

Quarterly Newsletter of the Federal Planning Bureau

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

The medium-term outlook for Belgium points towards an average GDP growth rate of 2% for the period 2008-2013. A slowdown is expected for the Belgian economy in 2008 and 2009 (GDP growth of only 1.7%), mainly as a consequence of less dynamic exports and a moderate increase in domestic demand. Belgian GDP growth should accelerate in 2010, thanks to the more favourable international environment and a more dynamic development of domestic demand. From 2011 onwards, Belgian GDP growth should stabilise slightly above its potential (equal to 2% on average). Note that the global economic situation is beset with many uncertainties and, therefore, the outlook is surrounded with considerable risks, especially for the short term.

The average yearly growth rate for private consumption should reach 1.7% for the period 2008-2013, which is slightly lower than the increase in households' real disposable income. Purchasing power will be handicapped in 2008 by the high inflation rate (3.8%), but should be underpinned afterwards by employment growth and by higher increases in wage rates and social benefits. Investment growth should reach 2.8% for the period 2008-2013, reflecting the path of business investment growth (supported by business profitability and stable demand prospects after 2009). Growth in exports should reach 5% on average and the contribution of net exports to GDP growth is expected to be 0.1%-points. After an acceleration in 2008, the inflation rate should stabilise slightly below 2% for the period 2009-2013. This rather low inflation rate is mainly due to a moderate increase in imported costs and the persistence of a negative output gap until 2013.

The expected evolution of employment reflects a relatively favourable macroeconomic environment and persistently modest labour productivity growth (1.2% per year). After a particularly high number of new jobs created in 2007 (70,000), employment growth should remain sustained: about 42,000 units should be created every year during the period 2008-2013. Between 2007 and 2013, manufacturing industrial employment should fall by 35,000 but the number of jobs created in market services should exceed 270,000. Nevertheless, in view of the increase in the labour force (notably explained by incoming migration), the fall in unemployment should be limited to 22,000 persons. The unemployment rate (broad administrative statistics) should fall from 12.6% in 2007 to 11.6% in 2013.

Under the assumption of constant policy, public accounts are expected to deteriorate markedly, with a net public financing requirement of 0.3% of GDP in 2008, widening to 0.8% of GDP in 2009 and 0.9% of GDP in 2010, before gradually falling to 0.4% by the end of the projection period. Nevertheless, the total public debt to GDP ratio will continue to decline, from 84.8% in 2007 to 70.8% in 2013.

STU 2-08 was finalised on 26 May 2008.

The Federal Planning Bureau (FPB) is a public agency under the authority of the Prime Minister and the Minister of Economy and Reform. The FPB has a legal status that gives it an autonomy and intellectual independence within the Belgian Federal public sector.

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

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All FPB publications, mentioned in this STU, can be obtained either by sending a fax (+32 2 5077373) or by filling in the necessary form on our Internet site (<http://www.plan.be>).

Long-Term Projections of Freight Transport and its Environmental Impact

Transport provides an important contribution to the Belgian economy. However, it also leads to negative effects, of which congestion, accidents and air pollution are the most important. In order to get a better insight in the future development of transport the Federal Planning Bureau has constructed the PLANET model¹, a long-term transport model. This article describes the results of the PLANET model under a business-as-usual scenario to 2030. We focus on freight transport in Belgium by road, rail and inland navigation.

The Business-As-Usual Scenario

The business-as-usual scenario (BAU scenario) assumes a continuation of current transport policies and the implementation of currently decided European policies such as new emissions standards for motor vehicles and the introduction of biofuels. It is based on the November 2007 projections of the European Commission for energy prices and on projections of the PRIMES model for the energy mix in Belgian electricity production. The macroeconomic projections underlying the scenario are taken from the HERMES and MALTESE models². For road transport, the scenario assumes that road infrastructure capacity remains unchanged. For rail and inland navigation, the existing network capacity is taken to be large enough to accommodate additional transport while keeping speed constant.

The PLANET model explicitly considers the interaction of passenger and freight transport on the road network and presents projections for both of them. However, here we are focusing on freight transport. A distinction is made between national transport, international transport to and from Belgium and transit without transshipment. In the BAU scenario, passenger kilometres (pkm) are projected to increase by 21.7% between 2005 and 2030.

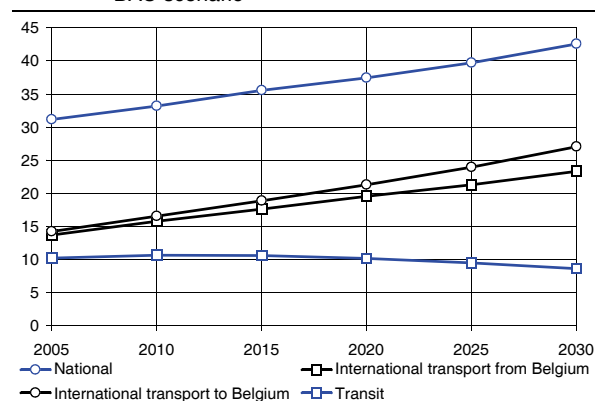
Tonne Kilometres

The evolution of tonne kilometres (tkm) depends on projections for the number of tonnes lifted and on the evolution of the generalised transport costs, which include both the monetary and the time costs. The tonnes lifted are derived from projections for the value of domestic production, imports and exports, combined with

projections for the values per tonne. In addition, transit transport is taken to depend negatively on transport costs in Belgium with an elasticity equal to -1.5.

Figure 1 presents the evolution of tonne kilometres (tkm) in Belgium in the BAU scenario. The total number of tkm in Belgium is projected to increase by 47% between 2005 and 2030. National transport – which accounted for 45% of tkm in 2005 – should increase by 37% in the same period. International transport from Belgium was responsible for 20% of tkm in 2005 and is projected to rise by 71%. International transport to Belgium had a share of 21% of tkm in 2005 and will increase by 90%. The growth rate of tkm in Belgium is larger for international transport than for national transport, reflecting mainly the higher growth rate of tonnes lifted for international transport movements. For all transport flows the model projects an increase in the average distance per tonne. The increase is higher for international than for national transport flows. Finally, transit without transshipment, accounting for 15% of tkm in 2005, is projected first to increase and then to fall due to the worsening traffic conditions in Belgium. In 2030 it will be 15% lower than in 2005.

Graph 1 - Billion tonne kilometres in Belgium (2005-2030)
BAU scenario



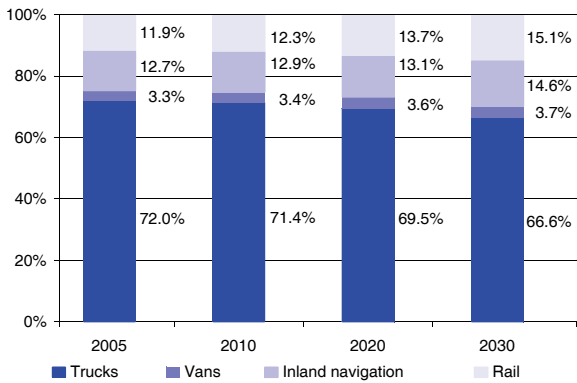
Modal Shares

The PLANET model considers four modes for freight transport in Belgium: trucks, vans, rail and inland navigation. For road transport a further distinction is made between peak and off-peak transport. The choice of the mode and the time period is determined iteratively based on the evolution of the generalised costs – which depend on the modal choice – and the transport production process.

1. The development of the PLANET model was made possible thanks to financing from the FPS Mobility and Transport. The full results of the BAU scenario will be published in the forthcoming FPB planning paper on long-term transport projections.

2. The reference projection is the medium term HERMES outlook 2006-2011 (May 2006), extended to 2020 for internal use. Beyond 2020 the reference is the Spring 2006 MALTESE projection.

Graph 2 - Modal shares in tkm in Belgium (2005-2030)
BAU scenario



The BAU scenario projects a shift to the non-road modes, which are expected to increase their share in tkm in Belgium from 24.7% in 2005 to 29.7% in 2030 (Figure 2). Note that in the first instance the growth in tonnes lifted would be more or less assigned to the modes in a similar way as in 2005. However, the resulting increase in road flows puts a downward pressure on road speed. This will encourage a shift towards rail and inland navigation.

Within road transport there will be a shift from trucks to vans. This is mainly because the tonnes lifted of goods that can be transported by vans should increase faster than for other goods.

Road Flows and Average Speed

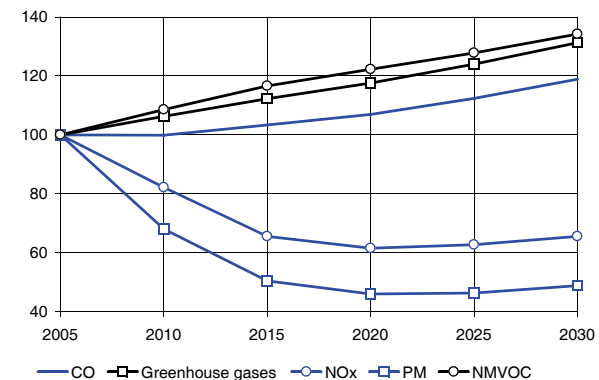
The number of vehicle kilometres (vkm) driven by trucks and vans is expected to increase by 22% and 66%, respectively, between 2005 and 2030. Together with the evolution of passenger demand, the growth of road freight transport should imply a fall in road speed. In 2030 average road speed in the peak period will be 23% lower than in 2005, while in the off-peak period it will be 13% lower. This should lead to a shift from the former to the latter period for the road modes. In 2030 the share of the peak in truck and van vkm will be 24.8%, compared to 26.8% in 2005.

Environmental Impact

Combining the projections for freight transport with the exogenous evolution of the vehicle stock composition and with emission factors provided by VITO, allows us to project the evolution of freight transport emissions. Figure 3 considers the emissions in Belgium of four main pollutants and of greenhouse gases (expressed in

CO₂ equivalents)¹. For rail it includes both direct and indirect emissions. The latter are related to electricity production.

Graph 3 - The evolution of emissions in Belgium by road, rail and inland navigation freight (2005 = 100)
BAU scenario



The BAU scenario projects a rise in the emissions of greenhouse gases, CO and NMVOC by freight transport. This is mainly due to an increase in freight transport flows. Additional explanatory factors are a rising load factor for trucks and the growing share of rail transport. The emission factors of rail should rise after 2020 due to the larger share of coal in electricity production (partly resulting from the phasing out of nuclear energy). The emissions of PM and NO_x will first fall thanks to cleaner technologies but then rise again due to increased emissions by vans and rail.

In addition to total emissions, the model also provides an insight into the marginal external air pollution and climate change costs. These refer to the air pollution and climate change damage² per additional tkm transported by each mode. In 2005 these costs were the lowest for rail (EUR 3/1000tkm) and inland navigation (EUR 4/1000tkm). For vans and trucks they equalled EUR 87.5 and EUR 9.8/1000 tkm respectively³. Over time the introduction of cleaner technologies and fuels should lead to a fall in the damage per tkm for all modes except rail. For rail it is projected to increase by 81% between 2005 and 2030 because of the change in the energy mix for electricity production. For the other modes it should fall significantly: by 20% for inland navigation, by 11% for vans, and by 31% for trucks.

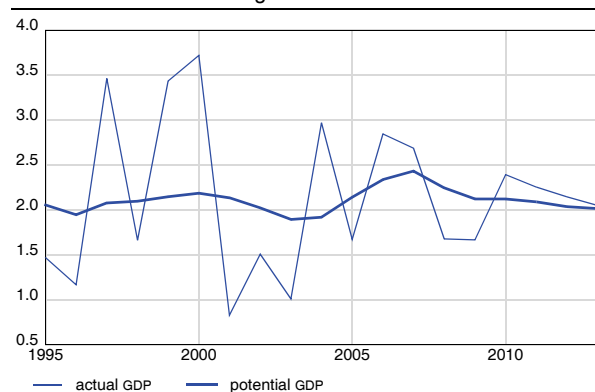
1. The four pollutants are CO (carbon monoxide), NMVOC (non-methane volatile organic compounds), NO_x (nitrogen oxides) and PM (particulate matter). The greenhouse gases include CO₂ (carbon dioxide), CH₄ (methane) and N₂O (nitrous oxide).
2. To calculate the damage we based ourselves on the HEATCO project (heatco.ier.uni-stuttgart.de). For greenhouse gases we assume that the damage per tonne of CO₂ equivalent equals EUR 21 in 2005 and EUR 39 in 2030, corresponding to the central values of HEATCO. All values are expressed in constant prices.
3. For vans we use a load factor of 0.25 tonnes/vkm, while for trucks the load factor ranges from 9.2 to 10.1 tonnes/vkm in 2005 and 2030 respectively.

Economic forecasts 2008 - 2013

The FPB medium-term economic outlook of May 2008 covers the period 2008-2013 and presents detailed analyses of macroeconomic, sectoral and labour market developments. There is also detailed comment on the public finance performance of the federal government, regions and communities, local authorities and social security departments. A special chapter is devoted to the evolution of energy consumption and greenhouse gas emissions. This projection is an unchanged policy scenario, particularly with regard to fiscal and social policies and institutional arrangements, taking into account all currently known decisions. Based on this scenario, the general government financing capacity is expected to be negative from 2008 onwards and an imbalance should persist until the end of the projection. As a result, the objective of a financing capacity of 0.3% of GDP in 2009, increasing thereafter gradually until reaching 1% of GDP in 2011 (as set out in the Stability Programme) will not be reached without additional measures.

After a good year in 2007, a clear deterioration of world activity is expected for 2008, and eurozone GDP should only increase by 1.7% in 2008 (against 2.7% in 2007). This economic slowdown is expected to occur in a context of high inflation, fed by the strong increase in commodity prices. The inflation rate of the eurozone should attain 3.2% in 2008, well above the objective of the ECB. European growth will be still modest in 2009 (1.7%) and a recovery is only expected in 2010. Afterwards (period 2011-2013), eurozone GDP growth should stabilise at a rhythm close to its potential (1.9% per year). Inflation should gradually decrease to below 2%, particularly thanks to wage increases that are expected to remain below productivity gains. Moreover, a recovery in nominal interest rates is also being considered. This increase in interest rates would be consistent with inflation remaining under control.

Graph 1 - Actual and potential GDP growth for Belgium
annual % changes



A slowdown is also expected for the Belgian economy in 2008 and 2009. Belgian GDP growth should not exceed

1.7% on average during these two years, mainly as a consequence of less dynamic exports and a moderate increase in internal demand. Belgian GDP growth should accelerate in 2010, thanks to the more favourable international environment; domestic demand is also expected to be more dynamic. From 2011 onwards, Belgian GDP growth should stabilise slightly above its potential (equal to 2% on average).

After dynamic growth in 2007, private consumption expansion should be more modest in 2008, given the slowdown in the evolution of household disposable income. In the medium term, household demand growth should stabilise at a rate equal to 1.8% on average. Gross fixed capital formation, which was particularly dynamic in 2007, should still perform favourably in the future: the average growth rate of investment should be 2.8% during the 2008-2013 period, mainly reflecting an increase in business investment.

Growth in exports should be 5% on average and the contribution of net exports to GDP growth is expected to be slightly positive (0.1%). The external surplus, which was strongly reduced between 2002 and 2006, should lower again and attain 2.5% of GDP in 2009. From 2010, onwards, the external surplus should recover and reach 2.8% of GDP at the end of the projection.

After an acceleration in 2008, the inflation rate should stabilise slightly below 2% for the period 2009-2013. This inflation pace can be explained notably by a moderate increase in imported costs and by the persistence of a negative output gap until 2013.

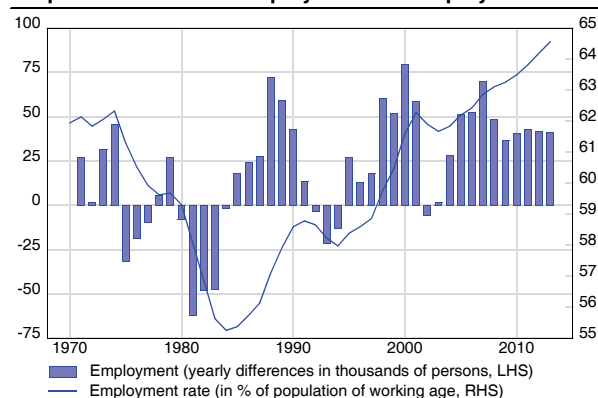
In a context of a relatively favourable macroeconomic environment (GDP growth equalling 2.0% per year on average) and persistently modest labour productivity growth (1.2% per year), employment will increase substantially (0.9% growth per year; 251,000 extra jobs between 2007 and 2013). The employment rate will increase from 62.9% in 2007 to 64.6% in 2013, at an accelerating pace from 2010 onwards. The increase in employment will be accompanied by ongoing structural shifts in its sectoral composition, with manufacturing incurring a further loss of 35,000 jobs, and market services gaining 271,000 jobs, bringing its share of total employment to 61.8% in 2013 (43.2% in 1980 and 59.1% in 2007).

Labour productivity growth has been falling dramatically since the eighties, and is still under downward pressure from the changing sectoral composition of employment as well as from the ongoing expansion of jobs in the government-subsidised voucher programme for

domestic-type services. With real wages accelerating after 2008 - in line with anticipated wage growth in Belgium's main trading partners - the share of wages in total market sector value added will no longer decrease; it is expected to stabilise around 60.5%.

The strong increase in employment growth is underpinned by an almost equally important increase in the labour force (0.8% on average per year; increase of 237,000 persons). Approximately half of the increase in the labour force may be accounted for on demographic grounds, and is entirely the result of net incoming migration from abroad. The latter has increased substantially since the beginning of the decade and is expected to remain at a historically high level in the medium run. The other half of the increase in labour supply may be attributed to changes in behaviour, resulting in structural rises in female activity rates and in both male and female activity rates at the top of the age scale.

Graph 2 - Evolution of employment and employment rate



Broad administrative unemployment will only come down marginally (22,000 persons), with the unemployment rate decreasing from 12.6% in 2007 to 11.6% in 2013. The major part of this decrease is expected to occur this year and will follow the largest-ever yearly drop in the unemployment rate (from 13.8% to 12.6%, in 2007), implying a substantial reduction in the structural unemployment rate. However, part of this decrease merely reflects the fact that a significant number of people were excluded from unemployment benefits as a result of more rigorous verification of active job search behaviour. Also, the drop in the structural unemployment rate is enhanced by the increase in low-qualified employment, which tends to put downward pressure on productivity growth.

As usual, the exercise assumes that policy remains constant. The projection takes into account the measures decided within the framework of the 2008 budget. The finances of the general government were slightly negative in 2007 (0.3% of GDP). Taking into account all budgetary measures known at the end of April, a deficit of 0.3% of GDP should also be recorded for 2008. The deficit should clearly increase until 2010 (0.8% of GDP)

and then reduce gradually to attain 0.4% of GDP in 2013.

The reappearance of public deficits is mainly due to the end to one-shot measures, which characterised the 2001-2006 period, and to the increase in social expenditures (health care and pensions) in front of a background of relatively limited room for manoeuvre. However, social security should not fall into deficit thanks to programmed increases in transfers from the federal authority (alternative financing). The deficit will therefore be located in the federal authority. Under a constant policy assumption, the communities and regions (considered globally) should record budgetary surpluses, but the local authorities are expected to be in deficit.

The objectives set out in the Stability Programme (a financing capacity of 0% of GDP in 2008, increasing gradually to reach 1% of GDP in 2011) will not be reached without additional measures for about 1.8% of GDP. Nevertheless, the total public debt to GDP ratio will continue to decline, from 84.8% in 2007 to 70.8% in 2013.

Due to high energy prices (which stimulate the penetration of energy-efficient technologies), structural changes in the economy (tertiarisation) and relatively weak economic growth in 2008 and 2009, final energy consumption should grow moderately by 0.5% per year on average, whereas the energy-intensity of GDP should decrease yearly by 1.1% on average. Total greenhouse gas emissions should decrease slightly due to moderate energy consumption and to structural changes in the energy consumption mix and, over the period 2008-2012 total emissions should only exceed slightly the objective defined by the Kyoto Protocol.

Key figures for the medium- term economic outlook
period averages, changes in volume unless otherwise stated

	1996-2001	2002-2007	2008-2013
Potential export market	6.9	6.8	6.7
Private consumption	2.1	1.5	1.7
Public consumption	1.9	1.5	2.1
Gross fixed capital formation	3.5	3.4	2.8
Stock building (contribution to GDP growth)	-0.2	0.2	0.0
Final domestic demand	2.2	2.0	2.0
Exports	4.9	3.6	5.0
Imports	4.7	3.6	5.1
Net exports (contribution to GDP growth)	0.3	0.1	0.1
GDP	2.4	2.1	2.0
Private consumption prices	1.6	2.1	2.2
Real disposable income households	1.4	0.7	1.8
Domestic Employment (annual changes in '000)	47.0	33.0	41.9
Unemployment, FPB definition ^a			
-thousands	604.7	633.4	611.2
-% of labour force	12.6	12.6	11.6
Current account balance (% of GDP) ^a	4.1	3.3	2.8
General Government financing capacity (% of GDP) ^a	0.5	-0.3	-0.4

a. End of period

"Perspectives économiques 2008-2013 - Economische vooruitzichten 2008-2013", May 2008.

Economic forecasts for Belgium by the Federal Planning Bureau

Changes in volume (unless otherwise specified) (cut-off date of forecasts: 15 April 2008)

	2006	2007	2008	2009
Private consumption	2.0	2.5	1.4	1.6
Public consumption	0.0	2.2	2.8	1.9
Gross fixed capital formation	4.2	5.0	2.2	2.7
Final national demand	3.0	2.9	1.8	1.9
Exports of goods and services	2.6	4.6	4.3	3.6
Imports of goods and services	2.7	4.9	4.5	3.9
Net-exports (contribution to growth)	0.0	-0.1	-0.1	-0.1
Gross Domestic Product	2.8	2.7	1.7	1.7
p.m. Gross Domestic Product - in current prices (bn euro)	316.62	330.60	346.54	360.43
National consumer price index	1.8	1.8	3.8	2.0
Consumer prices: health index	1.8	1.8	3.5	2.1
Real disposable income households	2.6	2.3	0.4	2.3
Household savings ratio (as % of disposable income)	12.5	12.4	11.5	12.0
Domestic employment (change in '000, yearly average)	52.7	70.1	48.6	36.4
Unemployment (Eurostat standardised rate, yearly average) [1]	8.2	7.5	7.4	7.4
Current account balance (BoP definition, as % of GDP)	2.7	1.9	1.2	1.1
Short term interbank interest rate (3 m.)	3.1	4.3	4.4	3.8
Long term interest rate (10 y.)	3.8	4.3	4.0	3.8

[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
	2008	2009	2008	2009	2008	2009	
Federal Planning Bureau [1]	1.7	1.7	3.8	2.0	-0.3	-0.8	05/08
INR/ICN [1]	1.9	.	3.0	.	.	.	01/08
National Bank of Belgium [2]	1.9	.	2.9	.	-0.3	.	12/07
European Commission [2]	1.7	1.5	3.6	2.3	-0.4	-0.6	04/08
OECD [2]	2.6	1.9	1.7	2.3	-0.2	-0.4	12/07
IMF [2]	1.4	1.2	3.1	1.9	-0.3	-0.7	04/08
ING [1]	1.5	1.4	3.7	2.2	-0.4	-0.9	05/08
Fortis Bank [2]	1.7	1.8	3.7	2.1	-0.4	-0.4	05/08
Dexia [1]	1.5	1.8	3.4	2.4	.	.	04/08
KBC Bank [1]	1.5	1.8	2.9	1.8	-0.2	0.0	03/08
Deutsche Bank [2]	1.5	1.9	4.2	2.0	-0.6	-0.5	05/08
IRES [1]	1.6	.	3.7	.	-0.3	.	04/08
Consensus Belgian Prime News [2]	1.7	1.9	3.0	2.0	-0.3	-0.2	03/08
Consensus Economics [2]	1.8	2.0	2.7	1.8	.	.	04/08
Consensus The Economist [2]	1.7	1.7	2.9	1.9	.	.	05/08
Consensus Wirtschaftsinstitute [2]	2.0	1.8	3.2	2.5	-0.5	-0.7	04/08
Averages							
All institutions	1.7	1.7	3.2	2.1	-0.4	-0.5	
International public institutions	1.9	1.5	2.8	2.2	-0.3	-0.6	
Credit institutions	1.6	1.8	3.4	2.1	-0.4	-0.4	

[1] Inflation forecasts based on the evolution of the national index of consumer prices

[2] Inflation forecasts based on the evolution of the harmonised index of consumer prices

General economic activity

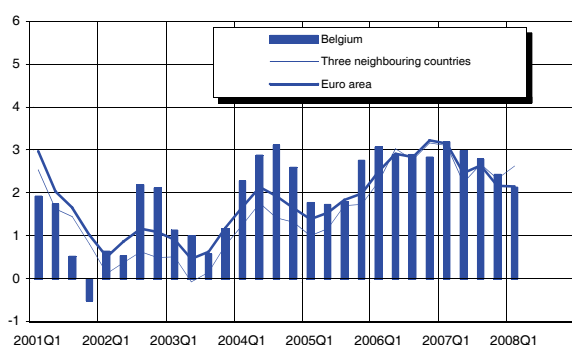
Table 1 - GDP growth rates, in % [1]

			YoY growth rates, in %					QoQ growth rates, in %				
	2006	2007	2007Q1	2007Q2	2007Q3	2007Q4	2008Q1	2007Q1	2007Q2	2007Q3	2007Q4	2008Q1
Germany	3.1	2.6	3.7	2.6	2.5	1.7	2.6	0.6	0.2	0.7	0.3	1.5
France	2.4	2.1	2.1	1.7	2.4	2.2	2.2	0.6	0.6	0.7	0.3	0.6
Netherlands	3.0	3.5	3.3	2.4	3.8	4.3	3.4	1.1	0.3	1.7	1.1	0.2
Belgium	2.9	2.8	3.2	3.0	2.8	2.4	2.1	0.7	0.5	0.7	0.5	0.4
Euro area	2.9	2.6	3.1	2.5	2.6	2.2	2.1	0.7	0.3	0.7	0.4	0.7
United States	2.9	2.2	1.5	1.9	2.8	2.5	2.5	0.2	0.9	1.2	0.1	0.1
Japan	2.4	2.0	3.2	1.8	1.9	1.4	1.1	1.1	-0.6	0.3	0.6	0.8

[1] Adjusted for seasonal and calendar effects

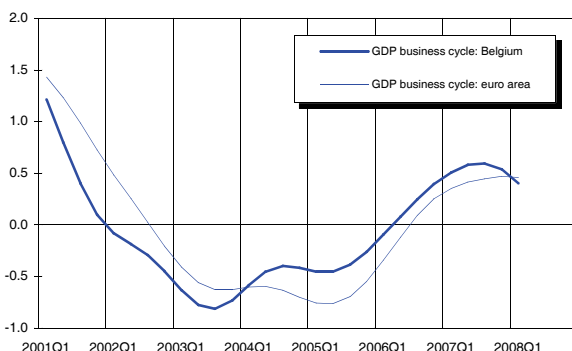
Source: INR/ICN, National sources, Eurostat

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



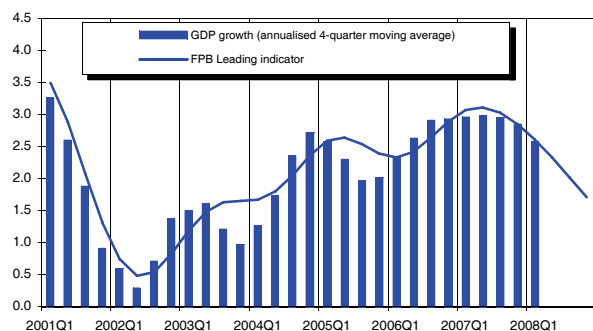
Source: INR/ICN, National sources, Eurostat

Graph 2 - GDP business cycle



Source: INR/ICN, Eurostat, FPB

Graph 3 - GDP growth and leading indicator



Source: INR/ICN, FPB

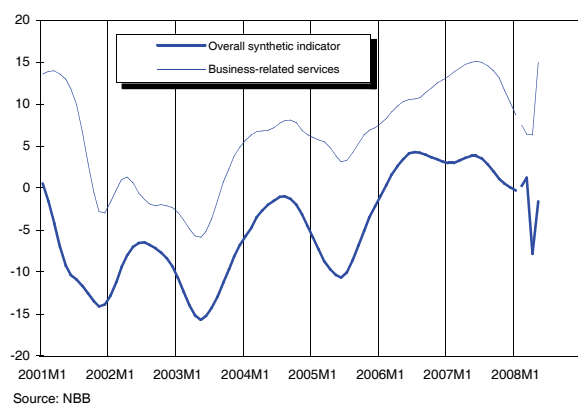
In spite of weak growth of private consumption, negative investment growth and a lower contribution of net exports, US GDP growth remained positive in 2008Q1 (+0.1%), owing to a sizeable contribution from inventories. US consumers are currently hard hit by a combination of falling net wealth, tightening credit conditions, higher energy and food prices, and an increase in unemployment rates. It remains to be seen to what extent the tax rebates (being paid from May onwards) might mitigate the downturn of the US economy, but economic growth is likely to remain below potential in the next few quarters.

The Japanese economy expanded by 0.8% in 2008Q1, following 0.6% in the previous quarter. Exports and private consumption, the key drivers of the Japanese economy in recent years, accounted for nearly all of the first quarter growth. A slowdown of the Japanese economy seems to be in the offing as poor real income prospects, rising living costs and slowing job growth will weigh on private expenditures. Moreover, a slowdown of some major export markets will hamper export growth.

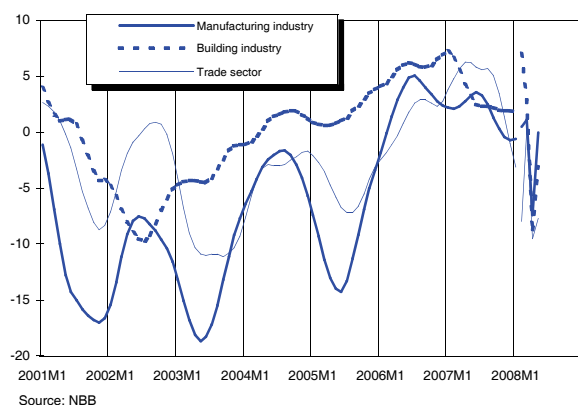
Contrary to expectations, 2008Q1 GDP growth in the euro area proved to be strong (0.7% following 0.4% in 2007Q4), driven by a strong performance by Germany (1.5%). Economic growth also surged in France (0.6%), but was disappointingly low in Spain (0.3%) and the Netherlands (0.2%). Euro area GDP growth is likely to be less robust in the second quarter as special factors (good weather conditions) boosted German Q1 GDP. Moreover, the effective appreciation of the euro will weigh on competitiveness, and soaring energy and food prices will affect household spending.

Belgian qoq growth weakened to 0.4% in the first quarter of this year following 0.5% in the previous quarter. Belgian economic growth is expected to remain moderate during the current year. The FPB leading indicator reached a turning point in 2007Q2 and points to GDP growth around 1.7% in 2008 as a whole.

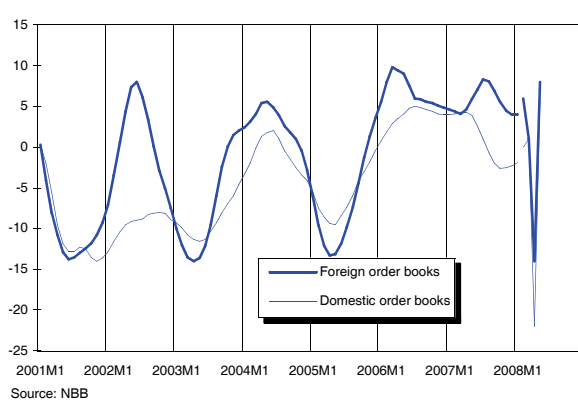
Graph 4 - Business cycle: global evolution



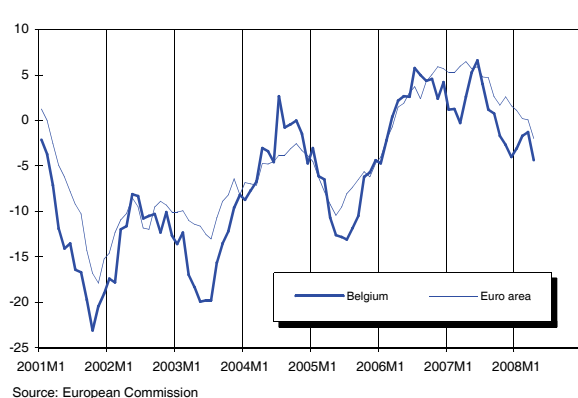
Graph 5 - Business cycle: sectoral evolution



Graph 6 - Manufacturing industry: order books



Graph 7 - Industrial confidence: international comparison



After reaching a peak in July 2006, Belgian business confidence remained at a high level until mid-2007. In the second half of last year it deteriorated considerably, but then improved slightly in 2008Q1. In April, confidence plunged to bounce back in the following month. The smoothed indicator, which captures the underlying evolution of sentiment, continued its decline, pointing to a deceleration in economic growth. The expected slowdown of the European economy and the strong rise of the euro are expected to subdue exports, while the steep rise in inflation and the slowdown of employment growth are likely to weigh on domestic demand. Meanwhile, business-related services confidence also declined from its peak in 2007Q2, but rose dramatically in May.

The development of business confidence is usually driven by manufacturing industry sentiment. This was also the case during recent months, although the significant worsening of sentiment in the trade sector since September 2007 made the overall indicator decline somewhat faster than manufacturing industry sentiment.

Recent fluctuations in manufacturing industry sentiment were mainly driven by company directors' assessment of the current situation, while their economic prospects worsened gradually. The most noticeable evolution was seen in their order book appraisal. During 2007Q4, a limited improvement in domestic order books went together with a deterioration in foreign order books. After a limited improvement in 2008Q1, both indicators plunged in April 2008 and registered a substantial rise in May.

Building industry sentiment receded gradually in 2007. In February and March 2008, the indicator benefited from an improvement in the assessment of current activity that probably reflected the good weather conditions during those months. This uptick was washed away by a clear deterioration of the indicator in April.

Although the smoothed indicator in the business-related services sector remains on a downward path, a hefty improvement was seen in May on the back of stronger activity readings (both current activity and activity prospects).

In contrast with the other sectors, sentiment in the trade sector hardly improved in May, mainly owing to a deterioration in the foreign orders component.

Industrial confidence in Belgium almost mimicked the evolution in Germany, i.e. a decline in the second half of last year, a slight improvement in 2008Q1 and high volatility in 2008Q2. In most other countries in the euro area, however, confidence did not rise in the first three months of the year, hence the uninterrupted decline of euro area industrial confidence.

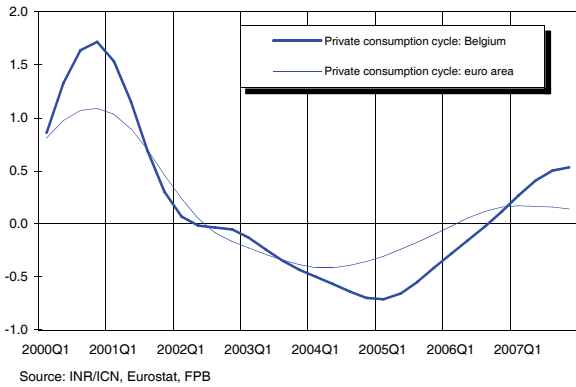
Private consumption

Table 2 - Private consumption indicators

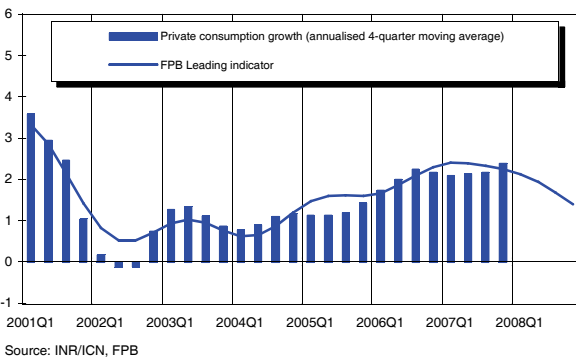
	2006	2007	2007Q2	2007Q3	2007Q4	2008Q1	2007M12	2008M1	2008M2	2008M3	2008M4	2008M5
Turnover (VAT) - retail trade [1]	3.2	4.9	5.1	3.3	6.1	.	5.4	5.8	13.6	.	.	.
New car registrations [1]	9.6	-0.3	-2.2	6.5	9.3	3.7	12.9	1.8	14.5	-3.5	29.3	.
Consumer confidence indicator [2]	-2.6	-1.2	1.7	-1.7	-4.3	-4.0	-4.0	-6.0	-3.0	-3.0	-7.0	-9.0

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

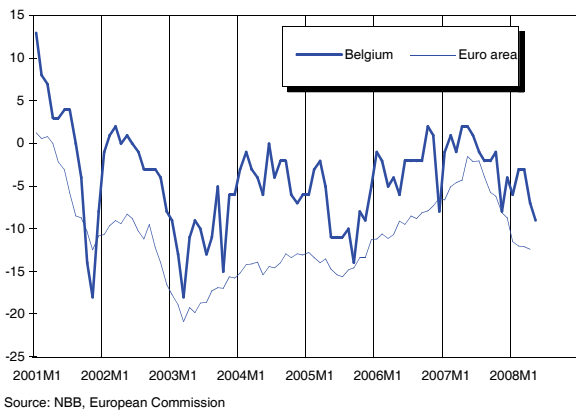
Graph 8 - Private consumption cycle



Graph 9 - Private consumption growth and leading indicator



Graph 10 - Consumer confidence: international comparison



In 2007 private consumption in Belgium clearly grew at a faster pace than in the euro area. While the Belgian private consumption cycle increased, which implies above trend growth, the euro area cycle roughly stabilised, pointing to growth rates in line with trend growth. It should be noted, however, that the upward phase in the Belgian cycle started to weaken during 2007Q4.

According to the latest national accounts, Belgian private consumption growth accelerated from 2.1% in 2006 to 2.5% in 2007. These growth rates are substantially stronger than those of the first half of this decade (average annual increase of 1.1% from 2001 to 2005) and went hand in hand with a clear upturn in real disposable income growth, owing to strong employment increases and the personal income tax reform. The strong annual private consumption growth rate in 2007 rate masks, however, a pronounced deceleration in qoq growth rates (from 1% in 2007Q1 to 0.1% in 2007Q4).

Growth rates (yoy) of retail sales have been on a rising path since 2007Q4, which seems to contradict the evolution of the volume of private consumption in the national accounts. It should be kept in mind, though, that retail sales (based on VAT statistics) are reported in current prices and were boosted by the acceleration in consumer price inflation since September 2007. Moreover, as these figures are not corrected for calendar effects, the figure for February is probably influenced upwards by the fact that 2008 is a leap year. Car registrations increased substantially in April, after a rather modest increase during 2008Q1. This is due to the fact that the cars sold during the motor show held in Brussels once every two years in January were mainly registered in April.

In Belgium, as well as in the euro area, consumer confidence gradually eroded to its lowest level since November 2005. The registered decline is attributable to worries about the future economic situation, the evolution of unemployment and the consequences of soaring inflation on purchasing power. Belgian private consumption growth is hence likely to be lower in 2008 than in 2007, as is also indicated by the FPB leading indicator.

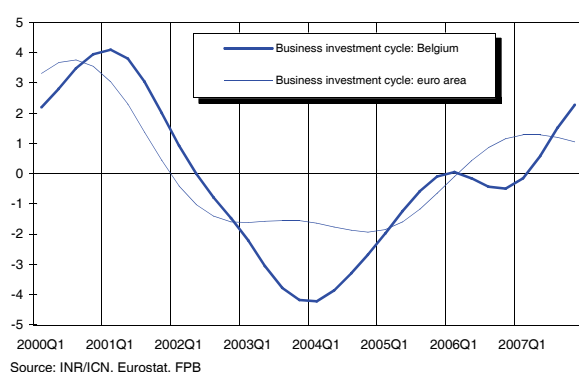
Business investment

Table 3 - Business investment indicators

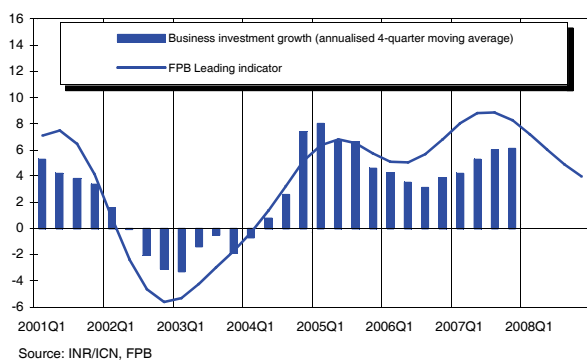
	2006	2007	2008	2007Q2	2007Q3	2007Q4	2008Q1	2007M10	2007M11	2007M12	2008M1	2008M2
Investment (VAT) [1]												
Industrial companies	6.6	12.3	.	7.0	13.2	13.5	.	15.8	-2.6	24.3	8.5	13.0
Non-industrial companies	1.6	12.5	.	15.3	10.5	11.3	.	15.5	15.7	6.0	32.9	10.1
Total companies	3.6	12.7	.	13.0	11.7	12.4	.	16.2	9.6	12.0	23.4	10.7
Investment survey [1]	3.3	13.1	7.2									
Capacity utilisation rate (s.a.) (%)	83.4	83.2	.	82.7	83.5	83.9	83.5					

[1] Change (%) compared to same period previous year
Source: DGGSB, NBB

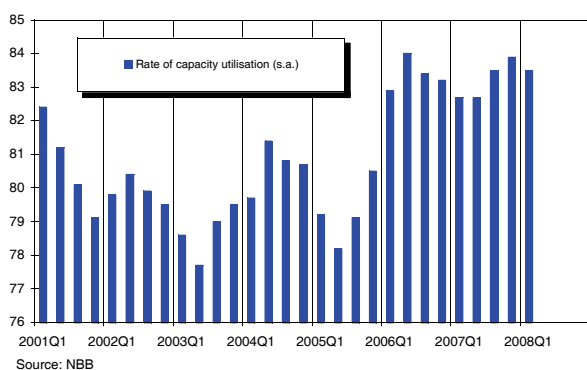
Graph 11 - Business investment cycle



Graph 12 - Business investment growth and leading indicator



Graph 13 - Capacity utilisation in manufacturing industry



The Belgian and the euro area investment cycle developed in rather different ways during the last two years. While the euro area cycle moved in line with the business cycle (i.e. rose during 2006 and levelled off during the course of 2007), the Belgian cycle went through a temporary deceleration in 2006 and rebounded strongly in 2007, despite the weakening of the business cycle in the second half of the year.

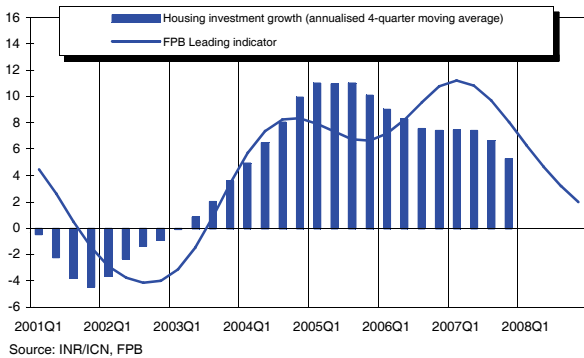
The latest national accounts for Belgium point to an acceleration of business investment volume growth from 3.9% in 2006 to 6.5% in 2007. The investment rate (business investment as a percentage of GDP at current prices) continued its increase of the last few years and reached 13.7% in 2007, compared to 12.6% in 2003. Although the level reached last year is well above the long-term average, it remains below the peaks reached in 1990 (15.2%) and 2000 (14.3%).

VAT-based investment statistics show that the weakening of business investment in 2006 was mainly observed in non-industrial companies, while the strong increase in 2007 was seen in both industrial and non-industrial companies.

The available indicators related to business investment point to a deceleration in the course of 2008 that should intensify as the business cycle continues to weaken. In fact, rather robust business investment growth is expected for 2008Q1 as VAT-based statistics continued to register strong (yoy) increases and the capacity utilisation rate in the manufacturing industry remained at a high level. The results of the latest investment survey, held in autumn 2007, draw a less rosy picture. Company directors in the manufacturing industry plan to increase their investment expenditures by only 7.2% (at current prices) in 2008. This is well below intentions for the years 2005-2007 (21% on average) registered in the autumn of the preceding year. Moreover, experience teaches that company directors tend to be overly optimistic in the investment intentions that they report in the survey.

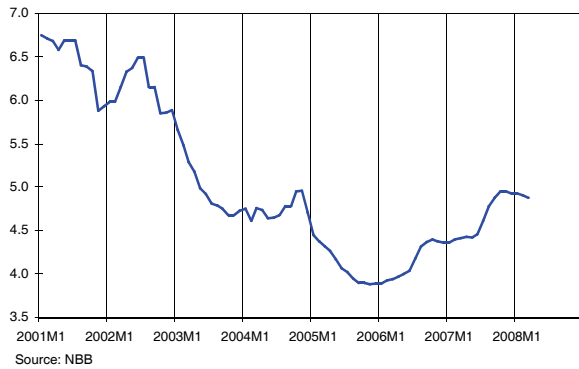
Housing investment

Graph 14 - Housing investment growth and leading indicator



In 2004 and 2005, the housing investment volume increased by nearly 10% per year, which was the fastest two-year increase since the eighties. From 2006, however, housing investment growth has been on a declining path and it amounted to 5.3% in 2007. Qoq growth rates receded from 1% in 2007Q1 to 0.4% in 2007Q4. The housing market is thus slowing in Belgium, but the situation is not as worrying by far as in the United States, where housing investment growth has been plunging since 2006.

Graph 15 - Mortgage rate (%)

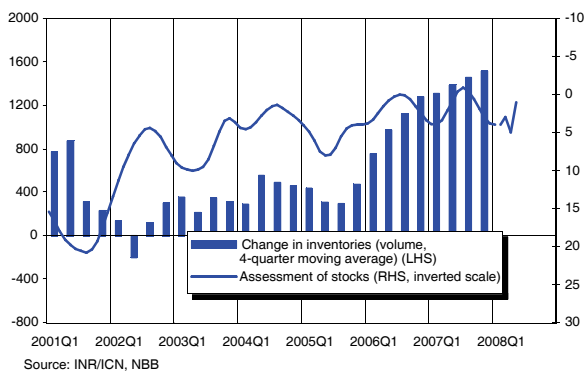


From 2006Q4 until mid-2007, the mortgage rate roughly stabilised. During the second half of last year, however, it increased by about 50 basis points. It should be noted, however, that real mortgage rates have fallen significantly due to the acceleration in inflation.

According to the FPB leading indicator, Belgian residential investment growth will remain sluggish in the coming quarters. Indicators from the architects' survey assessing the current situation have been on a downward path since the beginning of 2007, while indicators considering architects' prospects already started to decline in 2006. As none of these indicators has bottomed out yet, an improvement in housing investment is not expected before 2009.

Stock building

Graph 16 - Stock building indicators



During the first three quarters of last year, the acceleration in stock building went hand in hand with an increasing number of company directors considering their level of stocks as insufficient. This implies that the accumulation of stocks during this period was mainly aimed at meeting unexpected rises in demand. During 2007Q4, however, demand prospects significantly worsened due to a worldwide deceleration in economic growth, which led to an increase in the number of company directors willing to reduce their level of stocks. It can thus be expected that the contribution of stocks to economic growth, which amounted to 0.3%-points in 2007, will be lower in 2008.

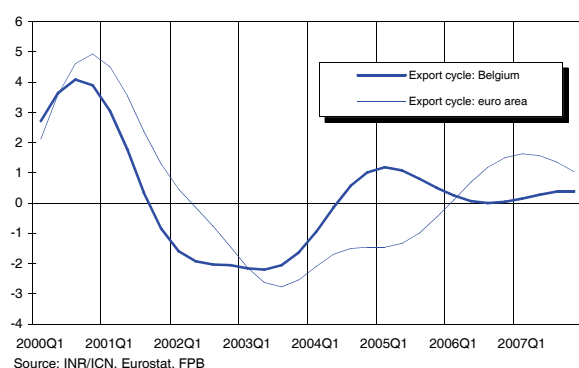
Foreign Trade

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

	2006	2007	2007Q1	2007Q2	2007Q3	2007Q4	2007M9	2007M10	2007M11	2007M12	2008M1	2008M2
Exports - value [1]	5.9	5.5	4.5	5.1	7.5	5.1	1.8	10.5	2.3	2.0	14.6	19.6
Imports - value [1]	7.1	6.2	-0.4	5.2	8.5	11.8	3.6	14.3	10.1	10.9	23.3	27.0
Exports - volume [1]	0.8	2.5	3.4	1.7	4.3	0.7	-2.3	6.1	-1.9	-2.8	10.0	14.1
Imports - volume [1]	2.2	4.5	3.3	4.1	5.8	4.9	0.1	8.0	4.1	2.5	12.4	14.9
Exports - price [1]	5.1	3.0	1.0	3.4	3.0	4.4	4.2	4.1	4.2	4.9	4.1	4.9
Imports - price [1]	4.7	1.6	-3.6	1.1	2.5	6.6	3.5	5.8	5.8	8.2	9.8	10.5

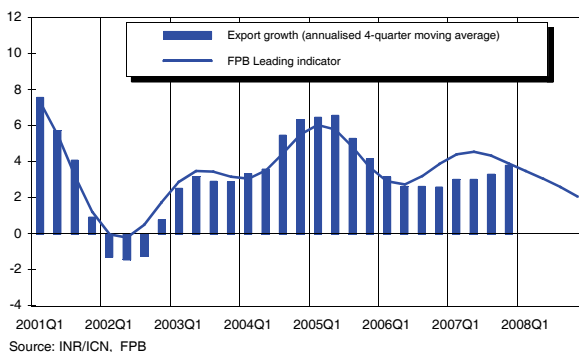
[1] Change (%) compared to same period previous year
Source: INR/ICN

Graph 17 - Export cycle



The Belgian export cycle has roughly stabilised since the beginning of 2006. The euro area export cycle reached a peak during the first half of 2007 and is now firmly on a downward path. Within the euro area, German exports continue to excel as they continue to benefit from increased competitiveness (after years of strong wage moderation) and a favourable export product mix (specialised in investment goods, for which demand has been strong). Furthermore, German exports are relatively more directed to fast growing economic regions such as Asia (7.5%) and Eastern Europe (10.5%). Belgium's share of exports to both regions is considerably smaller (4.5% and 3.5% respectively).

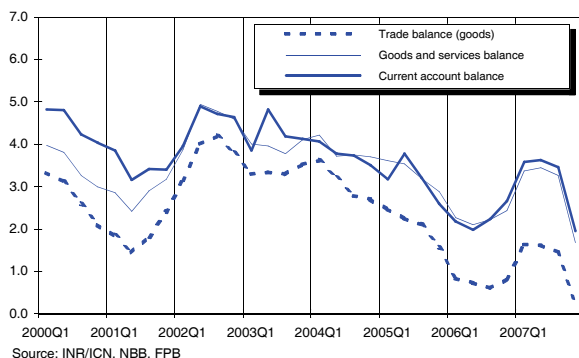
Graph 18 - Export growth and leading indicator



The latest Belgian quarterly national accounts point to a hefty deceleration in Belgian export growth during the second half of 2007. Especially in 2007Q4, qoq export growth proved to be weak (-0.6%). Export growth in 2008 is expected to slow down from last year's growth as all Belgium's major export markets are expected to weaken substantially. Moreover, the continuous appreciation of the euro is worsening price competitiveness outside the euro area.

The less favourable outlook for Belgian exports is confirmed by the FPB composite leading indicator, which also points to moderate export growth in 2008.

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



The appreciation of the euro against the dollar was insufficient to counter the effect of the strong increase in international oil prices on import prices. Import price growth is now close to 10% yoy, more than twice the pace of export price growth. These trends are expected to continue in the course of 2008, leading to a significant worsening in terms of trade.

The Belgian current account surplus declined from 2.7% in 2006 to 1.9% in 2007. However, because of changes in the data sources a methodological rupture appears between 2006 and 2007 and comparisons between these years might be difficult. This year a further deterioration of the surplus seems likely in view of the deterioration of terms of trade.

Labour market

Table 5 - Labour market indicators

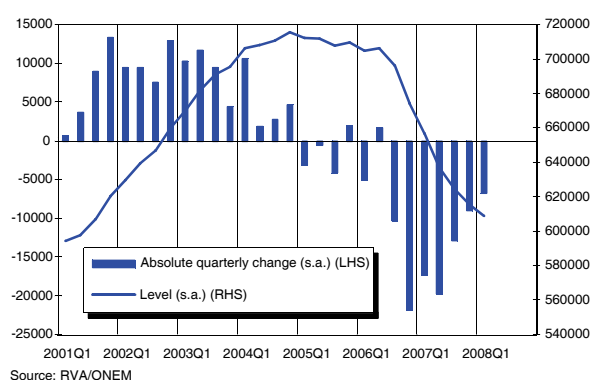
	2006	2007	2007Q2	2007Q3	2007Q4	2008Q1	2007M11	2007M12	2008M1	2008M2	2008M3	2008M4
Unemployment [1][2]	695.4	633.5	637.2	624.4	615.4	608.7	613.9	615.0	612.2	608.9	604.9	603.2
Unemployment rate [2][3]	13.8	12.6	12.7	12.4	12.2	12.0	12.1	12.2	12.1	12.0	12.0	11.9
Unemployment rate-Eurostat [3][4]	8.2	7.5	7.7	7.2	7.1	.	7.0	7.0	7.0	6.9	6.9	6.7

[1] Level in thousands, s.a.; [2] Broad administrative definition; [3] In % of labour force, s.a.

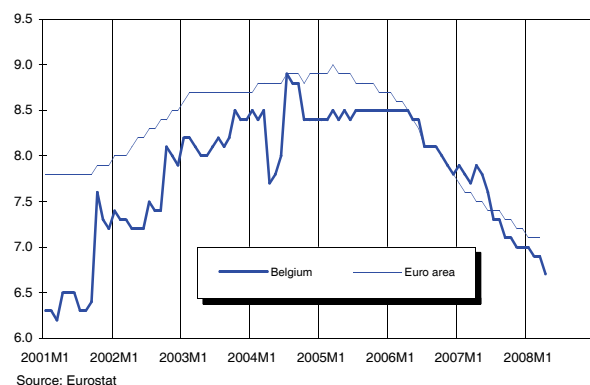
[4] Recent figures are based on administrative data and may be subject to revision

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

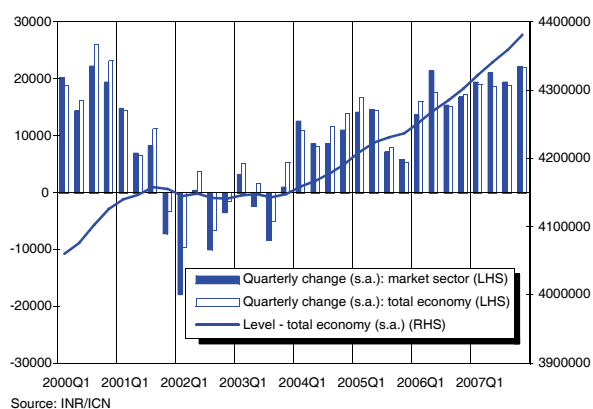
Graph 20 - Evolution of unemployment (incl. older)



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



Graph 22 - Evolution of domestic employment



Employment growth in the market sector has remained forceful throughout the whole of last year (0.6% on average qoq), boosted by strong increases in self-employment and in the number of people that work in the government-subsidised voucher programme for domestic-type services. Clearly, the slowdown in qoq activity growth hardly affected the evolution of employment last year, implying a considerable drop in productivity growth (growth of 0.4%). Information from social security records does indicate, however, that average hours worked per person have decreased since the second quarter of last year (-0.1% on average), without doubt heralding an imminent drop in the pace of measured job growth. The latter claim is also supported by the observed deceleration in the decrease of broad administrative unemployment during the first quarter of this year.

Administrative unemployment has come down dramatically over the last two years (by almost 100,000 persons), with last year's decrease in the unemployment rate (from 13.8% to 12.6%) being the largest yearly drop ever registered. At the same time, important negative shocks in measured activity rates in all age classes under 50 years have been observed. It seems that the measures that have been put in place to encourage the unemployed to step up job search efforts have been accompanied by stronger controls, leading to the exclusion of a significant number of people from registered administrative unemployment. Indeed, the notoriously large differential between administrative unemployment rates and labour force survey (LFS)-based unemployment rates has been shrinking quite significantly over recent years. This may reflect the fact that more people are declaring themselves as actively searching for a job in the LFS, but is probably to a large extent due to the purging of the administrative records. The latter may put further downward pressure on the evolution of the administratively measured labour force in the near future, partially counterbalancing the strong demographic impetus to labour supply - itself the consequence of increasing net migration from abroad - and the stimulus to labour supply that stems from the increase in activity rates at the higher end of the age scale.

Prices

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

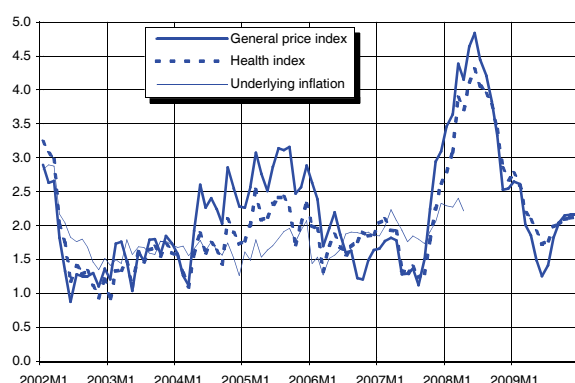
	2006	2007	2007Q2	2007Q3	2007Q4	2008Q1	2007M11	2007M12	2008M1	2008M2	2008M3	2008M4
Consumer prices: all items	1.79	1.82	1.45	1.33	2.76	3.83	2.94	3.09	3.46	3.64	4.39	4.15
Food prices	2.21	3.62	3.37	2.76	4.35	5.48	4.02	5.28	5.24	5.31	5.90	5.67
Non food prices	1.56	1.01	0.08	0.36	2.99	5.07	3.61	3.25	4.34	4.80	6.07	6.08
Services	1.47	1.89	2.19	1.79	1.60	1.36	1.51	1.76	1.37	1.23	1.47	0.77
Rent	3.50	1.79	1.83	1.74	1.77	1.79	1.76	1.68	1.64	1.87	1.85	1.97
Health index	1.77	1.77	1.52	1.31	2.23	3.25	2.25	2.64	2.79	3.08	3.89	3.70
Brent oil price in USD (level)	65.2	72.5	68.7	74.9	88.8	96.8	92.6	91.2	92.1	95.0	103.4	109.0

Source: FPS Economy, Datastream

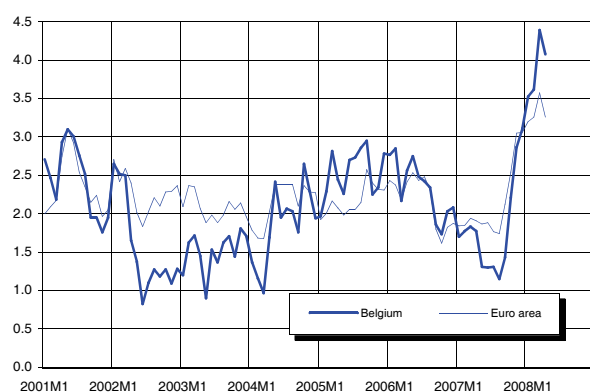
Table 7 - Monthly inflation forecasts

	2008M1	2008M2	2008M3	2008M4	2008M5	2008M6	2008M7	2008M8	2008M9	2008M10	2008M11	2008M12
Consumer prices: all items	108.84	109.62	110.42	110.67	111.06	111.26	111.31	110.92	110.62	110.67	110.83	111.16
Consumer prices: health index	107.85	108.71	109.32	109.49	109.67	109.81	109.98	109.83	109.70	109.82	109.97	110.32
Moving average health index	107.10	107.73	108.33	108.84	109.30	109.57	109.74	109.82	109.83	109.83	109.83	109.95
	2009M1	2009M2	2009M3	2009M4	2009M5	2009M6	2009M7	2009M8	2009M9	2009M10	2009M11	2009M12
Consumer prices: all items	111.73	112.48	112.64	112.73	112.72	112.66	112.88	112.95	112.88	113.05	113.22	113.56
Consumer prices: health index	110.83	111.53	111.70	111.77	111.77	111.71	111.93	112.01	111.93	112.12	112.29	112.66
Moving average health index	110.23	110.66	111.09	111.46	111.69	111.74	111.79	111.85	111.89	112.00	112.09	112.25

Source: Observations (up to 08M4): FPS Economy; forecasts: FPB

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

Source: FPS Economy, from 08M5 on: forecasts FPB

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

Source: Eurostat

Headline inflation rose from 1.1% in August 2007 to 4.4% in March 2008 and eased somewhat to 4.2% in April. This slight decrease was mainly due to the Easter effect (Easter fell in March this year and in April last year), which temporarily pushed up underlying inflation in March. The upward oriented path of inflation since September is mainly explained by three factors. Firstly, oil prices soared and reached USD 109 per barrel in April, compared to USD 71 in August 2007. Although part of this increase was compensated by the contemporaneous appreciation of the euro against the dollar, the yoy growth rate of oil prices expressed in euro amounted to 44% on average during the first four months of this year. Secondly, prices of processed food accelerated considerably during the same period in response to the rise in food commodity prices. Thirdly, Belgian consumer prices rose due to energy price developments that are not directly related to international prices. In fact, distribution and transport tariffs for gas and electricity were raised significantly and the majority of gas suppliers changed their formulas for calculating tariffs, which also led to price increases. The third factor explains an important part of the inflation differential between Belgium and the euro area.

Our latest forecasts point to an inflation rate of 3.8% in 2008 and 2% in 2009, and a health index rise of 3.5% and 2.1% respectively. The pivotal index for public wages and social benefits (110.51) should be crossed in February 2009. It should be noted that if the upward trend in oil price rises is confirmed, further upward revisions of inflation forecasts are not excluded.

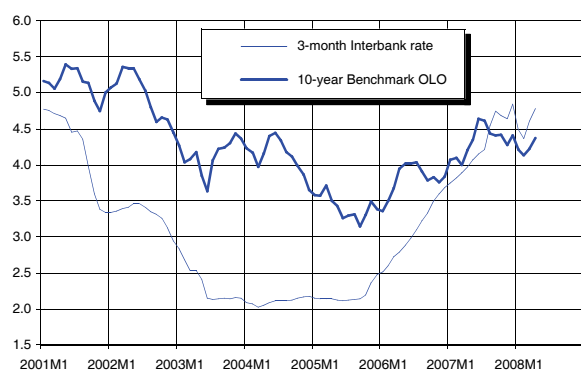
Interest rates

Table 8 - Interest rates

	2006	2007	2007Q2	2007Q3	2007Q4	2008Q1	2007M11	2007M12	2008M1	2008M2	2008M3	2008M4
Short-term money market rates (3 months)												
Euro area (Euribor)	3.08	4.28	4.06	4.50	4.72	4.49	4.64	4.84	4.49	4.36	4.60	4.78
United States	5.15	5.27	5.32	5.42	5.02	3.23	4.97	5.02	3.84	3.06	2.79	2.85
Japan	0.27	0.76	0.67	0.87	0.93	0.90	0.88	0.97	0.86	0.87	0.97	0.93
Long-term government bond rates (10 years)												
Belgium	3.81	4.32	4.40	4.48	4.37	4.19	4.27	4.41	4.21	4.13	4.22	4.38
Germany	3.78	4.23	4.34	4.35	4.22	3.93	4.10	4.27	4.04	3.96	3.80	4.05
Euro area	3.83	4.31	4.39	4.45	4.32	4.08	4.22	4.36	4.16	4.07	4.00	4.22
United States	4.79	4.63	4.85	4.73	4.25	3.65	4.14	4.10	3.73	3.73	3.48	3.65
Japan	1.73	1.67	1.74	1.71	1.56	1.39	1.50	1.53	1.43	1.44	1.30	1.42

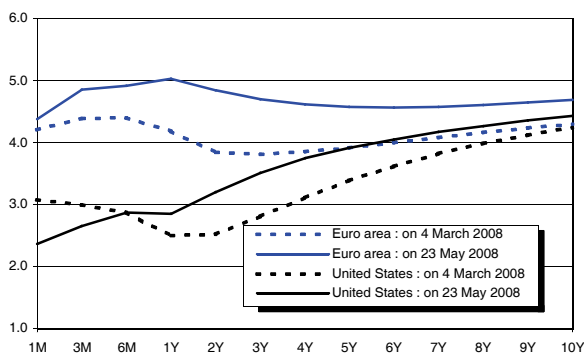
Source: Datastream

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

Having cut interest rates by 225 basis points between September 2007 and February 2008, the Federal Reserve lowered policy rates by a further 100 basis points in March and April bringing it to a level of just 2%. The Fed has now signalled that it will pause for a while as it wishes to gauge the effect of the rapid pace of monetary policy easing on financial markets as well as on economic activity. Furthermore, the Fed awaits the effect on economic growth of the tax rebate currently being distributed to households.

In spite of increasing signs of weakening in economic activity in the euro area, the ECB has kept the refinancing rate firmly on hold at 4% as it continues to be concerned about inflation, which has been more than 1%-point above the 2% threshold for six consecutive months and risks becoming entrenched in wage and price setting behaviour. Below-trend growth this year should improve the inflation outlook by reducing underlying inflationary pressures. Under the assumption that oil and other commodity prices will cease to rise, favourable base effects should push the inflation rate down towards the end of the year.

US long-term interest rates fell substantially in March, but have edged up slightly ever since as the fear of a heavy economic recession and/or a systemic financial crisis has receded. Long-term interest rates in the euro area also rose in April but have, all in all, remained fairly stable over the last twelve months. The spread between Belgian and German long-term interest rates rose to unprecedented levels in the month of March (40 basis points) as investors had a strong preference for the most liquid European bonds in these times of extreme uncertainty. In April the spread declined to some 30 basis points, which is still a long way off the average spread of 5 basis points in the period 2003-2006.

Exchange rates

Table 9 - Bilateral exchange rates

	2006	2007	2007Q2	2007Q3	2007Q4	2008Q1	2007M11	2007M12	2008M1	2008M2	2008M3	2008M4
USD per EUR	1.256	1.371	1.348	1.375	1.448	1.499	1.468	1.455	1.471	1.475	1.552	1.575
UKP per EUR	0.682	0.685	0.679	0.680	0.709	0.758	0.709	0.722	0.747	0.751	0.776	0.795
JPY per EUR	146.1	161.3	162.9	161.9	163.8	157.7	162.8	163.7	158.7	158.0	156.3	161.7

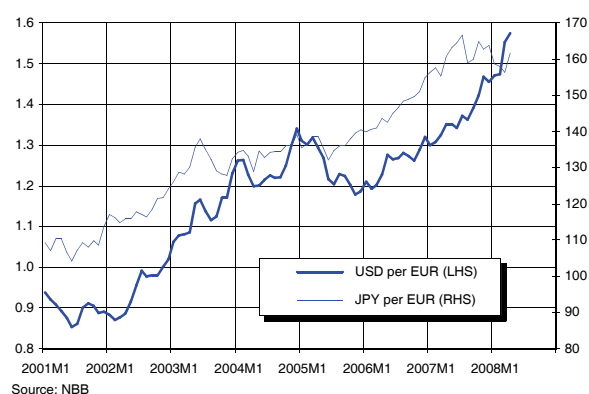
Table 10 - Nominal effective exchange rates (2000=100)

	2006	2007	2007Q2	2007Q3	2007Q4	2008Q1	2007M11	2007M12	2008M1	2008M2	2008M3	2008M4
Euro	121.7	128.1	127.3	128.1	132.1	135.2	132.6	133.2	134.1	133.9	137.6	140.1
Growth rate [1]	0.8	5.3	2.0	0.6	3.1	2.3	1.6	0.5	0.7	-0.1	2.7	1.8
US dollar	83.9	79.9	81.3	79.3	75.9	74.5	74.8	76.2	75.5	75.1	72.8	73.0
Growth rate [1]	-1.2	-4.7	-2.4	-2.4	-4.3	-1.9	-2.3	1.8	-0.8	-0.6	-3.0	0.2
Japanese yen	80.3	76.3	74.9	76.1	77.4	82.4	78.4	78.0	81.1	81.3	84.9	83.2
Growth rate [1]	-6.6	-5.0	-2.5	1.6	1.7	6.5	3.3	-0.4	3.9	0.2	4.4	-2.0

[1] Change (%) compared to previous period

Source: BIS, NBB

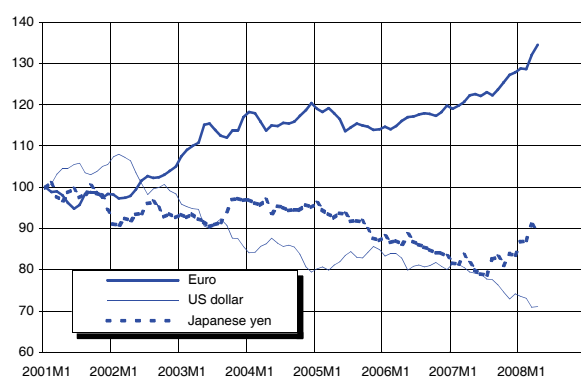
Graph 27 - Euro-dollar and euro-yen bilateral exchange rates



Source: NBB

The aggressive interest rate-cutting policy of the Fed since last summer pushed the dollar lower against the euro and many other currencies. In the beginning of this year the depreciation of the dollar was briefly halted, only to restart in March when the Fed slashed interest rates again and when fears about a collapse of the US financial system were mounting (cf. Bear Sterns). In mid-April the dollar reached a record low of USD 1.60 per EUR. Since the end of April, the US currency has recovered somewhat against the euro as the Fed signalled a pause in its interest rate-cutting cycle and as US equity markets started to rise again. Furthermore, better than expected US economic data and the first substantial decreases in euro area sentiment indicators also gave the dollar a lift.

Graph 28 - Nominal effective exchange rates (2001M1=100)



Source: NBB, BIS

The British pound shed about 10% against the euro in the second half of last year due to a relaxation of British monetary policy. Since the beginning of this year, the pound has depreciated by more than 8% against the euro, as the UK is expected to be hit harder by the downturn of the housing market than the rest of the European economy.

Besides some European currencies, such as the Swiss franc, the Norwegian krone and the Swedish krona, the euro has appreciated against most major currencies since the start of the year. In nominal effective terms (taking the exchange rate vis-à-vis all trading partners into account), the euro exchange rate has appreciated by about 5% since December last year. This brings the total appreciation of the nominal effective exchange rate of the euro since its low in October 2000 to almost 50%.

Tax indicators

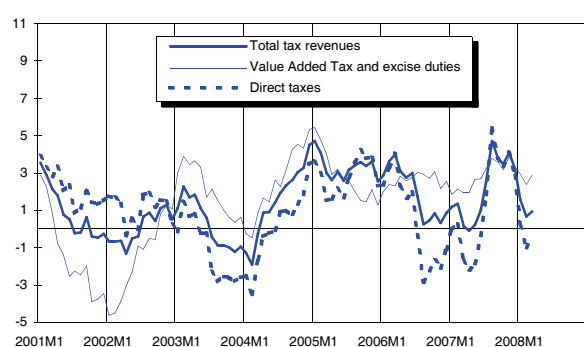
Table 11 - Tax revenues (1)

	2006	2007	2007Q2	2007Q3	2007Q4	2008Q1	2007M10	2007M11	2007M12	2008M1	2008M2	2008M3
Total [2], of which:	2.6	5.1	2.9	9.5	4.3	-4.7	5.3	10.7	0.3	-6.0	-1.2	-7.2
Direct taxes, of which:	0.6	4.8	1.3	11.5	3.7	-10.2	5.0	13.3	-1.6	-10.1	-2.4	-24.3
Withholding earned income tax (PAYE)	3.7	4.4	6.6	2.3	3.7	5.7	-7.8	23.5	2.4	0.3	6.8	12.8
Prepayments	5.5	6.5	-2.7	12.4	12.4	.	10.5	.	13.2	.	.	.
Value Added Tax and excise duties	4.3	5.3	6.2	6.2	4.7	3.9	3.1	8.0	3.8	-1.0	1.5	11.8

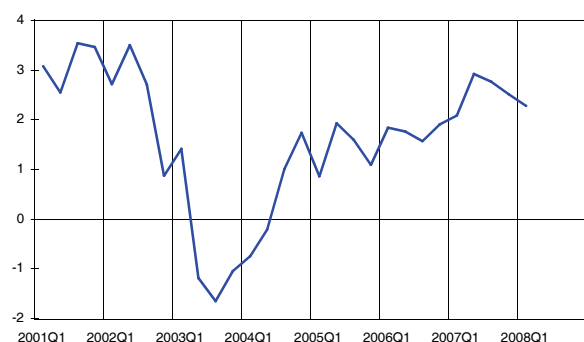
[1] Change (%) compared to same period previous year; [2] Total received by federal government, excl. of death-duties

Source: FPS Finance

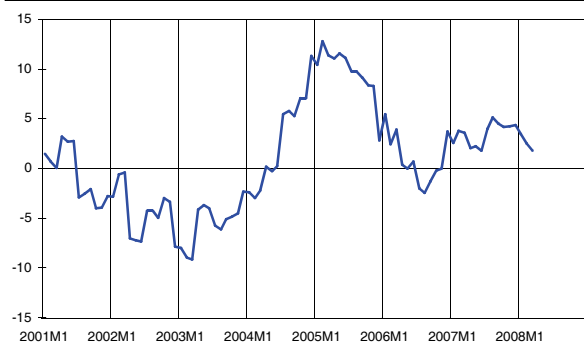
Graph 29 - Real tax revenues (3)



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

Nominal growth in total tax revenues accelerated from 2.6% in 2006 to 5.1% in 2007. This should not come as a surprise as revenues in 2006 were affected by tax-cutting decisions, especially with regard to direct taxes.

For 2008Q1, total tax revenues were 4.7% lower than for 2007Q1. This decline is largely attributable to developments in direct taxation. In fact, the evolution of direct taxes is affected by important changes in the seasonality of taxes collected by means of assessment. In particular, refunds of personal income taxes related to the fiscal year 2007 have started earlier.

During the last few quarters, a deceleration in yoy growth rates of VAT receipts has been seen because of the business cycle downturn and due to an acceleration in VAT reimbursements (delayed). Excise duty income has proven to be less dynamic than VAT in 2007 due to sluggish tobacco and gasoline consumption. Excise growth (yoy) accelerated in 2008Q1, but this figure may be revised significantly as it is estimated by means of a different methodology due to problems related to the data collection process since February 2008. Indeed, the rate of duty on diesel was lowered in December 2007 to the minimum defined at European level. The rate on gasoline was lowered in February, April and May in an attempt to safeguard purchasing power.

Pay as you earn personal income tax revenue, mainly levied on wages, is still supported by the rise in employment. The 4-quarter moving average growth rate in real terms (Graph 30) has been constantly positive since mid-2004, and has even tended to increase over time.

As advance payments are traditionally very low during the first three months of the year (less than 5% of the annual total), the figure for the first quarter is not informative and is not reported in the table. Provisional figures for April 2008 (April is the first due date for advance payments and represents about 40% of the annual total) show a significant increase as compared to April 2007 (which, however, was very low).

Administrative burdens in Belgium in 2006

In response to the Council of Ministers and in collaboration with the Dienst voor Administratieve Vereenvoudiging/Agence pour la Simplification Administrative, the FPB has estimated the cost of the administrative burden for companies and self-employed persons in 2006. Planning Paper 103 analyses the quantitative and qualitative results of the 2006 survey and compares them with the results of the three previous surveys.

The estimation of the administrative burden is based on a national survey and uses the same methodology as that used in the surveys carried out for the years 2000, 2002 and 2004. Companies, as well as self-employed persons, are invited to make their own assessment of the administrative burden imposed by three areas of legislation: environmental, employment and tax legislation.

The administrative burden on companies and self-employed persons, based on their responses, is estimated to cost EUR 7.7 billion, or 2.4% of GDP. In comparison with the 2004 survey, the administrative burden on enterprises has increased in nominal terms by 32%, reaching 2.1% of GDP after 1.7% in 2004 and 2.4% in 2002. This increase is due solely to higher fiscal administrative burdens. By contrast, the administrative burden, in absolute as well as in relative terms, is declining for self-employed persons for both the administrative areas studied in their case: fiscal and environmental regulation. The cost of the administrative burden for self-employed persons is estimated at EUR 1.2 billion or 0.4% of GDP in 2006, after EUR 2.37 billion or 0.8% of GDP in 2004 and EUR 2.7 billion or 1% of GDP in 2004.

As in previous surveys, small businesses (with less than 10 employees) face the highest administrative burden, expressed per employee. This category of firm also faces the strongest increase in administrative burden, especially in fiscal burdens. At the opposite, large companies (with more than 249 employees) have benefited from a decrease in their average administrative cost, expressed per employee. Moreover, expressed in percentage of turnover, the average administrative cost has decreased for all companies, regardless of size. This average cost has reached 3.9% of small businesses' turnover, 1.2% of medium firms' turnover and 0.6% of large companies' turnover in 2006 against 4.7%, 2.6% and 1.3% respectively in 2004.

The average cost per employee of small companies is systematically higher than the average cost of self-employed persons. The difference between these two costs increased in 2006, contrary to what was observed in the previous surveys.

In addition to this quantitative analysis, the survey also

has a qualitative part in which business sentiment is analysed on issues relating to the quality of legislation and of contact with the administration and to the process of administrative simplification.

In 2006, as was already observed in the previous surveys, companies and self-employed persons are generally more satisfied with their contact with the administration than with the quality of legislation. For all areas of legislation, companies and self-employed persons are relatively satisfied with the information available to the public that accompanies legislation. Lack of adaptability of the legislation to specific situations is the most criticised aspect of legislation, with the exception of tax and employment legislation for companies, for which the main criticism concerns the lack of consistency. For companies, improvement of the quality of legislation and of contact with the administration is mainly visible concerning environmental regulation, while the opinion of self-employed persons on the quality of legislation is stable in comparison to the 2004 survey. However, self-employed persons perceive an improvement in their contact with the administration in environmental area.

The degree of knowledge of the administrative simplification initiatives follows a size effect: small firms know these initiatives less well than larger firms, and self-employed persons know them less well than small companies. The best-known national wide initiative by small and medium businesses is the electronic management of VAT, while large companies know about the electronic management of employees better. However, whatever the size of enterprises, the most frequently used initiative is the electronic management of employees. This initiative is also the one generating the highest level of satisfaction among companies, whatever their size.

Among self-employed persons, the two best-known initiatives are the electronic invoice and the electronic management of VAT and they are also the most frequently used initiatives in all sectors of activity of self-employed persons. These two initiatives also generate the highest level of satisfaction.

Finally, concerning the proposed administrative simplifications, companies give most support to the project of statistics simplification, while self-employed persons prefer the proposal of the creation of an information line about regional competencies.

"De administratieve lasten in België voor het jaar 2006 - Les charges administratives en Belgique pour l'année 2006", C. Kegels, Planning Paper 103, February 2008.

A quarter century of regional economic evolutions – A comparative analysis based on the HERMREG database

The Brussels Institute for Analysis and Statistics (IBSA), the Research Centre of the Flemish Government (SVR), the Walloon Institute for Evaluation, Prospects and Statistics (IWEPS) and the Federal Planning Bureau are cooperating on the development of a medium term regional economic projection model (named HERMREG). To this end, there was a need for relatively long sectoral time series. As the official regional accounts are only available from 1995 onwards¹, various macroeconomic and sectoral aggregates have been retroprojected to 1980. The database consists of long, homogeneous series of value added, GDP, wages, investments, employment, population and unemployment. The series are consistent with the national and regional accounts. This database made it possible to make a comparative analysis of the most important regional macroeconomic developments since 1980.

In the period 1980-2005, the average annual growth of GDP per capita was 2.1% in Flanders, against 1.4% in Brussels and Wallonia. The GDP per capita can be written as a product of different factors, of which the employment rate and productivity are the most important. This decomposition of GDP per capita shows that the regional growth differences can be attributed almost entirely to differences in the employment growth rates (0.0 in Brussels, 0.7 in Flanders and 0.1 in Wallonia). The evolution of net commuting flows and productivity played a minor role.

There is a clear trade-off between employment and productivity in each Belgian region. The general idea that can be derived from the analysis is one of replacement of labour by capital in the industrial branches, coupled with an employment increase in the services, where the productivity gains were lower. A mutual comparison of the regions shows that Flanders, with often comparable productivity growth, has lost fewer jobs in the industrial branches and has created more jobs in the services since 1980, compared to Wallonia.

The wage per head in Wallonia was, during the entire period, lower than the national average, the difference even evolved from 5% in 1980 to 9% in 2004. While the average Walloon productivity disadvantage of 12% in 1980 did not reveal itself in the wages, the opposite is true at the end of the period. This conclusion is reinforced if the analysis is limited to the private sector. The relative wage increase in Flanders probably reflects the relatively low unemployment rate.

As a consequence, there seems to be a certain convergence of the wage share in value added between the regions. The wage share in the private sector amounts to 60% in 2004 in Brussels against 64% in 1980. The wage share in Flanders is higher, namely 64% compared to 68% twenty five years earlier. Wallonia, coming from a high level, records the biggest decrease (76% to 65%).

The retrospective analysis of the labour market shows that, with nearly the same starting-point in 1980, the unemployment rate² evolved very differently in the three regions. The unemployment rate was almost stable over the studied period in Flanders (around 10%), but increased strongly in Wallonia and Brussels to 19% and 22% respectively in 2005. Over the entire period the labour force increased in the three regions, although with different regional accents and speeds depending on socio-demographic developments. In Wallonia and Brussels the increased labour force was not, however, absorbed by a sufficiently high increase in employment.

This descriptive and comparative analysis of macroeconomic and sectoral regional evolutions shows that there remain differences between the Brussels Region and Walloon Region on the one hand and the Flemish Region on the other hand. The first two regions were affected more severely by the economic downturn at the beginning of the eighties and their economic growth recovered more slowly. There are, however, signs of a restoration of equilibrium, particularly between relative wages and productivity.

“Vijftientig jaar regionale ontwikkelingen – Een overzicht op basis van de databank van het HERMREG-model. Vingt-cinq ans d'évolutions régionales – Un aperçu au départ de la base de données du modèle HERMREG”
D. Bassilière (FPB), F. Bossier (FPB), F. Caruso (IWEPS), D. Hoorelbeke (SVR), O. Lohest,
Planning Paper 104, April 2008.

1. In ESA95.

2. Including older unemployed people who are exempted from registration as job seekers.

New population projections

New population projections for Belgium have been prepared jointly by Statistics Belgium, the Federal Planning Bureau and a Scientific Committee of experts originating from the academic world and various public institutions.

The previous national demographic projections were published in 2001. While the assumptions concerning the evolution of life expectancy were broadly confirmed by the observations for 2000-2006, fertility rates and, more significantly, immigration flows were greater than expected. The new projections are based on completely updated assumptions and also use some new methodologies.

The increase in life expectancy should persist: in 2060, life expectancy at birth will have increased by eight years compared to 2006, reaching 85.3 and 90.9 years for men and women respectively. Life expectancies at 65 years should reach 22.7 years for men and 27.3 years for women.

The total fertility rate (or average number of children per woman) will have stabilized around 1.77 in the long term.

The assumptions concerning international migrations have been established using different approaches for immigration from the 14 old Member States, from the 12 new Member States and from outside the EU. The increase in the immigration flows for the last three years should – partially – still go on for a few years. In the long term, the projection takes into account the compared evolution of the living standard in Belgium, in the new 12 Member States and in the EU on average, using the most recent long term projections of the Ageing Working Group of the ECOFIN Council.

On this basis, net international immigration should climb to 56,600 in 2012, should be reduced to less than

20,000 at the end of the 2020s and should be around 29,000 at the end of the projection period.

All these assumptions translate into stronger population growth than in the former projection exercise: the number of residents is expected to climb from 10.6 million in 2007 to 12.7 million in 2060. Despite the reinforcement of the younger age group and of the working age population due to the upward revision of fertility rates and immigration flows, ageing remains a dominant phenomenon in these projections: the average age of the population should increase by 4.4 years during the projection period, reaching 45 years in 2060. The old-age dependency ratio (aged 65 and more compared to those aged 15 to 64) should increase from 26% in 2007 to 44% in 2050 and 45% in 2060.

The results are available at different geographical levels: country, region, province and NUTS3. They show contrasted evolutions in the three regions (Brussels, Flanders, Wallonia). Detailed results for the population, the components of the population change and various demographic indicators are available on the FPB website, as on that of Statistics Belgium.

The publication includes contributions from the Members of the Scientific Committee as experts in the different fields of demography. It also presents analyses of the evolution of very recent demographic data.

“Perspectives de population 2007-2060 - Bevolkingsvooruitzichten 2007-2060”,

Bureau fédéral du Plan et Direction générale Statistique et Information économique avec la collaboration du Comité scientifique d'accompagnement

Federaal Planbureau, Algemene Directie Statistiek en Economische Informatie, met de medewerking van het Wetenschappelijk Begeleidingscomité.

Planning Paper 105, May 2008.

Public financing of the Belgian economy: a general perspective

The Belgian authorities intervene in the economy on many occasions. For example, they finance companies in the market sector, e.g. through grants and equity participation. In Belgium, financing interventions have undergone a significant evolution over the last ten years. This paper aims at describing the main trends in this area.

Public intervention in economic life remains a major instrument in current economic policies. In earlier times, the authorities used to intervene directly in economic

life through the production of goods and services. Today, they rather tend to regulate the market via the setting up of bodies for market regulation or control as required by European directives. Total state aid less railways, agriculture, fisheries and transport has strongly decreased in Belgium from 0.8% of GDP in 1993 to 721 million euro or 0.24% of GDP in 2005. As for state aid (including equity investment), we see that the aid is less oriented towards restructuring companies or companies that have difficulties and more towards economic development: innovation, start-up, R&D, etc. Moreover,

the aid has been reoriented towards horizontal goals such as R&D and the public services, particularly in the transport sector.

The investments made by the different authorities have also evolved. The public authorities have sold important shareholdings in companies that were considered public in earlier times. These sales may create the impression that the authorities no longer have the necessary instruments to carry out an industrial policy, although this is not the case. The authorities, and especially the regions, remain active via their investment funds, which invest in private companies. Furthermore, the regional authorities remain key players as far as venture capital funds are concerned. In this area, it is interesting to note that the authorities are complementary to the private sector. They are more active when it comes to supporting start-ups that involve more risks or high-tech companies. They are also more willing than

the private sector to support labour intensive companies. The increase in the number of public investments is due not only to the splitting of companies into several affiliates, but also to the creation of numerous new companies, mainly by the regions as well as by town and city councils. The number of companies with a public share has increased at the federal level, in the provinces, in the towns and in the three regions taken together. Whereas the value added created by those companies with public capital has decreased, it is striking to note that the number of companies with public capital has increased. With smaller investments, the authorities are now trying to maximize the effect of their limited means on the economy rather than to control it.

*“Financement public de l'économie belge : mise en perspective générale”, H. Bogaert,
Working Paper 01-08, January 2008.*

Lessons to draw from long-term population projections in Europe

Long-term demographic projections have progressively raised concerns about the consequences of an ageing population. To better understand those changes and measure their size, projections of social expenditure have been built and progressively refined. Confronted with a large budgetary cost of ageing in the long run, the Government's alternatives are: solve the problem when it comes up, or try to anticipate the negative results and prevent them.

Long-term demographic projections have progressively raised concerns about the consequences of an ageing population. The first area of concern is the long-term financial sustainability of social protection, where expenditure is related to the age of the population, i.e., essentially, the pension system, health care and long-term care systems. The second area of concern is social policy itself. How can a successful social security system be achieved when, on the one hand, it is considered as incomplete and requiring more resources in order to reduce the risk of poverty and to provide the population in general with an acceptable level of protection, and, on the other hand, when that system is at the same time considered as financially unsustainable in the long run? The third area of concern is economic growth itself. Over the last decade, European growth has been generally very disappointing: growth in productivity, in particular, has been very low and has stopped the catching-up process of the European standard of living to that of the US. If this were to carry on and be combined with a declining working-age population, growth in the next decades would be very low and amount to about a half of what it has been over the last two centuries.

In order to better understand those changes and measure their size, projections of social expenditure have been carried out and progressively refined. Confronted with the large budgetary cost of ageing in the long run, the Government's alternatives are: solve the problem when it comes up or try to anticipate the negative results and prevent them. Three ways are to be considered that are not mutually incompatible: reforming the social security system in order to reduce the cost for the present and future generations, increasing tax or contribution receipts by pushing up employment rates and the trend growth of GDP, and saving now in the public sector to cover the increase in future expenditure. The paper shows that, since the end of the nineties, a broad movement of reforms has taken place within the EU that involves this three-pronged strategy.

Since 2005, when the European Council revised the Stability and Growth Pact, sustainability has become a major issue. A monitoring process is now being followed involving the long-term projection and the assessment of sustainability. The long-term projection is based on a commonly agreed methodology conducted every three or four years by the Member States and the European Commission. The assessment of sustainability is based on commonly agreed quantitative and qualitative indicators but is conducted exclusively by the Commission. One can say that this process, actually launched in 2000, has been a success compared to many other processes decided on by the Council.

*“Long-term population projections in Europe: How they influence policies and accelerate reforms”, H. Bogaert,
Working Paper 02-08, January 2008.*

Wage formation and regional unemployment in Belgium: a macroeconomic perspective

With a high and persistent disparity in regional unemployment rates, Belgium – together with Italy – stands out among its European partners. The centralised negotiations at the sector level are often cited as a possible explanation for this phenomenon. This Working Paper develops a macroeconomic negotiation model that aims to reflect both the disparity in unemployment rates and its increase as a result of hysteresis effects. The relevance of the hypotheses is then tested against the Belgian reality. The approach used also sheds light on the issue of the regionalisation of wage negotiations.

Several observations can be made with regard to Belgium.

If one considers two distinct labour markets, one Dutch-speaking, and the other French-speaking, it is difficult to reject the hypothesis of a compression or an alignment of wages and productivity between the two “geographical” markets.

However, full-employment productivity is different in the two regions, as are unemployment rates (as defined in the Labour Force Survey – LFS).

The discrepancy in full-employment productivity may account for the discrepancy between the unemployment rates. Adjusting wages in order to reduce the discrepancies in employment and unemployment (LFS) would be relevant but would have a limited impact.

The hypothesis of a hysteresis becomes an observable fact in both the Brussels and Walloon regions if one uses the unemployment concept chosen by the FPB. This hypothesis is also consistent with the persistently high (LFS) unemployment rates in these two regions. The persistence of a high (LFS) unemployment rate resulting

from the centralisation of negotiations amounts to a continuous increase in the number of demotivated unemployed people, which, in turn, generates a continuous increase in the unemployment rate as defined by the FPB.

The economic policy question that arises then is how to reduce regional unemployment in the French-speaking part of the country while keeping equilibrium unemployment close to full employment in Flanders. To achieve this, the negotiations at the national level should first of all allow the situation on the labour market in Brussels and Wallonia to continue to weigh on the wages that are negotiated for the Flemish market. Furthermore, the healthy situation on the Flemish labour market should not be allowed to have an impact on wage talks in the French-speaking part of the country, and, in particular, it should generate no imitation effects, or, at least, to a limited extent only.

A straight regionalisation of wage negotiations in Belgium would only be a preferable solution to the extent that imitation effects, whereby the French-speaking region “imitates” the Flemish region, are very limited. Besides, if the current framework regarding the law on competitiveness were to be abandoned, unemployment in Flanders would probably rise to a higher equilibrium.

However, many questions remain unanswered at this stage. This is mainly due to a lack of empirical assessments of the various concepts used in the analysis: structural regional and national unemployment, regional flexibility, imitation effects, etc.

“*Formation des salaires et chômage régional en Belgique : un regard macro-économique*”, H. Bogaert, Working Paper 03-08, January 2008.

System of Innovation in Wallonia

This Working Paper evaluates the performance of the system of innovation in Wallonia in 2007. Traditionally, six main components are identified in the system of innovation: knowledge development, human resources, valorisation of R&D, absorption capacity of innovation, entrepreneurship and innovation financing. A country’s performance depends not only on the relative strength of each individual element but also on how correctly the components interact. These six components are evaluated from a European perspective: Wallonia is compared with European countries because in Belgium it is the Regions that have the competencies in the area of

science, innovation and technology. A comparison is also made with European regions with similar socio-economic characteristics. As the majority of indicators are not available beyond 2005, this analysis does not take into account the recent efforts made in the Walloon Region to improve and better target R&D and innovation policies through the adoption of the Marshall Plan.

The resources allocated to R&D in Wallonia are relatively high. The proportion of R&D expenditure financed by enterprises and, from within, by foreigners underlines the attractiveness of the Region. At the same time, pub-

lic efforts to promote R&D and innovation remain lower than in the other Member States, and could therefore still be increased.

The analysis of the educational level of human capital shows that the Walloon region has a relatively large number of skilled people in its population, which helps to explain the relatively high level of productivity of the Region. However, the diagnosis reveals two weak points. On the one hand, despite the growing demand, the proportion of new graduates in the field of science and technology remains too low. On the other hand, the participation of adults aged 25-64 in any form of education or training is still below the European average.

The valorisation of R&D, evaluated by the number of patent applications filed with the European Patent Office, is a weakness of the Walloon innovation system. Despite their importance in terms of value added and in R&D activities, the activities of medium-high and high-tech branches have economic spillovers to the Region that are too limited in terms of employment or patent applications.

Although efforts have to be made to promote knowledge diffusion and partnerships between enterprises and universities to increase collaboration, the innovative firms in Belgium are frequently engaged in cooper-

ation agreements in innovation activities.

Relatively poor performances in the area of entrepreneurship are still recorded and innovation in Wallonia does not seem to lead sufficiently to creation of businesses.

The recent initiatives taken by the public authorities to improve the "innovation financing" component seem to be successful. In fact, the percentage of persons involved in an investment in a start-up firm is becoming higher in Wallonia than in the other Member States.

The analysis of the system of innovation of Wallonia puts in evidence problems essentially related to the capacity to transform R&D efforts into economic benefits for the Region, especially in terms of job creation. Problems of innovation activities seem to be similar to problems encountered by other economic activities in this Region. Therefore, efforts have to be maintained to remove barriers that impede economic activities such as the cost of the working force and the supply of high-skilled people, the lack of entrepreneurship and administrative burdens.

*"Le système d'innovation en Wallonie",
B. Biatour, C. Chatelain, C. Kegels,
Working Paper 06-08, March 2008*

Trade-based measures of offshoring: an overview for Belgium

Offshoring has long been a matter of concern in developed countries and has recently received growing attention in the economic literature. The aim of this paper is to provide a critical review of definitions of offshoring that have been put forward in recent years, thereby updating the definitions in earlier publications by the Federal Planning Bureau. This paper also takes a closer look at how offshoring can be measured. In the absence of individual firm data, we focus on indirect trade-based measures of offshoring, compare them and present results for Belgium.

Since the mid-90s the Federal Planning Bureau has analysed offshoring for Belgium on a regular basis. Taking up this tradition, this paper strives first of all to determine how offshoring can best be defined and finds that there is no consensus on a precise definition among recent contributions to the literature. The definition that is retained simply states that offshoring is a cross-border transfer of an economic activity. Possible consequences of such a transfer are job losses and imports.

The second and most important aim of the analysis has been to look at how offshoring can be measured and to

find concrete data to illustrate the extent of offshoring for Belgium. The possibilities for measuring offshoring directly based on official data are scarce. But as offshoring in many cases gives rise to imports, it is feasible to take a look at the extent of offshoring through indirect measures based on trade statistics. These are generally more readily available. Among these trade-based indirect measures, the paper identifies the share of imported intermediate inputs in output as the most appropriate one. It has become the standard measure in the literature in recent years. The underlying idea is as follows: when a firm decides to offshore an intermediate stage in its production process, i.e. it fragments its value chain, then foreign production replaces local production. In most cases, this foreign production is imported as intermediate inputs. It is, of course, true that this measure does not directly refer to a transfer of activities, but rather to a possible consequence of offshoring. Nonetheless, it can be shown that it provides a good indication of trends in offshoring.

The share of imported intermediate inputs in output has been computed for Belgium for the years 1995 and 2000 based on constant price supply-and-use tables taken

from the EUKLEMS database developed at the Federal Planning Bureau. The results show that for the private sector this share has increased from 18.3% in 1995 to 20.2% in 2000. This is an indication of a moderate rise in offshoring for Belgium. The share of imported intermediate inputs in output is much higher in manufacturing (35.2%) than in service industries (12.4%) in 2000. Production of motor vehicles and production of radio and television receivers are among the industries with the highest shares. However, the growth rate of the share of imported intermediate inputs in output turns out to be higher in service industries than in manufacturing, which implies that the profile of offshoring is changing: although traditionally offshoring occurred mainly in

manufacturing, it has recently become more and more important in service industries. Moreover, in terms of products being imported, it is noteworthy that the share of imported intermediate inputs of service products in output grew quickly over the period 1995-2000 in both manufacturing and service industries. This growth highlights the increasing importance of the offshoring of service functions, most notably business services such as call centres or accounting.

*“Trade-based measures of offshoring: an overview for Belgium”, B. Michel,
Working Paper 09-08, April 2008.*

The PLANET model: A long-term transport model for Belgium

The PLANET model is a long-term transport model for Belgium. Its aim is threefold. First of all, it produces medium- and long-term projections of transport demand in Belgium under a business-as-usual scenario. These projections cover both passenger and freight transport. Secondly, the model simulates the effects of various transport policy measures. Thirdly, it provides a social cost-benefit analysis of these policy measures. The working paper describes the main features of the PLANET model (version 1.0), while the model results will be described in separate reports. The development of the model was made possible thanks to financing by the FPS Mobility and Transport.

The PLANET model consists of seven interrelated modules: Macro, Transport Generation, Trip Distribution, Modal and Time Choice, Vehicle Stock, Welfare and Policy.

The Macro module aims first of all to provide macro-economic projections at the level of the NUTS3 zones (arrondissementen - arrondissements) for Belgium. This is done by spatially disaggregating results from HERMES and MALTESE, two national projection models from the Federal Planning Bureau. This information is supplemented by demographic and socio-demographic projections. The Macro module is kept exogenous. This means that the model does not incorporate a feedback from transport to the (macro)economic or demographic projections.

The transport core of PLANET consists of four modules. The Transport Generation module derives the total number of commuting and school journeys generated in and attracted to each NUTS3 zone. In addition, it gives a projection of the total number of passenger trips for “other” purposes and of the total tonnes lifted for national and international freight transport. The results of this module are fed into the Trip Distribution module

which determines the number of trips taking place between each of the zones.

In the next step the Modal and Time Choice module derives the modes by which the trips are made and the times (peak or off-peak) at which the trips take place (in the case of road transport). The choice of the mode and the time period is determined in an iterative way based on the evolution of the generalised costs of the different options – which depend on the modal choice – and the production technology. The generalised costs consist of the monetary and time costs.

Travel time for the road modes is determined endogenously, by means of a speed-flow function that gives the relationship between the average speed of the road transport modes and the road traffic levels. The evolution of the average congestion levels is therefore determined by the model. However, it should be noted that the PLANET model does not incorporate a network model and therefore does not model the assignment of the transport flows to the different links in the network.

The Modal and Time Choice module also provides information on the environmental impact of transport and on net government revenue obtained from transport. The current version of PLANET uses an exogenous evolution of the vehicle stock composition.

The Policy module describes the policy instruments that are considered in the business-as-usual and alternative scenarios. These may consist of pricing instruments (such as fuel taxes, car ownership taxes or road pricing) or regulatory policies (such as emissions standards). Moreover, the module defines how any additional net tax revenue generated in the transport sector can be recycled, or how extra revenue needs in the transport sector are financed.

Finally, the Welfare module computes the effects of transport policy measures on welfare. It provides a social cost-benefit analysis of the transport policy instruments summarised in the Policy module. It takes into account the impact on the consumers, the producers, the government and environmental quality.

The PLANET model is used to develop a business-as-usual scenario for transport in Belgium and to compare this with alternative policy scenarios. The re-

sults of these exercises will be discussed in subsequent reports.

*"The PLANET Model: Methodological Report, PLANET 1.0", Study financed by the framework convention "Activities to support the federal policy on mobility and transport, 2004-2007" between the FPS Mobility and Transport and the Federal Planning Bureau,
R. Desmedt, B. Hertveldt, I. Mayeres, P. Mistiaen, S. Sissoko, Working Paper 10-08, May 2008.*

Other Recent Publications

Economic Outlook 2008-2013, May 2008

"Perspectives économiques 2008-2013 / Economische vooruitzichten 2008-2013"

Working Paper 8-08, February 2008

"Welvaartsbinding van de sociale zekerheidsuitkeringen: een overzicht van de recente ontwikkelingen"

N. Fasquelle, M-J. Festjens, B. Scholtus

Working Paper 7-08, February 2008

"Coût budgétaire et effet sur la pension moyenne des mesures récentes dans le régime des travailleurs indépendants - Une analyse réalisée par une version adaptée de MoSES"

B. Scholtus

Working Paper 5-08, February 2008

"Begrotingsoverschotten opbouwen om de vergrijzing in België aan te pakken: realiteit en verkennin-

gen - Accumuler des surplus budgétaires pour faire face au vieillissement démographique en Belgique : réalités et perspectives"

M. Saintrain, S. Weemaes

Working Paper 4-08, February 2008

"Estimating private health expenditures within a dynamic consumption allocation model"

P. Willemé

Report, January 2008

"Elaboration d'un modèle de projections régionales : une première application du modèle HERMREG aux perspectives économiques nationales 2007-2012. Uitwerking van een regionaal projectiemodel. Een eerste toepassing van het HERMREG model op de nationale economische vooruitzichten 2007-2012"

D. Bassilière (FPB), F. Bossier (FPB), F. Caruso (IBSA), K. Hendrickx (FPB), D. Hoorelbeke (SVR), O. Lohest (IWEPS)

Research in Progress

The long term budgetary and social challenges of ageing

The long term dynamics of acute health care, long term care and pension expenditure are scrutinized. The social dimension of pension benefits is investigated using micro approaches.

contact: maltese@plan.be

Wage formation

New approaches based on detailed micro-data are being developed to better understand determinants of wage formation and increase accuracy of related forecasts.

contact: labour@plan.be

Macroeconomic, budgetary and GHG emissions prospects

Growth, labour market, greenhouse gas emissions and budgetary prospects are investigated using a medium-term macroeconomic model. A regional

version of the model is being developed in collaboration with experts from the regional governments.

contact: hermes@plan.be

General equilibrium modelling

A general equilibrium model (GEM) for Belgium is under construction. The model will be a long-term model with a particular emphasis on the link between transport and the economy.

contact: transport@plan.be

Determinants of total factor productivity growth in Belgium

Research is under way to look into two specific determinants of total factor productivity (TFP) growth in Belgium: innovation through R&D and market competition.

contact: productivity@plan.be

Recent history of major economic policy measures

- May 2008** The Italian gas company Eni agreed with Suez to take over Suez's 57% share in the Belgian gas company Distrigas. This sale was a condition set by the European Commission for approving Suez's merger with Gaz de France (GdF). The second largest shareholder in Distrigas is Publigas, a public company owned by local authorities. It has 31% of the shares, which gives it the right to block the take-over. At the moment of printing this edition it is not yet known whether Publigas will make use of this right.
- March 2008** The 'Municipalities Fund' (Fonds de communes / Gemeentefonds) in Wallonia has been reformed, which should lead to more resources and a more appropriate redistribution of these resources among the municipalities.
- The federal government agreed with Suez and the French government that the Belgian state will receive a golden share in Suez-GdF, once the merged company has been established. The golden share is intended to give security of supply in Belgium. The measure is awaiting European approval.
- After the budgetary negotiations, the federal government announced its objectives for the public finances for 2008. These are based on assumptions of 1.9% economic growth and 2.8% inflation in terms of the "health-index".
- The overall government finances should remain in balance: the deficit of the federal government (-0.6% of GDP) should be compensated for mainly by social security surpluses (0.3% of the GDP) and state government surpluses (communities and regions: 0.2% of GDP). The total state debt-to-GDP ratio should decrease from 85.1% at the end of 2007, to 82.0% at the end of 2008.
- Several programmes aimed at supporting employment will be increased: the work bonus - the system of cuts in employees' social-security contributions for low-wage workers - will be strengthened as from October 2008 by raising the maximum reduction from €143 to €175 per month; wage subsidies for the employment of researchers will be increased as from July 2008. While the purchase price of household vouchers for domestic services will be raised from €6.7 to €7 per hour, making government-subsidised domestic services slightly more expensive for consumers, the redemption price of these vouchers will be raised from €20 to €20.22 per hour, allowing employers to pay for wage increases in the sector.
- Different categories of social benefits will be increased: minimum pensions in the wage-earners' and self-employed schemes, as well as the means-tested minimum income guarantee for older people and the minimum disability benefit, will be raised by 2% in July 2008. The welfare adjustment of most other pensions, previously decided for 2008, will be made structural. The solidarity contribution for pensions will be reduced. Family allowance supplements will be made structural and progressively increased. Some benefits for handicapped people will be upgraded.
- Additional resources will feed into the so-called "fuel oil fund", set up to help people in need to pay their energy bill, and will support the "social pricing" of gas and electricity.
- Reductions in taxation targeted at wage-earners, especially at low-wage earners, have been planned.
- Both financing these various initiatives and compensating for the 2007 deficit will mainly rely on various non-tax receipts (from the main power generation corporation, from the FSI/FIF (Fonds voor de Spoorinfrastructuur - Fonds d'Infrastructure Ferroviaire), and from the sale of state-owned buildings), on the abovementioned savings in the state regional and community governments' budgets and the social security budgets (notably by refraining from fully spending the projected 4.5% growth in the health care budget), and on the expected creation of additional jobs stimulated by the different new measures.
- February 2008** A 'Local Pact' between the Flemish regional and local authorities has been established. This fiscal pact involves a transfer of a part of the municipalities' debt to the regional government (EUR 612 million) in 2008 and some fiscal reductions by the Flemish municipalities.
- Together with National Grid of the UK, the transport system operator ELIA has started a feasibility study for an undersea connection with the British electricity network. Furthermore, the federal government has imposed a four-year efficiency programme on ELIA. By 2011, it should have realised EUR 8 million cost savings compared to 2007 expenditure ex.
- In electronic communications, the incumbent Belgacom announced its takeover of low-cost provider Scarlet. This take-over is strategic rather than to gain market share, since it allows Belgacom to cover the low-cost segment of the market.
- January 2008** The electronic communications market regulator, BIPT, decided that the incumbent Belgacom must open up its VDSL2 network to competitors. At the other edge of the internet spectrum Belgacom stopped offering dial-up internet. This will reduce the remaining number of dial-up connections (for other operators) to about 100,000. In mobile communications, BIPT decided that the incumbent Proximus may increase its termination rates significantly, whereas its competitors should decrease theirs. It was felt in the market that this would reduce fair competition.

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)