

Economic Review

2 - 2005



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Economic projections for Belgium – spring 2005

Introduction

Having been decidedly dynamic for a little over a year – bolstered by the vigour of foreign demand and buoyant consumption – activity in Belgium slowed noticeably in late 2004 and early 2005. According to the latest data published by the NAI, GDP was static in the first quarter of 2005. The continuing rise in oil prices and the decline in exports, particularly to trading partners in the euro area, ultimately had a greater impact on the economy than had been predicted six months earlier in the autumn 2004 projections⁽¹⁾, while investments were slow to pick up. The high level of oil prices on the international markets also caused inflation to accelerate in the first few months of 2005. The initial situation of the spring 2005 economic projections, which relate to the years 2005 and 2006, therefore deteriorated in comparison with that prevailing a few months earlier, and the general economic context is uncertain for Belgium and, more broadly, for the euro area.

These projections which the Bank produces for the Belgian economy as part of a biannual exercise carried out by the Eurosystem central banks, in which the results for the euro area are obtained by aggregating the results for the various national economies⁽²⁾, are based on a set of common assumptions regarding the international environment and the movement in interest rates, exchange rates and commodity prices. The projections also depend on assumptions specific to the Belgian economy in the case of variables whose movement is determined largely on a discretionary basis by the economic agents. That applies, for example to wage agreements resulting from negotiations between the social partners, and government decisions relating to the budget.

In the absence of full information on the negotiations in the various sectoral joint committees, the projections for labour costs in the private sector are based on the indicative norm adopted in the draft central agreement and endorsed by the government at the beginning of the year. The norm provides for a rise of 4.5 p.c. for the years 2005 and 2006 taken together.

The figures for public finances are deduced automatically, taking account of the endogenous effect of the macroeconomic environment, an expenditure pattern based on historical movements, and measures which have already been introduced. New government measures relating to revenue or expenditure, to be adopted during the next few months, e.g. to meet the budget targets for 2005 or for the purposes of the 2006 budget to be drawn up in the autumn, were not anticipated in this forecasting exercise. Such measures could in turn affect the projections for the economy as a whole.

The first chapter is devoted to the international environment. It summarises the Eurosystem projections for the euro area and sets out the main common assumptions. The next three chapters give a detailed presentation of the recent situation and the projections for the national economy.

They deal respectively with activity, employment and the main components of expenditure (chapter 2), movements in prices and labour costs (chapter 3) and the results for public finances (chapter 4). Finally, the main risks relating to the projections are discussed in the last chapter, which also contains a summary of the results obtained by other institutions.

(1) NBB (2004), "Economic projections for Belgium – autumn 2004", Economic Review 4-2004.

(2) The projections for the euro area are published in the June issue of the ECB's monthly bulletin.

In line with Eurosystem practice, the predicted movements in the variables relating to activity, employment and demand are presented without taking account of the specific effects due to the seasons and to calendar irregularities, in order to reflect the fundamental economic trends. Conversely, the sector accounts, notably those of general government, are drawn up and presented with allowance for calendar effects, in order to approximate to the accounting figures which will actually be recorded in 2005 and 2006. Thus, the real GDP growth rate in 2005 would be around 0.2 percentage point lower owing to the repercussions of the temporary effect due to the leap year in 2004, and because there are 53 Saturdays in 2005.

Following the restructuring of the BNRC implemented at the beginning of 2005, the new entities responsible for the rail infrastructure are now part of the general government sector, according to the conventions of the ESA95. As explained in the fourth section, the most visible effect of this sectoral reallocation is to increase the level of public debt by 2.5 percentage points of GDP. Other effects, of a purely accounting nature, could also influence other components of the national accounts. They were not included in these projections because the NAI has yet to examine them in detail.

The projections for Belgium were drawn up on the basis of the information available on 20 May 2005.

1. International environment

In 2004, global economic activity grew by around 5 p.c., the highest growth rate in decades. Although growth did slow down in the second half of the year, mainly under the impact of the rise in oil prices, it still remained robust, including at the start of 2005. This slowdown represented merely a return to a more sustainable pace for the expansion of the global economy. The forecasts produced by the major international organisations for the global environment in 2005 and 2006 remained largely unchanged compared to those of the autumn 2004, and are therefore still favourable. Thus, economic activity is expected to grow by around 4.3 p.c. on average during the year 2005 as a whole, and in 2006. The expansion of world trade, which was also very dynamic in 2004, with volume growth totalling 9.5 p.c., looks set to moderate slightly to 7.5 p.c. in 2005, slackening a little more in 2006.

1.1 Main developments in 2004 and the initial months of 2005

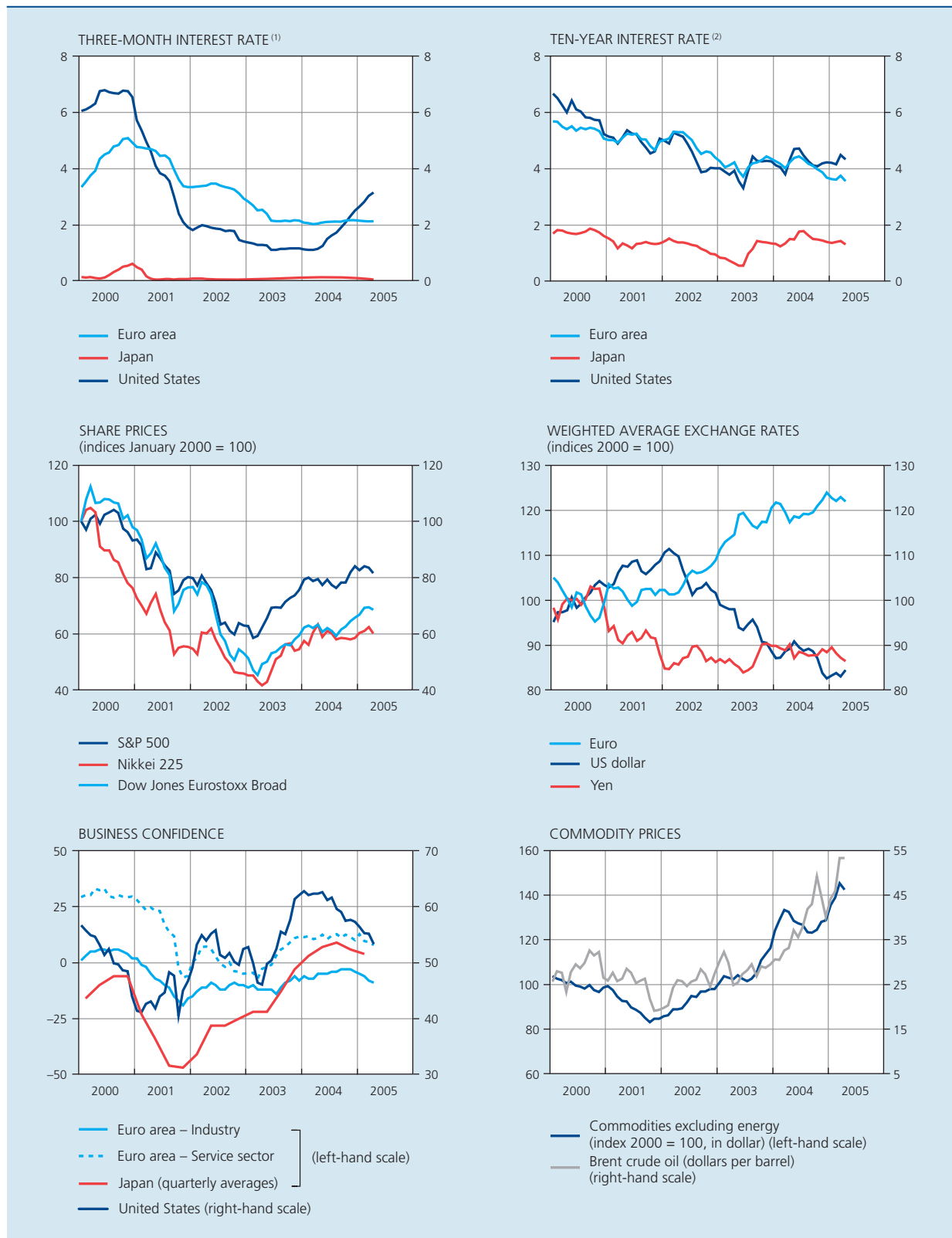
The world economy's strong performance in 2004 was underpinned mainly by highly advantageous financing conditions, the improvement in corporate balance sheets and the more favourable outlook for the labour market. Geographically, the growth was driven mainly by the United States and the emerging Asian countries, especially China. Economic activity was also dynamic in the new EU Member States and, partly as a result of the rise in oil prices, in the OPEC member countries and the Community of Independent States. Provisional figures for the first few months of the year present a mixed picture, but overall it seems that growth has remained robust.

The principal change in the international environment compared to the end of 2004 concerns commodity prices. Thus, the price of crude oil, which – after peaking at the end of October 2004 – had fallen steeply during the closing months of last year, resumed its strong upward trend in the first quarter of 2005. At the beginning of April, a record high of 57 US dollars per barrel of Brent crude was recorded, which was about 40 p.c. higher than at the end of 2004. This rise in crude oil prices was due partly to the dynamism of the world economy. Also, the particularly severe weather in the northern hemisphere in February and March generated extra demand for oil. In response to the vigour of global demand, the exporting countries further stepped up their production, leaving them with relatively little spare capacity. Thus, any small additional increases in demand or growing uncertainty over the adequacy of future supplies will intensify the pressure on prices. During April and May, oil prices eased slightly, but according to the prices quoted on the futures market in mid May, they are likely to remain high at around 50 dollars per barrel throughout the projection period. Prices of other commodities also produced a marked rise in 2004 and during the first few months of 2005. Although they subsided in April and May, they remained well above their end-2004 level.

The slackening pace of economic activity in the second half of 2004 was reflected in the development of the confidence indicators in the main economies. At that point, the indicators began to fall and continued to do so at the beginning of 2005. However, the timing and scale of the fall varied. As regards price movements, the inflationary pressures remained low overall, but in some countries there were growing fears over future inflation, fuelled partly by the rise in oil prices.

CHART 1 DEVELOPMENTS ON THE FINANCIAL AND COMMODITY MARKETS AND DEVELOPMENT OF CONFIDENCE IN THE MAIN ECONOMIES

(Monthly averages, unless otherwise stated)



Sources: BIS, EC, ECB, HWWA, ISM, OECD, NBB.

(1) Interest rate on three-month interbank deposits.

(2) Yield on ten-year government bonds (benchmark loans).

Overall, monetary policy was tightened during 2004 and the initial months of 2005, although it remained accommodating. Thus, on 3 May 2005 the United States Federal Reserve raised the Federal Funds rate by 25 basis points to 3 p.c., the eighth consecutive increase since June 2004. In Australia and New Zealand too, the monetary policy target rate has been increased again in recent months. However, in the euro area the ECB Governing Council has kept the minimum bid rate for the Eurosystem's main refinancing operations unchanged at 2 p.c. since June 2003, reflecting the Governing Council's view that the current monetary policy was still appropriate for preserving medium-term price stability. Given the persistent deflationary pressures, the Bank of Japan also held its course and therefore maintained its policy of granting abundant liquidity at zero interest.

Following a brief interruption in February and March 2005, ten-year interest rates on benchmark loans in the main economies resumed their downward trend which had begun in the second half of 2004, especially in the euro area. Lower growth and inflation forecasts in the euro area were among the factors which caused a considerable widening of the interest rate differential between the United States and the euro area, bringing it to around 80 basis points in April. Historically speaking, both nominal and real interest rates remain at very low levels in both regions.

On the leading stock markets, prices remained relatively stable in the first three quarters of 2004, and subsequently began rising again until February 2005. During March and April, prices were steady at first, and later declined – mainly as a result of oil prices which were rising and volatile. In the initial months of 2005, stock markets in the United States produced a weaker performance than those in the euro area and Japan, as market operators increasingly feared that the Federal Reserve would tighten monetary policy sooner than expected.

The weighted average exchange rate of the euro, which had continued to rise during 2004, weakened by around 3 p.c. between the end of the year and mid May 2005, mainly on account of the euro's depreciation against the US dollar and the Asian currencies pegged to it, and against sterling. The weakening of the euro during the first few months of 2005 is mainly due to the relative deterioration in growth prospects for the euro area and the widening of the interest rate differential between the two economies in both the short and the long term.

1.2 Outlook for 2005 and 2006

According to the leading international bodies, economic activity is expected to grow by an average of 4.3 p.c. at global level in 2005. Nonetheless, growth will be held down by the spill-over effect of the weaker activity in the second half of 2004. In 2006, the growth rate is expected to be comparable to the 2005 figure. During the period covered by the projections, global economic activity is therefore predicted to slow down in comparison with 2004 while remaining robust. It will be supported mainly by the same factors as in 2004, in a context of continuing moderate inflation. Financing conditions are expected to become less favourable, however, as a result of a less accommodating monetary policy.

The slowdown in world growth in 2005 and 2006 is likely to be accompanied by a deceleration in the growth of world trade, which had already begun to run out of steam in the third quarter of 2004. The volume of world trade is predicted to grow by around 7.5 p.c. in 2005 and a little less in 2006, following a strong expansion of 9.5 p.c. in 2004.

Large discrepancies are expected to persist between the growth rates of the main regions of the world in 2005 and 2006. Global growth is likely to continue to be heavily dependent on activity in the United States and in the emerging economies, principally in Asia. In the United States, growth is forecast to dip to around 3.6 p.c. in 2005 and a little less in 2006, following the vigorous expansion in 2004. This is attributable largely to the weakening of the monetary and fiscal incentive effects. As a result, private consumption and investment should produce slightly weaker growth. Ultimately, net exports are expected to make a positive contribution to economic activity. In Japan, growth is projected to be weaker in 2005 and 2006 than in 2004, and will be sustained by both foreign and domestic demand, particularly investments. In the other Asian countries, the strong expansion looks set to continue, albeit at a slightly more modest pace of around 7 p.c., owing to the reduced buoyancy of foreign demand and the efforts made by the authorities of certain countries, particularly China, to restrain somewhat the rapid development of their production facilities. In the new EU Member States and in the United Kingdom, growth is expected to be substantial, though less than in 2004. In other parts of the world, such as Latin America, growth is also forecast to be less vigorous than in 2004, but still robust during the period covered by the projections.

TABLE 1 SPRING FORECASTS BY INTERNATIONAL INSTITUTIONS FOR 2005 AND 2006

(Percentage changes compared to the previous year, unless otherwise stated)

	2004	2005			2006		
	Actual figures ⁽¹⁾	EC	IMF	OECD ⁽¹⁾	EC	IMF	OECD ⁽¹⁾
GDP at constant prices							
United States	4.4	3.6	3.6	3.6	3.0	3.6	3.3
Japan	2.6	1.1	0.8	1.5	1.7	1.9	1.7
Euro area	1.8 ⁽²⁾	1.6	1.6	1.2	2.1	2.3	2.0
Inflation⁽³⁾							
United States	2.7	2.6	2.7	2.8	2.3	2.4	2.6
Japan	0.0	-0.1	-0.2	-0.2	0.2	0.0	0.1
Euro area	2.1	1.9	1.9	1.8	1.5	1.7	1.3
Unemployment rate⁽⁴⁾							
United States	5.5	5.2	5.3	5.1	5.0	5.2	4.8
Japan	4.7	4.4	4.5	4.4	4.1	4.4	4.1
Euro area	8.9	8.8	8.7	9.0	8.5	8.4	8.7

Sources: EC, IMF, OECD.

(1) Data adjusted for seasonal and calendar effects, except in the case of inflation.

(2) The percentage change calculated on the basis of gross data comes to 2.1 p.c. in 2004. The growth differential is due to a substantial positive calendar effect.

(3) Consumer price index.

(4) Percentages of the labour force.

In the euro area, economic activity slowed down in the second half of 2004. According to the EC's flash estimate, it strengthened slightly in the first quarter of 2005, but that was probably due to incidental factors. Quarter-on-quarter GDP in fact grew by 0.5 p.c. Economic activity in the euro area should gradually gather momentum in 2005 and 2006.

1.3 Eurosystem projections for the euro area

Assuming that the world global economic context remains dynamic in 2005 and 2006, while the shocks resulting from the euro's appreciation and the higher prices for petroleum products should ebb away, the Eurosystem projections indicate that GDP growth will strengthen gradually in the euro area, so that the slowdown observed in the second part of 2004 will have been temporary. However, it will probably be 2006 before real growth picks up to a quarterly rate in the region of 0.5 p.c. In all, GDP growth which had reached 1.8 p.c. in 2004 is not expected to exceed the range of 1.1 to 1.7 p.c. in 2005, owing to an unfavourable starting situation caused by the stagnation of GDP at the end of last year. It is predicted to reach between 1.5 and 2.5 p.c. in 2006.

Driven by world demand, exports are projected to continue making a substantial contribution to growth in the euro area, while the loss of competitiveness due to the euro's appreciation should be attenuated, as exchange rates are assumed to remain constant over the projection horizon. Domestic demand in the euro area, still relatively weak in 2004 and at the beginning of 2005, should gradually gain momentum, bolstered by investment. The investment revival is expected to stem from accelerating economic activity and corporate profits growth, while financing conditions are likely to remain favourable.

Inflation measured on the basis of the HICP is forecast at between 1.8 and 2.2 p.c. in 2005, a level comparable to the 2.1 p.c. recorded in 2004. Although higher oil prices will push up inflation, that should be offset by the weakness of internal inflationary pressure, particularly in view of the projected moderate wage increases. Wage moderation is likely to be maintained in 2006 while the rise in oil prices should slow down. Moreover, the reform of the health care system in the Netherlands is also predicted to have the statistical effect of cutting 0.2 percentage point off the inflation rate, contributing to reducing it to an annual average of between 0.9 and 2.1 p.c.

TABLE 2 EUROSYSTEM PROJECTIONS
(Percentage changes compared to the previous year)

	Euro area			<i>p.m. : Belgium</i>		
	2004	2005	2006	2004	2005	2006
Inflation (HICP)	2.1	1.8 – 2.2	0.9 – 2.1	1.9	2.2	1.9
GDP in volume	1.8	1.1 – 1.7	1.5 – 2.5	2.7	1.4	2.4
of which:						
Private consumption	1.1	1.2 – 1.6	1.0 – 2.2	2.1	1.0	1.9
Public consumption	1.3	0.4 – 1.4	1.1 – 2.1	2.6	1.2	2.1
Investment	1.7	0.5 – 2.7	1.9 – 5.1	1.0	4.8	3.4
Exports	6.1	3.1 – 5.9	4.5 – 7.7	5.4	3.6	5.6
Imports	6.1	2.6 – 6.0	4.4 – 7.8	5.9	4.6	4.9

Sources : ECB, NBB.

Box 1 – Eurosystem assumptions

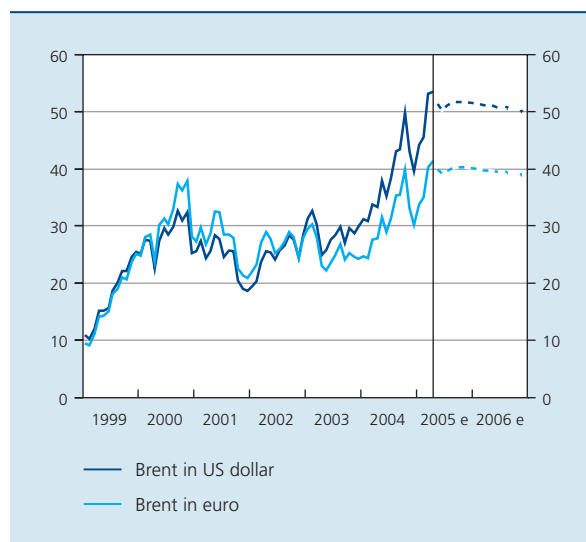
The Eurosystem economic projections for the euro area and the corresponding projections for Belgium are based on the following technical assumptions:

- short-term interest rates are fixed over the projection horizon at the level prevailing when the projections are produced, so as to reveal what would happen if the monetary policy intervention rates were kept unchanged. As a result, these projections are not necessarily the best unconditional forecasts, particularly for the long term, as monetary policy will always be geared to the maintenance of price stability. In the projections under review, the three-month interbank rate is fixed at 2.1 p.c.;
- the long-term euro interest rates used are based on market expectations; they stood at 3.5 p.c. when the projections were produced, and should gradually rise to 3.9 p.c. by the end of 2006;
- bilateral euro exchange rates are kept constant at their mid-May value, namely 1.29 dollar to the euro in the case of the US currency;
- while earlier oil price predictions mostly fell within the 25 dollar range announced by OPEC, prices on forward contracts now indicate that the market expects oil prices to remain high for several months. Thus, in line with the implicit price movements reflected by these contracts during the first half of May, it is estimated that world oil prices should remain more or less steady during the projection period, at around the 50.5 dollars per barrel reached in the first half of May 2005. Taking an average over the year, a barrel of Brent is expected to cost 50.6 dollars in 2005 and 50.7 dollars in 2006, against 38.3 dollars in 2004.

The expected developments in world trade and the projection results for the euro area partners as regards the prices and volume of trade in goods and services can be used to deduce the external environment for the Belgian economy. The expansion of the export markets, calculated as the weighted sum of imports from third countries, is expected to drop to 5.6 p.c. in 2005, then to pick up again to 6.5 p.c. in 2006. While the euro appreciation was still depressing competitors' prices in 2004, that effect should cease during the projection period. As an annual average, competitors' prices are assumed to rise by 1.2 p.c. in 2005 and 2 p.c. in 2006.



CHART CRUDE OIL PRICE ⁽¹⁾
(Monthly averages)



Source : ECB.

(1) Actual movement up to April 2005, assumptions from May 2005 (monthly until June 2006 and quarterly thereafter).

ASSUMPTIONS ADOPTED FOR THE EUROSISTEM PROJECTIONS

	2004	2005	2006
		<i>(Annual averages)</i>	
Three-month interbank rates in euro	2.1	2.1	2.1
Ten-year bond yields	4.2	3.6	3.8
Euro exchange rate against the US dollar	1.24	1.29	1.29
Oil price (US dollars per barrel)	38.3	50.6	50.7
		<i>(Percentage changes)</i>	
Export markets relevant to Belgium	7.3	5.6	6.5
Competitors' export prices	-0.9	1.2	2.0
of which :			
Competitors in the euro area	0.4	0.7	0.5

Source : ECB.

2. Activity, employment and demand in Belgium

2.1 Activity

In Belgium, the growth of economic activity slowed down at the end of 2004 and the beginning of 2005. While the economy had expanded continuously at a quarterly rate of 0.7 to 0.9 p.c. from the third quarter of 2003, GDP grew by just 0.3 p.c. in the fourth quarter of 2004. According to an initial NAI estimate, growth halted in the first three months of 2005.

Although the previous projections, which had been published in December 2004, predicted that growth would slacken, the cyclical downturn was sharper than forecast. Since then, oil prices and – for a time – the exchange rate have risen faster than expected, and business confidence has continued to decline. Moreover, the expansion of foreign demand has been somewhat disappointing, mainly because of sluggish trade within the euro area.

As a result of the slowdown recorded, average growth for 2005 was cut from 2.5 to 1.4 p.c., which is only half the 2004 growth rate of 2.7 p.c. Apart from the adverse carry-over effect on the 2005 figure caused by the slowdown at the end of 2004, the growth rate for the beginning of 2005 was also revised downwards. However, economic activity is expected to pick up during the year. Given more dynamic foreign demand and internal growth bolstered by both consumption and investment, GDP should increase by 2.4 p.c. in 2006.

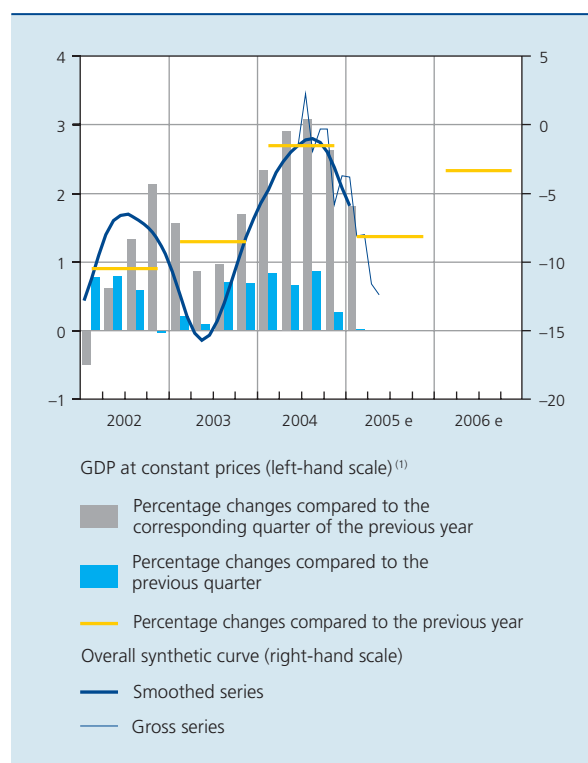
Slower growth was also recorded in the euro area. GDP was up by no more than 0.3 p.c. per quarter in the second half of 2004, whereas activity had grown by a quarter-on-quarter average of 0.6 p.c. during the first half year. The Belgian economy therefore avoided a downturn a little longer, although recently the decline has become more marked. Belgium's export markets were less buoyant than in mid 2004, and domestic demand was weaker. The substantial rise in oil prices seems to have had a particularly negative effect on household purchasing power, so that private consumption did little to boost economic growth.

The weakening of economic activity is also confirmed by the Bank's business survey. The overall synthetic indicator has been declining since September 2004. During the initial months of 2005, the gross results deteriorated more sharply, indicating that growth slowed further at the beginning of 2005. The rather abrupt fall in the overall indicator since September 2004 is largely attributable to the fact that, in manufacturing industry, confidence has

fallen sharply, dropping to a level below its long-term average. In trade and services, the decline in confidence set in later and was less severe, whereas in the building industry confidence actually strengthened slightly. The main reason for the gloomier outlook seems to be the sensitivity of manufacturing industry to higher energy prices, which have evidently had a serious impact on industrial activity since the end of last year. Moreover, owing to the less buoyant international environment, export growth also fell short of expectations. This weakness of activity in manufacturing industry is fairly widespread, and is also reflected in the relatively sharp reduction in the capacity utilisation rate in April; mirroring the decline in confidence, this rate has been falling since the third quarter of 2004. However, demand expectations have stabilised, and that may presage a restoration of confidence if the external environment does not deteriorate any further.

Apart from manufacturing industry, the building sector also held growth down in the first quarter. However, that seems to be due mainly to temporary factors, especially the adverse weather conditions in March; the rapid revival of confidence in this sector in April and May confirms that hypothesis.

CHART 2 GDP AND BUSINESS SURVEY INDICATOR
(Seasonally adjusted data)

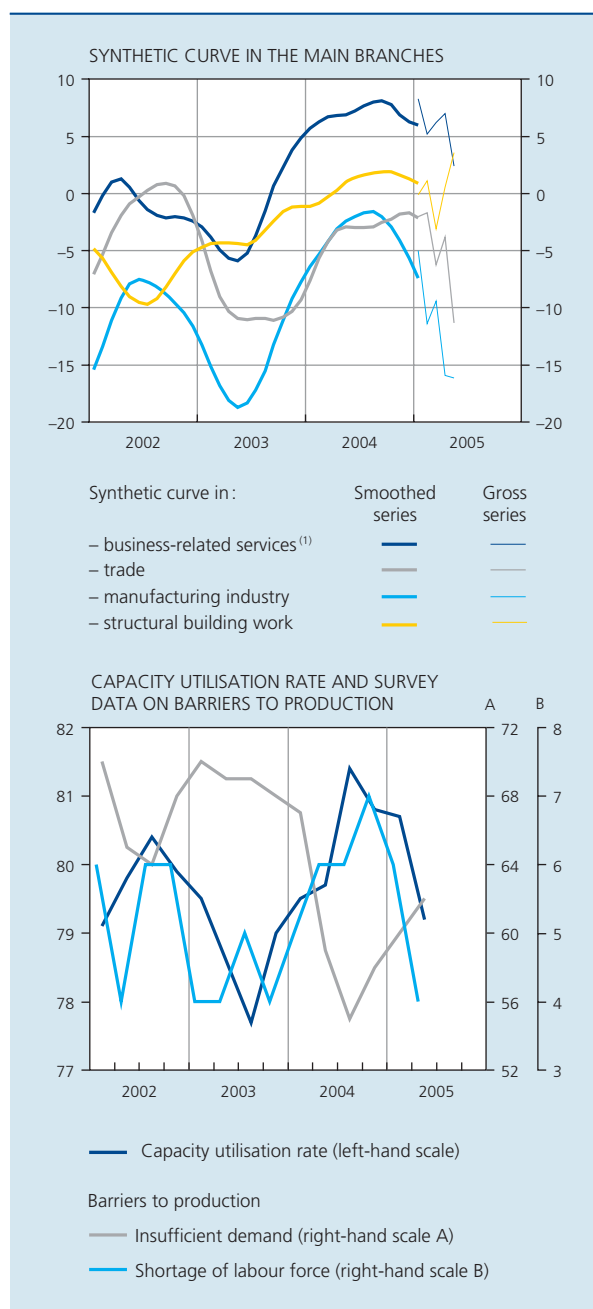


Sources: NAI, NBB.
(1) Calendar adjusted data.

In the short term, the building sector should recover following the temporary weakness recorded in the first quarter. Since confidence in the service sector has been more or less maintained at the high level of 2004, despite the recent fall, activity should also continue to expand. Conversely, in manufacturing industry it is likely to remain

sluggish at first, before resuming an upward trend, as – according to the projection assumptions – the factors which depressed activity at the beginning of 2005 should cease to have a negative impact: the export markets are expected to gather momentum somewhat, exchange rates should remain steady and oil prices should not rise further.

CHART 3 BUSINESS SURVEY INDICATORS IN THE MAIN BRANCHES AND CAPACITY UTILISATION IN MANUFACTURING INDUSTRY
(Seasonally adjusted data)



Source: NBB.

(1) The business-related services curve is not included in the overall synthetic curve.

2.2 Employment

Driven partly by the strong activity growth in the second half of 2003 and the first three quarters of 2004, job creations averaged around 28,000 in 2004, expanding domestic employment by some 0.7 p.c. in comparison with the previous year's level. At the beginning of the year, the pace of job creation was still sustained, but is likely to slow down temporarily during 2005, especially in the branches of activity most sensitive to the economic cycle. For those branches, which had made a significant contribution to the improvement in the labour market in 2004, the slackening pace of activity was reflected in a decline in the leading indicators of the trend in employment, such as the synthetic business curve, the outlook for employment and the shortages of skilled labour in manufacturing industry, the use of agency workers, temporary lay-offs or the trend in the number of persons wholly unemployed and receiving benefits for less than one year.

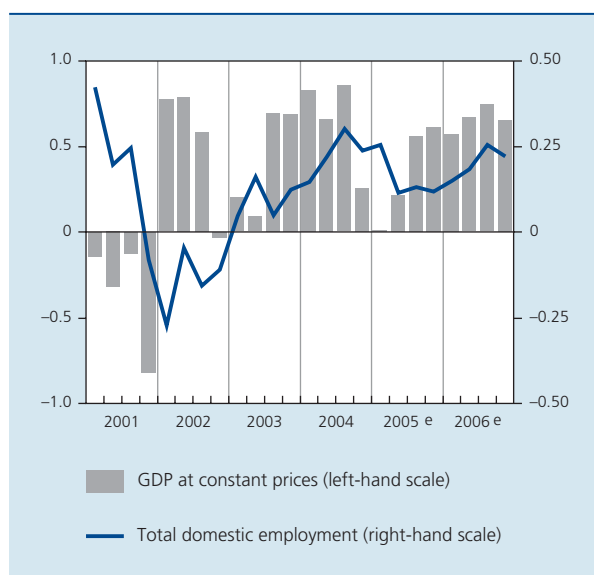
As the expansion of employment remained strong at the beginning of the year, it is expected that 34,000 new jobs will be created in 2005 – 28,000 of them in the private sector. Despite a gradual improvement during 2006 in the wake of the revival in activity, the increase in overall domestic employment is expected to fall to an average of 28,000 units in 2006. The employment rate is thus likely to increase from 60.4 p.c. of the population of working age in 2004 to 60.6 p.c. in 2005 and 60.7 p.c. in 2006.

The fluctuations in overall employment will probably depend mainly on the employment picture in the private sector. As for the other categories, the expansion in public sector jobs is expected to slow down in 2005, when the recruitment freeze introduced by the Flemish government will begin to have an effect. This limited expansion should be maintained in 2006.

In 2004, the number of self-employed persons increased for the first time since 1997, though admittedly the rise was due partly to better recording of spouses working as assistants. A new change in the employment rules applicable to them from 1 July 2005, entailing compulsory extension of their social insurance – making it more

CHART 4 EMPLOYMENT AND ACTIVITY

(Data adjusted for seasonal and calendar effects, quarterly averages, percentage changes compared to the previous quarter)



Sources: NAI, NBB.

comprehensive but also more expensive – could discourage some people who work, or wish to work, under these arrangements. That would curb the expansion of self-employed activity in 2005, and give rise to a further decline in the self-employed workforce from 2006.

The labour force – which, apart from persons in work, also includes unemployed job seekers – is projected to increase sharply in 2005 and 2006 to reach almost 4.9 million persons. This growth is due both to the increase in the population of working age, which is expected to grow by around 60,000 persons over the two years, and the rise in the activity rate.

Population ageing is expected to have little impact on the labour force in 2005 and 2006. The generation born during World War II, currently retiring from the labour market, is relatively small whereas the cohorts of women entering the 55-64 age group are, on average, better qualified and more active than their predecessors. Moreover, owing to the fact that they are obliged to remain available for the labour market, newly unemployed persons aged from 50 to 58 years are still included in the labour force, i.e. as unemployed job seekers, whereas they used to be disregarded. In total, the activity rate is expected to come to 66.5 p.c. in 2005 and 66.6 p.c. in 2006.

TABLE 3 LABOUR SUPPLY AND DEMAND

(Annual averages; year-on-year change in thousands of persons, unless otherwise stated)

	2001	2002	2003	2004 e	2005 e	2006 e
Population of working age	19	31	30	23	24	36
Labour force	56	9	49	67	51	33
<i>p.m. Harmonised activity rate</i> ⁽¹⁾	64.2	64.8	64.9	66.1	66.5	66.6
National employment	60	-13	3	29	34	28
<i>p.m. Harmonised employment rate</i> ⁽¹⁾	59.9	59.8	59.6	60.4	60.6	60.7
Frontier workers	0	0	1	1	0	0
Domestic employment	60	-12	2	28	34	28
Self-employed persons	-5	-3	-3	2	1	-1
Employees	66	-9	5	26	33	29
Public sector	4	16	10	9	5	6
Private sector	62	-25	-5	17	28	24
Unemployed job seekers	-5	22	46	38	17	5
<i>p.m. Harmonised unemployment rate</i> ⁽²⁾	6.7	7.4	7.9	7.8	7.9	8.0

Sources: EC, NAI, NEMO, NBB.

(1) Percentages of the population of working age (15-64 years).

(2) Percentages of the labour force. This series corresponds to the results of the second quarter labour force survey, adjusted by using administrative data in accordance with the Eurostat methodology.

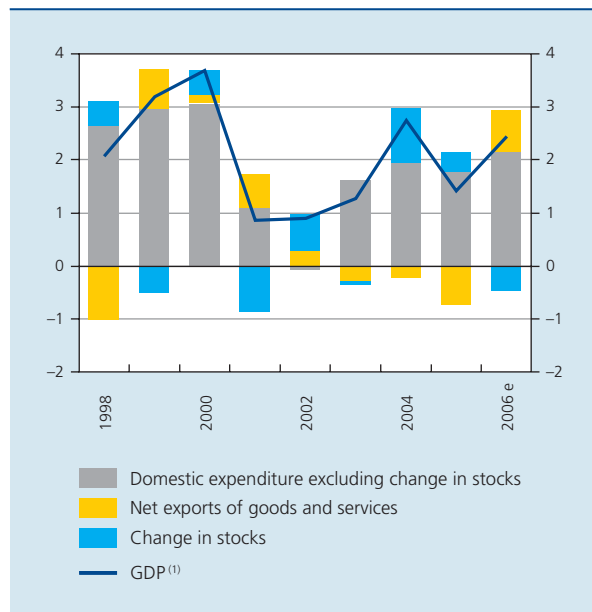
Since only part of the expansion of the labour force, and hence of the labour supply, is absorbed by the demand for labour, the number of unemployed job seekers is projected to increase by around 22,000 units over the whole of the period covered by the forecasts. This rise partly reflects the inclusion of older unemployed persons, as already mentioned. Expressed as a percentage of the labour force, the harmonised unemployment rate is expected to rise by 0.1 percentage point in 2005 and 2006, to reach 7.9 p.c. in 2005 and 8 p.c. in 2006.

2.3 Expected developments in the main categories of expenditure

Despite the marked slackening of economic growth predicted for 2005, domestic demand excluding change in stocks should continue to demonstrate some resilience, contributing to economic growth at a rate of 1.8 percentage points against 1.9 percentage points in 2004. In 2006 it should regain momentum and sustain activity at a rate of 2.1 percentage points.

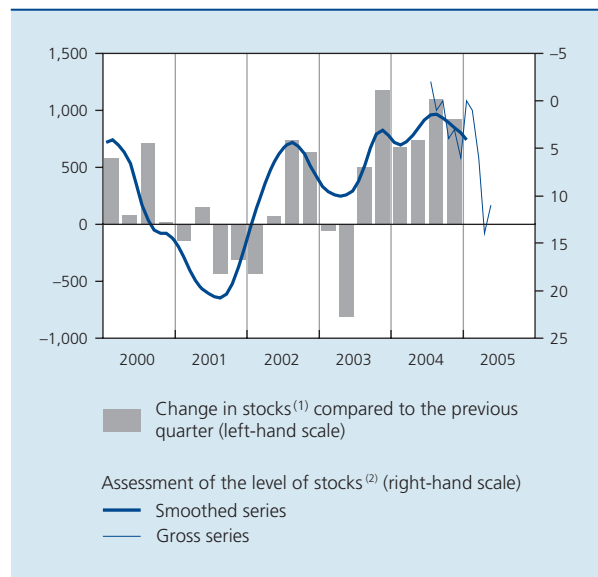
Substantial stock building took place in 2004. This probably continued at the beginning of 2005, as a result of weakening demand, so that stocks should now be more in line with demand.

CHART 5 MAIN CATEGORIES OF EXPENDITURE AT CONSTANT PRICES
(Calendar adjusted data ; contribution to the change in GDP, percentage points, unless otherwise stated)



Sources: NAI, NBB.
(1) Annual rate of change.

CHART 6 DEVELOPMENTS IN STOCKS AND ASSESSMENT OF THEIR LEVEL
(Seasonally adjusted data)



Sources: NAI, NBB.
(1) Millions of euro, at 2000 prices, calendar adjusted data.
(2) Question of the monthly business survey in manufacturing industry: a low value indicates that a large part of the interviewed enterprises judges the level of stocks as "too low".

The business survey in manufacturing industry indicates that, in the second quarter of 2005, firms revised their opinion of stock levels from "low" to "normal". That opinion implies that the increase in stocks should gradually diminish and will no longer make such a large contribution to economic growth as in 2004, when this factor boosted growth by 1 percentage point. Stocks should continue to make a 0.4 percentage point contribution to economic growth in 2005, before having a negative impact of 0.5 percentage point in 2006.

Apart from the less positive contribution made by domestic demand, net exports are also expected to have a significant negative effect on growth in 2005. However, after three successive years of negative contributions, net exports should again stimulate activity in 2006.

Among the components of domestic demand, household consumption – which had been relatively robust in the two preceding years, growing at rates of over 2 p.c. – is projected to grow by just 1 p.c. in 2005 before recovering to a rate of 1.9 p.c. in 2006. In contrast to previous years, private consumption is also expected to lag behind the growth of real disposable income. In 2005, the household savings ratio should thus increase from 14.1 to 15 p.c. of disposable income, the rise being due mainly to consumers' greater uncertainty regarding the assessment

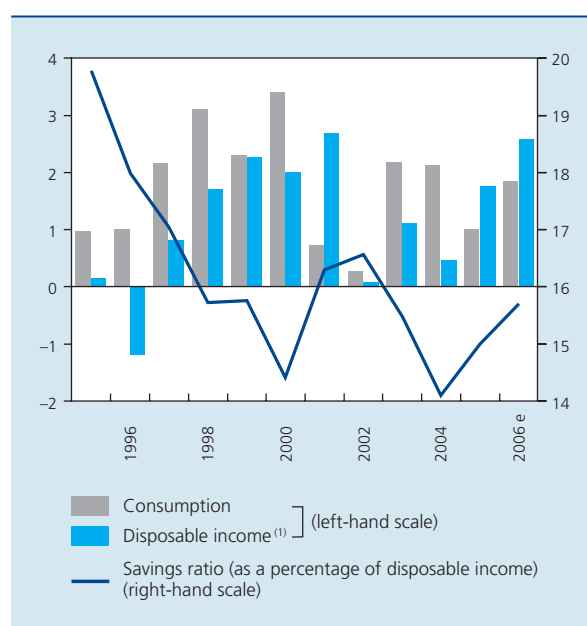
of the general economic situation and the negative effect on their purchasing power exerted by the rise in oil prices. Thus, private consumption hardly expanded at all in the fourth quarter of 2004, and – according to the projections – it is likely to have remained weak in early 2005. In 2006, the savings ratio is predicted to rise further to 15.7 p.c. of disposable income, as households will not immediately spend the whole of the increased resources generated in that year by the implementation of the tax reform, or they may already have spent part of it in anticipation.

Even though the rise in wages over the projection period is likely to be similar to that recorded in 2004, the nominal rate of increase in disposable income is expected to rise sharply in 2005 from 2.6 to 4.1 p.c. This acceleration will probably be stimulated by an increase in corporate dividend payments, but also by a faster rise in incomes indexed directly or indirectly to the movement in prices.

In 2006, disposable income is projected to increase by slightly more again, namely 4.6 p.c., following the implementation of the tax reform which will mean a substantial cut in taxes on incomes. In real terms, following a modest 0.5 p.c. rise in 2004, household purchasing power is expected to grow steadily, by 1.8 and 2.6 p.c. respectively in 2005 and 2006.

CHART 7 CONSUMPTION, DISPOSABLE INCOME AND SAVINGS RATIO OF INDIVIDUALS

(Percentage changes at constant prices compared to the previous year, unless otherwise stated)



Sources: NAI, NBB.

(1) Data deflated by the deflator of final private consumption expenditure.

TABLE 4 GDP AND MAIN CATEGORIES OF EXPENDITURE, AT 2000 PRICES

(Calendar adjusted data; percentage changes compared to the previous year, unless otherwise stated)

	2002 ⁽²⁾	2003	2004	2005 e	2006 e
Consumption expenditure of individuals	0.3	2.2	2.1	1.0	1.9
Consumption expenditure of general government	2.3	2.7	2.6	1.2	2.1
Gross fixed capital formation	-3.4	-0.6	1.0	4.8	3.4
Housing	-3.3	2.6	1.5	1.9	3.2
General government	-0.6	1.0	-1.0	10.3	14.6
<i>p.m. Excluding sales of public buildings</i>	-3.3	1.0	5.9	8.3	4.3
Enterprises	-3.8	-1.9	1.1	5.2	2.1
<i>p.m. Excluding purchases of public buildings</i>	-3.5	-1.9	0.2	5.4	3.4
Change in stocks ⁽¹⁾	0.7	-0.1	1.0	0.4	-0.5
<i>p.m. Total domestic expenditure</i>	0.6	1.6	3.1	2.2	1.7
Net exports of goods and services ⁽¹⁾	0.3	-0.3	-0.2	-0.7	0.8
Exports of goods and services	1.3	1.7	5.4	3.6	5.6
Imports of goods and services	1.0	2.1	5.9	4.6	4.9
GDP	0.9	1.3	2.7	1.4	2.4

Sources: NAI, NBB.

(1) Contribution to the change in GDP.

(2) These figures are influenced by the reclassification of the public radio and television companies from the non-financial corporations sector to the general government sector. Without that operation, consumption expenditure of individuals was up by 0.8 p.c. in 2002, that of general government was up by 1.7 p.c., gross fixed capital formation by enterprises and by general government fell by 3.7 p.c. and 1.5 p.c. respectively, final domestic expenditure grew by 0.1 p.c. and GDP by 1 p.c.

TABLE 5 GROSS DISPOSABLE INCOME OF INDIVIDUALS, AT CURRENT PRICES
(Gross data, percentage changes compared to the previous year, unless otherwise stated)

	2002	2003	2004 e	2005 e	2006 e
Gross primary income	2.3	1.7	2.3	3.6	3.2
of which:					
Wages and salaries	3.4	2.7	3.2	3.4	3.3
Compensation per person	3.7	2.5	2.4	2.4	2.4
Employment	-0.3	0.1	0.7	1.0	0.8
Gross operating surplus and gross mixed income	0.3	2.8	3.1	3.7	3.8
Income from movable property ⁽¹⁾	-0.6	-5.3	-4.5	4.7	1.9
Current transfers ⁽¹⁾	4.5	-3.2	1.1	1.3	-3.1
of which:					
Current taxes on income and assets	2.7	0.1	3.0	2.8	-0.7
Gross disposable income	1.8	2.9	2.6	4.1	4.6
<i>p.m. At constant prices</i> ⁽²⁾	0.1	1.1	0.5	1.8	2.6
Consumption expenditure	2.0	4.0	4.4	3.2	3.9
Savings ratio ⁽³⁾	16.6	15.5	14.1	15.0	15.7

Sources: NAI, NBB.

(1) These are net amounts, i.e. the difference between income or transfers received from other sectors and those paid to other sectors, excluding transfers in kind.

(2) Figures deflated by the deflator of final consumption expenditure of individuals.

(3) Gross savings, including the change in the net claims of households to pension funds, as a percentage of gross disposable income, including the change in these net claims.

Following slower growth in 2004, private investment in housing probably remained subdued at the beginning of 2005. However, it is expected to gather momentum during the year, bolstered by the growth of disposable income and – according to the assumption adopted – the low level of long-term interest rates. This improvement is also shown by the indicator of the volume of definite projects placed with architects, where the latest figures show an increase. The growth of private investment in housing is projected to rise from 1.5 p.c. in 2004 to 1.9 p.c. in 2005, climbing to 3.2 p.c. in 2006.

Like private consumption, public consumption will also provide only limited support for domestic demand in 2005. The growth of public consumption is expected to fall to 1.2 p.c. in 2005, as expenditure on health care expands more slowly. It should then speed up in 2006 to reach 2.1 p.c. Conversely, public investment expenditure is projected to expand strongly by 10.3 and 14.6 p.c. respectively in 2005 and 2006, having remained practically stable in the preceding years. The strong recovery in public investment expenditure is linked to the cycle of local elections, scheduled for 2006. A substantial rise in local investment is traditionally recorded in the election year and the preceding year. Apart from this electoral cycle, sales of buildings also have a considerable influence on the movement recorded in public investment.

These sales, regarded as disinvestment by general government, are expected to total around 500 million euro in 2005, which is comparable to the 2004 figure, whereas no sales are currently planned for 2006. Leaving aside these amounts, public investment is expected to grow by 8.3 and 4.3 p.c. respectively in 2005 and 2006.

After a period of weakness which has persisted since 2001, in which the growth of corporate investment has lagged behind the expansion in economic activity, the “accelerator” effect is likely to operate to the full again, in contrast to previous years. Leaving aside purchases of public buildings, forming the counterpart to the operations mentioned above, firms are projected to increase their gross fixed capital formation by 5.4 p.c. in 2005 and 3.4 p.c. in 2006, following a rise of just 0.2 p.c. in 2004. Taking account of these purchases, the growth rates should come to 5.2 and 2.1 p.c. respectively in 2005 and 2006. Thus, following a sharp fall between 2001 and 2004, the investment ratio should pick up in 2005, rising from 13.3 to 13.8 p.c. of GDP, before dipping slightly in 2006.

The contraction of the investment ratio between 2001 and 2004 was initially accompanied by a decline in the available resources of firms, measured by means of their gross operating surplus as a percentage of GDP.

CHART 8 BUSINESS INVESTMENT AND GROSS OPERATING SURPLUS
(Percentages of GDP)



Sources: NAI, NBB.
(1) Gross data, at current prices.
(2) Calendar adjusted data, at constant prices.

Corporate profitability recovered from 2003 onwards, but without prompting any rise in the investment ratio, as the resources becoming available internally were partly allocated to other purposes. Thus, firms continued to reduce their debt ratio and maintained a steady increase in dividends.

These inhibiting factors should weaken over the projection period: the gross operating surplus, expressed as a percentage of GDP, is expected to remain at a high level, while the corporate balance sheet position has improved and financing conditions should remain favourable. The interest rate on investment loans is in fact likely to remain at a low level, whereas the cost of equity should be held down by the relative firmness of share prices.

However, the expansion of investment is dependent on a strengthening of economic activity. Thus, the slackening pace of growth of economic activity since September 2004 has led to a fall in the capacity utilisation rate in manufacturing industry, indicating that firms will not proceed with investments unless the economic climate is buoyant.

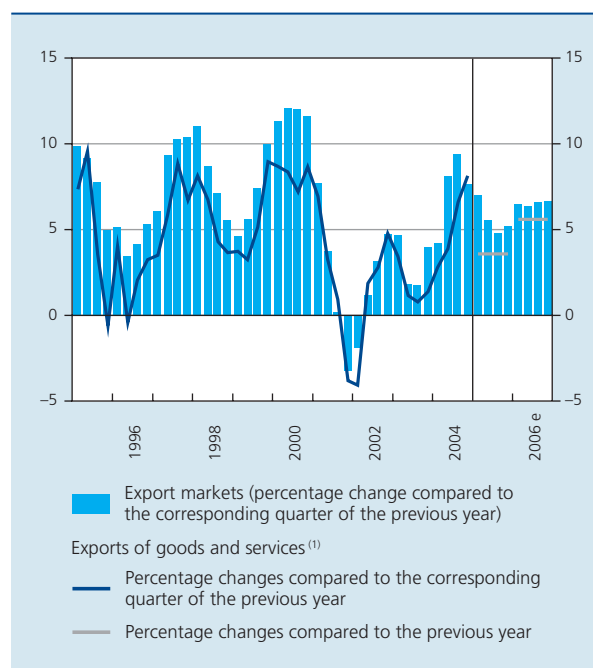
Economic activity in Belgium received a substantial boost from the expansion of foreign demand in 2004, which peaked in the middle of the year. Although the export

markets maintained robust growth, a weakening subsequently set in, especially on the markets within the euro area. The indicator relating to foreign orders in manufacturing industry also showed a downward trend in the final months of 2004 which persisted in the first few months of 2005.

However, the volume growth of Belgian exports of goods and services speeded up in 2004, to give annual average expansion of 5.4 p.c. It is likely to drop back to 3.6 p.c. in 2005, in parallel with the weakening of demand on foreign markets. According to the assumptions adopted, the contraction of the export markets should be only temporary, and they are forecast to accelerate again by the end of the projection horizon. Exports should therefore gain momentum, to achieve growth of 5.6 p.c. in 2006.

The volume of imports also grew strongly in 2004 by 5.9 p.c. Owing to the temporary weakness of both domestic expenditure and exports, growth is expected to fall to 4.6 p.c. in 2005, before rising to 4.9 p.c. in 2006. Following these movements, net exports are projected to curb economic activity by 0.7 percentage point in 2005, whereas they should boost GDP growth by 0.8 percentage point in 2006.

CHART 9 EXPORT MARKETS AND EXPORTS OF GOODS AND SERVICES AT CONSTANT PRICES
(Seasonally adjusted data)



Sources: ECB, NAI, NBB.
(1) Calendar adjusted data.

3. Prices and costs

3.1 Prices

During the first quarter of 2005, inflation measured by the HICP showed a marked acceleration, reaching 2.8 p.c. in March, the highest inflation rate recorded since the spring of 2001. However, in April inflation eased to 2.4 p.c., and – apart from a temporary halt during the last quarter of 2005 – the deceleration is expected to continue until the end of 2006. In all, inflation should average 2.2 and 1.9 p.c. respectively in 2005 and 2006, against 1.9 p.c. in 2004 and 1.5 p.c. in 2003.

The accelerating inflation in 2004 and 2005 can be mainly attributed to a set of factors, discussed below, whose influence on consumption prices is rapid and substantial, but whose impact on inflation is generally short-lived. The strong rises in petroleum product prices are the main factor here, but not the only one. It is the very disappearance of these factors regarded as temporary that accounts for the forecast fall in inflation in 2006, but this will only become reality if these factors do not generate second-round effects – in other words, if they do not trigger any wage and price spiral. For the purposes of the present projections, it was assumed that these second-round effects would be limited and, in particular, that the rise in labour costs for the period 2005-2006 would

TABLE 6 HARMONISED INDEX OF CONSUMER PRICES IN BELGIUM
(Percentage changes compared to the previous year)

	Total	Energy	Unprocessed food ⁽¹⁾	Underlying trend in inflation ⁽²⁾				<i>p.m.</i> Health index ⁽³⁾
					Processed food	Non-energy industrial goods	Services	
1999	1.1	2.0	0.0	1.1	0.6	0.8	1.8	0.9
2000	2.7	16.3	0.2	1.1	1.3	0.0	2.3	1.9
2001	2.4	1.4	6.9	2.1	2.2	2.0	2.1	2.7
2002	1.6	-3.6	3.2	2.1	1.5	1.7	2.6	1.8
2003	1.5	0.2	1.7	1.7	2.8	1.0	1.9	1.5
2004	1.9	6.6	0.9	1.4	2.2	0.3	2.1	1.6
2005 e	2.2	9.8	2.4	1.3	n.	n.	n.	2.1
2006 e	1.9	4.2	2.3	1.6	n.	n.	n.	1.8
Excluding primarily administrative price changes ⁽⁴⁾								
1999	1.2	1.7	0.0	1.3	0.6	0.8	2.2	
2000 ⁽⁵⁾	3.0	16.8	0.2	1.5	1.2	0.7	2.4	
2001	2.6	1.9	6.9	2.2	2.1	1.9	2.5	
2002	1.9	-2.7	3.2	2.4	1.5	1.6	3.4	
2003	1.8	1.0	1.7	2.0	2.1	1.0	2.7	
2004	1.8	5.2	0.9	1.5	2.2	0.3	2.3	
2005 e	2.1	9.1	2.4	1.3	n.	n.	n.	
2006 e	1.8	3.0	2.3	1.6	n.	n.	n.	

Sources: EC; FPS for Economy, SMEs, Self-employed and Energy; NBB.

(1) Fruit, vegetables, meat and fish.

(2) Measured by the HICP excluding unprocessed food and energy.

(3) National consumer price index, excluding products considered harmful to health, namely tobacco, alcoholic beverages, petrol and diesel.

(4) That is measures relating to the radio and television licence fee, tariff changes in the network industries in which liberalisation is farthest advanced, namely telecommunications, electricity and gas, and changes to indirect taxes.

(5) Excluding the estimated effect, in January and July 2000, of the fact that prices discounted in sales have been taken into account in the HICP since 2000.

be moderate, in accordance with the indicative wage norm of 4.5 p.c. which has been put forward. Of course, the inflation projection is heavily dependent on that assumption of continuing wage moderation, and on the other technical assumptions described earlier, mainly those relating to the movement in short-term interest rates, exchange rates and crude oil prices.

IMPACT OF FACTORS PRESUMED TO BE TEMPORARY

The high inflation recorded in the first quarter of 2005 was due primarily to energy products, whose prices rose by around 12 p.c. during this period, mainly as a result of the steep increases in crude oil prices. While the dollar-denominated oil price was still averaging 32 dollars per barrel in the first quarter of last year, it rose to 48 dollars in the first quarter of 2005, and then to 54 dollars in April. The assumption underlying this projection is that the oil price will decline very gradually to 50 dollars by the end of 2006.

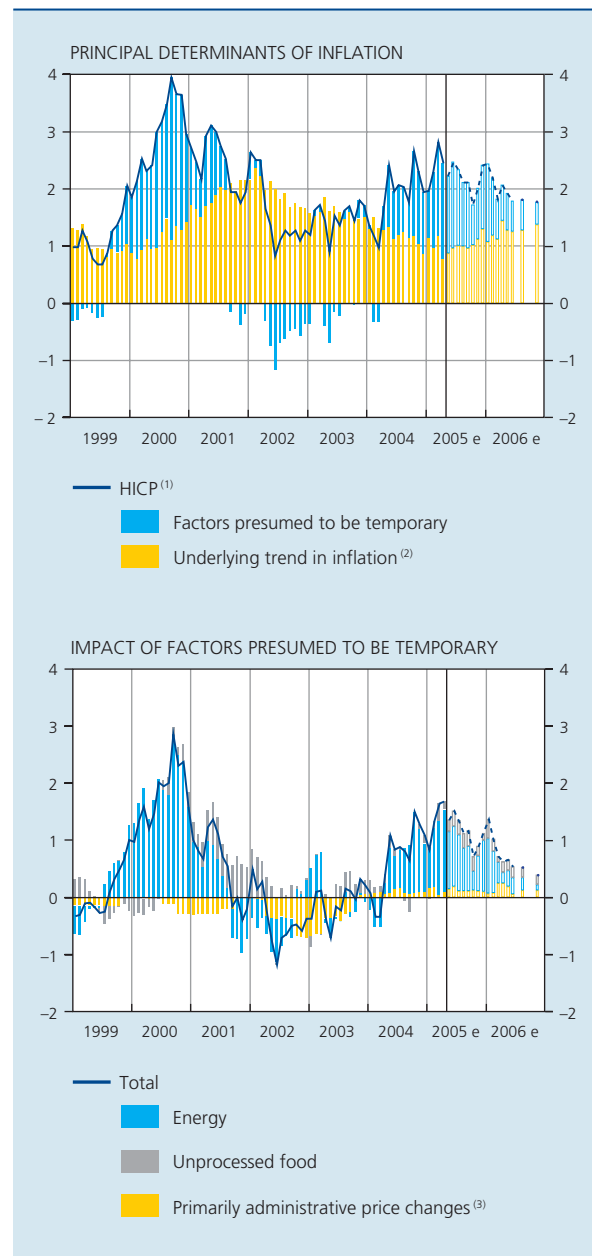
As the euro exchange rate has been hovering around 1.3 dollars for some time – the technical assumption adopted for this projection is also that the euro exchange rate will remain close to that level until the end of 2006 – the moderating effect exerted by the euro appreciation is gradually waning. Thus, the euro-denominated price rose by 44 p.c. between the first four months of 2004 and the corresponding period of 2005, which is only slightly less than the rise in dollar-denominated oil prices recorded over the same period, namely 52 p.c.

Movements in the crude oil price have a virtually immediate impact on consumer prices of motor fuel and heating oil, where price rises of 14 and 37 p.c. respectively were recorded in the first four months of 2005. Gas and electricity prices are also greatly influenced by these movements, but the effect occurs after a certain time lag.

In recent years, consumer prices of gas and electricity have also been influenced mainly by administrative tariff adjustments aimed at preparing the market for liberalisation, and more recently by the price reductions resulting from the actual liberalisation of the market in Flanders. The cumulative impact of this last factor since July 2003 was not included in the HICP until March 2005, so that the average price of electricity fell sharply in that month. However, this fall is likely to be largely offset, from mid 2005 onwards, by the introduction of the Elia levy in Flanders, which is intended to compensate the local authorities for the loss of income which they suffered following the liberalisation of the market.

Furthermore, the movement in energy prices is greatly influenced by the excise duties charged on motor fuel, under the ratchet system in force since August 2003. According to this system, half of each price reduction resulting from the application of the programme

CHART 10 INFLATION: ANALYTICAL BREAKDOWN
(Contributions of the various components in percentage points, unless otherwise stated)



Sources: EC, NBB.

- (1) Percentage changes compared to the corresponding month of the previous year, excluding the estimated effect, in January and July 2000, of the fact that prices discounted in sales have been taken into account in the HICP since 2000.
- (2) HICP excluding primarily administrative price changes, unprocessed food and energy.
- (3) That is measures relating to the radio and television licence fee, tariff changes in the network industries in which liberalisation is farthest advanced, namely telecommunications, electricity and gas, and changes to indirect taxes.

contract is offset by an increase in excise duty which then remains in force permanently until the annual maximum is reached: that limit is 28 euro per 1,000 litres for petrol and 35 euro per 1,000 litres for diesel. Despite the upward pressure on crude oil prices, temporary reductions had already led to increases in the excise duty on petrol and diesel totalling 28 and 25.7 euro per 1,000 litres respectively during the first four months of 2005, via the ratchet system. It is assumed that the rest of the increases in excise duty planned for 2005 will take effect in the forthcoming months, and that the excise duty on motor fuel will continue to edge upwards in 2006, since the ratchet system will remain in force until the end of 2007.

In all probability, the rate of energy price rises will subside gradually from May 2005, as a result of the factors mentioned above, and should then slow down sharply during 2006. For the year 2005 as a whole, energy prices are projected to increase by an average of 9.8 p.c., against 6.6 p.c. in 2004. In 2006, the rate of increase is forecast to slow to around 4 p.c.

Indirect taxes on a number of non-energy products have also been raised recently, and further increases are planned. The excise duty on drinks in non-reusable containers was increased in January 2005 (but will be cut again in July 2005). In addition, the excise duty on tobacco was raised in January 2005 and an additional increase in January 2006 will push up inflation until the end of the projection horizon.

Overall, the inflationary impact of all the primarily administrative price changes will probably come to 0.1 percentage point during 2005 and 2006, as in 2004. In 2002 and 2003, this type of price change was still exerting downward pressure on inflation, at a rate of 0.3 percentage point, mainly as a result of the measures concerning the radio and television licence fee.

The acceleration of inflation in March 2005 was primarily caused by the fairly steep increases in the prices of vegetables – owing to the bad weather – and meat. Although the impact of the first of these factors was short-lived, the rate of increase in the prices of unprocessed food will continue to be influenced by base effects which overall will have an upward impact for the rest of 2005. The rate of increase in the prices of unprocessed food had in fact been very low in 2004, owing to particularly favourable supply conditions. After accelerating from 0.9 p.c. in 2004 to 2.4 p.c. in 2005, it should amount to 2.3 p.c. in 2006, assuming neutral supply conditions.

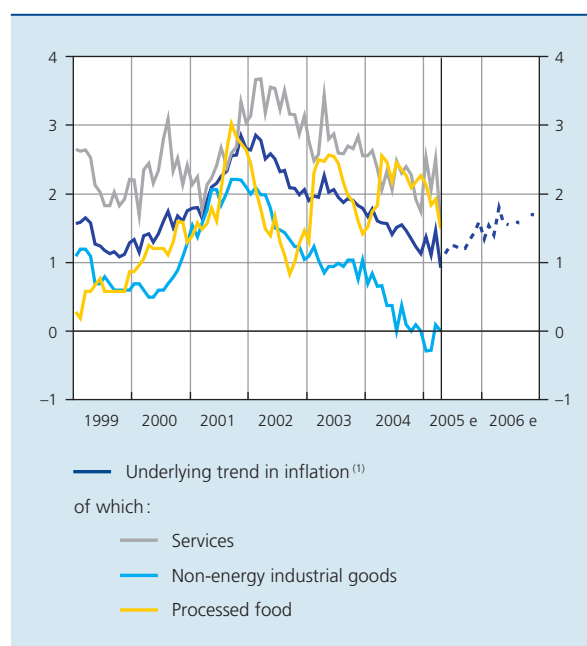
UNDERLYING TREND IN INFLATION

A good indicator of the underlying trend in inflation is obtained by disregarding the factors mentioned above, namely the primarily administrative price changes and the movement in the prices of unprocessed food and energy, which are volatile components. While the average rate of price increase measured in this way had already fallen from 2 p.c. in 2003 to 1.5 p.c. in 2004, it will probably continue to slow down to reach 1.3 p.c. in 2005. The relatively modest price rises in the first half of 2005 are still due to the euro appreciation, which contributed to weak pressure from foreign prices. While exchange rate changes have a more or less immediate impact on energy prices, there is generally some time lag before they are passed on in full to other consumer prices. Their effect was felt mainly in the case of non-energy goods with a relatively greater import component. The low level of the underlying trend in inflation is also due to the marked deceleration in labour costs during the 2003-2004 period, which essentially accounts for the moderation of price increases in the most labour-intensive services during the recent period⁽¹⁾.

(1) For a detailed analysis of the cost structure – particularly the respective shares of imports and labour costs – of the various components of the HICP, cf. Cornille D. and B. Robert, 2005, *Sectoral interdependences and cost structure in the Belgian economy: an application for input-output tables*, in the present issue of the *Economic Review*.

CHART 11 UNDERLYING TREND IN INFLATION

(Percentage changes compared to the corresponding month of the previous year)



Sources: EC, NBB.

(1) Measured by the HICP excluding unprocessed food and energy, and primarily administrative price changes.

However, the slackening of the underlying trend in inflation probably ended at the beginning of this year. The expectation is that the cessation of the downward effect of the euro appreciation, coupled with the rise in both energy and non-energy commodity prices, will contribute towards a gradual, moderate increase in the underlying trend in inflation during 2005, pushing the rate to 1.6 p.c. in 2006. On the other hand, the indicative nominal wage norm of 4.5 p.c. for 2005-2006 in principle implies a modest increase in labour costs, which should help to keep down internal pressure on prices. The relatively muted increase in demand during the period covered by the projections is also unlikely to exert any substantial upward pressure on prices.

In view of the developments described above, the health index – which is the benchmark for the indexation of wages and other incomes – is expected to rise by 2.1 p.c. and 1.8 p.c. respectively in 2005 and 2006. Naturally, that outcome is also heavily dependent on the initial assumptions adopted for the projection.

In both years, the rise in the health index exceeds the rise in the underlying trend in inflation, mainly because this index is not entirely protected from the impact of oil price fluctuations. Indeed, heating oil, gas and electricity are

included in the basket of products making up the health index, whereas petrol and diesel are omitted. In addition, the health index is derived from the national consumer price index, and in recent years that index has been rising increasingly faster than the HICP. This disparity is due to the fact that a number of products whose prices are falling fairly rapidly, such as personal computers, are not yet included in the national consumer price index, despite their relatively substantial share of household consumption expenditure.

3.2 Labour costs

The wage negotiations conducted by the many sectoral joint committees in the course of 2005 are taking place within the framework of the draft central agreement of January 2005, which was endorsed by the government and in which the social partners agreed to an indicative wage norm of 4.5 p.c. at the national level for the increase in hourly labour costs in the private sector during the period 2005-2006. Since little information is available as yet on those negotiations, the estimates of the progress in labour costs described below are based on the assumption that, although this norm is only indicative, it will not be exceeded at the macroeconomic level.

TABLE 7 LABOUR COSTS IN THE PRIVATE SECTOR
(Percentage changes compared to the previous year)

	2001	2002	2003	2004 e	2005 e	2006 e
Gross wages per hour worked	3.7	3.5	3.1	3.2	2.5	2.4
Collectively agreed wages ⁽¹⁾	3.3	3.8	1.8	2.4	2.1	2.1
Collectively agreed real increases	0.8	1.5	0.4	1.0	0.1	0.2
Indexation	2.5	2.3	1.5	1.4	2.0	1.9
Wage drift ⁽²⁾	0.3	-0.2	1.2	0.7	0.4	0.4
Employers' social security contributions ⁽³⁾	0.5	0.7	-0.4	-0.7	-0.3	-0.1
of which:						
Contributions paid to government	0.0	0.3	-0.5	-0.7	-0.3	-0.1
Labour costs per hour worked	4.1	4.2	2.7	2.5	2.2	2.3
Change in working time per employee ⁽³⁾	-0.5	-0.5	-0.2	0.1	0.0	0.1
Labour costs per employee	3.6	3.6	2.5	2.5	2.2	2.4
Labour productivity ⁽⁴⁾	-0.9	1.7	1.7	2.4	0.5	1.9
Unit labour costs	4.6	1.9	0.8	0.1	1.7	0.5

Sources: FPS Employment, Labour and Social Dialogue; NAI; NBB.

(1) Wage increases fixed by joint committees.

(2) Increases and bonuses granted by enterprises on top of central and sectoral collectively agreed wage increases, wage drift resulting from changes in the structure of employment (e.g. as a result of scale increases and job creation programmes), and errors and omissions.

(3) Contribution to the rise in labour costs.

(4) Ratio between value added at constant prices and the number of persons in work, employees and self-employed workers.

The context of wage moderation prevailing in neighbouring countries, notably in Germany and the Netherlands, is in fact encouraging cautious pay agreements. Moreover, there is currently every indication that, during 2005-2006, indexation will have a greater impact on the increase in labour costs than assumed by the national negotiators when setting the indicative wage norm. Higher inflation, due mainly to the rise in energy prices, is in fact affecting indexation with a certain time lag, because indexation is dependent on the movement in the health index which takes no account of motor fuel prices but does include the prices of other energy products (electricity, heating oil, natural gas, etc.). According to the current forecasts, indexation will push up wages by around 4 p.c. during 2005-2006, namely by 2 p.c. in 2005 and by 1.9 p.c. in 2006.

In addition, the reductions in employers' social security contributions, agreed at the 2003 Employment Conference, will become fully operational, and additional reductions in charges were agreed upon during the central negotiations at the end of 2004. These are structural cuts aimed mainly at certain target groups, namely older workers, high wage earners and the low paid. The various cuts should slow the growth of labour costs by 0.3 and 0.1 percentage point respectively in 2005 and 2006.

Taking into account the estimated indexations and the impact of the reductions in charges, and assuming a wage drift of 0.4 p.c. per annum for the increases granted at the firm level or determined by changes in the structure of employment – i.e. the average wage drift recorded after 1996 – and modest collectively agreed real increases at the sectoral level, the growth of hourly labour costs in the private sector is projected to total 2.2 p.c. in 2005 and 2.3 p.c. in 2006. In that case, the rise in labour costs in 2005-2006 will be 0.7 percentage point lower than in the 2003-2004 period.

Among other factors, the revival of economic growth in 2004 may have put an end to the downward trend in average working time per employee, recorded in preceding years. In 2005 and 2006, no significant change in working time is expected. Consequently, labour costs per employee should rise at the same rate as those per hour worked during both years. However, the growth rates of 2.2 and 2.4 p.c. respectively represent a deceleration in comparison with the 2.5 p.c. increases recorded in 2003 and 2004.

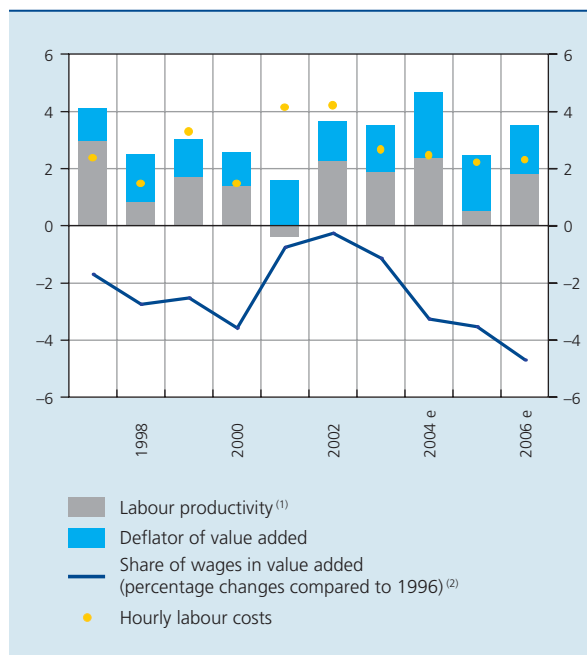
Partly because economic activity is expanding more slowly this year than last, labour productivity – value added in volume per person in work – is expected to increase by just 0.5 p.c., following a 2.4 p.c. rise in 2004. This means

that the growth of unit labour costs, which remained fairly stable in 2004, should accelerate to 1.7 p.c. in 2005. The strengthening economic growth forecast for 2006 should be accompanied by an acceleration in productivity gains, reaching 1.9 p.c., so that unit labour costs are predicted to rise by only 0.5 p.c.

Since the rise in unit labour costs in 2005 and 2006 will probably fall short of the growth of the deflator of value added – i.e. the value of a unit of output – estimated at 1.9 and 1.7 p.c. respectively, the share of labour incomes in value added is expected to fall by 0.3 p.c. in 2005 and 1.2 p.c. in 2006.

On the basis of the developments described above, the share of wages, which had increased in 2001 and 2002 but declined in 2003 and 2004, is likely to continue its downward trend in the years ahead. By 2006, the share of labour income in the value added of the private sector in Belgium is expected to be 4.7 p.c. lower than in 1996. This means that the increase in labour costs has been helpful in slowing the substitution of capital for labour, which is conducive to employment.

CHART 12 LABOUR COSTS, DEFLATOR AND LABOUR PRODUCTIVITY IN THE PRIVATE SECTOR
(Percentage changes compared to the previous year)



Sources: NAI, NBB.

- (1) Ratio between value added at constant prices and the volume of labour expressed in hours worked by employees and self-employed persons.
- (2) Ratio between labour costs and the labour incomes imputed to self-employed persons, on the one hand, and value added at market prices on the other.

4. Public finances⁽¹⁾

4.1 Overview

According to provisional figures published by the NAI in April 2005, the general government accounts ended the year 2004 more or less in balance. Under the macro-economic conditions described above, the government accounts would record a deficit again from 2005. The deficit would be limited to 0.5 p.c. of GDP this year, but would increase to 1.4 p.c. of GDP in 2006. These projections only take account of fiscal measures which have already been announced and are specified in sufficient detail; they obviously do not take into account the effect of decisions which are still to be taken, particularly at the time when the 2006 budget will be drawn up. In line with the ESCB methodology, no account is taken of the actual budget targets – e.g., the budget balance fixed for this year and the next year under the December 2004 stability programme – nor of measures which are yet to be passed in order to meet those targets. The projections therefore indicate what would happen if no new fiscal measures were taken.

The deterioration in the budget balance would result from the opposing effect of four different factors.

First, general government interest charges would continue to decline in 2005 and 2006. The projections are based on the technical assumption that the short-term market rate remains unchanged while the long-term market rate merely edges upwards from an average of 3.6 p.c. in 2005 to 3.8 p.c. in 2006. In this context, the implicit rate on the public debt would continue to fall, dropping from 5 p.c. in 2004 to 4.6 p.c. in 2006, mainly as a result of long-term debts being refinanced at lower rates. Combined with the slightly slower fall in the debt level, the reduction in interest charges would continue at a rate of 0.6 p.c. of GDP between 2004 and 2006.

On the other hand, the economic situation would impose stress on the budget balances. Thus, as indicated above, the projections are based on a sharp deceleration in growth in 2005. Slightly more robust growth is predicted for 2006.

In addition, the gradual disappearance of non-recurring factors causes the general government accounts to deteriorate. In 2004, those factors exerted a positive influence on the budget balances equal to 0.8 p.c. of GDP. Thus, the fact that part of the BNRC's operating subsidies and the whole of the investment grants scheduled for 2004 were paid in advance in 2003 cut the

TABLE 8 BELGIAN GOVERNMENT BUDGET BALANCES
(Percentages of GDP)

	2004	2005 e	2006 e
Primary balance (a)	4.9	4.1	2.9
<i>p.m. Revenue</i>	49.3	49.5	48.4
<i>Primary expenditure</i>	44.5	45.4	45.5
Interest charges (b)	4.9	4.6	4.3
Financing requirement (–) or capacity (c = a – b)	0.0	–0.5	–1.4
<i>p.m. Financing requirement (–) or capacity according to the EDP⁽¹⁾</i>	0.1	–0.4	–1.3

Sources: NAI, NBB.

(1) The ESA 95 methodology was adapted in 2001 to exclude from the calculation of the overall balance the net interest gains on certain financial transactions, such as swaps. However, in the framework of the excessive deficit procedure (EDP) no account is taken of this adjustment, which is also disregarded in the EC's assessment of the stability programmes.

level of expenditure by around 0.4 p.c. of GDP last year. Moreover, the proceeds from new sales of real estate by the federal government and certain federated entities, and those from the one-off declaration of financial assets, each totalled 0.2 p.c. of GDP. Furthermore, various shifts between the withholding tax on earned incomes and the tax assessments caused a temporary increase in tax revenues totalling 0.1 p.c. of GDP. These factors were only offset to a very small extent by the fact that the Flemish government postponed until 2004 part of the subsidies intended for De Lijn in 2003⁽²⁾.

In 2005, they would bring a further improvement in the budget balances equal to 0.4 p.c. of GDP. On the one hand, the new property sales planned by both the federal government and certain federated entities, plus the securitisation and sale of tax arrears, should raise around 0.3 p.c. of GDP. Also, the above-mentioned shifts between the withholding tax on earned incomes and the assessments will boost taxes by a further 0.1 p.c. of GDP this year. For 2006, account was taken of a small negative effect on tax revenues caused by the said securitisation and sale of tax arrears; there are no plans as yet for any significant new non-recurring measures.

(1) The projections relating to public finances allow for the calendar effects on the macroeconomic variables. According to these calculations, real GDP growth figures are 2.9 p.c. in 2004, 1.3 p.c. in 2005 and 2.4 p.c. in 2006, against 2.7, 1.4 and 2.4 p.c. respectively for calendar-adjusted GDP.

(2) The repayment of stock market taxes unlawfully collected was another non-recurring factor in 2004. On 15 July 2004, the Court of Justice of the European Communities ruled that the levying of the tax on stock market transactions and that on the delivery of bearer securities at the time of new issues was contrary to the European directive concerning indirect taxes on the raising of capital. The repayments were accounted for in full in 2004, in accordance with the ESA 95 methodology.

TABLE 9 IMPACT OF NON-RECURRING FACTORS⁽¹⁾
ON THE BUDGET BALANCES

(Percentages of GDP)

	2004	2005 e	2006 e
Total non-recurring factors	0.8	0.4	0.0
of which :			
One-off declaration of financial assets	0.2	0.0	0.0
Shifts between the withholding tax on earned incomes and assessments	0.1	0.1	0.0
Securitisation and sale of tax arrears	0.0	0.1	0.0
Shift in the funding of the BNRC	0.4	0.0	0.0
Sales of real estate	0.2	0.2	0.0
Shift in the funding of De Lijn	-0.1	0.0	0.0

Sources : NAI, NBB.

(1) A positive (negative) figure indicates an improvement (deterioration) in the budget balances.

Finally, the projections point to a further easing of fiscal policy in 2006, due essentially to the measures intended to reduce the burden of taxes and parafiscal levies on labour. Unlike in 2005, these measures will be offset to only a limited extent by increases in various taxes on goods and services.

4.2 Revenue

The on-going implementation of the personal income tax reform will continue to reduce the burden on taxpayers in 2005 and 2006. Although no new measures are to take effect as yet under this reform, a number of measures which came into force in previous years will have an effect on the tax assessments only. In 2005, that effect – which will mainly influence federal government revenues and, via the additional percentages, those of the local authorities – comes to 0.2 p.c. of GDP. A supplementary effect equivalent to 0.5 p.c. of GDP is expected in 2006.

Apart from the personal income tax reform, the planned reductions in social security contributions will also depress fiscal and parafiscal revenues. This primarily concerns the continuing implementation of the cuts in employers' contributions planned at the 2003 Employment Conference, intended to augment the structural reductions and reduce the burdens on specific target groups. Also, the personal contributions paid on the lowest wages are being cut by the introduction, in 2005, of the "work bonus", the scope of which is to be extended in 2006. Among other things, this work bonus replaces the tax credit introduced at the time of the personal income tax reform for taxpayers on low earned incomes.

These reductions in fiscal and parafiscal pressure on labour will be partly offset by increases in the taxes on goods and services. Thus, the rates of excise duty on tobacco and mineral oils are going up in 2005 and 2006. In addition, the levy on vehicles for business use and the levy on drinks in throwaway packaging were increased in 2005; however this latter increase was cancelled at the time of the April 2005 federal budget inspection.

Moreover, as in 2004 the federal government included in the 2005 budget a detailed programme for controlling tax evasion and improving the collection of taxes. Some of these measures had already been planned in 2004 but not yet implemented. According to the government, this initiative should achieve a structural increase in tax revenues of around 0.1 p.c. of GDP. This technical assumption was included in the projections.

In 2005, leaving aside the effect of the one-off declaration of financial assets, the securitisation and sale of tax arrears, and the shifts between the withholding tax on earned incomes and assessments, the structural measures will result in a small rise in fiscal and parafiscal revenues. The measures aimed at easing the burden of taxes and parafiscal levies on labour are more than offset by the increases in various other taxes, mainly on goods and services. Conversely, in 2006 the impact of the measures already planned will reduce the burden of taxes and parafiscal levies by 0.6 p.c. of GDP.

TABLE 10 STRUCTURAL MEASURES CONCERNING PUBLIC REVENUE

(Millions of euro, unless otherwise stated; changes compared to the previous year)

	2005 e	2006 e
Taxes	629	-1,210
Personal income tax reform ⁽¹⁾	-542	-1,397
Increase in taxes on goods and services	765	167
Control of tax evasion and improved tax collection	325	0
Others	81	21
Social security contributions	-273	-493
Employers' contributions	-321	-140
Employees' contributions	47	-353
Total	356	-1,703
<i>p.m. Percentages of GDP</i>	<i>0.1</i>	<i>-0.6</i>

Sources : FPS Finance, NSSO, NBB.

(1) Including the secondary effects of the additional percentages for local authorities.

4.3 Primary expenditure

Primary expenditure, which had totalled 45.6 and 44.5 p.c. of GDP respectively in 2003 and 2004, is projected to come to 45.4 p.c. of GDP in 2005. Actual expenditure, which includes the non-recurring factors, is expected to increase by 2.8 p.c. in real terms. This large rise is due in particular to the advances paid in 2003 on the subsidies for the BNRC – payable, in principle, in 2004, a year in which the subsidies were therefore particularly small. Adjusted to take account of non-recurring and cyclical factors, and of indexation effects⁽¹⁾, real primary expenditure should increase by 2.3 p.c. in 2005 and 2.4 p.c. in 2006.

The 2005 expenditure estimate takes account of the federal government budgets, including the social security budget, and those of the communities and regions. However, it is the local authorities that are expected to see the largest increase, due to a traditional surge in investments in the run-up to the local elections. In addition,

(1) Effect due to the difference between the actual indexation of the salaries of public sector employees and social security benefits, on the one hand, and the rise in the national consumer price index on the other.

the increase in the allocation for service vouchers and the measures in favour of shift work and entities employing researchers, recorded as subsidies in accordance with the ESA 95, are expected to swell expenditure in 2005.

It is of course very difficult to estimate the rate of increase in primary expenditure in 2006, since no budget is available as yet. However, local authority spending should again increase at an above-average rate, still being influenced by investments. Social security spending should also rise rapidly, boosted by expenditure on health care and an increase in social benefits for the self-employed. As regards federal government expenditure and that of the communities and regions, the growth figures in these projections are based on the average recorded in the past.

4.4 Debt

Since 1993, when the public debt peaked at almost 137 p.c. of GDP, the debt level has been declining steadily by an average of 4 percentage points per annum. At the end of 2004, the general government debt level totalled 95.5 p.c. of GDP.

TABLE 11 CONSOLIDATED GROSS DEBT OF GENERAL GOVERNMENT
(Percentages of GDP, unless otherwise stated)

	1993	1999	2000	2001	2002	2003	2004	2005 e	2006 e
Level of the debt	136.7	114.5	109.0	108.0	105.4	100.0	95.5	95.9	93.8
Change in the debt			-5.5	-1.1	-2.6	-5.4	-4.5	0.4	-2.1
Endogenous change ⁽¹⁾			-5.8	-3.3	-3.0	-3.6	-5.1	-2.6	-2.6
Primary balance required to stabilise the debt ⁽¹⁾			1.1	3.9	3.1	2.1	-0.2	1.4	0.4
Implicit interest rate on the debt ⁽²⁾			6.2	6.1	5.7	5.3	5.0	4.8	4.6
Growth of nominal GDP ⁽²⁾			5.2	2.5	2.7	3.2	5.3	3.2	4.2
Actual primary balance			6.9	7.2	6.1	5.7	4.9	4.1	2.9
Change resulting from other factors			0.4	2.2	0.4	-1.8	0.6	3.1	0.5
Transactions with the NBB (including capital gains on gold)			0.0	0.0	-0.1	-0.1	0.0	0.0	0.0
Privatisation operations and other financial transactions			-0.1	0.0	0.0	-2.3	-0.4	0.0	0.0
Net formation of financial assets outside the public sector			0.3	-0.3	-0.3	0.3	0.1	0.0	0.0
Other ⁽³⁾			0.3	2.6	0.8	0.4	0.9	3.1	0.5

Sources: NAI, NBB.

(1) The endogenous change in the public debt is determined by the difference between the primary balance required to stabilise the debt – i.e. the balance equal to the difference between the implicit interest rate on the debt and the rate of growth of nominal GDP, multiplied by the ratio between the debt at the end of the previous year and the GDP of the period in question – and the actual primary balance.

(2) Percentages.

(3) Mainly lending, equity investment, the impact of exchange differences and of issue and repurchase premiums, statistical discrepancies and the incorporation of CREDIBE and the Railway Infrastructure Fund in the general government sector, in 2001 and 2005 respectively.

This year, however, the public debt is expected to rise by 0.4 p.c. of GDP, since exogenous factors are exerting upward pressure equal to 3.1 p.c. of GDP. This is due mainly to the restructuring of the BNRC which, on 1 January 2005, was converted to a holding company with two subsidiaries, namely the BNRC railway company – concentrating on the carriage of passengers and goods by rail – and the infrastructure manager, Infrabel, which will also be responsible for the construction and funding of any new rail infrastructure. In addition, a fund – the Railway Infrastructure Fund – was set up as the owner of the rail infrastructure in place on 31 December 2004, and it took over the corresponding debt. According to the ESA 95 methodology, this fund comes under the general government sector; in 2005, this restructuring therefore adds 7.4 billion euro – corresponding to 2.5 p.c. of GDP – to the debt as defined by the Maastricht criteria.

In 2006, the debt ratio should resume its downward trend, dropping to 93.8 p.c. of GDP by the end of the year.

5. Assessment of the uncertainty surrounding the projections

The marked deceleration in activity seen in late 2004 and in early 2005 in Belgium is a key factor in the new macroeconomic projections. The scale of the slowdown was greater than foreseen in the previous projection of autumn 2004. According to the information available when this exercise was concluded, it also appears to have been more severe than in the euro area in general.

This movement is due partly to isolated factors, but also to weaker activity in industry, where only a gradual recovery is expected during 2005. In all, the slowdown at the beginning of the year and the muted dynamism projected thereafter make it necessary to revise GDP growth by more than one percentage point for the year as a whole. In this connection, a check should be done to verify whether industrial activity in the euro area does not also weaken more severely in the coming months, which would depress Belgium's exports and delay the growth recovery. Conversely, however, the possibility of a speedier rebound cannot be ruled out either.

The increase in oil prices on the international markets up to April 2005 contributed to the slowing of activity. It was also a major factor in the recent quickening of inflation. The oil markets remain highly volatile, making the outlook for prices particularly uncertain. According to the assumption adopted, oil prices will remain close to 50 dollars per barrel. That is around 10 dollars higher than the level assumed in previous exercises. However, it is uncertain whether that already reflects a new equilibrium value for supply and demand on the world oil market.

Internal inflationary pressures should remain weak in 2005 and 2006, taking account of a nominal rise of 4.5 p.c. in hourly labour costs in the private sector over the two years together. In the projections, this technical assumption leads to modest real increases, in view of the expected effect of the indexations. Steeper wage increases, e.g. following agreements in particular sectors or firms, would generate higher inflation and hamper job creation.

TABLE 12 COMPARISON OF THE FORECASTS FOR BELGIUM
(Percentage changes compared to the previous year)

	Real GDP		Inflation		Publication date
	2005	2006	2005	2006	
NBB – Spring 2005	1.4	2.4	2.2	1.9	June 2005
<i>p.m. Autumn 2004</i>	2.5	–	2.2	–	<i>December 2004</i>
Federal Planning Bureau	1.7	2.6	2.1	1.8	May 2005
EC	2.2	2.3	2.0	1.8	April 2005
IMF	2.1	2.3	2.1	2.0	April 2005
OECD	1.3	2.4	2.2	1.6	May 2005
Belgian Prime News	2.2	2.4	1.9	1.7	March 2005
Consensus Economics	2.1	2.4	2.0	1.8	May 2005
Economist's Poll	2.0	2.2	1.9	1.7	May 2005
<i>p.m. Actual figures 2004</i>	2.7		1.9		

Moreover, the results presented here are also dependent on other assumptions adopted by the Eurosystem. The large current account imbalances, which have persisted for several years and will only be rectified to a very small extent in 2005 and 2006, are a threat to world growth. They could give rise to substantial adjustments to exchange rates or long-term interest rates. Moreover, the low level of the latter in itself entails a risk of an upward correction.

The main differences between the Bank's projections for 2005 and the forecasts published previously by the Federal Planning Bureau and international institutions, except for the OECD forecasts, are a lower GDP growth rate and slightly higher inflation.

Annex

PROJECTIONS FOR THE BELGIAN ECONOMY: MAIN RESULTS

(Percentage changes compared to the previous year, unless otherwise stated)

	2002	2003	2004	2005 e	2006 e
Growth (calendar adjusted data)					
GDP at 2000 prices	0.9	1.3	2.7	1.4	2.4
Contributions to growth:					
Domestic expenditure, excluding change in stocks	-0.1	1.6	1.9	1.8	2.1
Net exports of goods and services	0.3	-0.3	-0.2	-0.7	0.8
Change in stocks	0.7	-0.1	1.0	0.4	-0.5
Prices and costs					
Harmonised index of consumer prices	1.6	1.5	1.9	2.2	1.9
Health index	1.8	1.5	1.6	2.1	1.8
GDP deflator	1.8	2.0	2.3	2.0	1.7
Terms of trade	1.0	-0.1	-0.9	-0.5	-0.1
Unit labour costs in the private sector	1.9	0.8	0.1	1.7	0.5
Hourly labour costs in the private sector	4.2	2.7	2.5	2.2	2.3
Hourly productivity in the private sector	2.3	1.9	2.4	0.5	1.8
Labour market (calendar adjusted data)					
Domestic employment (average annual change, thousands of units)	-12.4	2.3	28.2	34.3	27.6
Harmonised unemployment rate (p.c. of labour force)	7.4	7.9	7.8	7.9	8.0
Harmonised unemployment rate 15-64 years (p.c. of labour force)	7.6	8.2	8.6	8.7	8.7
Incomes					
Real disposable income of individuals	0.1	1.1	0.5	1.8	2.6
Savings ratio of individuals (p.c. of disposable income)	16.6	15.5	14.1	15.0	15.7
Public finances					
Primary balance (p.c. of GDP)	6.1	5.7	4.9	4.1	2.9
General government financing requirement (-) or capacity (p.c. of GDP)	0.1	0.3	0.0	-0.5	-1.4
Public debt (p.c. of GDP)	105.4	100.0	95.5	95.9	93.8
Current account (p.c. of GDP according to balance of payments)					
	5.7	4.5	3.4	2.0	2.8

Sources: EC, NAI, NSI, NBB.

Sectoral interdependences and cost structure in the Belgian economy: an application for input-output tables

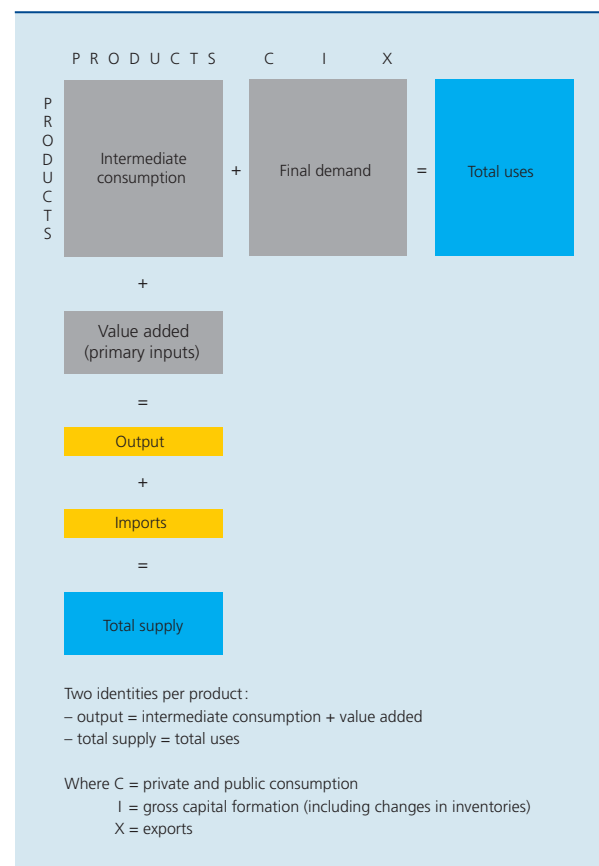
D. Cornille
B. Robert^(*)

Introduction⁽¹⁾

The input-output tables (IOTs) published by the NAI give an integral view of all the flows of goods and services recorded by the Belgian economy over the course of a given year. They supply a detailed and coherent overview on the origin – import or domestic production – of products and their destination: consumption, investment or export. In particular, the IOTs offer an understanding of flows between different branches of activity in the economy, via their intermediate consumption. The IOTs are therefore extremely useful when undertaking a detailed analysis of an economy's structure.

Presented in schematic form, the IOTs comprise three “blocks” or matrices. The central section corresponds to intermediate consumption flows, that is, the use made of the intermediate inputs required for production in the different branches. Below this matrix can be found that of value added generated by the output of products – arranged in columns – according to its different components (wages, gross operating surplus, etc.). Considered in its entirety, each column provides a breakdown of the production process for the product given at the top of the column between intermediate and primary inputs. In much the same way, each line provides a breakdown, between intermediate and final uses, of all the uses of the product given at the top of a line. Final uses, broken down

CHART 1 INPUT-OUTPUT TABLE
(Total flows, including intermediate and final imports)



(*) The authors wish to thank L. Aucremanne and L. Dresse for their valuable advice.
(1) For further methodological information, see NAI and FPB publications.

by category of expenditure, form the final demand matrix for each product.

In order to determine the interrelationships and changes in demand purely within the national production process, it is usual to limit the IOT analysis to the sub-table of domestic production. This sub-table, which has the same layout as the full table, is limited to internal flows: the two-way flows of intermediate consumption do not include imported products and, likewise, final expenditure is only considered insofar as it is satisfied by domestic production.

In general terms, the IOTs can provide an analysis of output, cost structure and productivity as well as an analysis of the different production inputs and interdependencies between branches of activity (NAI, 2005). On the basis of the direct cross-relationships provided by the IOTs, it is possible to develop the so-called cumulative approach to interrelationships between branches of activity, which gives a comprehensive overview of the Belgian economy. This approach is used to illustrate, in turn, the nature of relationships between the different branches of activity, the special features related to the degree of openness and structure of production of the Belgian economy, and the process of price formation.

IOTs at current prices are published every five years by the FPB on behalf of the NAI. The most recent data, which are used in this article, relate to the year 2000. These are available with a detail of 60 branches, in other words the A60 base of the NACE-BEL nomenclature. The various calculations have been undertaken at this level of detail. In order to ensure clarity, however, the results will be presented according to a classification aggregated into six categories (cf. Annex 1).

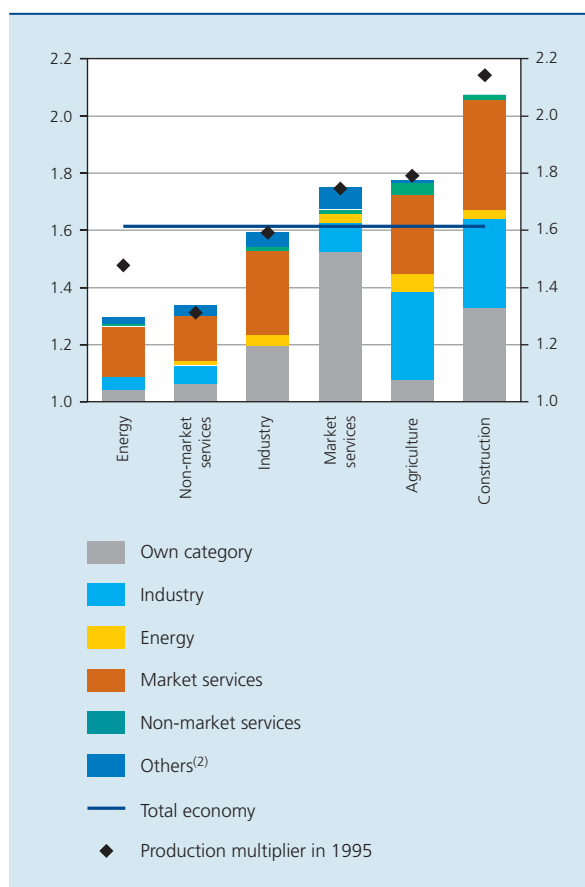
1. Relationships between the branches of activity of the Belgian economy

The cumulative approach consists of working back up the production chain of a branch in order to consider all the direct and indirect inputs necessary for the production of a given product. Thus one additional unit of final demand for a given product will give rise to the production of that unit, but also to an intermediate demand for other products required to produce that additional unit. The production of these other products will generate further intermediate demand, and so on. All in all, the production of one additional unit of the product in question requires a cumulative production of more than one unit throughout all the branches of the economy.

1.1 Production multipliers

The most direct way of characterising the extent and nature of interrelationships between branches of the Belgian economy is probably to use the production multiplier, which provides – for a given branch – the ratio between the cumulative production generated by this branch and its direct production. The higher this ratio, by definition equal to or more than 1, the more the production of the product in question leads to second-round effects in all branches of the economy, possibly including the branch of origin, via a feedback effect.

CHART 2 MULTIPLIERS AND DISTRIBUTION OF THE SECOND-ROUND EFFECTS OF PRODUCTION⁽¹⁾
(In relation to branch output on the horizontal axis; 2000 figures unless otherwise stated)



Sources: NAI, NBB calculations.

(1) The height of the column indicates the value of the multiplier, in other words, total output generated in the economy as a whole by one unit of final demand in the branch noted on the horizontal axis. In the chart, the second-round effects are also broken down according to the benefiting branches.

(2) Agriculture and/or construction, depending on the branch given on the horizontal axis.

For the economy as a whole, the multiplier is 1.61: on average, to produce one euro, the Belgian economy must thus provide 61 cents of additional output to cover the intermediate consumption needs. The multiplier varies substantially, however, depending on the branch, according to the level of intermediate consumption of domestic products in the production process. The second-round effects of production, amounting to 34 cents per euro, are therefore relatively weak in non-market services, where the production process is based primarily on the use of the factors of production, capital and labour, rather than on the use of intermediate inputs. Similarly, they only amount to 30 cents per euro for energy and 59 cents for industry, branches in which intermediate consumption is significant but relies more heavily on imports.

In contrast, activity in market services, agriculture and especially construction entails above average second-round effects. For construction, the multiplier is 2.07, second-round effects of production being more important than direct production.

Between 1995 and 2000, the multipliers overall varied little, which might indicate a degree of stability in the production processes. In industry and market services in particular, there was no change at all. The most significant change related to the energy branch. The 18 cent fall in the multiplier for this branch is partly attributable to an increase in oil prices over the period in question. This price increase significantly raised the value of imported intermediate consumption for the refined petroleum products branch and, consequently, reduced the share of domestic intermediate consumption, including for example business activities and wholesale trade. This illustrates the limitations of an analysis over time of IOTs at current prices.

The cumulative intermediate consumption of a branch can be broken down according to its originating branches. First, it appears that relationships are significant within the actual branches themselves, even though the fairly aggregated nature of the categories of branches chosen backs up this result. Thus in the case of market services, 53 of the 75 cents per euro of cumulative intermediate consumption come from market services, for example, when a road transport company outsources its bookkeeping or when an insurance company calls upon the services of a cleaning company. Similarly, output from construction and industry includes a significant level of intermediate goods produced within their own branches.

In general terms, market services take up a significant position in the production process of all branches, ranging from 16 to 39 cents per euro of production. In particular, the effects on market services of activity in industry,

agriculture and construction exceed 30 cents per euro. Other interrelationships are also worth noting, namely, the second-round effects on industry of agricultural production and construction output, which amount to 31 cents per euro. The agricultural production process includes products from the food industry, whilst construction uses glass and metal for example. As for dependence on energy, this is fairly comparable from one branch to another, around 3 to 4 cents of cumulative intermediate consumption per euro of production. This ranges from 1.8 cents for non-market services to 6.3 cents in agriculture.

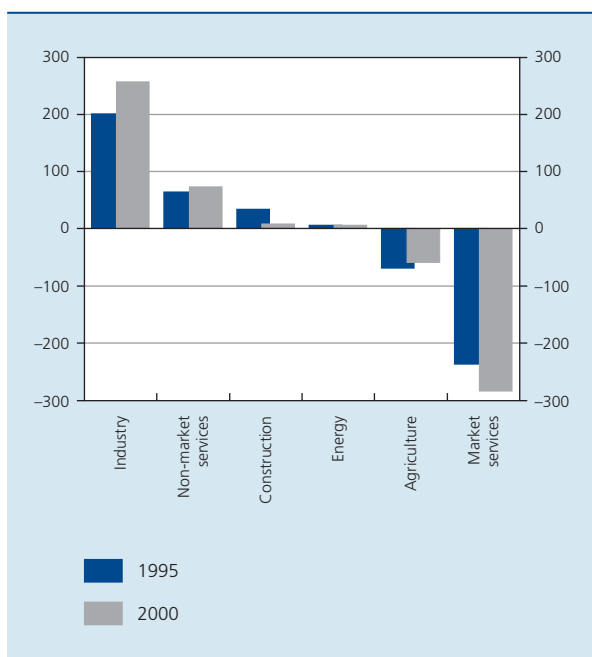
1.2 Indirect employment

In addition to the effect on output, relations between branches can also be assessed in terms of indirect employment. The IOTs include, for reference, the number of jobs observed in each of the branches under consideration and thus enable, by using the average productivity of the different branches, a calculation to be made of the cumulative employment necessary for the output of a given branch.

Schematically, the calculations made in this context consist of distinguishing, within the employment observed in each branch of activity, the jobs directly allocated to production destined for final demand, on the one hand, and the jobs necessary for production destined for the intermediate consumption of the other branches, on the other. Thus in the same way as, when calculating the multipliers, the production of intermediate products is reclassified in the branch that initially gave rise to it in order to respond to the final demand addressed to it, employment corresponding to this intermediate production is reclassified in the branch that uses it. For each branch, cumulative employment, obtained via the sum of direct and indirect jobs created in other branches, represents all the labour used in the economy for production destined for the final demand of this branch.

At the level of the economy as a whole, cumulative employment and observed employment are equal, indirect employment being simply reallocated among the branches. At the level of individual branches, the cumulative employment of a branch is higher than observed employment if the number of jobs in other branches indirectly allocated to its production exceeds the number of its jobs deployed to satisfy the intermediate demand of the other branches. This is primarily the case for industry, where the cumulative employment required for production totals 903,000 persons although this branch actually employs only 646,000 workers. In other words, in employment terms, industry provides more labour to

CHART 3 DIFFERENCE BETWEEN CUMULATIVE EMPLOYMENT AND OBSERVED EMPLOYMENT
(Thousands of salaried and self-employed workers)



Sources : NAI, NBB calculations.

other branches than other branches provide to industry, its activity being a net creator of jobs in other branches, amounting to 257,000 units. Market services are the main beneficiaries, with a net total of 215,000 jobs, followed by agriculture, with 53,000 jobs, due to the size of the food industry.

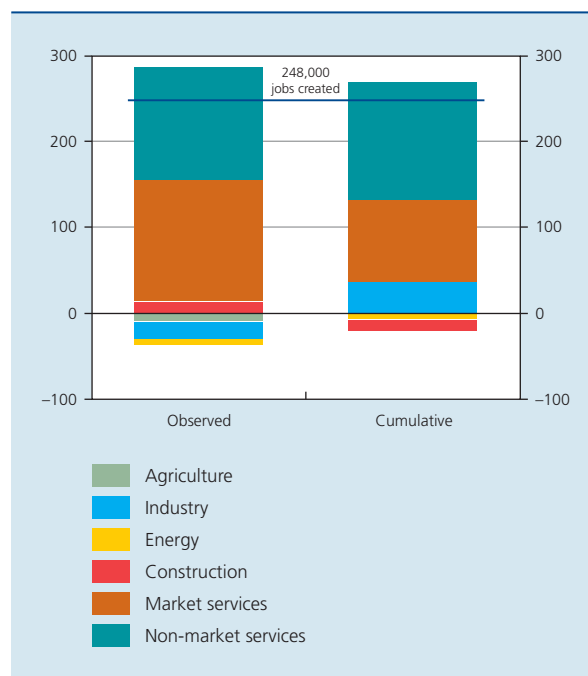
Overall, cumulative employment turns out to be higher than observed employment in industry and non-market services, and lower than observed employment in agriculture and market services. The two employment levels are more or less the same in construction and energy. These observations confirm the conclusions of Avonds and al. (2003), according to whom a difference between cumulative and observed employment is indicative of the nature of the product: generally close to final demand when the sign is positive, more often destined for intermediate consumption when it is negative.

Closer to final demand than industry, non-market services thus create a net positive number of jobs in other branches, mainly in business activities but also in wholesale trade, hotels and restaurants and post and telecommunications services. Conversely, like market services, agriculture works largely for other branches, to the extent that nearly two-thirds of agricultural production is destined for the intermediate consumption of the food industry.

The key relationship, however, is that which links industry with market services. Of the 903,000 cumulative jobs necessary for industrial production, only 540,000 are actually located within industry, whilst 268,000 are found in the market service branches. From a supplier's point of view, this means nearly one-sixth of total employment in market services is thus allocated to producing services for industry. This demonstrates the preference on the part of industrial companies to focus on their core activity, whilst outsourcing secondary activities. This trend has increased over time⁽¹⁾, becoming even more marked between 1995 and 2000. In fact, 54,000 of the 143,000 jobs created in market services over this five-year period were due to the effects of industrial activity. Overall, industry is the only category of activity to have combined a decline in observed employment of 20,000 units over this period with the creation of indirect jobs in other branches, totaling 36,000 units, industrial activity thus contributing to an increase in net employment. By way of comparison, over the same period, 248,000 jobs were created in the Belgian economy, primarily in the service branches.

(1) See Avonds (2005).

CHART 4 CHANGES IN EMPLOYMENT BETWEEN 1995 AND 2000
(Thousands of salaried and self-employed workers)



Sources : NAI, NBB calculations.

At a more detailed level, it appears that industry's use of market services is heavily concentrated in certain branches. For industry, the most important second-round effects in terms of labour are logically generated by the branches that are already the major sources of direct employment, that is, food, chemicals and motor vehicles. Apart from the effect of size, the first two do make relatively extensive use of market services. Of these, more than 40 p.c. of second-round effects in terms of employment created by industry relate to business activities, whilst wholesale trade and land transport also benefit from significant indirect effects. In all, these three branches account for more than three-quarters of the jobs created by industry in market services.

The predominance of these three service branches is easily explained by the segmentation of activity that characterises developed economies. Business activities cover tasks of a secondary nature, outsourced by industrial companies, whether they be legal advice, accounting, staff recruitment – including temporary staff –, cleaning, secretarial support and translation, to name but a few. For their part, wholesale trade and land transport branches serve as an intermediary in terms of getting industrial products to the market. This effect is partly magnified by the IOT methodology, since the trade and transport margins generated by industrial companies on their own sales or transport activities are included in the corresponding service branches.

Finally, it could be argued that, in some respects, the nature of the services involved in production enables a distinction to be made among the industrial branches themselves. In fact, it seems that the branches generally

considered to be the most technological, found in the manufacture of electrical and electronic equipment, tend to make greater use of business and IT services but resort less to the more traditional services of wholesale trade and land transport.

2. Features of the Belgian economy

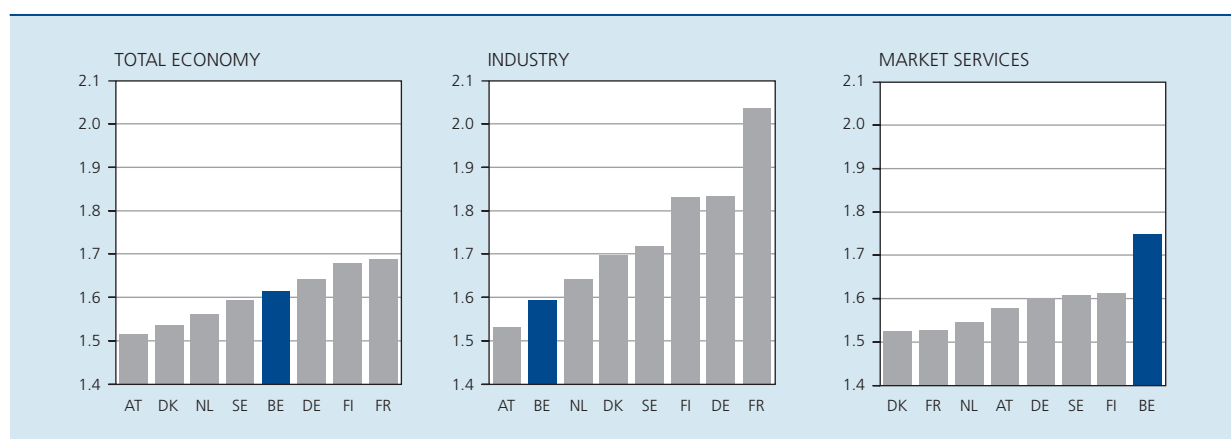
Using the cumulative approach, the IOTs also make it possible to reconsider certain essential features of the structure of production in the Belgian economy, for example, in relation to the size of multipliers and the actual share of value added or of imports in production. Compared to the measurements directly observed via the national accounts, this approach takes into account the composition of intermediate consumption.

2.1 Size of the economy and leakages

An international comparison of production multipliers highlights some special features of the Belgian economy⁽¹⁾. Although, for the economy as a whole, Belgium has a median multiplier, it has the highest figure for market services, and one of the lowest for industry. It is, moreover, the only country – along with Austria – where the production multiplier is higher for market services than for industry.

(1) Observations for European countries (Austria, Denmark, Finland, France, Germany, Netherlands, Sweden), made on the basis of figures for the year 2000 in order to use the most recent figures, are confirmed by data for 1995, available also for Spain and the United Kingdom.

CHART 5 PRODUCTION MULTIPLIERS⁽¹⁾
(In relation to the output of the economy or branch, 2000 figures)



Sources: EC, NAI, NBB calculations.

(1) Total output generated in the economy as a whole by one unit of final demand in the economy, industry or market services.

The weakness of the industrial production multiplier closely reflects leakages through imports, linked to the size and degree of openness of the economy. Indeed, the two large economies in the sample are also those that have the highest multiplier, this being moreover higher in France than in Germany, whilst small open economies, such as Belgium and the Netherlands, have a lower multiplier. In these economies more than elsewhere, it can in fact be argued that the satisfaction of one supplementary unit of final demand produced within the country is based on inputs produced abroad rather than locally. Put another way, even if it is produced in Belgium, additional final demand provides larger benefits for foreign economies.

The size or degree of openness of the economy is not, however, the only factor determining the size of the multiplier. This also depends on the share of value added in output. Thus, although less open than Belgium and the Netherlands, Austria presents a lower multiplier than these two countries for industry. Conversely, domestic second-round effects from industrial production are as high in Finland as in Germany. Apart from an outlying geographical location, which certainly explains a more marked inward-looking orientation, Finnish industry has a relatively asymmetric structure, based on two strong legs embedded in the national economy, each representing almost one quarter of industrial production: the technological branch of communications equipment, within which activity is organised in clusters, feeding interrelations between companies, and the wood/paper industry whose second-round effects on production benefit local forestry.

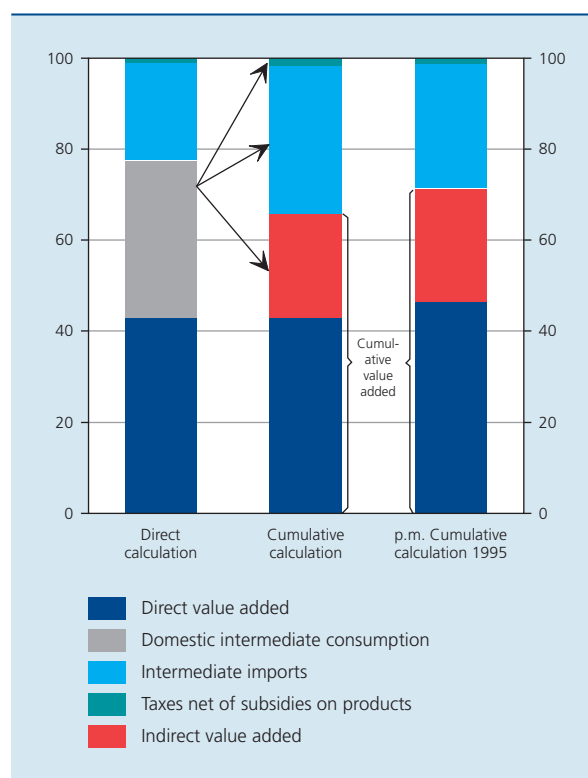
In terms of the importance of the market services multiplier in Belgium, this is borne out in numerous service branches, and cannot therefore be explained by a structural effect. More specifically, it seems that the market service branches in Belgium make relatively greater use of business activities than other economies. Outsourcing of secondary tasks has therefore clearly not been limited to industrial companies. Indeed, whether in terms of output or value added, the business activities branch is more important in Belgium than in other countries in the sample: it accounts for 9.5 p.c. of the economy's value added, a comparable share to that of France and Germany but greater than that of other countries by between 0.8 and 5.5 percentage points.

2.2 Structure of production : value added and imports

Initially, production is primarily divided into intermediate consumption – of domestic origin or imported – and value added, to which must be added the fairly low share of taxes net of subsidies on products. By going back up the chain of suppliers, the value added of each intermediate input produced in Belgium can be extracted, leaving only intermediate consumption, for which the value added can also be extracted, and so on. Overall, the output of a branch will essentially no longer comprise anything other than value added, generated directly by the branch or indirectly through domestic intermediate consumption in the economy as a whole, and intermediate imports.

In 2000, output consisted of 42.9 p.c. value added generated directly, 21.4 p.c. intermediate consumption directly imported, and 34.6 p.c. intermediate consumption produced within the national economy. The changeover to the cumulative approach demonstrates that intermediate consumption of domestic origin is itself made up of value added and intermediate imports. Overall, the Belgian

CHART 6 BREAKDOWN OF THE ECONOMY'S OUTPUT BASED ON THE DIRECT AND CUMULATIVE APPROACHES
(Percentages of total, 2000 figures unless otherwise stated)

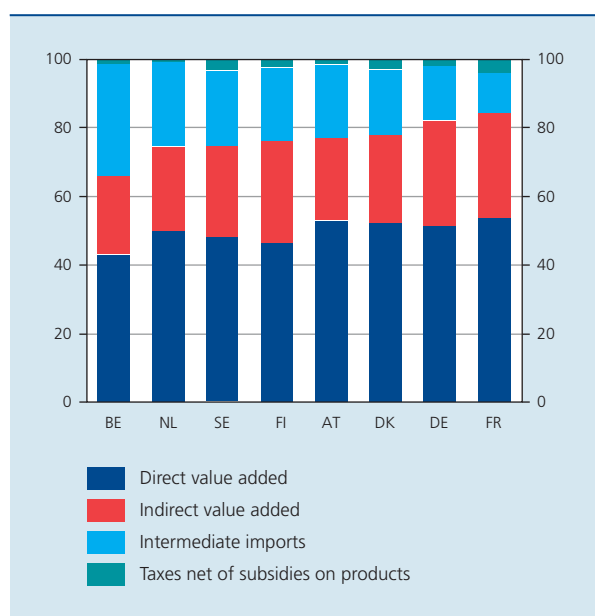


Sources : NAI, NBB calculations.

economy's output therefore includes a 65.8 p.c. value added content, of which a share of 22.9 p.c. comes indirectly from production destined for intermediate consumption, whilst the share of intermediate imports increases to 32.5 p.c. The balance, made up of taxes net of subsidies on products, also increases slightly, from 1.1 to 1.7 p.c.

Between 1995 and 2000, the relative importance of the two major components of production changed significantly, cumulative value added falling more than 5 percentage points to the benefit of intermediate imports. The fall in value added content occurred both at the direct and indirect levels. It thus applies both to activities whose output is primarily aimed at satisfying final demand and activities of intermediate production, which is confirmed by the branch results. This change is partly explained by a price effect, insofar as – over this period – import prices generally rose more rapidly than production prices, because they were affected by the price of oil. A volume effect also seems to have contributed to this, however. This could indicate an underlying trend in the Belgian economy towards an increasing use of imports in the production process.

CHART 7 BREAKDOWN OF THE ECONOMY'S OUTPUT BASED ON THE CUMULATIVE APPROACH: INTERNATIONAL COMPARISON
(Percentages of total, countries classified by ascending share of cumulative value added in output, 2000 figures)



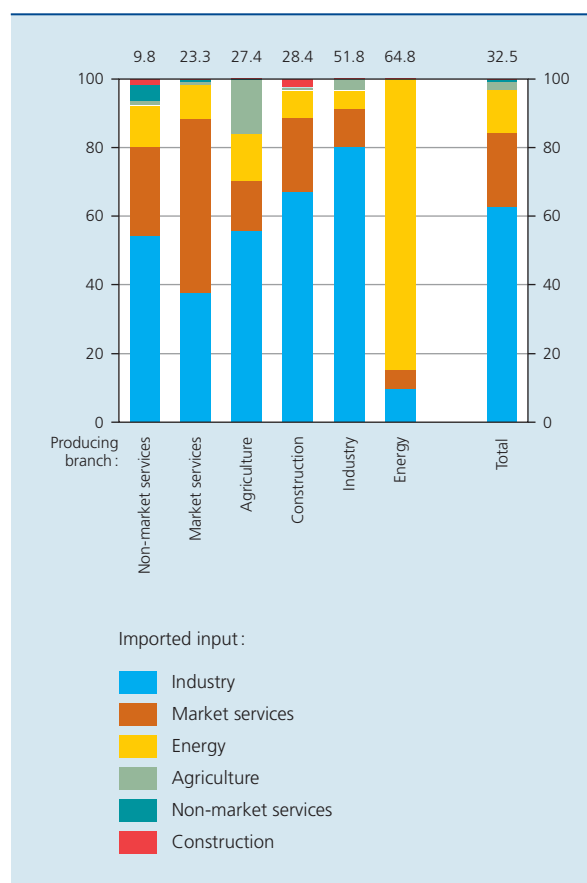
Sources: EC, NAI, NBB calculations.

Overall, compared with the other economies under review, the share of intermediate imports is greatest in Belgium. As a consequence, the value added content is lowest there. This difference emerges particularly with regard to direct value added, for which it ranges from 3.6 to 10.7 percentage points, depending on the country. It seems that this difference in terms of direct value added content is more significant in market services and construction than in industry. In the latter branch, it can be explained in particular by the higher proportion of semi-finished products.

A difference can also be seen in indirect value added, a consequence of the leakages already noted. This difference between Belgium and the other countries ranges from 1.2 to 7.7 percentage points. In this regard, it should be noted that the IOTs, drawn up along geographical lines, only provide an imperfect account of all the interactions that may result from the internationalisation and

CHART 8 NATURE OF CUMULATIVE INTERMEDIATE IMPORTS⁽¹⁾

(Percentages of total, 2000 figures)



Sources: NAI, NBB calculations.

(1) The branches are classified in ascending order, according to the share of all cumulative intermediate imports in output. This share is noted at the top of the chart's columns.

segmentation of production processes. For example, if an intermediate stage of production is undertaken abroad rather than within the domestic economy, it will break the supplier chain within the economy and thus reduce the importance of the second-round effects of value added, even if this stage undertaken abroad itself benefits from intermediate production carried out at home. This would tend to reduce the importance of production multipliers and indirect value added in small economies.

The cumulative approach of IOTs also enables an illustration to be made of the actual importance of imports in satisfying final demand. This manifests itself directly, if imports are used 'as is' for consumption, capital formation or exports. It also appears indirectly, insofar as imported intermediate inputs are used in domestic production aimed at final demand.

With regard to these intermediate imports, they are – in most branches – largely made up of industrial goods. For the economy as a whole, these represent 62.5 p.c. of cumulative intermediate imports. For energy and market services, however, cumulative intermediate imports primarily take the form of their own product, in the former case by virtue of the importation of crude oil for the purposes of refining.

The dependence of market services on intermediate imports is another special feature of the Belgian economy, in addition to the already noted importance of their domestic intermediate consumption in relation to the situation prevailing in other economies. It can thus be

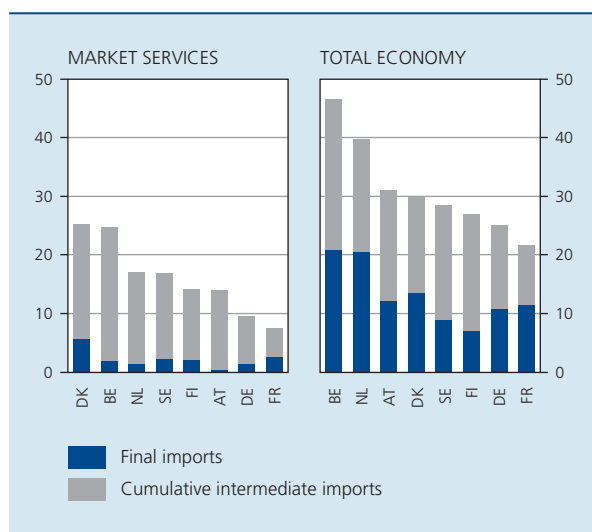
calculated that imports cover almost one quarter of the final demand for market services. Since, by nature, the latter are rarely the object of final imports – less than 3 p.c. in all the countries studied except Denmark –, their dependence on imports is above all determined by the inclusion of intermediate imports in the production process. From this point of view, the figures for Belgium are higher than in the other countries by between 3.2 and 17.9 percentage points. Not counting financial intermediation, which is dealt with in a specific way within the context of the national accounts and the IOTs⁽¹⁾, the output of the transport and IT branches appears more internationalised than in the other countries⁽²⁾. More specifically, a relatively high level of foreign services is included in the water transport and auxiliary transport service branches, due to the use of foreign auxiliary transport services; in air transport, which uses a great deal of foreign production in the form of refined petroleum products and transport equipment⁽³⁾; and in computer services, a branch that in turn purchases foreign IT and business services.

At the level of the economy as a whole, imports are involved in satisfying final demand to the extent of 46.5 p.c., 20.7 p.c. being accounted for by direct satisfaction and 25.8 p.c. by intermediate consumption. This is the highest ratio, followed by the Netherlands with 39.7 p.c.

3. Implications for the cost structure of the economy

The IOTs analysis framework can also be used to examine the cost structure of an economy and can, therefore, provide useful information for the study of price formation and inflation dynamics. Moreover, this type of analysis can also provide information on the relative importance of the different factors which can affect the economy's price competitiveness. In this section, the various stages leading from the production process to the different categories of final expenditures, in order to highlight the cost structure at each level, are examined. Private consumption is analysed in more detail since it corresponds, to a large extent, to the expenditure covered by the Harmonised Index of Consumer Prices (HICP), which is a key variable for the conduct of monetary policy within Monetary Union.

CHART 9 DEPENDENCE OF FINAL DEMAND ON IMPORTS
(Percentages of final demand, 2000 figures)



Sources: EC, NAI, NBB calculations.

(1) In the IOTs, to enable cumulative calculations, Financial Intermediation Services Indirectly Measured (FISIM) are allocated to the intermediate consumption of their producing branch – financial intermediation – although they are not allocated to a particular branch in the national accounts. There is a resulting high but fictitious intermediate consumption on the part of the branch from itself, which inflates the indirect effects of its output in relation to a relatively weak production aimed at final demand. Due to the high value of the FISIM in relation to the output of the branch in Belgium, this methodological constraint has a marked effect on the production multiplier and on the imported share of intermediate consumption of this branch.

(2) Denmark's position is explained exclusively by the extent of imports of auxiliary transport services on the part of the water transport branch.

(3) The 2000 figures used include the activity of Sabena, since bankrupt.

To achieve this, the breakdown of the economy's total output, based on the direct and cumulative approaches already shown in Chart 6, is used. Here the breakdown is extended to include the different elements of value added, that is compensation of employees, gross operating surplus and gross mixed income⁽¹⁾ and taxes net of subsidies on production⁽²⁾. In addition, the breakdown of the cost structure is presented for the six main branches of activity.

3.1 Cost structure of the six main branches of activity

Whilst a direct approach provides an overview of the cost structure as observed at individual company level, the cumulative approach reflects the importance of each type of cost from the macroeconomic standpoint. At individual company level, the purchase of intermediate inputs is considered to be a cost external to the business in question. From the macroeconomic point of view, it is only partly an external cost for the economy as a whole, to the extent that the production process for intermediate inputs relies not only on imports but also on domestic inputs. This is why the cumulative approach of the cost structure is more relevant for macroeconomic analysis.

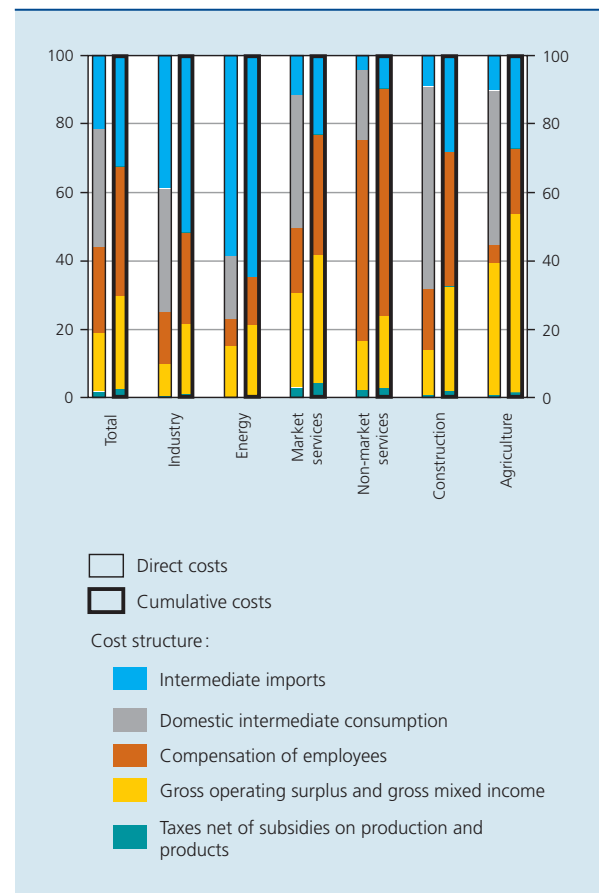
Logically, moving from a direct approach to a cumulative approach not only increases the share of intermediate imports and that of domestic value added, as shown in Chart 6, but also the importance of each component of this value added. Therefore, for the economy as a whole, the share of compensation of employees rises from 25 p.c. with the direct approach to 38 p.c. with the cumulative approach, whilst the share of gross operating surplus and gross mixed income increases from 17 p.c. to 27 p.c. The amount of taxes net of subsidies on production and products also increases in the cumulative approach but remains very small all the same.

Overall, based on the cumulative approach, for the economy as a whole, the costs linked to intermediate imports represent approximately one third of all costs, wages a little more than one third, whilst the balance reflects mainly the importance of the gross operating surplus and gross mixed income as well as the small share of taxes net of subsidies on production and products.

(1) In the case of self-employed workers, it is not always possible to distinguish between the "profit" made as an entrepreneur and the compensation for the work carried out by the owner or members of his family; this is why the term mixed income is used.

(2) For the purposes of simplicity and clarity, taxes net of subsidies on production – which account for one element of value added – were classified with taxes net of subsidies on products.

CHART 10 COST STRUCTURE OF THE ECONOMY⁽¹⁾
(Percentages)



Sources: NAI, NBB calculations.
(1) At basic prices, excluding final imports.

Large disparities can be observed from one branch to another, in terms of the extent of the changes to which a move from a direct approach to an indirect approach gives rise as well as in terms of the cost structure based on the latter approach.

The increase in the importance of wages and gross operating surplus and gross mixed income between the two approaches is most pronounced in the branches where the production multiplier is high, particularly in construction and agriculture. In these two sectors, moreover, the gross operating surplus and gross mixed income are more significant than in the economy as a whole. This share comes to 52 p.c. in agriculture and 28 p.c. in construction, which primarily reflects the relative importance of self-employed workers in these sectors. As for wages, their share is highest (66 p.c.) in non-market services. In market services and construction, wages account for 35 p.c. and 39 p.c. respectively of overall production costs.

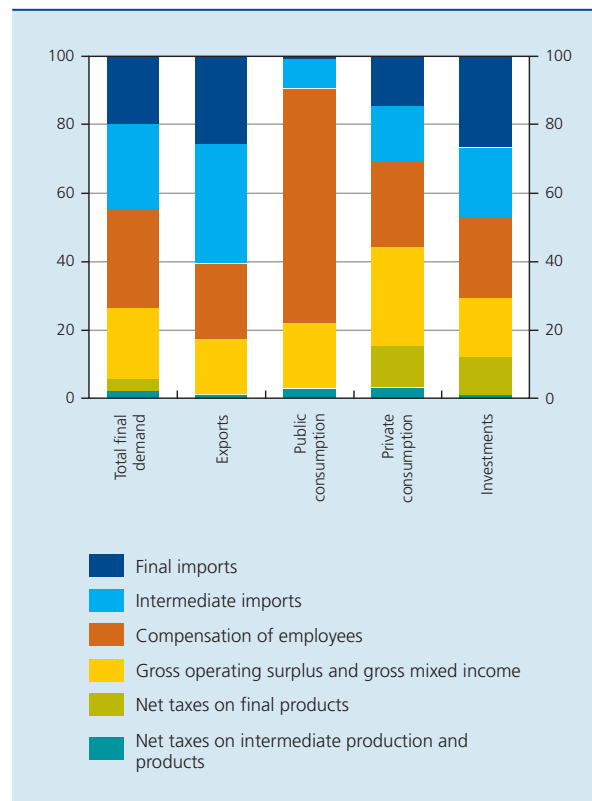
In industry, which is undoubtedly the branch most exposed to international competition⁽¹⁾, the share of wages is relatively small with a direct approach (15 p.c.). On the basis of this assessment, wage moderation as a factor capable of safeguarding competitiveness is sometimes regarded as unimportant at individual company level. However, in addition to the wages paid by the company itself, the selling price of the industrial production is affected by Belgian wages paid during the production phase of intermediate domestic inputs. According to the cumulative approach, which also takes account of this externality, the share of wages almost doubles to 27 p.c. The reason for this is not only the inclusion of wages paid for the production of the intermediate inputs of the industry itself but also the wages paid in other branches, particularly market services. The fact that, overall, the share of wages in industry remains lower than that observed in most other branches is explained by industry's heavy reliance on intermediate imports (see also Chart 8)⁽²⁾.

A simplistic view of the facts, which does not take account of the interactions between companies and sectors, not only underestimates the importance of wages but may also imply a risk that certain decentralised decisions – for example those resulting from wage negotiations confined to individual company level or sector level – fall short of what is required from the macroeconomic point of view. This would particularly be the case if the decentralised decisions were taken within an environment marked by a lack of competitiveness. According to a number of studies⁽³⁾, this type of argument justifies a centralised approach to wage negotiations under certain circumstances, precisely because at this level some externalities, as described above, can be internalised. However, this argument does not obviate the need for a degree of flexibility, which allows the development of wages to be adapted to the specific conditions of certain companies or sectors.

3.2 Cost structure of the different categories of final expenditure

The cumulative cost structure can also be analysed on the basis of the different components of final demand. At the most detailed level, there is no difference in cumulative cost structure according to type of final demand, that is, according to the use made of a product at the final stage. In fact, for a particular product, the share of intermediate imports and components of value added required for the production process is identical, whether the product is consumed by a household or exported, for example. However, the relative share of the different products may vary considerably according to categories of expenditure.

CHART 11 CUMULATIVE COST STRUCTURE OF FINAL DEMAND AND ITS COMPONENTS⁽¹⁾
(Percentages)



Sources: NAI, NBB calculations.

(1) At purchasers' prices, including final imports.

Consequently, when the cost structures at product level are aggregated, differences do appear. This is the case, for example, if a product requiring many intermediate imports is exported more than it is consumed: all things being equal, however, the share of intermediate imports in exports will be higher than that observed for private consumption.

In order to obtain a complete overview of the cost structure of final demand, final imports must also be taken into account, that is imports which are not used in the production process but which satisfy final demand directly, by being directly consumed, invested or exported⁽⁴⁾.

Moreover, the taxes on final products – net of subsidies –, should be included, whilst only taxes on intermediate production and products have been taken into account at this stage. These taxes, which correspond essentially to VAT and

(1) Cf. Aucremanne and Druant (2004).

(2) For the same reason, the share of wages only comes to 14 p.c. in the overall production costs of the energy branch.

(3) For example Calmfors and Driffill (1988) and Calmfors (1993).

(4) These final imports are not taken into account in Chart 10, insofar as it relates primarily to the domestic production process. However, in Chart 9, final imports and intermediate imports are added together to measure the (total) dependence of final demand with regard to imports.

excise duties, are substantial, above all, for household consumption and investments, where they amount to 12 p.c. and 11 p.c. of costs, respectively. Exports, on the other hand, are exempt from VAT in the exporting country, given that they are taxed in the importing country. Once these taxes have been taken into account, the cost structure of final demand, evaluated at purchasers' prices, is obtained.

Final imports represent 20 p.c. of total final demand, which is added to the 25 p.c. of intermediate imports. Final imports are primarily important for investments (27 p.c.) and exports (26 p.c.) and, to a lesser extent, household consumption (15 p.c.). In the case of exports, which is the component of final demand which relies most on imports, with 61 p.c. of costs, these final imports correspond to re-exports, that is, final products imported by residents for direct export without processing⁽¹⁾. Public consumption, for its part, hardly ever relies on final imports and contains only a small proportion of intermediate imports.

The share of compensation of employees, ranging from 22 p.c. to 25 p.c. for exports, household consumption and investments is lower than the average for the whole of final demand which, at 29 p.c., is influenced to a very large extent by public consumption, where wages represent 68 p.c. of costs. Furthermore, it can be seen that the structure of public consumption is logically very similar to that of non-market services described above. For its part, the structure of exports is fairly close to the structure of the industry branch, at least if final imports are disregarded.

The gross operating surplus and gross mixed income are highest in household consumption where they account for 29 p.c. of the total, partly owing to the presence of imputed rent in this cost category (cf. below) and partly because a fair number of goods and services consumed by households are supplied by self-employed workers, whose income is included in the gross mixed income. For the other three categories of final expenditure, the share of the gross operating surplus and gross mixed income ranges from 16 p.c. (exports) to 19 p.c. (public consumption).

(1) Therefore, it does not relate to goods in pure "transit" which are excluded from the national accounts and IOTs. Goods are considered to be in transit when they are imported by non-residents and re-exported without the intervention of a resident.

(2) The cost structure of the margins is as follows: 38 p.c. wages, 26 p.c. imports and 35 p.c. other costs.

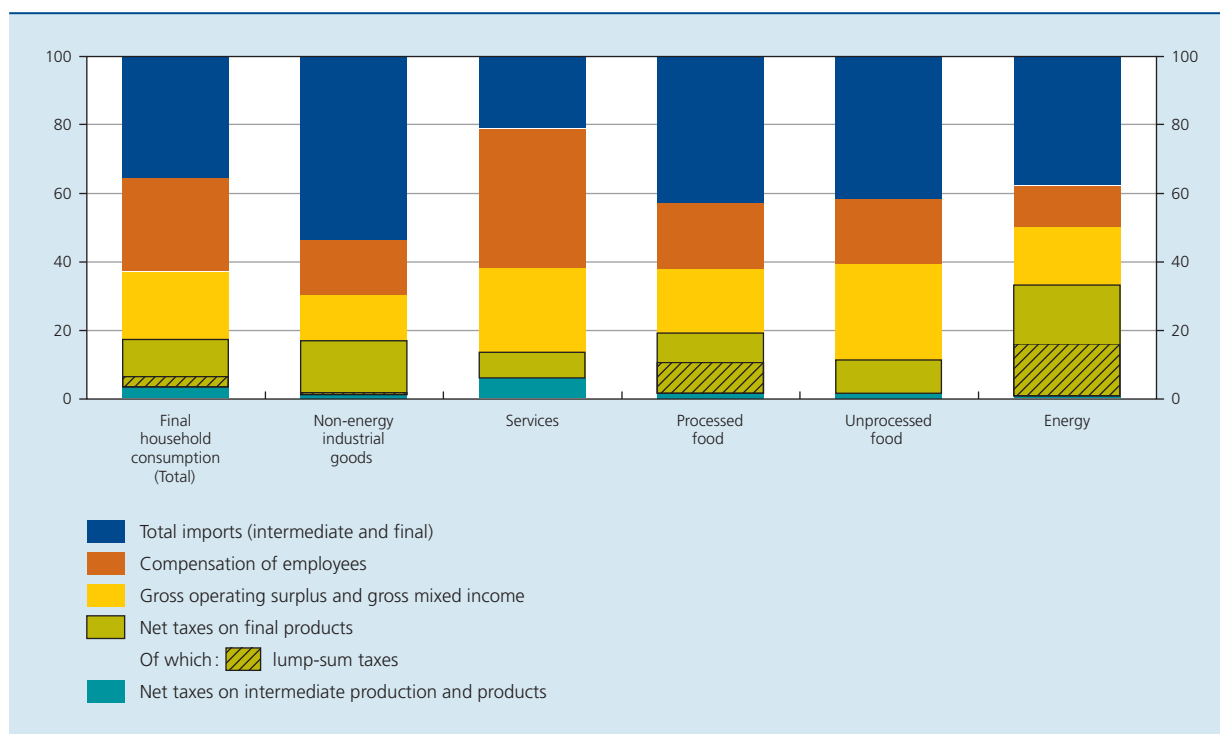
3.3 Cost structure of the different categories of final household consumption

The cost structure of final household consumption is particularly interesting in the context of inflation analysis, which is traditionally centred on the HICP. The link between the cost structure of household consumption in accordance with the national accounts and the HICP is not immediate, however, insofar as the expenditure coverage is not entirely identical. The main difference is that the imputed rent expenditure is included in the IOTs – as in the national accounts – whilst it is excluded from the HICP. In order to ensure a better correspondence with the HICP below, imputed rents have been excluded from the analysis at this stage. The consequence of this adjustment is an increase in the share of imports in household consumption since the exclusion of imputed rents, which do not involve imports, has the effect of increasing the relative importance of the other products in consumption, whose import content is higher.

Moreover, final household consumption was divided in accordance with the five main components on the basis of which inflation is often analysed, that is: non-energy industrial goods, services, processed food, unprocessed food and energy. Given the classification differences and degree of detail available, different assumptions were necessary to obtain this breakdown. It is therefore not perfect, particularly with regard to the categories of processed and unprocessed food. Other assumptions were also required in order to obtain an evaluation of the cost structure at purchasers' prices for each component. In fact, within the framework of the IOTs, the trade and transport margins for all the products are allocated to the corresponding service branches. The cost structure of the other products is evaluated excluding margins. However, in the HICP, the margins are included implicitly in the prices of the different products. Consequently, in order to ensure a comparison, it is necessary to reallocate the margins to the different products. This has no effect at the level of overall household consumption since only the breakdown of the five major categories is concerned. In practice, this means that part of the output of services – which corresponds to the margins – is reallocated to the other categories.

The presence of margins as part of the costs for industrial goods consumed by households alters the initial cumulative cost structure of these goods (ex factory); the shares of wages and gross operating surplus are increased since they represent a larger share of the costs in the margins⁽²⁾ than in the industrial goods excluding margins. Therefore, the apparent or "direct" cost structure is modified first by the production process itself, via cumulative costs,

CHART 12 CUMULATIVE COST STRUCTURE OF FINAL HOUSEHOLD CONSUMPTION⁽¹⁾
(Percentages)



Sources: NAI, NBB calculations.

(1) At purchasers' prices, including final imports. Data excluding imputed rents.

then by the distribution process where the cumulative costs of commercial and transport services also arise.

What emerges is that imports represent nearly 36 p.c. of the costs of total final household consumption. Compensation of employees represents 27 p.c., the gross surplus 20 p.c. and net taxes 17 p.c. With regard to the major components, non-energy industrial goods and energy remain the two categories for which the share of wages in the costs – 16 p.c. and 12 p.c. respectively – is the lowest. Non-energy industrial goods are also the most dependent category with regard to imports, which represent 54 p.c. of total costs, whilst for energy, imports represent only 38 p.c., that is less than for processed and unprocessed food for which the share of imports is 43 p.c. and 42 p.c. respectively. It should be remembered that energy mainly comprises the electricity sector which relies particularly on primary domestic inputs such as labour and capital. The weighting of electricity in household consumption – which is greater than for total final demand – also plays a part. Moreover, taxes on energy are particularly high. These amount to 33 p.c. of the costs, a little less than half of which is accounted for by lump-sum taxes such as excise duties or the energy contribution.

Unlike energy, it is in service costs that the share of taxes is lowest, at 13 p.c. of the total. This is mainly due to the fact that certain services are taxed very little or not at all and some are even subsidised, as is the case of rail transport, for example. This is also the sector which relies least on imports, with 21 p.c., and where the share of wages is highest, i.e. 41 p.c. Finally, the proportion of taxes is higher than the average for processed food mainly due to the inclusion in this category of tobacco and alcoholic beverages, which are more heavily taxed, above all in the form of lump-sum taxes.

Conclusion

This article has analysed the IOTs for the year 2000 which have recently been published by the NAI and, more particularly, examined what they reveal in terms of sectoral interdependences, on the one hand, and cost structure of the Belgian economy on the other. Owing to their level of detail, the IOTs are published every five years with a considerable time-lag in relation to the annual national accounts. This means that the observations made in this article could already be outdated to a certain extent.

Therefore, it is appropriate to be cautious in the interpretation of the results.

Moreover, the IOTs are drawn up at current prices, so that they can be influenced by certain significant price developments. Besides, these tables are entirely static in nature. They only reflect the economic situation at a given moment, in this case the year 2000, and as such do not provide information on the dynamic of the different interactions at work in the economy. With regard to the calculation of the cumulative effects, for example, the implicit assumption is that they are obtained immediately whereas, in fact, there may be a considerable time-lag before all the second-round effects arising from a shock are felt.

Moreover, to calculate these cumulative effects it is assumed that the structure of the economy remains unchanged. Thus, a mechanical exercise based on the IOTs and which attempts to study the incidence of an increase in wages, for example, will inevitably conclude that the level of prices undergoes a corresponding rise pro rata to the cumulative share of wages in the cost structure. Irrespective of the fact that such an effect can only be achieved in the long term, such an exercise disregards the fact that, owing to the rise in the cost of domestic production, reliance on imports will be greater and there will be a partial substitution of capital for labour. The greater the possibilities of substitution, the further removed the cumulative effects calculated on the basis of the IOTs will be from the actual incidence of a shock.

Nevertheless, the IOTs provide unique and interesting information for those wishing to highlight specific structural characteristics of the economy or analyse the cost structure.

A calculation of the cumulative effects of intermediate consumption of the branches of activity takes account of all the interdependences existing between them and offers a comprehensive overview of the actual importance of each one in the economy. Thus, it appears that, on average for the different branches of activity, one euro of production intended to satisfy final demand gives rise to 61 additional cents of intermediate production in the economy. These multiplier effects are greatest in construction. All branches rely to a large extent on the provision of market services, mainly in the form of secondary administrative or support tasks, commercial or transport activities. This is particularly true for industry, the output of which involved the indirect employment of some 268,000 workers in market services in 2000, which is nearly one sixth of total employment in this branch. Between 1995 and 2000, the employment observed in the industrial sectors

decreased by 20,000 units, yet at the same time industrial activity generated 54,000 jobs in the market services sector. The intensification of the interrelations between these two branches over time also makes it possible to put into perspective and qualify the deindustrialisation of the economy.

The outsourcing of secondary activities to support services is not unique to industry. It seems to be particularly well developed in Belgium, including in market services themselves. The companies operating in this sector rely on other companies for the provision of specialist services more so than in the other European countries; they also make extensive use of foreign service providers. In general, the significant dependence of the national production process on intermediate imports – a feature of small open economies – contributes to reducing the second-round effects arising from the activity in the creation of value added. Aside from this lower indirect effect, the output of the Belgian economy includes a relatively small direct content in value added compared with other European countries.

With regard to the cost structure of the economy, mention has first been made of its high dependence on imported goods and services. A share of around 45 p.c. of total final expenditure consists of imports. Imports figure particularly prominently in the structure of exports, but more than one third of household consumption considered in the HICP is also made up of imports. In the past, it was precisely this heavy dependence on products from abroad which determined the conduct of a monetary policy centred on the stability of the exchange rate against the German mark. The launch of Monetary Union extended and spread this irrevocably to the other Member States, by eliminating exchange rate fluctuations between them.

Owing to this heavy dependence on products from abroad, the components of domestic value added, i.e. the compensation of employees, gross operating surplus and gross mixed income, are fairly modest in scale. This is particularly true if, taking a partial view, the purchase of all the intermediate inputs is considered to be a specific cost. Nevertheless, if allowance is made of the fact that these intermediate inputs involve some degree of domestic value added, the cumulative shares of employees' compensation and other components of value added increase significantly. Therefore, wages represent a little over one third of the total production cost for the economy as a whole. This share is largest in non-market services and smallest in energy production. In industry, the cumulative cost of labour accounts for 27 p.c. of the total cost of production. From the perspective of the different components of final expenditure, inclusion of final imports,

on the one hand, and VAT and lump-sum taxes, on the other, further reduces the share of wages. This represents approximately one quarter of the total costs relating to household consumption included in the HICP. This share is highest for services included in the HICP and lowest for non-energy industrial goods and energy. Moreover, indirect taxes constitute, on average, around 17 p.c. of the consumer price.

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Annex 1

CATEGORIES OF BRANCHES OF ACTIVITY BASED ON THE NACE-BEL A60 NOMENCLATURE

Category	NACE Codes	Branches of activity
Agriculture	01-05	Agriculture, forestry and fishing
Energy	10-12 23 40-41	Mining and quarrying of energy producing materials Coke, refined petroleum products and nuclear fuel Electricity, gas and water supply
Industry	13-14 15-37 (except 23)	Mining and quarrying, except of energy producing materials Total manufacturing (excluding refined petroleum products)
Construction	45	Construction
Market services	50-74	Wholesale and retail trade, hotels and restaurants Transport and communication Financial intermediation Real estate, renting and business activities
Non-market services	75-99	Public administration Education Health and social work Other community, social, personal and domestic services

The US current account deficit: how did it come about and what are the policy implications

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S. Ide
H. Zimmer⁽¹⁾

Introduction

One of the most remarkable characteristics of the world economy today is the enormous, ever worsening deficit on the current account of the US balance of payments, accompanied by the consistent accumulation of surpluses in most other regions of the world⁽²⁾. The largest economy and main military and geopolitical superpower has therefore also become the world's biggest debtor. This has given rise to concerns in academic and political circles regarding the sustainability of the current situation and the potential risks for the global economy of a sudden, disorderly adjustment. For several years now, this issue has been at the top of the agenda in international forums such as the G7 or G20 meetings and it featured as a discussion point at many scientific colloquiums.

The first part of this article outlines the current situation and examines whether it can be considered exceptional historically and from an international perspective. In the second part, the main focus is on how the US current account deficit came about and how it is financed. Part three examines the issue of the sustainability of the deficit. Particular attention is paid to the special status of the US economy and its currency, the dollar, on the global markets. Finally, part four discusses a number of scenarios that may help bring about an improvement.

1. Is the current imbalance exceptional?

1.1 The current account

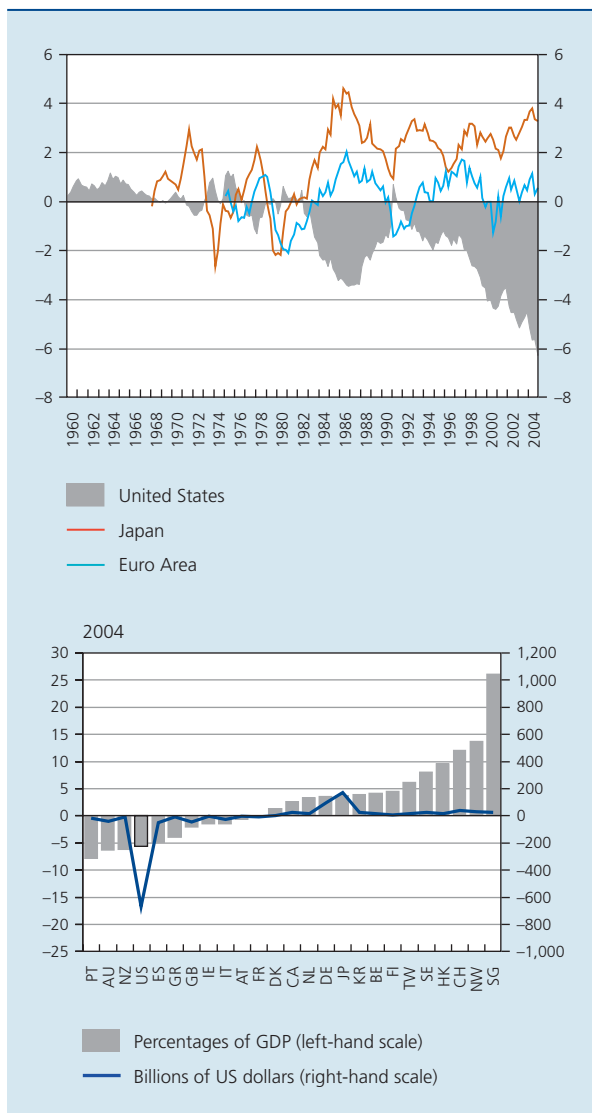
In 2004, the US current account deficit reached 5.7 p.c. of GDP, the largest deficit since 1960. In the sixties and seventies, the country was generally still generating surpluses, but this changed in 1982, when the US current account started to record rapidly worsening deficits, which provisionally peaked at 3.4 p.c. of GDP in 1987. Thanks to the implementation of various measures to which the American, European and Japanese authorities committed, in the "Louvre Agreement" in 1987, the deficit then declined continuously and actually turned into a small surplus by the first half of 1991 which was however partly due to the official transfers made by a number of foreign governments by way of a contribution to the costs of the first Gulf War. From then on, the deficit rose virtually uninterruptedly and, by the end of 1999, it exceeded the record level reached in the mid-1980s.

(1) The authors would like to thank K. Burggraeve for his contribution.

(2) The current account of the balance of payments of a country records the transactions of goods and services, receipts and payments of income, as well as transfers between residents and non-residents over a particular period of time. From a macroeconomic point of view, the current account balance equals the total financial balance of the economy. A current account deficit therefore reflects to what extent a country resorts to foreign savings and implies an increase in the net debt or a reduction in net claims towards foreign countries.

CHART 1 CURRENT ACCOUNT IN SELECTED ECONOMIES

(Balances in percentages of GDP, unless otherwise stated)



Sources : Federal Reserve, IMF, OECD.

The size of the US current account deficit is not only unprecedented in US post-war history, but it also seems to be rather exceptional from an international perspective. In 2004, of all the developed economies, only Portugal, Australia and New Zealand had a comparable deficit as a percentage of GDP. However, the US economy is the world's largest, so that the deficit in absolute terms reaches more than 600 billion dollars, while Australia's deficit for example amounts to only 39 billion dollars. Furthermore, the US dollar plays a prominent role on global financial markets. As a result of both these aspects, even a huge adjustment of the external deficit of a smaller economy would have less of an effect on the global economy and the international

financial system than a more moderate adjustment in the US current account deficit.

Historically too, the persistently large US current account deficit is remarkable. For instance, the International Monetary Fund⁽¹⁾ (IMF) came to the conclusion, based on a review of the existing literature, complemented by its own research, that current account deficits of over 4 p.c. of GDP for three consecutive years were fairly rare, and that they were limited to comparatively small open economies. Three years of large deficits are usually followed by three years of improvement by 2 p.c. of GDP. This is often accompanied by a significant depreciation in real terms of the currency involved, as well as slower growth. The Bank for International Settlements⁽²⁾ (BIS) reaches similar conclusions, both with regard to the threshold value from which an improvement occurs and the channels through which adjustments can be made.

Finally, the current situation is also exceptional in geographical terms. The US current account deficit finds its counterpart in the current account surpluses of other countries. Although current accounts already displayed marked imbalances in the eighties, the global dimension was rather limited at the time: the imbalances were mainly concentrated in the United States, on the one hand, and Japan and the main European economies, particularly Germany, on the other. Until 1987, the US deficit widened virtually in line with the increase in the surpluses in Japan and Europe, followed by a trend reversal during the remainder of the decade. From the mid-1990s, however, the US deficit finds its counterpart in the surpluses in virtually every other region⁽³⁾ and the problem has consequently taken on a global dimension.

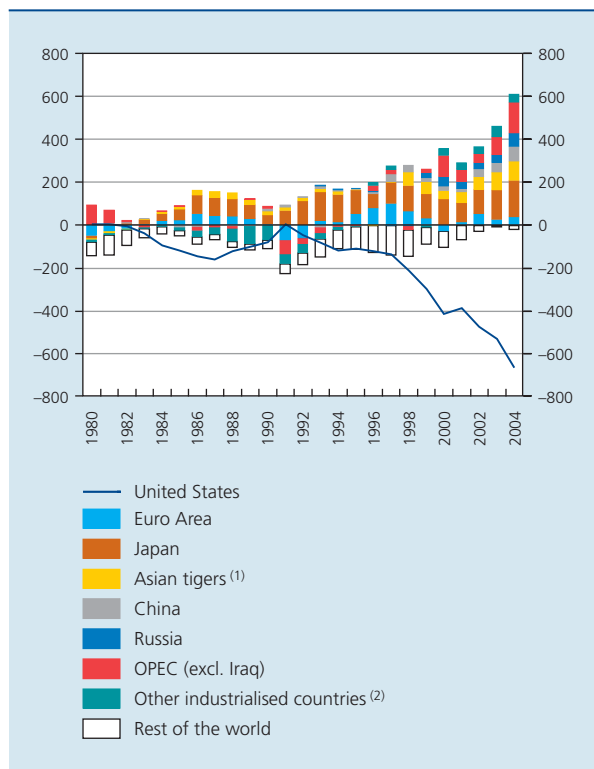
The United States, the euro area and Japan continue to play a major role in world trade. However, an increasing number of emerging economies, particularly in Asia, are becoming more and more important. The four so-called Asian tigers already recorded an appreciable current account surplus in the eighties. Since the end of the 1990s, after an interruption during the Asia crisis, their role has once again been increasingly gaining in importance. China made its entry on the world market in the mid-1990s and its trade surplus has greatly contributed to the Asian surplus over recent years. As far as the other regions are concerned, the OPEC cartel, like Russia, recorded a substantial surplus in the last few years owing to rising oil prices.

(1) IMF (2002).

(2) BIS (2004).

(3) In this respect, it should be noted that the statistics for the global economy show an overall deficit, whereas in principle, the figures for all the countries in the world added together should be in balance. As a result of the scale of gross flows recorded in the balances of payments, these statistics often contain errors.

CHART 2 GLOBAL IMBALANCES
(Current account balances in billions of dollars)



Source: IMF.

(1) Hong Kong, Singapore, Taiwan and South Korea.

(2) Australia, Canada, Denmark, New Zealand, Norway, United Kingdom, Sweden and Switzerland.

1.2 The net international investment position

As a consequence of the persistent and steadily widening current account deficit in the US balance of payments, the country's international investment position, i.e. the balance of its outstanding assets and liabilities vis-à-vis foreign countries, has deteriorated sharply. Hence, the American net external asset position at the end of the eighties turned into a net external debt position which has worsened dramatically since the mid-1990s, from 4.1 p.c. of GDP in 1995 to 24.1 p.c. of GDP in 2003.

At first sight, this does not seem exceptional. In several countries, for example Australia and New Zealand, the net external debt position as a percentage of GDP is much worse. However, of all the developed countries for which figures are available, US net debt, in billions of dollars, is about 50 p.c. higher than that of all the other net debtor countries combined.

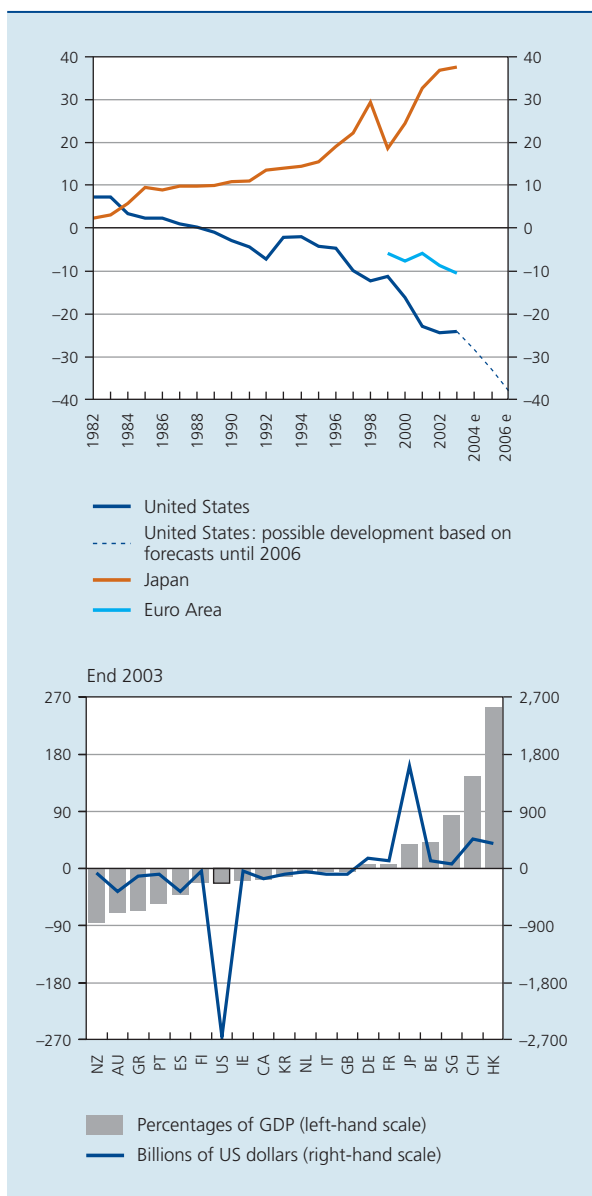
Based on data from economic forecasts made by the OECD for 2005 and 2006, there is also the possibility that the US net external debt position may actually continue to worsen substantially. Based on a mechanical accumulation of the expected current account deficits, the US net external debt would continue to rise sharply, from around 24 p.c. of GDP in 2003 to almost 38 p.c. of GDP in 2006 or, in billions of dollars, from 2650 to around 5000.

However, this simple calculation does not take into account the so-called valuation effects which may substantially slow down or stimulate the increase of the net debt. Hence it is noteworthy that the net investment position of the United States as a percentage of GDP barely worsened in 2002 and 2003, despite the huge and still growing current account deficit recorded during that period. The additional external debt caused by the US current account deficit (quantitative effect) was in effect largely offset by the positive effect of the depreciation of the US dollar (valuation effect). The depreciation of the dollar actually increased the value of the assets, mostly held in foreign currencies, of the United States vis-à-vis the rest of the world, whereas US liabilities were largely held in dollars, in view of the status of the dollar as an international currency.

Anticipating future valuation effects can be difficult since they mainly depend on developments in the dollar exchange rate which are very uncertain. Furthermore, the importance of the valuation effects should not be overestimated, since they are likely to imply "reputation costs" sooner or later. Repeated currency depreciations can after all prompt foreign dollar investors to call for higher interest rates, which may worsen the net debt position due to the negative impact on the income and current account. The current account therefore remains the main channel through which the international investment position of the United States can be improved.

Despite the substantial increase in net debt, net factor incomes have so far remained positive in the United States, and here, investment income is by far the most important factor, rather than labour income. The United States are indeed a net recipient of income from foreign direct investments (FDI) and from investments in equities, whereas it is a net payer of interest on debt instruments (largely interest payments on US government bonds). Although the combined outstanding net position of the United States in FDI and investments in equities over recent years deteriorated sharply and the outstanding net debt in the form of debt instruments grew substantially – to around 28 p.c. of US GDP in 2003 –, the income from FDI and investments in equities still exceeds interest

CHART 3 NET INTERNATIONAL INVESTMENT POSITION IN SELECTED ECONOMIES
(Percentages of GDP, unless otherwise stated)



Sources: BEA, ECB, IMF, OECD, NBB.

payments on debt instruments, since the implicit return on the external assets held by the United States is higher than that on its external liabilities. On the one hand, the average return of the FDI in the United States turns out to be significantly lower than that of the American FDI in the rest of the world. On the other hand, the return on US debt instruments has been relatively low for some time – putting downward pressure on interest payments –, although it is comparable to the return on foreign debt instruments held by US residents.

That does not alter the fact that net factor incomes, as a percentage of GDP, have been on a downward trend over the years, and that they were barely positive in 2004. In its economic forecasts, the OECD estimates that this balance will turn into a small deficit in 2005, increasing to 0.2 p.c. of GDP in 2006. This would mean that the United States would be a net payer of factor income for the first time in almost a century.

2. Underlying macroeconomic trends

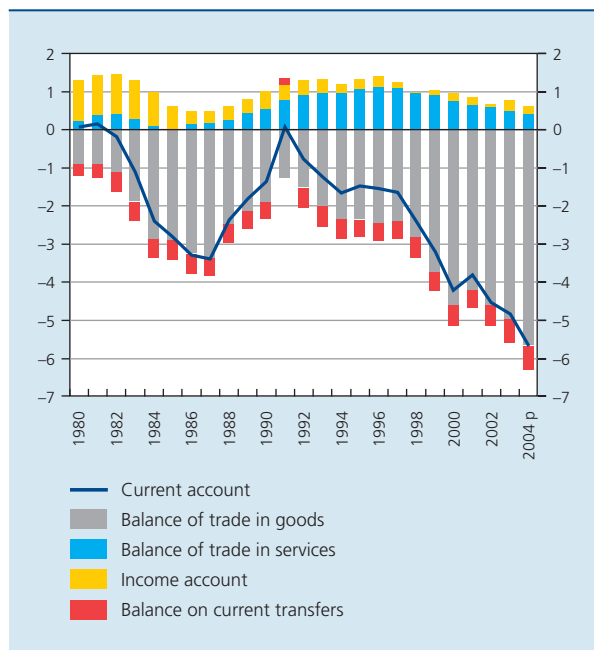
Below, we take a closer look at the macroeconomic factors underlying the US current account deficit that determined the trend and that may play a key role in future developments. In view of the macroeconomic links between an economy's external and internal balances (the current account of the balance of payments and the saving-investment balance) and between the current account deficit and the way it is financed, the issue can be approached from different complementary viewpoints.

2.1 Approach from the trade flows perspective

The increase in the US balance of payments' current account deficit in the nineties can almost entirely be explained by a deterioration in the balance of trade in goods, which recorded a rapidly widening deficit. Likewise, the surpluses in the balance of trade in services and in the income account have declined slightly over the last few years. By contrast, the balance on current transfers recorded a persistent but stable deficit, expressed as a percentage of GDP.

In geographical terms, the growing deficit in the balance of trade in goods can be traced back to, on the one hand, a large and widening trade deficit with the traditional trade partners Europe and Japan, and on the other, the increasing deficit with a number of new players on world markets, particularly China. It is often claimed that the substantially faster US economic growth, particularly during the second half of the nineties, is a possible reason for the persistently large trade deficit with Europe and Japan. Furthermore, the US economy is characterised by asymmetric income elasticities for exports and imports. Even if the US economy were to grow only as fast as that of the euro area or Japan, the US trade deficit would still worsen because American consumers seem to have more of a preference for foreign goods and services than foreign consumers do for American goods and services. The aforementioned asymmetry was first observed in 1969 by Houthakker and Magee; in economic literature, it is often referred to as the so-called "Houthakker-Magee Income Asymmetry

CHART 4 THE US CURRENT ACCOUNT: MAIN BALANCES
(Percentages of GDP)



Source : BEA.

Hypothesis". Finally, the sharp appreciation of the dollar recorded between mid-1995 and the end of 2001 can be assumed to have had a lagged effect. In real effective terms, the US currency rose in value by around 40 p.c.

Apart from Europe and Japan, the deficit also worsened with regard to China and, to a lesser extent, with Latin America. In 2004, the trade deficit with China already amounted to nearly a quarter of the total deficit in the balance of trade in goods. The growing importance of China in US trade relations is broadly indicative of the fact that part of the regional production chain in Asia has shifted from Japan and South Korea, among others, to China. Furthermore, the importance of American FDI in China has increased, i.e. within the sectors exporting to the United States.

2.2 Approach from the savings and investments perspective

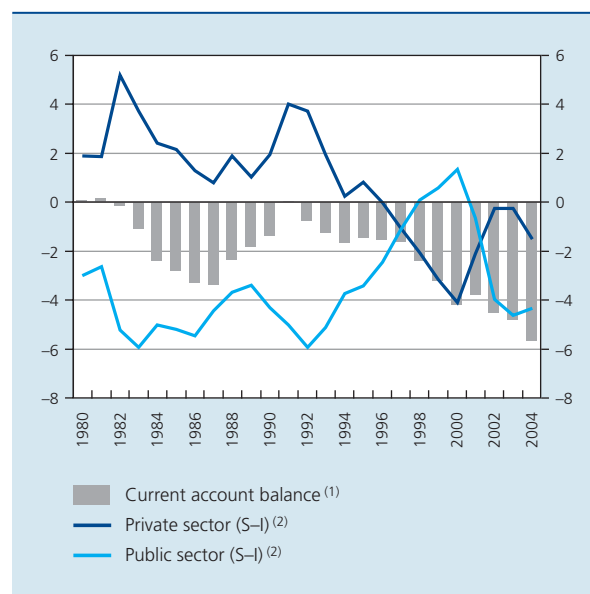
The current account balance can also be seen in terms of the difference between savings and investments in an economy, since, from an accounting point of view, that difference can be shown to be equal to the current account balance. In the nineties, the United States' growing need for foreign financing coincided with a sharp

decline in the domestic savings surplus in the private sector. Towards the mid-1990s, the surplus even turned into a deficit, which continued to widen until the year 2000. Although the government gradually dissaved less, it could not prevent the total financing deficit of the US economy from increasing. At that time, the underlying macroeconomic conditions differed substantially from those of the eighties, when the US economy was characterised by a so-called "twin deficit", i.e. a current account deficit and a budget deficit.

The increase in the private financing requirement during the nineties stemmed largely from an acceleration in investment expenditure. It all took place against a background of sustained strong productivity growth in the United States, which was generally thought to be associated with the rise of the internet and the rapid integration of new technological developments in IT and telecommunications in the production process, an important aspect of what then became known as the "new economy". Simultaneously, private savings fell, which was partly related to the improved wealth position of households, particularly as a result of rising equity prices.

However, since the start of the new millennium, the macroeconomic conditions underlying the rising external financing requirement of the United States have changed.

CHART 5 US CURRENT ACCOUNT AND SAVING-INVESTMENT BALANCE
(Percentages of GDP)



Source : BEA.

(1) For statistical reasons, the current account balance and the total financing balance show a discrepancy.

(2) S-I stands for the difference between savings and investments within a sector.

Investments in the US economy dropped sharply during 2001-2002, once the technology bubble had burst. Thereafter, investments gradually picked up again, but they were initially targeted at housing and at sectors of non-tradable commodities. This development is not unimportant. As a rule, those sectors contribute little to the export performance of an economy and such investments therefore do very little to improve the capacity of the US economy to repay its foreign debt. As for private savings, these were up slightly thanks to companies trying to improve their balance sheets, whereas the savings ratio of households continued to decline. Overall, the saving-investment balance of the private sector was more or less in equilibrium in 2002 and 2003. Tax cuts and an increase in public spending, including on defence, however rapidly wiped out the surplus in the public finances thus leading to a large deficit, which resulted in a return to the “twin deficit”. Finally, in 2004, corporate investments picked up strongly, tipping the saving-investment balance of the private sector into the red as well.

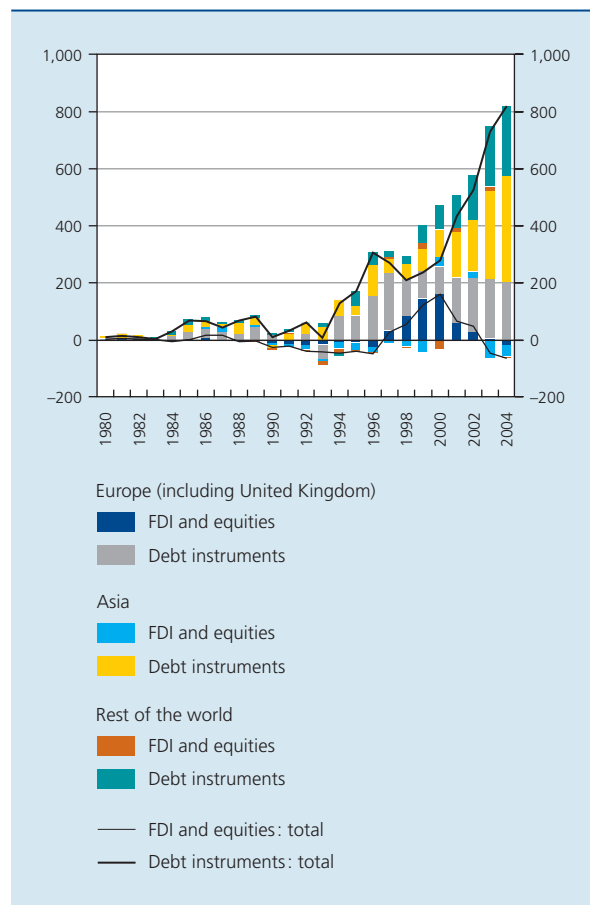
2.3 Approach from the capital flows perspective

From the mid-1990s, the increase in the current account deficit in the US balance of payments was accompanied by a number of noteworthy changes affecting the course of capital flows, both from an investment instruments perspective and in terms of their origin. Overall, from 2001 onwards a significant inflow of private FDI and investments in equities from Europe made way for investments by Asian public sector investors in US government debt instruments.

From the mid-1990s until 2000, capital flows mainly originated from European (private) investors. Originally, these were investments in debt instruments, which was partly due to the positive interest rate differential compared with the euro area during a large part of that period; in the context of the strong productivity growth achieved by the US economy, capital inflows also took on the form of FDI and investments in equities from 1997 onwards. Other factors that may have played a role in generating those capital flows, apart from the anticipated higher returns, are the relatively liquid US financial markets, a shift in the currency composition of portfolios, more particularly in the run-up to EMU, and a relaxation of legislation, for example regarding foreign investments in pension funds.

With hindsight, the expectations regarding the returns on investments in the so-called “new economy” turned out to be too optimistic. When the technology bubble burst, European investors suffered heavy losses. When

CHART 6 NET CAPITAL FLOWS TO THE UNITED STATES, BY REGION OF ORIGIN AND BY INVESTMENT INSTRUMENT
(Billions of dollars)



Source : US Treasury.

it became obvious that the anticipated returns were not going to materialise, inflows of FDI and investments in equities dried up from 2001 onwards and even turned into capital outflows in 2003 and 2004. Other things being equal, the reduced capital inflows should inevitably have led to a narrowing of the US current account deficit, especially as a result of slower US growth. However, this did not happen, since the reduced capital inflows were largely offset by substantial capital inflows in the form of purchases of corporate and government bonds. In parallel with the larger proportion of debt instruments in the financial account of the United States⁽¹⁾, the importance of Asia regarding these investments also rose.

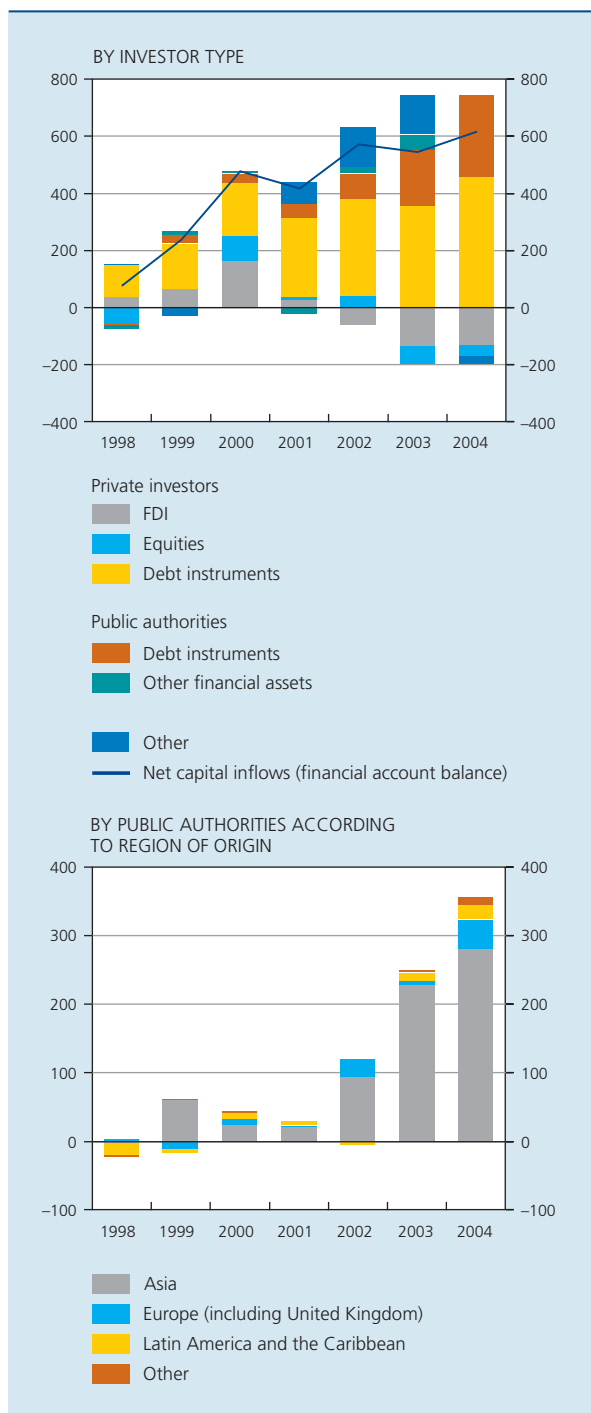
(1) It should be noted that the classification by region of origin can only be made based on the location where the transaction took place, rather than on the buyer's country of origin. This explains the prominent position occupied by the United Kingdom, for example: many transactions in US financial instruments with residents from the euro area, the OPEC countries or even Asia are likely to take place via the City of London. For the same reason, the importance of the Caribbean area has increased in recent years (“offshore centres”). Those “centres” have been included in the chart under the heading “rest of the world”. The classification of net capital inflows into the United States by region of origin therefore only has an indicative value.

In terms of investor type, the larger share of debt instruments in the net capital inflows into the United States has been accompanied since 2002 by a sharp rise in financing by foreign public authorities, mainly from Asia, and largely

in the form of purchases of government bonds issued by the US Treasury.

The accumulation of substantial official reserves by Asian central banks, combined with data showing that the global increase in foreign exchange reserves in recent years can primarily be attributed to an increase in dollar reserves, is an indication that it was mainly the central banks of the countries concerned that bought these debt instruments. Japan accumulated the highest volume of official reserves, but China too has been very active in this respect. Considering that Taiwan, Korea and India carry less weight in the global economy, the reserves those countries accumulated can also be regarded as exceptional.

CHART 7 NET CAPITAL FLOWS TO THE UNITED STATES, BY INVESTOR TYPE AND BY PUBLIC AUTHORITIES ACCORDING TO REGION OF ORIGIN
(Billions of dollars)



Source : BEA.

3. Is the current situation sustainable ?

The US current account deficit has taken on huge proportions, both from an American point of view and from an international perspective. It is therefore not surprising that serious concerns have been expressed over recent years about the sustainability of these imbalances.

Neither a substantial current account deficit in the balance of payments nor a high external debt need necessarily be unsustainable, nor are they necessarily a source of instability. As long as foreign investors are convinced that their investment will be profitable and that the debtor will continue to be able to pay off his external debts, investors will be prepared to finance the capital requirements, thereby providing lasting support for the situation.

This begs the question of whether the United States is comparable to other countries. After all, the idea is now gaining ground that, unlike other countries facing similar circumstances, the United States does not need to fear a sudden decrease in the capital flows used to finance its deficit, given its prominent role in the global financial system. Not only does the United States possess very deep financial markets in which investors can readily build up a diverse portfolio in dollar assets alone, but the dollar remains the main international currency, for example for trade transactions and for currency reserves held by central banks. For those reasons, a further increase in the US current account deficit would still be capable of being financed quite easily by foreign private investors and public authorities for some time to come.

In this context, Michael Dooley, David Folkerts-Landau and Peter Garber even describe the current international monetary system as a type of "revived" Bretton Woods system in

a series of important papers⁽¹⁾. After all, there are similarities with the post-war period. Firstly, a number of Asian countries, including China, are at present formally or informally applying a fixed or quasi-fixed exchange rate against the dollar. This resembles an informal dollar standard reminiscent of the gold-dollar standard of the original Bretton Woods system. Furthermore, the accumulation of dollar reserves by several Asian countries, a consequence of the interventions needed to prevent an appreciation of their currencies against the dollar, has contributed significantly in recent years to the export-led growth strategy of those countries as well as to the financing of the US current account deficit. Just as in the original Bretton Woods system, the United States can therefore still be considered as the “core nation” enjoying the privilege of issuing the main international reserve currency, and the countries in the “periphery” are prepared to buy dollars in order to achieve catch-up growth. However, as new countries have been integrated into the global economy, the “periphery” has largely moved away from Europe and Japan to the rest of East Asia, compared with the original Bretton Woods system.

In recent years, the exchange rate regime in the context of the “new” Bretton Woods has undoubtedly offered various world regions a number of mutual advantages. For the Asian countries, the exchange rate policy was consistent with their export-oriented strategy for growth. On the other hand, the United States has found a not insubstantial source of finance for its current account deficit in the central banks of the Asian “periphery” over recent years. Furthermore, the strong dollar ensured that import prices rose more slowly in the United States, damping down inflationary pressures. US growth could therefore consistently rely on the expansion of domestic demand, which acted as an engine for growth in the rest of the world.

It is nevertheless safe to assume that the exchange rate relations, which are artificially maintained in the “new” Bretton Woods regime, have created a number of distortions.

In the United States, some distortions may have affected spending. Exchange rate interventions by Asian central banks supported the dollar, artificially providing an additional boost for American imports, particularly of cheap Asian products. At the same time, the investments made by those central banks in US government bonds may have contributed to relatively low interest rates⁽²⁾ despite the mounting budget deficit, which would normally fuel consumption and demand for housing and therefore,

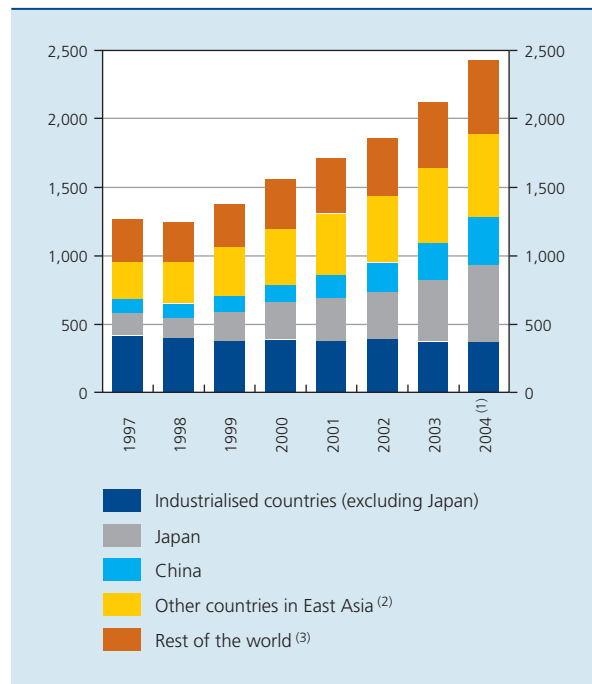
(1) Dooley, Folkerts-Landau, and Garber (2003, 2004a, 2004b).

(2) In Roubini and Setser (2005), p. 8-10, the estimates of the downward effect of these investments in dollars on US interest rates are said to diverge widely, ranging from 40 to around 200 basis points, depending on the source.

CHART 8

OFFICIAL RESERVES

(Outstanding amounts in billions of SDRs, end of period, excluding gold)



Source : IMF.

(1) September 2004.

(2) Hong Kong, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand.

(3) Non-industrialised countries of Europe, other Asian countries, the Middle East, Latin America and Africa.

directly or indirectly, contribute to a further fall in the US private savings ratio, e.g. because of wealth creation resulting from higher property prices. On the other hand, the weakened competitiveness may have curbed investments in tradable goods, which ultimately form the basis for the capacity to export and to reduce the trade deficit. Against a background of household savings reaching an all-time low, warnings are often sounded with respect to a possible sharp adjustment of the internal imbalances in the United States, for example in the event that American household wealth were to grow at a significantly slower rate compared to previous years.

Although the exchange rate regime supports export-led growth in many Asian countries, it also imposes important costs on the region. For instance, in a number of these countries, adhering to a policy of fixed exchange rates may, more or less, have led to a loss of control over broad money growth. Some observers see this as creating the risk of excessive money growth which may create a bubble, for example in real estate, with potentially serious consequences, also in view of the weak financial sector

in some of these countries. In this respect, reference is also made to Japan's experience in the late eighties and early nineties, when a speculative bubble burst in the real estate and equity markets in that country, the consequences of which are still being felt by the Japanese economy today. According to some observers⁽¹⁾, the "new" Bretton Woods regime also implies an international risk exchange whereby the Asian region, on the one hand, exports financial means that are invested in high-quality US government bonds and, on the other, imports capital that is invested in the domestic economy in higher-risk assets, for example equities and bonds of medium or low quality, or in FDI. This international risk exchange may curb the development of financial markets in those economies. Leaving aside Japan, the holding on by these countries to such huge dollar reserves may also involve high opportunity costs, since the return on risk-free US debt instruments is usually lower than that on investments in domestic assets. Last but not least, these central banks run a great exchange risk with respect to their reserves: if the link between their currencies and the dollar is suspended, they may incur substantial losses.

A number of surveys on the subject, including those carried out by the IMF⁽²⁾, show that some Asian countries have built up excessive foreign exchange reserves since the crisis in their region. In effect, the currency reserves of several Asian central banks have not only risen substantially in absolute terms but also as a ratio of imports or of the short-term external debt of the country concerned. The latter ratio is often used as a reliable indicator of the degree of vulnerability of a particular country to a financial crisis. Based on empirical research, the IMF comes to the conclusion that a ratio of reserves to short-term debt equalling 1 constitutes a critical value. In a number of Asian countries, the reserves have risen sharply in relation to the short-term debt, sometimes far above the critical value. This is the case in Thailand, India, Taiwan and especially China. From an analysis of the factors that usually justify a normal build-up of foreign exchange reserves, the IMF also concludes that the volume of the foreign exchange reserves of the Asian emerging countries between 1997 and 2001 still matched the development of the underlying explanatory variables, whereas this was no longer the case from 2002 onwards.

Given the success of the growth strategy, the Asian monetary authorities will presumably continue to pursue their current policies for some time to come, even if only to prevent a sudden appreciation of their currencies against the dollar or in an effort to protect their weak financial sectors. Nonetheless the current regime governing exchange rates and capital flows is to a considerable extent dependent on a unilateral willingness of those

authorities to continue financing the substantial US current account deficit on favourable terms. This makes the US economy vulnerable to a sudden decline in that willingness and entails a risk for the global economy that should not be underestimated. In contrast to the original Bretton Woods system, in which the value of the dollar was guaranteed by its convertibility to gold at a fixed price, no institutional agreement exists in the current regime guaranteeing that the countries in the "periphery" will maintain the current system. Furthermore, even the original Bretton Woods arrangement ultimately collapsed under the weight of the fundamental imbalances.

As B. Eichengreen⁽³⁾ observed, the world has also undergone some dramatic changes since the collapse of the original Bretton Woods system. Nowadays, the countries in the "periphery" are more numerous and diverse than at the time of Bretton Woods, which makes it less likely that they would adopt a common stance than was the case in the original system. It is therefore not inconceivable that a "free rider" problem may arise, with countries switching all (or part of) their dollar reserves to other currencies in anticipation of a depreciation of the dollar at a point in time when the dollar is still generally supported. Against a background of stringent capital controls elsewhere, investing in the United States in the fifties and sixties was virtually the only alternative for domestic investments, but a change in growth prospects or in the market climate may nowadays lead to major portfolio shifts in favour of investments in other currencies. Furthermore, the euro currently offers a viable alternative as an international reserve currency.

Exaggerated concerns regarding the sustainability of the financing of the US current account deficit can be countered with the argument that the central banks of some Asian countries are certainly not the only source financing the deficit. After all, even in 2003 and 2004, a large part was still financed by private investors. These investments are also driven by the expected returns, which in turn depend on the relative growth expectations in the various economies. Since growth in Europe and Japan is apparently still hampered by structural problems and the United States may continue to generate higher growth for some time to come, private finance may be secure. Private investors however probably also base their expectations regarding the value of the dollar, an important factor in determining their expected returns, on the attitude of the central banks in this respect. If the Asian countries were to radically change their exchange rate policy, private

(1) Including McCaulay (2003).

(2) IMF (2003).

(3) Eichengreen (2004).

investors might also become much more reluctant to hold on to their dollar assets.

In view of the undisputed mutual benefits to significant world regions offered by the new Bretton Woods, an important “exit” problem does emerge. Experience with fixed exchange rates, namely the original Bretton Woods system, however, teaches us that it is better to correct distortions in good time rather than to wait until the pressure is very high. The risks of a sudden disorderly adjustment to the US current account deficit are indeed significant, particularly in respect of a substantial fall in the dollar or a sharp rise in interest rates which would have serious implications and not just for the financial markets. Needless to say, all this could have major consequences for economic growth in the United States and in the rest of the world.

4. How can the adjustment be made ?

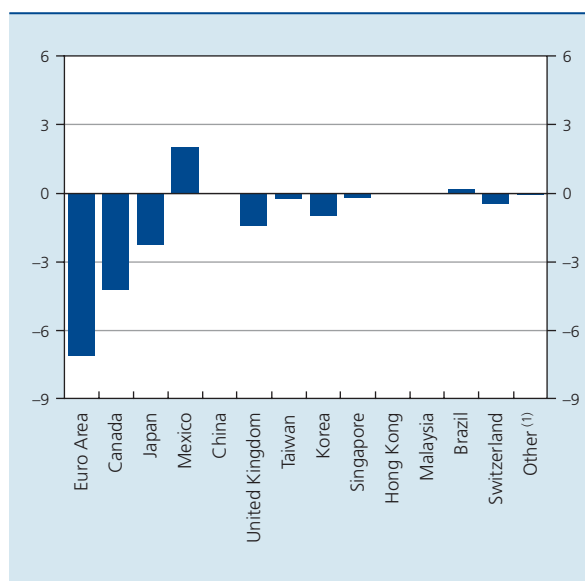
4.1 Adjustment exclusively via the exchange rate

Different scenarios are conceivable to deal with the global imbalances. One of the options (“benign neglect”) is to intervene as little as possible in the market with economic policies, but to allow the adjustment to be made as far as possible via the exchange rate. In such a scenario, the risk of disorderly exchange and interest rate fluctuations, often caused by a crisis of confidence in the dollar, cannot be excluded, particularly since markets tend to overshoot. Sudden excessive exchange rate movements disrupt the functioning of an economy because they do not give the economic players sufficient time to adapt their decision-making to the new conditions.

Furthermore, the results of simulations – such as those based on the NiGEM model⁽¹⁾ or carried out by the OECD based on its Interlink model⁽²⁾ –, indicate that a significant narrowing of the US current account deficit, when sought to be achieved solely via an adjustment of the exchange rate, would require a substantial depreciation of the dollar. For example, OECD calculations show that a nominal effective depreciation of the dollar by 22.5 p.c., spread over a wide range of currencies including the Asian currencies, would only bring about a moderate narrowing of the US deficit, namely by 1.3 p.c. of GDP after a period of six years. A complete rebalancing of the US current account, amounting to 5.7 p.c. of GDP, would consequently require a massive exchange rate shock that might dramatically affect the current economic structure and would also be quite exceptional in historical terms. By way of comparison, reference can be made to the period

CHART 9 DEPRECIATION OF THE NOMINAL EFFECTIVE EXCHANGE RATE OF THE DOLLAR BETWEEN FEBRUARY 2002 AND APRIL 2005

(Contributions made by the currencies of the main trading partners in percentage points)



Source : Federal Reserve.

(1) Argentina, Australia, Chili, Colombia, India, Indonesia, Israel, the Philippines, Russia, Saudi Arabia, Sweden, Thailand and Venezuela.

between February 2002 and April 2005, when, according to data compiled by the Federal Reserve, the weighted average exchange rate of the dollar only dropped by around 15 p.c. The depreciation of the dollar against the euro represented approximately half of this nominal effective depreciation, which means that the appreciation of the euro has already contributed greatly to the adjustment of the dollar exchange rate.

4.2 Possible economic policy measures

Adjusting exchange rates as an isolated measure therefore does not appear to be very effective in terms of dealing with the global imbalances in the current accounts. For the purpose of gradual, orderly adjustment, it is increasingly argued that the economies concerned should adopt simultaneous measures in different policy areas, such as fiscal consolidation in the US, implementation of structural reforms in the euro area and Japan with a view to increasing the growth potential of those economies and gradually allowing greater exchange rate flexibility in Asia.

(1) NiGEM is a comprehensive econometric model of the global economy, designed by the UK's National Institute of Economic and Social Research.

(2) OECD (2004).

As mentioned before, a current account deficit in the balance of payments reflects a domestic savings shortfall in the economy concerned. It is therefore not surprising that the solution to the problem of the US current account deficit is often sought by considering the restoration of the equilibrium between savings and investments in that country, and, in view of the substantial government deficit, the first measure that comes to mind is fiscal consolidation. In that context, the simulation results based on the economic models suggest that the US budget deficit will need to be drastically reduced before it can have a marked effect on the US current account. The eventual macroeconomic impact of the consolidation also depends on the reaction of private savers, since a reduction in the deficit in public savings may lower private savings even further, for example as a result of a more flexible monetary policy or due to the prospect of lower taxes. According to NiGEM, narrowing the US budget deficit by 6 p.c. of GDP over six years would reduce real net imports into the country by 1.2 p.c. of GDP by the end of this period. These results broadly match those obtained by the OECD based on the Interlink model, according to which a gradual shrinking of the US budget deficit by 6 p.c. of GDP, also spread over six years, would lead to a 2.6 p.c. of GDP narrowing of the current account deficit by the end of the period.

Since a depreciation of the dollar and US fiscal consolidation would each, as an isolated measure, involve a considerable adjustment in order to rebalance the US current

account, the case is often made in favour of combining the two adjustment mechanisms. According to OECD calculations, a scenario combining a depreciation of the dollar by 15 p.c. and a reduction in the US budget deficit by 4 p.c. of GDP would reduce the US current account deficit by 2.5 p.c. of GDP after a period of six years. Based on the NiGEM model, a comparable improvement in real net exports would be achieved by shrinking the US budget deficit by 6 p.c. of GDP and an additional currency adjustment of 25 p.c.

Finally, in part two, the strong US economic growth, which was significantly higher than in Europe and Japan, particularly in the second half of the nineties, has been highlighted as a possible cause for the deterioration in the US trade balance. A final option could be to bring about faster potential growth in the economies of these traditional trade partners of the United States. An important role therefore seems to be reserved for structural policies in those countries to increase productivity and employment. According to a number of research findings⁽¹⁾, more vigorous growth outside the United States would however contribute only to a limited extent to a reduction of the US current account deficit in the short or medium term. According to those calculations, a permanent increase in GDP growth of 0.5 percentage point in the euro area and Japan would reduce the US current account deficit by just 0.2 p.c. of GDP after a

(1) Brook, Sédillot and Ollivaud (2004)

TABLE 1 EFFECT ON THE US CURRENT ACCOUNT BALANCE

	Shock	Effect on the US current account ⁽¹⁾ after six years
Depreciation of the nominal effective exchange rate of the dollar		
OECD (Interlink)	22.5 p.c.	+1.3 p.c. of GDP
NBB (NiGEM)	25 p.c.	+1.0 p.c. of GDP
Fiscal consolidation in the US		
OECD (Interlink)	+6 p.c. of GDP	+2.6 p.c. of GDP
NBB (NiGEM)	+6 p.c. of GDP	+1.2 p.c. of GDP
Combination of an exchange rate shock and fiscal consolidation		
OECD (Interlink)	nominal effective USD : -15 p.c. and fiscal consolidation of 4 p.c. of GDP	+2.5 p.c. of GDP
NBB (NiGEM)	nominal effective USD : -25 p.c. and fiscal consolidation of 6 p.c. of GDP	+2.2 p.c. of GDP
More rapid growth achieved by the trading partners		
Brook, Sédillot and Ollivaud (2004)	GDP euro area and Japan +0.5 p.c.	+0.2 p.c. of GDP

Sources: Brook, Sédillot and Ollivaud (2004), OECD, NBB.
(1) Real net exports for the simulations based on the NiGEM-model.

period of six years. Before dismissing the scenario as ineffectual, however, confirmation of these findings must be obtained from other studies.

The huge effort required to significantly reduce the US current account deficit again highlights the seriousness of the problem and underlines the need for simultaneous economic policy measures in the respective economies.

4.3 Viewpoints and measures of the economies concerned

Not only are the concerns regarding the US current account deficit and the exchange rate movements the subject of economic scientific research, but they also appear at the top of the agenda of international forums, such as the G7 or G20 meetings.

For example, at the Dubai meeting in September 2003, the G7 Finance Ministers and Central Bank Governors already included the principle of exchange rate flexibility in their statement. In addition, they underlined the importance of productivity growth and employment in the G7, although without examining the responsibility of each individual economy. The sudden drop in the value of the dollar at the end of 2003 and in early 2004, mainly against the euro, was an indication that the actual intentions of the Dubai statement, namely greater exchange rate flexibility in Asia, were not perceived as such by the markets. In the statements issued at the G7 meetings in February and April 2004, it was therefore highlighted that excessive volatility on the currency markets and disorderly currency fluctuations were not desirable, whereas the desirability of greater exchange rate flexibility was more geared towards countries with a policy of fixed exchange rates, such as the Asian countries: *"we emphasize that more flexibility in exchange rates is desirable for major countries or economic areas that lack such flexibility to promote smooth and widespread adjustments in the international financial system, based on market mechanisms"*. Moreover, on this occasion, the role of economic policy – particularly with regard to US budgetary policy and structural measures to stimulate growth in Europe and Japan –, in tackling global current account imbalances, was underlined. In subsequent statements, i.e. those issued at the G20 meeting in November 2004 and the G7 meeting in February and April 2005, the importance of macroeconomic and structural policy in the rebalancing of global imbalances was given more emphasis and the message was reiterated that excessive currency volatility was not desirable but exchange rate flexibility was.

However, these common viewpoints tend, at times, to disguise diverging opinions on more specific solutions for tackling the global imbalances. The United States generally prefers to see market mechanisms play a greater role and therefore urges its Asian partners to make their exchange rates more flexible. Furthermore, the trading partners of the United States should make every effort to boost their economic growth. The US authorities are nevertheless committed to continue along the path of fiscal consolidation, and proceeded, in early 2005, to produce a draft budget for the fiscal year 2006 in which their intention was made more specific: expressed as a percentage of GDP, the budget deficit would have to be more than halved between 2005 and 2009.

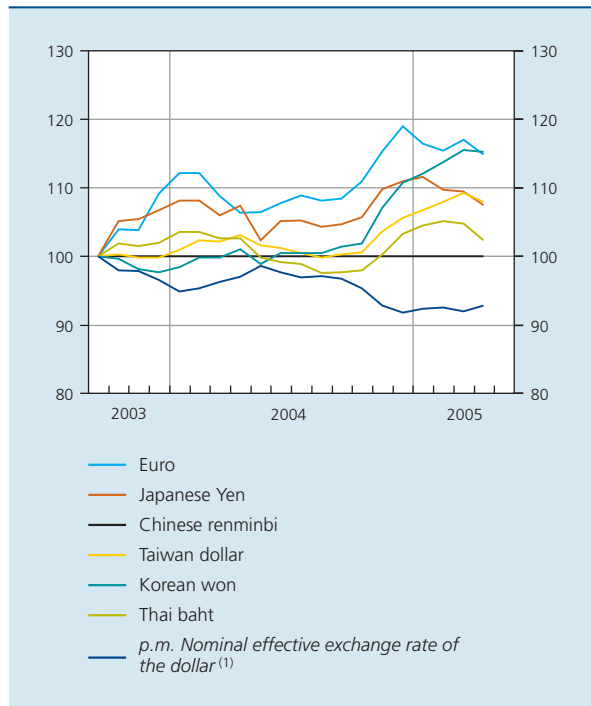
As far as Europe is concerned, the ECB stressed that the rapid appreciation of the euro against the dollar, at the end of 2004, had not been welcome and that the US could make a significant contribution to a narrowing of its current account deficit if it adjusted its budget and increased national savings⁽¹⁾.

Japan shares the concern of the Eurosystem regarding the risks of a sharp drop in the dollar, since the recovery of the Japanese economy is still very fragile. Indeed, such a drop in the dollar exchange rate would lead to a tightening of monetary conditions in Japan and therefore be at odds with the highly accommodative policy pursued by the Bank of Japan.

As for the Chinese authorities, they highlight the conditions required before steps can be taken towards a more flexible exchange rate system, i.e. a stable economic environment and a sound financial system. Measures have already been taken in that respect. For example, the process of banking sector reforms received a boost from 2003 onwards with capital injections for two of the four public commercial banks which dominate the banking sector and that had a poor financial structure, due to the sheer volume of bad loans. Fearing an increase in these loans, the Chinese authorities adopted a series of measures in 2004 to curb excessive lending. Furthermore, a number of measures have recently been taken with a view to bringing about greater liberalisation of capital movements. Yet, China does not seem to be prepared, in the short term, to adjust its exchange rate policy, arguing that the frequently made claims that the renminbi is undervalued, are debatable. Although some factors seem to indicate that the Chinese currency is undervalued to some extent, such as the size of the Chinese trade surplus with the United States and the

(1) Trichet (2004), Issing (2003).

CHART 10 EXCHANGE RATE OF THE EURO AND THE MAIN ASIAN CURRENCIES AGAINST THE DOLLAR
(Indices September 2003 = 100)



Source : Federal Reserve.

(1) Against the currencies of a broad group of major US trading partners.

massive increase in its currency reserves, this conclusion is not backed up by other facts. For example, China has a trade deficit with other emerging Asian economies, as a result of its “assembly” role in the regional production chain.

As mentioned before, most Asian economies, except Japan, pursue, like China, a strategy of (quasi-)fixed exchange rates, for fear of losing their competitiveness, above all within the region. A “first mover” problem therefore arises, which may delay the transition to more flexible exchange rates in Asia. Nevertheless, South Korea has recently allowed its currency to rise in value against the dollar; thus from January 2004 to April 2005, it was up by nearly 17 p.c., the sharpest increase among the United States’ main trading partners. Over the same period, the Taiwan dollar rose by 7 p.c. From October 2004, the Thai baht also appreciated and, at the end of 2004, the yen’s rise accelerated. Although these movements seem to suggest that these countries are starting to adjust their strategy⁽¹⁾, it is too early to conclude that they have finally

(1) Outside Asia, Russia has recently announced that it wants to abandon the dollar peg in order to bring its currency more into line with the euro.

decided on a fundamental change of policy away from accumulating currency reserves and in favour of greater exchange rate flexibility.

Conclusion

One of the most remarkable characteristics of the global economy today is the enormous US current account deficit. Its sheer size is unprecedented, not only in the United States’ own post-war history, but it is also quite exceptional from an international perspective. The current situation is also unusual because the US deficit contrasts sharply with the surpluses generated in nearly every other region, which has made this into a global problem.

The widening current account deficit in the US balance of payments throughout the nineties can be almost entirely attributed to the deterioration in the balance of trade in goods. This was partly due to the US economy growing faster than the economies of its traditional trading partners, Americans displaying a degree of preference for foreign goods, the integration of China in the world economy and presumably also the lagged effect of the sharp appreciation of the dollar between mid-1995 and the end of 2001. The US current account deficit also reflects a domestic shortfall in savings, which was initially due to a surge in investments against a background of sustained strong productivity growth and lower private savings. In 2002 and 2003, the sharp drop in investments brought about a rebalancing of the private saving-investment balances, but in the same period, the surplus in the public finances turned into a substantial deficit. It led to the re-emergence of the so-called “twin deficit”, in addition to which the private saving-investment balance turned negative again in 2004. The start of the new millennium also brought marked changes to the way the US current account deficit is financed. For example, investments by Asian public authorities in US government bonds largely took over the position previously occupied by European private foreign direct investments and investments in equities.

Given the present size of the US current account deficit, it is not surprising that concern over the sustainability of the imbalance has grown considerably in recent years. It has been claimed that the US, unlike other countries facing similar circumstances, is safeguarded from an attack on its currency because of its prominent role in the international financial system. According to an influential school of thought in economic literature, the current international system can even be seen as a “revived” Bretton Woods system. Indeed, a number of East-Asian countries, including China, use a fixed or quasi-fixed exchange rate

against the dollar, which brings to mind an informal dollar standard. Furthermore, just like in the original Bretton Woods system, the United States can still be considered as the “core nation” enjoying the privilege of issuing the main international reserve currency, and the countries in the “periphery” are prepared to buy dollars in order to achieve catch-up growth.

These exchange rate relations may nevertheless have led to distortions in US spending, while the Asian countries have to deal with a growing exchange rate risk in terms of their official reserves and a high opportunity cost of their interventions, as well as increasing difficulties in neutralising the liquidity created as a result of their interventions. Moreover, there is no institutional arrangement in place that would provide lasting support for the existing situation, unlike the original Bretton Woods system.

Different scenarios are conceivable to deal with the global imbalances. One option is to achieve this as far as possible via an exchange rate adjustment. In such a scenario, however, the risk of disorderly currency and interest rate fluctuations cannot be excluded; furthermore, the results of model simulations indicate that a huge depreciation of the dollar would be required to achieve a significant narrowing of the US current account deficit. A mere adjustment of exchange rates therefore does not look particularly effective. Nor would isolated policy measures, such

as fiscal consolidation in the US or the implementation of structural reforms in the euro area and Japan to boost the growth potential of those economies, appear to offer an effective solution. If a gradual and orderly adjustment is to be achieved, these findings in fact seem to imply that the economies involved should simultaneously implement measures in different policy areas, including the aim of gradually introducing greater exchange rate flexibility in Asia.

The concern over global imbalances and the development of exchange rates, as well as the search for solutions, feature prominently on the agenda of international forums such as the G7 or G20 meetings. In the statements issued at those meetings, the need for a common approach to tackle the global imbalances is given priority and the belief that excessive exchange rate volatility is not desirable is underlined. Although the United States generally prefers to allow market mechanisms to play an important role, it did propose a budget in early 2005 with the aim of halving the budget deficit by 2009. China, for its part, made it known that a number of conditions needed to be met, namely a stable economic environment and a sound financial system, before steps could be taken, in the medium term, with a view to introducing a more flexible exchange rate mechanism. Finally, Europe and Japan committed themselves to the continued implementation of structural measures to boost the growth potential of their economies.

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The stability and growth pact: an eventful history

Geert Langenus⁽¹⁾

Less than ten years ago the stability and growth pact was welcomed as one of the cornerstones of the monetary union. Together with the independence of the European Central Bank, it was to offer the necessary guarantees for the stability of the single currency. However, attitudes towards the pact gradually changed and some regarded it as too tight a straitjacket. The pact therefore came in for increasing criticism, confined at first to positions adopted by certain academics but later taken up by an ever broader group of policymakers; it should be stressed that this development coincided with the cyclical downturn from the beginning of the present decade.

The criticism gave rise to a number of reforms proposals put forward both by the Member States and by the European Commission. Owing to the often conflicting concerns, however, it was difficult to reach agreement on exactly how the existing rules should be amended. Meanwhile, dissatisfaction with the pact rules, which were felt to be too stringent, continued and their application lapsed into interpretations which were contrary to the spirit of the pact, and in some cases even violated the letter of its constituent legal texts. Pressure to amend the rules therefore only increased.

Eventually, the debate over the budgetary rules ended for the time being with a political agreement reached on 20 March 2005 at the extraordinary meeting of the Council of the European Union, the so-called Ecofin Council, and confirmed by the heads of state and government at the European Council on 22 and 23 March 2005. This agreement announced a number of changes to the pact which are fairly radical in some respects, but the practical and technical details have yet to be worked out. By 20 April 2005 the European Commission had

already submitted proposals for amendments to the relevant legislation.

This article places the debate on the pact and the recent reform in a broader context. It is organised as follows. Chapter 1 looks at some of the theoretical aspects of budgetary rules. Chapter 2 recounts the genesis of the pact and explains its specific provisions and field of application. This is followed by an account of experiences with the pact and an investigation into the possible reasons for its lack of success. Chapter 4 explains and assesses the changes introduced in March 2005. The article ends with a number of concluding remarks.

1. Theoretical background

In line with the provisions on public finances in the Treaty on European Union, the stability and growth pact consists of a set of rules restricting the fiscal policy of the EU Member States and, especially, that of the countries which have adopted the euro as their currency. These rules cover certain procedural aspects but also impose numerical norms for the budgetary outcomes. The theoretical background to such numerical budgetary rules is discussed below. First, the reasons for the rules are recounted. That is followed by a brief summary of the characteristics of optimum budgetary rules reported in the literature.

⁽¹⁾ The author wishes to thank Bruno Eugène, Hugues Famerée, Jan Smets, Thomas Stragier, Luc Van Meensel and other colleagues for their comments.

1.1 Why are budgetary rules necessary?

Budgetary rules are generally intended to prevent undesirable budgetary outcomes and an inappropriate fiscal policy. They are therefore necessary only if policymakers are inclined to deviate significantly from what is regarded as an optimum fiscal policy.

This can happen if the time horizon of policymakers is too short because, in principle, it seems desirable that an optimum fiscal policy take account of the interests of future generations as well. However, policymakers are only dependent on current generations for maintaining their position, e.g. by re-election in the case of a democratic government. There may therefore be a temptation to favour these generations by taking on excessive debts, the burden of such a policy being transferred to future generations. Budgetary rules may be adopted in order to protect the interests of those future generations.

In this respect, budgetary rules may also originate from *political economy* considerations as it will be easier for policymakers to take unpopular but necessary consolidation measures if they are able to blame them on existing budget rules, especially if those rules are “imposed” by another level of government.

In principle, financial markets may discourage an inappropriate fiscal policy – and thus reduce the need for budgetary rules – by imposing a higher risk premium on governments with fiscal problems when setting interest rates. However, there is a danger that the functioning of this disciplinary mechanism will be imperfect. First, it is possible that, owing to problems of asymmetric information, for example, the risk premium does not fully reflect the real budgetary situation. Second, a higher risk premium may not deter governments and cause them to adjust their policy.

In a monetary union with a fragmented fiscal policy, there are even stronger arguments for strict budgetary rules. In that situation an irresponsible fiscal policy on the part of one or more governments can have undesirable spill-over effects. These may arise both between the different governments taking part in the monetary union and between fiscal and monetary policy.

As regards the former effects, the main fear in EMU was that a local fiscal slippage in one or more Member States would have adverse effects on interest rate levels throughout the union⁽¹⁾. This would mean that Member States pursuing an appropriate fiscal policy are punished for an irresponsible policy in other Member States through higher interest charges or other unfavourable effects of

higher interest rates. In the event of a very serious local fiscal slippage, it is even possible that other governments might feel obliged to support the offender explicitly or implicitly – by making financial transfers or by purchasing the offending government’s debt titles – in order to avoid a financial crisis. Such phenomena may of course impair the monetary union’s cohesion. In that connection, it must be emphasised that the smaller Member States are, of course, particularly vulnerable to spill-over effects triggered by fiscal problems in larger Member States.

In addition, there is a risk of undesirable spill-over effects on monetary policy because large government deficits or high debts can make that policy less effective. On the one hand, they may prompt the government in question to put more pressure on the central bank of the union to relax its monetary policy (and thus increase inflation, reducing the real value of the outstanding debts). On the other hand, this may distort the market’s perception of a justified easing of monetary policy, causing it to be misinterpreted as motivated by the wish to reduce the real value of public debts. This can push up inflation expectations in the entire union. In the event of an impending financial crisis caused by a budgetary slippage, the monetary authority may come under irresistible pressure to take action.

However, the story does not end with the fact that a budgetary slippage in a monetary union with a fragmented fiscal policy can produce harmful spill-over effects, because it can also be argued that, in those circumstances, it actually becomes more attractive for governments to pursue an (over-)expansionary fiscal policy (Beetsma, 2001). First, it is a well-known fact that a Keynesian macroeconomic policy of demand management is more effective under fixed than under floating exchange rates. Second, the aforementioned spill-over effects mitigate the costs of such a policy since interest rates will not rise so steeply as they would if the government responsible were not a member of a wider monetary union.

In order to minimise these spill-over effects, it therefore seems advisable for the institutional architecture of a monetary union with a fragmented fiscal policy not only to provide the necessary guarantees concerning the central bank’s independence and government’s non-responsibility for the debts of other governments (the “no bail out” clause) but also to include strict rules which guarantee adequate budgetary discipline.

(1) However, this assumes that households do not proportionally increase their savings (e.g. for Ricardian reasons, which means that households save a larger proportion of their current disposable income, for precautionary motives, if they believe that the government will have to increase taxes or cut expenditure – including welfare benefits – e.g. in the face of a trend rise in the debt level).

1.2 How should budgetary rules be designed ?

The preceding section has argued that budgetary rules, which in general circumstances can be useful if the government's time horizon is too short, become more necessary in a monetary union with a fragmented fiscal policy. The next section examines the criteria which *good* budgetary rules must satisfy.

In the literature⁽¹⁾ there is a broad consensus on at least a number of requirements. It seems clear, for instance, that a good budgetary rule cannot be continually changed, must be simple to operate and transparent, should pertain to budgetary outcomes *ex post* (rather than budgetary targets) and must be enforced by an impartial authority which can impose effective sanctions.

However, additional requirements are often imposed upon budgetary rules in the literature: they must offer governments sufficient flexibility and should encourage growth to some extent, for example (Kopits, 2001). As regards the first point, it is typically meant that budgetary outcomes should be assessed on the basis of the policy pursued and that – when the rules are applied – account should therefore be taken of the budgetary impact of fluctuations in economic growth or of unforeseen and exogenous shocks. The growth-promoting character on the other hand pertains to the avoidance of conflicts between the application of the budgetary rules and the government's action to support economic growth.

However, it must be stressed that all these characteristics can not be easily combined in a single rule. Thus, the rule will become less simple as more flexibility is structured in. On the other hand, a very simple rule which makes no distinction between the policy and the budgetary impact of phenomena which are beyond the direct control of the government may prove difficult to enforce. Finally, there is no easy way of establishing simple, transparent rules which take proper account of the growth-promoting character of government action. The simple golden rule whereby larger budget deficits are permissible the greater is the government's expenditure on fixed capital formation, is a good example here, the implicit assumption being that all public investment projects make an equal contribution to the economy's potential growth, but that the same does not apply to expenditure on education and capital transfers or tax reductions for private-sector investments, for example.

Budgetary rules will therefore inevitably represent an imperfect compromise between all the above concerns.

(1) Cf. for example Bohn and Inman (1996) and Inman (1996).

2. The original stability and growth pact

2.1 How was the pact created ?

In the framework of the convergence criteria which had to be met in order to qualify for membership of the monetary union, the Treaty on European Union lays down reference values for the budget balance and public debt. The budget deficit could not exceed 3 p.c. of GDP unless the excess was small and the deficit was declining substantially and continuously or the small excess was temporary and exceptional. The government debt could not exceed 60 p.c. of GDP unless the debt ratio was sufficiently diminishing and approaching the reference value at a satisfactory pace.

These criteria were also the cornerstones of the excessive deficit procedure which, after the creation of the monetary union, was to ensure permanent budgetary stability. Non-compliance would trigger a corrective procedure in which the Council, on the proposal of the European Commission, could decide that the budget deficit was excessive, could call on the Member States in question to adjust their fiscal policy and could even impose certain sanctions; in this respect it was possible to ask the European Investment Bank to reconsider its lending policy towards the Member States concerned or to require non-interest-bearing deposits and impose fines. In that regard, the Council had very wide powers and could independently determine the measures to be taken.

However, it was feared that budgetary discipline would decline or even be lost once the monetary union was formed and not all the Member States considered that the above corrective procedure provided by the Treaty constituted an adequate deterrent.

The German government of the day took the lead in pushing for additional safeguards to ensure permanent budgetary discipline in the monetary union and in 1995 it already submitted the first proposals urging for clarification and reinforcement of the budgetary rules. Those proposals soon secured the support of certain smaller Member States. Germany's position should be viewed in the light of the German public's doubts about the stability of the new currency at that time (Stark, 2001). The German electorate had to be persuaded that the ECB's monetary policy aimed at price stability would not be undermined by fiscal problems in certain Member States. The German government's proposals were therefore based on concern about the above-mentioned spill-over effects between fiscal and monetary policy. The position of the smaller

Member States may be more to do with spill-over effects between different Member States, and more particularly, the greater vulnerability of those countries to budgetary slippages in the larger Member States.

The desired adjustments to the existing rules pertained to two main issues (Stark, 2001).

First, the budgetary rules must not impair the operation of the automatic stabilisers. In order to create the necessary budgetary scope for that, the deficit level of 3 p.c. of GDP had to be presented much more explicitly as an upper limit which must never be exceeded, other than in exceptional circumstances, rather than as an aim for fiscal policy; given neutral economic conditions, and even more so when activity is buoyant, the budgetary targets needed to be more ambitious. That was the only way of safeguarding the operation of the automatic stabilisers without risking an excessive deficit of more than 3 p.c. of GDP.

Second, the deterrent effect of the excessive deficit procedure needed to be reinforced. In that respect, the various stages in the correction procedure, up to and including possible sanctions, had to be initiated more automatically in the event of an excessive deficit and made less dependent on autonomous decisions of the Council.

The debate over the clarification and reinforcement of the budgetary rules in the monetary union dragged on for more than a year because certain Member States were opposed to any curtailment of the Council's powers via fixed and strict rules and procedures. Apart from the automatic entry into force of the sanction procedure, the main points of dissension were the amount of the fines and the definition of the "exceptional circumstances" in which the budget deficit could exceed the 3 p.c. of GDP limit without being regarded as excessive (Stark, 2001).

In the end, in December 1996 agreement was reached at the Dublin European Summit, where the new rules were given their final name: the stability pact of the original German proposals became a stability and growth pact. In this way European policymakers wanted to make fully clear that permanent budgetary discipline, combined with the price stability which the ECB had to watch over, would also create the necessary conditions for sustainable growth of activity because, obviously, it is only in a situation of monetary and budgetary stability that interest rates can be expected to remain low, ultimately also benefiting growth and employment. However, it was to be several months before the new rules were translated into legislative texts.

2.2 What are the provisions of the pact?

The stability and growth pact is formally set out in three separate European documents. These are the European Council Resolution of 17 June 1997 on the stability and growth pact, the Council Regulation (EC) no. 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure and the Council Regulation (EC) no. 1466/97 of 7 July 1997 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies⁽¹⁾.

Without going too deeply into the legal, technical and administrative details, the essential provisions of these legal texts are set out below. The central requirement laid down in the Treaty on European Union, whereby the Member States must not run an excessive deficit, was naturally maintained in the pact. However, a series of preventive provisions and procedures was added to the existing rules. In addition, the definition of an excessive deficit was clarified. Finally, the correction mechanisms which operate once an excessive deficit is recorded, were tightened up.

2.2.1 The preventive aspects

The "preventive" part of the pact is intended to help the Member States to avoid excessive budget deficits. In that connection, the key aspect concerns the setting of the medium-term budgetary target which must be aimed at under neutral economic circumstances. In view of the said concern over the free operation of the automatic stabilisers, this medium-term objective must be sufficiently far removed from the deficit ceiling of 3 p.c. of GDP so that, during normal cyclical downturns, the deficit remains below that level regarded as excessive.

Both the aforementioned Resolution of the European Council and Regulation (EC) no. 1466/97 define that medium-term objective – which has to offer the necessary flexibility to cope with cyclical fluctuations – as a budgetary position which is close to balance or in surplus. This meant that the budgetary targets in the monetary union became more stringent, since in the run-up to the union it was still sufficient to maintain structural budget deficits of less than 3 p.c. of GDP.

However, the pact does not define in any more detail the concept of a budgetary position close to balance or in surplus. Nonetheless, on the basis of the cyclical fluctuations observed in the past, the European

(1) It should be pointed out that the last two documents are actual legal texts whereas, in principle, the Resolution of the European Council merely defines a political commitment.

Commission (1999) did calculate the “minimum benchmarks” intended to offer a technical safety margin for avoiding any breach of the deficit ceiling under normal economic conditions. In view of the variations in the cyclical sensitivity of the budgets of the various Member States, these benchmarks ranged from a significant cyclically adjusted surplus (for Finland and Sweden) to cyclically adjusted deficits of 1 to 1.5 p.c. of GDP (for France, Greece, Italy, Germany and Belgium). Later, however, the medium-term objective was given a stricter interpretation. Thus, the European Commission (2001) argued that all Member States must at least achieve a cyclically adjusted balanced budget, although allowance was made for a potential measurement error of 0.5 p.c. of GDP in the calculation of the cyclically adjusted budget balances (so that, in practice, cyclically adjusted deficits of up to 0.5 p.c. of GDP remained acceptable). Member States with more important cyclical fluctuations or a greater budgetary sensitivity to the economic cycle needed cyclically adjusted surpluses. This upward revision in the medium-term objective was related to the desire to create a buffer for unforeseen budgetary setbacks, to bring the debt ratios down faster and to prepare the budgets for the far-reaching effects of population ageing.

Apart from the new medium-term objective, the pact also provides for multilateral surveillance procedures to make it possible to check whether each Member State is duly respecting the European budgetary rules and to correct any slippage in a timely manner. In that connection, the key elements are the so-called stability and convergence programmes and the early warning mechanism.

In the stability programmes – or, in the case of the countries which have not yet adopted the euro, the convergence programmes –, which have to be updated annually, the course of public finances in the following years is outlined, and the Member States must show how their fiscal policy is complying with the medium-term objective defined in the pact. These programmes are assessed by the European Commission and are the subject of an opinion by the Council, which can ask a Member State to adjust its programme if, for example, the underlying economic assumptions are not sufficiently realistic or the proposed budgetary measures do not suffice to meet the pact’s requirements.

If the Council considers that there is a risk of an excessive deficit in a particular Member State, an early warning must be issued, formally recommending the Member State concerned to adjust its fiscal policy. That is normally done on the basis of an opinion drawn up by the European Commission and a recommendation for a decision.

2.2.2 Definition of an excessive deficit

The Treaty on European Union stipulated that, as a rule, a budget deficit of more than 3 p.c. of GDP is excessive and should be avoided. However, a small excess over the reference value which is of a temporary and exceptional nature, was allowed. Moreover, the assessment on the excessive character of the deficit rested with the Council, which had to take a decision on the basis of a report prepared by the European Commission. According to the Treaty, that report must also take account of whether the deficit exceeds government investment expenditure and of “all other relevant factors”, including the medium-term economic and budgetary position. The Commission may also prepare such a report if it is of the opinion that there is a risk of an excessive deficit without the 3 p.c. of GDP limit being actually exceeded.

The Treaty thus left ample scope for interpretation regarding the definition of an excessive deficit. Especially the absence of any detailed definition of the temporary and exceptional circumstances justifying a small excess over the reference value of 3 p.c. of GDP could jeopardise legal security. The pact does much to address this problem.

Regulation (EC) no. 1467/97 stipulates that the exceptional and temporary circumstances must pertain to an unusual event which is outside the control of the Member State concerned and which has a major impact on the budgetary position, or to a severe economic downturn. As a rule, the Commission report only regards an economic downturn as exceptional if the annual fall in real GDP comes to at least 2 p.c. Nevertheless, the Council may also regard a smaller reduction in economic activity as exceptional in the light of further supporting evidence, in particular on the abruptness of the downturn or the accumulated loss of output relative to past trends. However, the Resolution of the European Council mentioned above specifies that in that case the annual fall in real GDP must come to at least 0.75 p.c. Therefore, under these rules, a smaller reduction and – even more so – a small but positive increase in activity can never justify a budget deficit of more than 3 p.c. of GDP.

This strict limitation of the concept of exceptional economic circumstances must be viewed in the light of consistency with the medium-term objective described above, namely a budget close to balance or in surplus. Only if economic activity has declined well below the trend level, e.g. as a result of a severe recession, can a cyclically adjusted budgetary position which is close to balance correspond to an actual budget deficit of more than 3 p.c. of GDP.

However, the “other relevant factors” which the Treaty requires the Council to take into account in its assessment and the degree to which they may justify a deficit of more than 3 p.c. of GDP, are not further specified in the pact either.

2.2.3 The correction mechanisms

As a rule, strict correction mechanisms are initiated if, despite the preventive aspects of the pact, a Member State still records a deficit which the Council regards as excessive. In contrast to the original excessive deficit procedure contained in the Treaty on European Union, the pact lays down a clear time schedule in this respect and failure to respect the rules should, in principle, automatically lead to sanctions.

As regards the time schedule, the basic principle is that, unless there are special circumstances, an excessive deficit must be corrected by no later than one year after its identification, otherwise sanctions will ensue. To that end, the Council must decide within three months of the official biannual reporting of budgetary data by the Member States to the European Commission (normally before 1 March and 1 September of each year) whether there are excessive deficits and, if so, recommend the Member States concerned to take effective action to eradicate them within a period to be determined by the Council of at most four months. If, by the stated deadline, the Member States fail to take effective action in compliance with the recommendations, the latter may then be published. If the Member States still fail to take effective action to comply with the recommendations, the Council will in principle issue an official notice one month later requiring that the necessary measures be taken to eliminate the excessive deficit. At this stage of the procedure, the Council may monitor the fiscal policy more closely and ask the Member States concerned to submit regular reports on the efforts made. If, within a period of two months, the Member States fail to act in compliance with the notice, then the Council must, in principle, impose sanctions. At that point, at most ten months will thus have elapsed since the official notification of the budget deficit.

The sanction first takes the form of a non-interest-bearing deposit which may vary in size from 0.2 to 0.5 p.c. of GDP, depending on the degree to which the deficit ceiling of 3 p.c. of GDP is exceeded. In addition, the Council may impose the additional sanctions specified in the Treaty on European Union, such as the obligation to publish supplementary information before issuing securities and a restriction on access to loans from the European Investment Bank. After this first sanction and until the abrogation

of the decision concerning the existence of an excessive deficit, the Council assesses each year whether the Member States concerned have taken effective measures in compliance with the notice. If the excessive deficit has still not been eliminated two years after the imposition of the first non-interest-bearing deposit, these deposits may be converted into an actual fine. Hence, Member States have to record an excessive deficit for three consecutive years before an actual fine can be imposed.

2.3 To which Member States does the pact apply ?

All the provisions of the stability and growth pact apply in full to the euro area countries. However, certain derogations apply in the case of the other Member States.

Roughly speaking, the latter Member States do have to avoid excessive deficits⁽¹⁾, but they cannot be ordered to take measures and they are not liable to the actual sanctions. Nevertheless, these Member States can still be punished in a different way if their fiscal policy is out of line with the provisions of the pact. Council Regulation (EC) no. 1264/99 of 21 June 1999, amending the rules on the Cohesion Fund, stipulates that no new projects or project stages can be financed out of this Fund if the Council, acting by a qualified majority on a recommendation from the European Commission, finds that the Member State concerned has not implemented the convergence programme “in such a way as to avoid an excessive government deficit”.

3. The application of the pact: what went wrong ?

Compliance with the convergence criteria for the monetary union set out in the Treaty on European Union was assessed on the basis of the macroeconomic figures for 1997. In that same year the stability and growth pact was translated into specific legal texts. This means that, from 1992 to 1997, government finances were influenced mainly by the convergence criteria concerning the budget deficit and public debt, laid down in the Treaty, whereas in the subsequent years the stability and growth pact should have served as the guiding principle. It therefore seems appropriate to compare budgetary

(1) In this connection there is a slight difference between the United Kingdom and the other Member States which are not in the euro area. Under a Protocol attached to the Treaty on European Union, the legal provision stipulating that Member States must avoid excessive deficits (Article 104 (1) of the Treaty) does formally not apply the United Kingdom (though it does apply to all other Member States). However, Article 116 (4) of that same Treaty, for which the United Kingdom did not obtain any derogation, stipulates that Member States must “endeavour” to avoid excessive deficits. The legal obligations concerning the avoidance of excessive deficits are therefore slightly less strict for the United Kingdom than for other Member States outside the euro area.

developments in those two periods. That analysis⁽¹⁾ is conducted below and shows that the application of the pact was certainly not an unqualified success, which is illustrated, for example, by the fact that in 2004 five euro area countries, including Germany, France and Italy, had deficits greater than or close to the reference value of 3 p.c. of GDP specified in the Treaty on European Union. This is followed by an investigation into the reasons for this lack of success.

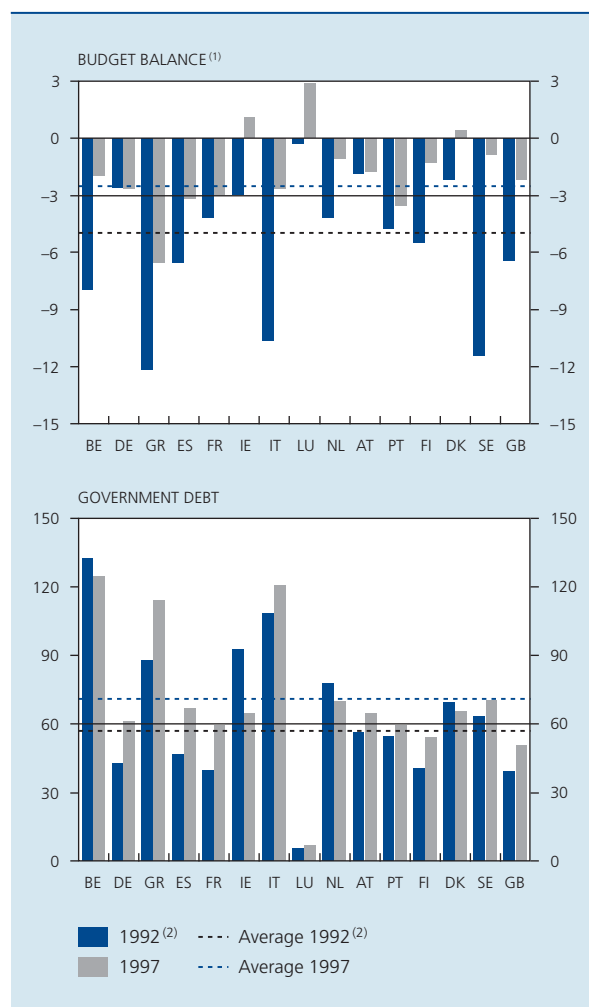
3.1 Experiences with the pact

In 1992 a large majority of the then Member States still had a budget deficit far in excess of the reference value of 3 p.c. of GDP. At that time, the average deficit in the EU-15 was still around 5 p.c. of GDP⁽²⁾. Between 1993 and 1997 almost all countries improved their budgetary position, except for Germany where the deficit was already slightly below the reference value in 1992 and remained more or less unchanged thereafter. Apart from Greece, which in any case intended to join the monetary union only later, all the EU-15 Member States thus succeeded in bringing their budget deficit down to 3 p.c. of GDP or less on the basis of the statistical data available at that time (European Commission, 1998). The fact that the current statistical data for Portugal and Spain nevertheless indicate that the 1997 budget deficit exceeded the reference value (by 0.6 and 0.2 p.c. of GDP respectively) is due to later upward revisions resulting mainly from methodological changes in the calculation of these balances.

This success needs to be qualified in two respects. First, a number of large Member States continued to record budget deficits which were only just below the reference value in 1997. As a result, the average budget deficit of the EU-15 was still 2.5 p.c. of GDP in 1997 according to the current statistical data. Moreover, in certain Member States the reduction of the deficit was bolstered by non-recurring measures, although their impact was fairly limited overall (European Commission, 1998). France can be used to illustrate both points, as this Member State only managed to reduce its budget deficit to exactly 3 p.c. of GDP in 1997, and then only thanks to a substantial one-off capital transfer from France Télécom, totalling around 0.5 p.c. of GDP, in exchange for the French government's assumption of that company's pension liabilities.

In 1992 the government debt worked out at around 57 p.c. of GDP in the EU-15 on average. However, some Member States, including Belgium, recorded debt ratios far in excess of the reference value of 60 p.c. of GDP. Despite the marked improvement in the budgetary positions between 1992 and 1997, government

CHART 1 IMPACT OF THE CONVERGENCE CRITERIA CONCERNING PUBLIC FINANCES LAID DOWN IN THE TREATY ON EUROPEAN UNION
(Percentages of GDP)



Source: European Commission.

(1) According to the methodology used in the framework of the excessive deficit procedure.

(2) For Spain 1995, for Sweden 1993; for the EU-15 the 1992 average is calculated without these two Member States.

debt increased sharply during that period: at the end of 1997 it was already over 71 p.c. of GDP in the EU-15. In Greece and Italy, where the debt ratio was already very high in 1992, the debt burden continued to rise in the subsequent years. In Belgium, Ireland, the Netherlands and Denmark the debt did decline but still remained above 60 p.c. of GDP. Finally, there were other Member States such as Germany, Spain and Austria whose government debt rose slightly above the reference value during

(1) Since ten of the present twenty-five Member States only joined the EU on 1 May 2004, this analysis is confined to the other fifteen Member States. This group will hereinafter, as usual, be referred to by EU-15.

(2) This average takes no account of Spain and Sweden since no data are available for 1992 for either of these countries.

TABLE 1 EVOLUTION OF THE BUDGET BALANCES⁽¹⁾ SINCE THE ENTRY INTO FORCE OF THE STABILITY AND GROWTH PACT
(Percentages of GDP)

	1997	1998	1999	2000	2001	2002	2003	2004
Belgium	-2.0	-0.6	-0.4	0.2	0.6	0.1	0.4	0.1
Germany	-2.7	-2.2	-1.5	1.3	-2.8	-3.7	-3.8	-3.7
Greece	-6.6	-4.3	-3.4	-4.1	-3.6	-4.1	-5.2	-6.1
Spain	-3.2	-3.0	-1.2	-0.9	-0.5	-0.3	0.3	-0.3
France	-3.0	-2.7	-1.8	-1.4	-1.5	-3.2	-4.2	-3.7
Ireland	1.1	2.4	2.6	4.4	0.9	-0.4	0.2	1.3
Italy	-2.7	-2.8	-1.7	-0.6	-3.0	-2.6	-2.9	-3.0
Luxembourg	2.9	3.2	3.4	6.2	6.2	2.3	0.5	-1.1
Netherlands	-1.1	-0.8	0.7	2.2	-0.1	-1.9	-3.2	-2.5
Austria	-1.8	-2.4	-2.3	-1.5	0.3	-0.2	-1.1	-1.3
Portugal	-3.6	-3.2	-2.8	-2.8	-4.4	-2.7	-2.9	-2.9
Finland	-1.3	1.6	2.2	7.1	5.2	4.3	2.5	2.1
Euro area	-2.7	-2.3	-1.3	0.1	-1.7	-2.4	-2.8	-2.7
Denmark	0.4	1.2	3.3	2.6	3.2	1.7	1.2	2.8
Sweden	-0.9	1.8	2.5	5.0	2.5	-0.3	0.2	1.4
United Kingdom	-2.2	0.1	1.0	3.8	0.7	-1.7	-3.4	-3.2
EU-15	-2.5	-1.7	-0.7	1.0	-1.1	-2.2	-2.8	-2.6
<i>p.m. Excluding UMTS proceeds</i>	-2.5	-1.7	-0.7	-0.3	-1.1	-2.2	-2.8	-2.6
<i>Cyclical component⁽²⁾</i>	-0.4	-0.1	0.2	0.8	0.6	0.1	-0.4	-0.3
<i>Cyclically adjusted budget balance⁽²⁾</i>	-2.1	-1.6	-0.9	0.2	-1.7	-2.3	-2.4	-2.3

Sources: European Commission, own calculations.

(1) According to the methodology used in the framework of the excessive deficit procedure.

(2) According to the cyclical adjustment method used by the European Commission.

that period. Ultimately, however, none of the original eleven candidate members was excluded from the monetary union on the basis of the convergence criterion relating to government debt.

After 1997 the budget deficits continued to decline. In the year 2000 the EU-15 even recorded a surplus of 1 p.c. of GDP. However, this result was due largely to a specific non-recurring factor as in that year many Member States collected substantial proceeds from the sale of UMTS licences; according to the ESA 95 national accounts methodology those proceeds are recorded as non-recurring negative expenditure and therefore improve the budget balances. In Germany and the United Kingdom the amounts involved totalled some 2.5 p.c. of GDP. Corrected for this non-recurring factor, government accounts in the EU-15 showed a deficit of 0.3 p.c. of GDP on average in 2000. More generally, public finances benefited during that period from the upturn in the economic cycle.

According to the cyclical adjustment method used by the European Commission (2005b), the cyclical component of the budget balances improved from -0.4 to 0.8 p.c. of GDP between 1997 and 2000, which means that – disregarding the UMTS proceeds – somewhat more than half of the deficit reduction during that period is attributable to the favourable economic environment.

When the cycle reached a turning point in 2001 and the UMTS proceeds had largely disappeared, the budget balances began to deteriorate again. In 2003, the EU-15 recorded an average deficit of 2.8 p.c. of GDP, with only a very small reduction in the following year. This cancelled out the entire deficit reduction achieved in 1997 to 2000, so that in 2004 the budget deficit in the EU-15 was even higher than in 1997.

Moreover, according to the European Commission's cyclical adjustment method the influence of the economic cycle on the budget balances was slightly less unfavourable than in 1997. Hence, the cyclically adjusted deficit increased somewhat more than the actual deficit between 1997 and 2004.

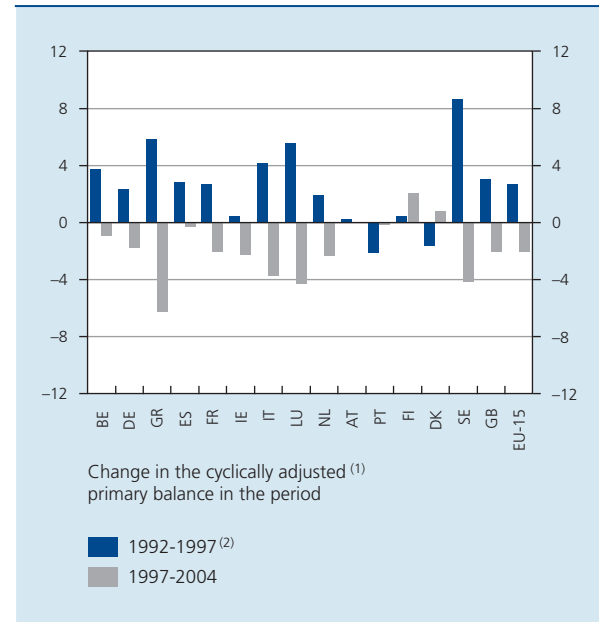
These averages conceal divergent pictures for the individual Member States. Some Member States – such as Spain, Belgium, Finland and Sweden – have continued to reduce their budget deficits after 1997 and, in the case of the last three countries, even converted the deficit into a surplus. Other Member States, such as Germany, France, Greece, Portugal, the Netherlands and the United Kingdom, have recorded – in some cases persistent – excessive deficits in the past few years.

All in all, the budgetary developments in the years following 1997, when the stability and growth pact came into force, compare unfavourably to the substantial improvement in the budgetary positions during the period in which fiscal policy was guided by the convergence criteria concerning public finances laid down in the Treaty on European Union. This is due primarily to a marked reversal in the fiscal policy of almost all Member States. The differences in behaviour in the periods considered is most obvious from the change in the cyclically adjusted primary balances, which is an indicator of the fiscal policy stance.

The improvement in the budgetary positions between 1992 and 1997, averaging around 2.5 p.c. of GDP in the EU-15, is due entirely to a tighter fiscal policy because the cyclically adjusted primary surplus increased by around 2.7 p.c. of GDP during that period⁽¹⁾. All Member States except for Denmark and Portugal, contributed to this increase. In Denmark, although the cyclically adjusted primary surplus declined by 1.7 p.c. of GDP during the period in question, it was still at a very high level of around 5 p.c. of GDP in 1997. In contrast, Portugal's cyclically adjusted primary surplus, that was still over 3 p.c. of GDP in 1992, fell to less than 1 p.c. of GDP in 1997. This clear loosening of fiscal policy, in stark contrast to developments in the other Member States, should be viewed in the light of the steep fall in interest charges in that country, brought about by convergence towards a lower level of interest rates: the amounts saved on interest charges were largely allocated to strong growth of primary expenditure (Cunha and Braz, 2003). Without that, Portugal might have been able to avoid the later budgetary problems. Other Member States did make

CHART 2 FISCAL POLICY UNDER THE INFLUENCE OF THE CONVERGENCE CRITERIA LAID DOWN IN THE TREATY ON EUROPEAN UNION AND THE STABILITY AND GROWTH PACT

(Percentages of GDP)



Sources: European Commission, own calculations.

(1) According to the cyclical adjustment method used by the European Commission.

(2) For Spain 1995-1997; for Sweden 1993-1997; for the EU-15 the average is calculated without those two Member States.

substantial budgetary efforts during that period. In Sweden, for instance, the cyclically adjusted primary balance improved by around 8.6 p.c. of GDP between 1993 and 1997, Greece and Luxembourg increased this balance by more than 5 p.c. of GDP between 1992 and 1997 and in Italy and Belgium the improvement totalled roughly 4 p.c. of GDP over the same period.

However, in the following years, all Member States except Finland and Denmark loosened budgetary discipline to some degree, although in many cases they had only just satisfied the convergence criterion for the budget balance laid down in the Treaty on European Union. From 1997 to 2004 the cyclically adjusted primary balance was reduced by more than 2 p.c. of GDP on average in the EU-15. In certain Member States, such as Germany, France, Greece, Italy and Luxembourg, the efforts made during the 1992 to 1997 period were more or less totally cancelled out.

Hence, the entry into force of the stability and growth pact, which added preventive elements, such as a more ambitious medium-term objective, to the budgetary rules and increased the deterrent effect of the excessive deficit procedure, certainly did not produce the desired effect on

(1) As stated in footnote 2 to charts 1 and 2, the comparison of the years 1992 and 1997 is hampered somewhat by the fact that no official data are available from the European Commission for Spain and Sweden for the former year. The averages stated for 1992 therefore disregard these two countries.

the fiscal policy of all the Member States. Obviously, it is difficult to assess whether the budgetary slippage would not have been even greater without the pact. Be that as it may, the introduction of stricter budgetary rules was accompanied by a marked and strong loosening of fiscal policy.

3.2 Possible reasons for the lack of success

The reasons why many Member States have recorded excessive deficits despite the stability and growth pact lie in a combination of factors which are explained below.

3.2.1 A hiatus in the regulatory framework

When the pact entered into force, the budgets of quite a few Member States still showed significant cyclically adjusted deficits. In all the major Member States – Germany, France, Italy, Spain and the United Kingdom – they came to over 2 p.c. of GDP, while Portugal and Greece had even larger cyclically adjusted deficits. According to the new budgetary rules laid down in the pact, it was therefore necessary to make an additional effort to reduce those deficits further until the budget was at least close to balance.

However, the stability and growth pact does not formally specify the maximum length of that transition period. The aforementioned Regulation (EC) no. 1466/97 merely states that the stability and convergence programmes must cover at least the next three years, in addition to the current and the preceding year, and must describe the adjustment path towards a budget which is close to balance or in surplus. However, this provision did not explicitly refer to the actual budgetary outcomes and was too vague to provide a sufficiently stringent legal basis. Many Member States therefore delayed the full elimination of the remaining cyclically adjusted deficits as required by the pact, and often explicitly prioritised tax cuts or, in certain Member States, a looser expenditure policy.

Germany, France, Italy and the Netherlands, the largest Member States of the euro area in which the deficit reached or (substantially) exceeded the 3 p.c. of GDP ceiling, can be taken as an example here. In Germany and the Netherlands the cyclically adjusted deficit, according to current statistical data, continued to decline until around the turn of the century – in the Netherlands it actually came close to the medium-term objective of the pact – but after that it increased again to well above the 1997 level. In France and Italy the cyclically adjusted deficit never even fell below 2 p.c. of GDP.

Only much later was this institutional hiatus in the pact addressed. In a Eurogroup agreement dated 7 October 2002, which was confirmed on 7 March 2003 in a Council recommendation, the minimum adjustment speed was explicitly defined, at least for countries in the euro area: if they do not yet meet the requirements of the pact, they must achieve an annual reduction of at least 0.5 p.c. of GDP in their structural deficit. Obviously, Member States with excessive deficits, as a rule, have to make a bigger effort.

3.2.2 Over-optimistic growth expectations at the turn of the century

Another factor was that, in the years following the introduction of the stability and growth pact, the EU-15 enjoyed a very strong expansion in activity. Between 1998 and 2000, for example, the fifteen Member States recorded an average annual increase of more than 3.1 p.c. Conviction was growing that this strong activity increase was structural and that the *new economy boom* would generate higher economic growth over a long period. This lessened the pressure on governments to pursue a tight fiscal policy because the remaining deficits would be automatically eroded by the higher growth.

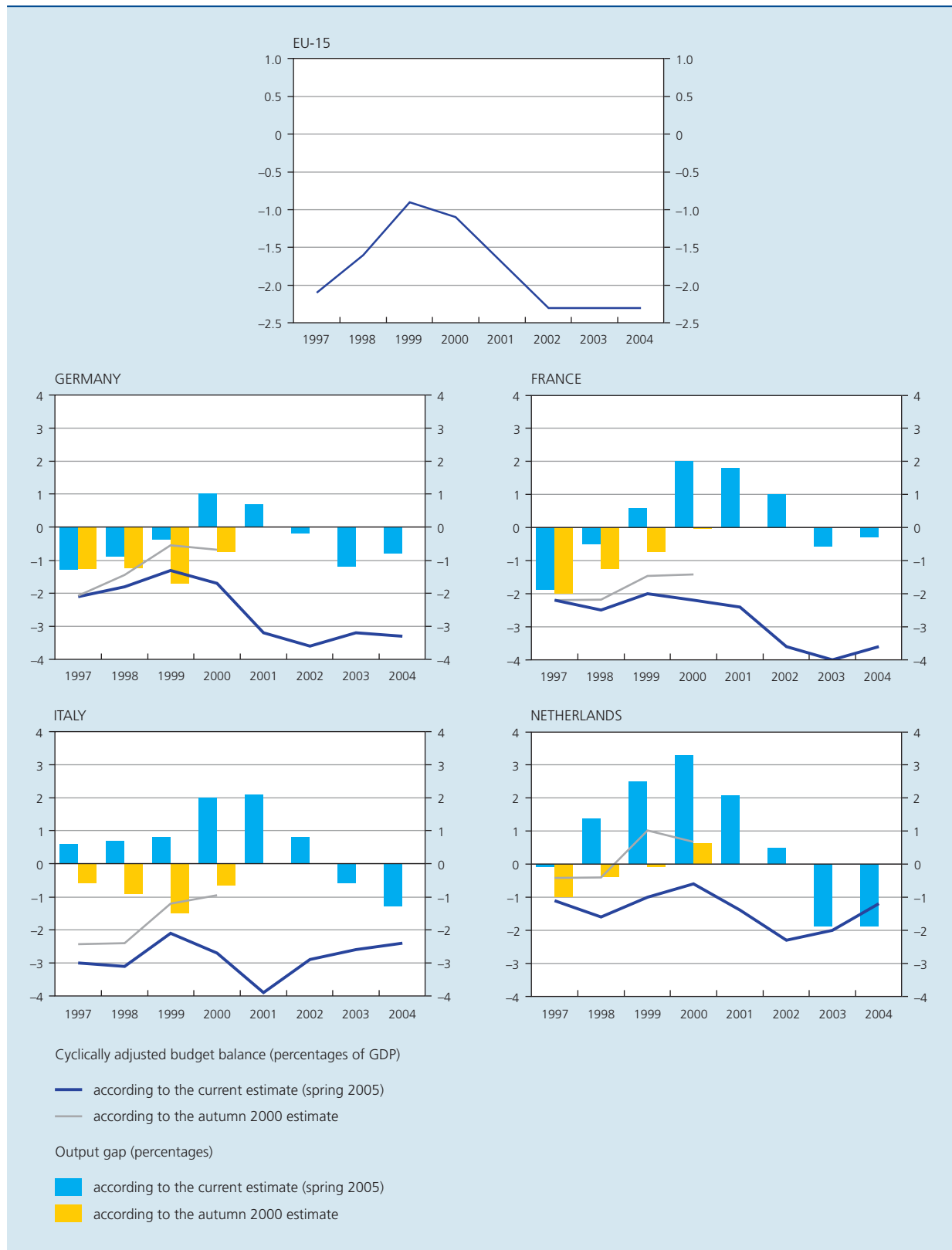
However, the protracted downturn in economic activity from the turn of the century made it clear that this optimism was not entirely justified. The over-optimistic growth expectations had two specific consequences.

First, governments based their budgets and stability programmes on macroeconomic assumptions which later proved to be far too favourable, so that the budgetary targets were often missed by a large margin. The German stability programme of October 2000 is an excellent example in this respect: that programme was based on activity growth of 2.75 p.c. in 2001 and 2.5 p.c. in subsequent years. In reality, Germany's economic growth averaged around 0.25 p.c. from 2001 to 2003.

Second, the belief in a higher trend or potential activity growth led to a misappraisal of the cyclical situation around the turn of the century. Thus, the European Commission's estimate, in the autumn of 2000, of the output gap for that year in the aforementioned four large Member States was far less favourable than is now the case⁽¹⁾. The upward revisions come

(1) Mention should be made here of the fact that the method of cyclical adjustment then being used by the European Commission was still based on an estimate of the output gap derived by comparing the actual GDP with trend GDP (estimated via a Hodrick-Prescott-filter), whereas the Commission's present method of cyclical adjustment takes account of potential GDP (calculated via a macroeconomic production function). However, this methodological difference only explains a very small part of the upward revision of the output gap and, thus, the downward revision of the cyclically adjusted budget balances.

CHART 3 EVOLUTION OF THE CYCLICALLY ADJUSTED BUDGET BALANCES⁽¹⁾ IN THE EU-15 AND IN CERTAIN MEMBER STATES



Source: European Commission (2005b and 2000).

(1) According to the cyclical adjustment method used by the European Commission and excluding UMTS proceeds.

to 1.7 percentage points for Germany, 2 percentage points for France and as much as 2.7 percentage points for Italy and the Netherlands. This in turn led to an often substantial overestimate of the cyclically adjusted budget balances. Thus, the figures published by the European Commission in the autumn of 2000 relating to cyclically adjusted budget balances for 1997 to 2000 indicate much smaller deficits than the current estimates by that institution. In 2000, the European Commission was still assuming that France had reduced its cyclically adjusted deficit to less than 1.5 p.c. of GDP and that Germany and Italy had deficits of less than 1 p.c. of GDP and, for the Netherlands, surpluses were even reported. The overly optimistic growth expectations thus led to the wrong assessment that these four countries had already reached or were fast approaching the medium-term objective laid down in the pact.

3.2.3 The not particularly compelling corrective part of the pact

The potential penalty for failure to meet the convergence criteria set out in the Treaty on European Union was particularly severe: (temporary) exclusion from the monetary union. Although the pact specifically intended to reinforce the compulsory nature of the budgetary rules in the monetary union, the potential sanctions for an irresponsible fiscal policy in the monetary union are much lighter by comparison. Once that the monetary union is formed, the participating countries obviously cannot be expelled from it on grounds of failure to align their fiscal policy with the pact. Only in the case of deficits considered to be excessive (as a rule, higher than 3 p.c. of GDP) is it possible – following a long and difficult procedure – to impose financial penalties on them.

Furthermore, the success of a budgetary rule, as already remarked, depends on its correct implementation by an independent institution which actually imposes the prescribed sanctions. With the introduction of the pact, the policymakers of the time wanted to limit the freedom of action of the Council, the institution carrying ultimate responsibility concerning this issue, in that respect by increasing the automatic nature of the sanctions procedure for excessive deficits. Nevertheless, the pact still did not impose totally automatic penalties on Member States with excessive deficits and the progress of the corrective procedures remained dependent on formal decisions by the Council. Doubts over the strict and full application of the corrective rules and procedures and, particularly, the scope for imposing effective sanctions therefore could not be ruled out altogether.

In addition, some of the Council's decisions during the period in which the budgetary problems became fully apparent were unlikely to alleviate such doubts. In February 2002, for instance, the Council decided not to act on the recommendation by the European Commission and issue an early warning to Germany and Portugal in order to draw attention to the risk of an excessive deficit. Then in November 2003 it again failed to act on the European Commission's recommendation that France and Germany should be given notice to take measures to eliminate their excessive deficits, so that the procedure against these two Member States was de facto held in abeyance. Yet those recommendations by the European Commission already constituted a *flexible* application of the rules since both countries were given until 2005 to correct their excessive deficits whereas, according to a strict application of the time schedule defined in the pact, they should have done so by 2004 at the latest.

On 13 July 2004 the Court of Justice of the European Communities ruled that the Council, in its November 2003 decision, had breached the European Commission's right of initiative, since the Council resolutions formulated new demands which were not based on recommendations by the European Commission. However, this ruling, which mainly focussed on procedural matters, did confirm that the Council always has the right, in principle, not to act on the Commission's recommendations. Later, both the European Commission and the Council took further steps (such as the Commission's December 2004 proposal that no further action should be taken against the excessive deficits recorded by France and Germany, a proposal which the Council approved in January 2005) which weighed on the confidence in the sanction procedures. However, by that time the debate on comprehensive reform of the pact was already in full swing.

All in all, it is difficult to exclude the possibility that (sometimes justified) doubts about the effectiveness of the pact's corrective procedures contributed to the budgetary slippage in a number of Member States.

3.2.4 Problems in assessing budgetary positions

Any budgetary rule obviously depends on the correct reporting of budgetary positions. It is not possible to take prompt action against inappropriate budgetary developments if they are not reflected in the figures reported. In certain cases, however, there were clear shortcomings in the reporting of budgetary figures by the Member States and the verification thereof by the competent European institutions.

Thus, in Portugal and Greece the reported budgetary figures substantially underestimated the actual deficit. In the December 2001 stability programme and in the notification concerning the excessive deficit procedure dated March 2002, Portugal had announced a budget deficit of 2.2 p.c. of GDP for 2001. However, in the autumn of 2002 this figure was adjusted to no less than 4.1 p.c. of GDP (and later even 4.4 p.c. of GDP). In Greece's case, a similar notification in March 2004 still indicated a budget deficit of 1.7 p.c. of GDP for 2003. That figure has since been revised upwards in successive stages to 4.6 p.c. of GDP. The deficits for earlier years have also undergone substantial upward adjustment. Hence, excessive deficits have appeared in both Portugal and Greece without being expressed in the official budget statistics. When this article went to press, there were also still doubts about the accuracy of Italy's official budget figures since Eurostat had not yet approved the budgetary data notified for that country at the end of February and already revised upwards.

Assessment of the budgetary positions may also be hampered by the fact that the rules pertain mainly to the annual budgetary outcomes (and far less to the sustainability of public finances, for example), so that there may be a tendency for governments to take non-recurring measures, which in some cases improve the current budgetary balances to the detriment of future budgets. Obviously, the effectiveness and the relevance of the pact's budgetary rules is especially undermined in those latter cases.

As already remarked, in 1997 – when the budgetary outcomes were assessed in the light of the convergence criteria laid down in the Treaty on European Union – a number of Member States had made use of non-recurring measures but their extent was relatively limited overall. In the past few years, however, non-recurring measures have become particularly significant in some Member States, so that the actual budgetary outcomes are very different from the structural balances. This applies mainly to Portugal, Italy and Belgium (European Commission, 2004). In Belgium's case, for example, as far as the 2003 government accounts are concerned, there was the very substantial capital transfer from Belgacom, totalling 1.9 p.c. of GDP, in exchange for the government's assumption of the company's pension liabilities, which will therefore weigh on future budgets. Since then, however, the impact of these one-off measures has declined considerably, to an estimated 0.8 p.c. of GDP in 2004 and 0.4 p.c. of GDP in 2005.

4. The revised pact

After a prolonged debate, the Council reached agreement on 20 March 2005 on the reform of the stability and growth pact. That agreement, which was confirmed by the European Council of 22 and 23 March 2005, comprises certain changes to the pact, though the details have yet to be worked out and translated into actual amendments to the Council Regulations embodying the pact. On 20 April 2005, the European Commission proposed some specific amendments to those Regulations. When this article went to press, however, those amendments were not yet approved.

Below is a summary of the main changes followed by a brief assessment.

4.1 The main changes

The modifications approved by the Council pertain both to the preventive part of the pact and to the excessive deficit procedure. The Council also makes some proposals for an improved governance and a more correct implementation of the pact by the various institutions.

4.1.1 The preventive part

The main change to the preventive part of the pact concerns the definition of the medium-term objective of a budget close to balance or in surplus. From now on, country-specific objectives would apply depending on the debt ratio and potential growth. These targets may vary from a deficit of 1 p.c. of GDP for Member States with a low debt and high potential growth, to a balanced budget or a surplus for Member States with a high debt and low potential growth. These objectives should avoid that, in the case of a normal downturn in the cycle, the deficit exceeds the 3 p.c. of GDP level, improve the sustainability of public finances and, at the same time, allow room for budgetary manoeuvre, particularly for government investment. However, it still has to be examined how future liabilities arising from population ageing can be taken into account in the medium-term objectives; a European Commission study on this subject is requested by the end of 2006.

In addition, the rule concerning the transition to these medium-term objectives is changed slightly. Member States which belong to the euro area or take part in ERM II are asked to eliminate their deficits if their budgetary position does not yet meet the medium-term objective. In this respect, an annual reduction of 0.5 p.c. of GDP on average (instead of at least 0.5 p.c. of GDP

each year) should be taken as a benchmark. The effort should be greater when economic conditions are favourable – defined by the Council as years in which the output gap is positive⁽¹⁾ – as opposed to times when the cyclical situation is adverse. However, this does not appear to be a strict obligation, since Member States which deviate from the adjustment path described above are only required to explain the reasons for this in their stability or convergence programme. The European Commission can give policy advice⁽²⁾ urging the Member States to follow the adjustment path.

Furthermore, deviations from both the medium-term objective and the adjustment path are permissible for the purpose of implementing certain structural reforms. In principle, the deviation must be temporary and the reforms must have a verifiable favourable impact on the sustainability of public finances. In addition, a safety margin must always be maintained to ensure that the budget deficit remains below the reference value of 3 p.c. of GDP.

Finally, the Council also explicitly states that both the medium-term objective and the speed of adjustment are measured without taking account of the influence of the economic cycle and temporary measures. The focus is therefore being shifted from merely cyclically adjusted balances to structural budget balances.

4.1.2 The excessive deficit procedure

The pact's corrective procedures are fundamentally changed. First, the definition of the exceptional circumstances in which a deficit of more than 3 p.c. of GDP is not regarded as excessive, is widened significantly. From now on, any negative activity growth and any long period in which growth is positive but substantially below the potential level would constitute an exemption.

Moreover, attention is now also explicitly paid to the "other relevant factors" which may justify a deficit of more than 3 p.c. of GDP. The Council lists a number of factors in this respect. Potential growth, the level of government investment, the sustainability of the debt, the budgetary efforts made when economic conditions were favourable and the quality of public finances, for instance, will be considered. In addition, account must be taken of all other factors which the Member State in question considers relevant, especially the "financial contributions to fostering international solidarity and to achieving European policy goals, notably the unification of Europe, if it has a detrimental effect on the growth and fiscal burden of a Member State". In all cases, the breach of the deficit limit of 3 p.c. of GDP must be limited and temporary.

In addition, the deadlines for completing the various stages in the correction procedure for excessive deficits, described in 2.2.3, are extended by one or more months. This concerns the period within which the excessive deficit must be identified (extended from 3 to 4 months), the recommended deadline for taking effective action to correct the excessive deficit (extended from 4 to 6 months) and the subsequent deadlines for giving official notice and complying therewith (extended from 1 to 2 months and from 2 to 4 months respectively).

Despite these extensions to the procedure, the Council confirms the general principle that excessive deficits must be corrected by no later than the year after they are identified⁽³⁾, but the number of exceptions to this has been increased. The focus seems to have shifted somewhat away from a commitment on results to a commitment concerning means. The Member State in question is in principle required to reduce its structural deficit by at least 0.5 p.c. of GDP. It is clearly suggested, however, that the deadline for eliminating the excessive deficit may be longer if this minimum effort is not sufficient to reduce the deficit below the excessive level within the year following official identification of the problem. Moreover, the Council may decide to define the initial deadline as two years following the identification of the excessive deficit if special circumstances apply. In this respect reference is made to the aforementioned specification of the "other relevant factors". Finally, the original deadline set by the Council may be extended if the Member State fails to correct the excessive deficit as a result of unforeseen economic developments which have a significant adverse impact on the budget. However, this is possible only if the Member State took effective action in compliance with the Council's recommendations or notice.

In addition, express account will be taken of the costs associated with pension system reforms when assessing the existence or correction of an excessive deficit. On 2 March 2004 Eurostat decided that funded pension schemes cannot, as a rule, be recorded in the social security sub-sector and fall outside general government⁽⁴⁾. When a funded scheme is introduced, the net revenue of the system, which is generally positive at the start, therefore cannot be included in the budget balance.

(1) The Council also states that tax elasticities must be taken into account here, which may be an implicit reference to the composition effects of the economic cycle.

(2) If the Treaty establishing a Constitution for Europe takes effect, this may be replaced by an early warning.

(3) The Council explicitly states that this normally corresponds to the second year after the emergence of an excessive deficit, which rules out the possibility of the problem being identified much sooner, particularly within the same year.

(4) Later, however, a transitional period was introduced: this decision is only to be complied with from the first official notification of budgetary data in the framework of the excessive deficit procedure in 2007.

Nevertheless, such a pension reform does improve the sustainability of public finances since it reduces the pressure on the traditional pay-as-you-go schemes managed by the government. The Council therefore considered it appropriate, when assessing the budgetary situation in the Member States, to pay particular attention to this element.

Finally, the Council also states that more attention should be paid to the evolution of government debt and the sustainability of public finances. Member States with high debt ratios which are being reduced too slowly, are primarily targeted here. However, the Council does not clearly quantify the pace at which the debt ratio should approach the reference value.

4.1.3 Better governance

Apart from the said changes to the preventive and corrective procedures of the pact, the Council also makes some suggestions which should improve the implementation of the pact. It calls for instance, for closer cooperation between all parties concerned, namely the Member States, the European Commission and the Council, and for a better multilateral surveillance (under the euphemism of “peer support”). It also advocates the development of complementary national budgetary rules and surveillance procedures, continuity of the budgetary objectives when a new government takes over, and greater involvement of the national parliaments in the drafting of the stability and convergence programmes. Finally, it refers to the importance of realistic macroeconomic forecasts in the stability and convergence programmes and the need for good quality, reliable statistics on public finances.

4.2 Assessment

Any assessment of the pact’s reform must take account of the fact that the application of the original rules was certainly not an unqualified success, as already stated, and was by no means particularly strict, especially in recent months. A further drift towards a situation in which the budgetary rules exist on paper but do not entail any obligations for certain Member States, would probably have caused the most damage to the credibility of the institutional framework and the macroeconomic stability of the monetary union. A reflection on the European budgetary rules and, above all, on their application was therefore not inappropriate. Furthermore, it is undeniably beneficial that certain proposals, e.g. for sharply curtailing the powers of the European Commission and not including certain expenditure items in the calculation of the budget balance relevant for the application of the rules, were not accepted.

On the other hand, the reform described above makes the pact far more complex. Almost all the rules are encumbered with – in many cases numerous – exceptions. More generally, the reform constitutes a marked shift from an institutional framework based on the application of strict rules towards a framework in which the Council has far more scope for interpretation. To some extent, that means a return towards the situation which existed before the introduction of the pact which, as already stated, was specifically introduced to (further) limit that scope for interpretation. Moreover, the increased complexity will make it more difficult to monitor compliance with the rules of the pact.

In addition, the reform clearly implies a substantial and general relaxation of the existing rules. Most striking are the changes to the corrective procedures: substantial budget deficits will be considered as problematic in fewer cases and under the new rules Member States will be allowed more time to adjust their policy if a budgetary slippage is regarded as excessive. Moreover, the ultimate threat of sanctions seems to have faded somewhat into the background.

Nor can the changes to the preventive procedures be interpreted as a tightening of the budgetary rules, although a more qualified assessment is appropriate here. The clarification that the medium-term objective and the adjustment path towards that goal pertain to structural balances rather than merely cyclically adjusted balances (i.e. also corrected for the impact of non-recurring factors) implies a stronger recommendation for structurally sound public finances and is therefore to be welcomed⁽¹⁾. In addition, country-specific differentiation of these objectives based on potential growth and the public debt could, in principle, anchor the pact more firmly in economic theory. On the other hand, this reduces transparency and may give rise to (legitimate) questions concerning the equal treatment of all Member States. Moreover, these objectives – or the adjustment path imposed – appear to be less binding than the earlier provisions on the matter since the Council explicitly states that in the event of a deviation it is sufficient to set out the reasons in the stability or convergence programme. This is remarkable since the absence of a clear rule on the transition period to the medium-term objective was precisely reported to be one of the reasons for the lack of success in applying the pact in section 3.2.1. Now, the agreement reached by the Council in March 2003⁽²⁾ whereby the euro area Member States must reduce their cyclically adjusted

(1) According to the aforementioned Council recommendation of March 2003 it could be assessed on a case-by-case basis whether account was taken of temporary factors.

(2) It should be stressed, however, that this agreement did not entail any formal, legal obligation.

deficits by at least 0.5 p.c. of GDP per annum, appears to be weakened.

Finally, the proposals concerning better governance naturally indicate good intentions but provide little by way of practical solutions to the implementation problems experienced in the past⁽¹⁾. In that respect it is telling, for example, that the Council rejected the proposal by the European Commission to automatically approve the early warnings recommended by the Commission and addressed to the Member States. The Treaty establishing a Constitution for Europe does stipulate, however, that the Commission, without official confirmation by the Council, may address early warnings to the Member States as soon as that Treaty takes effect. It is therefore somewhat surprising that this proposal, which would permit a more effective use of the early warning instrument already now, is not included in a reform intended to improve the implementation of the pact.

All in all, the reform of the pact therefore amounts to a weakening of the existing rules. Much will now depend on the way in which this new framework is applied by the Member States, the European Commission and the Council.

5. Conclusion

This article has explained why, in a monetary union with a fragmented fiscal policy, clear and strictly applied budgetary rules are even more necessary than in other circumstances. With the stability and growth pact, which was introduced primarily at the instigation of Germany and certain smaller Member States, the institutional architecture of EMU was therefore enhanced with an instrument that should offer the necessary guarantees for a permanent budgetary stability in the union. It limited the Council's scope for interpretation in the event of inappropriate budgetary developments in favour of strict rules and procedures and constituted a decent compromise between the various criteria which good budgetary rules must satisfy. If correctly applied, the pact was flexible enough, for instance, to absorb normal cyclical fluctuations via the operation of the automatic stabilisers.

However, especially following the downturn in the cycle at the turn of the century, the pact was felt to be too restrictive. Against that background, the budgetary positions of many Member States deteriorated to such an extent that certain countries have now been suffering persistent excessive deficits for quite some time. This article has shown that the main reason for this was the marked decline in budgetary discipline after 1997, which in many cases more or less cancelled out the efforts made in preceding years, and has argued that this was due to a combination of institutional, political and statistical factors.

The recent reform of the pact makes the budgetary rules more flexible and more complex and greatly increases the Council's scope for interpretation. All parties involved now have an important responsibility in regard to the correct and objective application of the new framework. This applies in the first place to Member States which are still running excessive deficits: they must bring that situation to an end as quickly as possible and define and follow a credible adjustment path to the new medium-term objective, based on realistic macroeconomic assumptions and clearly specified measures. As regards the monitoring of compliance with the new rules, the guiding principle can only be the concern for sound public finances in the European Union.

In the end, the exact nature of the budgetary rules is less important than the actual budgetary developments. The fact that the rules become more flexible will not necessarily cause a further deterioration in the budgetary situation in the EU but will only make it easier for that to happen. In that respect, it must be remembered that, quite apart from the monetary union and its budgetary rules, most of the Member States are in urgent need of a much sounder fiscal policy for other reasons too, such as population ageing, which will weigh much more heavily on their budgets in the near future. Hence, it remains to be seen whether those Member States which, in the past few years, have not managed to avoid excessive deficits despite strict budgetary rules, can rectify that situation in the context of more flexible rules.

(1) However, it should be added that specific improvements to the statistical framework are dealt with in a separate legislative initiative.

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Summaries of articles

Economic projections for Belgium – spring 2005

Twice a year, in June and December, the National Bank of Belgium publishes the macroeconomic projections for the Belgian economy for the current and the following year. The current projections cover the years 2005 and 2006. These projections make up the national component of the broad macroeconomic projection exercise conducted within the Eurosystem; the ECB publishes the aggregated results of this exercise for the euro area economy in its Monthly Bulletin.

At the current juncture, the international environment is expected to remain supportive in 2005 and 2006, although real world GDP growth would be somewhat weaker compared to the impressive growth in 2004. Following the slowdown which hit the euro area since the summer of 2004, the Eurosystem expects, for the euro area, a gradual recovery from mid-2005 onwards and a deceleration of inflation from a higher level in the first months of 2005, due to receding pressure from energy prices, while domestic cost pressures should remain contained.

In Belgium, GDP growth slowed down markedly at the end of 2004. During the first quarter of 2005, the level of activity even stabilised and business confidence further dropped. Compared to the projections of December, GDP growth for 2005 has thus been revised downwards by more than 1 percentage point towards 1.4 p.c. In line with the Eurosystem's assumptions, the slowdown would be temporarily and activity should increase by 2.4 p.c. in 2006. A gradual strengthening of real household disposable income is expected in 2005, stemming mainly from financial income, and further in 2006, due to the proceeds of the tax reform. However, private consumption growth should be weak in the beginning of 2005, due to the high oil price level and the increased uncertainty of consumers regarding the economic situation. Domestic demand would nevertheless show some resilience in 2005 due to increasing investment. Also, towards 2006 exports would strengthen, supported by an improving international environment. Although employment growth is likely to slacken somewhat in the course of 2005, there would be a net creation of 62,000 jobs over the period 2005-2006. Still, the unemployment rate is likely to rise somewhat further, to 7.9 and 8 p.c. in 2005 and 2006 respectively, as the increase of the working population would slightly outpace the number of new jobs. Inflation is expected to increase to 2.2 p.c. in 2005, largely as a consequence of high energy prices, before decreasing to 1.9 p.c. in 2006. The underlying trend in inflation should however stay limited, at 1.3 and 1.6 p.c. in 2005 and 2006 respectively, as domestic cost developments should remain contained. Only taking into account the measures which have already been taken upon in the 2005 budget, the general government balance is expected to show a deficit of 0.5 p.c. of GDP in 2005 and of 1.4 p.c. in 2006.

JEL classification: E17, E27, E37, E66.

Key words: Belgium, macroeconomic projections, Eurosystem.

Sectoral interdependences and cost structure of the Belgian economy: an application for input-output tables

Input-output tables (IOT) offer a comprehensive view of an economy, describing supply and demand flows according to activity branches, including flows between these branches, i.e. intermediate consumption. Based on the latest published IOT, i.e. over the year 2000, this article develops the so-called cumulative approach, which delivers a global view of the effects of the economic activity of a given branch on others and on the economy as a whole. More specifically, the nature of relationships between branches, the peculiarities regarding the degree of openness and the production process of the Belgian economy, and the cost structure are illustrated in turn.

Indirect effects vary significantly among branches, as they are a function of the importance of domestic intermediate consumption in the production process. Generally speaking, business sector services are an important beneficiary of indirect effects from all branches, especially, and increasingly, from industry as a result of outsourcing.

Industrial activity presents fewer spillover effects in Belgium than in other European countries, as a result of higher leak effects through imports. As opposed to this, indirect effects of business sector services activity are stronger than elsewhere, due to important business activities outsourcing in these branches also.

From 1995 to 2000, the cumulative intermediate import content of Belgian output has raised to the expense of value added, which, aside from a price effect, also indicates an increasing reliance on imports. Intermediate import dependency, which is larger in Belgium, mainly takes the form of industrial products, but is also more important than elsewhere for business sector services.

While import dependency looms heavy for exports, it is also large for households' consumption. In terms of cost structure, wages represent globally more than a third of total production. However, the share of wages amounts to about a quarter of the total costs related to households consumption recorded in the HICP, while the share of indirect taxes is 17 p.c.

JEL code: D57.

Key words: input-output tables, sectoral interdependences, cost structure

The US current account deficit: how did it come about and what are the policy implications

One of the most remarkable characteristics of the world economy today is the enormous, ever worsening US balance of payments current account deficit, which reached a record level of 5.7 p.c. of GDP in 2004. This has given rise to concerns in academic and political circles regarding the sustainability of the current situation and the potential dangers for the global economy of a sudden, disorderly adjustment. The size of the US current account deficit is not only unprecedented in American post-war history, but it also seems to be exceptional from an international perspective. Moreover, the US deficit contrasts with a surplus in virtually every other region and the problem has consequently taken on a global dimension.

The increase in the US current account deficit recorded in the nineties reflects an internal American shortfall in savings. Whereas the private savings-investment equilibrium was restored in 2002 and 2003, the same period saw a huge deficit in the public sector budget. The start of the new millennium brought notable changes in the way the US current account deficit was financed since investments by Asian public authorities in American government debt instruments largely took over the position previously occupied by European private foreign direct investments and investments in equities.

It is sometimes put forward that the US, unlike other countries facing similar circumstances, is safeguarded from an attack on its currency because of its prominent role in the international financial system. According to an influential school of thought in economic literature, the current international system can even be seen as a “revived” Bretton Woods system. Indeed, a number of East-Asian countries, including China, use a fixed or quasi-fixed exchange rate against the dollar, which brings to mind an informal dollar standard. Although this set of circumstances has undoubtedly offered various regions in the world a number of mutual benefits during recent years, these exchange rate relations may nevertheless have caused some distortions in US spending, whereas Asian countries have to deal with a growing exchange rate risk on their official reserves.

Different scenarios are conceivable to deal with the global imbalances. The results of model simulations show the huge effort required to significantly reduce the US current account deficit which highlights the scale of the problem, emphasising the need for simultaneous economic policy measures in the different economies involved. The concern over global imbalances and the development of exchange rates also feature prominently on the agenda of international forums such as the G7 or G20 meetings. In the statements issued at those meetings, the need for a common approach to tackle the global imbalances is given priority and the belief that excessive exchange rate volatility is not desirable is underlined.

JEL Classification: F0, F31, F32, F33, F42.

Key words: current account imbalances, United States current account, financial flows into the United States, international monetary system.

Stability and growth pact: an eventful history

When it was adopted in 1997 the stability and growth pact was considered as one of the cornerstones of the European monetary union. However, against the background of the economic downturn starting at the turn of the century, this perception changed and some observers criticised the pact for unduly constraining governments’ fiscal room for manoeuvre. This sparked a long debate on the appropriateness of the fiscal rules in the monetary union that has finally ended in March 2005 when a political agreement was reached in the Council of the European Union that announces substantial changes to the pact. This article first recalls the reasons for fiscal rules, especially in a monetary union with a fragmented budgetary policy, and the main provisions of the original pact. It then shows that despite the strengthening of the fiscal rules nearly all EU-15 Member States have significantly relaxed budgetary discipline after 1997, i.e. the year in which compliance with the Maastricht convergence criteria was tested, which led to significant budgetary slippages in a number of countries. It is argued that this is due to specific institutional, political and statistical factors. Finally, the reform of the pact is assessed. Without prejudging the application of the new framework, the fiscal rules are found to be significantly weakened and there is a clear shift towards a more judgement-based institutional framework.

JEL Codes: E42, E59, H60, H69, H87

Key words: Stability and growth pact, fiscal rules, European monetary policy

Abstracts of the working papers series

65. “Price-setting behaviour in Belgium : what can be learned from an ad hoc survey?” by L. Aucremanne and M. Druant, Research series, March 2005

The paper reports the results of an ad hoc survey on price-setting behaviour conducted in February 2004 among 2,000 Belgian firms. The reported results clearly deviate from a situation of perfect competition and show that firms have some market power. Pricing-to-market is applied by a majority of industrial firms. Prices are rather sticky. The average duration between two consecutive price reviews is 10 months, whereas it amounts to 13 months between two consecutive price changes. Most firms adopt time-dependent price-reviewing under normal circumstances. However, when specific events occur, the majority will adopt a state-dependent behaviour. Evidence is found in favour of both nominal (mainly implicit and explicit contracts) and real rigidities (including flat marginal costs and counter-cyclical movements in desired mark-ups). The survey results point to a non-negligible degree of non-optimal price-setting.

66. “Time-dependent versus state-dependent pricing : A panel data approach to the determinants of Belgian consumer price changes” by L. Aucremanne and E. Dhyne, Research series, April 2005

Using Logistic Normal regressions, the authors model the price-setting behaviour for a large sample of Belgian consumer prices over the January 1989 – January 2001 period. Their results indicate that time-dependent features are very important, particularly an infinite mixture of Calvo pricing rules and truncation at specific horizons. Truncation is mainly a characteristic of pricing in the service sector where it mostly takes the form of annual Taylor contracts typically renewed at the end of December. Several other variables, including some that can be considered as state variables, are also found to be statistically significant. This is particularly so for accumulated sectoral inflation since the last price change. Once heterogeneity and the role of accumulated inflation are acknowledged, hazard functions become mildly upward-sloping, even in a low inflation regime. The contribution of the state-dependent variables to the pseudo- R^2 is, however, not particularly important.

67. “Indirect effects – A formal definition and degrees of dependency as an alternative to technical coefficients” by François Coppens, Research series, May 2005

The use of input-output analysis for the computation of secondary effects of final demand changes is well-known. These ‘final demand effects’ can be calculated using technical coefficients and the inverse of the Leontief matrix.

This paper offers an alternative to the use of technical coefficients. Its goal is threefold.

First of all, degrees of dependency are defined and it is shown how they can be used to compute secondary effects. Their definition is based on an input-output table.

Secondly, the concept of secondary effects is extended to what is called indirect effects. These indirect effects are not only related to final demand but to total industry output. It is shown how these indirect effects can be calculated using technical coefficients or degrees of dependency. The method used is a variant of the so-called Hypothetical Extraction Methods. Double counting is avoided, as such the resulting multipliers are 'net multipliers'. It is formally demonstrated that technical coefficients and degrees of dependency give the same results when a recent input-output table is available. If this is not the case then the results are different. It is impossible to say which of the two estimates is better. Since technical coefficients are already broadly accepted, some examples are given to justify the use of degrees of dependency.

Finally, it is explained how the unavailability of an input-output table can be solved. Starting from the supply-use tables a 'quick and dirty method' to infer an input-output table is provided. This topic is justified by the fact that for Belgium input-output tables are only published for those years that are divisible by five, with a three year lag.

A short empirical analysis, based on currently available data, shows that technical coefficients and degrees of dependency have comparable performance, with a slight advantage for the technical coefficients. This performance is measured relative to a 'right' result, being the indirect effects for the year 2000 computed using the now available input-output table for the year 2000. This result is called 'right' because it does not make any assumptions on stability of technical coefficients nor of degrees of dependency.

The empirical analysis also compares the use of a recent supply-use table to the use of an old input-output table. Supply-use tables on average overestimate the 'right' result. They are however often closest to the 'right' result at the first level.

Since these conclusions are based on limited data further analysis is required as more data becomes available.

68. ["Noname – A new quarterly model for Belgium" by Ph. Jeanfils and K. Burggraeve, Research series, May 2005](#)

The paper gives an overview of the present version of the quarterly model for the Belgian economy built at the National Bank of Belgium. This model can provide quantitative input into the policy analysis and projection processes within a framework that has explicit micro-foundations and expectations. This new version is also compatible with the ESA95 national accounts (European system of accounts 1995).

This model called Noname is relatively compact. The intertemporal optimisation problem of households and firms is subject to polynomial adjustment costs, which yields richer dynamic specifications than the more usual quadratic cost function. Other characteristics are: pricing-to-market and hence flexible mark-ups and incomplete pass-through, a CES (constant elasticity of substitution) production function with an elasticity of substitution between capital and labour below one, time-dependent wage contracting à la Dotsey, King and Wollman. Most of the equations taken individually have acceptable statistical properties and diagnostic simulations suggest that the impulse responses of the model to exogenous shocks are reasonable. Its structure allows simulations to be conducted under the assumption of rational expectations as well as under alternative expectations formations.

69. "Economic importance of the Flemish maritime ports: report 2003" : by F. Lagneaux, Document series, May 2005

The Flemish maritime ports play a major role in the Belgian economy, not only in terms of the industries they encompass but also as intermodal centres where transshipment activities are concentrated.

This update⁽¹⁾ paper provides an extensive overview of the economic importance and development of the Flemish maritime ports, through revised results for the period 1997-2003. Focusing on the three major variables of value added, employment and investment, it also provides some information about the financial situation of a few vital sectors in each port. A global indication concerning the financial health of the companies studied is also provided, using the NBB bankruptcy prediction model. In addition, it includes figures with respect to the ongoing growth of several cargo traffic segments and provides an overall picture of social developments in the Flemish maritime ports.

The indirect effects of these port activities are estimated in terms of value added and employment. Annual account data from the Central Balance Sheet Office were used for the calculation of direct effects, the study of financial ratios and the analysis of the social balance sheet. The indirect effects were estimated on the basis of data from the National Accounts Institute.

In the Flemish maritime ports, direct value added (VA) came to almost 11.5 billion euro and total VA – the sum of direct and indirect VA – to 22 billion euro in 2003. In the same year, direct and total employment reached 105,000 and 239,000 full-time equivalents, respectively, while direct investment reached 2.5 billion euro.

The ongoing developments in the maritime ports sector in the Hamburg-Le Havre range continue to affect the port operations: concentration of capital, privatisation of port logistic services, expansion and dispersion of foreign trade, internationalisation of production and consumption patterns, increase in containerised shipments, etc. Production, trade and transport are no longer considered as individual and isolated activities, but are integrated within a single system, while economies of scale continue. Therefore, ports are becoming real logistic centres: ports able to add value to the goods passing through the port area have a major advantage in a climate of increasing international competition. Flemish ports are following this trend, and that is also reflected in the analysis presented in this report.

(1) Update of Lagneaux F. (2004), The economic importance of the Flemish maritime ports: report 2002, NBB, Working Paper No. 56 (Document series).

Conventional signs

–	the datum does not exist or is meaningless
e	estimate by the Bank
n.	not available
no.	number
p.c.	per cent
p.m.	pro memoria

List of abbreviations

COUNTRIES

BE	Belgium
DE	Germany
GR	Greece
ES	Spain
FR	France
IE	Ireland
IT	Italy
LU	Luxembourg
NL	Netherlands
AT	Austria
PT	Portugal
FI	Finland
EA	Euro area
DK	Denmark
SE	Sweden
GB	United Kingdom
AU	Australia
CA	Canada
CH	Switzerland
HK	Hong Kong
JP	Japan
KR	South Korea
NW	Norway
NZ	New Zealand
SG	Singapore
TW	Taiwan
US	United States

OTHER

BEA	Bureau of Economic Analysis
BIS	Bank for International Settlements
BNRC	Belgian National Railway Company
BREO	Brussels Regional Employment Office
EC	European Commission
ECB	European Central Bank
ECOFIN	European Council of Ministers of Economic Affairs and Finance
EDP	Excessive Deficit Procedure
EMU	Economic and Monetary Union
ERM	European Exchange Rate Mechanism
ESA	European System of Accounts
ESCB	European System of Central Banks
EU	European Union
EU-15	European Union excluding the ten countries which joined in 2004
FDI	Foreign direct investment
FISIM	Financial Intermediation Services Indirectly Measured
FOREM	Office communautaire et régional de la formation professionnelle et de l'emploi (Community and Regional Vocational Training and Employment Office)
FPB	Federal Planning Bureau
FPS	Federal Public Service
G7	Group of Seven
G20	Group of Twenty
GDP	Gross domestic product
HICP	Harmonised Index of Consumer Prices
HWWA	Hamburgisches Welt-Wirtschafts-Archiv
ISM	Institute for Supply Management
IMF	International Monetary Fund
IOT	Input-output tables
NACE-BEL	Statistical nomenclature of economic activities of Belgium
NAI	National Accounts Institute
NBB	National Bank of Belgium
NBER	National Bureau of Research
NEMO	National Employment Office
NiGEM	National Institute Global Econometric Model
NSI	National Statistical Institute
NSSO	National Social Security Office
OECD	Organisation for Economic Co-operation and Development
OPEC	Organisation for Petroleum Exporting Countries
UMTS	Universal Mobile Telecommunications System
VAT	Value added tax
VDAB	Vlaamse dienst voor arbeidsbemiddeling en beroepsopleiding (Flemish Employment Exchange and Vocational Training Service)

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