afterwards to have totals for branch K
- the other branches were treated together by one person because the estimation methods and sources used are very much alike for the non-financial enterprises (corporations and unincorporated businesses) and the NPI 's²³⁹ active in the different branches of manufacturing, energy, construction and service industries. S13-units are also active in industries E, H and J; the relevant inputs for the S13 part were delivered by the GFS-unit and consolidated with the figures compiled for the other sectors (S11 and S14) in these industries.

In the **expenditure approach** the work was split up over 4 persons:

- P3S13 was treated by the person in charge of the compilation of the government accounts; the same approach was followed for P3S15.

²³⁹ Non-profit institutions (sectorised in S11 or S15).

- P3S14 was treated by the person responsible for the estimation of household final consumption expenditure;
- P51 and P52 were treated by the person responsible for the estimation of investment;
- P6 and P7 were treated by the person responsible for P6 and P7 in the SUT.

In the **income approach** the work was split up over 2 persons

- D1 was treated by the person in charge of the compilation of compensation of employees;
- D2 and D3 were treated by the person responsible for the government accounts;
- B2g+B3g is a residual in the Belgian national accounts.

There has been consultation and discussion within the NA division in order to reach a consensus regarding the specific meaning of types of sources, extrapolation methods and adjustments. This guarantees a consistent treatment throughout the table (for the different branches of industry and the different components of final expenditure).

3. ANALYSIS OF THE PROCESS TABLE

3.1 *Production measure*

3.1.1 Basis for national accounts

Belgium heavily relies on **administrative sources** (annual accounts of corporations and NPI's, VAT-declarations, social security declarations (SS), personal income tax declarations, budgetary information) in compiling the national accounts. In all but a few branches (A, L, T) administrative data are predominant as basis for national accounts figures. If administrative sources are absent or deemed to be not fit for statistical use, other sources (surveys and censuses) are used or aggregates are estimated via extrapolation and models. In practice the amounts for administrative records correspond to operating revenue (C_A), goods and services consumed (C_B) and value added (C_C) according to administrative/corporate accounting concepts for categories A1, B1, B2, C1, C2 (annual accounts of corporations), H1, H2, H3 (annual accounts of NPI's) and categories A2 and B3 (units without annual accounts and SBS estimated via other administrative sources)²⁴⁰.

For non-financial corporations for which annual accounts are missing although structural business surveys are available, direct survey information (**Surveys & Censuses: S&C**) is used (instead of indirectly extrapolated figures). In practice the amounts for category E1 and E2 in S11 are considered as S&C. Surveys are also used to estimate a small part of the activity of the financial sector and to estimate value added in agriculture (via the economic accounts of agriculture).

²⁴⁰ VAT-declarations (turnover/purchases) or NSSO-declarations (wages) or personal income tax declaration for self-employed workers whose activity is not liable to VAT.

Combined data and **other sources** are marginal and only appear in section K.

The column ‘consumption of fixed capital/perpetual inventory method’ (**CFC/PIM**) contains the amounts of consumption of fixed capital estimated in S13 via the PIM P51c (€ 8.889 million in S13) is one element of the costs that determines the value of the production for non-market producers.

For S15-units the transformation of operating revenue (after adjustments) to the sum of costs (for instance consumption of fixed capital estimated via the PIM-model) is registered (for practical reasons) under other conceptual adjustments P51c in S15 amounts to € 460 million in 2012.

Dwelling services are a specific topic in national accounts: the benchmark year figures (for 2011) are in the column “**dwelling stratification method**” and the extrapolated figures (for the year 2012) in the column “**benchmark extrapolations**”.

The column **fisim** contains the amounts for the production of fisim in section K.

The column '**other extrapolation and models**' contains the data for production (sales) intermediate consumption (purchases) and value added that have been extrapolated in an indirect way (on the basis of ONSS/ONSSAPL wages). This extrapolation is done for categories BL (enterprises belonging to VAT-units not depositing annual accounts), H4 (very small NPI's not depositing annual accounts) and RF (fiscal representatives). The part of extrapolated value added in the total value added (before adjustments) is very low because it is very rare that nor accounting, nor VAT nor SBS information is available for financial and non-financial corporations. For self-employed persons (S14) VAT or personal income tax information is always available. Only in industries where a lot of small NPI's (without annual accounts) are active, the relative importance of other extrapolations and models is no longer negligible (e.g. in section S where other E&M account almost for 30 % of the total basis for NA figures in terms of value added).

3.1.2 Adjustments

DATA VALIDATION ADJUSTMENTS

Data validation adjustments done by the national accounts division are exceptional for the most important administrative source (**annual accounts**). The validation and correction of this source is done by the Central Balance Sheet office (CBSO) which is a separate service of the National Bank of Belgium. Annual accounts have to comply with a set of arithmetic and logical controls specified by law. Companies whose accounts do not comply with these controls are compelled to deposit a set of corrected accounts. The national accounts division processes validated (and corrected accounts where necessary) from the CBSO.

In the large majority of cases (85 % of the accounts) book year and calendar year coincide and the profit and loss account and corresponding information in the annexes can be used as such. If the

book year does not correspond to the calendar year the flow variables (sales, purchases, etc.) of the profit and loss account are 'recalculated' using two successive accounts which implies that administrative aggregates are compiled on the basis of 'prorated' flows²⁴¹. This correction could be considered as a data validation adjustment but has not been estimated and could therefore not be isolated in the process table.

The accounts of a limited number of large public companies (public railway company, postal service, National Lottery) are adjusted in order to reconcile them with counterpart information available in the government accounts and to bring them in line with ESA2010 valuation. These corrections are made on the basic administrative (accounting) data (by sector/nace/district) to facilitate their treatment in the regional accounts. Although these corrections could be considered as conceptual corrections they are (for practical reasons) also labelled as data validation adjustments (because they are done in phase 1 of the compilation process).

Data validation adjustments are necessary on the **VAT- declarations** deposited by some large Belgian branches of foreign companies²⁴². For these units all the relevant administrative (VAT and SS declarations, extrastat) and statistical (SBS, prodcom, intrastat) information was collected and confronted with each other. This exercise led to the conclusion that in a number of cases VAT turnover did not reflect sales in Belgium but rather sales worldwide. Turnover, purchases and value added are consequently corrected downwards. The balancing adjustments between the production and expenditure side estimate of GDP were also considerably lower after introducing these corrections in the value added figures.

On total data validation adjustments for the year 2012 approximately account for - € 32 billion on turnover, - € 29 billion on purchases and - € 3 billion on value added.

²⁴¹ Except for annual accounts closed in September or October or November 2012 covering a 12 months period. In these cases book values are integrated as such because at the time of finalising the repertory, the accounts closed in September/October/November 2013 are not available yet (for prorating purposes) and because these book year flows are a good proxy for calendar year figures.

²⁴² These entities are not obliged to deposit annual accounts, so we do not possess direct information on value added if SBS is also lacking.

CONCEPTUAL ADJUSTMENTS

This is the sum of all corrections done to transform administrative/business accounting variables into ESA2010-aggregates not including the exhaustiveness adjustments (which are separately isolated in the table: cf infra) and the balancing adjustment (ad).

The conceptual adjustments with the highest positive impact on value added are:

- the activation of R&D costs: (g)²⁴³;
- the activation of purchased and own account software: (i1);
- the reclassification of part of the insurance premiums paid as transfers: (l);

The conceptual adjustments with the highest negative impact on value added are:

- the transformation of producer to basic prices : (o1 to o3);
- the reclassification of financial costs as intermediate consumption: (k);
- the elimination of value added produced abroad for companies with foreign establishments: (v)
- the alignment of 'extrapolated' information regarding insurance premiums and taxes and subsidies on production paid and received on exhaustive counterpart information (S125 and S13) : (aa) (-);
- the allocation of a part of produced fisim as intermediate consumption: fisim (-).

TREATMENT OF FISIM IN THE PROCESS TABLE

The production of fisim is registered in the column FISIM of the part extrapolation and Models of the basis for NA figures. In the part adjustments for NA figures the total conceptual adjustments are split up between “allocation of fisim” and “other conceptual adjustments”. Intermediate consumption of fisim is registered in this column (by A21-industry). In industries where non-market units (S13 and S15) exist, intermediate consumption of fisim also gives rise to an increase in production (because production = sum of costs); this impact is also shown on the line P1 in the allocation of fisim column.

In the expenditure approach the amount of intermediate consumption of fisim by non-market producers resulting in an increase in production appears as P3S13 (€ 567 million) and P3S15 (€ 58 million) or in total € 625 million. The amounts of P3S14 (€ 1.655 million), is also registered in the column ‘allocation of fisim’, whereas P62 (€ 1.764 million) and P72 (€ 408 million) are recorded in the column ‘FISIM’. The allocation of fisim thus increases GDP by € 2.279 million which is visible in the expenditure approach of the process table (amount on line GDP and column allocation of fisim). This corresponds to the sum of the amount of the production of fisim (10.945),

²⁴³ For companies not activating R&D costs in their accounts.

the impact of the allocation of fisim on value added in the production approach (-7 .310) and the difference between imports and exports of fisim (-1.356).

In the transition of GDP to GNI, the allocation of fisim column contains a negative adjustment on interest received from ROW and a positive adjustment on interest paid to ROW. On balance net interest received from the ROW is adjusted downwards with -€ 1.356 million (-919 - 437) which counterbalances the figure for net export of fisim (1.764 – 408). The impact of the allocation of fisim on GNI corresponds to the sum of the amount of production of fisim in the column fisim (10.945) and the amount in the column allocation of fisim (-8.666) on the line GNI of the process table (10.945 – 8.666 = 2.279). This corresponds to the impact of the allocation of fisim on P3 in the expenditure approach.

EXHAUSTIVENESS ADJUSTMENT

The exhaustiveness adjustments are the corrections made for:

- producers active in the legal economy that did not register (N1: households employing domestic personnel)
- illegal producers active in the production and trafficking of drugs, prostitution and smuggling (N2)
- producers (households) involved in the production of (agricultural) goods for own final use (N3)
- black economy which leads to misreporting in the official administrative sources (cor.y) (N6)
- wages and salaries in kind (corrections p1 and p2) and tips (q) (N7)

BALANCING ADJUSTMENT

In 2012 there was only a relatively small balancing adjustment in the production approach (- € 644 million). This reflects the fact that the production approach is predominant (exhaustive and detailed sources) in the compilation of Belgian GDP.

OVERVIEW OF BASIS FOR NA FIGURES AND ADJUSTMENTS FOR THE TOTAL ECONOMY

Basis for national accounts figures

The composition of basic sources and methods for operating revenue/output, consumption of goods and services/intermediate consumption and value added is as follows (billion €)²⁴⁴

S1	Basis for NA Figures											Total sources
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other		
				Benchmark extrapolations	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrap+ Models			
P1	21,0	1.154,8	0,3	0,8	8,9	28,7	10,9	9,3	58,7	0,1	1.234,8	
P2	14,7	864,9	0,0	0,2	0,0	2,7	0,0	5,6	8,5	0,1	888,2	
B1g	6,3	289,9	0,3	0,6	8,9	26,0	10,9	3,7	50,1	0,0	346,7	

These numbers show the importance of administrative data in the compilation of value added and GDP in Belgium: 84 % of total value added is estimated via administrative sources²⁴⁵. The direct use of surveys and censuses is limited (about 2 % in terms of value added). As in other countries model calculations are done for dwelling services, the estimation of consumption of fixed capital and the production (and allocation) of fisim. Other extrapolations and models (used in the absence of direct information) only represent a small part of total value added estimated (ca 1 %).

Adjustments

(billion €)

S1	Adjustments														final	
	Data validation	Conceptual			Exhaustiveness									Balancing		Total adjustments
		Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N3	N4	N5	N6	N7	Total exhaustiveness				
P1	-32,0	0,6	-407,2	-406,6	0,5	2,0	0,2	0,0	0,0	24,7	0,6	28,0	-0,5	-411,1	823,7	
P2	-29,0	7,9	-399,4	-391,5	0,0	0,3	0,1	0,0	0,0	10,9	-2,0	9,2	0,2	-411,1	477,0	
B1g	-3,0	-7,3	-7,8	-15,1	0,5	1,8	0,1	0,0	0,0	13,8	2,6	18,8	-0,6	0,0	346,6	

All types of adjustments are made to the basis for national accounts figures.

In 2012 the data validation (-3), conceptual (-15,1) and balancing adjustments (-0,6) compensate the exhaustiveness adjustments (+18,8).

²⁴⁴ Due to rounding the sum of the sub-headings is not always equal to the total amount.

²⁴⁵ If we do not take into account dwelling services, consumption of fixed assets and fisim, this percentage increases to 96 %.

The very large downward adjustment on sales and purchases is explained to a large extent by the correction for commercial goods (sales are converted in trade margins and purchases of commercial goods are excluded from intermediate consumption).

3.1.3. Specific comments by industry

Agriculture forestry and fishing (A)

The bases for the national accounts figures in agriculture are the economic accounts for agriculture (surveys and Censuses). For forestry and fishing we rely on administrative data (annual accounts and VAT-declarations).

Mining and quarrying (B)

This is a very small industry in Belgium. Its value added is primarily estimated via administrative sources (annual accounts and VAT-files).

Manufacturing (C)

This branch is discussed in more detail in order to illustrate the general approach.

Basis for national accounts figures (€billion)

C	Basis for NA Figures											
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Other	Total sources
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrapol+ Models		
P1	1,5	275,6	0,0	0,0	0,0	0,0	0,0	0,0	0,8	0,8	0,0	277,8
P2	1,2	227,5	0,0	0,0	0,0	0,0	0,0	0,0	0,6	0,6	0,0	229,3
B1g	0,3	48,0	0,0	0,0	0,0	0,0	0,0	0,0	0,2	0,2	0,0	48,5

The *administrative records* are annual accounts (for corporations: cat A1, B1, B2, C1, C2 and NPI's: H1, H2, H3) and VAT-declarations (for unincorporated enterprises and corporations for which annual accounts or SBS are lacking: cat A2 and B3). For some large units for which no annual accounts are available, the Structural Business Survey (SBS) (*survey*) is used to estimate aggregates in the production approach (cat E1 and E2). A limited number of units are estimated in an indirect way (*other extrapolations and models*): the value added of members of a VAT-unit not depositing annual accounts (cat BL), fiscal representatives (cat RF) and very small NPI's not depositing annual accounts (cat H4) are estimated via the wage bill.

The detailed composition of the basis for NA figures of value added in manufacturing is given in the next table

Composition of basis for NA figures of value added in manufacturing (mln €)				
population	category	basis NA	source	amount
Large corporations with full accounts	A1	AR	AA	41.305
SMS corporations with abridges accounts	B1+B2+C1+C2	AR	AA	5.110
NPI's with annual accounts	H1+H2+H3	AR	AA	14
Large and SMS corporations and unincorporated businesses without AA and SBS	A2+B3	AR	VAT	1.614
<i>S11</i>				1.106
<i>S14</i>				508
Large and SMS corporations without AA but with SBS	E1+E2	S\$C	SBS	311
members of VAT-units without AA, fiscal representatives and NPI's without AA	BL+RF+H4	Other E&M	ONSS/(APL)	158
TOTAL				48.511
<i>of which S11</i>				48.003
<i>of which S14</i>				508

Adjustments

(€ billion)

C	Adjustments										final
	Data validation	Conceptual			Exhaustiveness				Balancing	Total adjustments	
		Allocation of FISIM	Other conceptual	Total conceptual	N2	N6	N7	Total exhaustiveness			
P1	-0,1	0,0	-50,0	-50,0	0,7	1,0	0,0	1,7	0,0	-48,4	229,4
P2	-0,1	1,1	-49,8	-48,7	0,0	0,5	-0,4	0,2	0,0	-48,7	180,6
B1g	0,0	-1,1	-0,1	-1,3	0,6	0,5	0,5	1,5	0,0	0,3	48,8

On total the adjustments on the basis for national accounts figures are relatively small (in terms of value added): the exhaustiveness adjustments (+ € 1.5 billion) are to a large extent offset by negative conceptual adjustments. The other conceptual adjustments are the sum of adjustments with a positive and negative impact on value added as shown in the next table. On balance the impact is close to zero

Other conceptual adjustments in manufacturing (mln €)							
correction				number	C_A	C_B	C_C
trade margins				(d)	-47.941	-47.941	0
capitalisation of R&D costs				(g)	879	-253	1.132
capitalisation of software costs				(i1) (i2)	666	-185	851
adjustment insurance premiums paid				(l)	0	-226	226
reclassification of part of financial costs as P2				(k)	0	405	-405
adjustment basic prices				(o1) (o2) (o3) (o4)	-1.620	-503	-1.117
adjustment establishments abroad				(v)	-1.149	-951	-198
reconciliation adjustment with exogeneous informatic				(aa)	-455	127	-583
other adjustments (*)					-363	-323	-40
total					-49.983	-49.849	-133
(*) b+c+e+f+h1+h2+i3+m+r+w+x4+ab							
C_A	operating revenue/production						
C_B	goods and services/intermediate consumption						
C_C	gross margin/value added						

Energy (D) and Water (E)

The estimation process of these branches is analogous to the procedure followed in manufacturing industry. In industry D a large data validation adjustment is necessary (on a structural basis)

Construction (F)

		Basis for NA Figures											
					Extrapolation and Models								
		Surveys & Censuses	Administrative Records	Combined Data	Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrap+ Models	Other	Total sources
P1	F	0,1	58,2	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,0	58,4
P2		0,1	42,3	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,0	42,4
B1g		0,0	15,9	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	16,0
		Adjustments											
Data validation	Conceptual			Exhaustiveness				Balancing	Total adjustments	final			
	Allocation of FISIM	Other conceptual	Total conceptual	N2	N6	N7	Total exhaustiveness						
-0,8	0,0	-1,6	-1,6	0,0	9,9	0,0	9,9	0,0	7,5	65,9			
-0,7	0,4	-1,4	-0,9	0,0	5,6	-0,1	5,5	0,0	3,9	46,3			
-0,1	-0,4	-0,2	-0,6	0,0	4,3	0,1	4,4	0,0	3,7	19,6			

Almost a third of the exhaustiveness adjustment for underreporting/fiscal fraud is done in construction (N6: € 4.3 billion out of € 13.8 billion for the total economy).

Trade and repair of motor vehicles (G), transportation and storage (H) and accommodation and food service activities (I)

		Basis for NA Figures											
		Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total sources	
					Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M			Total Extrap+ Models
P1	G_I	6,6	465,3	0,0	0,0	0,0	2,7	0,0	0,0	1,0	3,7	0,0	475,5
P2		5,7	400,3	0,0	0,0	0,0	0,0	0,0	0,0	0,9	0,9	0,0	406,9
B1g		0,8	65,0	0,0	0,0	0,0	2,7	0,0	0,0	0,1	2,8	0,0	68,7

Adjustments										
Data validation	Conceptual			Exhaustiveness				Balancing	Total adjustments	final
	Allocation of FISIM	Other conceptual	Total conceptual	N2	N6	N7	Total exhaustiveness			
-14,8	0,0	-315,0	-315,0	0,4	8,7	0,6	9,7	0,0	-320,1	155,4
-13,1	0,9	-310,8	-309,9	0,0	3,0	-0,7	2,3	0,0	-320,7	86,1
-1,7	-0,9	-4,1	-5,0	0,4	5,7	1,2	7,3	0,0	0,6	69,3

Public non-market units (S13) are part of these industries – regional public transport companies and public infrastructure - which implies the occurrence of *CFC (PIM)* in the basis for NA figures. The impact of *data validation adjustments* on the basic sources are quite important and result in part from the corrections done on the accounts for the national postal service and the national railway company in order to align them to counterpart information registered in the public accounts (S13) and to comply with ESA2010 valuation. In wholesale and retail trade and repair of vehicles (G), total sales and purchases are diminished by the amount of the cost of commercial goods sold in order to transform sales to trade margins and purchases to intermediate consumption (correction (d)). This is the reason why turnover and purchases are significantly adjusted downwards in these industries. Conceptual adjustments other than the one for trade margins and fisim have, on balance, a negative impact on value added (-€ 4.1 billion). The exhaustiveness adjustments for underreporting/fiscal fraud (N6) and wages in kind and tips (N7) are also significant (resp. 41 % and 46 % of the amounts for the total economy).

Information and communication (J)

This industry does not demand any specific comments.

Financial intermediaries (K)

		Basis for NA Figures											
		Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total sources	
					Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M			Total Extrap+ Models
P1	K	2,1	29,7	0,3	0,0	0,0	0,0	0,0	10,9	1,0	12,0	0,0	44,1
P2		0,2	20,1	0,0	0,0	0,0	0,0	0,0	0,0	0,7	0,7	0,0	21,0
B1g		2,0	9,6	0,3	0,0	0,0	0,0	0,0	10,9	0,3	11,2	0,0	23,0

Adjustments										
Data validation	Conceptual			Exhaustiveness				Balancing	Total adjustments	final
	Allocation of FISIM	Other conceptual	Total conceptual	N2	N6	N7	Total exhaustiveness			
0,3	0,0	-1,8	-1,8	0,0	0,0	0,0	0,0	-0,2	-1,7	42,4
-0,1	0,2	-0,8	-0,6	0,0	0,0	-0,1	-0,1	0,2	-0,5	20,5
0,3	-0,2	-1,0	-1,2	0,0	0,0	0,1	0,1	-0,4	-1,1	21,9

In the financial sector the use of *administrative data* (accounting information of different types) is very important.

The activity of Belgian branches of foreign insurance companies and of Belgian reinsurance companies is estimated via the structural business survey (*survey and censuses*). SBS information is also used if annual accounts are lacking in subsectors S125 S126 and S127.

The *extrapolation and models* column contains the production amount for fisim and small amounts in the column other extrapolations and models.

Other Conceptual adjustments are made for instance to eliminate value added produced in foreign branches included in the annual accounts, to eliminate received non-life insurance claims from production and net non-life insurance premiums from intermediate consumption and to impute own account production of software. On balance the impact of these adjustments on value added equals - € 1 billion. In 2012 a balancing adjustment was also made in the financial sector (- € 0.4 billion).

Real estate activities (L)

Basis for NA Figures													
		Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total sources	
					Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M			Total Extrap+ Models
P1	L	0,2	14,0	0,0	0,8	0,0	0,0	28,7	0,0	0,1	29,6	0,0	43,9
P2		0,0	7,8	0,0	0,2	0,0	0,0	2,7	0,0	0,0	3,0	0,0	10,8
B1g		0,2	6,3	0,0	0,6	0,0	0,0	26,0	0,0	0,0	26,6	0,0	33,1

Adjustments										
Data validation	Conceptual			Exhaustiveness				Balancing	Total adjustments	final
	Allocation of FISIM	Other conceptual	Total conceptual	N2	N6	N7	Total exhaustiveness			
0,0	0,0	-0,6	-0,6	0,0	0,5	0,0	0,5	0,0	-0,1	43,8
0,0	3,0	-0,2	2,8	0,0	0,2	0,0	0,2	0,0	2,9	13,7
0,0	-3,0	-0,4	-3,4	0,0	0,3	0,0	0,4	0,0	-3,0	30,1

Real estate activities in S11 are estimated in the usual way via administrative sources.

Dwelling services for rented houses and for owner occupied houses in S14 are derived from benchmark figures for the year 2011 (*dwelling stratification method*). The figures for the year 2012

also contain an extrapolation (for one year) from the benchmark year mentioned in the column “benchmark extrapolations”

Fisim calculated on mortgage loans enters as intermediate consumption in dwelling services (in S14). This explains the important amount in the column allocation of fisim in section L.

Professional, scientific and technical activities (M) and administrative and support activities (N)

		Basis for NA Figures											
					Extrapolation and Models								
		Surveys & Censuses	Administrative Records	Combined Data	Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrap+ Models	Other	Total sources
P1	M_N	0,7	96,2	0,0	0,0	0,0	0,0	0,0	0,0	1,0	1,0	0,0	97,9
P2		0,5	51,5	0,0	0,0	0,0	0,0	0,0	0,0	0,5	0,5	0,0	52,5
B1g		0,2	44,7	0,0	0,0	0,0	0,0	0,0	0,0	0,5	0,5	0,0	45,4

Adjustments											final
Data validation	Conceptual			Exhaustiveness				Balancing	Total adjustments		
	Allocation of FISIM	Other conceptual	Total conceptual	N2	N6	N7	Total exhaustiveness				
-1,6	0,0	-5,4	-5,4	0,0	2,3	0,0	2,3	-0,3	-5,0	92,9	
-1,9	0,8	-3,6	-2,8	0,0	0,8	-0,4	0,4	0,0	-4,2	48,3	
0,3	-0,8	-1,8	-2,6	0,0	1,5	0,4	1,8	-0,3	-0,8	44,6	

These industries follow the general procedure and do not demand specific comments

Public administration (O), education (L) and human health and social work (Q)

		Basis for NA Figures											
					Extrapolation and Models								
		Surveys & Censuses	Administrative Records	Combined Data	Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrap+ Models	Other	Total sources
P1	O_Q	0,0	101,0	0,0	0,0	0,0	5,9	0,0	0,0	1,7	7,6	0,0	108,6
P2		0,0	30,7	0,0	0,0	0,0	0,0	0,0	0,0	0,6	0,6	0,0	31,2
B1g		0,0	70,3	0,0	0,0	0,0	5,9	0,0	0,0	1,1	7,0	0,0	77,4

Adjustments											final
Data validation	Conceptual			Exhaustiveness				Balancing	Total adjustments		
	Allocation of FISIM	Other conceptual	Total conceptual	N2	N6	N7	Total exhaustiveness				
0,4	0,6	-1,6	-1,0	0,0	1,4	0,0	1,4	0,0	0,8	109,4	
0,1	0,9	-0,4	0,5	0,0	0,5	-0,1	0,4	0,0	1,0	32,3	
0,3	-0,3	-1,2	-1,5	0,0	0,9	0,1	1,0	0,0	-0,2	77,2	

Government accounts (administrative records) are the main source used in the sub sectors of S13. Consumption of fixed capital in the public sector is estimated via the PIM.

A significant part of the activity in health and social work is performed by NPI's. The activity of small NPI's not depositing annual accounts (cat H4) is estimated in an indirect way (via wages) which explains why "other extrapolations and models" is significant for these activities.

Arts, entertainment and recreation (R), other service activities (S) and households as employers of personnel (T)

		Basis for NA Figures											
		Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models						Other	Total sources	
					Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M			Total Extrap+ Models
P1	R_T	0,0	13,4	0,0	0,0	0,0	0,0	0,0	0,0	3,5	3,5	0,0	16,9
P2		0,0	8,9	0,0	0,0	0,0	0,0	0,0	0,0	2,1	2,1	0,0	11,0
B1g		0,0	4,5	0,0	0,0	0,0	0,0	0,0	0,0	1,4	1,4	0,0	5,9

Adjustments											
Data validation	Conceptual			Exhaustiveness					Balancing	Total adjustments	final
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N6	N7	Total exhaustiveness			
-2,2	0,0	-0,3	-0,2	0,5	0,8	0,6	0,0	2,0	0,0	-0,5	16,4
-2,2	0,1	-0,5	-0,3	0,0	0,2	0,2	0,0	0,3	0,0	-2,3	8,7
0,1	-0,1	0,2	0,1	0,5	0,7	0,5	0,0	1,6	0,0	1,8	7,7

Other extrapolations and models are also relatively important in this branch for the same reason as in health and social work (€ 1.4 billion of the total amount of € 5.9 billion).

The corrections of the annual accounts of the National Lottery and of the copyright companies (collecting and distributing royalties) are treated as data validation adjustments.

The wages (equals production and value added) paid to household personnel appear in N1 and the prostitution activity in N2.

Taxes and subsidies on products (D21-D31)

The bases for these transactions are administrative fiscal data.

A conceptual adjustment is made in order to convert 'cash' data into 'transactionalised cash' data (VAT, excise duties).

3.2 Expenditure measure

3.2.1 Final consumption expenditure of households (P3S14)

The estimation of final consumption expenditure of households relies on a multitude of sources and methods, depending on the type of product estimated. The GNI inventory (Chapter 5) gives a summary of sources and methods used by COICOP category.

The process table distinguishes different sources as basis for national accounts figures which are shown in the table below.

Basis for national accounts figures	Year 2012 (in €million)
Surveys and censuses	0
Administrative records	10.109
Combined data	0
Extrapolation methods	174.454
<i>Benchmark extrapolations</i>	<i>87.385</i>
<i>Commodity Flow Model</i>	<i>26.621</i>
<i>CFC (PIM)</i>	<i>0</i>
<i>Dwellings – stratification method</i>	<i>30.419</i>
<i>FISIM</i>	<i>0</i>
<i>Other extrapolations and models</i>	<i>30.030</i>
Other	0
Total sources	184.563

As 2012 was not a benchmark year for the introduction of the household budget survey (HBS) in final consumption expenditure of households figures, estimates based on surveys and censuses are considered to be zero. All estimates based on the HBS in benchmark year 2010 and extrapolated using various evolutions for the following years are considered benchmark extrapolations. In total, benchmark extrapolations were equal to € 87.385 million in 2012.

Administrative records, equal to € 10.109 million in 2012, correspond with estimates derived from annual accounts, general government and NPISH. The commodity flow method is used to estimate, among others, health services, social protection services and financial services and amounted to € 26.621 million in 2012. Dwelling services are derived from the production figures and were equal to € 30.419 million in 2012. Other extrapolations and models amounted to € 30.030 million in 2012 and consist of various specific methods for expense categories such as alcoholic beverages and tobacco, energy, transport and the transition to national concept.

In total, final consumption expenditure was equal to € 184.563million before adjustments.

Several adjustments are needed to finalise the estimation of total final consumption expenditure of households according to ESA 2010. The results of these estimates are shown in the table below.

Adjustments	Year 2012 (in €million)
Data validation	773
Conceptual adjustments	1.655
<i>Allocation of FISIM</i>	<i>1.655</i>
<i>Other conceptual adjustments</i>	<i>0</i>
Exhaustiveness corrections	8.877
<i>N1: producer should have registered</i>	<i>466</i>
<i>N2: illegal economy</i>	<i>1.366</i>
<i>N3: producer is not obliged to register</i>	<i>0</i>
<i>N4: registered legal person is not included</i>	<i>5.778</i>
<i>N5: registered entrepreneur is not included</i>	<i>0</i>
<i>N6: misreporting by producer</i>	<i>0</i>
<i>N7: statistical deficiencies in the data</i>	<i>1.268</i>
Balancing	150
Total adjustments	11.455

The first adjustment is **data validation** which occurs when the supply and use tables are compiled and which allows an evaluation of the different estimates by product. During this process it sometimes becomes clear that adjustments to final consumption expenditure of households are necessary. These corrections are shown in the column data validation of the process table and amounted to € 773 million in 2012.

Next, one conceptual adjustment is made: FISIM is estimated in the production approach and part of it is allocated to final consumption expenditure in COICOP 12. In 2012, an amount of € 1.655 million was attributed to households' final consumption expenditure.

A third type of adjustments reported in the process table corresponds with exhaustiveness corrections.

- **N1**, producer should have registered, was equal to € 466 million in 2012 and consists of consumption of cleaning services not reported.
- The illegal economy, correction **N2**, increased final consumption expenditure of households with € 1.366 million in 2012 and corresponds with consumption of drugs, smuggled tobacco products and prostitution services. Intermediate consumption which was necessary to produce these services is also included and deducted from final consumption expenditure of households.
- Consumption of own-produced goods (**N3**) is set to zero.
- Estimates extrapolated from the benchmark year 2010 and based on HBS results are levelled up to take into account collective households. This correction was equal to € 5.778 million in 2012 and is treated as **N4** ;

- As all registered entrepreneurs are considered to be included in the base estimate, **N5** is set at zero
- Misreporting by producers (**N6**) is supposed to be zero.
- The last exhaustiveness correction, (**N7**), consists in a compensation for statistical deficiencies in the data, given experience of previous arbitrages. In 2012 the amount added is equal to 1.268 million euro and is distributed under expense categories which use the HBS as main source.

Finally, a correction of final consumption expenditure of households is introduced when **balancing** production, expenditure and income approaches of GDP. In 2012 this correction was equal to € 150 million. It is distributed over the various COICOP categories where benchmark extrapolations of HBS data are the basis information.

In total, final consumption expenditure of households amounted to € 196.018 million in 2012.

3.2.2. Final consumption expenditure of government (P3S13)

We find the same sources and estimation methods as explained in the production approach (see L and M). Social transfers in kind (which represent production by market producers) are also registered in P3S13. Administrative sources are used to estimate this part.

The other conceptual adjustment is the amount produced but not consumed by government (P11, P12, and P131).

(€ billion)

Final consumption expenditure of government	P3S13
administrative records	94,8
CFC (PIM)	8,9
conceptual adjustments	-9,7
<i>Allocation of fisim</i>	<i>0,6</i>
<i>Other conceptual adjustments</i>	<i>-10,3</i>
final estimate	94,0

3.2.3. Final consumption expenditure of NPI serving households (P3S15)

The integration of P3S15 in the process table follows the same logic as P3S13 (cf supra)

3.2.4. Gross fixed capital formation (P51)

Basis for national accounts

Sources and methods used to estimate P51 are the following

(€ billion)

Gross fixed capital formation	P51
administrative records	53,1
surveys and censuses	8,3
combined data	21,1
other extrapolation and models	4,2
total basis for national accounts (a)	86,7

The largest part of total GFCF relies on *administrative sources*: annual accounts, VAT-records and budgetary information.

Surveys are the main sources used to estimate investments in purchased software, R&D and GFCF in the banking (S122) and insurance (S128) sectors.

GFCF in dwellings relies on different sources on volumes and prices (*combined data*)

Other extrapolation and models are used to estimate software produced for own account and investments of units for which annual accounts or VAT-records are lacking (liberal professions in the household sector).

Adjustments

The following adjustments are made to the source data

(€ billion)	
Gross fixed capital formation	P51
Data validation	-1,6
Conceptual adjustments	1,6
Exhaustiveness adjustments (N3 + N4)	0,6
Balancing	0,3
Total adjustments (b)	0,9
Final estimate P51 (a)+(b)	87,7

Data validation adjustments are made for some large companies when source data (annual accounts, VAT, SBS) give contradictory information. In some cases source material is also blurred due to restructuring operations (mergers and scissions).

Conceptual adjustments are made to adjust or complete administrative data to comply with ESA2010 concepts. It refers for instance to exclusion of transactions in land, corrections for valuation of disposals, corrections of misreported purchased software (reclassification from P2 to P51) and misreported real estate investments (reclassification from P52 to P51), or estimate of a mark-up for output for own final use of tangible fixed assets.

The *exhaustiveness adjustment* consists on the one hand of estimated investments of small NPI's which do not have to file any reporting (N3) and; on the other hand, of extrapolation of purchased software for units that did not fill any SBS (N4).

3.2.5. Changes in inventories (P52)

Changes in stocks are estimated via annual accounts information (administrative records)

Adjustments are made in order to eliminate holding gains or losses contained in the book value of the inventories (conceptual adjustments) or for arbitrage purposes (balancing adjustment).

(€ billion)

basis for national accounts (a)	2,3
conceptual adjustment	-0,1
balancing adjustment	...
total adjustments (b)	-0,1
final estimate (a)+(b)	2,2

3.2.6. Exports and imports of goods and services (P6 and P7)

Basis for national accounts figures

(€ billion)

	Basis for NA Figures												
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models							Other	Total sources	
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrap+ Models			
Exports of	231,4	72,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	10,7	10,7	0,0	314,9
goods	160,3	69,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	4,8	4,8	0,0	234,9
service	71,1	2,9	0,0	0,0	0,0	0,0	0,0	0,0	0,0	6,0	6,0	0,0	80,0
Imports of	243,0	64,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	14,2	14,2	0,0	321,3
goods	174,2	63,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	8,4	8,4	0,0	245,7
service	68,8	1,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	5,8	5,8	0,0	75,6

Adjustments

(€ billion)

Data validation	Adjustments											final
	Conceptual			Exhaustiveness					Balancing	Total adjustments		
	Allocation of FISIM	Other conceptual	Total conceptual	N1	N2	N6	N7	Total exhaustiveness				
-0,5	1,8	-4,4	-2,6	0,0	0,7	0,0	0,0	0,7	6,5	4,1	318,9	
-0,9	0,0	-4,4	-4,4	0,0	0,7	0,0	0,0	0,7	4,8	0,1	234,9	
0,4	1,8	0,0	1,8	0,0	0,0	0,0	0,0	0,0	1,8	4,0	84,0	
-2,3	0,4	-4,4	-4,0	0,0	0,3	0,0	0,0	0,3	1,2	-4,8	316,5	
-2,2	0,0	-4,4	-4,4	0,0	0,2	0,0	0,0	0,2	0,5	-5,9	239,8	
-0,1	0,4	0,0	0,4	0,0	0,1	0,0	0,0	0,1	0,7	1,1	76,7	

Imports and exports of goods

Basis for NA

Since the basis for the imports and exports of goods in the national accounts is the balance of payments, the estimations in this source were taken as reference/starting point for the process table. The imports and exports of goods in the balance of payments are based on the foreign trade figures, collected by Intrastat and Extrastat.

The heading '*surveys and censuses*' consists mainly of the data collected via the Intrastat survey of the Foreign Trade Department corrected for conceptual balance of payments/national accounts

adjustments. These adjustments include the eliminations of goods for processing and repair flows included in the Intrastat survey. Other corrections comprise²⁴⁶:

- Elimination of goods dispatched from Belgium to a foreign construction site and included in the total value of the construction project
- Addition of goods procured in ports by carriers
- Addition of goods under merchanting
- Addition of sales via internet, mail-order, direct marketing and telemarketing
- Addition of sales of goods to foreign enterprises

The above mentioned corrections are collected via BOP-surveys and are therefore integrated under the heading ‘surveys and censuses’.

The part of the import and export of goods that is estimated on the basis of Extrastat data are included in the heading ‘*administrative records*’. These data are also already adjusted for goods sent abroad for processing and repair included in the Extrastat data. A second source which is integrated under the administrative records is the import and export to and from foreign enclaves. The extrapolations for the Intrastat system and corrections for the non-response are integrated under the heading ‘*other extrapolations & models*’.

Adjustments

Four adjustments take place on the observed source data. The first adjustment is the **data validation**. This heading comprises the data validation done by the balance of payments and the national accounts (integrated or not in the balance of payments).

Since the balance of payments also incorporates the gas transit flows, the heading ‘**other conceptual**’ comprehends the elimination of this transit flows, estimated by the national accounts.

The **exhaustiveness correction** corresponds to the import and exports of smuggled goods and illegal drugs.

The fourth adjustment consists of the results from the **balancing** process of the national accounts.

Imports and exports of services

Basis for NA

²⁴⁶ The elimination of transit flows is already done by the Foreign Trade Department, since they deliver figures in national concept.

Since the basis for the imports and exports of services in the national accounts is the balance of payments, the estimations in this source were taken as reference/starting point for the process table.

The heading ‘**surveys and censuses**’ consists of data collected by the different BOP-surveys, supplemented by the part of the processing and repair services that is estimated on the basis of foreign trade data. Also the figures concerning the import and export of travel services which are based on the surveys of Statistics Belgium are integrated in this heading.

The data coming from Eurostat (estimation of all headings of the BOP), the credit card companies (estimation of travel services), the National Bank of Belgium and the NATO (estimation of government services) are included under the heading **administrative records**.

The estimations concerning the import and export of management costs by collective investment undertakings are included under the ‘**other extrapolations and models**’ category supplemented with the extrapolations and corrections for the non-response.

Adjustments

Three adjustments take place on the observed source data. The first adjustment is the **data validation**. This heading comprises the data validation done by the balance of payments and the national accounts (integrated or not in the balance of payments).

The **exhaustiveness adjustment** corresponds to the import and exports of prostitution services.

The third adjustment consists of the results from the **balancing** process of the national accounts.

3.3 *Income approach*

3.3.1 Compensation of employees (D1)

(€ billion)

Compensation of employees	D1
Administrative records (a)	193,8
Exhaustiveness adjustment (N1+N6+N7) (b)	4,4
Domestic staff (N1)	0,5
Black wages (N6)	1,4
Wages in kind and tips	2,6
final estimate (a)+(b)	198,2

Administrative records (annual accounts and social balance sheets, social security declarations, specific accounting schemes in the financial and public sector) are used in compiling compensation of employees.

Exhaustiveness adjustments are made to take into account wages paid to domestic staff (N1) black wages (undeclared work: N6), wages in kind and tips (N7).

3.3.2 Operating surplus/mixed income

(€ billion)

	Basis for NA Figures					
	Administrative Records	Combined Data	Extrapolation and Models			Total sources
			CFC(PIM)	Dwellings stratification method	Total Extrap+ Models	
Gross operating surplus (1)	0,0	86,0	9,4	21,9	31,3	117,3
Non-Financial Corporations	0,0	76,1	0,0	0,0	0,0	76,1
Financial Corporations	0,0	10,0	0,0	0,0	0,0	10,0
General Government	0,0	0,0	8,9	0,0	8,9	8,9
Households	0,0	0,0	0,0	21,9	21,9	21,9
NPISH	0,0	0,0	0,5	0,0	0,5	0,5
Mixed income	0,0	20,2	0,0	0,0	0,0	20,2

No independent estimate for operating surplus or mixed income is made in Belgium. Therefore the gross operating surplus in S11 and S12 and the gross mixed income in S14 are attributed to the column **combined data** (balance of transactions estimated on the basis of different sources).

The gross operating surplus in S13 and S15 is equal to the consumption of fixed capital which is estimated via the PIM (**CFC/PIM**). Operating surplus in S14 is generated by renting and occupying dwellings and is therefore registered in the column **dwellings-stratification method**.

Adjustments

(€ billion)

	Adjustments										
	Data validation	Conceptual Total conceptual	Exhaustiveness					Total exhaustiveness	Balancing	Total adjustments	final
			N1	N2	N3	N6	N7				
Gross operating surplus (1)	0,0	0,0	0,0	0,6	0,0	8,6	0,0	9,2	-0,4	8,8	126,1
Non-Financial Corporations	0,0	0,0	0,0	0,6	0,0	8,6	0,0	9,2	0,0	9,2	85,3
Financial Corporations	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-0,4	-0,4	9,6
General Government	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	8,9
Households	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	21,9
NPISH	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,5
Mixed income	0,0	0,0	0,0	1,1	0,1	3,8	0,1	5,1	-0,3	4,9	25,1

The exhaustiveness adjustments not attributed to wages are reflected in operating surplus (S11) and in mixed income (S14). The (negative) balancing adjustment in the production approach is also reflected in the income approach (part in operating surplus and part in mixed income).

3.3.3 Taxes on production and imports and subsidies

Administrative sources (public accounting information) are dominant for these items.
(We also refer to some comments made in the production approach: D21 and D31).

3.4 *Net primary income paid to/received from the rest of the world*

3.4.1 Compensation of employees

Administrative data from international organisations (EU, NATO) is used to determine wages paid by these organisations to Belgian residents.

Wages paid to Belgian cross-border workers working abroad and to foreign cross-border workers working in Belgium are estimated as number of border workers multiplied by their average compensation (**other extrapolation and models**)

Wages paid to non-cross-border workers are known via the balance of payments (**surveys**)

3.4.2 Taxes on production and imports and subsidies

We dispose of administrative data (general government budget) for these flows.

3.4.3 Property income

The split up of sources and methods by underlying transaction is shown in the next table:

(€ billion)

	Basis for NA Figures					
	Surveys & Censuses	Administrative Records	Extrapolation and Mod		Other	Total sources
			Other E&M	Total Extrap+ Models		
Property income received from ROW	14,0	0,0	33,8	33,8	0,0	47,8
interest	0,0	0,0	30,3	30,3	0,0	30,3
distributed income of corporations	11,8	0,0	0,0	0,0	0,0	11,8
reinvested earnings on FDI	2,2	0,0	0,0	0,0	0,0	2,2
other investment income	0,0	0,0	3,5	3,5	0,0	3,5
Property income paid to ROW	0,0	23,3	19,0	19,0	0,0	42,3
interest	0,0	0,0	18,5	18,5	0,0	18,5
distributed income of corporations	0,0	19,7	0,0	0,0	0,0	19,7
reinvested earnings on FDI	0,0	3,6	0,0	0,0	0,0	3,6
other investment income	0,0	0,0	0,5	0,5	0,0	0,5

Interest flows (D41) with the ROW are estimated by applying yield percentages on outstanding amounts (of interest generating financial assets and liabilities). The same approach is followed for the other investment income (D44) (**other extrapolations and models**).

Dividend flows (D42) and reinvested earnings (D43) received from the ROW are captured via specific **surveys** organised by the balance of payments. D42 and D43 paid to the ROW are estimated using annual accounts information (**administrative records**)

	Adjustments							final
	Data validation	Conceptual			Exhaustiveness	Balancing	Total adjustments	
		Allocation of FISIM	Other conceptual	Total conceptual	Total exhaustiveness			
Property income received from ROW	0,0	-0,9	0,0	-0,9	0,0	0,0	-0,9	46,9
interest	0,0	-0,9	0,0	-0,9	0,0	0,0	-0,9	29,4
distributed income of corporations	0,0	0,0	0,0	0,0	0,0	0,0	0,0	11,8
reinvested earnings on FDI	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,2
other investment income	0,0	0,0	0,0	0,0	0,0	0,0	0,0	3,5
Property income paid to ROW	0,0	0,4	0,0	0,4	0,0	0,0	0,4	42,7
interest	0,0	0,4	0,0	0,4	0,0	0,0	0,4	19,0
distributed income of corporations	0,0	0,0	-5,2	-5,2	0,0	0,0	-5,2	14,5
reinvested earnings on FDI	0,0	0,0	5,2	5,2	0,0	0,0	5,2	8,8
other investment income	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,5

Interest flows with the ROW are adjusted due to the **allocation of fisim** (P62 and P72).

Dividends and reinvested earnings paid to the ROW are adjusted in order to eliminate super dividends (which are treated as a financial transaction). This correction is treated as **other conceptual adjustment**.

No data validation or balancing adjustments are made to property income.

The **synthetic process table** can be found in the next tables (part 1: three approaches to GDP; part 2 primary income received from/paid to ROW and GNI).

billion €	Basis for NA Figures												Adjustments													final		
	Surveys & Censuses	Administrative Records	Combined Data	Extrapolation and Models								Other	Total sources	Data validation	Conceptual			Exhaustiveness							Balancing		Total adjustments	
				Benchmark extrapolations	Commodity Flow Model	CFC(PIM)	Dwellings stratification method	FISIM	Other E&M	Total Extrap+ Models	Allocation of FISIM				Other conceptual	Total conceptual	N1	N2	N3	N4	N5	N6	N7	Total exhaustiveness				
P1	21,0	1.154,8	0,3	0,8	0,0	8,9	28,7	10,9	9,3	58,7	0,1	1.234,8	-32,0	0,6	-407,2	-406,6	0,5	2,0	0,2	0,0	0,0	24,7	0,6	28,0	-0,5	-411,1	823,7	
P2	14,7	864,9	0,0	0,2	0,0	0,0	2,7	0,0	5,6	8,5	0,1	888,2	-29,0	7,9	-399,4	-391,5	0,0	0,3	0,1	0,0	0,0	10,9	-2,0	9,2	0,2	-411,1	477,0	
B1g	6,3	289,9	0,3	0,6	0,0	8,9	26,0	10,9	3,7	50,1	0,0	346,7	-3,0	-7,3	-7,8	-15,1	0,5	1,8	0,1	0,0	0,0	13,8	2,6	18,8	-0,6	0,0	346,6	
D21	0,0	44,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	44,0	0,0	0,0	-1,0	-1,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-1,0	43,0	
D31 (-)	0,0	2,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,3	0,0	0,0	-0,1	-0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-0,1	2,2	
GDP_output	6,3	331,6	0,3	0,6	0,0	8,9	26,0	10,9	3,7	50,1	0,0	388,3	-3,0	-7,3	-8,7	-16,0	0,5	1,8	0,1	0,0	0,0	13,8	2,6	18,8	-0,6	-0,9	387,4	
P3	0,0	110,9	0,0	87,4	26,6	9,3	30,4	0,0	30,0	183,8	0,0	294,7	0,8	2,3	-11,6	-9,3	0,5	1,4	0,0	5,8	0,0	0,0	1,3	8,9	0,2	0,5	295,2	
P3S14	0,0	10,1	0,0	87,4	26,6	0,0	30,4	0,0	30,0	174,5	0,0	184,6	0,8	1,7	0,0	1,7	0,5	1,4	0,0	5,8	0,0	0,0	1,3	8,9	0,2	11,5	196,0	
P3S15	0,0	5,9	0,0	0,0	0,0	0,5	0,0	0,0	0,0	0,5	0,0	6,4	0,0	0,1	-1,3	-1,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-1,2	5,2	
P3S13	0,0	94,8	0,0	0,0	0,0	8,9	0,0	0,0	0,0	8,9	0,0	103,7	0,0	0,6	-10,3	-9,7	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-9,7	94,0
P5	8,3	55,3	21,1	0,0	0,0	0,0	0,0	0,0	4,2	4,2	0,0	89,0	-1,6	0,0	1,5	1,5	0,0	0,0	0,2	0,4	0,0	0,0	0,0	0,6	0,4	0,8	89,8	
P51	8,3	53,1	21,1	0,0	0,0	0,0	0,0	0,0	4,2	4,2	0,0	86,7	-1,6	0,0	1,6	1,6	0,0	0,0	0,2	0,4	0,0	0,0	0,0	0,6	0,3	0,9	87,7	
P52	0,0	2,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,3	0,0	0,0	-0,1	-0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-0,1	2,2	
P53	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
P6	231,4	72,8	0,0	0,0	0,0	0,0	0,0	1,8	10,7	12,5	0,0	316,6	-0,5	0,0	-4,4	-4,4	0,0	0,7	0,0	0,0	0,0	0,0	0,0	0,7	6,5	2,3	318,9	
P7	243,0	64,1	0,0	0,0	0,0	0,0	0,0	0,4	14,2	14,6	0,0	321,7	-2,3	0,0	-4,4	-4,4	0,0	0,3	0,0	0,0	0,0	0,0	0,0	0,3	1,2	-5,2	316,5	
GDP_expenditure	-3,3	174,8	21,1	87,4	26,6	9,3	30,4	1,4	30,8	185,9	0,0	378,6	0,9	2,3	-10,1	-7,8	0,5	1,8	0,2	6,2	0,0	0,0	1,3	9,9	5,8	8,8	387,4	
D1	0,0	193,8	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	193,8	0,0	0,0	0,0	0,0	0,5	0,0	0,0	0,0	0,0	1,4	2,6	4,4	0,0	4,4	198,2	
B2g	0,0	0,0	86,0	0,0	0,0	9,4	21,9	0,0	0,0	31,3	0,0	117,3	0,0	0,0	0,0	0,0	0,0	0,6	0,0	0,0	0,0	8,6	0,0	9,2	-0,4	8,8	126,1	
B3g	0,0	0,0	20,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	20,2	0,0	0,0	0,0	0,0	0,0	1,1	0,1	0,0	0,0	3,8	0,1	5,1	-0,3	4,9	25,1	
D2	0,0	52,9	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	52,9	0,0	0,0	-1,0	-1,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-1,0	52,0	
D3 (-)	0,0	14,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	14,1	0,0	0,0	-0,1	-0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	-0,1	14,0	
GDP_income	0,0	232,6	106,2	0,0	0,0	9,4	21,9	0,0	0,0	31,3	0,0	370,1	0,0	0,0	-0,9	-0,9	0,5	1,8	0,1	0,0	0,0	13,8	2,6	18,8	-0,6	17,3	387,4	

ANNEX 2 LIST OF ABBREVIATIONS

AEC	Agricultural Economics Centre	EEA/CLE
BBAA	Belgian Bureau of Automobile Assessors	BBEA
BCR	Brussels Capital Region	R B-C/BHG
BFC	Banking and Finance Commission	CBF/CBF
BFIC	Banking, Finance and Insurance Commission	CBFA/CBFA
BIRO	Belgian Intervention and Refund Office	BIRB/BIRB
BLEU	Belgian-Luxembourg Economic Union	UEBL/BLEU
BNR	Belgian National Railways	SNCB/NMBS
CAP	Common Agricultural Policy	PAC/GLB
CBSO	Central Balance Sheets Office	CB/BC
c.i.f.	Cost insurance freight	CAF/CIF
CII	Collective Investment Institutions	OPC/ICB
COFOG	Classification of the Functions of Government	
COICOP	Classification of Individual Consumption by Purpose	
CSSR	Central Server for Statistical Reporting	
DBRIS	Database of those required to provide statistical information	
DFIPF	Deposits and Financial Instruments Protection Fund	FIF/BDFI
DGSEI	General Directorate of Statistics and Economic Information	DGSIE/ADSEI
EAGGF	European Agricultural Guidance and Guarantee Fund	FEOGA/EOGFL
ECB	European Central Bank	BCE/ECB
ECSS	European Coal and Steel Community	CECA/EGKS
EEA	European Economic Area	EEE/EER
EMU	European Monetary Union	UEM/EMU
ESA	European System of Accounts	SEC/ESR
EU	European Union	UE/EU
EUR	Euro	EUR/EUR
FEBIAC	Belgian Automotive and Cycle Industry Federation	FEBIAC
FISIM	Financial intermediation services indirectly measured	SIFIM/IGDFI
f.o.b.	Free on Board	
FPB	Federal Planning Bureau	BPF/FBP
FPS	Federal Public Service	SPF/FOD
FR	Flemish Region	RF/VG
GDB	General Documentary Base	BGD/GDB
GDP	Gross Domestic Product	PIB/BBP
GFCF	Gross fixed capital formation	FBCF/BIVA
GNI	Gross National Income	RNB/BNI
HBS	Household Budgets Survey	EBM/GBE
IMF	International Monetary Fund	FMI/IMF

HORECA	Hotels, restaurants, cafés	HORECA
INA	Institute for National Accounts	ICN/INA
JAGF	Joint Automobile Guarantee Fund	FCGA/GMWF
KAU	Kind-of-activity unit	UAE/EEA
LP	Limited partnership	SC/CV
Ltd	Private Limited Company	SPRL/BVBA
MGSA	Minimum classification of General System of Accounts	MAR
NBB	National Bank of Belgium	BNB/NBB
NOAH	National Office for Annual Holiday	ONVA/RJV
NPA	Non-profit association	ASBL/VZW
NPI	Non-profit institution	ISBL/IZW
NPISH	Non-profit institution serving households	ISBLSM/IZW t.b.v. huishoudens
NRFM	National Retirement Fund for Mineworkers	FNROM/NPM
NRLP	National Register of Legal Persons	RNPM/RRRP
NSDII	National Sickness and Disability Insurance Institute	INAMI/RIZIV
NSSO	National Social Security Office	ONSS/RSZ
NSSOPLA	National Social Security Office for Provincial and Local Authorities	ONSS-APL/RSZPPO
NTS	Nomenclature of Transport Statistics	NST/NVS
ONDRAF	Radioactive Waste Management Office	ONDRAF/NIRAS
ONEM	National Employment Office	ONEM/RVA
OSSO	Overseas Social Security Office	OSSOM/DOSZ
PIT	Personal Income Tax	IPP
PLC	Public Limited Company	SA/NV
PSWC	Public Social Welfare Centre	CPAS/OCMW
RD	Royal Decree	AR/KB
RGI	Rediscount and Guarantee Institute	IRG/HWI
ROW	Rest of the world	S2
RPILM	Regional Projects for Integration into the Labour Market	PRIME
RTM	Marine Transport Authority	RTM/RMT
SFSHL	Sinking fund for social housing loans	FADELS/ALESH
SME	Small and medium-sized enterprise	EMS/KMO
SNA2008	System of National Accounts (UN, 2008)	SNC/NSR
SRCF	Seafarers' Relief and Contingency Fund	CSPM/HVKZ
SBS	Structure Business Survey	ESE/ESE
SUT	Supply and Use Table	
TAIE	Trade Association of Insurance Enterprises	UPEA/BVVO
TLC	Third Labour Circuit	TCT/DAC
TOB	Tax on stock exchange transactions	TOB/TOB
VAT	Value added tax	TVA/BTW
VKT	Abridged accounting schedule	

VOL Full accounting schedule

WR Walloon Region

RW/WG

Internal codes

P.11/V	Market output (= P.11/V1+P.11/V2)
P.11/V1	Part of market output relating to annual account code 70
P.11/V2	Part of market output relating to annual account codes (74-740)
P.11/P.52S	Changes in inventories of finished goods and work in progress (component of P.1)
P.12	Output for own final use
P.2/A	Acquisitions for intermediate consumption (= P.2/A1+P.2/A2)
P.2/A1	Part of acquisitions for intermediate consumption relating to annual account codes 600/8+61
P.2/A2	Part of acquisitions for intermediate consumption relating to annual account codes 641/8
P.2/P.52U	Change in inventory materials and supplies (component of P.2)
P.33	Consumption expenditure by resident households in the rest of the world
P.34	Consumption expenditure by non-resident households in the economic area of Belgium
P.3_S.14	Consumption expenditure by households
P.3_S.15	Consumption expenditure by NPIs
P.31_S.13	Individual consumption expenditure by the general government
P.32_S.13	Collective consumption expenditure by the general government
P.52C	Change in inventory goods for resale
P.52U	Change in inventory materials and supplies
P.52S	Changes in inventories finished goods and work in progress