National Accounts Institute

National accounts

ESA 2010

The new reference framework for the national accounts

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National Bank OF BELGIUM

Eurosystem

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ESA 2010 - The new reference framework for the national accounts

1. Introduction

The national accounts give a structured and detailed picture of a country's economy. They thus offer a consistent framework that can be used for macroeconomic analysis purposes. This general view is constructed by using many different sources of information that are put through an often complex and strictly applied methodology.

The accounts are governed by a set of accounting rules and good practices defined at international level. The European System of Accounts (ESA) is the European version of the System of National Accounts (SNA), drawn up under the joint responsibility of the United Nations, IMF, World Bank, OECD and the European Commission. These methodological manuals may be subject to review, notably to adapt them to global economic developments. In this way, conceptual innovations that have to be implemented in the national accounts of the different countries can be introduced. Updates of the international methodological manuals are nevertheless not at all frequent, since they are the end result of a long process of reflection and negotiations.

So, this year is rather special since the national accounts of the European Union (EU) Member States must be adapted to a new version of the European accounting system, namely the ESA 2010[1]. This replaces the previous version (ESA 1995) which had first been implemented back in 1998.

The ESA 2010 is an extension of the ESA 1995, while also incorporating some substantial conceptual changes. Since the basic principles and general structure of the accounts have been retained, readers looking for general information on the system of national accounts, may refer to an article published in 2000 (Le SEC 1995 comme système, only available in French or Dutch). The comments set out in this guide focus on the new elements brought in by the ESA 2010.

The changeover to the ESA 2010 thus involves revisions of the accounts which are more important than usual. Moreover, the conceptual adaptations required by the changeover to the ESA 2010 are not the only ones to have been applied this year. The NAI has effectively used this major exercise as an opportunity to integrate some other improvements into methods or sources used that are not related to the new guidelines laid down by the ESA 2010. Besides, Belgium is not the only country to proceed in this way; a good many other EU countries are taking advantage of the introduction of ESA 2010 to incorporate other revised elements in their accounts. Implementation of new European rules, as well as improvements in methodology and the possible use of new and better sources of basic information are part and parcel of what are referred to as "occasional revisions".

1 The adaptation of the ESA was given a formal setting by Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union.

Occasional revisions only take place once every 5 to 10 years. The objective of the national accounts is effectively to provide a framework for analysis that is consistent over time, while avoiding as far as possible any breaks in data series. In the event of any changes in methodology or sources, the statistical series are revised over many years. The new edition of the national accounts also gives revised figures right back to 1995.

Alongside these occasional revisions, the statistics are revised every year less thoroughly under so-called "current" reviews. These updates are designed to take on board all information that is available and more or less definitive, without having to modify the set methodology. The national accounts are thus revised over a time-scale of roughly three years before giving a "stabilised" picture of the economy. This is a recurrent element of the statistical process.

This document first of all gives a description of the changes in methods used (sections 2 and 3). Here, the impact of each of these changes on the level of GDP in 2010 (the reference year) is, at the very least, mentioned. A general overview of the accounts for the year 2010 is then proposed in section 4.1. Several different analytical approaches are discussed here. Section 4.2 gives a longer-term overview: the revisions and their impact on many aggregates are set out over the period from 1995 to 2011. Recent economic trends are also commented on in the press release and are also discussed in the publication of the accounts in PDF format, released on 24 October 2014.

The two following sections go on to cover more specific themes: section 5 is devoted to the accounts of general government in view of the particular nature of this area of the national accounts and the interest that it always attracts. Section 6 looks more specifically at the changes that affect the balance of payments.

The national accounts among other statistics subject to revision

The ESA 2010 constitutes a major change that does not just concern ***the non-financial national accounts*** which are set out here in some detail, but it also affects the financial accounts which are compiled according to the new version of the ESA as well.

The (non-financial) national accounts are issued on 30 September 2014, while the new version of the financial accounts are released a little later, on 14 October 2014.

Implementation of the new ESA goes hand in hand with the entry into force of a new manual for the ***balance of payments*** and the ***international investment position***: the 6th version of this manual, called the MBP6, also takes effect during the course of 2014. National accounts and balance of payments are now compiled according to harmonised methodologies from the point of view of both concepts and definitions, which should ensure better convergence of the statistics. Unlike the national accounts, which have been adjusted since 1995, the external statistics have only been revised since 2008, so that some divergences between the two statistical products are inevitable over the period 1995-2007.

The changes to BPM6 affecting the national accounts are dealt with in the chapters dedicated to the ESA 2010. In order to give a full picture of the revisions to BPM6, these are considered in chapter 6 in terms of their impact on the balance of payments, while a handful of methodological changes with no direct link to BPM6 are also broached here. This chapter also analyses the impact in figures of the new rules on balance of payments variables.

These two reforms involve implementing major adaptations to the whole range of statistical products in 2014. A number of reference indicators, notably those used under the mechanism for preventing and correcting excessive macroeconomic imbalances (MIP)[1], have thus been revised in all European countries. These indicators include for example, the current account balance, the international investment position, the private sector debt ratio, the government debt, etc.

1 The MIP (Macroeconomic imbalances procedure) is a mechanism, put in place at the end of 2011 for the euro area, enabling the EU Council of Ministers to adopt a Recommendation on the existence of an excessive imbalance and ask the Member State in question to produce, within a given timeframe, a plan setting out corrective measures. Each year, the Commission draws up a report with a view to early detection of imbalances. This report contains an economic and financial assessment based on a scoreboard with relevant economic indicators for detecting any macroeconomic imbalances.

2. Revisions imposed by the switchover to ESA 2010

2.1 Revaluation of external trade

Valuation of external trade is modified by applying the transfer of ownership criterion instead of the border crossing principle[1].

This conceptual change is in line with the 6th edition of the Balance of Payments Manual (BPM6). The international standards have thus been adapted to the phenomenon of globalisation which leads to fragmentation and an ever-growing dissemination of production processes, in turn leading to bigger trade flows.

The ESA 2010 applies the principle of transfer of ownership much more strictly. This new standard mainly impacts the recording of goods sent abroad for processing, maintenance and repairs, and merchanting.

2.1.1 Goods sent abroad for processing

Goods sent abroad for processing (in French, "travail à façon") is defined as the transformation of goods that do not belong to the manufacturer. Despite the absence of any transfer of ownership, transactions concerning goods sent abroad for processing had been regarded under the ESA 1995 as imports and exports of goods, with flows equal to the value of the goods before and after processing. The actual criterion for recording them under imports and exports of goods was therefore similar to the movement of goods across frontiers in the ESA 1995.

In the ESA 2010 on the other hand, given that the good remains the property of the company giving the order, no actual exchange of goods between countries is recorded. Only a processing fee is recorded, in this case under imports and exports of services. Conceptually speaking, this new treatment does not change the total external trade balance, nor does it have any impact on the level of GDP.

So as to establish clear guidelines for the ESA 2010 concepts, the sources of information for valuing the processing service give priority (since 2008) to data from the survey on balance of payments services, supplemented by data derived from external trade statistics when necessary.

2.1.2 Maintenance and repairs

In the same way as processing, the ESA 1995 recorded maintenance and repairs as a goods transaction.

In the ESA 2010, this exception to the principle of transfer of ownership has also been dropped and these transactions are now considered as a service. This has no impact on the external trade balance, nor on GDP.

In order to meet the new ESA 2010 requirements, invoicing of repairs as indicated in the surveys on balance of payments services has been used since 2008 as a priority source, instead of data on invoicing for repairs given in the external trade statistics which can nevertheless still be used to supplement the available information.

2.1.3 Merchanting

Merchanting refers to the purchase of goods by a resident from a non-resident, followed by the resale of these same goods to another non-resident. At no point in time do the goods cross the territory of the trader. Merchanting, however, implies a transfer of ownership of goods to the resident.

Under the ESA 1995, the difference between the sale price and the acquisition price was recorded as a transaction on services. The ESA 2010 stipulates that these transactions should be recorded under imports and exports of goods, given that there is a transfer of ownership. Conceptually, this change has no impact on the external trade balance nor on GDP.

1 The border-crossing criterion still applies in the compilation of specific statistics on international goods trade.

2.1.4 Impact on the valuation of imports and exports of goods and services

As already explained, the three above-mentioned conceptual changes have no influence on the actual level of GDP. Yet, they do alter quite substantially figures for imports and exports of goods and services, without however triggering a revision of the overall external balance.

Levels of imports and exports of goods thus declined in 2010 respectively by € 4.1 billion (or -1.9 %) and 3.8 billion (-1.7 %) following the changes in methodology; while imports and exports of services were up by respectively 0.7 billion (+1.2 %) and 0.4 billion (+0.6 %).

These results stem from strict conceptual changes. They do not take account of other elements arising under possible adjustments in the sources as well as standard reviews. These elements are also reflected in the new estimates of imports and exports of goods and services.

TABLE 1 IMPACT OF THE CONCEPTUAL CHANGES OF ESA 2010[1] ON THE LEVEL OF IMPORTS AND EXPORTS IN 2010
(in € million)

	Processing (a)	Repairs (b)	Merchanting (c)	Total (a)+(b)+(c)	In % of the aggregate before revision
Imports of goods and services	**-3 363.9**	**0.0**	**0.0**	**-3 363.9**	**-1.2 %**
Imports of goods	-3 836.4	-257.6	0.0	-4 094.0	-1.9 %
Imports of services	+472.5	+257.6	0.0	+730.1	+1.2 %
Exports of goods and services	**-3 363.9**	**0.0**	**0.0**	**-3 363.9**	**-1.2 %**
Exports of goods	-6 161.2	-486.7	+2 897.9	-3 750.0	-1.7 %
Exports of services	+2 797.3	+486.7	-2 897.9	+386.1	+0.6 %
Balance	**0.0**	**0.0**	**0.0**	**0.0**	

Source: NAI.
1 The results can also be affected by a change in the sources used (priority is given to data from balance of payments surveys on services) or by standard revisions (updates) in the basic data.

It should be noted that the national accounts series have been revised since the year 1995, but this is not the case for the balance of payments figures which have only been adjusted from 2008 onwards. So, there are still some major conceptual differences between the two statistical series over the period 1995-2007.

2.2 Capitalisation of R&D expenditure and weapons systems

2.2.1 Research and development

The ESA 2010 widens the perimeter of produced assets – taken to mean tangible or intangible goods which are used repeatedly and continuously in production processes for more than one year – notably to include, as intellectual property, the results of research and development (R&D) activities.

The consequence of this wider scope for produced assets is that R&D expenditure is from now on recorded under gross fixed capital formation (GFCF), i.e. as investment. So, it is referred to as "capitalisation" of R&D expenditure. ***Among all the changes that have been made in the switchover to ESA 2010, this is the one that has the biggest impact on measuring GDP.***

The R&D expenditure that is concerned by this new treatment is in keeping with the definition set out in the Frascati Manual[1] which states that: "*Research and experimental development (R&D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications*".

According to the Manual, R&D covers three activities:
– *basic research*: this is experimental or theoretical work undertaken primarily to aquire new knowledge. However, this knowledge is not necessarily obtained for commercial purposes since there is no particular application in view.
– *applied research*: this is also original work with the objective of acquiring new knowledge. But, unlike basic research, applied research is undertaken for a specific practical purpose.
– *experimental development*: this is work that draws on existing knowledge gained from research and practical experience, with the aim of creating new products, processes or systems or improving substantially those that already exist.

A statistical unit can have R&D expenditure made within the unit (intramural expenditure) or outside (extramural expenditure):
– intramural R&D expenditure: this comprises both current expenditure (labour costs of R&D personnel or staff employed in related services, as well as expenses for purchases of materials, supplies and equipment to support the R&D work) and capital expenditure (corresponding to the annual gross costs relating to the fixed assets used in R&D programmes, like land and buildings, instruments and equipment as well as computer software). This intramural expenditure generates either output for own final use, or output that will be sold to a third party;
– extramural R&D expenditure: this is made up of the sums a unit pays to another unit for the performance of R&D work. This includes acquisition of R&D carried out by other units as well as grants given to other units for carrying out R&D.

The new treatment set aside for R&D expenditure has the effect of raising the value added of units incurring research and development expenses, via mechanisms that are nevertheless different depending on whether they are market or non-market entities and whether the R&D is carried out for own use or is for a transaction between production units.

Since value added is obtained by subtracting intermediate consumption from output, the reclassification of an intermediate consumption expense as an investment thus leads to an increase in value added. This simple mechanism applies in the case of a purchase by a market or non-market unit (including general government) of R&D work carried out by an external entity.

In the case of R&D work done for own account, the effect of pushing up the producing unit's value added is also evident, even though the accounting mechanisms are slightly more complex: at the level of market enterprises, expenditure incurred for R&D (wages, sundry purchases, buildings, etc.) constitutes an ouput for own final use which goes directly into gross fixed capital formation. In the case of non-market units, their output is conventionally calculated as the sum of their production costs, and this includes consumption of fixed capital. It is precisely via the CFC channel – itself increased as a result of the capitalisation of R&D expenditure – that the value added of non-market units is raised.

1 "Proposed Standard Practice for Surveys on Research and Experimental Development", published by the OECD (2002). This Manual, given official recognition by Eurostat, constitutes the international methodological reference for collecting and using statistics on R&D.

To implement this major change, the NAI used data from the biennial survey carried out by Belspo[1]. In addition, Eurostat recommendations have been followed, while as much consistency as possible has also been sought with balance of payments data on imports and exports of R&D services.

The new treatment for R&D expenditure alone has led to the GDP figure being raised by 2.37 % in 2010 (€8.4 billion); 1.91 % (6.8 billion) of this relates to R&D carried out by market units and 0.46 % (€1.6 billion) to R&D work by non-market units.

2.2.2 Military weapons systems

With the ESA 2010, the fixed asset boundary has also been extended to include military weapons systems (vehicles, warships, submarines, fighter planes, armoured vehicles, etc.). The corresponding expenditure outlay by general government authorities therefore has to be recorded as gross fixed capital formation and no longer as intermediate consumption, insofar as it enables the acquisition of goods that will be used continuously in the production of defence services, even if their use is purely dissuasive in peacetime. This new accounting treatment is in line with the new version of the System of National Accounts (SNA 2008) which recommends classifying weapons systems as fixed assets and doing so on the basis of the same criteria as for other fixed assets, i.e. produced assets which are themselves used repetitively or continuously in the production process over more than a year.

The new classification of military expenditure pushes the level of GDP up by 0.04 % (€136 million) for 2010.

2.3 Improving accounting of financial corporations' activities

2.3.1 Adaptation of the classification of financial corporations

The system of accounts gives a so-called "institutional" classification. The financial corporations sector (S.12) is one component of it. The ESA 2010 introduces a new classification within this sector (see table below). This new classification will also be used more frequently by the European Central Bank (ECB) in its financial data gathering.

The financial sector has been given a wider sub-classification. It has notably been adjusted to distinguish a new sub-sector entitled "captive financial institutions and money lenders", which groups together financial institutions that neither perform financial intermediation activities, nor provide auxiliary financial services, and the vast majority of whose assets or liabilities are not traded on open financial markets. They are, for example, holding companies and treasury centres, which are now quite distinct from head offices. This change has major repercussions for financial statistics because it gives rise to a transfer of financial assets and liabilities from the non-financial corporations sector (where some holding companies could be classified under ESA 1995) to the financial corporations sector. As for the non-financial national accounts compiled by the NAI, the impact of these sector-specific reclassifications on the other hand is extremely small given the very nature of holding companies which have very low value added, very little employee compensation to pay, little investment, etc.

The following table takes stock of the new classification for the financial corporations sector. A more detailed description of the content of each of the sub-sectors is given in Annex 1.

1 The survey carried out by Belspo (Belgian Science Policy Office: a public planning service run under Belgian federal scientific policy) covers more than 8,400 Belgian companies (in 2011). It contains, inter alia, information on their internal spending on R&D, on sources of funding for this expenditure and on the type of costs incurred.

TABLE 2 SUB-SECTORS OF THE FINANCIAL SECTOR UNDER ESA 1995 AND ESA 2010

Sector under ESA 1995		Sector under ESA 2010		Change
S.121	Central bank	S.121	Central bank	-
S.122	Other monetary financial institutions	S.122	Deposit-taking corporations	Excluding monetary mutual funds
		S.123	Monetary mutual funds	Separated from S.122
S.123	Other financial intermediaries	S.124	Non-MMF investment funds	-
		S.125	Other financial intermediaries	Head offices of financial corporations become S.126 Holding companies become S.127
S.124	Financial auxiliaries	S.126	Financial auxiliaries	Including head offices of financial corporations
-	-	S.127	Captive financial institutions and money-lenders	Financial holding companies (formerly S.123) Non-financial holding companies and treasury centers (formerly S.11: non-financial sector)
S.125	Insurance corporations and Pension funds	S.128	Insurance corporations	-
		S.129	Pension funds	-

Source : ESA 2010.

The new statistical series presented by the NAI take account of shifts in non-financial sector units (S.11) over to the financial sector (S.12). However, the entire set of statistics could not be reconstituted back to 1995 to line up with the new sub-division into sectors of financial corporations. Therefore, the decision was taken to initially publish non-financial accounts for regroupings of sub-sectors, which still make it possible to identify the major stakeholders in the world of finance.

TABLE 3 SECTORAL REGROUPINGS IN NAI PUBLICATIONS

	ESA 2010	Correspondance ESA 1995	Content
Monetary financial institutions	S121+S122+S123	S121+S122	- NBB - Credit institutions - Monetary mutual funds
Non-monetary investment funds, Other financial intermediaries and captive financial institutions and money lenders	S124+S125+S127	S123 (adjusted for the reclassification of head offices of financial corporations) S11 in its "non-financial holding companies " and “private equity firms” component	- Other financial intermediaries as defined in ESA 1995 Except for head offices of financial corporations N.B.: All holding companies are included here
Financial auxiliaries	S126	S124 (S124 (adjusted for the reclassification of head offices of financial corporations)	- Financial auxiliaries as defined in ESA 1995 to which head offices of financial corporations are now added
Insurance corporations and Pension funds	S128+S129	S125	- Insurance corporations as defined in ESA 1995 - Pension funds as defined in ESA 1995

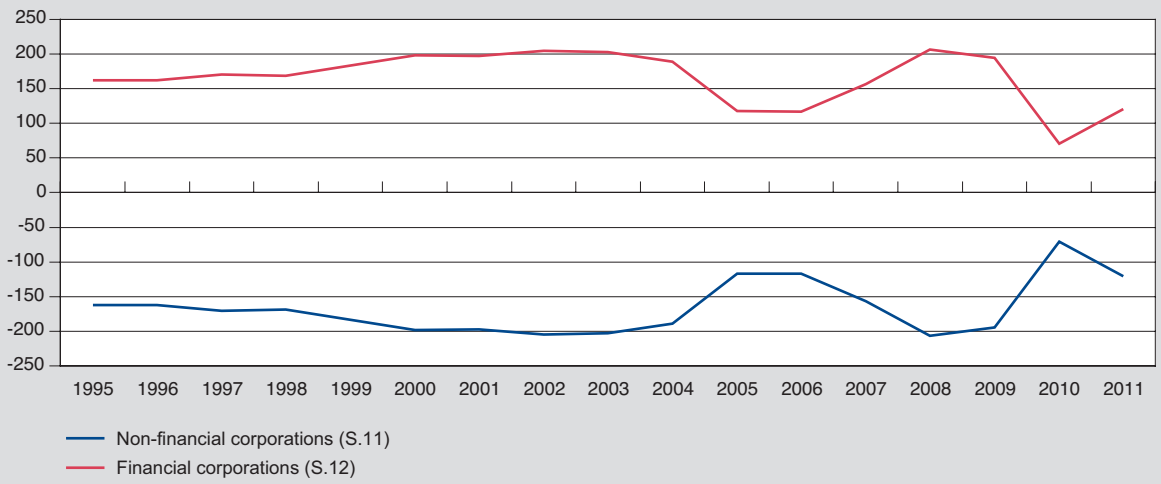
Source : NAI.

The reclassification of non-financial sector units under the financial sector or even within the financial sector itself has no impact on the aggregates for the whole of the economy, and especially not on GDP.

The aggregates for sectors S.11 and S.12, on the other hand, have been adapted since 1995. Thus, the value added of non-financial corporations has been revised downward, with an equivalent movement being made in favour of financial corporations (S.12). The amounts range from a minimum of around € 70 million (in 2010) to a maximum of € 200 million (in 2000-2003 and again in 2008-2009), which in percentage terms is only a very insignificant portion of the value added of non-financial corporations. In the case of financial corporations, value added has been revised upwards by between 0.4 and 1.5 % depending on the years.

CHART 1 REVISION OF SECTORAL VALUE ADDED FOLLOWING REDEFINITION OF THE FINANCIAL SECTOR

(€ millions)



Source: NAI.

2.3.2 The insurance sector

The ESA 2010 brings some new elements into the treatment of insurance activities. There are two types of innovations.

Non-life insurance

The way in which non-life insurance is dealt with in the national accounts has been amended: the ESA 2010 effectively introduces methodological changes to the valuation of the output of non-life insurance services. Conceptually, output as recorded in the system of national accounts corresponds to the difference between, on the one hand, premiums paid to insurers and the income earned from investing part of these premiums and, on the other hand, the claims that they pay out to their policy-holders. This method, stipulated by the ESA 1995, could result in a rather paradoxical situation of output of insurance services falling, or even moving into negative territory, during a year with a high number of claims, accompanied by large compensation payouts. Under ESA 1995, output of insurance services, and consequently, value added of the insurance sector, was therefore sensitive to the variability of the total amount of claims each year.

The ESA 2010 solves this problem and takes a more realistic approach: output of insurance services is a continuous process which must be measured independently from the variability of total claims. Calculation of insurance output must from now on take account not of any compensation paid out, but an "adjusted" claim so as to eliminate the volatility. The trend in value added in the insurance sector is smoother than it was under the ESA 1995.

The method used in the Belgian national accounts to measure the amount of adjusted claims involves multiplying the premiums for one year by a ratio which is a weighted moving geometric average of claims due on premiums acquired over the previous five years, while giving the most recent years a higher weighting. This is the method recommended by the European Central Bank (ECB).

In addition, the ESA 2010 also requires any claims paid out by insurance companies for major disasters to be recorded as a capital transfer from the insurer to the insured policy-holder (transaction D.99), and not as a current transfer (transaction D.72). The advantage of this way of recording the transfer is that the disposable income of the units incurring major damage is not artificially inflated by exceptionally high claims. A disaster should be considered as an exceptional occurrence which involves payment of claims that are disproportionate to the premiums paid, since non-life insurance premiums are set by the insurers in accordance with the risk profile.

In the case of the Belgian national accounts, over the period 1995-2013, no event was deemed comparable to a major disaster and all the insurance claims paid out have been recorded as current transfers[1].

Reinsurance

Up until now, reinsurance activities had been consolidated at national economy level. From now on, all reinsurance flows, whether accepted (Belgian companies offering reinsurance services, referred to active reinsurance in output) or ceded (Belgian companies reinsure with other companies, whether Belgian or foreign, in which case it is referred to as passive reinsurance in intermediate consumption) are identified in the accounts. Flows of reinsurance premiums and claims now appear under specific new redistributive transactions (respectively D.712 and D.722).

According to the ESA 2010, calculation of reinsurance has to follow the direct reinsurance method described above. So as to be able to identify all flows of active and passive reinsurance consistently, both domestic and foreign flows, the Eichmann method has been applied and this has led to a revision of the entire reinsurance output and intermediate consumption since 1995, with an accompanying impact on GDP.

Overall, the whole set of amendments brought in by the ESA 2010 concerning the insurance (and reinsurance) sector raise the level of GDP by 0.09 % in 2010 (€ 322 million).

Given that the revision of the insurance sector's value added stems from a smoothing of the claims taken into account, the amount and the sign of this update varies with the years, giving an impact on GDP of between -0.02 % (2003 and 2004) and +0.17 % (2011).

2.4 The other revisions prescribed by ESA 2010

2.4.1 Valuation of output for own final use of market producers

Output for own final use is made up of goods and services that are not intended to be sold but which are kept by the producing unit either for its own final consumption or for its own capital formation. Output for own final use has to be estimated at basic prices for similar products sold on the market, thus generating a net operating surplus or mixed income for the producer.

In the event of non-availability of basic prices for similar products, output for own final use must be estimated on the basis of the costs of production incurred. The ESA 2010 differs from the ESA 1995 here by stipulating that, for market units, production costs have to be increased (except for non-market producers) by a "mark-up" corresponding to a margin that is the cause of a net operating surplus (in the case of corporations) or mixed income (in the case of households).

1 In practical terms, for the insurance revision, a comparison was made for each year of the period under review between the following ratios: (1) Claims incurred ratio: claims due over the year/ premiums earned over the year; (2) Adjusted claims incurred ratio: claims adjusted/premiums earned over the year.
For each year under review, the difference between these two ratios makes it possible to determine whether the amount of claims paid out is abnormally high and whether part of these claims should be recorded under capital transfers.
Over the period under consideration (1995-2011), this difference turns out to be very small and is still less than 10 % in non-life insurance. In this case, the notion of "catastrophe" can therefore not be accepted.

Taking account of this margin leads to an increase in the value added of units that use their own production when it is estimated by using the sum of production costs.

As far as corporations are concerned, in Belgium's national accounts, output for own final use is estimated using data extracted from the annual accounts of companies, together with those from the structural survey. So the valuation does not take account of any "mark-up" and this has had to be added to comply with the new ESA rules. The increase has been applied in regard to output for own final use of tangible assets by companies filing full-format annual accounts (i.e. the biggest firms)[1]. A distinction has been made depending on whether the assets are buildings (an estimated increase of 7.1 %) or other capital goods (estimated increase of 12 %). Output of R&D and software (intangible assets) for own final use is actually estimated using other methods and sources of information which already take into account of such a mark-up.

The additional estimate for output for own final use implies an upward revision of the level of GDP of 0.04 % (€ 134 million) in 2010.

2.4.2 FISIM

"Financial intermediation services indirectly measured" (FISIM) are an accounting calculation of services rendered by financial intermediaries (FI), being funded by their intermediation margin. The ESA 1995 had already specified that FISIM do not have to be calculated between resident FIs. The ESA 2010 stipulates that, by convention, there is no need to calculate interbank FISIM between resident FIs and non-resident FIs either. FISIM only have to be calculated vis-à-vis non-bank institutional user sectors.

In anticipation of the change, since 2009, Belgium's national accounts had already excluded all interbank FISIM. With the switchover to ESA 2010, the methodological change has also been applied over the 1995-2008 period.

Moreover, calculations of FISIM have been further refined and occasionally corrected, leaving to global updates that go beyond the strict terms of the changeover to ESA 2010.

The impact of the revisions on GDP is zero in 2010; but it is nevertheless non-nul for the other years although for generally rather marginal amounts (between -0.13 % and +0.06 %, except in 1998, when it comes to -0.26 %).

2.4.3 Allocation of the central bank output

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 and the part which is not and is thus referred to as imputed production.

The method used for estimating the central bank output remains unchanged. On the other hand, the allocation of this output has been revised by the new accounting system. Under the ESA 1995, the central bank output was considered to be consumed entirely by credit institutions. Since only invoiced output is recorded in banks' operating costs, a correction was made to intermediate consumption of the other monetary financial institutions sector (S.122) for the amount of the imputed central bank output.

In the ESA 2010, the output that is directly invoiced by the central bank to resident or non-resident units should be allocated to expenditure by these units, whatever they may be. Also, the total amount of purchases of goods and services by the rest of the world from the central bank is assessed on the basis of the latter's accounting data and is now recorded, from the year 2008 onwards, as an export of goods and services. On the other hand, it was assumed that, in the light of the sources used, goods and services invoiced by the central bank to resident

1 Following a review, account has not been taken of any such increase for companies filing their accounts under the abbreviated formula (SMEs). In the end, the amounts at stake turned out to be only marginal.

units had already been recorded in intermediate or final consumption of these resident units, and so no specific recording needed to be made.

Furthermore, to conform with the ESA 2010, the imputed central bank output has been shared out between the intermediate consumption of banks (sector S.122) and other financial intermediaries (S.125), in proportion to their value added. Also under the new ESA, this entry is now counterbalanced by a current transfer (transaction D.75) paid by the central bank to banks and other financial intermediaries[1].

The upward impact of this change on the level of GDP is negligible, coming to less than € 20 million in 2010 (0.01 % of GDP), corresponding to services rendered as part of the ESCB.

2.4.4 Super-dividends

Like the methodology that is already used for public corporations, the ESA 2010 also registers extraordinary or 'super-' dividends for other companies. Dividends that are singled out as being abnormally high are no longer recorded in the non-financial accounts under distributed income, but are treated in the financial accounts as a financial transaction, that is, a withdrawal from the company's equity.

In Belgium's national accounts, a system for identifying super-dividends has been set up for non-financial corporations and financial corporations that submit standardised accounting formats to the Central Balance Sheet Office. The method that has been put in place compares the amount of dividends paid with any withdrawals of the company's equity reported in the company accounts: dividends are deemed to be extraordinary up to the amount of these equity withdrawals.

The identification of dividends financed by an equity withdrawal leads to a downward revision of the dividends paid out by these companies as assessed in the national accounts. By the very nature of the transactions in question, the adjustments made to the dividend figures given in the non-financial accounts up to now are rather erratic.

Super-dividends may also be paid out to foreign shareholders. In this case, valuation of reinvested earnings on foreign direct investment is also affected. The ESA actually stipulates that these are defined as the difference between the company's financial result and the dividends it pays out. If the dividends paid out that are included in the national accounts are amended (following the exclusion of super-dividends), reinvested earnings on foreign investment must also be adapted as a result, and by an equivalent figure to these dividends. Overall, the revenue (dividends and reinvested earnings) that goes to foreign shareholders thus remains unchanged. This mechanism also implies that the exclusion of super-dividends has no influence on the calculation of GNI. The change from GDP to GNI effectively takes account, among other things, of all property income (among which dividends and reinvested earnings) moving between the national economy and abroad.

The identification of super-dividends and their exclusion from the dividend figures (transaction D.421) has some impact on the allocation of primary income account. It may ultimately influence the financing balances (balance B.9 – net lending/net borrowing) of institutional sectors. On the other hand, this change does not influence either GDP or GNI.

2.4.5 Investment income attributable to collective investment fund shareholders

The ESA 2010 introduces changes concerning property income paid by investment funds (commonly referred to as undertakings for collective investment, or UCIs). This income must be recorded under a single heading entitled "investment income attributable to collective investment fund shareholders" (transaction D.443). Under the ESA 1995, income distributed by UCIs were recorded under the headings "interest" (D.41) and "dividends" (D.421), depending on the nature of the income received by UCIs.

1 This entry prevents sectoral balances from being influenced by the provision of non-invoiced services by the central bank.

Moreover, a distinction has to be made between investment income attributable to collective investment fund shareholders that is either distributed (then they are called "dividends") or capitalised ("retained earnings"). They are therefore recorded under two separate items:
– D.4431: Dividends attributable to collective investment fund shareholders;
– D.4432: Retained earnings attributable to collective investment fund shareholders.

Retained earnings attributable to collective investment fund shareholders are recorded on the basis of the same principles as those that apply to foreign direct investment firms: undistributed profits are assumed to be attributed to collective investment fund shareholders and are assumed to be reinjected into the fund by the shareholders through a transaction recorded in the financial account. The property income received by the UCIs is therefore registered as shareholders' property income, even if it is reinvested on their behalf instead of being distributed.

It is worth noting that, on the side of income received by UCIs, the interest (D.41) and the dividends (D.421) that they receive from their investments always have to be recorded. However, insofar as the UCIs can themselves be shareholders in other UCIs, investment income attributable to collective investment fund shareholders (D.443) may also appear as resources in the sequence of the investment funds account.

This change has been implemented notably by using statistics from the BeAMA (Belgian Asset Managers Association) which enable a breakdown between distributed income and retained earnings on the basis of the share-out of net assets of UCIs distributed in Belgium depending on whether it is a distribution fund or an accumulation fund.

Income from UCIs is allocated to the different beneficiary institutional sectors on the basis of "structures" of UCIs shareholdings that are derived from financial statistics. These statistics effectively make it possible to know the outstanding amount of UCIs shares that each institutional sector holds.

This change has no impact on either GDP or GNI. Yet, it does modify the different categories of property income without however influencing the total income. Conceptually, it is therefore neutral for the institutional sectors' financing balance (balance B.9 – net lending/net borrowing).

3. Revisions unrelated to ESA 2010

These other revisions have been made on the NAI's own initiative, with a view to improving the quality of the statistics it produces. Some changes may also arise from explicit requests from Eurostat which identifies areas for action as part of its monitoring of methods put in place in the different countries for estimating gross national income. This is notably the case with the incorporation of the illegal economy in Belgium's accounts, as well as the adaptation of the method of estimating black economy and the corrections made to the treatment of tax representatives. It is these points on which Eurostat had had some reservations ("GNI reserves") that have led to methodological improvements in Belgium's national accounts. Taking the illegal economy into consideration also falls within this context since Eurostat has recommended that all European countries (so it is referred to as a "transversal" reserve) do so in order to obtain a more exhaustive estimate of GNI and thus one that is more easily comparable between countries.

3.1 Taking account of the illegal economy

The ESA 1995 had already recommended including illegal activities in the production boundary. Beyond the purely ethical considerations that it may imply, this principle results from the fact that national accounts seek to measure economic activity as exhaustively as possible. Therefore, the national accounts have a duty to record every monetary transaction that is made, as long as it involves the mutual consent of the two parties in question. Illegal activities are thus relevant.

However, this principle has been followed only very patchily by the different Member States. Particularly in light of the implementing problems that it entailed, Eurostat (GNI Committee) decided back in 2005 that application of this principle was not a priority. Consequently, only a few countries have thus far included illegal activities in their national accounts. In July 2012, however, Eurostat stressed the importance of a harmonised treatment of this element and came out in favour of including the illegal economy in the Member States' national accounts, setting September 2014 as the final date for implementation.

This version of Belgium's national accounts thus includes illegal activities for the very first time. The activities in question relate to drug trafficking, prostitution and smuggling.

However accounting for this type of activity is not easy. It is in fact complicated by the very nature of the transactions concerned. Their illegal character makes any data available very partial. It is thus necessary to set up indirect estimation methods that aim to make up for the lack of exhaustive data on this subject. The methods that have been put in place in Belgium are in line with the Eurostat recommendations.

Generally speaking, the accounting rules consist in balancing supply (domestic output and imports) and demand (intermediate consumption, final consumption and exports) both of which are estimated to a relatively high degree of detail per product. A methodology based on the multiplication of quantities and prices is followed. Estimates of volumes and prices, on both the supply and demand side, use the available data to a maximum[1]. In the event of missing or unrecorded elements, information available in other countries may be used or assumptions have to be made. The role of the national accountant is thus to make sure that these assumptions are as reasonable as possible, in line with any recommendations that might be given in this field.

A more detailed text, notably covering the assumptions made, is provided in Annex 2.

1 The information may come from recognised administrative sources, such as certain federal public services (public health, police services, etc.), and also from research work carried out by various economic or institutional players (for instance, universities, organisations offering help to drug addicts or prostitutes, etc.).

3.1.1 Trade in drugs

Possession, production and trafficking of drugs are outlawed in Belgium (Law of 24 February 1921 on narcotics). The possession of cannabis for personal use (less than three grams) by adults is still illegal, but criminal proceedings in this field are given the lowest priority. Since these activities do not form part of the legal economy and are therefore not related to standard administrative sources, an additional estimate is necessary.

Without going into any detail, the estimates have been made per type of drug (cannabis, ecstasy, amphetamines, cocaine and heroin) mainly by using information from the public health body, the *Institut scientifique de Santé publique*. This information relates to prices and prevalence rates. Assumptions have had to be made, mainly taking account of information contained in various academic studies, notably as regards average consumption per person, the type of drugs that may be produced in the country, resident producers' margins, import and export prices charged and imported volumes of certain products.

Taking account of drugs-trade-related activities leads to a 0.25 % increase in GDP for 2010 (€ 903 million).

3.1.2 Prostitution

Voluntary prostitution is not illegal in Belgium, but living off immoral earnings is an offence subject to criminal prosecution. However, in the absence of any clear rules on working conditions, the bulk of these activities take place outside the legal economy and have so far not been included in the national accounts. In line with Eurostat's recommendations, the estimate is restricted to prostitution by mutual consent.

The estimates and supply and demand balances have been compiled per type of service (clubs/bars, escort service, massage/sauna, shop window, room rentals, street prostitution). Assumptions have had to be made in particular for the number of clients, number of services per client, prices charged and for the resident/non-resident status of the prostitutes and customers. The assumptions have been backed up by different sources that area available, such as demographic statistics, the general level of prices, scientific studies and studies by support organisations.

Taking account of prostitution trade implies an increase in GDP of 0.09 % in 2010 (€ 305 million).

3.1.3 Contraband activities

Smuggling refers to the illegal import of goods that, by definition, are not actually illegal. It is profitable when Member States impose restrictions on trade in certain products or when there are significant price differences between countries, notably due to excise duties or specific import or export taxes. Eurostat has decided to limit the scope of contraband activities in its definition to those involving alcohol and tobacco.

Following an analysis of the problem, alcohol smuggling is deemed to be negligible in Belgium (something which is confirmed by reports available in the neighbouring countries[1]), and tobacco smuggling seems to only involve cigarettes. This kind of activity has expanded since the end of the 1990s, especially between Belgium and the United Kingdom.

1 It is worth noting that, in France, Insee does not include alcohol smuggling either, as it is not deemed to be significant.

Based on as much available information as possible, assumptions have been made as to quantities consumed, sales prices, import and export prices, trade margins, etc. The volumes imported are estimated on the basis of a risk of detection associated with a given number of seizures[1].

Contraband activities have only a very marginal upward influence on GDP (€ 98 million in 2010).

3.2 The black economy

Belgium's national accounts provide an overview of all activities and transactions carried out in the Belgian economy over a year. They are compiled by using as far as possible data taken from official administrative sources (annual accounts, tax declarations, etc.) and statistical surveys. In addition to other adaptations designed to bring the national accounts into line with the ESA rules, the value added generated by the black economy is also taken into consideration. The notion of "black economy" should not be confused with that of "tax fraud". The black economy recorded in the national accounts spans activities that are (partly) hidden and (partially) undeclared businesses that must be included in the calculation of GDP (under-billing for example). Tax fraud, on the other hand, also covers activities that have no impact on GDP but which entail a loss of tax revenue for the State (such as VAT carousel fraud).

Belgium's national accounts have always taken the value added of the black economy into consideration. Initially, this is estimated from the production approach, with both production and intermediate consumption being adjusted by branch of activity. The value added associated with undeclared companies and hidden activities is then derived.

In view of the nature of the black economy, the estimation is largely based on indirect information and logical deductions using all sorts of information that is available. It is also necessary to take account of a number of assumptions in order to make the estimate:

– the general government sector, the institutional sector of the banks and the insurance companies, and the non-profit institutions sector do not produce any value added related with hidden companies and hidden activities;
– imputed transactions (FISIM and housing services) fall outside the scope of the black economy;
– large enterprises subject to strict administrative reporting obligations are not supposed to be active in the black economy;
– companies involved in the production and trade of goods and services intended for household final consumption are more likely to be active in the black economy.

The plausibility and consistency of the estimate of the value added generated within the black economy are tested in the context of supply and use tables, which make up a coherent framework where the supply side (resources made up of production and imports) is matched against use (comprising intermediate consumption, consumption, investment and exports). This comparison is made in a highly detailed manner: both production and intermediate consumption are broken down by product and by branch of activity. The estimates of value added generated by hidden activities and companies by branch of activity have been adjusted from 2002 onwards.

This correction has led to a slight upward revision of the hidden economy's global value added. Estimates for the liberal professions (legal and medical professions) have been revised downwards, while those concerning the building industry, trade, hotels and catering have been revised upwards.

The revision to the accounts concerning the black economy pushes up GDP by 0.20 % (€ 696 million) for the year 2010.

1 The source for the number of seizures is FPS Finance (Customs & Excise). The detection rate is taken from an academic study.

3.3 Revision of the value added of the "agriculture" branch

The method used for calculating value added for the "agriculture" branch of activity in the national accounts has been amended. Both the output and the intermediate consumption for this branch of activity are concerned. The macroeconomic accounts for agriculture, compiled by the FPS Economy's Directorate General for Statistics (DGS), form the basis of the estimation method. The revision covers the years from 2002 to 2011.

The macroeconomic accounts for agriculture are established using a specific methodology required by Eurostat, while the national accounts are compiled according to the ESA. Although these two methodologies are quite similar, there are nonetheless a few differences of definition. Extra calculations are therefore necessary to switch from the macroeconomic accounts for agriculture to the series for the "agriculture" branch of activity suited for national accounts purposes.

The macroeconomic accounts for agriculture comprise all agricultural activities covered by NACE codes 011 to 015. However, the "agriculture" branch of activity also includes enterprises falling under NACE codes 016 and 017, i.e. respectively "Support activities to agriculture and post-harvest crop activities" and "hunting, trapping and related service activities". The series relating to NACE codes 016 and 017 have been estimated according to the standard method used for the other branches of activity and have been added to those in the macroeconomic accounts for agriculture.

Furthermore, the "agriculture" branch and more particularly the horticulture sector, which is highly energy intensive, can install their own electricity-generating systems. The production and intermediate consumption linked to the part of this production intended for the electricity grid have been estimated.

Also, own consumption has been added to the households sector (S.14). Own consumption refers to the consumption of self-produced goods and services. Own consumption of sector S.14 comprises production of fruit and vegetables in the kitchen garden. From now on, its estimate is based on DGS's household budget survey (and no longer on the macroeconomic accounts for agriculture).

The total for the "agriculture" branch of activity is the sum of the data derived from the macroeconomic accounts for agriculture and the components of the paragraphs above.

The revision of value added of the "agriculture" branch leads to a 0.11 % increase in GDP of in 2010 (+€ 394 million).

3.4 Health services

3.4.1 Revaluation of value added in the "hospital activities" branch

Calculating value added in the "hospital activities" branch (86A) does not follow the methodology which is used in most other branches of activity in the national accounts. This is owing to the availability via the FPS Public Health of more detailed data and due to the lack of ordinary annual accounts filed with the Central Balance Sheet Office, in view of the special legal status of the entities concerned.

Since 2007, however, the basic data from FPS Public Health were not available. Consequently, an alternative and simplified method had to be followed, using changes in wages and salaries in the "hospital activities" branch as a basis, complemented with data available in the general government accounts.

Consultations with the FPS Public Health have made it possible to obtain a full series of data for the years 2007 to 2012, as well as adjusted data for the 1995-2006 period. This basic information was used to estimate a final revaluation of value added and the gross operating surplus, following the existing methodology. Moreover, the value added associated with a university's hospital activities, which up until now had been left out of the accounting framework, has been recorded under branch 86A since 1995.

The revision of the value added of hospitals pushed up GDP by 0.06 % in 2010 (€ 217 million).

3.4.2 Revaluation of investment in hospitals

The estimation of the gross fixed capital formation of hospitals (branch 86A) is also largely based on aggregate accounting data provided by the FPS Public Health, and has been revised as well with the arrival of new data (see 3.4.1).

For hospital activities in the strict sense of the term, investment is calculated based on a method making direct use of accounting data from FPS Public Health. For related activities, investment is estimated by extrapolation using the ratio between the wage bill according to the national accounts (which covers all activities) and the accounting wage bill (which covers hospital activities alone).

In previous versions of the national accounts, post-2005 accounting data are either missing or not complete enough to be used; in the absence of this data, investment had been estimated solely on the basis of changes in wages and salaries recorded in the "hospital activities" branch of the national accounts.

3.4.3 Household consumption of health services

Household consumption expenditure on health services at current prices are calculated on the basis of the commodity flow method, by product. In other words, household final consumption expenditure is calculated by deduction, taking the difference between resources (output, net taxes on products and imports) and non-final consumption expenditure by households (intermediate consumption, final consumption of general government and non-profit institutions serving households, and exports). A change to one of the elements concerned thus also triggers a revision of household consumption expenditure for these products.

Apart from the update of output in the "hospital activities" branch, the key for breakdown by product has also been revised on the basis of new information from the FPS Public Health.

3.5 Household budget survey results for 2010

Household final consumption expenditure is estimated using various sources of information. Some sources may be quite specific, as in the case of spending on health care (see 3.4.3). A more widely-used source is the five-yearly survey on household budgets. The household budget survey (HBS) is an important source of information for measuring household final consumption expenditure on current goods and services, such as food and clothing, and accounts for around 50 % of the total estimate of HFCE.

Household final consumption expenditure figures are revised once every five years in order to include the findings of the latest survey. The 2014 occasional review introduces a new base year (2010 instead of 2005), with an extra linear interpolation for the intervening years 2006-2011.

In addition, the COICOP05[1] classification has been used for the first time in the estimate, which has enabled an estimate at the highest level of detail possible, although requiring certain COICOP categories to be moved. Moreover, estimates of consumption expenditure of Belgians abroad and that of foreigners in Belgium were revised, based on new information derived from the balance of payments.

1 The COICOP ("Classification of Individual Consumption According to Purpose") is a nomenclature published by the United Nations to classify household consumption functions. The functions correspond to the purposes served (for example, food, clothing, health services, education, housing, transport, etc.). The new COICOP05 classification is more detailed than the previous version; it is also more consistent with the classifications used in the household budget survey and in the compilation of the consumer price index.

3.6 Consumption of fixed capital by NPIs serving households

As for the rest of the economy, consumption of fixed capital (depreciation) by the sector of non-profit institutions serving households (NPISH) is determined as part of the calculations of capital stock, which relies on the Perpetual Inventory Method. This method is based on adding up all past investment, and then applying survival and depreciation functions to it. Investment therefore forms the basis for estimates of capital stock and its depreciation.

Due the complexity of this methodology, it was not carried out when NPISH investment were revised in 2011. The integration of this downwards revised series into calculations of capital stock also leads to a downwards revision of the sector's consumption of fixed capital.

The valuation of capital stock -and hence its depreciation- has also been influenced by other elements applicable this time to each of the institutional sectors. Those are the capitalisation of R&D expenditure required by the changeover to the ESA 2010 (see above), a downward revision of the lifespan of assets related to information and communication technologies (ICT) and an improvement in the calculation methods arising from taking account of investment already broken down by institutional sector at an earlier computation stage.

The revision of depreciation in the NPISH sector has the peculiarity of influencing GDP: following the rule in non-market sectors, output of NPISH (and thus their value added), is valued by taking the sum of the production costs, which include consumption of fixed capital.

The impact on GDP of the revision of consumption of fixed capital by NPISH is only marginal (-€ 149 million in 2010, or -0.04 % of GDP).

3.7 Eliminating output related to non-produced non-financial fixed assets

Since 2008, it has been possible to get hold of the following details, via the structural business survey, for intangible fixed assets produced for own final use (recorded in account 72 of the annual accounts):
– Research and development;
– Software;
– Other intangible fixed assets.

The costs capitalised in connection with R&D and software produced for own account must be treated as output (P.12) and investment (P.51). R&D and computer programs are actually considered to be **produced** non-financial fixed assets (AN.1).

The other intangible assets (concessions, patents, licences, know-how, trademarks, etc.) must be considered as **non-produced** non-financial assets (AN.2) in the national accounts (in both ESA 1995 and ESA 2010). Therefore, acquisition costs for these assets do not have to be recorded as output. No specific treatment had been made for them in the past so as to exclude any acquisition costs recorded in the company accounts. An adjustment is now being made so as to leave them out.

This correction leads to a downward revision of GDP by -0.05 % for the year 2010 (-€ 162 million).

3.8 Tax representatives

Imports and exports of goods are presented in the national accounts as a national concept. As a result of which, the transit flows induced by non-residents/tax representatives have to be eliminated. Owing to the lack of any solid definition/refinement of the concept of "non-resident/tax representative", identifying these units has been a long-standing problem. Because of this, different populations of "tax representatives" are used to establish the production and expenditure approaches in the national accounts, which tends to cause some inconsistencies.

With the revision, this problem has been solved by setting clear criteria and using several different sources for ascribing the "resident/non-resident" status. After previously concentrating mainly on information relating to the competent VAT office and on the fact that tax representatives were not supposed to pay any salaries, from now on, other sources are included when attributing the status, such as the presence of data in Prodcom, the structural business surveys, information about head office, publications in the Belgian Official Journal (Moniteur belge/ Belgisch Staatsblad) or information from the Central Balance Sheet Office. Use was also made of the population of tax representatives registered with the VAT authorities. The combination of different sources enables a more accurate identification. As the comparison of the various sources shows that the no-salary criterion is too strict, it is now possible for a tax representative to have a minimal occupation in order to carry out fiscal and administrative tasks.

In a later phase, the statistical population of tax representatives used for establishing foreign trade balances and the national accounts has been reconciled to limit the inconsistencies in the different approaches to measuring GDP. The results of this exercise have been fed into the figures for the years 2002 and onwards.

Apart from the actual identification, close attention has been paid to the estimation method for these units. Together with new identification criteria, a new estimation method has been applied under the production approach, which takes into account the new principle of minimal occupation. In the case of these units, it will be assumed that the value added is equal to the wage bill. Account is thus taken of the value added of the administrative services that these units carry out in Belgium. The new estimation method has been retropolated back to the year 2002.

On the expenditure side, an in-depth analysis has been made of import and export flows for about 25 major tax representatives. These flows have been matched against information from resident counterparties taken from annual accounts, structural business surveys, Prodcom and VAT returns, in order to work out more precisely the share of import and export flows that needs to be kept as a national concept. The results of this exercise have been applied to statistics for the years 2005 and later.

The tax representative revision can have either a positive or negative impact on GDP depending on the year. In 2010, GDP was 0.05 % (-€ 176 million) less as a result.

3.9 Value added of self-employed active in financial services and insurance

In a bid to improve the quality of estimates concerning the value added of self-employed people listed under NACE code 66 "activities auxiliary to financial services and insurance activities", information taken from tax declarations (personal income tax) is now preferred.

The method used before, which was based on indirect estimation assumptions, has effectively shown its limitations insofar as it led to a trend in value added that was not compatible with that for employment, i.e. the number of self-employed people working in this branch of activity. The choice of using tax data is in line with existing practice for those working in other liberal professions like medical practitioners, legal counsellors, business and management advisory service providers, etc.

As data from personal income tax declarations had not been available before the year 2000, estimation of production and value added had been modelled on that of self-employment in the branch. Pending tax data for the most recent years, a trend is estimated on the basis of changes in employment and a very slight rise in mixed income per self-employed person.

The revision of value added of self-employed people working in branch 66 leads to a 0.08 % reduction in the GDP figure for 2010 (-€ 288 million).

3.10 Elimination of double-counting in output of software developed for own final use

Total production of and investment in software developed for own account are estimated via the labour force survey (number of IT personnel working in the different branches of activity in the economy).

Information available in the structural business survey (see point 3.7) has shown that some companies record the costs related to these activities (mainly wage costs) on the assets side in their annual accounts (via account 72). These capitalised development costs are given standard treatment in both the annual accounts and the national accounts as output produced for own final use (P.12). However, up until now, the total output of software developed for own final use estimated exogenously was added as output produced for own final use (P.12), which implied double-counting under the production approach (for companies that were already capitalising these costs on a de facto basis in their annual accounts). This double-counting has now been eliminated.

This adjustment leads to a downward revision of the level of GDP by -0.09 % in 2010 (-€ 315 million).

3.11 Adjustment of implicit management costs passed on to Belgians by non-resident collective investment undertakings

Collective investment undertakings are financial intermediaries that issue shares parts to raise funds. These funds are in turn invested in various financial instruments. Imports and exports of services also comprise the management costs that investment funds charge to non-resident shareholders.

The management costs of resident investment funds whose shares are held by non-residents represent an export of services, while management costs charged by non-resident investment funds to Belgian shareholders constitute an import of services.

Situation before revision: at export level, these sums were included in the rest of the world account in the national accounts, but not in the balance of payments. At import level, the data were missing both from the balance of payments and the national accounts.

Situation after revision: the balance of payments incorporates the export figures estimated in the national accounts and the missing imports are added to the accounts.

Imports are estimated based on the assumption that the management cost percentages (management costs expressed as a proportion of assets) for both foreign and Belgian investment funds are identical:
percentages of management costs * assets abroad = imports.

These extra imports of services are attributed to intermediate consumption (P.2) and household consumption expenditure (P.3 S.14) in accordance with these sectors' share in the total holdings of these non-resident investment funds.

This review point has a negative impact on the level of GDP of 0.21 % for the year 2010 (-€ 743 million), corresponding to the proportion of imports of financial services consumed by the financial sector.

3.12 Employee compensation in the rest of the world account

In the balance of payments, just as in the rest of the world account in the national accounts, wages and salaries are recorded under employee compensation paid by Belgian employers to non-resident workers or by foreign employers (including the international institutions) to workers who are resident in Belgium.

Up until now, in the national accounts, wages and salaries that did not concern workers or employers resident in the neighbouring countries (Germany, France, Luxembourg, the Netherlands) or civil servants resident in Belgium and employed by international institutions established on Belgian territory were considered as the payment of a purchase or sale of services. For this reason, they were recorded under imports or exports of services. Conversely, payments of wages and salaries between a unit located in Belgium (employer or employee) and a unit located in one of the countries bordering on Belgium (employee or employer) or an international institution established in Belgium (employer) were actually booked as the payment of employee compensation (D.1).

Henceforth, any payment of wages and salaries, whatever the counterparty country of the employer or the employee, is registered in the national accounts under the heading "compensation of employees" (D.1), as is the case in the balance of payments, which is in fact used as one of the main sources for estimating employee compensation flows with the rest of the world.

This change has no impact on GDP. However, it does have a (small) impact on GNI. For 2010, the extra amount recorded under employee compensation is around € 320 million (0.09 % of GDP) in net terms received by the rest of the world.

3.13 Statistics on paid employment

The main administrative source used for estimating statistics related to employees is the National Social Security Office (NSSO). As of 1 January 2011, as part of the Capelo reform, the way in which certain data are reported in the NSSO's multifunctional DmfA declaration has been adapted for public service personnel. This reform has made it possible to calculate civil servants' pension rights on the basis of information declared to the NSSO.

In the context of this reform, the number of persons employed in the public sector according to the NSSO has been revised downwards following the exclusion of those benefiting from a system of full extended leave prior to retirement with a temporary salary. This system mainly appeared in some public enterprises, and in education and defence. Since the national accounts already make an adjustment for education for this category of workers, the paid employment statistical series have only been revised for the defence sector, and two other branches of activity, namely telecommunications and postal and courier activities.

As far as labour volume is concerned, hours worked by persons on full extended leave prior to their retirement and those on other forms of extended leave with a temporary salary (illness, incapacity, etc.) have disappeared from the statistics. In the case of people given partial extended leave, only hours actually worked are being included from now on. Consequently, there has been a bigger adjustment at the level of hours worked by employees.

Overall, for the year 2010, the downward revision in paid employment works out at -0.1 % (-4 100 persons) and -0.4 % (-19.4 million hours) when expressed in hours.

A further revision impacts on the number of employees, the hours worked by employees and their compensation following the decision to take into account an extra unit in the adjustment for "university clinics". This revision involves the transfer of 3 200 persons from the public sector (education) to the private sector (health care) in 2010.

4. The ESA revision in figures

For each point relating to a change in methodology raised in the previous chapter, the impact on the level of GDP in the year 2010, at the very least, was given. The first part of this chapter gives a summary of all the changes to the main aggregates for 2010.

A version taking a longer-term view – over the period from 1995 to 2011 – is featured in point 4.2.

4.1 Reference year 2010

The changeover to ESA 2010 seems to lead to a 2.54 % rise in GDP for the year 2010, 2.37 % comes from the capitalisation of R&D expenditure alone.

The other revisions stemming from the improvement in sources and methods (regardless of the changeover to ESA 2010) lead to an additional 0.27 % increase in the level of GDP in 2010.

All in all, the level of GDP is 2.81 % higher (up by about €10 billion).

TABLE 4 IMPACT OF THE REVISIONS ON GDP

(2010, en millions d'euros, prix courants)

	in level	in % of GDP before revision
Revisions related to changeover to ESA 2010	**+9 048**	**+2.54%**
Capitalisation of R&D	+8 438	+2.37%
Insurance and reinsurance	+322	+0.09%
Capitalisation of weapons systems	+136	+0.04%
Output for own final use of market producers	+134	+0.04%
Allocation of output of the central bank	+19	+0.01%
FISIM	-	-
Other revisions (sources and methods)	**+959**	**+0.27%**
Illegal economy	+1 306	+0.37%
Drugs	+903	+0.25%
Prostitution	+305	+0.09%
Smuggling	+98	+0.03%
Black economy	+696	+0.20%
Agriculture	+394	+0.11%
Hospitals	+217	+0.06%
Boundary of general government (market/non-market)	+19	+0.01%
Consumption of fixed capital by NPIs serving households	-149	-0.04%
Elimination of non-produced non-financial assets	-162	-0.05%
Tax representatives	-176	-0.05%
Self-employed in financial services	-288	-0.08%
Double-counting of software produced for own account	-315	-0.09%
Changes for general government, other than the market/non-market boundary	-419	-0.12%
Management costs of foreign investment funds	-743	-0.21%
Current revisions	+580	+0.16%
Total	**+10 007**	**+2.81%**

Source : NAI.

The value added of the entire economy is pushed up by € 9.7 billion in 2010. Taxes on products less subsidies make a contribution of € 266 million to the increase in GDP, notably as a result of the recording of the APETRA contribution[1].

The breakdown of value added by institutional sector reveals that the revision has a more marked effect on non-financial corporations (+€ 7.4 billion). This stems from the major impact that capitalisation of R&D expenditure has (+€ 6.7 billion), as well as the revaluation of black economy (+€ 1.0 billion) and the inclusion of the illegal economy (+€ 0.6 billion) in the national accounts. The many other amendments can have either a positive or negative effect; overall, they contribute to a reduction of about 0.8 billion.

The capitalisation of R&D is also the single big element behind the revision of value added of general government.

The value added of households has been revised upwards, mainly because the illegal economy is now taken into account, but also because of the update to the statistics on agriculture and current revisions.

TABLE 5 REVISION OF GROSS VALUE ADDED OF THE INSTITUTIONAL SECTORS

(2010, in € million, current prices)

		Revision		
	Before revision (Sept. 2013)	in level	in % of the aggregate before revision	**After revision (Sept. 2014)**
Non-financial corporations (S.11)	193 744	+7 449	+3.8%	201 193
Financial corporations (S.12)	19 613	-43	-0.2%	19 570
General government (S.13)	50 700	+1 226	+2.4%	51 926
Households (S.14)	49 945	+1 206	+2.4%	51 151
Non-profit institutions serving households (S.15)	3 471	-97	-2.8%	3 375
All institutional sectors	**317 473**	**+9 742**	**+3.1%**	**327 215**
Taxes less subsidies on products	38 266	+266	+0.7%	38 532
Gross domestic product	**355 740**	**+10 007**	**+2.8%**	**365 747**

Source : NAI.

If the production approach is examined from the branch of activity viewpoint, in absolute terms, the revision of value added seems to concern principally the "manufacturing industry, mining and quarrying and others" branch, where there are some € 5.8 billion worth of revision elements (or an upward revision of 10.9 % in this branch's value added) out of a total of € 9.7 billion. The "wholesale and retail trade, transport, hotels and catering" branch is revised upwards by € 2.7 billion (or +4.3 %) and that of "specialised, scientific and technical activities and administrative services and support activities" by 1.4 billion (or + 3.5 %). These revisions result from various elements set out in the methodology section, with the most important ones that emerge from this perspective being the capitalisation of R&D, the black economy revision, the reclassification of non-financial holding companies under head offices, and the specific amendments to the "agriculture" branch.

1 This contribution helps finance the costs associated with the obligation to hold a sufficiently large enough stock of oil products. A Eurostat guidance note clearly stipulates that any such contribution must be recorded as a tax on products.

TABLE 6 REVISION OF GROSS VALUE ADDED BY BRANCH OF ACTIVITY (A10)

(2010, in € million, current prices)

	Before revision (Sept. 2013)	Revision		**After revision (Sept. 2014)**
		in level	in % of the aggregate before revision	
Agriculture, forestry and fishing	2 458	+413	+16.8%	2 871
Manufacturing industry, mining and quarrying and others	53 546	+5 812	+10.9%	59 358
Construction	17 957	+107	+0.6%	18 064
Wholesale and retail trade, transport, hotels and catering	63 564	+2 743	+4.3%	66 307
Information and communication	13 221	-136	-1.0%	13 085
Financial and insurance activities	21 022	-1 349	-6.4%	19 673
Real estate activities	28 831	-72	-0.2%	28 759
Specialised, scientific and technical activities and administrative services and support activities	40 408	+1 415	+3.5%	41 823
Public administration, defence, education, human health and social work	70 012	+452	+0.6%	70 464
Other service activities	6 455	+356	+5.5%	6 811
Total	**317 473**	**+9 742**	**+3.1%**	**327 215**

Source: NAI.

If the breakdown of GDP is analysed according to the use of wealth generated (the so-called expenditure approach), the share of investment seems to go up by 2 percentage points to the detriment of the share of final consumption. Effectively, it is gross fixed capital formation that has been revised sharply upwards largely as a result of the capitalisation of R&D expenditure. In 2010, the revision of the investment item "absorbs" the entire GDP revision[1].

Overall, final consumption expenditure for all sectors taken together has only been revised downwards very slightly in 2010.

The balance of net exports of goods and services has come down by 1 billion in 2010. *Inter alia*, the introduction of imports relating to management costs of foreign investment funds weighs heavily on net exports of services. Other revision elements also have an impact on this component of expenditure, such as the treatment of tax representatives or the incorporation of the illegal economy. Exports and imports of goods and services have also been affected indirectly by some aspects of the revisions that have to be reflected in the expenditure approach.

Lastly, changes in inventories have been revised upwards in 2010, largely as a result of the cancellation of an earlier trade-off made when balancing the three approaches to measuring GDP. The scale of this revision is by no means representative of those carried out over the whole period, as these are much smaller

1 Over the whole period from 1995 to 2011, on average, 95 % of the revision of GDP comes under gross fixed capital formation.

TABLE 7 REVISION OF AGGREGATES UNDER THE EXPENDITURE APPROACH

(2010, in € million, current prices)

	Before revision (Sept 2013)	Revision in level	Revision in % of the aggregate before revision	**After revision (Sept. 2014)**	Share in GDP Before revision (Sept 2013)	Share in GDP **After révision (Sept. 2014)**
Gross domestic product	**355 740**	**+10 007**	**+2.8%**	**365 747**	**100%**	**100%**
Final consumption expenditure	274 667	-136	-0.0%	274 532	77%	75%
Households	184 523	-211	-0.1%	184 311	52%	50%
General government	86 212	+225	+0.3%	86 437	24%	24%
NPIs serving households	3 932	-149	-3.8%	3 784	1%	1%
Gross fixed capital formation	71 510	+10 028	+14.0%	81 537	20%	22%
Households	22 588	+0	+0.0%	22 588	6%	6%
Corporations	42 690	+7 748	+18.1%	50 437	12%	14%
General government	5 829	+2 228	+38.2%	8 057	2%	2%
NPIs serving households	404	+52	+12.8%	456	0%	0%
Net exports of goods and services	7 504	-1 032	-13.8%	6 472	2%	2%
Exports	283 965	-5 120	-1.8%	278 845	80%	76%
Imports	276 461	-4 088	-1.5%	272 373	78%	74%
Changes in inventories	2 058	+1 147	+55.7%	3 206	1%	1%

Source : NAI.

Table 8 gives details of the "gross fixed capital formation" item. Again, it can be seen that capitalisation of R&D is a key component of the revision.

TABLE 8 REVISION OF GROSS FIXED CAPITAL FORMATION

(2010, in € million, current prices)

	Revision in level
Corporations	**+7 748**
R&D	+7 041
Hospitals	+651
Output for own final use of market producers	+134
Market/non-market	-117
Other[1]	+190
Current revision	-151
General government	**+2 228**
R&D	+1 923
Military equipment	+180
Market/non-market	+101
Other	+23
NPIs serving households	**+52**
R&D	+52
Total	**+10 028**

Source : NAI.

1 New estimate of investment by small and medium-sized enterprises in the financial auxiliaries sector (S.126).

Under the so-called income approach, the level of employee compensation has been revised for various different reasons, with an overall positive effect of € 777 million in 2010. The main change concerns an amendment to the treatment of employment subsidies targeted on specific groups of workers[1]: in the new version of the accounts, wages are recorded in “gross” terms, i.e. before deduction of these subsidies which are themselves recorded as subsidies on production received by the entitled beneficiaries. This change also explains the reduction in the item "taxes less subsidies on production and imports".

In all, it appears that the rise in the level of GDP is reflected almost entirely in an increase in the "gross operating surplus and gross mixed income" item.

TABLE 9 REVISION OF AGGREGATES UNDER THE INCOME APPROACH

(2010, in € million, current prices)

	Before revision (Sept. 2013)	Revision		**After revision (Sept. 2014)**
		in level	in % of the aggregate before revision	
Gross domestic product	**355 740**	**+10 007**	**+2.8%**	**365 747**
Compensation of employees	182 291	+777	+0.4%	183 069
Taxes less subsidies on production and imports	37 309	-575	-1.5%	36 735
Gross operating surplus and gross mixed income	136 139	+9 805	+7.2%	145 944

Source : NAI.

The financing balance of the institutional sectors is the final balancing item in the accounts and therefore reflects all the revisions to the accounts, whether they concern the three approaches to measuring GDP or any other element coming under a transaction between sectors.

As for the balance of the institutional sectors, that for all corporations taken together is revised downwards by € 2.0 billion in 2010, or -0.7 % of GDP. There is evidence of a shift between the balance for non-financial corporations and that for financial corporations. This can be explained by the reclassification of units between these two sectors (see point 2.3.1) which, while relatively neutral in terms of value added, has more consequences as far as property income is concerned. Companies that have been reclassified and switched from the non-financial corporations sector to the financial corporations sector generally tend to have a positive balance for property income, which ultimately benefits the overall balance of financial corporations to the detriment of the non-financial corporations balance according to the new ESA 2010 standards.

The overall balance of households is revised upwards by € 2.5 billion (or +0.6 % of GDP).

The general government balance is revised downwards by only € 778 million[2] (-0.1 % of GDP).

In all, the overall balance of the Belgian economy vis-à-vis the rest of the world is estimated at € 8.4 billion (2.3 % of GDP) under the new version of the annual accounts, compared with € 9 billion (2.5 % of GDP) in the old version of the accounts.

1 More details on this point can be found in part 5 which focuses on general government accounts (point 5.2.2).
2 In order to make a comprehensive comparison for all institutional sectors, reference is made here to figures published in September 2013. The general government balance was subject to a later estimation, in March 2014, as part of the excessive deficit procedure (still under the ESA 1995 standards).

TABLE 10 REVISION OF INSTITUTIONAL SECTOR BALANCES

(2010, current prices)

	Before revision (Sept. 2013)	Revision	**After revision (Sept. 2014)**
in € million			
All companies	13 137	-2 014	11 123
Non-financial corporations	6 128	-6 314	-186
Financial corporations	7 009	+4 300	11 309
General government	-13 765	-778	-14 543
Households	8 268	+2 457	10 725
Non-profit institutions serving households	1 418	-341	1 077
All institutional sectors	**9 057**	**-676**	**8 381**
In % of GDP			
All companies	3.7	-0.7	3.0
Non-financial corporations	1.7	-1.8	-0.1
Financial corporations	2.0	+1.1	3.1
General government	-3.9	-0.1	-4.0
Households	2.3	+0.6	2.9
Non-profit institutions serving households	0.4	-0.1	0.3
All institutional sectors	**2.5**	**-0.3**	**2.3**

Source : NAI.

Lastly, table 11 shows the impact of the revisions on GNI in 2010. While the level of GDP has been revised upwards by 2.8 %, that of GNI has been revised along with it by +2.9 %.

TABLE 11 FROM GROSS DOMESTIC PRODUCT TO GROSS NATIONAL INCOME

(2010, in € million, current prices)

		Revision		
	Before revision (Sept. 2013)	in level	in % of the aggregate before revision	**After revision (Sept 2014)**
Gross domestic product	**355 740**	**+10 007**	**+2.8%**	**365 747**
Balance of primary incomes with the rest of the world	6 213	+600	+9.7%	6 813
Net[1] compensation of employees	5 337	-203	-3.8%	5 133
Taxes paid less subsidies received	-1 016	+434	-42.7%	-583
Net[1] property income	1 893	+370	+19.5%	2 262
Gross national income	**361 953**	**+10 607**	**+2.9%**	**372 560**

Source : NAI.

1 The term "net" means that this is the difference between the income that is received from the rest of the world and the income that is paid out to the rest of the world.

4.2 The long statistical series 1995-2011

This chapter presents a set of charts that help to assess the impact of the revisions over the period from 1995 to 2011. The three approaches to measuring GDP are mentioned, as is the revision of a few other key aggregates, notably under the sector accounts, as well as GNI.

As for the three approaches to GDP (charts 2 to 12), the impact of the revision are expressed as a percentage of GDP as it was measured in the latest edition of the annual accounts (in September 2013). The effects are measured in current prices.

Below is a summary of the charts:

– chart 2 **Global revision: impact on the level of GDP**
This chart shows the overall impact of the revision on the level of GDP. It also enables a distinction to be made between the revision related to the changeover to ESA 2010 (see point 2), the two other main revisions to incorporate the illegal economy in the accounts (see point 3.1) and to revise the black economy (see point 3.2), as well as all the other source- and method-related revisions (see points 3.3 to 3.12).

– chart 3 **Breakdown of "ESA 2010" revisions with an impact on the level of GDP**
This chart sets out the details of the "ESA 2010" heading mentioned in chart 2.
It distinguishes the various elements of the revision related to the changeover to ESA 2010.
The capitalisation of R&D (see point 2.2.1) appears to be the main element of the revision.
A distinction is made between that relating to the market sector (sectors S.11 and S.12) and that relating to the non-market sector (sectors S.13 and S.15).

– chart 4 **Breakdown of the revision for the "Illegal economy"**
The incorporation in the accounts of the illegal economy, which already appears in chart 2, is also an important element affecting the level of GDP (see point 3.1). The three segments of the illegal economy (drugs, prostitution and smuggling) are detailed in chart 4.

– chart 5 **Breakdown of "Other revisions" with an impact on the level of GDP**
This chart sets out the details of the heading "Other" which appears in chart 2. This covers all the source- and method-related revisions that were made along with the occasional review and which are not related to the implementation of ESA 2010.
The links between the elements in this chart and the methodological part are as follows:
- Agriculture: point 3.3
- Health services (hospitals): point 3.4
- Adjustments for software and non-produced non-financial assets: points 3.7 and 3.10
- Tax representatives: point 3.8
- Self-employed in financial branches: point 3.9
- Management costs of investment funds: point 3.11
- Consumption of fixed capital by NPIs serving households: point 3.6.

– chart 6 **Revision of value added by institutional sector**
The increase in the level of GDP is broken down here, in the production approach, by the sectoral value added figures. It is value added of the non-financial corporations sector (S.11) that makes by far the biggest contribution to the upward revision of GDP, followed by the general government (S.13), and households (S.14) sectors.

– charts 7 to 10 **Breakdown of sectoral revisions of value added**
For each institutional sector already covered in chart 6, these charts propose a breakdown of the revision of value added (expressed as a percentage of GDP) by the different review elements (whether related to ESA 2010 or not).

– chart 11 **Global revision: impact under expenditure approach**
This chart mentions the overall impact of the revision under the expenditure approach.
As a result of the largest element of the revision, namely the capitalisation of R&D expenditure, the revision seems to be the most pronounced for the "investment by the market sector" component (in terms of the contribution made to the change in GDP),
followed by the "general government final consumption expenditure and investment" component.

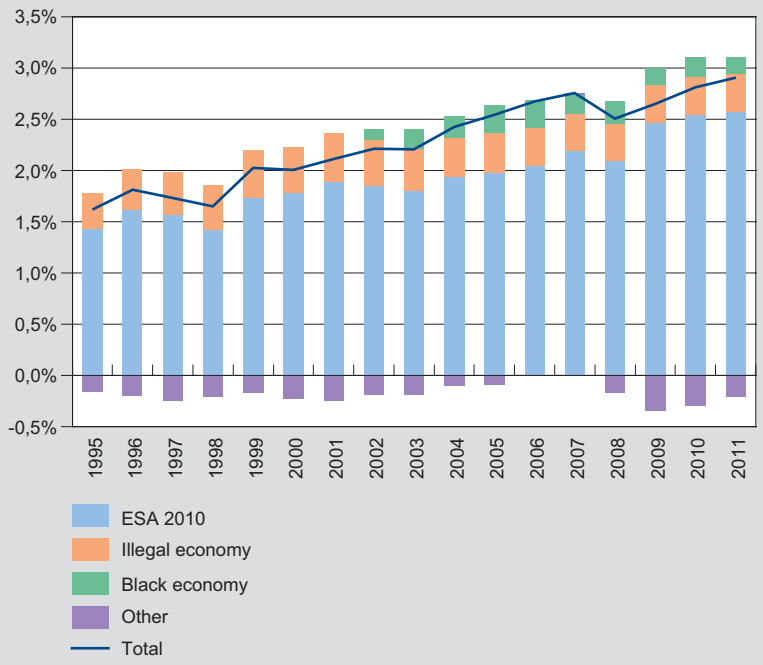
– chart 12 **Global revision: impact under revenue approach**
Since wages and taxes less subsidies are only very marginally affected by the changes, it appears that the upward revision of the level of GDP is reflected in a structural rise in the "gross operating surplus and gross mixed income" component.

– chart 13 **Some key aggregates of the sector accounts**
This chart presents four key indicators (household saving rate, household investment rate, corporate profit share and corporate investment rate)[1], before and after the revision. These indicators are also subject to monitoring in the context of the quarterly statistics on sector accounts.

– chart 14 **Gross national income (GNI)**
This chart presents the rate of change in gross national income before and after the revision. Overall, it seems that this rate has only been very marginally affected by the revision (between -0.1 and +0.2 percentage point).

– chart 15 **External balance of goods and services**
This chart shows the impact of the revision on the level of exports and imports of goods and services as well as the balance. The balance over the whole period has been revised downwards very slightly (on average -0.3 %).

CHART 2 GLOBAL REVISION: IMPACT ON THE LEVEL OF GDP
(percentages of GDP; current prices)



Current prices	Average annual growth rate of GDP (1995-2011)
ESA 1995	3,64 %
ESA 2010	3,75 %

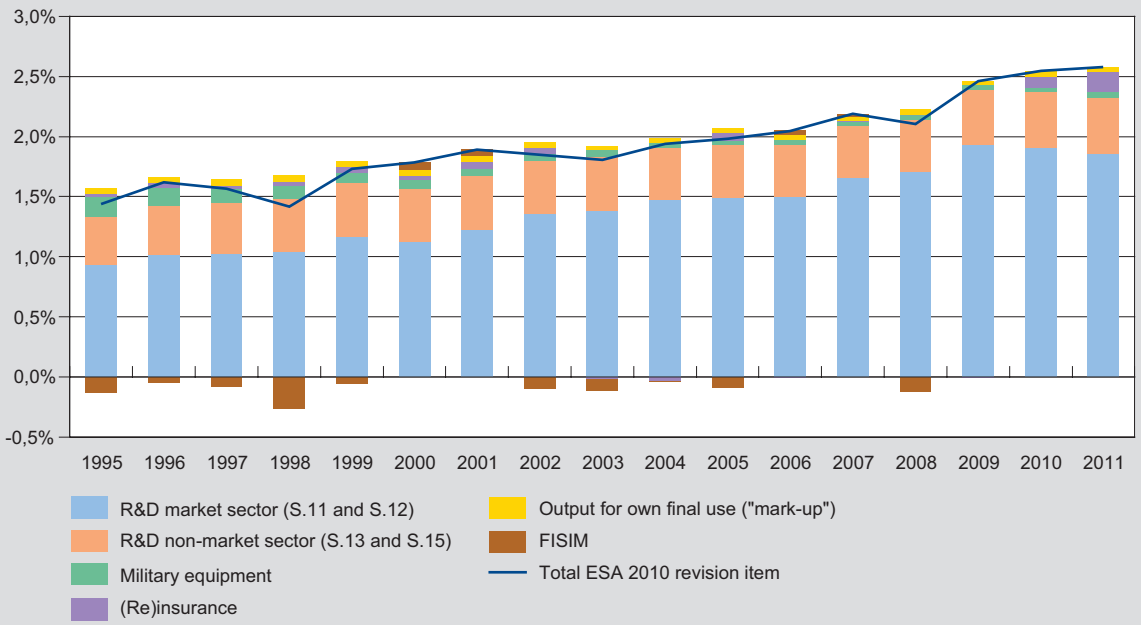
In volume	Average annual growth rate of GDP (1995-2011)
ESA 1995	1,87 %
ESA 2010	1,95 %

Source : NAI.

1 For a description of these indicators, readers should refer to the NAI publication on the quarterly accounts.

CHART 3 BREAKDOWN OF “ESA 2010” REVISIONS WITH AN IMPACT ON THE LEVEL OF GDP

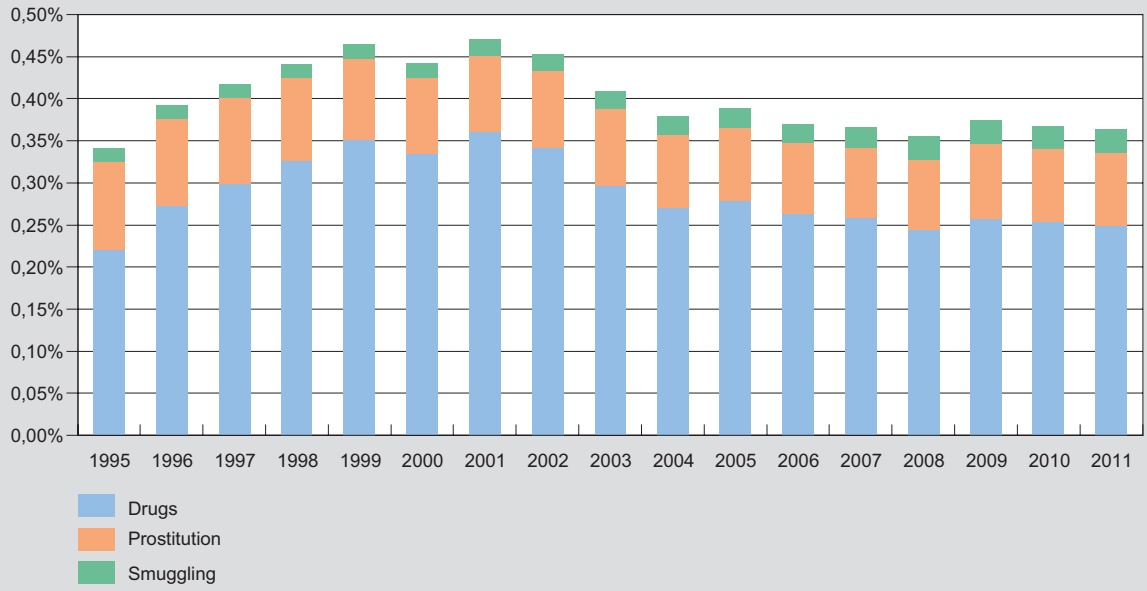
(percentages of GDP; current prices)



Source: NAI.

CHART 4 BREAKDOWN OF REVISION FOR THE "ILLEGAL ECONOMY"

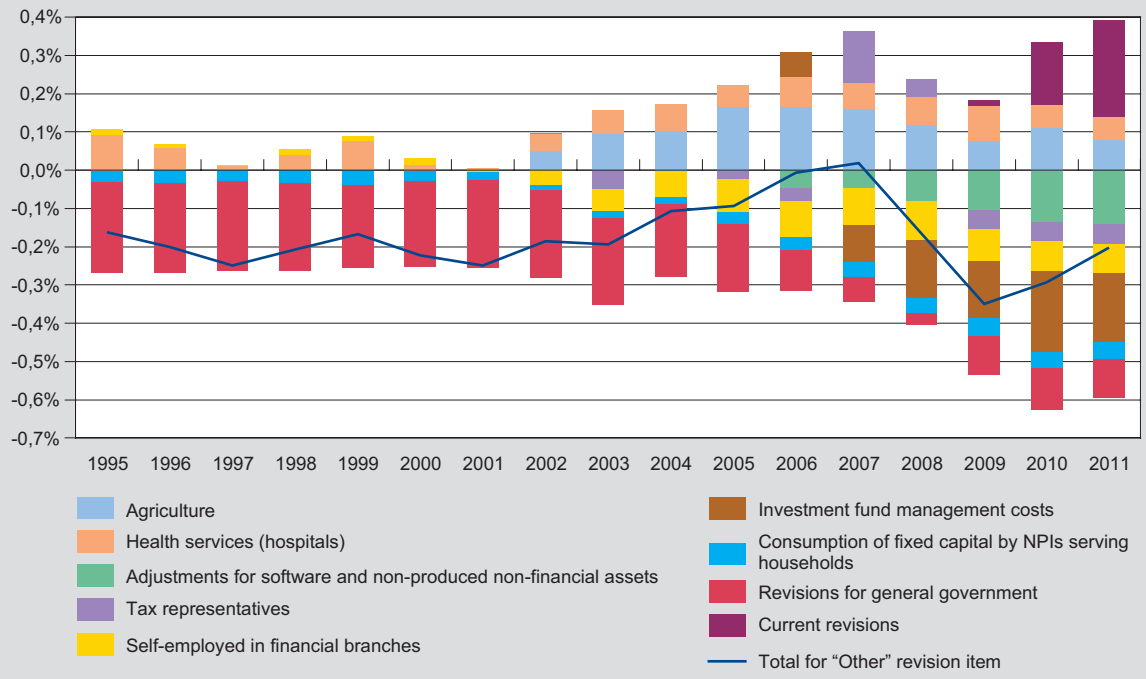
(percentages of GDP; current prices)



Source: ICN.

CHART 5 BREAKDOWN OF "OTHER REVISIONS" WITH AN IMPACT ON THE LEVEL OF GDP

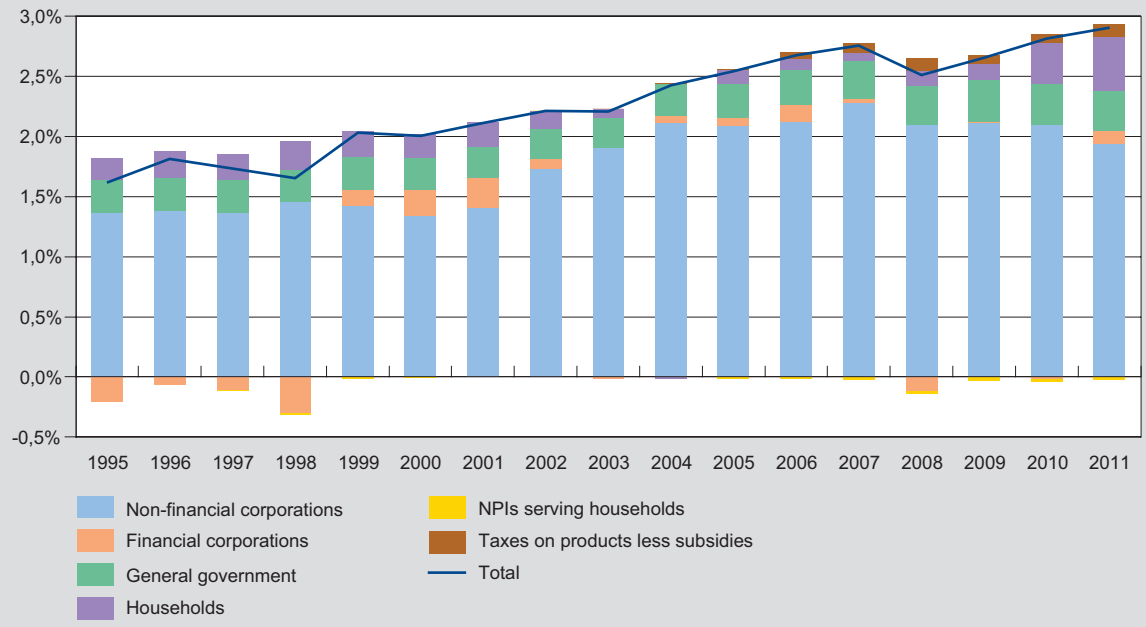
(percentages of GDP; current prices)



Source: NAI.

CHART 6 REVISION OF VALUE ADDED BY INSTITUTIONAL SECTOR

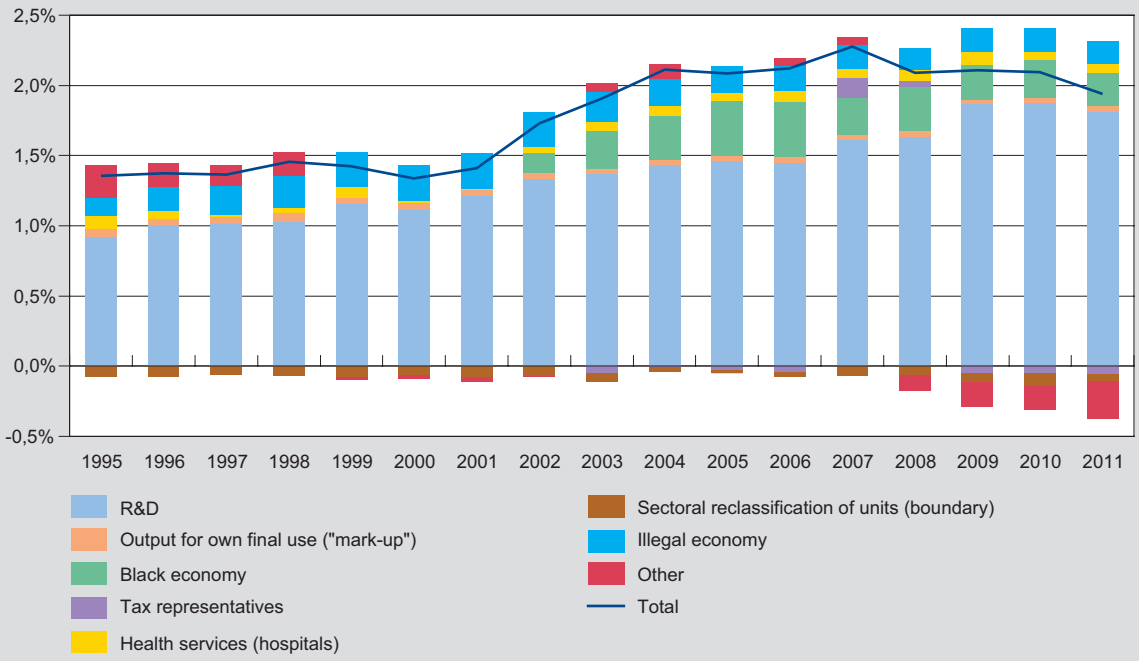
(percentages of GDP; current prices)



Source: ICN.

CHART 7 REVISION OF VALUE ADDED OF NON-FINANCIAL CORPORATIONS (SECTOR S.11)

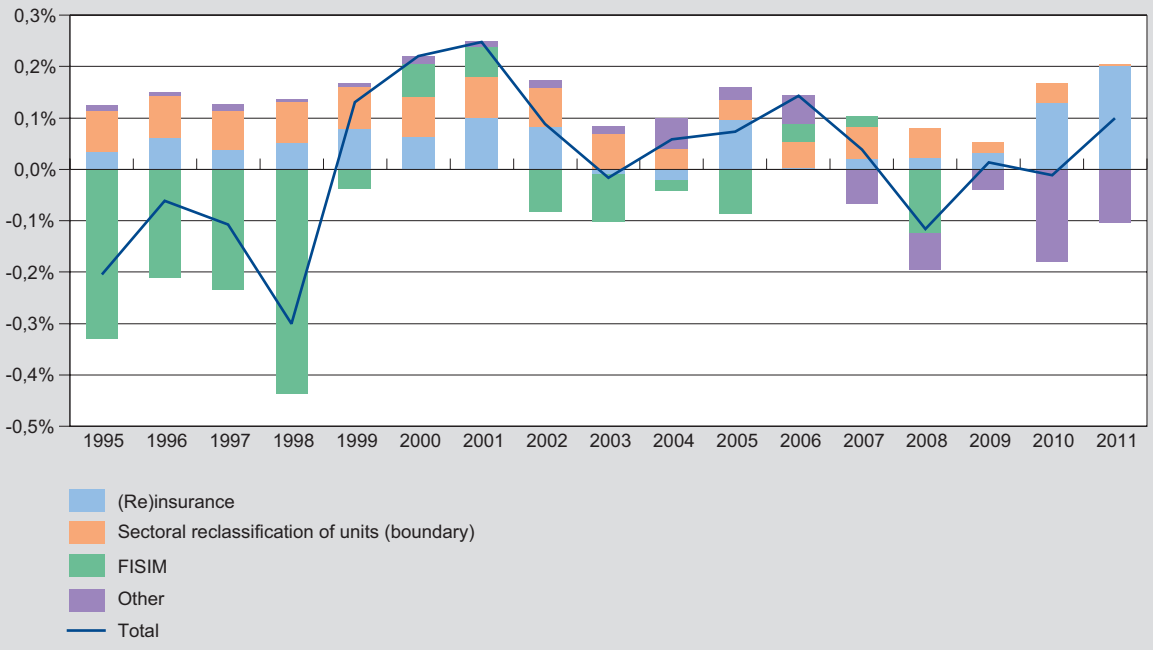
(percentages of GDP; current prices)



Source: NAI.

CHART 8 REVISION OF VALUE ADDED OF FINANCIAL CORPORATIONS (SECTOR S.12)

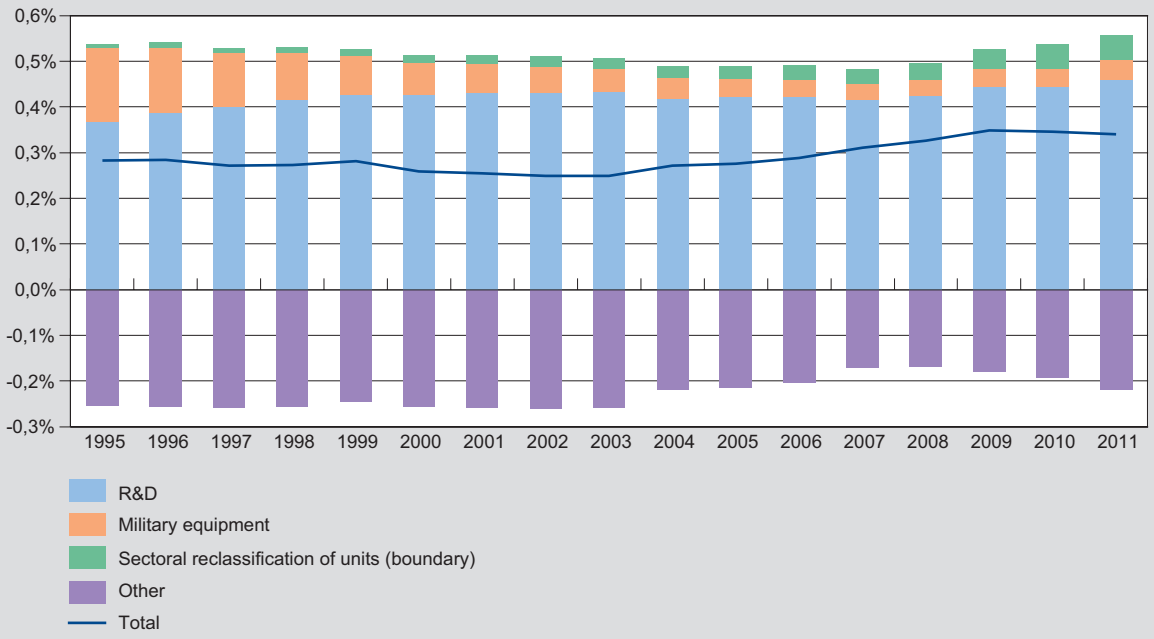
(percentages of GDP; current prices)



Source: NAI.

CHART 9 REVISION OF VALUE ADDED OF GENERAL GOVERNMENT (SECTOR S.13)

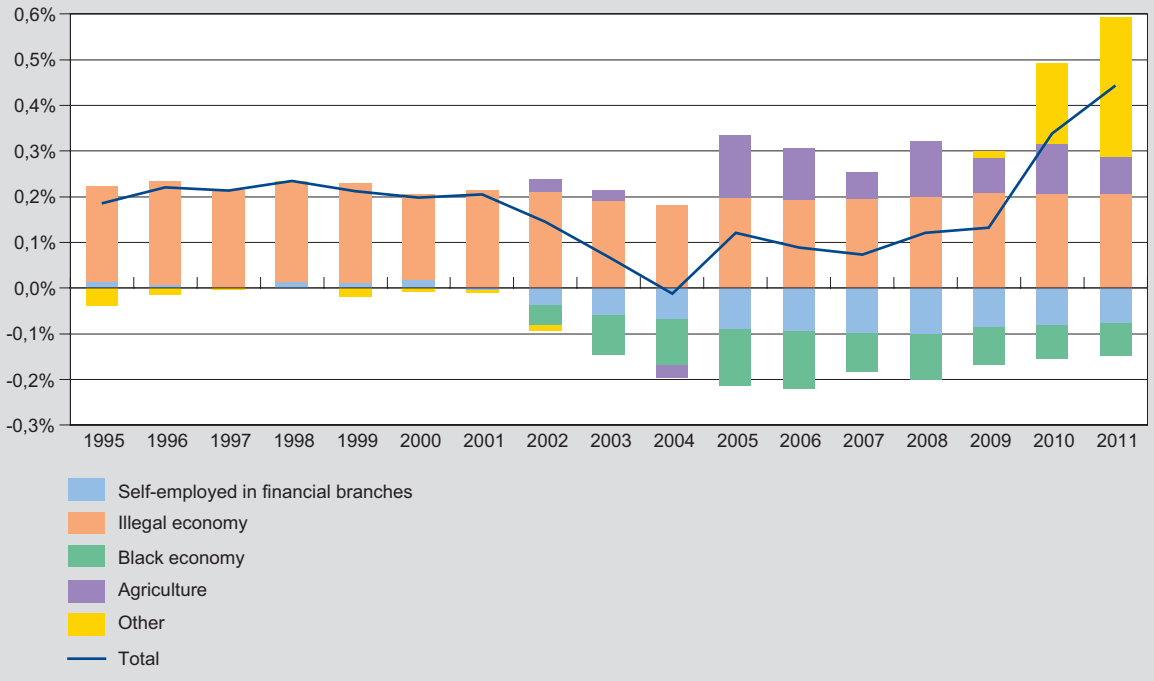
(percentages of GDP; current prices)



Source: NAI.

CHART 10 REVISION OF VALUE ADDED OF HOUSEHOLDS (SECTOR S.14)

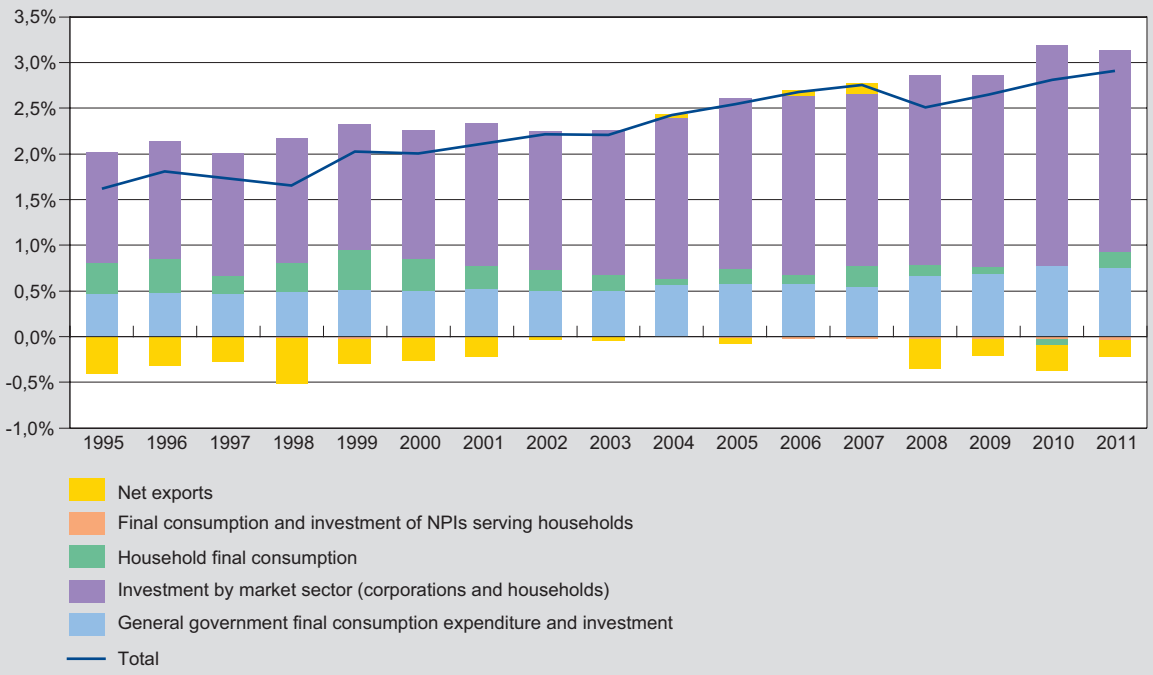
(percentages of GDP; current prices)



Source: NAI.

CHART 11 GLOBAL REVISION: IMPACT ON EXPENDITURE APPROACH

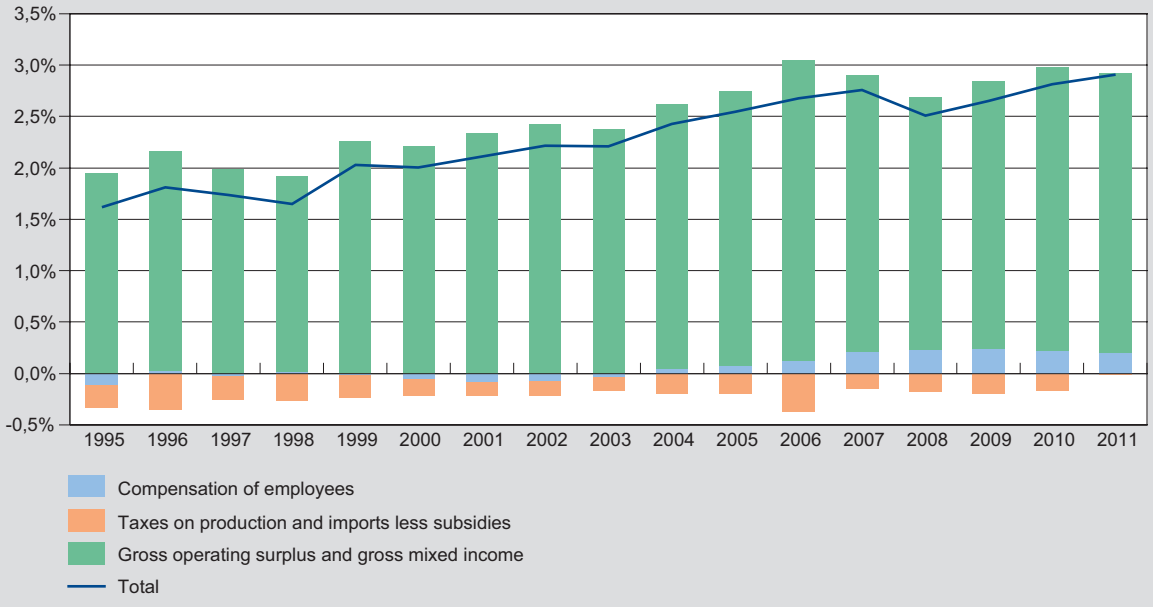
(percentages of GDP; current prices)



Source: NAI.

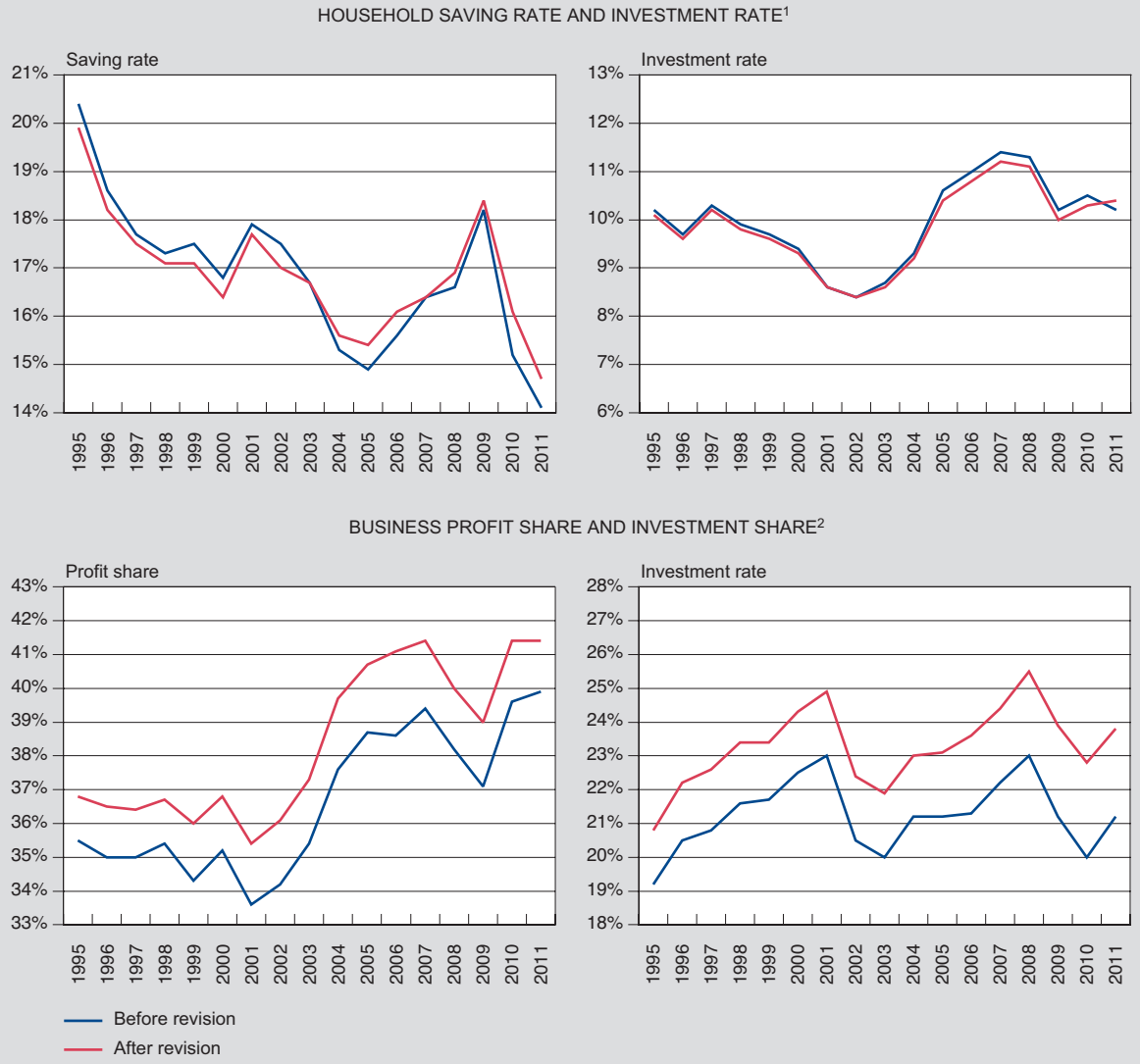
CHART 12 GLOBAL REVISION: IMPACT ON REVENUE APPROACH

(percentages of GDP; current prices)



Source: NAI.

CHART 13 SOME KEY AGGREGATES OF THE SECTOR ACCOUNTS



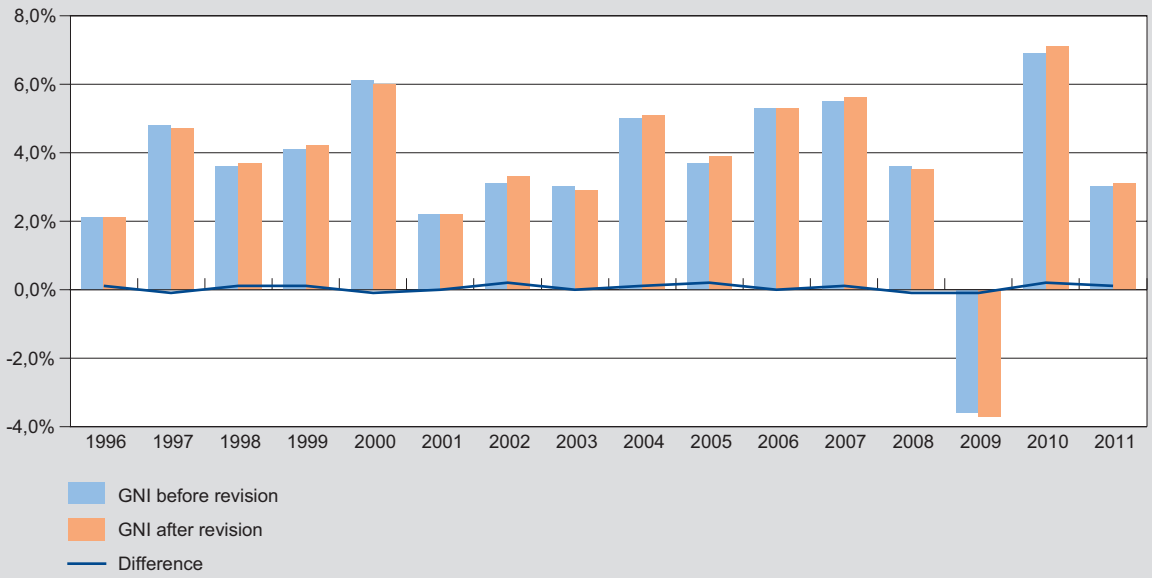
Source : NAI.

1 Including non-profit institutions serving households.

2 Non-financial and financial corporations.

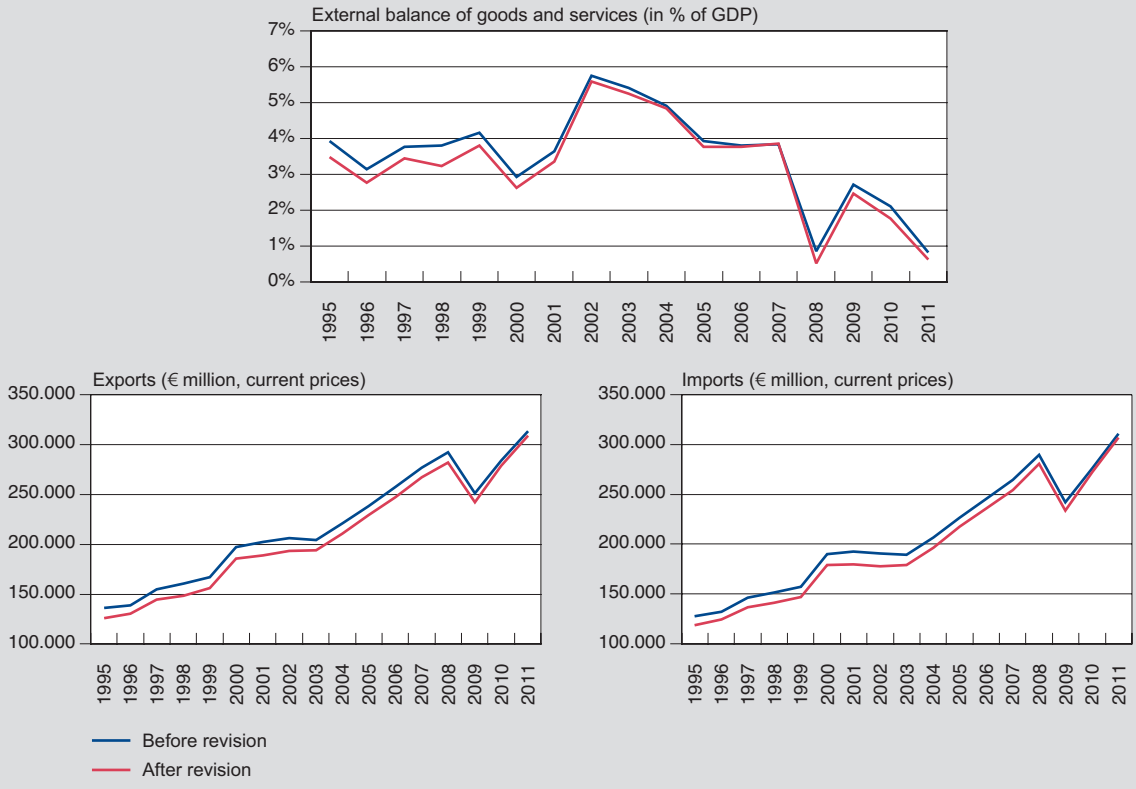
CHART 14 GROSS NATIONAL INCOME (GNI)

(percentage changes)



Source: NAI.

CHART 15 EXTERNAL TRADE IN GOODS AND SERVICES



Source: NAI.

5. More detailed comments on the general government accounts

This section details the changes affecting the general government accounts. The latter are actually a part of the national accounts to which particular attention is paid, notably in regard to the assessment of the government deficit and the public debt.

The section begins by explaining the various changes, distinguishing between those which have an impact on the balance and/or the debt, those which do not alter the balance but nevertheless affect the level of revenue and expenditure, and finally those which alter the breakdown of revenue and expenditure but without affecting the overall level. Tables 13 and 14 present a breakdown of the impact of the ESA 2010 revisions and of the other revisions.

This chapter ends with an illustration of all the revisions in the figures, comparing the public deficit and the public debt before and after revision since 1995.

5.1 Changes affecting the balance and/or the debt

5.1.1 A broader definition of the scope of general government

Among the many subjects covered by public finances in the national accounts, there is one which is sometimes misunderstood, though it is vitally important since it has a direct influence on the public debt and on the government's fiscal balance. It concerns the sectoral classification of government units. Outside or within the general government sector (S.13), that classification conforms to criteria defined in the ESA and, in certain cases, explained in the Eurostat *Manual on Government Deficit and Debt (MGDD)*[1] which, in a way, establishes precedents for the national accounts in the case of public finances. Correct application of these criteria ensures the consistency of treatment necessary to safeguard the comparability of data between the various entities of the country, while also ensuring comparability at international level with other European countries.

The classification of a government unit is based on three criteria: autonomy, control and market or non-market character.

Autonomy is the essential characteristic of an institutional unit. The ESA 2010 thus defines an institutional unit as an economic entity characterised by decision-making autonomy in the exercise of its principal function[2].

To have autonomy of decision in respect of its principal function, an entity must be:

a) entitled to own goods and assets in its own right; it will be able to exchange the ownership of goods and assets in transactions with other institutional units;
b) able to take economic decisions and engage in economic activities for which it is responsible and accountable at law;
c) able to incur liabilities on its own behalf, to take on other obligations or further commitments and to enter into contracts; and
d) able to draw up a complete set of accounts, comprised of accounting records covering all its transactions carried out during the accounting period, as well as a balance sheet of assets and liabilities.

If these conditions are not met, the unit has to be consolidated with the unit to which it relates and its sectoral classification is therefore the same as that of the latter unit. In reality, autonomy is therefore a pre-condition for any analysis of sectoral classification since it is only once a unit's autonomy is established that it becomes necessary to define its classification on an individual basis.

1 The latest version of MGDD dates from August 2014.
2 ESA 2010 § 2.12.

The concept of control is sometimes confused with the concept of autonomy, yet according to the ESA, the two concepts have quite distinct meanings. Where autonomy establishes the existence of a separate institutional unit, control is defined as the power to determine the general policy of a unit[1]. The ESA picks out the following eight indicators as the main factors to consider in deciding whether a unit is controlled by government[2] [3]:

a) government ownership of the majority of the voting interest;
b) government control of the board or governing body;
c) government control of the appointment and removal of key personnel
d) government control of key committees in the entity;
e) government possession of a golden share;
f) special regulations;
g) government as a dominant customer;
h)) borrowing from government.

Indicators a), b) and d) are sufficient in themselves to establish control. In other cases, a number of separate indicators may collectively indicate control.

The third and final stage consists in establishing the market or non-market character of the unit's activities. For that purpose, it is first necessary to distinguish between financial and non-financial corporations, because different criteria apply for assessing the market or non-market character. Non-financial corporations are classed as market units if they sell their products at economically significant prices. In the case of financial corporations, what matters is the degree of risk exposure.

Economically significant prices are defined as prices that have a substantial effect on the amounts of products that producers are willing to supply and on the amounts of products that purchasers wish to acquire[4]. Fortunately, this theoretical definition is supplemented by two practical criteria, one qualitative and the other quantitative, which must both be satisfied, as the quantitative criterion cannot be considered unless the qualitative criterion is satisfied. The qualitative criterion relates to the purchaser of a public unit's products[5]. If the unit sells the majority of its products to the government, it is assumed to be a non-market unit unless it is placed in competition with private producers by means of a call for tenders issued by the government under commercial conditions. If that is the case, or if the unit sells the majority of its products to purchasers other than the government, its sales are regarded as genuine sales within the meaning of the ESA and can therefore be included in calculating the quantitative criterion.

The quantitative criterion, also called the "market/non-market test ", "market test " or "50 % test", is based on the ratio of sales to production costs. A market unit is considered to be one whose sales cover at least 50 % of its production costs over a continuous period of several years (generally at least three)[6]. "Sales" means revenue derived from goods and services produced, from which subsidies are deducted unless they are directly linked to the volume or the value of the output and are granted to all producers on the market. Production costs correspond to the sum of intermediate consumption[7], compensation of employees, fixed capital consumption (estimated at replacement cost), other taxes on production and net interest expenses[8]. Own-account production is not considered to form part of sales in this context.

The 50 % criterion is not relevant for financial corporations because their resources come both from property incomes and holding gains[9], which are not part of sales. For these corporations, the criterion determining whether they are market or non-market is the degree of risk exposure[10]. A financial corporation will be regarded as not exposed to risk if the government repays its debts, compensates for its losses, or grants guarantees on its assets (e.g. in the form of compensation if certain assets perform badly). Conversely, the fact that the government is a dominant shareholder in the company or that it grants guarantees on its liabilities is not generally relevant for determining the risk exposure[11].

1 ESA 2010 § 1.36, 2.35, 20.18, 20.309.
2 ESA 2010 § 2.38 and, in more detail, 20.309. Note that control by the public sector (defined as general government and public enterprises) is sufficient to determine that a unit is under public control.
3 By analogy, this reasoning applies mutatis mutandis to non-profit institutions.
4 ESA 2010 § 3.19 and 20.19.
5 ESA 2010 § 20.25-28.
6 ESA 2010 § 3.19, 3.32-33, 20.29-31.
7 Including imputed rent for any infrastructures made available to the unit free of charge.
8 Under the ESA1995, the costs in the 50 % test excluded net interest expenses.
9 ESA 2010 § 20.34.
10 ESA 2010 § 2.57 and 20.33.
11 MGDD, chapter I.5 § 17-18.

Captive financial institutions are an important special type of financial corporations for which specific criteria apply[1]. A captive financial institution is one that does not engage in financial intermediation in so far as the major part of its assets or liabilities is not subject to transactions on open financial markets. It is generally financed by a sponsor that lends it money or guarantees its borrowings[2]. The general framework of its activities is usually defined by its parent unit. When a captive financial institution is under government control, it has to be classified in the general government sector. That applies for instance to the seven regional housing corporations[3].

The ESA 2010 puts the emphasis on qualitative criteria, such as the entity's economic motivation, the independence of the profit-making activities, or its ability to pay off its debts without State financial aid, so that only independent entities motivated by market competition are excluded from the general government sector. The changes to the criteria for determining whether an entity is part of that sector mean both a rise in the number of units classified there and a resulting increase in the public debt.

In view of the large number of public units whose sectoral classification had to be reviewed, it was decided in agreement with Eurostat that the changes relating to units reclassified in the general government sector would not, for the time being, be applied at the level of the various revenue and expenditure series in the non-financial accounts of general government but would all be taken into account on a net basis in general government expenditure, and more specifically at the level of other capital transfers to non-financial corporations. That approach ensures that the general government balance is as accurate as possible, although the main aggregates of the economy (GDP, compensation of employees, etc.) are not adapted in accordance with the reclassification of units. Similarly, in the general government financial accounts all the entries relating to the public debt were made, whereas only some of those relating to the financial assets were recorded. These changes, which were recorded in order to obtain accurate and exhaustive figures for the balance and the debt under the ESA 2010 for the period 1995-2013, will be correctly incorporated and retropolated in the national accounts as a whole in September 2015, if that proves possible and necessary.

In this connection, the sectoral classification of more than 1,600 units was analysed, leading to reclassification of almost 700 units in the general government sector (S.13). This mainly concerns units involved in financing social housing, local authority associations, autonomous municipality-owned utilities and other local public enterprises.

The NAI list of public sector units as at 30 September 2014 can be consulted on the National Bank of Belgium's website[4].

The table below shows the biggest impact on the debt as a result of public units being reclassified in general government:

1 ESA 2010 § 2.21-23 and 2.98-99 and MGDD, chapter I.6 § 24-38 and 56-58.
2 In contrast to other types of financial corporation, guarantees covering borrowings therefore play a key role in the analysis of the sectoral classification of captive financial institutions.
3 The *Société wallonne du Logement*, the *Fonds du Logement des Familles nombreuses de Wallonie*, the *Société wallonne du Crédit social*, the *Société du Logement de la Région de Bruxelles-Capitale*, the *Fonds du Logement de la Région de Bruxelles-Capitale*, the *Vlaamse Maatschappij voor Sociaal Wonen and the Vlaams Woningfonds*.
4 NB: this list is deemed exhaustive (according to the information available to the NAI) in the case of units in the general government sector (S.13) but is only indicative for public enterprises classified outside the general government sector.

TABLE 12 IMPACT OF RECLASSIFIED UNITS ON THE DEBT

(€ million)

	2010	2011	2012	2013
7 housing corporations in the strict sense	12 030.4	12 991.6	13 958.0	14 419.1
Other regional corporations concerned with housing (agencies, recognised credit companies, and social credit companies)	1 102.9	1 066.9	1 038.6	972.9
Other (mainly local public enterprises)	2 391.9	2 519.2	2 717.7	2 883.7
Total	**15 525.2**	**16 577.6**	**17 714.3**	**18 275.7**

Source: ICN.

5.1.2 Payments by firms to the State in connection with transfer of their pension liabilities to the State

Under the ESA 1995, payments made by a firm to the State in connection with a transfer of liabilities under pension schemes set up by the firm, with or without the formation of reserves, and for its own employees, had to be recorded as general government revenue and could therefore have a positive impact on the balance (B.9). In both cases, with or without the formation of reserves, the counterpart of the amount received by the State is a transaction without counterparts, classified as a capital transfer (D.99) and the pension liabilities taken over by the State are not recorded as liabilities under the ESA 1995.

Under the ESA 2010, the same payments have to be regarded as a financial advance (F.8), in other words an early payment for miscellaneous current transfers (D.75) which will be recorded subsequently under public revenue when the corresponding pension payments take place, until such time as the sums advanced have been exhausted. Consequently, the payment of the lump sum has no impact on the general government balance in the year of the transfer of the liabilities[1], whereas the balance in subsequent years is improved (compared to the situation under the ESA 1995).

5.1.3 General government securitisation operations

Under the ESA 1995, the funds obtained in return for securitisation operations[2] concerning arrears of taxes and parafiscal charges were treated, subject to certain conditions, as general government revenue and therefore had a positive impact on the balance (B.9). However, following a decision by Eurostat in 2007, all new government securitisation operations relating to tax receivables have to be treated as government recourse to borrowing.

Under the ESA 2010, which conforms to the spirit of the 2007 decision, these funds are regarded as the sale of a financial asset recorded under the instrument "other accounts receivable" (F.8), i.e. as a financing transaction increasing the public debt[3] if no financial asset corresponding to the arrears has been recorded in the accounts.

The operations for the securitisation of tax arrears which took place in Belgium in 2005 and 2006 were therefore treated in this edition of the accounts in accordance with the 2007 Eurostat decision.

5.1.4 Time of recording following court decisions with retroactive effect

When a court rules that compensation must be paid or a transaction must be reversed following past events or in connection with such events, the time of recording of the expenditure or of the revenue corresponds to the time when the beneficiaries have an automatic and incontestable right to payment of a given amount which can be determined individually, and it is unlikely that they will not claim what is due to them. If the court confines itself to establishing the principle of compensation or if the complaints have to be examined by administrative bodies

1 ESA 2010 § 20.275.
2 Securitisation consists in the issuance of debt securities for which the payment of the coupon or the principal is backed by specified assets or future revenue flows (e.g. mortgage loans, consumer loans, future revenues, etc.).
3 ESA 2010 § 20.262 to 20.268.

in order to ascertain whether they can be accepted and to determine an amount, the expenditure or revenue is recorded as soon as the value of the liability is reliably determined[1].

On that basis , the corporation tax refunds resulting from the Cobelfret judgment will now be recorded as the amounts repayable are established, and not at the time of the 2009 judgment by the European Court of Justice. This change of method affects the repayment profile and therefore also affects the general government balance.

5.1.5 Treatment of public-private partnerships (PPPs)

As under the ESA 1995, an infrastructure created on the basis of a public-private partnership can only be recorded in the accounts of the private partner if that private partner bears the risk relating to construction, demand and availability. If the government provides the majority of the funding or grants a guarantee covering the majority of the funds raised, these risks are not transferred to the private partner.

The ESA 2010 explicitly states that clauses providing for an advantageous repayment in the event of termination initiated by the private operator mean that these risks have not been sufficiently transferred to the private partner[2]. Moreover, the latest Eurostat opinions stress that, in examining a PPP arrangement, account must be taken of profit sharing, public financing in the form of financial instruments presenting greater risks than those used by the private partner, and the various types of public guarantee.

The new ESA 2010 rules on PPPs and the Eurostat case-law relating to them apply retroactively to the entire period 1995-2013, so that investment relating to certain PPP operations has been recorded on the general government balance sheet with a negative impact on the balance in the years in which the investment took place and a positive impact in subsequent years for the part of the payments relating to repayment of the imputed loans.

5.1.6 Treatment of mobile phone licences

Under the ESA 1995, the electromagnetic spectrum (radio waves) was recognised as a non-produced tangible asset. The associated licence (permit to use the spectrum for a period of time), except in the cases mentioned below, was recorded as a "non-produced intangible asset" (AN.222). If the contract was for a term of five years or less, or if the contract did not fix a total price for the licence and provided for payments over the term of the contract based on the economic performance of the company holding the licence, the payments to the government had to be recorded as rent (D.45).

Under the ESA 2010, the electromagnetic radio spectrum is explicitly identified as a natural resource (AN.2151) and it is specified that if the government issues a permit (also called a "licence"), it can only be recorded as a new asset "permits to use natural resources" (AN.222) if the transfer of risks and rewards has the effect of creating a separate, transferable permit with a realisable value[3]. Thus, the licence holder must be able to assign the licence to a third party. Conversely, if the government has the right to oppose the transfer for any reason, or if the contract requires the holder to retain the licence until it expires, the licence will not be recognised as an asset, and the payments to the government will be recorded as rent (D.45).

In Belgium, up to 2005, it was not possible to transfer rights of use. Since 2005, operators have been able to assign their rights of use in whole or in part, including those granted before 2005. The principle of portability was introduced by the Law of 13 June 2005 on electronic communications (with effect from 30 June 2005).

The single payments received when the mobile telephony licences were granted between 1995 and the early 2000s were therefore recorded partly as rent (D.45) which, taking account of the duration of the contracts, was phased over the period from the granting of the licence until 30 June 2005, the balance being recorded as sales revenue from permits to use natural resources as at 1 July 2005. In the case of all licences granted after 2010, the proceeds from sales have always been recorded as revenue from the sale of permits to use natural resources at the time of granting, regardless of the contractual payment arrangements.

1 ESA 2010 § 20.189.
2 ESA 2010 § 20.283.
3 ESA 2010 § 15.28 and 15.43.

5.1.7 Standardised guarantees

Non-standardised guarantees are one-off guarantees for which it is not possible to estimate the corresponding risk with any degree of accuracy because there are no comparable cases. In contrast, standardised guarantees are guarantees issued in large numbers, generally for relatively small amounts (e.g. export credit guarantees and student loan guarantees). Even though the probability of a call on any standard guarantee is uncertain, the existence of a large number of similar guarantees makes it possible to arrive at a reliable estimate of the number of calls which may be made on the guarantee.

Under the ESA 1995 and the ESA 2010, in the case of non-standardised guarantees the grant of a guarantee generally has no immediate impact on public expenditure. If a guarantee is called, a capital transfer is recorded between the government and the unit whose debt is guaranteed (and not the financial institution providing the funds) for an amount equal to the amount of the debt assumed.

Under the ESA 1995, standardised guarantees were treated in the same way as non-standardised guaranteed. Under the ESA 2010, in the case of standardised guarantees (a non-commercial government activity), as soon as such a guarantee is granted a capital transfer is recorded between the government and the financial institution providing the funds. The amount to be recorded must be calculated on the basis of historical default data or, in the case of a new activity, it must be estimated by forecasting. If the economic and financial situation changes, or if the forecasts prove incorrect, the calculation method has to be adjusted both for new guarantees and for those granted in the past, if necessary. When a guarantee is called, the payment compensating the financial institution must no longer be recorded as expenditure but only as a cash transaction. If, by way of exception, guarantee calls exceed the stock of recorded provisions, an additional capital transfer has to be recorded under expenditure to cover both the difference between the amounts called and the stock of provisions and the rebuilding of the stock of provisions.

In practice, in view of the relatively minor impact that this change of method is expected to have on the balance, and the time taken to process the information collected on standardised guarantees, this change was postponed and the impact on the balance is therefore zero at present.

5.1.8 Conditional investment aid

Under the ESA, investment aid has to be recorded at the time when the payment obligation arises. For most investment aid, that coincides with the completion of the underlying investment project.

In Belgium, there are various situations that give rise to the use of conditional investment aid, as the annual level of investment aid covering part of the beneficiary's investment debt repayments could depend on parameters such as the degree of use of the assets. The conditional nature of such aid was put forward as an argument for staggering the period over which the aid was recorded in the general government accounts. It must be said that this conditional character is particularly weak in the cases known to the NAI. In economic reality, weak conditionality in fact corresponds more to an obligation on the government to pay the investment aid once the underlying investment has been completed; the aid then has to be recorded in full (excluding interest subsidies) with a negative impact on the balance and the recording of a debt assumed. The annual payments made subsequently by the government are then divided between repayment of the recorded debt and payment of interest. The reduction in the annual payment due to non-fulfilment of certain aid conditions has to be recorded as a capital transfer receivable by the government during the year in which the reduction takes place.

If the fact that investment aid is conditional upon the fulfilment of various criteria linked to the use of the assets is to influence the timing of the recording of that aid, the conditions have to be very strict. If it is clear that the government intervention exceeds 50 % of the debt service, it seems more correct in economic terms to record the debt for the government at the time when the right is first established. Moreover, even if the grant of investment aid is subject to very stringent conditions, it should be noted that if the aid is linked to the provision of guarantees, one could argue that part of the debt may be borne by the government because assistance other than product subsidies has been granted.

This change concerns the financing of social sector infrastructures by the Flemish Community's *Vlaams Infrastructuurfonds voor Persoonsgebonden Aangelegenheden* (VIPA) and the financing of parts A1 and A3 of the hospital financial resources budget chargeable to the National Institute for Health and Disability Insurance (NIHDI / INAMI - RIZIV).

5.1.9 Revision of Regulation No. 479/2009

Up to now, under the excessive deficit procedure (EDP) the ESA 1995 balance has been adjusted to include net interest payments resulting from swaps and forward rate agreements. The EDP concept of interest was not retained in the ESA 2010.

In September 2014, Commission Regulation (EU) No. 220/2014 of 7 March 2014 amending Council Regulation (EC) No. 479/2009 as regards references to the European system of national and regional accounts in the European Union took effect and the adjustment relating to net interest payments resulting from swaps and forward rate agreements was abolished. It follows that the ESA 2010 balance and the EDP balance are strictly equal, since a single definition of the general government balance now applies.

5.1.10 Inclusion of long-term trade credit in the debt

Under the ESA 2010, long-term trade credits (maturity at issue of one year or more) are treated as loans and recorded under the financial instrument long-term loans (F.42), since by considerably extending the payment due date a supplier/contractor takes on a financial role which differs from his other activity as a producer.

In practice, only part of the long-term trade credits is currently recorded, but the volume of these financial liabilities is not likely to be considerable.

TABLE 13 DEFICIT: TABLE COMPARING THE ESA 1995 AND THE ESA 2010

(€ million)

	2010	2011	2012	2013
ESA 1995 EDP deficit (March - April 2014)	**-13 627.1**	**-14 160.6**	**-15 235.1**	**-9 923.5**
in % of GDP	**-3.8**	**-3.8**	**-4.1**	**-2.6**
Methodological changes relating solely to the ESA 2010 (a)	**184.7**	**-149.2**	**128.5**	**260.5**
Payments by firms to the State in connection with the transfer of their pension liabilities to the State	305.9	327.3	349.3	371.0
Securitisation operations conducted by the government	65.4	59.0	45.0	54.3
Treatment of mobile telephony licences	135.2	-33.7	-32.6	24.2
Standardised guarantees[1]	0.0	0.0	0.0	0.0
Revision of Regulation n° 479/2009 (swaps)	*-321.8*	*-501.8*	*-233.2*	*-189.0*
S1311	*-448.4*	*-573.9*	*-317.2*	*-294.6*
S1312	*126.6*	*72.1*	*84.0*	*105.6*
Methodological changes relating to the ESA 2010 and to a re-examination of certain questions[2] (b)	**-937.6**	**-520.8**	**-646.8**	**-1 574.3**
Sectorisation	87.2	-53.1	72.6	13.3
S1311	*11.3*	*4.5*	*-21.9*	*-23.0*
S1312	*114.2*	*11.9*	*186.8*	*81.2*
S1313	*-38.3*	*-69.6*	*-92.3*	*-44.9*
Treatment of public-private partnerships	-35.2	-76.9	-66.3	-70.7
S1312	*-28.1*	*-49.5*	*-8.7*	*-23.1*
S1313	-7.1	-27.4	-57.5	-47.5
“Conditional” investment aid	-887.8	-340.4	-652.9	-1 516.9
S1312	*-421.2*	*-106.1*	*-126.7*	*-763.9*
- VG	*-421.2*	*-106.1*	*-126.7*	*-763.9*
S1314	*-466.6*	*-234.3*	*-526.2*	*-753.0*
Cobelfret judgment	-101.8	-50.4	-0.3	0.0
Other changes[3] (c)	**-162.9**	**-50.9**	**-168.8**	**-227.3**
Total deficit revision (a) + (b) + (c)	**-915.9**	**-720.9**	**-687.1**	**-1 541.0**
in % of GDP	-0.2	-0.1	0.0	-0.3
due to revision of the deficit	-0.3	-0.2	-0.2	-0.4
due to revision of GDP	0.1	0.1	0.2	0.0
ESA 2010 deficit (= ESA 2010 EDP deficit)	**-14 543.0**	**-14 881.5**	**-15 922.2**	**-11 464.5**
in % of GDP	**-4.0**	**-3.9**	**-4.1**	**-2.9**

Source: NAI.

1 In practice, the recording of the standardised guarantees has not changed and the impact on the balance is therefore zero at present.

2 This item concerns establishing conformity with the ESA 2010 in the case of questions which were not previously resolved in full and for which discussions at European level led to a definitive solution.

3 The "Other changes" item corresponds to the correction of past errors, changes in calculation methods and sources, and the use of more recent basic data.

TABLE 14 DEBT: TABLE COMPARING THE ESA 1995 AND THE ESA 2010

(€ million)

	2010	2011	2012	2013
ESA 1995 EDP debt (March - April 2014)	**343 724.8**	**366 248.8**	**380 157.4**	**387 158.9**
in % of GDP	**96.6**	**99.2**	**101.1**	**101.2**
Methodological changes relating solely to the ESA 2010 (a)	**87.4**	**26.1**	**0.0**	**0.0**
Securitisation operations conducted by the government	87.4	26.1	0.0	0.0
Long-term trade credits[1]	p.m.	p.m.	p.m.	p.m.
Methodological changes relating to the ESA 2010 and to re-examination of certain questions[2] (b)	**20 227.5**	**21 746.8**	**23 630.4**	**25 969.7**
Sectoral division	15 628.7	16 722.2	17 856.0	18 561.6
S1311	*50.8*	*68.3*	*14.7*	*24.2*
S1312	*13 659.9*	*14 573.5*	*15 472.7*	*15 984.4*
S1313	*1 918.0*	*2 080.4*	*2 368.6*	*2 553.1*
Treatment of public-private partnerships	162.1	247.6	344.5	461.2
S1312	*43.1*	*101.2*	*140.7*	*209.9*
S1313	*118.9*	*146.3*	*203.8*	*251.4*
"Conditional" investment aid	4 436.7	4 777.0	5 429.9	6 946.8
S1312	*839.6*	*945.6*	*1 072.3*	*1 836.2*
- VG	*839.6*	*945.6*	*1072.3*	*1 836.2*
S1314	*3 597.1*	*3 831.4*	*4 357.6*	*5 110.6*
Other changes[3] (c)	**108.2**	**105.9**	**-61.7**	**117.1**
Total debt revision (a) + (b) + (c)	**20 423.1**	**21 878.8**	**23 568.8**	**26 086.7**
in % of GDP	3.0	2.9	2.9	3.3
due to revision of the debt	5.7	5.9	6.3	6.8
due to revision of GDP	-2.7	-3.0	-3.4	-3.5
ESA 2010 EDP debt	**364 147.9**	**388 127.6**	**403 726.2**	**413 245.7**
in % of GDP	**99.6**	**102.1**	**104.0**	**104.5**

Source: NAI.

1 This item is pro memoria, as the amounts currently recorded are included under the sectoral division item.

2 This item concerns establishing conformity with the ESA 2010 in the case of questions which were not previously resolved in full and for which discussions at European level led to a definitive solution.

3 The "other changes" item corresponds to the correction of past errors, changes in calculation methods and sources, and the use of more recent basic data.

Since application of the ESA 2010 concepts entails an upward revision of GDP, the ratios of the economic aggregates of general government (balance, debt and indicators of statutory charges) are therefore affected twice: first by the changes which apply directly to their calculation as absolute values, and then by the upward revision of GDP. The preceding tables distinguish between these two effects.

5.2 Changes affecting the level of revenue and expenditure (and not the balance)

5.2.1 VAT handed over to the European institutions

Under the ESA 1995, taxes on production and imports paid to the EU include in particular the revenue derived from the “VAT” tax base in each Member State. That part of the VAT, commonly known as the transferred VAT, is therefore not recorded under the tax revenues of the general government sector (S.13) but is recorded directly under tax revenues of the rest of the world (S.2).

Under the ESA 2010, taxes on production and imports paid to EU institutions exclude the VAT-based third resource which is included in the indirect tax revenues of general government and, as a corollary, in expenditure on other current transfers under the heading “VAT- and GNI-based EU own resources" (D.76)[1].

This new treatment has no impact on GDP but, as in the case of the transition from GDP to GNI, taxes on production and imports (D.2) paid to the rest of the world are reduced by the transferred VAT, so that GNI increases accordingly.

5.2.2 Targeted reductions in employers’ contributions

Under the ESA 1995, Eurostat found that targeted reductions in employers’ contributions were treated differently by the various Member States, either as production subsidies (D.39), or as reductions in social security contributions received.

Eurostat therefore requested that the method of recording these reductions in gross terms should be strictly respected when switching to the ESA 2010.

Under the ESA 2010, targeted reductions in social security contributions are therefore no longer recorded as negative revenues but are treated as subsidies on wages and labour: they are either subsidies linked to the wage bill, the total work force, or the employment of specific categories of persons (people with disabilities, the long-term unemployed), or subsidies based on the cost of training schemes organised or financed by enterprises[2]. Belgium’s national accounts were therefore adjusted: compensation of employees was revised upwards in respect of the “social security contributions” component and in respect of subsidies to enterprises.

5.2.3 Payable tax credits

The treatment of tax credits has changed. The ESA 2010 identifies two types of tax credit: payable and non-payable. A tax credit is said to be payable if the taxpayer can obtain a payment from the State when the tax relief exceeds the tax liability. The part of the tax credit that reduces the tax to zero is called “tax expenditure” while the excess part of the tax due is called the “transferred component”.

Under the ESA 1995, tax credits are either recorded in full in the form of reduced revenue, or the part in excess of the tax due is treated as government expenditure[3]. That poorly defined treatment hampers proper international comparison of the tax burden indicators.

1 ESA 2010 § 4.140.
2 ESA 2010 § 4.37.
3 The OECD thus recommended recording the part of a payable tax credit equal to or less than the tax as a reduction in tax revenue (as in the case of a non-payable tax credit) and any excess tax credit as expenditure.

Under the ESA 2010, in the case of a payable credit, the whole of the sum due by way of the tax credit has to be recorded as expenditure on subsidies, social benefits, current transfers or capital, depending on the type of tax credit. This new treatment has the effect of increasing government expenditure and revenue[1].

In Belgium, this mainly concerns the tax credit for dependent children, the tax credit for low earned incomes, the tax credit for services paid for with service vouchers, and the tax credit for certain energy-saving work.

5.2.4 Treatment of research and development

The expansion of investment expenditure is one of the major improvements introduced by the ESA 2010. Expenditure incurred in acquiring assets (R&D expenditure, purchases of databases or military equipment[2]) now recognised as such is recorded under gross fixed capital formation (GFCF), i.e. investment, and no longer as intermediate consumption. That therefore increases GDP. The increase in value added concerns both governments (for purchases of weapon systems or the funding of non-market R&D) and non-financial corporations (for market R&D and databases).

Under the ESA 2010, the results of research and development activities (R&D) are now regarded as produced assets, and expenditure on research and development is therefore no longer regarded as intermediate consumption but as gross fixed capital formation. For non-market entities, that expenditure was included under non-market production and final consumption expenditure. This change thus has an impact on the level of public revenue and expenditure, since the operating expenses of non-market units engaged in research are now also recorded as investment expenditure offset by revenue under the heading of output for own final use.

This change of allocation has an impact on GDP. The corollary to the recording of R&D expenditure as gross fixed capital formation is the recording of consumption of fixed capital in assets derived from R&D, which increases the non-market output of non-market entities, with the counterpart of an increase in the collective consumption of general government.

5.3 Changes affecting the breakdown of revenue and expenditure (but not their level)

5.3.1 Changes relating to fiscal and parafiscal charges

The breakdown between fiscal and parafiscal revenues and non-fiscal and non-parafiscal revenues was revised, as was the distinction between direct and indirect taxes.

From now on, the following revenues are thus recorded as fiscal and parafiscal charges: the APETRA contribution[3] (D.214), the FAPETRO contribution[4] (D.214), the contribution to the Protection Fund for deposits and financial instruments (D.29) and the contribution to the Special Fund for protection of deposits, life insurance contracts and the capital of approved cooperative societies (D.29).

Furthermore, the following tax revenues which used to be treated as other current taxes (D.59) are now recorded as other taxes on production (D.29): the financial stability contribution to the Resolution Fund, the annual tax on undertakings for collective investment, credit institutions and insurance companies, and the annual tax on credit institutions.

1 In the case of a tax credit which can be postponed, the tax credit is recorded once only under expenditure, the unpaid balance constituting a government financial liability which will be paid in subsequent years. In that case, the profile of the payments and of the overall balance is affected.
2 The new treatment of investments in weapon systems has no impact on the level of revenue and expenditure and is explained below.
3 This contribution finances the costs relating to the obligation to hold a sufficient stock of petroleum products. A Eurostat guidance note specifically states that such a contribution must be recorded as a tax on products.
4 This contribution finances the Fund for Analysis of Petroleum Products, known as ‘FAPETRO’, which is responsible for monitoring the quality of petroleum products released for consumption in Belgium.

5.3.2 Purchases of weapon systems

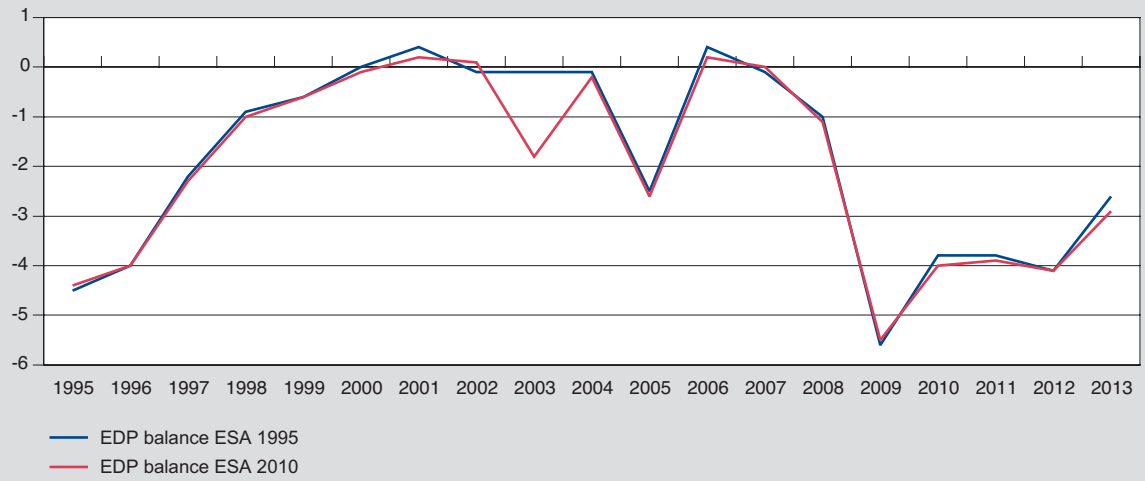
Under the ESA 1995, expenditure on military equipment was treated as government intermediate consumption. Under the ESA 2010, expenditure on the acquisition of heavy military equipment is now recorded as gross fixed capital formation.

The reclassification of expenditure on heavy military equipment as gross fixed capital formation does not affect the level of government expenditure but has a direct impact on the level of GDP. The value added of the non-market branches of general government is in fact determined conventionally as the sum of compensation of employees, taxes net of production subsidies and consumption of fixed capital. The capitalisation of expenditure on military equipment, now regarded as fixed assets, generates consumption of fixed capital.

5.4 Revision of the government balance and the public debt

This section illustrates the revision of the government accounts, showing the deficit and the public debt before and after the revision.

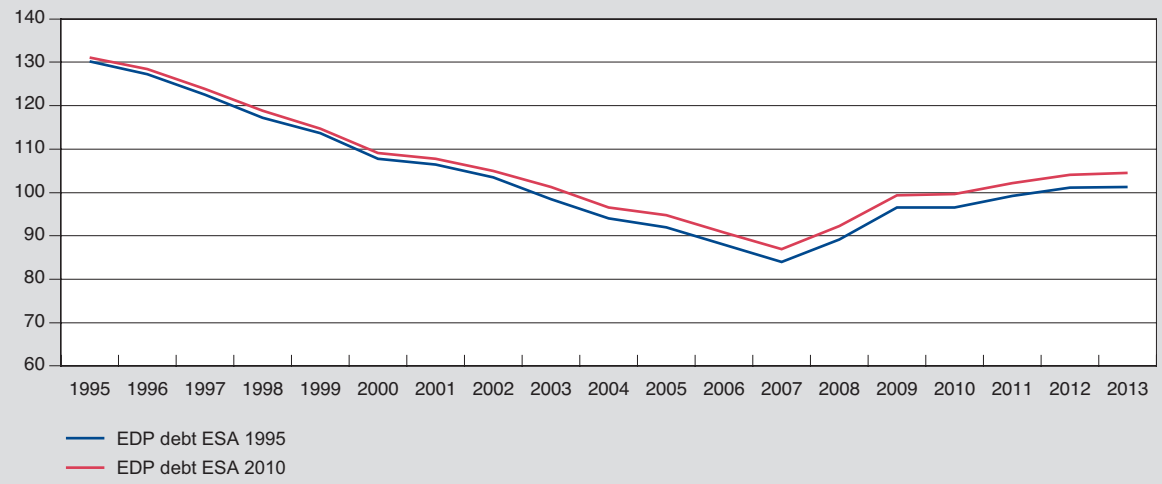
CHART 16 PUBLIC DEFICIT BEFORE AND AFTER THE REVISION
(in % of GDP)



Source: NAI.

CHART 17 PUBLIC DEBT BEFORE AND AFTER REVISION

(in % of GDP)



Source: NAI.

6. External statistics: the balance of payments and international investment position

6.1 Introduction

Belgium's balance of payments (BOP) is the statistical reflection of the economic and financial transactions between residents and non-residents of Belgium over a set period of time. Up to the reference year 2013, it was compiled in Belgium according to the precepts of the "Balance of Payments Manual – Fifth edition" (BPM5) published in 1993 by the International Monetary Fund. In 2009, the IMF published a new version entitled "Balance of Payments and International Investment Position Manual - Sixth edition" (BPM6). The title was altered to highlight the international investment position (IIP) as an autonomous statistic in addition to the balance of payments. The international investment position reflects the value of the assets and liabilities between residents and non-residents at a given moment in time. BPM6 was compiled in response to certain economic developments that arose after the publication of BPM5. It also clarifies some of the rules set out in BPM5. Furthermore, in BPM6 the level of detail is much higher.

BPM6 was drafted in parallel with the System of National Accounts 2008 (SNA 2008), i.e. the international standards for establishing the national accounts, with ESA 2010 being the latest European version, which enabled them to be harmonised. Many differences between BPM5 and ESA 1995 in terms of concepts and definitions have been tackled, which leads to greater consistency between the national accounts and the balance of payments. This will facilitate the comparison of the two statistics.

For the numerical analysis of the BPM6 implementation, the first half of 2014 will serve as a reference period for the balance of payments. It is only from this period onwards that the statistics under BPM5 and under BPM6 are fully comparable.

However, the impact of BPM6 cannot be quantified perfectly, since the switchover to BPM6 has been utilized to implement some other methodological adjustments. The impact of these adjustments has been kept distinct from those resulting from the implementation of BPM6 as far as possible.

6.2 Current account

In BPM5, the current account consists of the goods account, the services account, the income account and current transfers. The most obvious change introduced in BPM6, apart from the fact that there are a lot more details, is the disappearance of the "current transfers" component. This item has been largely integrated into the new component "secondary income". The existing income account has therefore been renamed "primary income account".

The current account balance has not undergone any major changes, but reclassifications between the goods, services and income accounts impact the balance of these components.

6.2.1 Goods

Production processes are becoming increasingly widely spread over several countries in order to optimize the use of the available factors of production. This increased globalisation is also reflected in BPM6. To avoid unnecessary inflation of trade flows, the principle of transfer of ownership as the criterion for the registration of imports and exports of goods is applied more strictly in the new Manual than in BPM5. This amendment impacts on the registration of goods for processing, of maintenance and repairs transactions and of merchanting transactions. Goods for processing and maintenance and repair services have been reclassified from the goods account to the services account. Merchanting transactions have been reclassified from the services account to the goods account.

Merchanting refers to the purchase of goods by a resident from a non-resident, followed by the resale of these same goods to another non-resident. At no time do the goods actually cross the territory of the merchant. There is a transfer of ownership of the merchandise. Under BPM5, the difference between the sales value and purchase value of these goods is recorded in the services account, when it is really just a transfer of ownership. This discrepancy is corrected in BPM6 where merchanting is recorded in the goods account. In addition, the purchases and sales

of these goods are recorded on a gross basis. The purchases of the goods are recorded as negative exports and the sales of the goods are recorded as positive exports. The net export of the goods under merchanting is the difference between the sales and the purchases. In net terms, there is a difference (albeit minimal) between goods under merchanting according to BPM5 and according to BPM6 because BPM5 took inventories into consideration[1]. This is no longer the case in BPM6.

The goods account in the balance of payments is still based on foreign trade statistics, but adjustments are necessary to meet the requirements of BPM6. For example, processing is recorded as a services transaction according to BPM6, whereas it is still recorded as a goods transaction in foreign trade statistics.

6.2.2 Services

Manufacturing services on physical inputs owned by others (processing)

From a statistical point of view, processing is defined as manufacturing services on goods that do not belong to the manufacturer. Despite the absence of any transfer of ownership, in BPM5 transactions involving processing were recorded as imports and exports of goods. This corresponds to the foreign trade statistics approach which records the value of the merchandise each time it crosses the border. In BPM5, the actual criterion for recording imports and exports of goods is therefore considered to be border crossing. For this reason, the value of the goods before and after processing is recorded in imports and exports of goods, which tends to inflate trade flows. This problem is addressed in BPM6. Since the principle of transfer of ownership is applied more rigorously, only the processing fee is recorded, in this case under imports and exports of services. Moreover, instead of resorting to flows of goods from the foreign trade statistics for the valuation of processing, from now on the valuation of the processing fee will mainly be based on fees collected by the balance of payments surveys on services trade. This change of data source impacts the statistics, leading to a difference between processing under BPM5 and processing under BPM6. The BPM6 implementation has also been utilized to make a few adjustments to improve the quality of the data on processing for the period 2008-2013.

Maintenance and repair services

Similar to processing, BPM5 recorded repairs and maintenance as goods transactions, with the difference that only the fees have been recorded, and not the value of the goods before and after the repair or maintenance. In BPM6, this exception to the transfer of ownership principle is also removed and these transactions are regarded as a service. Instead of using the fees for repair or maintenance as indicated in the foreign trade statistics, the repair or maintenance fees will be mainly based on the fees as collected in the balance of payments surveys on services trade. These fees are in line with the BPM6 methodology. The use of this new source leads to a slight difference between the amounts calculated for repairs and maintenance under BPM5 and under BPM6.

Financial services

The financial services heading contains an important new item. Under BPM5, only costs that are explicitly charged had been recorded under this heading. According to BPM6, costs charged implicitly must also be included. These charges include asset management costs taken out of income and financial intermediation service charges indirectly measured (FISIM).

Asset management costs taken out of income are the amounts that are automatically and contractually levied on investment income as remuneration for the management of the fund. To compute these management fees, every year an average annual rate of the management costs is estimated on the basis of the annual accounts of resident fund managers. This percentage is also used as a proxy of the rate charged by non-resident fund managers. The percentage is applied to the average amount held by non-residents in resident funds (export of services) and to the average amount held by residents in non-resident funds (import of services).

1 If the goods had not been sold in the same period, the purchase of goods was not recorded as merchanting on the grounds that this gave rise to a negative commercial margin. BPM5 did not allow this, but BPM6 does.

FISIM are the margins between interest paid and a reference interest rate for loans and deposits (the interbank rate). Financial institutions offer their depositors interest rates that are lower than those they charge to their borrowers. These FISIM are consistent with the FISIM computed in the national accounts.

These two new components influence the services account balance, but they are offset in the primary income account, so the impact on the current account balance is theoretically nil. In practice, however, there is an impact on the current account balance because in our BPM5-BOP, the data recorded in the primary income account was already BPM6-compliant as regards to asset management costs taken out of income, but these had not yet been offset in the services account.

Research and development services

Under BPM6, research and development (R&D) services also comprise outright sales and purchases of the results of R&D[1]. In BPM5, these sales and purchases were registered in the capital account.

Other

There are a few other reclassifications and new subdivisions in the services account under BPM6. For example, postal and courier services are included in transport services according to BPM6, whereas they were recorded as communication services in BPM5. These are just reclassifications between subcomponents, with no impact on the services account balance. The services account is also shown in more detail under BPM6 than it was under BPM5.

6.2.3 Primary income

Under BPM5, the primary income account was called the "income account". According to BPM6, the primary income account encompasses primary income flows between residents and non-residents. This entails the compensation for the supply of labour, the provision of financial assets and for the renting of natural resources.

The recording of interest is affected the most in the implementation of BPM6. It is no more the interest paid that is recorded, but the "pure" interest, which does not include any service component, i.e. FISIM and asset management costs taken out of income. The implicit service remuneration is recorded in the services account whereas under BPM5, it was not treated separately but was included in the interest from investment income.

Furthermore, since direct investment is recorded on a gross basis according to the asset/liability principle[2] under BPM6, the associated income flows are recorded on a gross basis, instead of on a net basis as under BPM5. This does not impact the primary income account balance.

In addition, taxes and subsidies on products and production are recorded in the primary income account and no longer in the current transfers as was the case under BPM5.

Lastly, the primary income account is also more detailed under BPM6, than under BPM5. In particular, direct investment income and portfolio investment income is broken down by instrument.

6.2.4 Secondary income

The "current transfers" heading in BPM5 has been renamed "secondary income" in BPM6 and comprises transfers of income. The content of the heading remains the same, apart from taxes and subsidies on products and production. These are no longer regarded as a current transfer, but as primary income. Furthermore, in BPM6 the amounts paid for transfers of sportsmen are explicitly identified as non-produced non-financial assets, moving them from current transfers to the capital account.

1 See Capital account (6.3).
2 See Financial account (6.4).

6.3 Capital account

The capital account has two subdivisions: acquisitions and disposals of non-produced non-financial assets, on the one hand, and capital transfers, on the other. These two subdivisions are kept on in BPM6, but the content of acquisitions and disposals of non-produced non-financial assets has been altered. In BPM6, R&D results (for example, patents and copyright) are no longer treated as non-produced assets, but as produced assets. Therefore, the sales and purchases of these assets are no longer recorded as capital transactions, but as services transactions (more specifically: R&D services). In BPM6, R&D results are clearly distinct from other assets, such as trademarks and logos. The latter are still treated as non-produced non-financial assets, the same goes for CO_2 emissions rights, green certificates and combined heat and power certificates.

Under BPM6, the heading "acquisitions and disposals of non-produced non-financial assets" also includes transfers of sportsmen. Before, these sums were recorded as current transfers.

6.4 Financial account

The financial account is made up of foreign direct investment (FDI), portfolio investment, other investment, financial derivatives and reserve assets. The main change introduced to the financial account by BPM6, concerns the way in which direct investment is recorded.

6.4.1 Direct investment

According to BPM5, direct investment is recorded according to the directional principle and subdivided into direct investment coming into the Belgian economy (inward FDI) and direct investment flowing out of the Belgian economy to the rest of the world (outward FDI). Inward FDI covers all assets and liabilities between resident direct investment enterprises and their non-resident direct investors. Conversely, outward FDI comprises all assets and liabilities between resident direct investors and non-resident direct investment enterprises.

Under BPM6, FDI is recorded according to the asset/liability principle. The concepts *inward FDI* and *outward FDI* are no longer used. All the assets are recorded under assets and all the liabilities under liabilities, regardless of the direction (inward or outward) of the direct investment relationship. Three types of direct investment relationships are identified: investments of direct investors in direct investment enterprises, reverse investments[1] and investments between associated companies. Under BPM5, this distinction is not visible since all these types of investment are netted and included in *inward FDI* or *outward FDI*. For example, according to the directional principle (BPM5) a loan granted by a Belgian direct investment enterprise to its French parent company is recorded in the inward FDI heading, thus reducing the net balance of this heading. According to the asset/liability principle (BPM6) the gross value of this transaction is recorded, since there is no more distinction between inward or outward FDI. It is recorded as a "reverse investment", on the asset-side.

This new recording method inflates the gross flows, but does not impact the balance of the financial account.

Under BPM6, subordinated loans and bonds of affiliated financial corporations[2] are no longer recorded as direct investment, but as other investment (loans) and portfolio investment (bonds). This new way of recording subordinated loans influences the balance of both direct investment and other investment, but the overall impact on the financial account balance is nil. The new recording for subordinated bonds also influences the balance for direct investment, as well as the financial account balance because the portfolio investment balance remains unchanged[3].

1 The term "reverse investment" is used when a direct investment enterprise invests less than 10 % in its direct investor. If it invests more than 10 %, it is considered a direct investment relationship.
2 With the exception of captive financial institutions and money lenders, insurance corporations, pension funds and financial auxiliaries.
3 See portfolio investment (6.4.2).

6.4.2 Portfolio investment

The breakdown of portfolio investment is much more detailed in BPM6 than in BPM5, but the balance of this item remains the same. As mentioned in paragraph 6.4.1, under BPM6 subordinated bonds of affiliated financial corporations are recorded as portfolio investment and no longer as direct investment. This shift impacts the balance of direct investment, but the balance of portfolio investment remains unchanged because, in BPM5, the Belgian data recorded under portfolio investment were already in line with the BPM6 requirements. Therefore, there is an impact on the financial account balance.

6.4.3 Other investment

As regards other investment, BPM6 requires the allocation of special drawing rights (SDR) to IMF members to be recorded. BPM5 did not recognise these allocations as transactions, so they were recorded as capital gains in the IIP, but they were not included in the balance of payments.

As mentioned in paragraph 6.4.1, subordinated loans of affiliated financial corporations are no longer recorded as direct investment under BPM6, but instead as other investment.

6.4.4 Reserve assets

In reserve assets, the effect of BPM6 is limited to reclassifications between headings and a new subdivision of a subgroup, with no effect on the total.

6.4.5 Other

Apart from the above-mentioned changes, the entire financial account is presented in a more detailed way under BPM6 than it was under BPM5 with regard to the sectoral classification and the breakdown between short term and long term.

6.5 New sign convention

BPM6 introduces a new sign convention for the financial account. An increase in assets and liabilities is shown with a positive sign and a reduction in assets and liabilities with a negative sign. The balance of the financial account is equal to assets minus liabilities. In BPM5, an increase in assets and a reduction in liabilities were expressed with a negative sign, and a reduction in assets and increase in liabilities with a positive sign. The financial account balance was thus calculated by adding up assets and liabilities. The financial account balances under BPM6 and under BPM5 have opposite signs. This new sign convention should help avoid any confusion for users.

6.6 International investment position

The implementation of BPM6 does not result in major alterations of the international investment position. All the changes regarding the financial account of the balance of payments apply to the IIP. Direct investment is thus recorded according to the asset/liability principle, inflating the gross amounts, although without an impact on the balance. However, the recording of the allocation of special drawing rights to IMF members in the BOP has an impact on the IIP balance. Whereas BPM5 only takes assets into consideration, under BPM6, these allocations must also be recorded as liabilities, a method that leads to an increase in liabilities and a reduction of the net IIP.

Owing to a wider sectoral classification, the IIP is more detailed under BPM6 than it was in BPM5.

BPM6 provides a more transparent link between the IIP and the financial flows in the balance of payments. The IIP for period t consists of outstanding amounts at period t-1 plus financial transactions in the balance of payments and any other variations registered during period t. Under BPM5, it was not necessary to identify these other variations, which made any direct comparison between the IIP and the financial transactions in the balance of payments rather difficult. Under BPM6, these other variations are identified separately and are subdivided into revaluations due to exchange rate fluctuations and revaluations due to price fluctuations.

6.7 Changes unrelated to BPM6 changes

The switchover to BPM6 has provided an opportunity to make several other adaptations in order to improve the quality of the data.

6.7.1 New survey on imports and exports of natural gas

In April 2013, a specific survey was introduced to measure transactions involving natural gas (gaseous, not liquid, state) between residents and non-residents. The objective of this monthly survey is to exclude transit and to get a better idea of long term contract prices and the exact counterparty country. As of the reference year 2014, these data are used in the balance of payments to replace those from the foreign trade statistics.

6.7.2 Update of insurance services ratios

For estimating insurance services in the balance of payments, ratios are applied to premiums paid or received as declared in the surveys on services. The ratios determine the breakdown of these premiums between the services account, on the one hand, and the financial account (for life insurance and pension services) or current transfers (for all other insurance), on the other hand. These ratios have been updated and the method of calculation has been slightly adjusted, in accordance with ESA 2010. The inclusion of premium supplements is a new factor in the calculation method. This concerns income generated from investment of technical reserves. Under BPM5, this income did not have to be taken into consideration but, under BPM6, it has to be included in the calculation of insurance services. The ratios are considerably different from the previous ratios because they are based on more recent data, fostering greater consistency in this area between the balance of payments and the national accounts.

Since the ratios determine the breakdown of premiums between the services account and the financial/current transfers account, updating them impacts the balance of the different accounts. In the case of non-life insurance, there is an increase in the services account and a reduction of current transfers. Regarding life insurance and pensions services, there is a reduction in the services account and an increase in the financial account.

These new ratios have been used for all the publications under BPM6.

6.7.3 New source for outstanding insurance technical reserves

For all publications in accordance with BPM6, outstanding insurance technical reserves as published in the financial accounts will be incorporated in the other investment heading of the IIP. Previously, these amounts were estimated by accumulating the flows recorded in the balance of payments.

6.7.4 New calculation method for income from direct investment: dividends and reinvested earnings

Income on investments recorded in the balance of payments had in the past been compiled in a macroeconomic framework as part of the National accounts. The revenue and expenditure recorded for a given year had been estimated on the basis of the various components of the international investment position. The estimation procedure consisted in determining a reference yield by instrument, mainly based on interest rates, stock market trends and exchange rates. This annual result was then broken down over the different months using a seasonal pattern which relied on a historical analysis.

As far as income from direct investment (more specifically: dividends and reinvested earnings) is concerned, from 2013 onwards, a more microeconomic type of approach was developed to maximise the use of the direct reporting of resident enterprises companies.

The reported dividends received and dividends paid are examined individually if they exceed a certain threshold. Some exceptional transactions may be considered as “super-dividends”. Super-dividends should not be recorded in the income account, but in the financial account, as an increase or reduction of equity. The IMF states: “exceptional payments by corporations to their shareholders that are made out of accumulated reserves or sales of assets

should not be treated as dividends" (BPM6, paragraph 11.27). Owing to the use of micro data there is an increase in the quality of the statistics.

The adjustment stated above is implemented from 2013 onwards, which causes a statistical break in the time series.

Concerning reinvested earnings, past practice involved using the reinvested earning of the previous year as a proxy. This approximation led to significant biases and major revisions. It was decided to also use the microeconomic approach from now on, so as to compile more up-to-date statistics more rapidly than before.

6.8 Impact in figures

6.8.1 Balance of payments

TABLE 15 CURRENT ACCOUNT
(€ million)

	Q1 2014	Q2 2014
Current account balance - BPM5	**-1 049**	**3 099**
Impact BPM6	**+ 267**	**- 392**
• New survey on imports and exports of natural gas (6.7.1)	+ 514	- 28
• Change of data source for merchanting (6.2.1)	- 87	- 45
• Change of data source for processing (6.2.2)	+ 26	- 104
• Change of data source for maintenance and repair services (6.2.2)	- 1	- 15
• Update of insurance services ratios (6.7.2)	- 3	- 2
• Recording of asset management costs taken out of income (6.2.2)	- 181	- 190
• Sales and purchases of the results of R&D from capital account to current account (6.2.2)	- 0.3	- 2
• Transfers of sportsmen from current account to capital account (6.2.4)	- 1	- 6
Current account balance - BPM6	**-782**	**2 707**

TABLE 16 CAPITAL ACCOUNT
(€ million)

	Q1 2014	Q2 2014
Capital account balance - BPM5	**-164**	**-93**
Impact BPM6	**+ 1,3**	**+ 8**
• Sales and purchases of the results of R&D from capital account to current account (6.3)	+ 0,3	+ 2
• Transfers of sportsmen from current account to capital account (6.3)	+ 1	+ 6
Capital account balance - BPM6	**-163**	**-85**

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TABLE 17 FINANCIAL ACCOUNT

(€ million)

	Q1 2014	Q2 2014
Balance of financial account - BPM5	**-838**	**-4 651**
Impact BPM6	**+ 3**	**+ 2**
• Update of insurance services ratios (6.7.2)	+ 3	+ 2
Balance of financial account[1] - BPM6	**837[2]**	**4 649**

1 Change in the sign convention, see point 6.5.

2 Because of the rounding-off, the sum of the balance under BPM5 and the impact of BPM6 is not equal to the balance under BPM6.

6.8.2 International investment position

TABLE 18 INTERNATIONAL INVESTMENT POSITION

(€ million)

	2013
International investment position - BPM5	**156 791**
Impact BPM6	**+ 30 502**
• Recording of SDR (6.6)	- 4 835
• New source for insurance technical reserves (6.7.3)	+ 35 337
International investment position - BPM6	**187 293**

7. New classifications

The ESA 2010 has brought in some changes in classification, both for the institutional sectors (see 2.3.1 above) and transactions and other flows. The new nomenclature is available on the Bank's website (only available in French and Dutch).

Annex 1 - Classification of financial corporations under ESA 2010

Central bank (S.121)

The central bank sub-sector (S.121) groups together all financial corporations and quasi-corporations whose principal function is to issue currency, to maintain the internal and external value of the currency and to hold all or part of the international reserves of the country. This sub-sector thus comprises the country's central bank, including when it is part of the European System of Central Banks (ESCB). However, sub-sector S.121 excludes organisations other than the central bank which are in charge of regulating or supervising financial corporations or financial markets, which come under sub-sector S.126.

Deposit-taking corporations except the central bank (S.122)

The sub-sector entitled "deposit-taking corporations except the central bank" (S.122) comprises all financial corporations and quasi-corporations, with the exception of those coming under the "central bank" and "money market funds" sub-sectors, which are principally engaged in financial intermediation activities whose business it is to receive deposits and/or close substitutes for deposits from institutional units, hence not only from MFIs, and to grant loans and/or make investments in securities for their own account.

It is not possible to simply refer to deposit-taking corporations except the central bank as "banks" because these institutions may include, on the one hand, some financial corporations which do not call themselves banks, or some financial corporations which are not authorised to do so in some countries, and on the other hand, certain other financial corporations describing themselves as banks but which may not in fact be deposit-taking corporations.

By way of example, this sub-sector comprises units such as commercial banks, savings banks, post office banks, specialised banks like merchant banks, etc.

In Belgium, deposit-taking institutions mainly include credit establishments, which come under ECB/NBB prudential supervision. Credit establishments are either Belgian companies that are authorised to operate in Belgium, or Belgium-registered branches of credit institutions incorporated under the law of another country. They are subject to an extended monthly reporting obligation. In addition, several electronic money institutions are active in Belgium. These are also supervised by the NBB and subject to the Bank's quarterly reporting requirements. The lists of credit establishments and electronic money institutions are published on the NBB and ECB websites.

Money market funds (S.123)

The money market funds sub-sector (S.123) brings together all financial corporations and quasi-corporations, with the exception of those coming under the "central bank" and "deposit-taking corporations" sub-sectors, which are principally engaged in financial intermediation. Their business is to ***issue investment fund shares or units as close substitutes for deposits*** from institutional units, and, for their own account, to ***make investments primarily in money market fund shares/units, short-term debt securities, and/or deposits***.

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. For further information about collective investment undertakings, see S.124. It is up to the FSMA to determine, in accordance with the instructions of the European Securities and Markets Authority (ESMA), whether an investment fund is to be regarded as monetary or non-monetary.

Non-MMF investment funds (S.124)

The non-MMF investment funds sub-sector (S.124) comprises all collective investment undertakings, excluding those that fall under the money market funds sub-sector, which are principally engaged in financial intermediation.

Their business is to issue investment fund shares or units which are not close substitutes for deposits, and, on their own account, to make investments primarily in financial assets other than short-term financial assets and in non-financial assets (usually real estate).

In Belgium, this sub-sector comprises the segments of collective investment undertakings that do not fall under sub-sector S.123. Both monetary market funds (MMF) (S.123) and non-MMF investment funds (S.124) are made up of, on the one hand, public collective investment undertakings, which are subject to supervision by the FSMA and, on the other hand, institutional investment funds as defined in the Royal Decree of 7 December 2007. The list of public investment funds is published by the FSMA. The FPS Finance keeps an up-to-date list of institutional investment funds.

Collective investment undertakings established under the law of a third country (Luxembourg, for example) are not recorded here but under the "rest of the world" sector (S.2).

Other financial intermediaries, except insurance corporations and pension fund (S.125)

The sub-sector other financial intermediaries, except insurance corporations and pension funds (S.125) groups together all financial corporations and quasi-corporations which are principally engaged in financial intermediation by incurring liabilities in forms other than currency, deposits, or investment fund shares, or in relation to insurance, pension and standardised guarantee schemes from institutional units.

Sub-sector S.125 includes ***financial intermediaries predominantly engaged in long-term financing***. In most cases, this predominant maturity distinguishes that subsector from the OMFI sub-sectors (S.122 and S.123). Based on the non-existence of liabilities in the form of investment fund shares which are not seen as close substitutes for deposits or insurance, pension and standardised guarantee schemes, the borderline with the non-MMF investment funds (S.124), the insurance corporations (S.128), and the pension funds (S.129) sub-sectors can be determined.

The sub-sector entitled "other financial intermediaries, except insurance corporations and pension funds" (S.125) thus comprises:
– financial vehicles effecting securitisation transactions (often called "Financial Vehicle Corporations") ;
– security and financial derivative dealers (stock-broking firms);
– financial corporations engaged in lending (leasing, hire purchase and granting of consumer credit or business or mortgage finance, factoring);
– specialised financial corporations (risk/venture capital, start-up capital, export/import finance, real estate investment funds with fixed capital (SICAFI), private closed-end equity funds - PRICAFs).

In Belgium, most of these business categories are recognised and/or supervised by the FSMA, the NBB, FPS Economy, SMEs, Self-employed and Energy or by FPS Finance. The lists kept by these authorities therefore provide a solid basis for division into sectors. Nevertheless, in some cases, units only come under sector S.125 because they had not initially been included in another financial sub-sector (especially in the case of companies principally engaged in other activities such as monetary financial intermediation or insurance activities).

Financial auxiliaries (S.126)

The financial auxiliaries sub-sector (S.126) groups together all financial corporations and quasi-corporations which are principally engaged in activities closely related to financial intermediation but which are not financial intermediaries themselves. This sub-sector notably includes head offices whose subsidiaries are all or mostly financial corporations.

The following financial corporations and quasi-corporations are classified in sub-sector S.126
– insurance brokers, insurance and pension consultants, etc.;
– loan brokers, securities brokers, investment advisers, etc.;
– Stock Exchange flotation corporations that manage the issue of securities;
– corporations providing infrastructure for financial markets;
– central supervisory authorities of financial intermediaries and financial markets when they are separate institutional units;
– managers of pension funds, mutual funds, etc.;
– corporations providing stock exchange (Euronext in Belgium) or insurance exchange services;
– payment institutions.

In Belgium, the vast majority of financial auxiliaries are supervised by the FSMA (payment institutions and guarantee banks come under NBB supervision). However, the activity of financial auxiliary must not be a secondary activity, in which case the unit will be classified in another financial sub-sector.

Captive financial institutions and non-institutional money lenders (S.127)

The "captive financial institutions and non-institutional money lenders" sub-sector (S.127) groups together all financial corporations and quasi-corporations which **are neither engaged in financial intermediation nor in providing financial auxiliary services, and where most of either their assets or their liabilities are not transacted on open markets.**

This new sector involves a major change from the old ESA 1995. While only financial intermediaries and auxiliaries had been recorded in the financial sector before, the definition of the financial sector has now been extended to cover institutional units providing financial services, where most of either their assets or their liabilities are not transacted on open markets.

In particular, the following financial corporations and quasi-corporations are classified in sub-sector S.127:
– units that constitute legal entities such as trusts, estates, agencies accounts or “brass plate” companies;
– holding companies that hold controlling-levels of equity of a group of subsidiary corporations and whose principal activity is owning the group without providing any other service to the businesses in which the equity is held, that is, they do not administer or manage other units;
– special purpose entities (SPEs) that qualify as institutional units and raise funds in open markets to be used by their parent corporation;
– units which provide financial services exclusively with own funds, or funds provided by a sponsor, to a range of clients and incur the financial risk of the debtor defaulting. Examples are money lenders, corporations engaged in lending to students or for foreign trade from funds received from a sponsor such as a government unit or a non-profit institution, and pawnshops that predominantly engage in lending;
– special purpose government funds, usually called sovereign wealth funds, if classified as financial corporations. The ESA 2010 nevertheless insists that only units operating as independent institutional units can be registered in sector S.127.

In Belgium, there are no official lists of the units that may be classified in the "captive financial institutions and money lenders" sub-sector. Classification of units in this sub-sector depends on an analysis of their NACE classification and their annual accounts. Two main categories of units can be singled out: holding companies and "treasury centers".

Insurance corporations (S.128)

The insurance corporations sub-sector (S.128) groups together all financial corporations and quasi-corporations whose principal function is to provide financial intermediation services which are principally engaged in financial intermediation as a consequence of the pooling of ***risks mainly in the form of direct insurance or reinsurance***.

Insurance corporations provide:
a) life and non-life insurance services (third party, fire and theft, motor insurance, transport insurance, etc.);
b) reinsurance services to other insurance corporations.

Financial insurance or credit insurance corporations, also called guarantee banks, provide guarantees or surety bonds to back securitisation and other credit products, are also included in this sub-sector.

In Belgium, insurance and reinsurance corporations are supervised by the NBB which publishes an exhaustive list of them on its website.

Pension funds (S.129)

The pension funds sub-sector (S.129) consists of all financial corporations and quasi-corporations which are principally engaged in financial intermediation as the consequence of the pooling of social risks and needs of the insured persons (social insurance). Pension funds as social insurance schemes ***provide income in retirement, and often benefits for death and disability***.

Sub-sector S.129 consists of only those social insurance pension funds that are institutional units separate from the units that create them. Such autonomous funds have autonomy of decision and keep a complete set of accounts. Non-autonomous pension funds are not institutional units and remain part of the institutional unit that sets them up.

In Belgium, pension funds are supervised by the FSMA which publishes an exhaustive list on its website. Since 2012, all pension funds have taken the legal status of an Organisation for Financing Pensions (or OFP). Some units may still be classified under pension funds even if they are not supervised by the FSMA (pursuant to the Law of 27 October 2006).

Annex 2 - The illegal economy in Belgium's national accounts

The 1995-2013 version of Belgium's national accounts includes illegal activities for the very first time. The activities in question concern production and trade in drugs, prostitution and smuggling.

Given the very nature of the transactions in question, there are no detailed databases available, so an indirect estimate of them has to be made. The methods proposed below meet the Eurostat recommendations.

1. Drugs

Estimates concerning the drugs trade 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, amphetamines, cocaine and heroin. A comparison between supply and consumption is made insofar as this is possible.

The available information comes mainly from the federal police, the European Monitoring Centre for Drugs and Drug Addiction, various charities and the Belgian National Report on Drugs (BNRD), a national-level report compiled by the public health institute (*Institut scientifique de santé publique*). However, the data gathered from these sources are still not enough to make any really accurate estimates.

For Belgium, there is information on the number of cannabis and Ecstasy 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. On the other hand, 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. Several assumptions have therefore had to be made. The following section proposes estimates for each aggregate and per type of drug.

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 Ecstasy as well as amphetamines, an estimate has been made on the basis of the price multiplied by the quantity produced. Furthermore, 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.

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 present.

The third aggregate to be estimated concerns **intermediate consumption (P.2)** of drug traffickers and producers. Once again, 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. Then, 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 Ecstasy. In fact, for this last category, there is actually an estimate of the unit production cost that has fluctuated over the years at between € 0.25 and 0.40 per pill.

A limited **compensation of employees (D.1)** is also estimated for people employed in Ecstasy laboratories. An average wage figure is multiplied by the estimated number of employees. Should there be no information about the wages in question, the indexation is based on the conventional wage level.

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 from 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 the Dutch methodology, were used. For cannabis, an average consumption of 250 g per consumer per year is taken into account, the average consumption of Ecstasy is estimated at 104 pills per user per year and that for speed is put at 208 pills 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, and drug addicts, which account for 5 000 consumers out of the total population, using 0.5 g per drug-taking session on a daily basis. The total estimated quantity of cocaine, confirmed by a survey carried out by the University of Antwerp and Liège’s ULg, came to 1.8 tonnes in 2008. And, finally, the average consumption of heroin is thought to be135 g per year.

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 Ecstasy is concerned, a "price-times-quantity" method has been developed.

Table 1 summarises the influence of the drugs trade on the various aggregates in the national accounts.

TABLE 1 AGGREGATES FOR DRUGS

(€ million)

	2010
P.1 Output	983
P.2 Intermediate consumption	80
B.1g Value added	903
D.1 Compensation of employees	7
P.31 S.14 Household final consumption expenditure	535
P.61 Exports of goods	570
P.71 Imports of goods	202

Source: NAI.

2. Prostitution

The estimates for prostitution are established at a detailed level per product. The following types of services are distinguished: clubs/bars, escort services, massage/sauna, window prostitution, room rentals, and street prostitution. Although contacts with the federal police, university research staff and humanitarian support organisations have provided useful information, it is still necessary to make important assumptions when estimating the different aggregates.

The total number of services supplied in Belgium is the starting point for the estimates. This number of services is calculated using demographic statistics, assuming that 10 % of the male population aged between 18 and 65 years are clients who engage the service of a prostitute 15 times a year on average. In addition, an adjustment is made to the number of services for tourism in Belgium on the basis of a survey on the tourist trade produced by Statistics Belgium (DGS). The estimated total number of services can then be broken down between the different groups of products defined. This breakdown follows an estimated distribution key, as presented in table 2. A price per service is set using the various information that is available. In the absence of any up-to-date information, the estimated price level is index-linked on the conventional wage level.

TABLE 2 BREAKDOWN OF PROSTITUTION SERVICES IN BELGIUM

(€ million)

2010	Allocation of number of services[1]	Price by service[2]
Clubs/bars	27 %	139
Escort services	1 %	164
Massage/Sauna	7 %	120
Window prostitution	45 %	63
Room rentals	18 %	76
Street prostitution	1 %	38
	100 %	

Source: NAI.

1 Information from support groups.

2 Internet and information on relative prices.

A combination of price and quantity enables a figure for turnover per type of service to be calculated. In order to estimate the national accounts aggregates, the residence of the service provider and the customer must also be taken into consideration. The assumptions made on this subject are as follows: in the majority of services, a residence percentage of respectively 90 and 95 % is given to prostitutes and to their clients. It should be pointed out that the status of resident is acquired if the economic centre of one's activities is based in a given country for at least one year.

Putting all this information together makes it possible to estimate the national accounts aggregates. Output (P.1) effectively corresponds to turnover per type of service in Belgium if the prostitute is a resident.

Conversely, **imports (P.7)** correspond to turnover per type of service if the prostitute is a non-resident. An extra estimate on the basis of the DGS survey on tourism was used to calculate imports of prostitution services consumed outside of Belgium by Belgian residents.

On the other hand, **exports (P.6)** of prostitution services correspond to turnover per type of service if the client is a non-resident and the prostitute is a resident.

As for **intermediate consumption (P.2)**, extra assumptions have to be made. It is assumed that intermediate consumption of prostitutes is equal to 10 % of turnover. Also, intermediate consumption of prostitution services by companies is estimated on the basis of total turnover.

Lastly, **household final consumption expenditure (P.31 S.14)** on prostitution services are estimated on the basis of a "product flow" method, while respecting the rule of economic equality between supply and use.

P.31 S.14 = P.1 + P.7 – P.2 – P.6

The results of this estimate for the year 2010 are given in table 3.

TABLE 3 AGGREGATES FOR PROSTITUTION
(€ million)

	2010
P.1 Output	424
P.2 Intermediate consumption	119
B.1g Value added	305
P.31 S.14 Household final consumption expenditure	430
P.62 Exports of services	17
P.72 Imports of services	42

Source: NAI.

3. Contraband trade

Contraband trade (or smuggling) refers to the illegal import of goods that, by definition, are not actually illegal. It is profitable when Member States impose restrictions on trade in certain products or when there are significant price differences between countries, notably due to excise duties or specific import or export taxes. Eurostat has decided to limit the scope of contraband activities in its definition to those involving alcohol and tobacco.

Analysis has found illegal alcohol trade to be negligible in Belgium (and this is also confirmed by reports available in the neighbouring countries), and tobacco smuggling seems to only involve cigarettes. This latter smuggling activity has gained ground since the late 1990s, and more specifically between Belgium and the United Kingdom. Estimates of the different national accounts aggregates for contraband trade are set out in detail below.

First , it is assumed that there is no **output (P.1)** of illegal cigarettes in Belgium. Cigarette-smuggling activity in Belgium is limited to making a profit margin, on the one hand on sales on the domestic market of illegally imported cigarettes, and on the other hand on the re-export of cigarettes imported illegally. This profit margin is estimated on the basis of the respective price difference.

A second aggregate to be estimated is **household final consumption expenditure (P.31 S.14)**. A method consisting in multiplying the price by the quantity has been developed, with the quantity of smuggled goods being equal to a fraction of official sales. This fraction rose from 2.5 % in 1995 to 6.5 % in 2012 on the basis of the available information. The street price is set at half the official price.

Likewise, **imports (P.7)** are calculated using a method that involves multiplying the price by the quantity. The volume of goods illegally imported is determined on the basis of data on seizures by police and customs, for which a five-year average has been taken into consideration to avoid any major fluctuations. The volume of smuggled goods imported corresponds to the five-year average of quantities of goods seized multiplied by the probability of being caught and also adjusted for transit.

The probability of being caught was 15 % up to 2005, before being reduced to 10 % owing to changes in customs activities. Furthermore, the volume of goods in transit is considered to be equal to 65 % of total exports. Lastly, the import price is estimated at 30 % of the street price up until the year 2000, before coming down slowly by 2.5 % a year, only to go back up again to 10 % in 2007 owing to the wider availability of counterfeit items on the market.

As for **exports (P.6)**, a method consisting in multiplying the price by quantity has also been developed, with the quantity being estimated on the basis of the total volume imported (including transit) minus the quantity consumed. The export price is estimated at 60 % of the official price.

Finally, it has been decided to estimate an **intermediate consumption (P.2)** figure of 10 % of the trade margin, mainly for transport and storage costs. A summary of the estimates referring to the year 2010 is given in table 4.

TABLE 4 AGGREGATES FOR CONTRABAND TRADE

(€ million)

	2010
P.1 Output (mark-up)	108
P.2 Intermediate consumption	11
B.1g Value added	98
P.31 S.14 Household final consumption expenditure	66
P.61 Exports of goods	43
P.71 Imports of goods	11

Source: NAI.

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More informations

We suggest people wanting more information on the contents, the methodology, the methods of calculation and the sources to get in touch with the national and regional accounts service.

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