

# Quarterly Newsletter of the Federal Planning Bureau

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*Short Term Update (STU) is the quarterly newsletter of the Belgian Federal Planning Bureau. It contains, in English, the main conclusions from the publications of the FPB, as well as information on new publications, together with an analysis of the most recent economic indicators.*

## HEADLINES BELGIAN ECONOMY

*This year, the Belgian economy should register a GDP growth of 2.7%. In 2007, economic growth should slow down to 2.2%.*

*In line with the international economic situation, Belgian export growth should strengthen to 5.4% this year and decrease to 4.9% in 2007. The current account surplus should hardly change. In 2006 this is due to the sharp increase in oil prices, which leads to a deterioration in the terms of trade, whereas in 2007 imports and exports should increase to the same extent, while the terms of trade stabilise.*

*Domestic demand should grow at a slower pace as business investment growth weakens somewhat after last year's substantial catching-up. This is partially compensated for by a strengthening of public expenditure and especially by private consumption. Private consumption growth should accelerate to 2.3% in 2006 and 2% in 2007 (from 1.1% in 2005), thanks to the increase in households' real disposable income and (at least in 2006) a further drop in the household savings ratio.*

*Domestic employment should increase by on average 41,000 units in 2006 and 45,600 units in 2007. As the number of jobs is growing faster than the labour force, the unemployment rate (large administrative definition) is expected to diminish from 14.3% in 2005 to 13.7% in 2007. Nevertheless, the harmonised Eurostat unemployment rate (based on labour force surveys) should still increase from 8.4% in 2005 to 8.6% in 2006, only to drop to 8.3% next year.*

*Headline inflation, as measured by the national index of consumer prices (NICP), should amount to 1.9% in 2006 and 2007 (after 2.8% in 2005). This year, the inflation picture is blurred by the introduction of a new NICP-basket based on the household budget survey of 2004. Measured by the deflator of private consumption, which is not affected by this technical factor, inflation should only drop to 2.4% in 2006 and ease further to 1.9% in 2007. The steady decline in inflation mainly results from the moderate wage cost increase, the appreciation of the euro and the stabilisation of oil prices expected in the course of 2007.*

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**FPB activities are primarily focused on macro-economic forecasting, analysing and assessing policies in the economic, social and environmental fields.**



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## Simulating the impact of the pension bonus on the financial implications of working longer

In 2005, the federal government presented the ‘Generation Pact’, containing a number of measures designed to strengthen the financial sustainability of the Belgian system of social security in the light of demographic ageing. One of these measures, the introduction of a pension bonus, is designed to encourage older workers to postpone retirement. The effect of this bonus on the financial consequences of retirement is simulated for four fictitious older workers, and the results are discussed in the text below.

### The pension bonus

A pension bonus would be introduced in the first-pillar old-age pension systems for private sector employees and for the self-employed, granting them an additional pension benefit of 2 euro per working day that they continue to work after reaching the age of 62. This bonus increases the retirement benefit in all years of retirement. So, if a worker decides at his or her 62<sup>th</sup> birthday to continue to work for a full year, he or she will receive an extra pension benefit at retirement for all years of retirement from the age of 63 on. Note that the bonus is first added to the pension benefit of an individual, and the combined benefit is only then compared to the minimum pension benefit. The minimum benefit itself is not increased by the bonus<sup>1</sup>.

### The option-value approach applied to four typical cases

The option-value approach to the retirement decision assumes that rational individuals look beyond what benefit they will get immediately after retirement, and instead consider the full stream of potential future pension benefits. Given the previous career of an individual, the pension benefit is calculated for every year that he or she has the choice of retiring or continuing to work. The pension wealth is therefore the discounted sum of future pension benefits that the individual can expect to receive from the time of retirement until perceived death. If retirement is postponed by one year, the pension wealth will, of course, change. The individual will also receive earnings for one additional year. The decision to retire is related to the joint consideration of these two effects. If pension wealth decreases as a result of postponing retirement, it presses as an ‘implicit tax’ upon earnings. If it increases, there is an implicit subsidy on working longer. Earlier studies<sup>2</sup> argued that post-

poning retirement in most cases comes with a decrease in pension wealth, and the pension system hence puts an implicit tax on earnings. Furthermore, this implicit tax increases with the replacement ratio and this generally implies that women and blue-collar workers may have stronger financial incentives to retire early than men and white-collar workers<sup>3</sup>.

The option value approach is applied to a fictitious individual representing a male or female white- or blue-collar employee, and assumes that he or she is born in 1939, enters the labour market at the age of 20, remains single and works full time for the entire career. This information is then used to simulate the after-tax pension benefit, applying pension rules and fiscal regulations with as much precision as possible. It is important that the results discussed below are not interpreted as being ‘true’ foreseen effects of the implementation of the bonus for several reasons. First of all, they describe the simulation of typical cases. Even though the wage-profiles of these fictitious individuals are such that they represent the ‘average’ white- or blue-collar worker as much as possible, the (necessary but for some types unrealistic) assumption of full-time and full-career work makes it difficult to draw conclusions concerning the whole population of workers in its category. Finally, rules and regulations on pensions, taxes and contributions are included for the years between 1997 and 2004, and thus assume that the bonus was implemented before its actual date in 2007. The consequence of all this is that the results should be interpreted as a ‘heuristic tool’ describing possible consequences of the implementation of the bonus, and not as projections or as showing the exact average effects.

Taking all this into account, what is the effect of the pension bonus on the costs associated with postponing retirement of the different ‘typical employees’?

Table 1 presents some simulation results for individuals representing a male and female white-collar worker, and a male blue-collar worker, with and without the implementation of the pension bonus<sup>4</sup>. The first column contains the age at which the individual decides whether or not to retire. The second column shows the age at which the individual will retire, if the pension is

1. The exact characteristics of the measure remain unknown to date, pending a decision by the Minister of Pensions.

2. “De Financiële Implicaties van Langer Werken: een MicroEconomisch Pensioen Model (MEP)”, G. Dekkers, Working Paper 15-05

3. The 2006 report of the Study Committee on Ageing discusses a macroeconomic assessment of the average impact of the bonus on the implicit tax on working longer and on employment rates.

4. The simulation results in the base scenario are extensively discussed in Dekkers (2005) and this discussion will therefore not be repeated here. Note however that the results here differ slightly from those in Dekkers (op. cit.): this is because of the different years of birth of the individual. These differences do not change the description in the aforementioned paper nor the conclusions drawn in this text.

postponed. So, the first row of 'decision age' 61 describes the situation at the time when the individual is 61 years old, and is deciding between retiring at 61 or 62. If, at 61, he continues to work, at the retirement age of 62 he will receive a net pension benefit associated with a replacement ratio of 0.530<sup>1</sup>. Clearly, these amounts do not change as a result of the introduction of the bonus. However, the introduction of the bonus will change the results from the retirement age of 63 onwards. This next line describes the choice between retiring at 62 (when one does not get a bonus) and 63 (when one does).

**Table 1 - The effect of the pension bonus: simulation results for male and female white- and blue-collar workers.**

Decision age	Retirement age	Before introducing the bonus			After introducing the bonus		
		Ratio of net alternative incomes	Balance of earnings and lost pension wealth (euro)	Implicit tax on earnings	Ratio of net alternative incomes	Balance of earnings and lost pension wealth (euro)	Implicit tax on earnings
<b>Typical male white-collar worker</b>							
61	62	0.530	15,875	0.263	0.530	15,875	0.263
62	63	0.538	13,677	0.356	0.550	17,717	0.165
63	64	0.546	13,143	0.367	0.570	16,482	0.206
64	65	0.548	11,486	0.435	0.584	14,132	0.305
<b>Typical female white-collar worker</b>							
61	62	0.705	10,038	0.251	0.705	10,038	0.251
62	63	0.713	6,195	0.531	0.735	11,693	0.114
63	64	0.712	4,982	0.617	0.755	9,867	0.242
64	65	0.709	5,544	0.570	0.772	9,528	0.261
<b>Typical male blue-collar worker</b>							
61	62	0.767	6,758	0.424	0.767	6,758	0.424
62	63	0.785	4,770	0.581	0.811	9,290	0.184
63	64	0.791	4,583	0.588	0.842	8,480	0.238
64	65	0.798	4,008	0.631	0.871	7,066	0.349

Source: FPB

The third and sixth columns show the net replacement rate if the individual retires at the age shown in the second column. This replacement rate, of course, gradually increases as a result of the bonus. The fourth and seventh columns show the balance of gains (extra earnings) and losses (a loss in pension wealth) associated with postponing retirement by one year. The balance is positive in all cases, meaning that it is profitable to continue to work. By introducing the bonus, this positive balance is reinforced. Finally, the fifth and eighth columns contain the implicit tax on working longer, being the ratio of the loss in pension wealth over the extra earnings. The implicit tax decreases considerably as a result of the introduction of the bonus. An initial conclusion, therefore, is that the introduction of the pension bonus might effectively decrease the implicit tax on working longer.

However, Table 1 also suggests that there are important differences between the fictitious individuals representing various types of workers. Indeed, the proportional average effect of the pension bonus in the implicit tax is strongest for the female white-collar worker, followed by the male blue-collar worker. Finally, the effect is smallest for the male white-collar worker. Overall, it seems that the decreasing effect of the introduction of the pension bonus on the implicit cost of retirement of white-collar women is higher than that of men. This can be explained by the higher life expectancy of women relative to men, thereby causing the increase in pension wealth as a result of the bonus to be greater. That the effect of the pension bonus is greater for a typical male blue-collar worker than for his male white-collar colleague can be explained by the fact that the benefit is a lump sum. As such, it proportionally becomes greater with decreasing pension benefits.

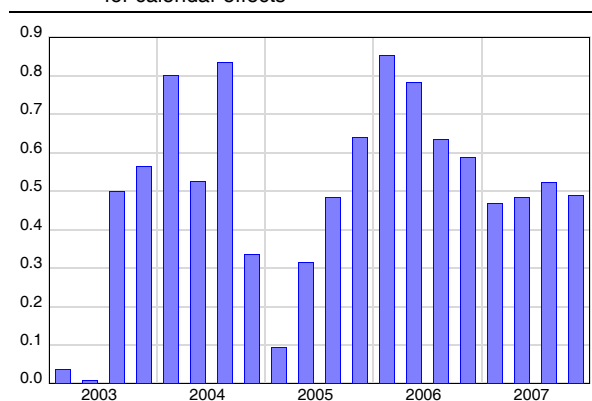
The model also generates simulation results for the female blue-collar worker, but these are not reported here as they are, for the most part, determined by a nonlinearity caused by the interaction between the minimum pension benefit and the bonus. Remember that the minimum pension benefit itself is not increased by the bonus. So, any individual whose pension benefit-plus-bonus is lower than the minimum pension benefit will see his or her pension benefit being scaled upwards to this minimum level, and the effect of the bonus will be absent. The minimum pension benefit introduces a pivotal effect of the bonus. If the pension plus the bonus is below the minimum pension benefit, then the implementation of the bonus will not have an effect. If, on the other hand, the pension before the bonus is equal to the minimum pension benefit, the implementation of the bonus will have a full effect on the financial consequences of postponing retirement. In between, there is a small bandwidth where the bonus will have a partial effect. A very small change in income or in bonus can, in this nonlinear case, have a great effect on the financial consequences of retirement, and therefore on the simulation results. This is even more so for female blue-collar workers, as it is obvious to assume that they have the highest probability of finding themselves in this situation, and their high life expectancy increases the effect of these small changes in income or in bonus on the simulation results.

1. The net replacement ratio is the pension benefit in the first year of retirement divided by the wage earned in the last year of work, both after taxes and social contributions.

## Economic forecasts 2006-2007

As a result of the robust quarterly growth during the first half of 2006 (0.8% on average against 0.6% in the second half of 2005) the Belgian economy should register GDP growth of 2.7% this year. In line with the international economic situation, economic growth should slow down to 0.6% on average during the second half of the year. In 2007, quarterly GDP growth should stabilise at roughly 0.5%, implying 2.2% for the year.

**Graph 1 - Quarterly GDP at constant prices**  
 qoq growth rates, seasonally adjusted and corrected for calendar effects



The European economy is expected to register a considerable growth rate in 2006. However, from mid-2006 onwards, the international economic situation should weaken and is not expected to improve markedly in 2007.

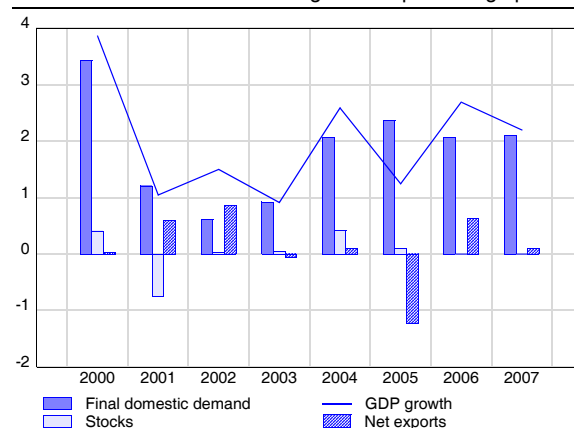
Economic activity in the euro area strongly improved during the first half of 2006, supported by solid domestic demand growth. Various factors should weigh on GDP growth in the second half of this year and in 2007. The current deceleration of American economic growth is expected to affect European exports. Moreover, a further tightening of European monetary policy should induce an appreciation of the euro vis-à-vis other currencies. The German VAT increase planned for January 2007 is also expected to slow down private consumption and economic growth. The precise impact of this measure, however, is hard to quantify. Finally, crude oil prices remain at a high level. According to the forward market rates of early September, the average Brent oil price should go up from 68 dollars per barrel in 2006 to 72 dollars in 2007. All in all, economic growth in the euro area should slow down from 2.6% in 2006 to 1.9% in 2007.

This year Belgian economic growth should improve thanks to exports, private consumption and public investment. In 2007, less dynamic exports and lower public investments will weigh on GDP growth.

After a very weak performance in 2005, Belgian export

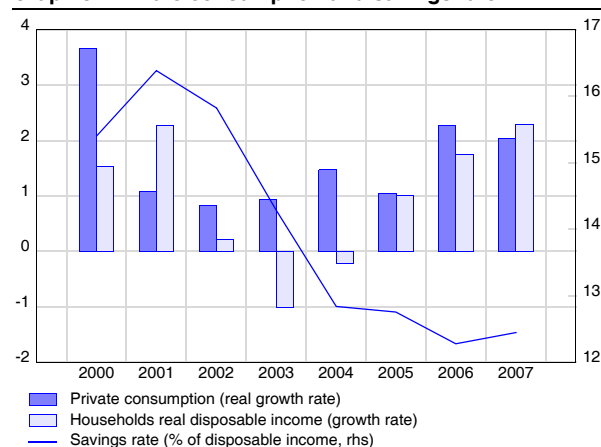
growth should accelerate up to 5.4% this year as a result of the favourable international economic situation. The expected slowdown of the international economy, however, will certainly affect Belgian exports, which will only grow by 4.9% next year, causing a deceleration in economic growth in 2007. This profile is also reflected in net exports, which should contribute significantly to GDP growth in 2006 but should be roughly neutral for economic growth next year. Nevertheless, the current account surplus will probably increase very little in 2006 due to the high level of oil prices, which should lead to a deterioration of the terms of trade. Also in 2007, the external surplus will probably change very little because imports and exports should increase at the same pace, while the terms of trade stabilise.

**Graph 2 - Decomposition of real GDP growth**  
 contributions to GDP growth in percentage points



Domestic demand should increase by 2.1% in 2006 and by 2.2% in 2007. The deceleration of domestic demand growth with respect to 2005 is due to business investment. In fact, business investment remains at a high level thanks to the further increase in profitability, the high industrial rate of capacity utilisation, and benign demand prospects, but its growth rate is restrained somewhat after the substantial catching-up in 2005.

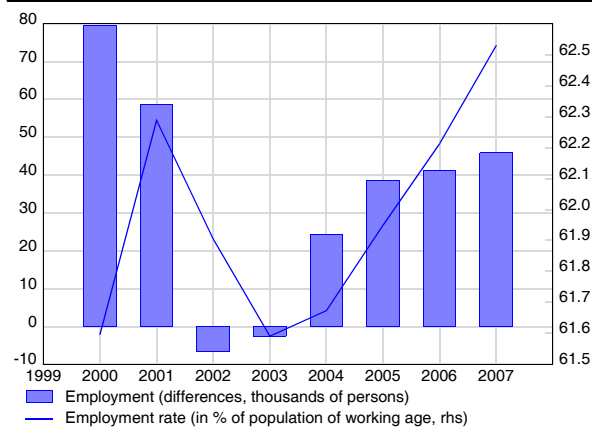
**Graph 3 - Private consumption and savings rate**



In 2006 and 2007, the increase in the households' real disposable income should be supported by the ongoing rise in employment, the personal income tax reform, the gradual easing of inflation and the increase in property income (due to higher interest rates). Partially as a result of this, the increase in private consumption should accelerate to 2.3% this year, which is two times higher than the average growth rate of the last five years. Consequently, private consumption should significantly contribute to the economic recovery. This year, the household savings rate should continue its downward path due to increased consumer confidence. Private consumption growth in 2007 (2%) should fall short of the increase in real disposable income (2.3%) as the propensity to consume is smaller for property income than for other income categories. The quarterly growth rate of housing investment accelerated considerably in 2005, but should drop as from the second half of 2006 due to the increase in financing costs.

The evolution of public investment is largely determined by local authorities' infrastructure works, which have strongly increased in view of the local elections in October 2006, and by sales of public buildings to the private sector. If the sales of public buildings are not taken into account, public investment should increase by 10% in 2006 (at constant prices) and drop to the same extent next year.

**Graph 4 - Evolution of employment and employment rate annual averages**



**Strong employment growth pushes back unemployment**

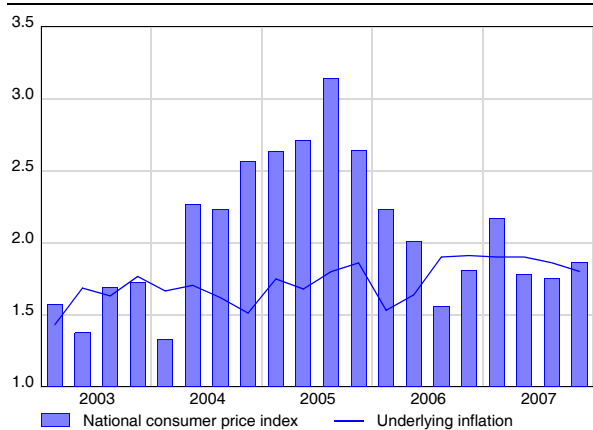
In 2006, domestic employment should increase by an average of 41,000 persons. As employment reacts with a time-lag to the pick-up in economic activity, employment should increase even more in 2007 (45,600 persons) in spite of a slowdown in GDP growth. Moreover, job creation is stimulated in both years by a limited rise in wage costs. The employment rate should rise from

61.9% in 2005 to 62.5% in 2007. As employment increases faster than the labour force, the number of unemployed (broad administrative definition) should diminish by 5,700 in 2006 and by 16,200 in 2007. Nevertheless, the harmonised Eurostat unemployment rate (based on labour force surveys) should still increase from 8.4% in 2005 to 8.6% in 2006, only to drop to 8.3% next year.

**Inflation falls to 1.9%**

Headline inflation, as measured by the national index of consumer prices (NICP), should amount to 1.9% in 2006 and 2007 (after 2.8% in 2005). The health index, which is not affected by changes in the price of fuel, tobacco products and alcoholic beverages, should increase by 1.8% and 1.9% respectively (after 2.2% in 2005). According to our monthly forecasts for the health index, the pivotal index (currently 104.14) should be exceeded in September 2006. The next pivotal index (106.22) should be exceeded in October 2007.

**Graph 5 - Quarterly development of inflation yoy growth rates**



In 2006, the average increase of both indexes is tempered by a technical factor. Since January 2006 the NICP has been measured by means of a new basket of products (based on the Household Budget Survey conducted in 2004). Measured by the deflator of private consumption, which is not affected by this factor, inflation is only expected to drop to 2.4% in 2006 and to ease further to 1.9% in 2007. The steady decline of inflation mainly results from moderate wage cost increases, the appreciation of the euro and the stabilisation of oil prices expected in the course of 2007.

*“Economische begroting 2007 – Budget économique 2007”, INR/ICN, 15 September 2006.*



## Economic forecasts for Belgium by the Federal Planning Bureau

Changes in volume (unless otherwise specified) (cut-off date of forecasts: 15 September 2006)

	2004	2005	2006	2007
Private consumption	1.5	1.1	2.3	2.0
Public consumption	2.0	0.7	1.8	2.4
Gross fixed capital formation	4.2	8.4	2.2	2.4
Final national demand	2.6	2.6	2.1	2.2
Exports of goods and services	6.2	1.8	5.4	4.9
Imports of goods and services	6.4	3.4	4.8	5.0
Net-exports (contribution to growth)	0.1	-1.2	0.6	0.1
Gross Domestic Product	2.6	1.2	2.7	2.2
p.m. Gross Domestic Product - in current prices (bn euro)	288.09	298.18	312.86	326.16
National consumer price index	2.1	2.8	1.9	1.9
Consumer prices: health index	1.6	2.2	1.8	1.9
Real disposable income households	-0.2	1.0	1.8	2.3
Household savings ratio (as % of disposable income)	12.8	12.8	12.3	12.4
Domestic employment (change in '000, yearly average)	23.7	38.5	41.0	45.6
Unemployment (Eurostat standardised rate, yearly average) [1]	8.4	8.4	8.6	8.3
Current account balance (BoP definition, as % of GDP)	3.4	2.7	2.9	2.8
Short term interbank interest rate (3 m.)	2.1	2.2	3.0	3.8
Long term interest rate (10 y.)	4.1	3.4	3.9	4.2

[1] Other unemployment definitions can be found on page 14

## Economic forecasts for Belgium by different institutions

	GDP-growth		Inflation		Government balance		Date of update
	2006	2007	2006	2007	2006	2007	
Federal Planning Bureau	2.7	2.2	1.9	1.9	.	.	09/06
INR/ICN	2.7	2.2	1.9	1.9	.	.	09/06
National Bank of Belgium	2.5	2.0	2.4	1.9	-0.3	-1.2	06/06
European Commission	2.3	2.1	2.4	2.1	-0.3	-0.9	05/06
OECD	2.5	2.4	2.2	1.9	-0.4	-1.0	05/06
IMF	2.7	2.1	2.4	1.9	0.0	-0.7	09/06
ING	2.6	2.1	2.0	1.8	-0.5	-1.4	09/06
Fortis Bank	2.7	2.0	1.9	1.8	0.0	-0.7	09/06
Dexia	2.7	1.8	2.0	1.9	0.0	-0.8	09/06
KBC Bank	2.7	1.6	2.0	2.0	0.0	-0.8	09/06
Petercam	2.5	1.75	1.9	1.6	-0.3	-1.5	09/06
IRES	2.8	2.3	2.0	1.9	-0.2	-1.0	07/06
Consensus Belgian Prime News	2.7	2.0	2.3	2.0	-0.1	-0.6	09/06
Consensus Economics	2.4	2.2	2.3	1.9	.	.	08/06
Consensus The Economist	2.6	1.9	2.1	1.9	.	.	09/06
Consensus Wirtschaftsinstitute	2.0	2.1	2.5	2.0	0.0	0.3	04/06
<b>Averages</b>							
All institutions	2.6	2.0	2.1	1.9	-0.2	-0.9	
International public institutions	2.5	2.2	2.3	2.0	-0.2	-0.9	
Credit institutions	2.6	1.9	2.0	1.9	-0.2	-1.0	

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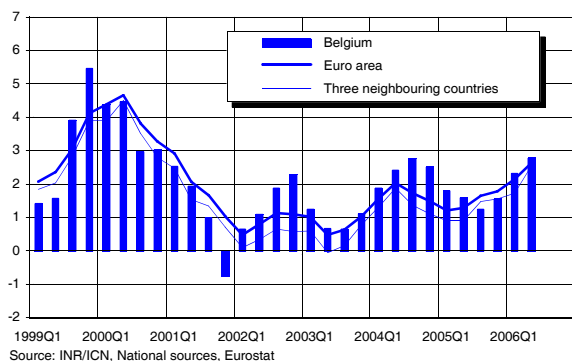
General economic activity

**Table 1 - GDP growth rates, in % [1]**

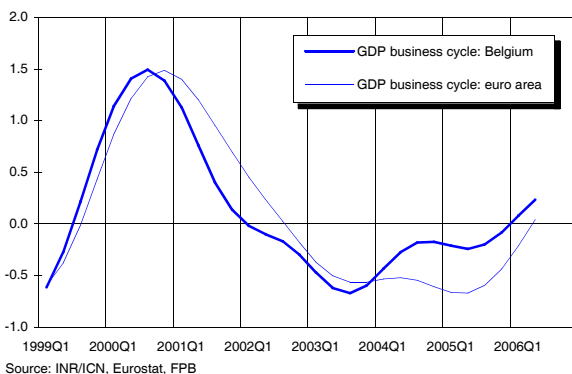
			YoY growth rates, in %					QoQ growth rates, in %				
	2004	2005	2005Q2	2005Q3	2005Q4	2006Q1	2006Q2	2005Q2	2005Q3	2005Q4	2006Q1	2006Q2
Germany	0.8	1.1	0.8	1.5	1.7	1.7	2.4	0.3	0.5	0.3	0.7	0.9
France	2.0	1.2	0.8	1.4	1.0	1.4	2.6	0.0	0.7	0.3	0.4	1.2
Netherlands	2.0	1.5	1.4	1.7	2.2	2.4	3.0	0.6	0.7	0.6	0.5	1.2
Belgium	2.4	1.5	1.6	1.2	1.5	2.3	2.8	0.3	0.5	0.6	0.9	0.8
Euro area	1.7	1.5	1.3	1.7	1.8	2.1	2.6	0.4	0.6	0.3	0.8	0.9
United States	3.9	3.2	3.1	3.4	3.1	3.7	3.5	0.8	1.0	0.4	1.4	0.6
Japan	2.3	2.6	2.7	2.8	4.0	3.4	2.5	1.1	0.5	1.0	0.8	0.2

[1] Adjusted for seasonal and calendar effects  
Source: INR/ICN, National sources, Eurostat

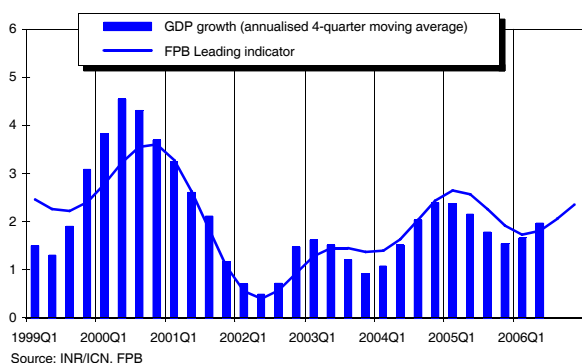
**Graph 1 - GDP-growth (t/t-4), in %**



**Graph 2 - GDP business cycle**



**Graph 3 - GDP growth and leading indicator**



US economic growth slowed abruptly from 1.4% in 2006Q1 to only 0.6% in 2006Q2. Although part of this deceleration could be temporary, the end of the housing boom (surging house prices have supported private consumption and residential construction in recent years) and tighter monetary conditions are likely to weigh on economic growth in the course of 2006.

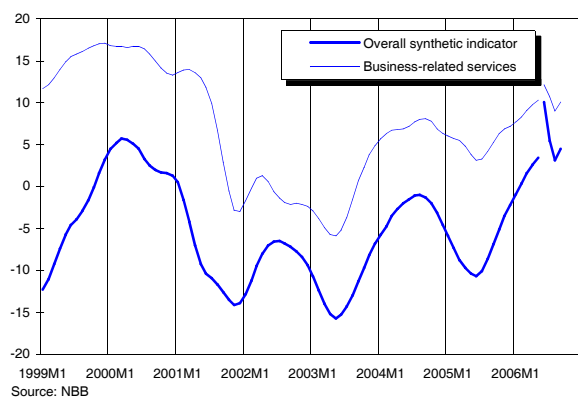
Japan's GDP grew by only 0.2% in 2006Q2 (from 0.8% in the first quarter). This unexpected slowdown was mainly due to a drop in government consumption and a deceleration in export growth. Domestic demand (already the main engine of economic growth in 2005) remained supportive, as both corporate investment and private consumption accelerated thanks to improved corporate profits and employment. In spite of the US slowdown, the Japanese economy should therefore continue to grow at a moderate pace.

With quarterly GDP growth reaching 0.9% in 2006Q2, the euro area outperformed the US for the first time in five years. Part of this acceleration (from 0.8% in 2006Q1) may be the result of a catching-up effect, as construction activity suffered from bad weather in 2006Q1. Domestic demand should remain supportive to GDP growth in 2006 (2.4% versus 1.3% in 2005). This holds particularly true for corporate investment, but also for private consumption, as labour market conditions improve and German consumers are expected to bring forward part of their spending ahead of the planned VAT increase in January 2007.

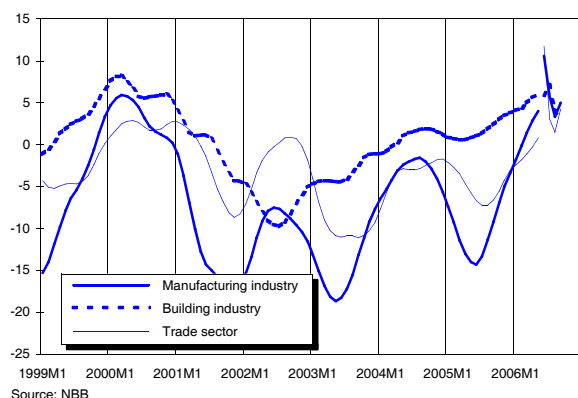
In Belgium and Germany, economic activity continued to grow at a fast pace in 2006Q2 (+0.8% and +0.9% respectively). After a relatively weak first quarter, Dutch and French economic growth accelerated considerably in 2006Q2 (+1.2% in both countries). All in all, GDP growth in Belgium, France, Germany and the Netherlands was quite similar in the first half of 2006. The FPB leading indicator declined for most of 2005 and reached a trough in 2006Q1. This should allow for stronger Belgian GDP growth in 2006 (2.7% versus 1.5% in 2005).



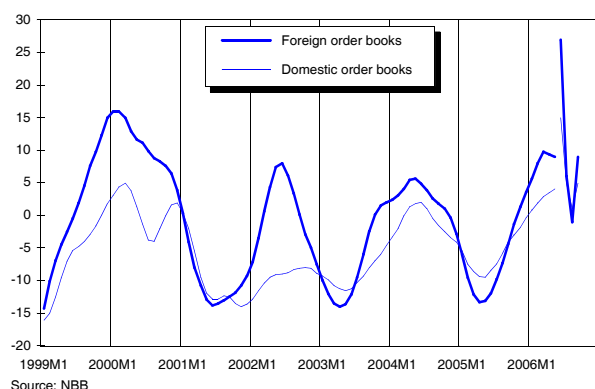
**Graph 4 - Business cycle: global evolution**



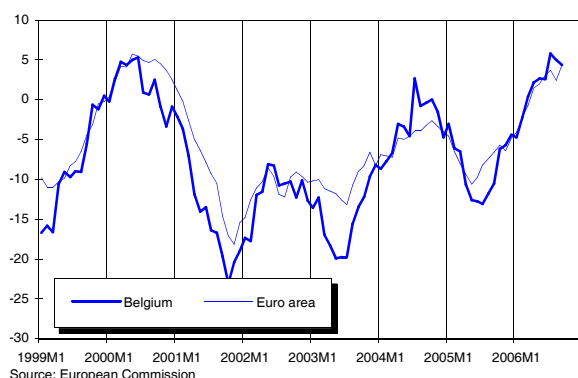
**Graph 5 - Business cycle: sectoral evolution**



**Graph 6 - Manufacturing industry: order books**



**Graph 7 - Industrial confidence: international comparison**



In June, business confidence (shown as the overall synthetic indicator in Graph 4) surged to its highest level since the start of the survey (in 1980), fell back during summer and roughly stabilised in September. The smoothed business confidence indicator (which is calculated up to May) has been on a rising path since mid-2005 due to the brightening of the European economic outlook, but seems to be close to a turning point. In fact, companies fear that the slowdown of the US economy and the deceleration of German economic growth (related to the VAT rise in January) will affect their future export performance. The current level of business confidence is still far above the long-term average (of -8) and points to reasonably strong economic growth in the second half of the year (albeit slower than in the first half).

The recent decline in business confidence was caused by a decrease in confidence in all sectors covered by the NBB survey.

In the *manufacturing industry*, the biggest deterioration was seen in the evaluation of foreign order books as manufacturers fear that the VAT rate hike in Germany will slow down external demand considerably in the first and possibly also the second quarter of next year. Moreover the appreciation of the euro weighs on manufacturers' competitiveness. Domestic order books, which lagged behind the improvement in foreign order books in the past quarters, also declined in 2006Q3, but to a lesser extent. For the second consecutive quarter, company directors in the manufacturing sectors generally expect employment to increase rather than to fall.

In line with overall business confidence, sentiment in the *trade sector* reached a peak in June, but then decreased. The trend remains however upward oriented, as confidence improved for the fourth consecutive quarter. In fact, the decline in turnover was more than compensated for by the strong rise in foreign orders.

The indicator for the *building industry* declined slightly over the last quarter, which was mainly caused by a slowing in activity and orders. The deterioration of confidence in the building industry is probably due to the fact that mortgage rates have come off their lows.

The *business-related services* cycle is not taken into account in the overall synthetic indicator. Services' sentiment has remained fairly stable at a high level over the last half year. The slight deterioration between 2006Q2 and 2006Q3 resulted from a less optimistic view on future activity and a decline in employment.

Industrial confidence in the euro area also rose vigorously in the first half of 2006, although to a lesser extent than in Belgium. Both indicators peaked in June and declined somewhat afterwards.

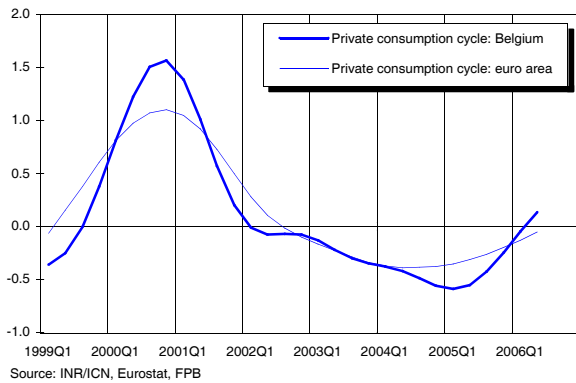
Private consumption

Table 2 - Private consumption indicators

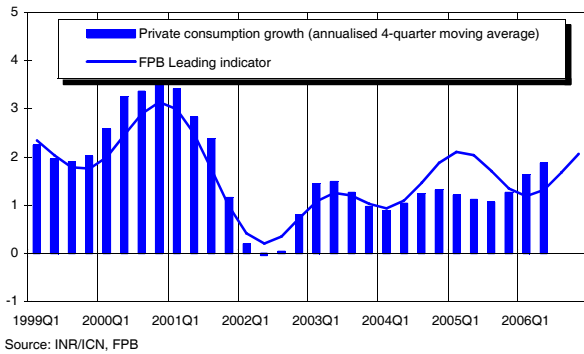
	2004	2005	2005Q4	2006Q1	2006Q2	2006Q3	2006M4	2006M5	2006M6	2006M7	2006M8	2006M9
New car registrations [1]	5.7	-1.0	-4.4	20.0	6.9	2.5	6.5	22.7	-6.0	9.3	-0.3	-1.1
Consumer confidence indicator [2]	-3.3	-7.6	-6.8	-4.8	-4.4	-1.6	-4.8	-5.4	-3.0	-1.5	-1.6	-1.7

[1] Change (%) compared to same period previous year; [2] Qualitative data  
 Source: DGSD, European Commission, Febiac, FPB

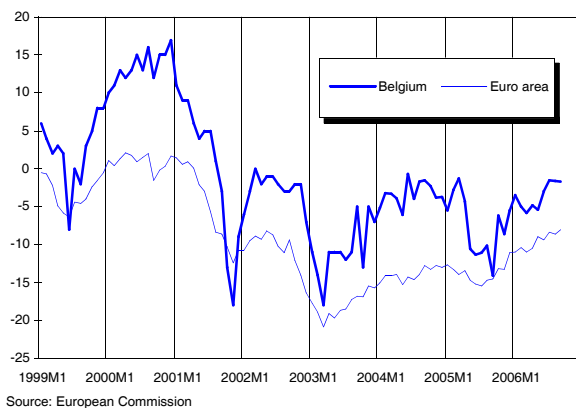
Graph 8 - Private consumption cycle



Graph 9 - Private consumption growth and leading indicator



Graph 10 - Consumer confidence: international comparison



After two years of sub-trend growth, the Belgian private consumption cycle started to recover from the beginning of 2005 onwards. The euro area consumption cycle already started to recover from mid-2004 onwards, although at a slower pace. In 2006Q2, Belgian and euro area private consumption were both very close to their trend value.

Belgian private consumption growth has speeded up considerably since the beginning of 2005. While average qoq growth was only 0.1% during the second half of 2004, it amounted to 0.5% in 2005 and to 0.6% in the first half of 2006. This evolution is mainly related to an acceleration in employment and the personal income tax reform (in 2006) that raised disposable income.

The economic recovery began to gain strength around mid-2005. At the same time, consumers' unemployment expectations have become more optimistic (i.e. a decreased probability of becoming unemployed), while their prospects regarding the general economic situation and their own financial situation only improved by the end of last year. Consequently, consumer confidence picked up one quarter later than business confidence, which is probably explained by the fact that the oil price hike in 2005Q3 weighed heavier on consumer confidence than on business confidence. Recently, consumer confidence has stabilised at a relatively high level, although it risks being affected by the observed decline in business confidence. Car sales were raised in 2006Q1 by the bi-annual motor show held in Brussels. Correcting for this seasonal boost, car sales growth remains quite high and no signs of a reversal have yet appeared. All in all, Belgian private consumption growth should remain robust during the remainder of 2006. This is in line with the FPB leading indicator, which points to an acceleration of yearly consumption growth in 2006.

Although consumer confidence in the euro area is clearly less volatile than in Belgium, both indicators have developed in the same way over the last few years. Private consumption growth in the euro area should thus also remain strong during the second half of 2006, especially because part of the consumption of durable goods in Germany will be carried forward from 2007 in view of the VAT rate hike in 2007.

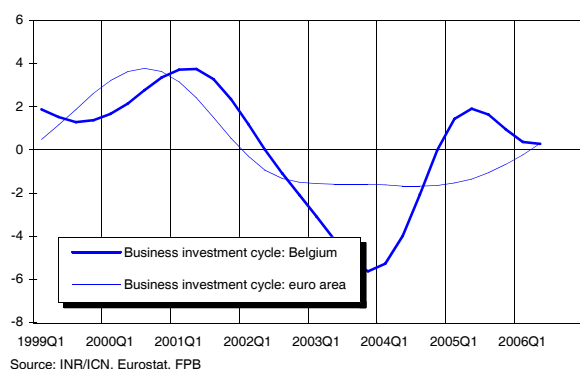
## Business investment

**Table 3 - Business investment indicators**

	2004	2005	2006	2005Q4	2006Q1	2006Q2	2006Q3	2006M5	2006M6	2006M7	2006M8	2006M9
Business survey, capital goods [2]												
Synthetic indicator	-2.6	-2.9	.	2.6	7.3	11.9	9.6	11.5	8.8	9.1	5.8	14.0
Order book appraisal	-16.3	-7.0	.	0.7	7.7	15.0	18.3	17.0	15.0	21.0	15.0	19.0
Demand forecasts	10.4	4.4	.	10.3	11.0	13.7	11.3	15.0	10.0	11.0	6.0	17.0
Investment survey [1]	-9.9	-1.7	16.1									
Capacity utilisation rate (s.a.) (%)	80.7	79.4	.	80.5	82.9	84.0	.					

[1] Change (%) compared to same period previous year; [2] Qualitative data  
Source: DGSB, NBB, FPB

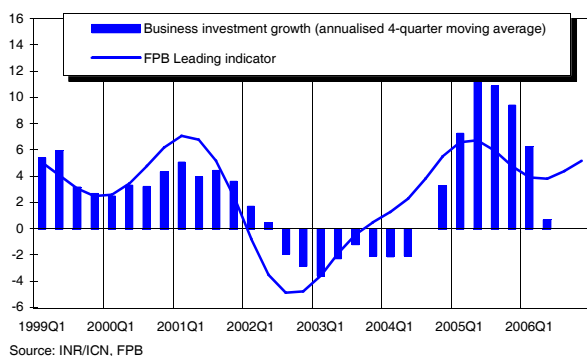
**Graph 11 - Business investment cycle**



After a sharp upturn in 2004 and the first half of 2005, the Belgian business investment cycle weakened slightly and was very close to its trend value in 2006Q2. The profile of the euro area investment cycle was much less pronounced. It only began to recover in 2005 after two and a half years of bottoming out.

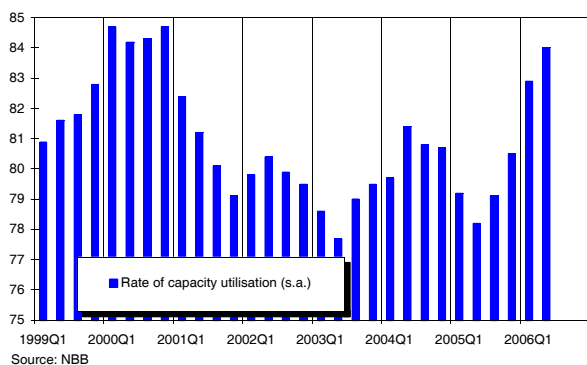
The differences between the Belgian and the euro area investment cycle since 2004 can be partly explained by the evolution of their business cycles (see Graph 2), although it should be noted that Belgian business investment has been influenced by two exceptional factors. Firstly, some maritime companies bought an exceptionally high amount of sea vessels in 2004 and 2005. Secondly, sales of government buildings – which appear in the national accounts as a sale of assets by the government and an additional investment by the business sector – rose heavily in 2004 and fell again in 2005. Both factors pushed up business investment growth in 2004. This implies that the real upturn in business investment only showed up in 2005, as can be seen in Graph 12.

**Graph 12 - Business investment growth and leading indicator**



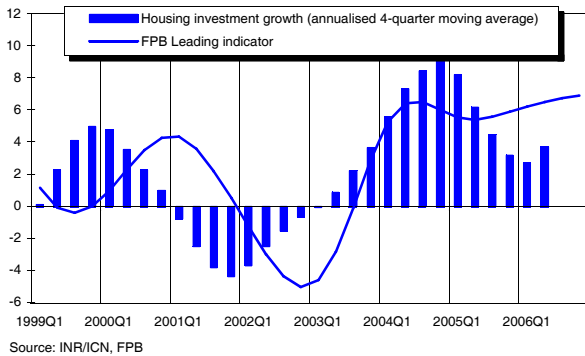
According to the latest national accounts, qoq business investment growth amounted to almost 3% on average during the first half of this year. As the expected deceleration in economic growth during the second half of 2006 is limited, investment growth should remain rather strong, which is confirmed by the available indicators. Firstly, the capacity utilisation rate rose from 78.2% in 2005Q2 to 84% in 2006Q2, the highest rate since the end of 2000. Secondly, indicators from the NBB business survey for the capital goods sector show that order books in 2006Q3 were even better filled than in 2006Q2, while future demand prospects worsened somewhat. Thirdly, the latest NBB investment survey shows that company directors in the manufacturing industry plan to invest 16.1% more than in 2005 (at current prices), after five years of decline. All in all, business investment is expected to grow faster than GDP in 2006 and 2007.

**Graph 13 - Capacity utilisation in manufacturing industry**

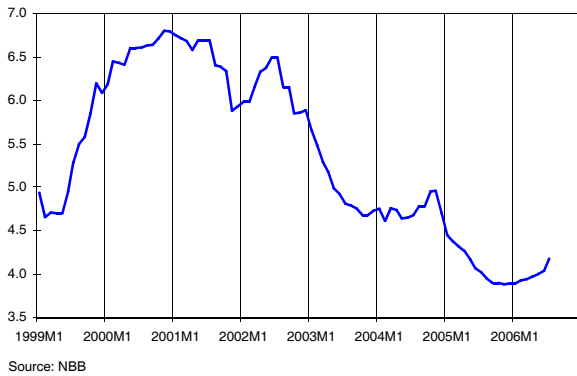


## Housing investment

**Graph 14 - Housing investment growth and leading indicator**



**Graph 15 - Mortgage rate (%)**



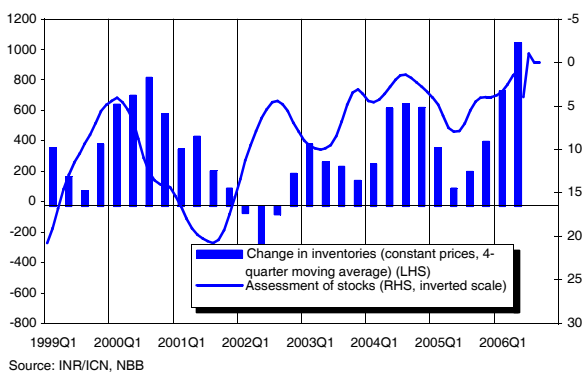
According to the latest quarterly national accounts, housing investment growth has been on a rising path since mid-2005. During the first half of 2006, average qoq growth rates amounted to 2%, compared to 0.4% during the first half of 2005. Growth rates are expected to ease somewhat as most housing investment indicators seem to have peaked recently. This can be seen in the FPB leading indicator, which points to a levelling off of growth rates during the second half of 2006.

The total amount of mortgage applications and indicators coming from the survey among architects, which all have a lead of about four quarters vis-à-vis the development of housing investment, generally levelled off or reached a peak during the second half of 2005. Indicators for the building industry coming from the NBB business survey, which have a lead of only one quarter, peaked during the first quarter of this year and have declined since then, although to a limited extent.

After more than three years of decline, mortgage rates have begun to increase since the beginning of this year. A comparison of Graphs 14 and 15 shows that cheaper loans played an important role in the housing investment boom from 2003 to 2005. Although the current level is still historically low, a further rise in mortgage rates (in line with long-term interest rates) will tend to temper housing investment in the near future.

## Stock building

**Graph 16 - Stock building indicators**



During the past few years, the rate of stock building has gone hand in hand with the business cycle. Increases in stocks tend to accelerate during periods of high economic growth, while a growth slowdown generally induces a deceleration in stock building or even a decline of stocks. This indicates that stocks are mainly considered as a buffer to meet unexpected rises in demand, which is more likely to occur in periods of high economic growth than during downturns.

The recent rise in inventories has been exceptionally strong, but was at least partially intentional as it was accompanied by a decreasing number of company directors that consider their level of stocks as excessive. During the last few months, this opinion stabilised, which indicates that the pace of stock building will slow down during the second half of 2006.

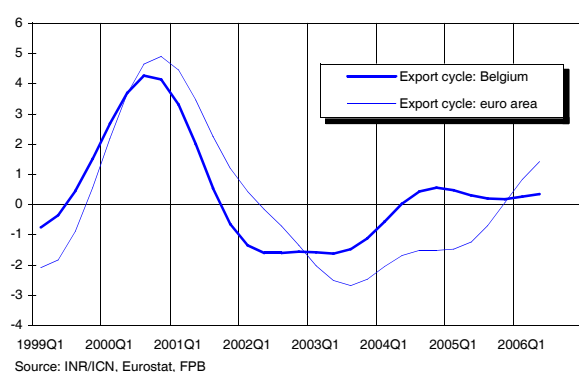
## Foreign Trade

**Table 4 - Belgium - Trade statistics (goods, intra/extrastat, national concept)**

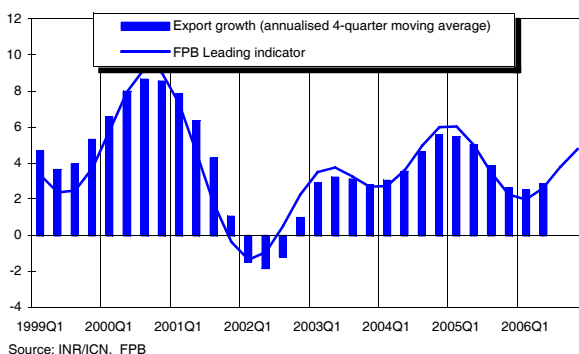
	2004	2005	2005Q3	2005Q4	2006Q1	2006Q2	2006M1	2006M2	2006M3	2006M4	2006M5	2006M6
Exports - value [1]	8.9	7.0	6.3	5.5	9.5	6.2	10.2	7.6	10.5	-4.1	14.6	8.3
Imports - value [1]	10.5	8.9	7.3	9.0	14.0	7.3	15.8	9.2	16.6	1.8	16.6	3.9
Exports - volume [1]	6.6	0.4	-0.1	-1.0	2.0	1.2	1.6	0.5	3.6	-8.6	9.8	2.6
Imports - volume [1]	7.0	1.2	0.0	1.2	4.4	1.3	3.5	0.5	8.6	-3.5	9.3	-1.5
Exports - price [1]	2.1	6.5	6.4	6.6	7.4	5.0	8.4	7.0	6.7	4.9	4.4	5.6
Imports - price [1]	3.2	7.6	7.2	7.7	9.3	5.9	11.9	8.6	7.5	5.5	6.7	5.5

[1] Change (%) compared to same period previous year  
Source: INR/ICN, FPB

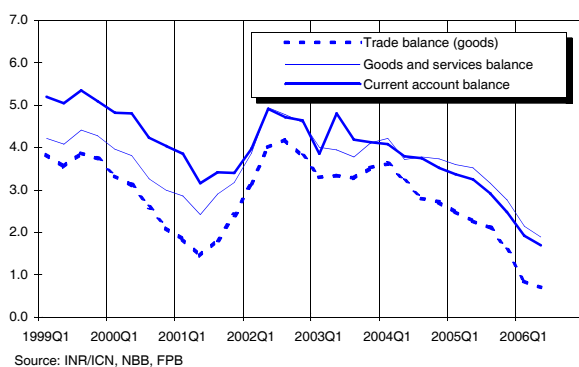
**Graph 17 - Export cycle**



**Graph 18 - Export growth and leading indicator**



**Graph 19 - Belgian foreign balances (4 quarters cumul,% of GDP)**



The Belgian export cycle levelled off by the end of 2004, and has remained fairly flat since then. This implies that Belgian export growth has been close to trend growth. The euro area export cycle, which generally lags behind the Belgian cycle, seems to have moved ahead of it since 2004. Over the last four quarters, export growth in the euro area has been growing at double the pace of Belgian exports. Consequently, the Belgian export cycle is still close to its trend level, while the euro area export cycle has surpassed the trend and is now at a four-year high.

Belgian export growth was quite subdued in the first half of 2006 in view of the acceleration in economic growth of Belgium's main trading partners (Germany, France and the Netherlands). In the second half of this year, export growth should accelerate, partly catching up after the weakness in the first half of the year, but also because economic growth in the euro area should remain supportive. The appreciation of the euro in the first half of 2006 will, however, weigh somewhat on competitiveness and will limit the acceleration of export growth.

The favourable outlook for Belgian exports is confirmed by the FPB composite leading indicator, which points to stronger export growth in 2006 than in 2005. In 2007Q1, a deceleration can be expected as the VAT rate increase in Germany is bound to weigh on Belgian exports.

Due to the continued rise in oil prices, import price growth has surpassed export price growth for quite some time. This evolution is now coming to an end as yoy growth of Brent oil prices expressed in euro is declining fast (from more than 50% in January to 20% in June and even below 0% in September). Hence, the deterioration in terms of trade should soon come to an end.

The Belgian current account surplus (in percent of GDP) decreased from 4.6% in 2002 to 2.7% in 2005. This decrease is expected to come to an end as the deterioration in terms of trade should be curbed.

## Labour market

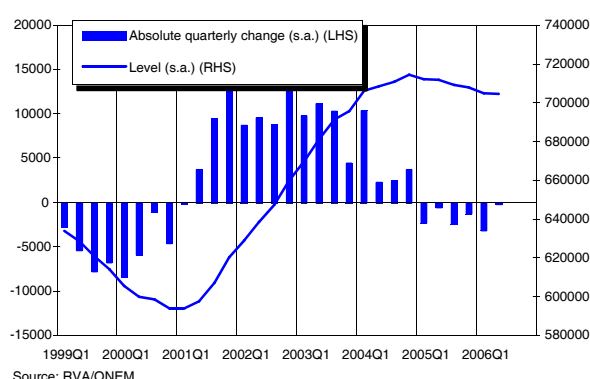
**Table 5 - Labour market indicators**

	2004	2005	2005Q3	2005Q4	2006Q1	2006Q2	2006M3	2006M4	2006M5	2006M6	2006M7	2006M8
Unemployment [1][2]	710.1	710.4	709.3	708.1	704.9	704.7	702.3	705.3	705.1	703.7	703.6	701.3
Unemployment rate [2][3]	14.4	14.3	14.3	14.2	14.2	14.1	14.1	14.1	14.1	14.1	14.1	14.0
Unemployment rate-Eurostat [3][4]	8.4	8.4	8.4	8.4	8.6	8.6	8.6	8.6	8.7	8.5	8.6	8.6

[1] Level in thousands, s.a.; [2] Broad administrative definition; [3] In % of labour force, s.a.  
 [4] Recent figures are based on administrative data and may be subject to revision

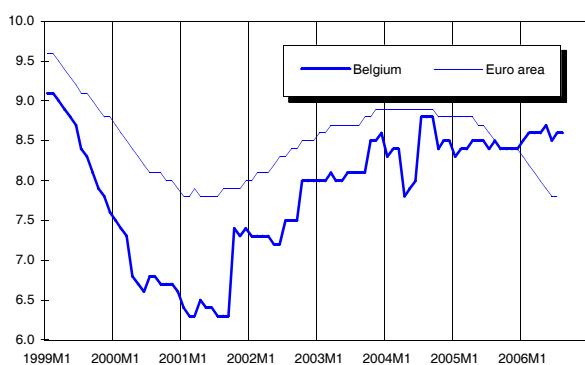
Source: RVA/ONEM, FPS Employment, Eurostat, FPB

**Graph 20 - Evolution of unemployment (incl. older)**



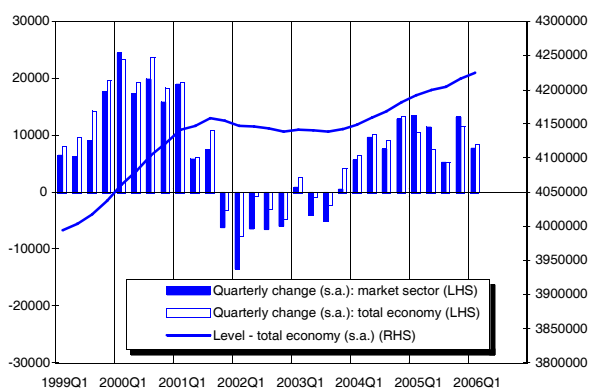
Source: RVA/ONEM

**Graph 21 - Harmonised unemployment rates (% of labour force)**



Source: Eurostat

**Graph 22 - Evolution of domestic employment**



Source: INR/ICN

Quarter-to-quarter growth in market sector employment was particularly strong during the fourth quarter of last year (0.4%). Market sector employment growth thus accelerated from 0.5% in 2004 to 1.3% in 2005. It benefited from a positive spill-over effect stemming from 2004 in-year dynamics and from a government-subsidised transfer of a number of domestic services formerly located in the household sector.

The subsidised transfer of domestic services into the market sector is continuing during the current year, but is expected to level off during the second half of the year. In spite of this ongoing transfer, market sector employment growth seems to have decelerated during the first quarter of this year (from 0.4% to 0.2%). In addition, broad administrative unemployment, which had been decreasing in seasonally adjusted terms, stabilised during the second quarter of this year, also pointing to less buoyant job creation. Nevertheless, in view of the acceleration in value added growth since the second half of last year, employment growth is expected to pick up during the second half of this year.

Given the structural rise in the participation rate (from 72.1% to 72.3%) for socio-demographic reasons, the broad administrative unemployment rate decreased only moderately last year (from 14.4% to 14.3%). Still, on a qoq basis, the administrative unemployment rate decreased during five consecutive quarters since the beginning of last year, which is in clear contrast to the evolution of Eurostat's harmonised unemployment rate, which increased from 8.4% to 8.6% during the same period. The first quarter of 2006 is currently the last quarter for which the Eurostat measure incorporates Labour Force Survey data that are independent from the administrative figures. It is tempting to trace this divergence to the effect of recent policy measures in favour of more active job search behaviour by people on unemployment benefits. However, since survey data may be prone to important qoq fluctuations, a number of additional quarters with independent observations for both administrative figures and survey results will be necessary to confirm this hypothesis.



Prices

**Table 6 - Inflation rates: change compared to the same period in the previous year, in %**

	2004	2005	2005Q4	2006Q1	2006Q2	2006Q3	2006M4	2006M5	2006M6	2006M7	2006M8	2006M9
Consumer prices: all items	2.10	2.78	2.64	2.23	2.01	1.49	1.96	2.19	1.87	1.60	1.63	1.22
Food prices	1.53	1.93	1.71	1.06	1.00	2.89	0.66	1.08	1.25	2.17	2.37	4.13
Non food prices	2.23	3.60	3.33	3.05	2.54	0.52	2.47	2.96	2.20	1.22	0.99	-0.63
Services	2.36	2.35	2.39	1.50	1.65	1.53	1.84	1.64	1.47	1.34	1.67	1.57
Rent	1.88	1.99	2.25	3.65	3.50	3.51	3.40	3.51	3.58	3.54	3.47	3.53
Health index	1.63	2.17	2.03	1.76	1.75	1.68	1.72	1.87	1.67	1.58	1.69	1.77
Brent oil price in USD (level)	38.2	54.4	56.9	61.8	69.6	69.6	70.3	69.9	68.7	73.7	73.2	61.8

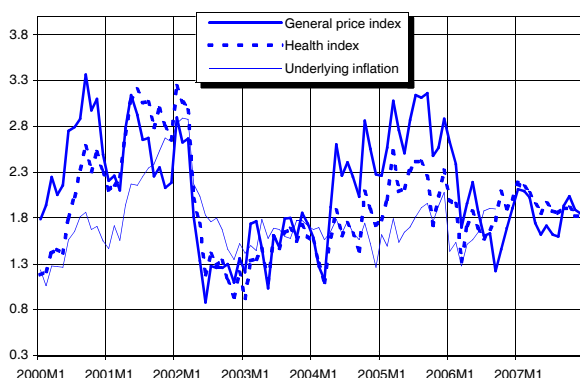
Source: FPS Economy, Datastream

**Table 7 - Monthly inflation forecasts**

	2006M1	2006M2	2006M3	2006M4	2006M5	2006M6	2006M7	2006M8	2006M9	2006M10	2006M11	2006M12
Consumer prices: all items	103.48	103.93	103.89	104.40	104.79	104.77	105.13	105.26	104.96	105.01	105.22	105.42
Consumer prices: health index	102.82	103.31	103.23	103.60	103.95	103.93	104.25	104.38	104.36	104.51	104.64	104.82
Moving average health index	102.66	102.89	103.03	103.24	103.52	103.68	103.93	104.13	104.23	104.38	104.47	104.58
	2007M1	2007M2	2007M3	2007M4	2007M5	2007M6	2007M7	2007M8	2007M9	2007M10	2007M11	2007M12
Consumer prices: all items	105.67	106.11	105.99	106.22	106.49	106.57	106.83	106.94	106.99	107.15	107.21	107.37
Consumer prices: health index	105.07	105.52	105.37	105.61	105.88	105.96	106.21	106.32	106.35	106.50	106.55	106.73
Moving average health index	104.76	105.01	105.20	105.39	105.60	105.71	105.92	106.09	106.21	106.35	106.43	106.53

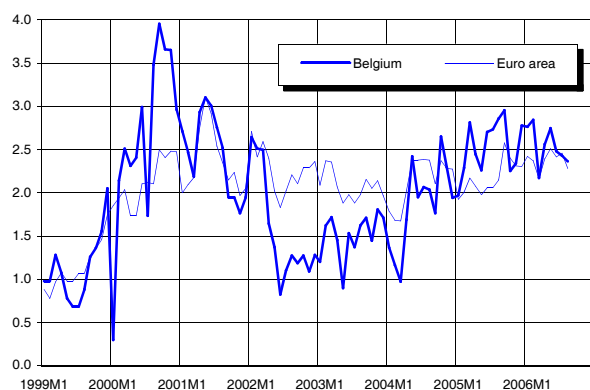
Source: Observations (up to 06M9): FPS Economy; forecasts: FPB

**Graph 23 - Monthly inflation evolution in % (t/t-12)**



Source: FPS Economy, from 06M10 on: forecasts FPB

**Graph 24 - Harmonised inflation rates in % (t/t-12)**



Source: Eurostat

As of January 2006, the base year of the national index of consumer prices (NICP) has shifted from 1996 to 2004, which implies an update of the basket of goods that is used to measure the development of consumer prices in Belgium. Products such as mobile phones and personal computers were added to the basket. Taking these new products into account reduces the measured price increases, as can be seen from a comparison of the NICP and the harmonised index of consumer prices (HICP), the basket of the latter being updated yearly. In fact, headline inflation based on the NICP (Graph 23) amounted to 2.1% in 2004 and 2.8% in 2005, while the HICP (Graph 24) only increased by 1.9% and 2.5% respectively. As those differences are corrected for in January 2006, NICP-inflation will be artificially low this year (about 0.5 %-points lower than HICP-inflation).

Since mid-2006, the rate of increase (yoy) of crude oil prices has decreased which will restrain inflation in the coming months. Underlying inflation has remained remarkably low during the past few years, in view of the steep rise in oil prices, and this is probably due to the moderate rise in wage costs. This is not expected to change in the near future.

All in all, average NICP-inflation should be 1.9% this year and next year. According to our monthly forecasts for the 'health index', the pivotal index for public wages and social benefits (currently 106.22) should be exceeded in October 2007.

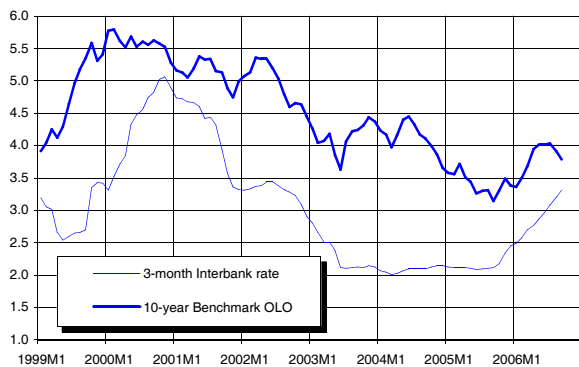
Interest rates

Table 8 - Interest rates

	2004	2005	2005Q4	2006Q1	2006Q2	2006Q3	2006M4	2006M5	2006M6	2006M7	2006M8	2006M9
<b>Short-term money market rates (3 months)</b>												
Belgium	2.08	2.16	2.33	2.59	2.86	3.20	2.76	2.87	2.97	3.08	3.21	3.31
Euro area (Euribor)	2.11	2.18	2.34	2.61	2.89	3.22	2.79	2.89	2.99	3.10	3.23	3.34
United States	1.56	3.51	4.30	4.72	5.18	5.39	5.03	5.15	5.35	5.46	5.38	5.34
Japan	-0.03	0.01	0.02	0.05	0.19	0.39	0.08	0.18	0.32	0.38	0.38	0.40
<b>Long-term government bond rates (10 years)</b>												
Belgium	4.13	3.42	3.39	3.51	3.99	3.91	3.94	4.01	4.01	4.03	3.91	3.79
Germany	4.06	3.38	3.36	3.49	3.96	3.89	3.92	3.97	3.99	4.02	3.88	3.76
Euro area	4.10	3.42	3.41	3.54	4.02	3.95	3.98	4.02	4.05	4.08	3.95	3.82
United States	4.26	4.29	4.49	4.58	5.07	4.89	4.99	5.11	5.10	5.08	4.87	4.71
Japan	1.49	1.37	1.52	1.57	1.89	1.79	1.91	1.91	1.86	1.90	1.80	1.66

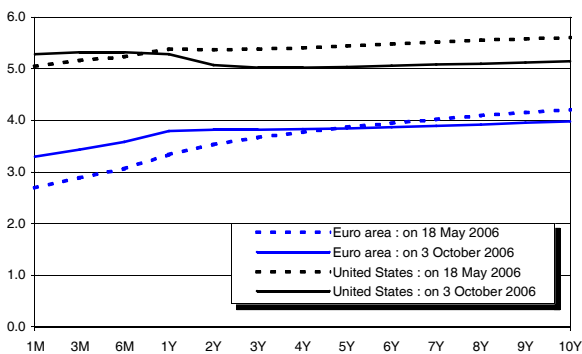
Source: NBB, ECB

Graph 25 - Interest rate levels in Belgium, %



Source: NBB

Graph 26 - Yield curves for the euro area and the us



Source: Datastream, data based on interest rate swaps

In the first half of 2006, the Federal Reserve continued its gradual tightening of monetary policy, raising the Federal Funds rate by a further 1%-point to 5.25%. In August, however, the Fed opted to leave rates unchanged for the first meeting in two years, as economic and employment growth has slowed down considerably. Moreover, it will take several more months before the past rate increases have their full effect on economic activity. The Fed expects the current interest rate level to be sufficient to curb inflation, but does not totally exclude additional monetary tightening.

Strong economic growth in the first half of 2006 allowed the ECB to raise the refinancing rate by 25 base points in both May and August, bringing it to a level of 3%. Further tightening seems to be in the offing as the ECB is still worried about strong credit growth (especially mortgage loans) and as it wants to bring the (real) refinancing rate to a less accommodative level. Although headline inflation has been pushed up somewhat (to 2.3% in August) by soaring energy prices, core inflation remains well under control (1.3%).

In the first half of 2006, US long-term interest rates rose by 75 base points as (global) economic activity strengthened further and as US core inflation had risen significantly (from 2.1% in January to 2.7% in June). During the summer, however, signs of weakness in economic activity emerged and long-term interest rates started a downward trend. They are currently some 0.4%-points lower than in June. Euro area long rates followed the evolution of US long rates very closely, resulting in an almost unchanged spread between both rates (about 90 base points). Over the last few months, the yield curve in the euro area flattened considerably, while it became inverted in the US. The 10Y-interest rate in the US is now some 70 base points below the 3M-interest rate (pointing to an economic slowdown in the near future).

## Exchange rates

Table 9 - Bilateral exchange rates

	2004	2005	2005Q4	2006Q1	2006Q2	2006Q3	2006M4	2006M5	2006M6	2006M7	2006M8	2006M9
USD per EUR	1.244	1.244	1.189	1.202	1.257	1.274	1.227	1.277	1.266	1.269	1.281	1.272
UKP per EUR	0.679	0.684	0.680	0.686	0.688	0.680	0.694	0.684	0.687	0.688	0.676	0.675
JPY per EUR	134.4	136.8	139.3	140.6	143.8	148.1	143.6	142.7	145.1	146.7	148.5	149.0

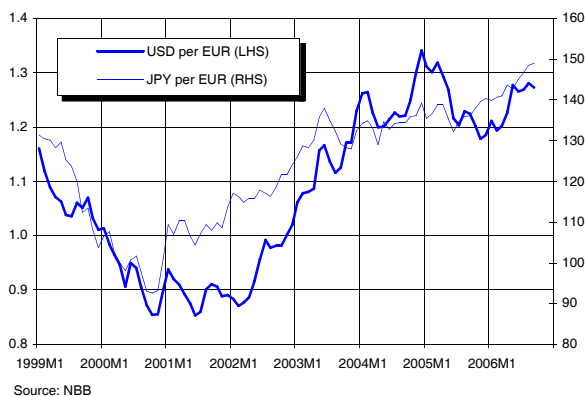
Table 10 - Nominal effective exchange rates (1990=100)

	2004	2005	2005Q3	2005Q4	2006Q1	2006Q2	2006M3	2006M4	2006M5	2006M6	2006M7	2006M8
Euro	121.4	120.8	119.7	118.9	119.2	121.6	119.5	120.8	121.8	122.0	122.5	122.8
Growth rate [1]	3.5	-0.5	-0.9	-0.7	0.2	2.0	0.7	1.1	0.9	0.1	0.4	0.3
US dollar	86.9	84.9	85.7	87.2	86.0	83.4	86.2	85.0	82.0	83.1	83.3	82.9
Growth rate [1]	-7.4	-2.3	1.6	1.8	-1.4	-3.0	-0.1	-1.3	-3.6	1.3	0.3	-0.6
Japanese yen	89.1	86.0	85.8	82.4	81.5	81.5	81.3	80.6	82.6	81.2	80.4	80.0
Growth rate [1]	2.0	-3.5	-1.6	-4.0	-1.1	0.0	0.5	-0.9	2.6	-1.8	-0.9	-0.6

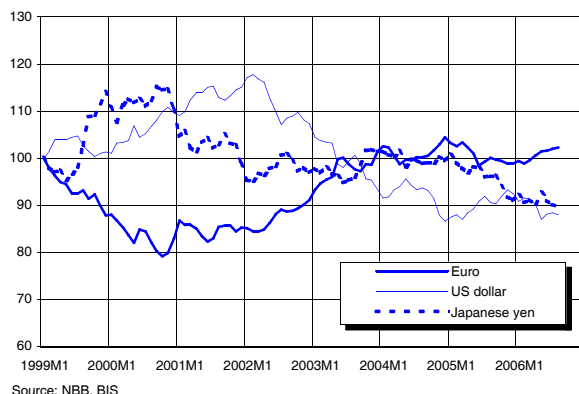
[1] Change (%) compared to previous period

Source: BIS, NBB

Graph 27 - Euro-dollar and euro-yen bilateral exchange rates



Graph 28 - Nominal effective exchange rates (Jan. 99=100)



Since the ECB first raised interest rates (December 2005) the euro has begun to appreciate against the dollar as financial markets were anticipating a narrowing of the short-term interest rate differential between the US and the euro zone. Between January and June the euro appreciated by almost 10% against the dollar. Since then, however, the euro-dollar exchange rate has stopped appreciating and has hovered between 1.25 and 1.30 dollars per euro. The expected narrowing of both the short-term and long-term interest rate differential should lead to some strengthening of the euro vis-à-vis the dollar in the coming months.

Between mid-May and mid-June the Japanese yen surged by 7% against the dollar as a significant tightening of Japanese monetary policy was expected in the light of persistent strong economic growth and rising inflation. A weakening of economic growth in the second quarter and a substantial downward revision of inflation (by 0.5% yoy) adjusted expectations with regard to monetary policy and hence weighed on the yen. Against the euro, the yen has persistently depreciated so far this year (-7%).

In the first half of the year the euro/pound exchange rate remained quite stable. The unexpected interest rate hike from the Bank of England in August, however, breached the band and pushed the pound up to 0.67 pounds per euro, i.e. an appreciation of 2.5% since the beginning of the year.

All in all, the nominal effective exchange rate of the euro has appreciated (+2.6%), while that of the dollar (-4.7%) and the yen (-2.2%) has depreciated since the beginning of this year.

## Tax indicators

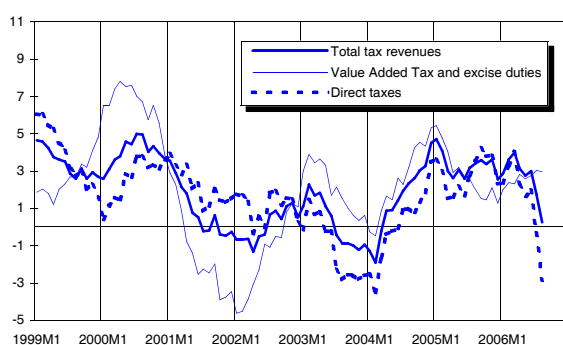
**Table 11 - Tax revenues (1)**

	2004	2005	2005Q3	2005Q4	2006Q1	2006Q2	2006M3	2006M4	2006M5	2006M6	2006M7	2006M8
Total [2], of which:	6.7	5.4	10.6	4.9	8.4	0.2	7.0	-1.1	0.9	1.7	-2.9	-11.6
Direct taxes, of which:	5.7	5.2	14.4	2.8	7.6	-3.1	7.6	-4.7	-4.0	0.4	-8.0	-28.0
Withholding earned income tax (PAYE)	3.9	3.9	5.6	3.2	4.3	4.1	-5.5	3.4	-5.0	13.7	9.4	5.5
Prepayments	13.8	5.7	11.4	-2.3	.	1.6	.	0.6	.	.	-3.3	.
Value Added Tax and excise duties	7.6	4.1	4.8	6.1	7.4	3.6	4.2	5.7	2.0	2.0	4.6	2.6

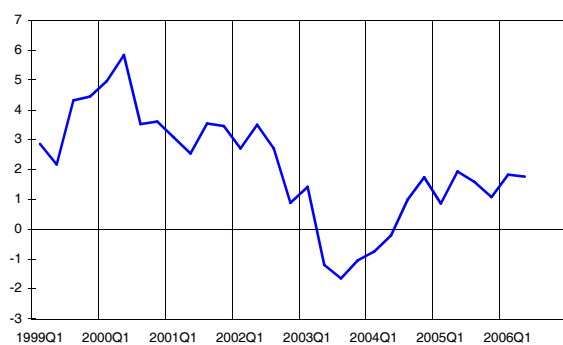
[1] Change (%) compared to same period previous year; [2] Total received by federal government, excl of death-duties

Source: FPS Finance, FPB

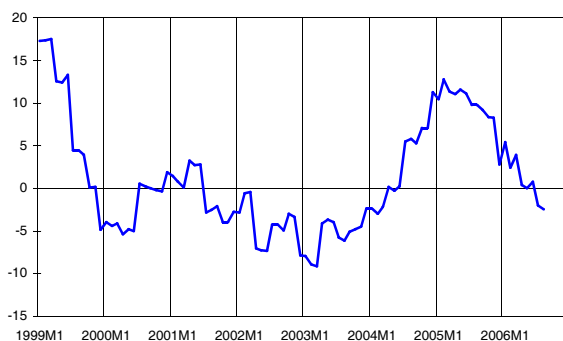
**Graph 29 - Real tax revenues (3)**



**Graph 30 - Real withholding earned income tax (PAYE) (4)**



**Graph 31 - Real prepayments (3)**



[3] Change (%) over past 12 months, compared to previous 12 month period, deflated by consumer price index

[4] Change (%) over past 4 quarters, compared to previous 4 quarter period, deflated by consumer price index

The growth in total tax revenue declined sharply to 0.2% in 2006Q2 as compared to the same period in 2005. This is due to direct taxes, of which the growth rate has been negative because of the sharp increase in repayments to households (not shown in Table 11) related to assessments for the fiscal year 2005, and also because of the weakness of prepayments by businesses. The evolution of these two direct tax receipt categories does not really reflect their fundamental economic determinants, but rather tax-cutting decisions taken by the authorities.

The strong increase in tax repayments to households is related to the 2001 personal income tax reform. This reform has been implemented progressively from the fiscal year 2002 on. Its budgetary cost should reach 1.3% of GDP at full impact, i.e. as of 2006. Indeed, about 35% of the total cost of the reform is expected to arise in 2006 through assessments related to fiscal year 2005 (taxable income of 2004).

Prepayments by corporate businesses are influenced by the 2005 reform introducing a 'notional interest' deduction as of 2006. This new rule will lead to a general reduction in the effective corporate tax rate for all companies. This has probably led to the 12-month moving average of total advance payments in real terms (graph 31) showing negative growth rates as of mid-2006, since this does not reflect effective business profitability.

VAT receipts were boosted by oil price increases up to the summer, as well as by the general dynamism of domestic demand, including car sales (following the motor show that is organised every two years) and housing investment, which remains at a high level even though its growth is reduced as compared to two years ago. On the other hand, the evolution of excise duties has been crippled by different factors, among which are the relative weakness of the consumption of products subject to excise duties, as well as the progressive reduction of the duty rate on diesel decided by the government in order to partly compensate for the effect of oil price increases on purchasing power.

## Fiscal councils, independent forecasts and the budgetary process: lessons from the Belgian case

This paper describes the operating mode of the two existing Belgian fiscal councils - the High Council of Finance and the National Accounts Institute - as well as their role in the budgetary planning process and emphasizes the part taken by the FPB in producing independent macroeconomic forecasts. In the context of the revised Stability and Growth Pact, lessons drawn from the Belgian experience can certainly be useful for other Member States willing to improve their fiscal institutional settings.

One of the conclusions of the revised Stability and Growth Pact (SGP) emphasized the need to strengthen fiscal governance in the EU Member States through the development of national budgetary rules that should complement the EU framework. The European Council acknowledged the important role national institutions could play in that respect. The Council also called for reliable budgetary statistics and realistic, even cautious, macroeconomic forecasts. These conclusions draw on the now generally accepted view, both by academics and policy makers, that the national institutional framework affects budgetary outcomes: some institutional characteristics lead to tighter budgetary discipline than others. As was shown in a report prepared for the Dutch Ministry of Finance, budgetary practices vary extensively across Member States: some governments produce their economic forecasts in-house and leave the decision on what adjustments to make to the Finance Minister, while others use forecasts from independent organisations and establish strict rules on how changes in forecasts lead to changes in annual targets.

Over the last twenty years specific circumstances constrained Belgium to put in place institutions providing independent input, analyses and recommendations in the area of fiscal policy. Firstly, the regionalisation of the Belgian state at the end of the eighties, in a context of very high budget deficits and a soaring public debt (respectively 7% and 125% of GDP in 1988), forced the government to take action in order to avoid overspending by regional governments. Consequently, the High Council of Finance (HCF) was reformed in 1989 and one of its new tasks was to monitor the fiscal policy of regional governments and to formulate medium-term budgetary objectives for the general government and the different entities. The HCF also received a mandate to

assess the convergence programmes. Secondly, as the Maastricht criteria for entry into the European Monetary Union were set in national accounts concepts, the National Accounts Institute (NAI) was created in 1994 in order to ensure the quality and the independence of the main economic statistics and macroeconomic forecasts upon which the budget was based. Following various reports on population ageing and its impact on public finances, a Study Committee on Ageing was created in 2001 within the HCF.

The role of the FPB in the budgetary process is manifold but limited to positive economics, as it does not make policy recommendations. The FPB produces, on behalf of the NAI, the macroeconomic forecasts used by the Belgian federal government for drawing up its budget and prepares, jointly with the National Bank of Belgium, the general government account within the national accounts. Each spring, the FPB also publishes a medium-term economic outlook for the Belgian economy. This report is updated in autumn and serves as a starting point for the elaboration of the stability programme. The FPB also holds the secretariat of the Study Committee on Ageing and produces its long-term projections of age-related budgetary expenditures.

Although the characteristics of the Belgian fiscal councils correspond to national specificities and may not be transposed as such to other countries, three main lessons can be drawn from the Belgian experience for the purpose of designing this type of institution elsewhere: institutions dealing with positive economics should enjoy a fully independent status but remain public; positive and normative issues should be completely separated from an institutional point of view; and responsibility should be shared between several strong independent institutions so as to minimise political pressure.

*"Fiscal councils, independent forecasts and the budgetary process: lessons from the Belgian case",  
H. Bogaert, L. Dobbelaere, B. Hertveldt, I. Lebrun,  
Working Paper 4-06, June 2006.*

## Linking household income to macro data to project poverty indicators

This paper presents the results of a micro simulation model designed to make short-term projections of poverty indicators. The unit of observation in the model is the household. In order to project the evolution of household incomes over time, we have specified a model that links the total observed household income to the evolution of a set of macro income indicators that reflect the different 'micro' sources of income.

In this paper a micro simulation model with static ageing is presented. Unlike other models of its kind, it explicitly allows individuals to occupy several labour market states and to combine the associated income sources. This possibility seems more realistic than the usual assumption of mutually exclusive states, since *household* income was used to measure financial well-being. Given that the socioeconomic 'state' of a household is hard to define, we have directly specified the link between individual equivalent income (defined as household income, corrected for family composition, attributed to each household member) and the macroeconomic environment. This was achieved by estimating a fixed effects panel regression model with macroeconomic averages for the main income sources as explanatory variables. The dependent variable was obtained from the Panel Survey on Belgian Households (1994-2002), which contains a question on total disposable current monthly income of the household and its main sources. The respondents were offered a choice from one or more of the following income sources: work; independent activity or farming; pension benefits; unemployment benefits or layoff-premiums; other social benefits; rental income, returns from investments or savings; other income. For the first four categories a corresponding macro indicator could be identified; the evolution of the remaining three was modelled using a linear time trend.

The model produces plausible results both from a statistical point of view and based on in-sample simulation. In order to obtain simulated incomes that match the distributional properties of the observations as closely as possible, we have drawn the random disturbances from the empirical (estimated) error distribution, using a kernel density estimator.

The estimated poverty indicators reflect the financial dimension of poverty and are based on poverty thresholds set as 60% of median equivalent income. An individual or family with an income below the threshold

level is considered to be 'at risk of poverty'. Given data and model restrictions, the estimated poverty measures are to be interpreted as indicative numbers rather than precise estimates. They are internally comparable, but do not necessarily coincide with estimates based on other data sources or models.

The simulation results can be summarised as follows. Over the period 1994-2005, between 11% and 12% of individuals lived at risk of poverty. From 1994 to 2002 the overall poverty risk fluctuated around 11%, edging up to 12% afterwards. Women seem to face a higher risk than men, but the difference between the sexes is not statistically significant. This derives from the fact that two partners (usually of the opposite sex) who live in the same household are assigned the same equivalent household income. In a singles-only sample the difference between the sexes would become significant.

The risk of poverty is significantly lower for individuals younger than 65 than for those aged 65 or more. Although for the former the risk of poverty was relatively stable at around 10% during the past decennium, it seems to increase for the latter from 18% in 1994 to 23% in 2005. However, the difference between these age groups is less notable if the average depth of poverty and inequality among the poor are taken into account.

In comparison with other socio-economic categories, employees run the lowest risk of poverty, hovering around 4%. The poverty risk of independent workers is somewhat higher, but the difference is never significant. As for retirees, the poverty risk edged up from around 15% in 1994 to 18% in 2005, with a peak level of 19% in 2001. Finally, the unemployed are the category with the highest risk of poverty, fluctuating rather erratically around 29%, but without a clear trend over the period under study.

 *"Linking Household Income to Macro Data to Project Poverty Indicators", G. Dekkers, G. De Vil, P. Willemé, Working Paper 5-06, July 2006.*



## R&D Tax incentives in Belgium

In Belgium, as well as in other European countries, the use of R&D tax incentives has become more popular in recent years. It remains, however, important to evaluate the effectiveness of those new and existing measures.

Due to the existence of externalities, uncertainties and asymmetric information, businesses tend to invest less in research and development than is socially desirable. Direct subsidies and tax incentives are popular instruments for encouraging the private sector R&D spending level. Fiscal incentives are considered neutral as businesses allocate the public support themselves. Another attractive feature of these instruments is that tax incentives can be more predictable and accessible for businesses than direct subsidies. A possible drawback of fiscal instruments is that firms will not concentrate on projects with a high social rate of return. A number of empirical studies have found that R&D tax incentives, by reducing the cost of R&D, can be effective in stimulating additional R&D in businesses in the long term. However, the design and the implementation of the tax incentives seem to be crucial elements for their effectiveness.


Recent years have seen the introduction of very different types of new R&D tax incentives as well as changes in existing schemes in most OECD countries. Some countries, like Finland and Sweden, despite having high levels of R&D spending, do not use or have stopped using specific R&D tax incentives to stimulate private R&D investment. Belgian federal and regional authorities use both direct and indirect mechanisms for financing business R&D. Also, in Belgium a greater emphasis has been placed on the use of R&D tax incentives in recent years.

Until 2003, there were two main R&D tax incentives for firms in Belgium, which still exist. On the one hand, firms can apply, under strict conditions, for an investment deduction facility of 14.5% for R&D investments that have no detrimental effects on the environment and for patent investment. On the other hand, companies can obtain a fixed nominative and non-permanent tax allowance of around 13.000 euro for each additional researcher in the company in the year of recruitment. Both of these R&D tax instruments are not easily accessible for enterprises, due to their high administrative costs, and their strict conditions. The limited statistical information available shows that these tax incentives are unsuccessful since less than 10% of the Belgian R&D-executing firms are reached. Especially for the R&D

investment deduction facility, we can observe that a small group of very large multinational enterprises, rather than young innovative SMEs, applies almost every year for this tax incentive. Young innovative enterprises are often discouraged to use the investment deduction facility due to the lack of profits, the lack of transparency and the enormous time delays in obtaining the necessary attestations. The investment allowance for additional R&D-personnel is unpopular since the administrative costs are too high with respect to the potential benefit. Furthermore, this measure lacks at present any kind of carrying forward clause for the fiscal advantage. Unfortunately, the lack of enough detailed statistical information does not allow us to make a complete picture of the effects of these measures.

Since 2003, the Belgian federal government has launched a tax exemption for the withholding tax on wages of researchers. This measure, which reduces the labour cost of Belgian researchers by at least 5%, was in the beginning only applied for researchers in universities, high schools and public research centers. Due to the high budgetary consequences that would be entailed, this tax exemption has not yet been extended to the more than 16,000 researchers working in Belgian companies. The main advantage of such an instrument is that the tax advantage has a wide reach, it is user friendly, very predictable, and reduces the R&D cost directly when executing the R&D. Furthermore the federal government has also launched a tax credit for R&D investments and a 'tax-free' innovation premium for innovation-workers.

Given the present evaluation of the existing and new R&D tax incentives, it is necessary to rethink the existing mix of tax measures to reach more R&D-active companies in Belgium. As such, it seems crucial to make the investment deduction facility more transparent and predictable and to make it complementary to the new tax exemption from withholding tax. It should be also emphasized that Belgian authorities have to collect better statistics about the use of this kind of instruments in order to make it possible to quantify the effects of those instruments.

 *"Fiscale stimuli voor onderzoek en ontwikkeling in België", J. Fiers, Working Paper 6-06, September 2006.*

## FPB Tools and Methods

In this paper, the tools and methods currently used at the FPB are classified in three groups: national models; international models; and other tools and methods. The listed FPB's instruments are used to produce analyses and projections in a wide range of areas: business cycle analyses and short-term forecasting, macro-sectoral analyses and medium-term outlook, long-term projections and the issue of ageing, intersectoral relationships, international economics, labour market analyses, public finance, demographic analyses, transport economics, energy market analyses, environmental issues and sustainable development. This paper gives only a bird's-eye view of the most important tools and methods. At the end of each instrument's description, references to a short-list of technical papers, applications and to FPB contact addresses can be found.

The main task of the FPB is to produce analyses and projections in the economic, social and environmental fields that are relevant for policy making. For that purpose, the FPB has, over the course of the years, developed a number of tools and methods. These instruments take shapes of different natures: formal models articulating economic behaviour, statistical tools, bookkeeping type instruments, less formal systemic frameworks, etc. Empirical validation has always been a subject of concern (hence the special attention paid to the building of databases) and can be considered as a common feature of this heterogeneous set of instruments.

The FPB has a long tradition of building models and using them for policy analyses. The FPB's instruments have evolved significantly over time. This paper does not review the almost four decennia of experience with different tools and methods at the FPB, but gives only a brief overview of the most important instruments currently operational or under construction at the FPB. It should thus be considered as a snapshot of a constantly evolving subject.

Over the course of the years, the FPB's tools and methods have undergone a process of deepening and widening: existing instruments have been upgraded and new

models have been developed in additional research areas. Imperfections of instruments that mostly come to light when using them in applications give rise to enhanced versions. New theoretical insights and advanced empirical techniques (once they seem to be well established) are taken on board. The development of new tools usually reflects new features in society, emerging policy issues or new legal missions.

At least equally important to the development of tools and methods is the proper use of them to produce analyses and projections. The FPB's experience as a 'model user' teaches first of all that instruments should be used for the purposes they are conceived for ("different models for different purposes"). To answer the question of whether a tool is suited for a given type of analysis, one should look beyond technical possibilities, and assess whether the underlying mechanisms of the tool are adequate for the issue under investigation. The FPB researchers are aware of the limitations of tools, essentially stemming from the fact that they unavoidably imply a stylisation of an increasingly complex reality. There is no single overriding model for the Belgian economy, which covers all aspects of policy-relevant issues. For that reason, the FPB often combines different tools when making analyses or projections. Models and tools start from different points of view, and have different strengths and weaknesses. In the end, the FPB summarises the outcomes of different instruments to contribute to the process of policy making.

Despite these caveats listed above, the use of more or less formalised instruments has the undeniable advantage that it increases the degree of rigour in analyses. Furthermore, reporting the characteristics of the instruments used contributes to the methodological transparency, a principle that the FPB considers of paramount importance.

*"Tools and methods used at the Federal Planning Bureau", "Werkinstrumenten en methodes van het Federaal Planbureau", "Outils et méthodes du Bureau fédéral du Plan", Working Paper 7-06, September 2006.*

## Network industry reform in Belgium: the macroeconomic impact

Two Working Papers on the macroeconomic impact of network industry reform have been published. The first is a detailed report in Dutch, the second a summary paper in English. The analysis builds on a simulation by FPB's macroeconomic model HERMES, and a simulation by IMF's general equilibrium model GEM. Although both simulations were based on the same exogenous

input, they gave significantly different outcomes. This sheds light on the applicability of different modelling approaches to an issue at hand.

First of all, the impact upon micro-economic efficiency was determined. This analysis was limited to allocative and productive efficiency, and to five industries: elec-

tricity, gas, railways, postal services and telecommunications.

Allocative efficiency involves the elimination of economic rent. That rent benefited the former monopolistic producers, but also their employees if they were able to receive a 'wage-premium', lifting their pay above market level. With operating surplus used as a proxy, economic rent seemed to be very large for electricity, gas and telecommunications. Moreover, and in particular for electricity and gas, there indeed seemed to be industry specific wage-premiums. Productive efficiency involves a more productive use of labour and capital. Because of the labour intensity of network industries the analysis was limited to labour productivity. Reform might lead to a loss of between 24,000 and 36,000 jobs in the network industries. Most of this loss would take place in railways, postal services and telecommunications. The improvements in allocative and productive efficiency would result in falling prices for the network industries' services. These would range between a few percent for natural gas to about 30% for certain telecommunications services.

Using these efficiency improvements as simulation input in a demand-driven macroeconomic framework (HERMES), the mid-term outcomes are disappointing. Because of the fall in profits and employment levels, consumption and investment would in the short run stay up to 0.4% behind the growth that would have been realised without the reform. The fall in prices, however, would have a positive impact upon competitiveness. In the mid term, exports might become up to 0.3% higher than they would have been without reform. The impact upon GDP would be between 0.1% and 0.2%. The loss of jobs would not be fully compensated for by jobs created elsewhere in the economy. The net impact upon employment would be about -10,000.

Using the efficiency improvements as an input in a structural long-term framework (GEM), more optimistic outcomes are obtained. Because of the fall in prices, real

income would increase and demand with it. This would lead to more demand for labour and capital and thus have a positive impact upon consumption and investment. The job losses in the network industries would lead to a higher number of job seekers, and hence more excess supply in the labour market. In the long run the market mechanism would then lead to a new equilibrium in the labour market without additional unemployment. In the steady state, GDP would be between 1.1% and 2.6% higher than it would have been without reform, and job growth between 34,000 and 77,000.

Both models thus give strongly different outcomes although they start from the same input. Most striking is the different modelling of the impact upon consumption and investment. Given the thorough modelling of the behavioural and institutional relationships that characterise the Belgian economy, the performance predicted by HERMES seems more realistic, at least in the short and mid term. The loss of profitability and employment initially lays a burden on the economy, which needs time to be compensated for. However, the simulation by GEM shows that market forces may, in the end, lead to new equilibriums with higher output and employment. In behavioural terms, this implies that investment may be attracted when demand-driven opportunities arise, and unemployed people might accept new jobs at less favourable working conditions. In institutional terms, this implies that flexible functioning markets smooth the adjustment process after an initial shock. An analysis using two different modelling approaches thus seems useful in understanding the economic forces empowered by network industry reform and other structural changes. The approaches are complementary rather than conflicting.

*'Hervorming van netwerkindustrieën in België: de macro-economische effecten', J. van der Linden, Working Paper 8-06, September 2006.*

*'Network industry reform in Belgium: macroeconomic versus general-equilibrium analyses', J. van der Linden, Working Paper 10-06, September 2006.*

## Public spending on innovation in Sweden, Finland and Belgium

This working paper analyses public financing in two countries that have already reached the Barcelona goal (R&D expenditure on GDP at least equal to 3%), Finland and Sweden, and compares it with the situation in Belgium. This comparison covers not only the quantitative aspects but also the organisational dimension of the public support for innovation.

In the context of the renewal of the Lisbon strategy, the European Council of March 2005 has once again underlined the importance of innovation for the future of the

Union in terms of sustained growth and job creation. The efficiency of national innovation systems is becoming a major political concern among Member States. In its recent diagnostic of the Belgian system, the Secretariat of the Central Council for the Economy observed that the limited involvement of the public sector in the financing of research constitutes one of the main problems. The results reached by the Belgian innovation systems also raise questions on the efficiency of this financing.

The paper demonstrates that public support systems organised in very different ways can be successful. Indeed, Finland has a highly centralised system while Sweden has established a decentralised structure with nine ministries in charge of innovation policy. The *de facto* decentralised structure of the Belgian system between the Regions, Communities and the federal State is therefore not *a priori* a cause of inefficiency.

The first main difference between leader countries, such as Finland and Sweden, and follower countries, such as Belgium, is the very large size of government support to the innovation system. This high public financing in Finland and Sweden illustrates the clear political willingness to place innovation at the heart of all implemented policies after the severe recession recorded by both countries at the beginning of the nineties.

The share of R&D public expenditure devoted to the higher educational system is relatively comparable between the three countries. But given the large differences in the amounts under consideration, the critical mass effect is easier to reach in Finland and Sweden than in Belgium. R&D public expenditure in higher education expressed as a percentage of GDP is also higher in Finland and Sweden than in Belgium.

The second main difference is linked to the organisation of public support systems. The two leader countries have chosen a sectoral orientation for their innovation policy while Belgium, given its institutional organisation, has a regional orientation for its innovation policy. The sectoral dimension is only expressed at the Regional level, without any coordination between the choices that are made independently by the Regional Governments.

The identification of strategic sectors and the focusing of public support policy on these sectors are already deeply anchored in Sweden and Finland, while this development is more recent in Belgium. In addition, the scientific

world participates more in the orientation and the implementation of research policy in the former two countries. A closer look at the IWT and DGTRE budgets shows that support to R&D in businesses still has a large place. However, in recent years, the three Regions have increased the importance of networking between businesses and of networking between businesses and research centers.

Thirdly, both in Finland and Sweden, the continuous high-quality assessment of projects and policies allows constant modification of public action to achieve higher efficiency. The awareness of the importance of independent assessment is more recent in Belgium and its implementation is not yet complete.

Finally, Finland and Sweden appear to have each clearly and unanimously identified their weak and strong points concerning their innovation system and to have programmed the required public interventions well. Belgium appears less advanced in this aspect.

In conclusion, this first analysis indicates that Sweden and Finland have reached a level of development in their innovation system which allows them to concentrate their efforts on the consequences of innovations on job and activity creation, while Belgium is still occupied to various degrees with the construction of its innovation systems. Research into optimal repartition of public support between fundamental and applied research, the identification by all stakeholders of strategic technological fields, and the analysis of efficiency of implemented and planned public measures, are required steps to construct a true innovation policy in Belgium and in its Regions.

*“Le financement public de l’innovation: Etude comparative Finlande, Suède, Belgique / De overheidsfinanciering van innovatie: Vergelijkende studie van Finland, Zweden en België”, B. Biatour, C. Kegels (FPB), S. Vandecandelaere (CRB/CCE), Working Paper 9-06, September 2006.*

## A Medium-Term Outlook for the World Economy: 2006-2012

The August 2006 issue of the NIME Outlook for the World Economy presents a 2006-2012 macroeconomic outlook for the major areas of the world. The outlook was produced using NIME, the Federal Planning Bureau’s macroeconomic world model. The August 2006 issue also features a stochastic evaluation of the projection’s main results for the euro area, for the group of countries comprising Denmark, Sweden and the United Kingdom, for the US and for Japan.

After a year of frail economic growth in 2005, euro area GDP growth should rebound in 2006 while consumer


price inflation should remain above the 2% upper limit of the European Central Bank’s definition of price stability. The pick-up in growth is largely based on a rise in employment, on positive real wage growth and on continued favourable monetary conditions. While the area’s GDP should expand at an average annual rate of 1.8% over 2006-2012, growth rates tend to decline from 2% in 2007 to 1.4% in 2012; the area’s average annual growth rate is thus only 0.1%-point lower than the 1999-2005 average, notwithstanding the declining - but still positive - growth rate of the working-age population. Consumer price inflation should come out at an av-

erage rate of 1.8% per annum over the period, edging up to 1.9% at the end of the period. The short-term interest rate is expected to rise from a year average level of 3.1% in 2006 to 4.2% in 2012 as the euro area's monetary authorities move to ensure price stability. Assuming no policy changes, the area's fiscal deficit should recede only gradually from 2.4% of GDP in 2006 to 1.7% of GDP in 2012.

Over the 2006-2012 period, GDP growth should average 2.8% per annum for the group of countries comprising the United Kingdom, Sweden and Denmark. Real GDP in the United States is expected to rise at an average annual rate of 2.7% over the same period. However, growth will most likely be uneven from year to year as, under current US laws and policies, a number of significant tax cut provisions should expire and stymie domestic demand growth over the projection period. At the same time, important fiscal and external imbalances should persist. Real GDP in Japan is expected to progress at an average annual rate of 2.1% over the 2006-2012 period. Consumer price inflation should reach a year average rate of 0.5% in 2006 and average 1.5% over the projection horizon. Japan's growth momentum should fall off noticeably by the end of the projection horizon as the ageing of the country's population leads to a decline in the labour supply.

This issue also features a stochastic evaluation of the outlook's results. The NIME economic outlooks pub-

lished to date present results in the form of point estimates: the model result for a specific variable for any given year is represented by a single figure, independently of the risks surrounding the result. The stochastic evaluation that is presented in this issue's *Focus* now provides the reader with a precise evaluation of the risks surrounding the projection's main results. These risks are shown in the form of confidence intervals around outcomes for the main economic variables of the major economic areas. The confidence intervals indicate, for instance, that by the end of the projection period (i.e. in 2012), there is a 95% probability of GDP growth coming out between 0.3 and 2.6% for the euro area; between 1.4 and 3.6% for the Western non-euro EU Member States; between 1.5 and 3.2% for the United States; and between -0.1 and 1.9% for Japan. Similarly, the 95% confidence interval around consumer price inflation in 2012 lies between 1.3 and 2.6% for the euro area; between 1.1 and 2.9% for the Western non-euro EU Member States; between 1.4 and 2.2% for the United States; and between 1 and 3% for Japan. Note that the level of uncertainty increases over time, leading to wider confidence intervals in 2012 than in earlier years of the projection period.

 *"A Medium-Term Outlook for the World Economy: 2006-2012. Focus: A Stochastic Appraisal of the NIME Outlook for the World Economy",  
The NIME Outlook for the World Economy, August 2006.*

## Other Recent Publications

[Medium Term Economic Outlook 2006 - 2011](#), May 2006  
(available in Dutch and in French).

[Economic Forecasts 2007](#), September 2006  
(available in Dutch and in French).

[Planning Paper 100](#), February 2006  
"Les charges administratives en Belgique pour l'année 2005 - De administratieve lasten in België voor het jaar 2005"  
L. Janssen, Ch. Kegels, F. Verschueren

[Planning Paper 99](#), January 2006  
"Overheidsparticipaties in de marktsector in België, 1997-2003 - Participations publiques dans le secteur marchand en Belgique, 1997-2003"  
H. Spinnewyn

[Working Paper 3-06](#), June 2006  
"Het Europese begrotingscompromis van december 2005 / Financiële impact voor België en de andere lidstaten - Le compromis budgétaire européen de décembre 2005 / Impacts financiers pour la Belgique et les autres Etats membres"  
F. Hennart (Ministère de la Région Wallonne - Direction de la Politique Economique), M. Saintrain, T. Vergeynst (Studiedienst van de Vlaamse Regering)

[Working Paper 2-06](#), April 2006  
"An Evaluation of the Risks Surrounding the 2006-2012 NIME Economic Outlook : Illustrative Stochastic Simulations"  
E. Meyermans, P. Van Brusselen

[Working Paper 1-06](#), January 2006  
"Les conséquences économiques du choc pétrolier sur l'économie belge"  
H. Bogaert, F. Bossier, I. Bracke, L. Dobbelaere



## Research in Progress

### Macroeconomic and budgetary implications of the

#### "Solidarity Contract Between Generations"

The macroeconomic and budgetary implications of the policy measures included in the "Solidarity Contract between Generations", both in the medium as in the long term, are being explored. These measures notably consist of incentives to working longer and to adjust social benefits to welfare.

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### Recent developments in poverty among the elderly

In the framework of the preparation of the annual report of the Ageing Study Committee, the FPB assesses the recent evolution of poverty risk among the elderly. Microdata from surveys are being used and projected until 2005.

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### Macroeconomic, budgetary and GHG emissions prospects

Using a consistent modelling approach, medium-term macroeconomic - including labour market - and budgetary prospects, as well as the future evolution of greenhouse gas (GHG) emissions, are being investigated. Trends in the forces driving economic growth are being analysed.

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### Consistent regional-national medium-term macroeconomic modelling

In collaboration with experts from the three regional governments, regional medium-term macroeconomic models are being built for Brussels, Flanders and Wallonia, on the basis of a breakdown of the FPB medium-term macroeconomic model for Belgium.

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### Transport and mobility

The FPB undertakes research in this area in cooperation with the federal "Transport and Mobility" administration. In particular, transport satellite accounts and a transport model are constructed. The aim is to get a better grasp of the relationship between transport, mobility and the economy and to analyse the impact of transport and mobility policies on the Belgian economy.

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### EU-KLEMS

As a partner in a European consortium, the FPB works on the development of a database that would allow the evaluation of European performance in terms of prices, output and intermediate consumption. An additional aim is that the database would allow an analysis of the determinants of certain measures of productivity, in particular total factor productivity (TFP).

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### Energy and emissions prospects

At the request of the ministers of the Economy and of the Environment, the FPB carries out energy forecasts until 2030 and emissions forecasts until 2050. Both exercises are aimed at keeping the public debate going and providing a firm basis for energy and environmental policy.

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### Qualitative labour market statistics

As an extension to national accounts and input-output tables, the FPB is carrying out breakdowns of time series for employment (in number of persons and hours) and wages by industry according to a number of qualitative characteristics (e.g. age, gender and education level).

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## Recent history of major economic policy measures

October 2006	The ECB raised its main refinancing rate by a quarter of a point to 3.25%
September 2006	The postal incumbent (De Post/La Poste) officially opened the first two of four newly built sorting centres. The new centres bring the sorting process to a high standard of automation and serve as a trump for the incumbent in the light of the upcoming market liberalisation. The whole operation cost 250 million EUR and is the biggest investment ever made by De Post/La Poste.
August 2006	The upgrade of the Brussels suburban rail network officially started and will last six years. In 2012, Brussels should have a modern Regional Express Network to face the challenge of improving mobility. The ECB raised its main financing rate by a quarter of a point to 3%.
June 2006	The federal government increased its control over the energy market regulator CREG. The government may now, for example, approve the regulator's strategic plans, give instructions to the regulator, and now has a supervising role. The ECB raised its main financing rate by a quarter of a point to 2.75%.
March 2006	Starting in July 2006, the Flemish region will subsidize the hiring of elderly unemployed, aged 50 or older. The subsidy is temporary (4 quarters) and the number of beneficiaries will be limited by a strict budgetary ceiling (22 million euros in 2006). The ECB raised its main refinancing rate by a quarter of a point to 2.5%.
January 2006	In accordance with EU legislation, two steps in the opening of the market for network industries were taken: the extension of free entry in rail traffic to all international freight services; and the extension of the threshold for free entry in postal services to all items above 50 grammes or charged at more than 2.5 times the basic tariff.
December 2005	The ECB raised its main refinancing rate by a quarter of a point to 2.25%
November 2005	The Danish Post and the British investment group CVC agreed with the federal government to acquire a 50%-1 stake in the postal incumbent De Post/La Poste. This will be done by investing fresh capital rather than taking over government shares.
October 2005	At the October conclave, the federal government announced its objectives for public finances for 2006. These are based on assumptions of 2.2% economic growth (1.4% in 2005) and 2.9% inflation (3.0% in 2005). The finances of general government should remain balanced. The federal government and state governments (communities and regions) should each record a 0.1% of GDP surplus. These surpluses should compensate for the forecasted 0.3% GDP deficit in local government finances, related to a temporary surge in infrastructure investment ahead of the next municipal elections. A balance in the social security budget will be achieved through increased transfers from the federal government. The total state debt-to-GDP ratio should decrease from 94.3 % at the end of 2005, to 90.7 % at the end of 2005. The government intends to keep the growth of expenses strictly under control, both in the federal departments and in social security. However, the budget preserves room for manoeuvre for new initiatives in the areas of mobility, justice and security, in health care expenditure, and for selected increases in social allowances. Additional cuts in social security contributions have been decided, targeted on those categories of workers with the lowest rates of activity: young low-wage earners and workers aged 50 or above. These wage-cost reductions are part of the "Solidarity Contract between Generations" proposed by the government, together with the 2006 budget, which also contains various regulatory proposals to discourage early retirement from the labour market. Furthermore, wage subsidies for night-time labour and labour organised in shifts have been increased, as have wage subsidies for researchers. Taxation in the 2006 budget is marked by the introduction of new levies for households on the previously-exempt income from bond funds and insurance-related saving vehicles. On the other hand, the recently-decided corporate tax reform (the "notional interests" deduction) will encourage the financing of companies through risk capital rather than debt. This reform will reduce the corporate tax burden and thus make the Belgium tax system more attractive for foreign investors, compensating, through a general solution, for the planned dismantling of the special regime for coordination centers. As was the case in previous years, the 2006 budget partly relies on non-structural corrective fiscal measures, notably the creation of a public/private investment trusts for the management of public real estate properties, new sales of real estate and a second wave of securitisation of future cash flows from tax arrears. A so-called "tax regularisation operation" is also envisaged, together with a reinforcement of the anti-fraud machinery.
September 2005	The federal government decided to contribute to the cost of fuel oil for heating for private consumers. It will pay the difference between the consumer price and 0.5 euros per litre, with a ceiling of 17.35% of the total price. Furthermore, the so-called 'fuel oil fund' will help people in need to pay their bill. The federal government decided to contribute to the cost of fuel oil for heating for private consumers. It will pay the difference between the consumer price and 0.5 euros per litre, with a ceiling of 17.35% of the total price. Furthermore, the so-called 'fuel oil fund' will help people in need to pay their bill.

A more complete overview of "Recent history of major economic policy measures" is available on the FPB web site (<http://www.plan.be>)

Abbreviations for names of institutions used in this publication

BIS	Bank for International Settlements
CPB	Netherlands Bureau for Economic Policy Analysis
CRB/CCE	Centrale Raad voor het Bedrijfsleven / Conseil Central de l'Economie
DGSB	FPS Economy - Directorate-General Statistics Belgium
EC	European Commission
ECB	European Central Bank
EU	European Union
FEBIAC	Fédération Belge des Industries de l'Automobile et du Cycle "réunies"
FPB	Federal Planning Bureau
FPS Economy	Federal Public Service Economy, S.M.E.s, Self-employed and Energy
FPS Employment	Federal Public Service Employment, Labour and Social Dialogue
FPS Finance	Federal Public Service Finance
IMF	International Monetary Fund
INR/ICN	Instituut voor de Nationale Rekeningen / Institut des Comptes Nationaux
IRES	Université Catholique de Louvain - Institut de Recherches Economiques et Sociales
NBB	National Bank of Belgium
OECD	Organisation for Economic Cooperation and Development
RSZ/ONSS	Rijksdienst voor Sociale Zekerheid / Office national de la Sécurité Sociale
RVA/ONEM	Rijksdienst voor Arbeidsvoorziening / Office national de l'Emploi

Other Abbreviations

BoP	Balance of Payments
CPI	Consumer Price Index
EUR	Euro
GDP	Gross Domestic Product
JPY	Japanese yen
LHS	Left-hand scale
OLO	Linear obligations
qoq	Quarter-on-quarter, present quarter compared to previous quarter of s.a. series
RHS	Right-hand scale
s.a.	Seasonally adjusted
t/t-4	Present quarter compared to the corresponding quarter of the previous year
t/t-12	Present month compared to the corresponding month of the previous year
UKP	United Kingdom pound
USD	United States dollar
VAT	Value Added Tax
yoy	Year-on-year, i.e. t/t-4 (for quarters) or t/t-12 (for months)