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 (cut-off date: April 30) points towards an average GDP growth rate of 2.2% during the 2005-2010 period, which is slightly higher than potential (2.1%). This pace of growth is expected to take place after a slowdown in economic growth in 2005 (1.7%) and a rebound in 2006 (2.6%). In both years Belgian economic growth should be slightly higher than in the euro area. Recent information makes the 2005 growth figure highly uncertain, with a significant downward risk.

Despite moderate wage increases, the average yearly growth rate of private consumption should reach 1.9% during the 2005-2010 period, particularly thanks to the increase in households' disposable income (stimulated particularly by reductions in personal income tax and the rise in employment). Investment growth should reach 3% on average during the 2005-2010 period, mainly reflecting the increase in business investment but also an acceleration of public investment in 2005 and 2006. Growth in exports should be 5.5% on average and the contribution of net exports to GDP growth is expected to be 0.2%. Limited wage cost increases, lower oil prices as compared to the average level in 2005 and a negative output gap should allow inflation to remain around 1.8% in the medium term.

The development of employment should reflect the favourable macroeconomic context, the limited increases in wage costs and various policy measures. After the net creation of approximately 29,000 and 21,000 jobs in 2004 and 2005 respectively, about 40,000 jobs should be created every year during the 2006-2010 period. Between 2004 and 2010 industrial employment should fall by 51,000 persons and the number of jobs created in market services should exceed 270,000. Nevertheless, in view of the growth in the labour force (mainly in the 50-64 age group) the fall in unemployment will be limited to 50,000. The unemployment rate (broad administrative statistics) is still increasing in 2005 (from 14.4% to 14.6%), but it will subsequently fall to 12.9% in 2010.

Under the assumption of unchanged policy, the public accounts are expected to show a clear deterioration, with a net public sector borrowing requirement appearing in 2005 (0.5% of GDP) and widening to 1.5% of GDP in 2006 before gradually declining to 0.7% of GDP by the end of the projection period. Nevertheless, the total public debt to GDP ratio is still in decline, from 95.8% in 2004 to 82.6% in 2010.

STU 2-05 was finalised on 17 May 2005.

The Federal Planning Bureau (FPB) is a public agency under the authority of the Prime Minister and the Minister of Economic Affairs. 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 macro-economic forecasting, analysing and assessing policies in the economic, social and environmental fields.

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Market reform in network industries in Belgium

Network industries play a pivotal role in the economy. They are service industries that produce the conveyance of people, goods and information along some physical infrastructure network. This process is essential for a modern, sophisticated production system. Moreover, network industries fulfil important social needs. In recent years and partly initiated by EU legislation, measures have been taken to reform their structure and the way they are operated in order to improve their performance. This Special Topic analyses the reform measures by applying OECD data and methods to the Belgian case. It quantifies past and anticipated reforms over the approximate period from 1998 to 2010. The analysis covers the railway, electricity, gas, telecommunications and postal industries. In 2003 these industries produced 5.5% of Belgian GDP and accounted for 4.0% of employment (see the tables on p. 20 of this issue).

Network industries meet essential economic and social needs. When the fulfilment of these needs is left to the market, there is no guarantee that an optimal outcome will be reached. In the past, many network industries have therefore been monopolies under public control. This did not, however, guarantee an optimal level of efficiency. In recent decades a series of market reforms has therefore been initiated. These essentially allow for free entry and private investment but also build on mechanisms that safeguard the public interest. According to economic theory this kind of reform should improve efficiency by raising productivity, lowering prices and increasing output. The impact on employment is uncertain. The balance between productivity growth on the one hand and output growth on the other determines whether there is a net positive or negative impact on employment.

Measurement of market reform

To measure and predict the economic impact of the reform, there is a need to quantify the mostly qualitative information on reform measures. The OECD is one institution that has developed indicators for the extent of regulation. These industry-level indicators integrate information on vertical separation, market opening, public ownership and market structure into one index on a scale of 0 for the absence of regulation to 6 for complete regulation. It has built up a database covering the period from 1975 to 1998 and comprising seven network industries: railways, electricity, gas, telecommunications, postal services, air transport and road transport. An update for 1999-2003 may become available in the course of this year.

By applying the quantification method developed by the OECD, the FPB has produced a 2004 update for the first five of the seven above-mentioned sectors in Belgium. It has also produced two forecasts for the near future (±2010). One of these is based on rather prudent assumptions about further reforms while the other is more speculative. The results are summarised in Graph 1.

Reform in Belgian network industries

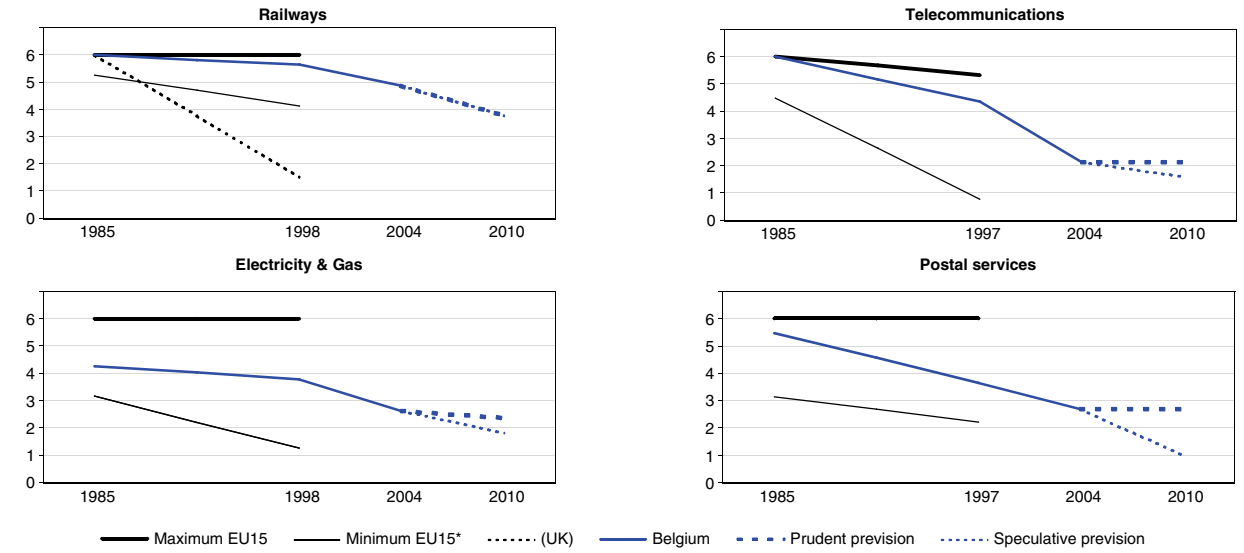
The Belgian *railway* sector is expected to remain the most regulated network industry, and to keep on following the EU directives on railway reform strictly. There is free entry on the Belgian sections of the Trans European Rail Freight Network (TERFN), but only one entrant is active. In early 2005 a holding structure was created for the incumbent NMBS/SNCB. In this holding company there is a legal separation of infrastructure management and train services.

In 2006 and 2007, market opening for freight traffic will be completed. It is assumed that a few more operators will enter the market at that time. The index may then fall to 3.8, which is still as high as the index of the least regulated member state in 1998 (after the UK, see Graph 1). The speculative forecast is equal to the prudent forecast. There is no concrete sign of any reforms beyond opening the freight market.

Between the *electricity* and *gas* sectors there is little difference in evolution. In both sectors there is legal separation between the infrastructure networks and the other activities. Access prices are regulated as prescribed by EU directives: they are proposed by the network manager but have to be approved and published by the regulator. In Flanders there is free choice of supplier. The market share of the incumbent suppliers Electrabel and Distrigas is still around 90% for electricity production and gas imports, respectively.

In early 2006 a power exchange will be started up for the electricity sector. In 2007, market opening in Wallonia and Brussels will be completed for both sectors. It is expected that the market shares of the incumbents will remain high. In the prudent forecast they are assumed to remain at their present levels. In the speculative forecast they may fall significantly, but will remain above 50%. The indices could fall to 2.4 and 1.8, respectively. This is still higher than the UK and Swedish indices of 1998 and similar to the German index for 1998.

Graph 1 - Regulation of network industries 1985-1998, and outlook to 2010



Source: FPB, based on OECD data
* Railways: except UK.

For *telecommunications*, the reference year is 1997, because of the complete market opening in 1998. The index of regulation has more than halved since then. The incumbent Belgacom, however, still holds large market shares (about 60-65%). It is 50% state owned and its prices are controlled by the regulator.

In the prudent forecast it is assumed that there will be no further change. As the reform took place seven years ago, the market may have come into a stable situation. In the speculative forecast it is assumed that the market is still developing. The incumbent's market share may fall below 50%, price controls may be relaxed and the government may sell its majority stake. The index may fall to 1.6. In 1997, Denmark and the United Kingdom already had a lower index. In 1998, the first year of market opening, the indices for Spain and Italy also fell below 2.0, whereas many other countries had indices between 2 and 3.

The index of regulation of the Belgian *postal sector* has a relatively low score. This is caused by the fact that the OECD includes courier services, in which there has already been free entry and actual competition from the start. For normal postal deliveries, in accordance with EU legislation, there is free entry for items weighing at least 100 grammes. Since this still covers a small part of the market, there has been virtually no entry.

In 2006, free entry will be widened to include items weighing at least 50 grammes. In the prudent forecast it is assumed that there will be more entry, but the market share of the incumbent De Post/La Poste will remain above 95%. In the speculative forecast it is assumed that the EU will decide on complete market opening in 2009. The market share of the incumbent may fall somewhat further but remain above 90%. The incumbent may make use of the opportunity to attract private capital but the government share will remain at around 90%. The index may fall to 1.0. This is significantly below the indices for the two least regulated countries in 1998, the Netherlands and Sweden.

Assessment

Despite the inherent logic of a low score for weak regulation and high score for strong regulation, certain weaknesses in this indicator should be kept in mind. By giving a quantitative value to qualitative information and adding it to create a summary index it is inevitable that there will be some degree of arbitrariness. More importantly, there may be differences in interpretation between the respondents who provide the necessary qualitative information. This may give rise to different scores for the same situation. Finally, the indices themselves may give rise to a risky interpretation: a score of 0 may be seen as 'best' and a score of 6 as 'worst' for the economy. In many real world cases, however, the functioning of the market may be served by the presence of at least some regulation.

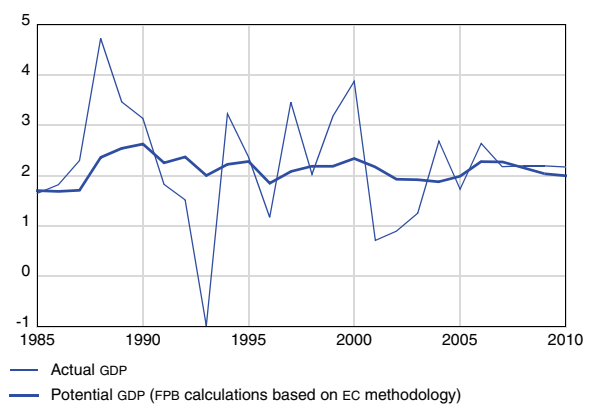
Nevertheless, the reform of network industries does seem to have a beneficial impact on the economy. This is shown by many studies that analyse the correlation between regulation and economic performance indicators. Experience of reforms in several countries, however, also shows that governments should create the right conditions for the market to function well and for network industries to meet the needs of society.

Economic forecasts 2005-2010

The FPB medium-term economic outlook for April 2005 covers the period from 2005 to 2010 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. The baseline 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 2005 onwards; in fact the imbalance should persist until the end of the forecast period. As a result the objective of a balanced budget in 2005-2006 and a financing capacity of 0.6 % of GDP in 2008 (as set out in the Stability Program) is expected not te be reached without additional measures.

Based on forecasts from international organizations, the outlook for Europe suggests that, after a deceleration in 2005 (growth rate of eurozone GDP limited to 1.5% in 2005), the rate of European GDP expansion (eurozone) will reach 2.1 % in 2006, peak at 2.4 % in 2007 and then stabilize at a rhythm close to its potential (2.0 % per year) during the period 2008-2010. Inflation remains below 2 %, thanks particularly to wage increases that have remained 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
annual % changes



After a good performance in 2004, Belgian GDP growth should only reach 1.7 % in 2005. After a temporary rebound in 2006 (2.6%), Belgian GDP growth should reach an average of 2.2% for the period from 2007 to 2010. This development can be accounted for largely by domestic demand. The role of exports will also be crucial but net exports contribution to GDP should be more limited than during the period 1999-2004.

After moderate growth in 2005, private consumption should become more dynamic afterwards, particularly thanks to a favourable development in household disposable income (stimulated especially by reductions in personal income tax and by the rise in employment). Gross fixed capital formation should also recover: the rate of increase in investment should be 3.0 % during the 2005-2010 period, mainly reflecting the increase in business investment, but also an acceleration of public investment in 2005 and 2006.

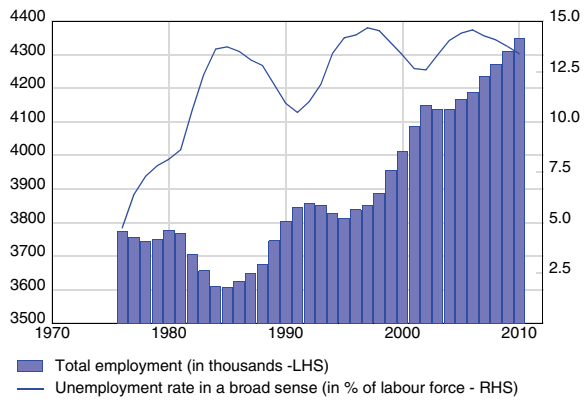
Growth in exports should be 5.5% on average and the contribution of net exports to GDP growth is expected to be 0.2%. The external surplus should reach 3.4% of GDP in 2010 (partly thanks to the recovery of the terms of trade). The level of the external surplus also reflects the high level of domestic savings.

Limited wage increases (lower than productivity gains) and a moderate increase in imported costs are the main factors accounting for an inflation rate that will remain below 2% in the medium term. Moreover, a negative output gap until 2009 will help to keep inflation low.

Limited increases in wage costs are first and foremost the consequence of moderate wage demands, in application of the 1996 law on the promotion of employment and on the safeguarding of competitiveness. Wage cost moderation and specific measures aimed at promoting low-qualified labour put a check on labour productivity growth (1.4% average growth per year), which grows at a trend that has been coming down dramatically since the eighties. Deflated by the price index of value added, real unit labour costs decrease by 0.5% on average, the share of wages in value added diminishing from 64.6% to 63%.

In the context of a favourable macroeconomic context, domestic employment will increase substantially (0.9% per year; 221,000 extra jobs over the entire period). This increase is accompanied by ongoing structural shifts in the sectorial composition of employment, manufacturing incurring a further loss of 60,000 jobs and market services gaining 274,000 jobs, bringing its share in total market employment to 74.5% in 2010 (53.9% in 1980 and 71.1% in 2004). Shifts of employment in favour of (services) industries that suffer deteriorating relative levels of productivity are an important additional contributing factor explaining the weakening of trend labour productivity growth in Belgium.

Graph 2 - Employment and unemployment



With the population of working age still growing considerably (by 0.34% on average per year, but strongly falling back towards the end of the period), the employment rate rises from 61.8% in 2004 to 63.7% in 2010, a considerable increase, but still a far cry from the original Lisbon objective (70%), which seems an unrealistic target for Belgium.

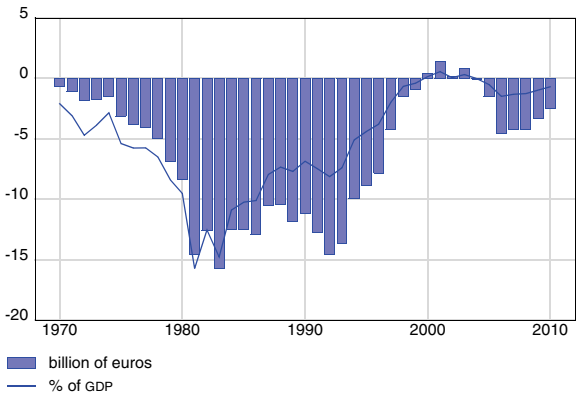
In view of the substantial rise in the labour force (0.6% per year; 172,000 persons over the entire period), net job creation is only sufficient to force down unemployment by 50,000 persons in absolute terms. The decrease in the unemployment rate (broad administrative measure) is limited (from 14.4% to 12.9%), but tangible, and accelerates towards the end of the period. In the age class 15-49, the unemployment rate drops from 13.4% to 10.9%, just inferior to the level that had been reached in 2001, in the aftermath of the previous business cycle high.

As usual, the exercise assumes that policy will be unchanged. The projection takes into account, as far as possible, the measures decided within the framework of the 2005 budget control. A net financing requirement of 0.5 % of GDP appears in 2005, widening to 1.5 % in 2006, before gradually falling to 0.7 % by the end of the projection period.

The Stability Program objective of net financing capacity of 0.6 % of GDP in 2008 would not be attained without additional measures. Nevertheless, the total public debt to GDP ratio is still in decline, from 95.8 % in 2004 to 82.6 % in 2010.

The reappearance of public deficits is mainly due to the expansionary character of budgetary decisions, within a background of relatively limited room for manoeuvre. The expansionary policy mainly concerns public expenditures, notably for social security. As far as receipts are concerned, decisions have more contrasted effects: reduction of the taxes on households' income; decrease of social contributions; increase of taxes on products. The deficits mainly stem from Entity I (federal government and social security), but Entity II (communities, regions and local authorities) would also display a slight deficit at the end of the projection period.

Graph 3 - Net lending (+) or net borrowing (-), general government



The last chapter discussed the evolution of energy consumption and greenhouse gas emissions. Due to high energy prices (which stimulate the penetration of energy-efficient technologies) and the reorganisation of the industrial sector, final energy consumption should grow moderately by 0.8 % per year on average, whereas the energy-intensity of GDP should decrease yearly by 1.4 % on average. Total greenhouse gas emissions should be stable due to moderate energy consumption and the change in the energy consumption structure from solid and liquid fuels to gaseous fuels and electricity. However, the target defined by the Kyoto Protocol for Belgium should be exceeded by 8.4% in 2010; further efforts should be made in order to reach this target.

Table 1 - Key figures for the medium-term economic outlook (period averages- changes in volume unless otherwise stated)

	1990 1998	1999 2004	2005 2010
Potential export market	6.1	5.5	6.4
Private consumption	2.0	1.8	1.9
Public consumption	1.2	2.7	2.0
Gross fixed capital formation	2.0	1.0	3.0
Stock building (contribution to GDP growth)	0.0	0.1	0.0
Final domestic demand	1.8	2.0	2.1
Exports	4.4	3.9	5.5
Imports	4.2	3.8	5.7
Net exports (contribution to GDP growth)	0.3	0.3	0.2
GDP	2.0	2.1	2.2
Private consumption prices	2.1	1.9	1.8
Real disposable income households	1.8	1.5	1.8
Domestic Employment (annual changes in '000)	17.0	35.1	36.8
Unemployment, BFP definition[a]			
-thousands	648.5	710.0	660.0
-% of labour force	13.9	14.4	12.9
Current account balance (% of GDP)[a]	5.3	2.9	3.4
General Government financing capacity (% of GDP)[a]	-0.7	0.0	-0.7

a. End of period

"Perspectives économiques 2005-2010"
"Economische vooruitzichten 2005-2010",
FPB, April 2005.

Economic forecasts for Belgium by the Federal Planning Bureau

Changes in volume (unless otherwise specified) (cut-off date of forecasts: 30 April 2005)

	2003	2004	2005	2006
Private consumption	2.2	2.1	1.4	2.3
Public consumption	2.6	2.3	1.1	2.6
Gross fixed capital formation	-0.9	1.1	4.3	4.5
Final national demand	1.7	3.0	1.9	2.8
Exports of goods and services	1.7	5.5	4.6	5.8
Imports of goods and services	2.3	6.1	5.0	6.3
Net-exports (contribution to growth)	-0.3	-0.1	0.0	0.0
Gross Domestic Product	1.3	2.7	1.7	2.6
p.m. Gross Domestic Product - in current prices (bn euro)	269.55	282.97	293.81	308.37
National consumer price index	1.6	2.1	2.1	1.8
Consumer prices: health index	1.5	1.6	1.9	1.7
Real disposable income households	1.1	0.6	0.9	2.4
Household savings ratio (as % of disposable income)	15.5	14.3	13.9	14.0
Domestic employment (change in '000, yearly average)	2.3	28.6	21.5	45.6
Unemployment (Eurostat standardised rate, yearly average) [1]	7.9	7.8	8.0	7.8
Current account balance (BoP definition, as % of GDP)	4.5	3.4	3.2	3.3
Short term interbank interest rate (3 m.)	2.3	2.1	2.3	2.7
Long term interest rate (10 y.)	4.1	4.1	3.7	4.3

[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
	2005	2006	2005	2006	2005	2006	
Federal Planning Bureau	1.7	2.6	2.1	1.8	-0.5	-1.5	04/05
INR/ICN	2.2	.	2.0	.	.	.	02/05
National Bank of Belgium	.	.	.	.	.	.	.
European Commission	2.2	2.3	2.0	1.8	-0.2	-0.6	04/05
OECD	2.4	2.7	2.2	1.9	-0.4	-0.5	11/04
IMF	2.1	2.3	2.2	2.0	-0.4	-1.4	04/05
ING	1.5	2.1	2.2	2.0	-0.3	-0.6	05/05
Fortis Bank	1.8	2.3	2.0	1.8	-0.3	-0.5	05/05
Dexia	1.6	2.5	2.3	1.7	-0.4	-0.3	05/05
KBC Bank	1.5	1.7	2.1	1.7	-0.3	-0.5	05/05
Morgan Stanley	1.6	2.3	2.1	1.8	-0.6	-0.7	05/05
Petercam	1.25	1.75	2.2	1.75	-0.5	-0.9	05/05
IRES	1.8	.	2.1	.	-0.5	.	03/05
Consensus Belgian Prime News	2.2	2.4	1.9	1.7	-0.2	-0.1	03/05
Consensus Economics	2.2	2.4	2.0	1.8	.	.	04/05
Consensus The Economist	2.0	2.2	1.9	1.7	.	.	05/05
Consensus Wirtschaftsinstitute	2.1	2.2	1.9	1.7	.	.	04/05
Averages							
All institutions	1.9	2.3	2.1	1.8	-0.4	-0.7	
International public institutions	2.2	2.4	2.1	1.9	-0.3	-0.8	
Credit institutions	1.7	2.2	2.1	1.8	-0.4	-0.5	

Collaborating institutions for The Economist: ABN Amro, Deutsche Bank, EIU, Goldman Sachs, HSBC Securities, KBC Bank, Merrill Lynch, J.P. Morgan Chase, Morgan Stanley, Nordea, Decision Economics, BNP Paribas, Royal Bank of Canada, Schroder Salomon Smith Barney, Scotiabank, UBS Warburg.
Wirtschaftforshungsinstitute: DIW (Berlin), Ifo (München), HWWA (Hamburg), IfW (Kiel), IWH (Halle), RWI (Essen)

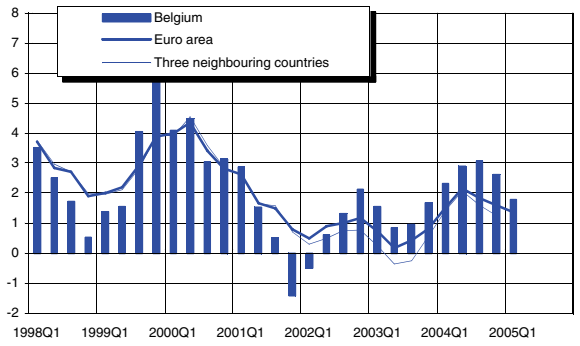
General economic activity

Table 1 - GDP growth rates, in %

			YoY growth rates, in %					QoQ growth rates, in %				
	2003	*2004*	*2004Q1*	*2004Q2*	*2004Q3*	*2004Q4*	*2005Q1*	*2004Q1*	*2004Q2*	*2004Q3*	*2004Q4*	*2005Q1*
Germany	0.0	1.6	1.1	1.4	1.2	0.5	1.1	0.4	0.2	0.0	-0.1	1.0
France	0.5	2.4	2.0	3.2	2.0	2.3	.	0.8	0.7	0.0	0.9	.
Netherlands	-0.9	1.4	1.0	1.7	1.9	1.2	0.1	1.0	-0.1	0.3	0.0	-0.1
Belgium	1.3	2.7	2.3	2.9	3.1	2.6	1.8	0.8	0.7	0.9	0.3	0.0
Euro area	0.5	2.1	1.5	2.2	1.8	1.6	1.4	0.7	0.5	0.3	0.2	0.5
United States	3.0	4.4	5.0	4.8	4.0	3.9	3.6	1.1	0.8	1.0	0.9	0.8
Japan	1.4	2.7	4.1	3.2	2.4	0.9	0.8	1.4	-0.2	-0.3	0.0	1.3

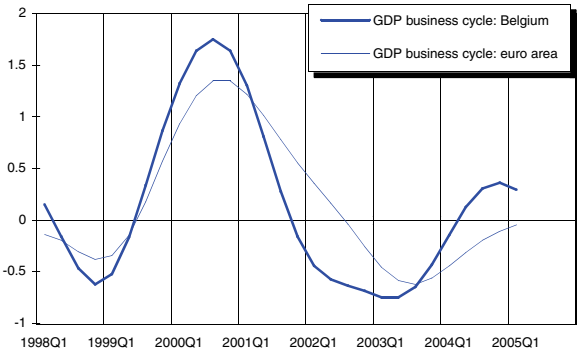
Source: INR/ICN, National sources, Eurostat

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



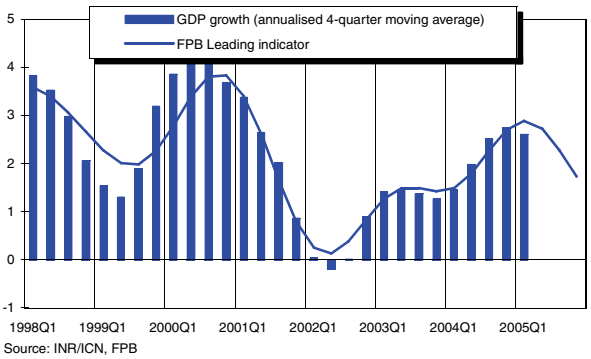
Source: INR/ICN, National sources, Eurostat

Graph 2 - GDP business cycle



Source: INR/ICN, Eurostat, FPB

Graph 3 - GDP growth and leading indicator



Source: INR/ICN, FPB

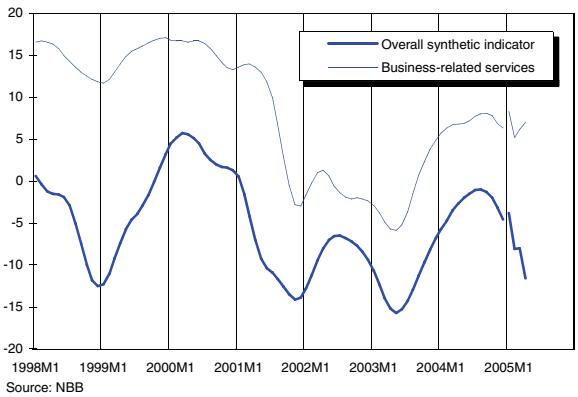
In 2005Q1 US economic growth (qoq) slowed down to 0.8% from 0.9% in the previous quarter. This was due to a serious slowdown in business investment, while private consumption growth also turned lower. Stronger inventory increases prevented economic growth falling back even more. This less favourable growth structure, together with the decline of consumer and business confidence, raised fears of a more severe slowdown of the US economy than previously expected. The US economy is still, however, expected to post 3.5% growth this year.

After 3 quarters of non-positive growth, Japanese economic activity was surprisingly strong in 2005Q1 (+1.3% qoq), driven by a surge in private consumption and business investment, while export growth was negative for the first time in 3 years. This strong growth figure is encouraging and suggests that the current consensus estimates for Japanese economic growth in 2005 (+0.8%) are too pessimistic. Japanese GDP data are notoriously volatile, however, and often subject to large revisions (as happened in 2004). Moreover, since there is still no sign of a rise in wage growth - a conditio sine qua non for a sustainable recovery - it is still too early to declare the end of Japan's deflationary era.

Economic growth in the euro zone accelerated to 0.5% qoq in 2005Q1 (from 0.2% in the previous quarter). This improvement was primarily due to a larger contribution from net exports, while solid domestic demand is still missing. The euro zone economy is therefore still vulnerable to changes in world trade growth. Moreover, indicators point to a substantial slowing of economic activity in 2005Q2.

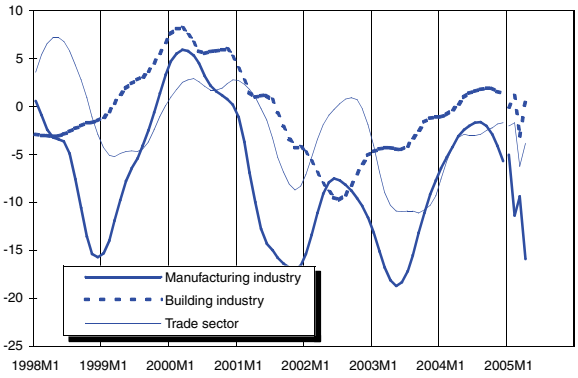
In 2005Q1, Belgian GDP growth slowed further to 0% qoq, from 0.3% qoq in 2004Q4. This was considerably weaker than in Germany (+1.0% qoq) and only slightly better than in the Netherlands (-0.1% qoq). The FPB leading indicator has been painting a less optimistic picture during the last few months. It now points to a deceleration of economic growth to less than 2% this year.

Graph 4 - Business cycle: global evolution



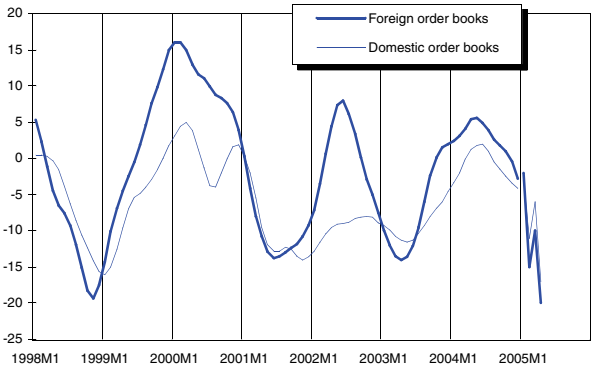
Source: NBB

Graph 5 - Business cycle: sectoral evolution



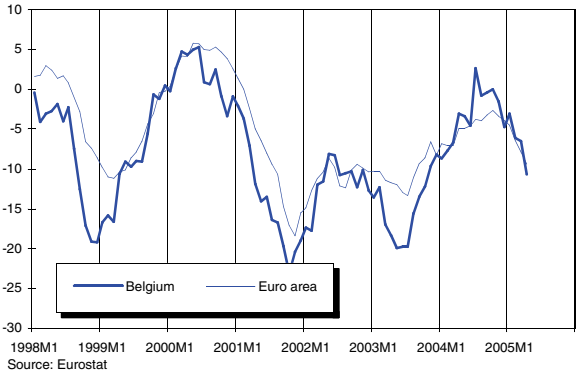
Source: NBB

Graph 6 - Manufacturing industry: order books



Source: NBB

Graph 7 - Industrial confidence: international comparison



Source: Eurostat

Notwithstanding the stabilisation in March, Belgian business confidence (shown as the overall synthetic indicator in graph 4) has declined since the beginning of this year. It therefore seems that the weakening of the smoothed indicator since September 2004, which reflects the current worsening of the business cycle, has not yet come to an end.

The recovery of the business climate between mid-2003 and the third quarter of 2004 was rather broadly based as it was seen in three (manufacturing industry, building industry and business related services) of the four sectors covered by the NBB business survey. The upturn in the trade sector arrived with a time lag behind the other sectors. The worsening of business confidence since the last quarter of last year, however, has so far been almost entirely due to declining confidence in the manufacturing sector, while the weakening of the indicators in the other sectors was much less pronounced.

The collapse of confidence in *manufacturing industry* since January mainly reflects the deterioration of both domestic and foreign order books, as shown by the very similar evolution of the manufacturing industry indicator in graph 5 and the indicators in graph 6. It should be noted that demand and employment expectations have already bottomed out during recent months, which indicates that industrial entrepreneurs are expecting the current downturn to be short-lived.

After a period of stabilisation, the indicator for the *trade sector* fell considerably in March due to a disappointing evolution in turnover and an unplanned rise in stocks of finished products. Although these developments were partly reversed in April, the current situation in the trade sector is less rosy than during the second half of last year.

The *building industry* indicator has been quite volatile in recent months. After a small rise in February, survey results plummeted in March due to bad weather conditions and increased again in April.

The *business-related services* cycle is not taken into account when calculating the overall synthetic indicator. It lost some ground during the last quarter of 2004, due mainly to a worsening of demand and employment prospects. In recent months, however, the assessment of the current situation and expectations for the coming months have approximately stabilised.

The decline of industrial confidence has so far been more pronounced in Belgium than in the euro area (see graph 7). Moreover, the peak in Belgian industrial confidence was seen several months earlier than in the euro area, which confirms the leading character of Belgian business cycle.

Private consumption

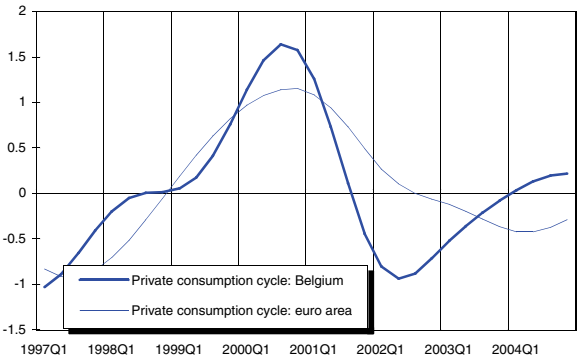
Table 2 - Private consumption indicators

	2003	2004	2004Q2	2004Q3	2004Q4	2005Q1	2004M11	2004M12	2005M1	2005M2	2005M3	2005M4
New car registrations [1]	-1.9	5.7	12.7	-3.9	-1.5	-6.1	11.3	-5.4	8.4	-9.1	-14.9	-9.8
Consumer confidence indicator [2]	-10.8	-3.3	-3.6	-2.4	-3.3	-3.2	-3.8	-3.7	-5.5	-2.8	-1.3	-4.3

[1] Change (%) compared to same period previous year; [2] Qualitative data

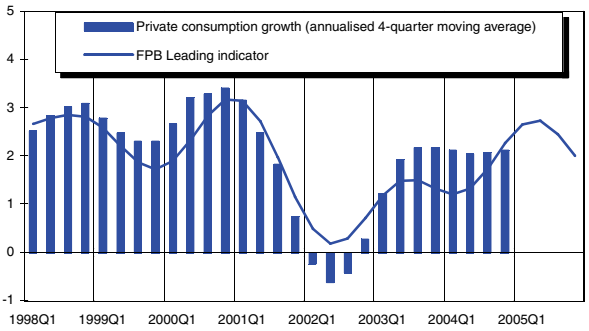
Source: Eurostat, Febiac, FPB

Graph 8 - Private consumption cycle



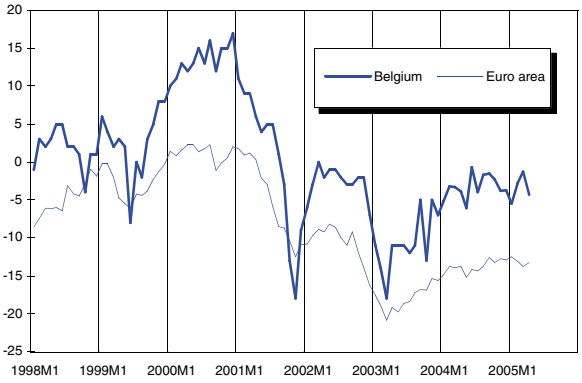
Source: INR/ICN, Eurostat, FPB

Graph 9 - Private consumption growth and leading indicator



Source: INR/ICN, FPB

Graph 10 - Consumer confidence: international comparison



Source: Eurostat

Belgian private consumption has been above its trend level since the beginning of 2004. By the last quarter of 2004, qoq private consumption growth rates had fallen to 0.1%, as compared with 0.7% in the second quarter. This caused a levelling of the Belgian consumption cycle by the end of last year. The private consumption cycle in the euro area reached a trough in the second quarter of 2004 and has only shown a very modest increase since then.

After two years of growth below 1%, Belgian private consumption increased by 2.2% and 2.1% in 2003 and 2004 respectively. As real disposable income growth remained rather subdued during these two years, this performance was mainly the result of a decline in the savings rate, linked to an increase in consumer confidence. In fact, consumers' optimism regarding the general economic situation improved during the course of 2003, strengthened by the prospect of a fall in unemployment from the end of 2003 onwards.

Graph 10 shows that the weakening of Belgian consumer confidence by the end of 2004 was offset by the improvement in February and March 2005, but the decline in April brought the indicator back to the level attained in December 2004. These changes can mainly be accounted for by a temporary improvement in consumers' economic prospects. Quarterly yoy growth rates in car sales have been negative since mid-2004. This is mainly due to the 'seasonal' boost given to car sales during the first half of 2004 by the latest biannual motor show held in Brussels in January 2004. In this respect, it makes more sense to compare quarterly car sales to the levels registered two years earlier (i.e. comparing 2004 with 2002, 2005 with 2003, etc.). This shows no signs of a downturn in car sales, since those 'two-year growth rates' have been in positive territory since the second quarter of 2004.

Comparing Belgian and euro area consumer confidence shows that, notwithstanding the greater volatility of the Belgian indicator, both have roughly stabilised during the last two quarters. This indicates that the levelling off that is already being seen in the Belgian consumption cycle will probably soon materialise in the euro area cycle too.

Business investment

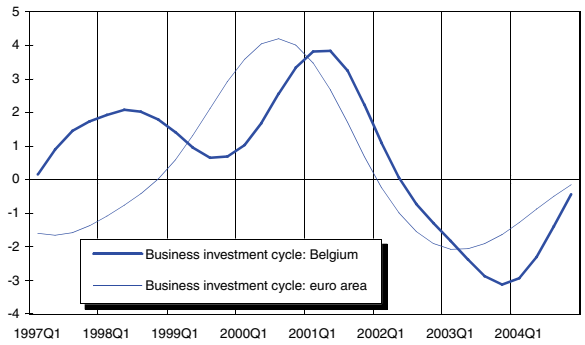
Table 3 - Business investment indicators

	2003	2004	2005	2004Q2	2004Q3	2004Q4	2005Q1	2004M12	2005M1	2005M2	2005M3	2005M4
Business survey, capital goods [2]												
Synthetic indicator	-13.3	-2.6	.	0.5	-4.4	-3.1	-6.1	-4.6	-5.4	-6.8	-6.0	-8.8
Order book appraisal	-30.5	-16.3	.	-17.0	-11.3	-13.0	-13.0	-14.0	-11.0	-14.0	-14.0	-17.0
Demand forecasts	-3.7	10.4	.	15.7	4.7	5.7	1.3	1.0	-2.0	-3.0	9.0	9.0
Investment survey [1]	-4.2	-13.1	21.9									
Capacity utilisation rate (s.a.) (%)	78.8	80.7	.	81.4	80.8	80.7	79.2					

[1] Change (%) compared to same period previous year; [2] Qualitative data

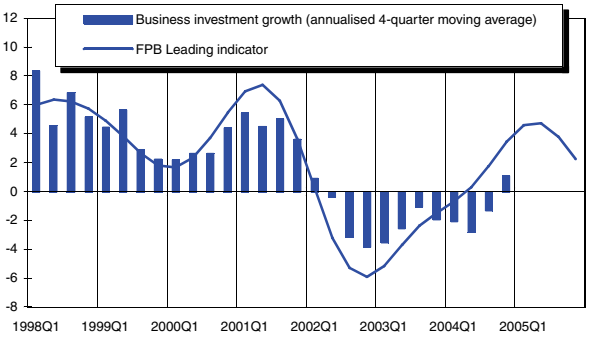
Source: NBB, FPB

Graph 11 - Business investment cycle



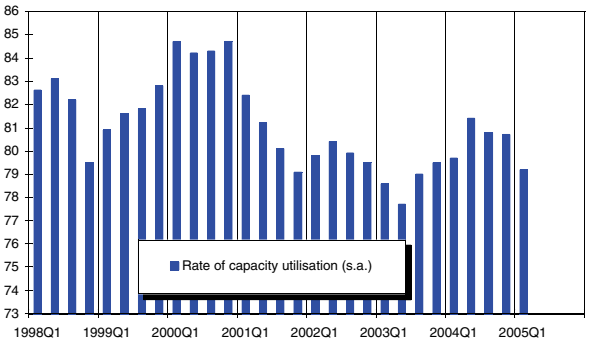
Source: INR/ICN, Eurostat, FPB

Graph 12 - Business investment growth and leading indicator



Source: INR/ICN, FPB

Graph 13 - Capacity utilisation in manufacturing industry



Source: NBB, FPB

The business investment cycle in both Belgium and the euro area were seriously hit by the economic downturn between 2001 and 2003. Both cycles reached their trough during the course of 2003 and recorded quite a convincing upturn last year. Consequently, Belgian and euro area business investment were only marginally below their trend levels in the last quarter of 2004.

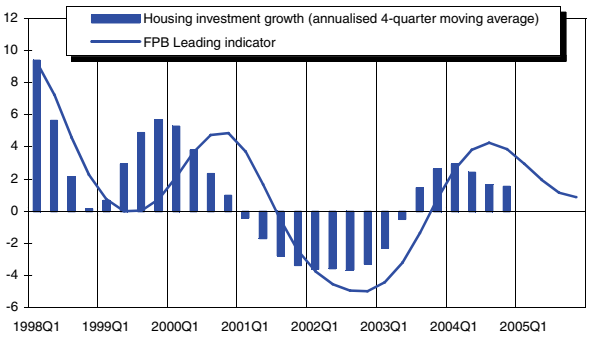
After two years of negative growth (-3.8% in 2002 and -1.9% in 2003), Belgian business investment at constant prices again began to increase last year (+1.1%) due to the economic upturn, favourable financing conditions and a further improvement in business profitability. As GDP again grew faster than business investment, the investment rate at constant prices (real business investment as a percentage of GDP) fell for the third consecutive year to 13.3% in 2004.

The results of surveys in the area of business investment growth paint a somewhat mixed picture. On the one hand, the latest NBB investment survey pointed out that entrepreneurs in the manufacturing industry are planning to invest 21.9% more (at current prices) this year than in 2004. It therefore seems that many investment projects have been postponed until 2005, which should boost investment this year. On the other hand, the synthetic indicator for the capital goods sector from the NBB business survey strengthened between mid-2003 and mid-2004 and fluctuated around a somewhat lower level during the second half of last year but declined from the first quarter of this year onwards. As capital goods sector indicators lead business investment by two to three quarters, the FPB leading indicator begins to weaken from mid-2005 onwards.

Due to strong economic growth, the capacity utilisation rate reached its highest level since 2001 in the second quarter of 2004. During the second half of last year, however, capacity utilisation stabilised at around 81% and fell by 1.5 percentage points in the first quarter of 2005. This also indicates a deceleration of business investment growth during the course of this year.

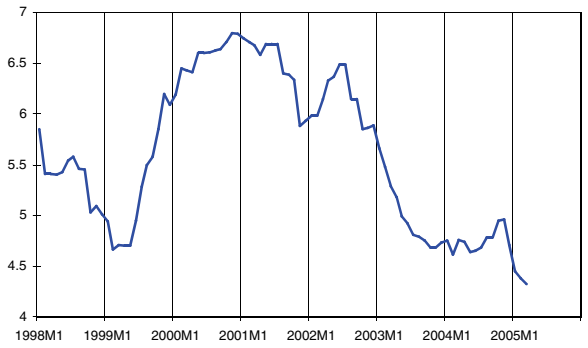
Housing investment

Graph 14 - Housing investment growth and leading indicator



Source: INR/ICN, FPB

Graph 15 - Mortgage rate (%)



Source: NBB

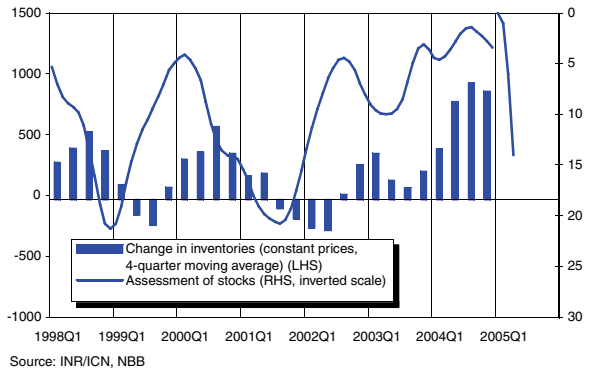
Housing investment growth slowed to 1.5% last year as compared with 2.6% in 2003, which was mainly the result of a plunge in qoq growth rates during the second half of 2004. Due to the strong decreases in 2001 and 2002, housing investment at constant prices was still lower last year than in 1999 and 2000.

According to the FPB leading indicator, the downturn in housing investment growth should bottom out during the course of this year. Indicators taken from the survey of architects and the evolution of mortgage applications - all of which have a lead of about one year since they refer to the early stages of the building process - were indeed on a downward path in the course of 2003, but started to recover again last year. An indicator taken from the NBB survey of the building industry is somewhat at odds with the other indicators as it does not provide any signs of improvement at the moment.

It should be noted that housing investment in 2005 will be supported by two factors that are not explicitly taken into account in the FPB leading indicator. Firstly the mortgage rate, which was already historically low in 2004, declined further during the first few months of this year. Secondly, new mortgage loans will be subject to a more benign fiscal regime from 2005 onwards. These factors will both lower the financing cost of housing investment.

Stock building

Graph 16 - Stock building indicators



Source: INR/ICN, NBB

Economic growth in 2004 was substantially supported by the rapidly increasing level of stocks. In fact, stocks increased by approximately 3.5 billion euro and made a positive contribution of 1 percentage point towards GDP growth.

During this acceleration in stock building (which began as early as the third quarter of 2003) the number of entrepreneurs willing to reduce their level of stocks was extremely low compared to previous years. This indicates that a large number of entrepreneurs increased their level of stocks so that they would be able to deal with unexpected increases in demand. During the first few months of this year, however, the number of entrepreneurs considering their level of stocks to be excessive increased dramatically, a process which went hand in hand with a fall in business confidence. It can thus be expected that economic growth in the first half of 2005 will be negatively affected by the downward adjustment of inventories.

Foreign Trade

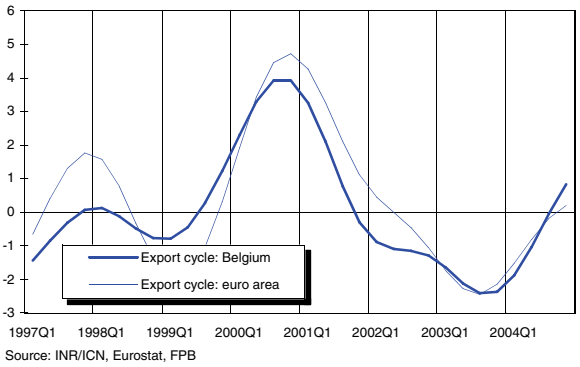
Table 4 - Belgium - Trade statistics (goods, intra/extrastat, national concept)

	2003	2004	2004Q1	2004Q2	2004Q3	2004Q4	2004M9	2004M10	2004M11	2004M12	2005M1	2005M2
Exports - value [1]	1.2	9.1	4.4	7.7	10.0	14.0	8.6	9.7	20.1	12.8	10.6	7.6
Imports - value [1]	1.4	10.6	3.5	9.9	14.3	14.9	14.1	9.5	22.6	13.4	19.2	11.3
Exports - volume [1]	3.4	6.7	7.0	5.3	5.9	8.5	4.2	2.8	15.2	8.1	2.9	0.1
Imports - volume [1]	3.9	7.1	6.2	6.7	7.9	7.5	8.0	0.5	14.8	8.1	11.7	3.1
Exports - price [1]	-2.1	2.2	-2.4	2.4	3.9	5.1	4.2	6.6	4.2	4.4	7.4	7.5
Imports - price [1]	-2.4	3.2	-2.8	3.0	6.0	6.9	5.7	8.9	6.7	5.0	6.7	7.9

[1] Change (%) compared to same period previous year

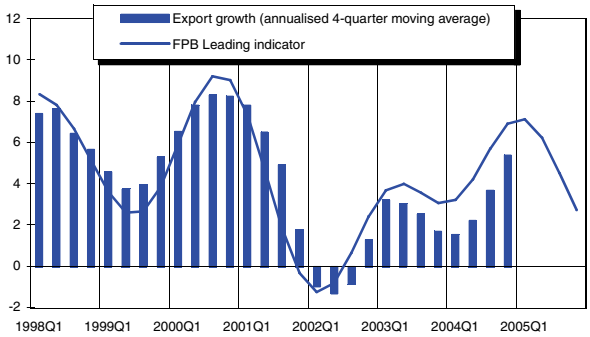
Source: INR/ICN, FPB

Graph 17 - Export cycle



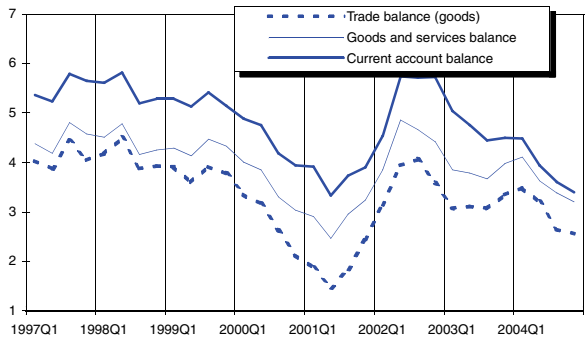
Source: INR/ICN, Eurostat, FPB

Graph 18 - Export growth and leading indicator



Source: INR/ICN, FPB

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



Source: INR/ICN, NBB, FPB

The Belgian export cycle, which began to accelerate by the end of 2003, continued its rise throughout 2004 and was almost 1% above its trend level by the end of the year. The euro area export cycle developed in a similar way, although it showed some signs of weakening during the second half of last year.

Despite the slowdown in world trade growth during the second half on 2004 (mainly due to strong rises in the price of oil and other commodities) and the appreciation of the euro exchange rate, Belgian export growth remained dynamic in 2004Q3 and 2004Q4 (qoq growth rates of more than 2.5%). This contrasted with euro zone export growth that slowed down considerably during this period. Ultimately, however, the slowdown in world trade growth will also affect Belgian exports. We are therefore expecting lower export growth during the first half of 2005. In the second half of 2005, export growth should improve somewhat as world trade is expected to accelerate during this period.

The somewhat subdued outlook for Belgian exports in 2005 is confirmed by the FPB composite leading indicator, which also points to a slowdown of export growth in 2005 as a whole. Even if the pick-up in world trade in the second half of the year and the fading effect of past euro appreciation are taken into account, export growth should still turn out lower in 2005 than in 2004.

Despite the further appreciation of the euro, import prices rose considerably during the course of 2004 due to the surge in oil prices. Over the year as a whole, import prices rose by 3.2% while export prices rose by only 2.3%, resulting in a noticeable deterioration in the terms of trade (-0.9%).

The Belgian current account surplus, expressed as a percentage of GDP, declined from 4.5% in 2003 to 3.4% in 2004. This significant decrease was due to slower growth in exports as compared with imports and also to the deterioration in the terms of trade.

Labour market

Table 5 - Labour market indicators

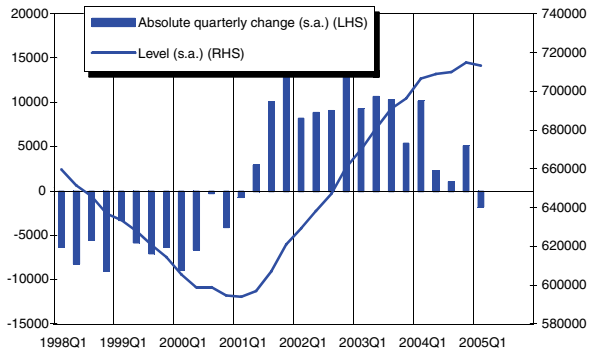
	2003	2004	2004Q2	2004Q3	2004Q4	2005Q1	2004M11	2004M12	2005M1	2005M2	2005M3	2005M4
Unemployment [1][2]	684.6	710.1	708.8	709.9	715.0	713.3	715.4	714.6	712.3	713.6	713.9	716.3
Unemployment rate [2][3]	14.0	14.4	14.4	14.4	14.5	14.4	14.5	14.4	14.4	14.4	14.4	14.5
Unemployment rate-Eurostat [3][4]	8.0	7.8	7.7	7.7	8.0	8.0	8.0	8.0	8.0	8.0	8.0	.

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

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

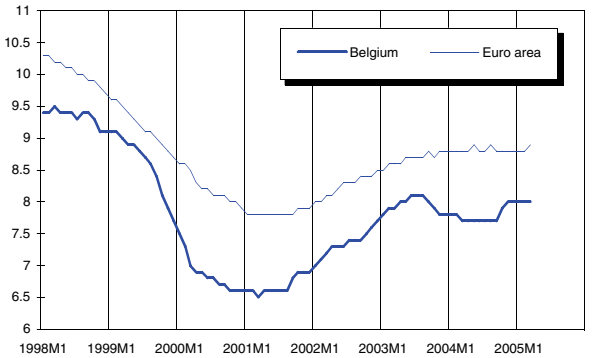
Source: RVA/ONEm, FPS Employment, Eurostat, FPB

Graph 20 - Evolution of unemployment (incl. older)



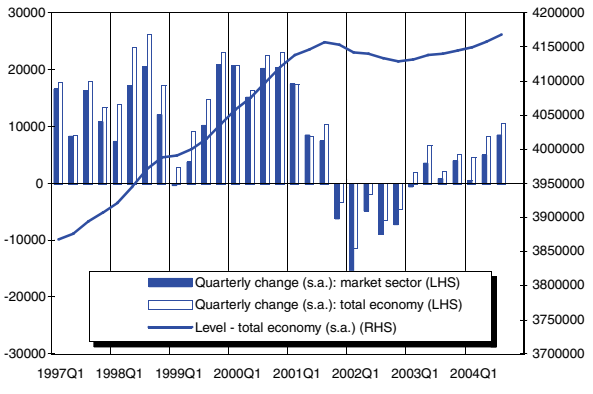
Source: RVA/ONEm

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



Source: Eurostat

Graph 22 - Evolution of domestic employment



Source: INR/ICN

On a quarter-to-quarter, seasonally adjusted basis, employment growth turned from negative to positive in the first quarter of 2003. Since that time employment has been growing consistently. Moreover, the latest information suggests that – following the substantial pick up in economic growth - growth in jobs has been accelerating throughout the first three quarters of 2004 (quarter-to-quarter growth of 0.1%, 0.2% and 0.3% respectively). Year-on-year total domestic employment may have increased by as much as 0.7% last year. Nevertheless, in view of the considerable growth in the population of working age (0.3% on a yearly basis), this implies only a modest rise in the overall employment rate (from 61.6% to 61.8%).

Due to the improvement in labour market conditions, (broad administrative) unemployment increased at a rapidly diminishing pace during the first three quarters of last year (seasonally adjusted growth was still 1.5% during the first quarter, followed by respective figures of 0.3% and 0.1% during the two subsequent quarters). Since then, however, interpreting the evolution of published unemployment figures has become rather hazardous. Figures for unemployment as registered by the regional employment mediation authorities have been corrupted due to the inclusion (from October 2004 onwards) of people on unemployment benefits who work part time in federally subsidized domestic employment service schemes and through statistical re-alignments following the withdrawal of the exemption from active job seeking for older unemployed people aged 50 to 57.

Even after correcting for the first of these statistical flaws (which has been done consistently in all our publications), measured unemployment still rose by 0.7% during the last quarter of last year. Direct information on the change in the number of people receiving unemployment benefit, however, (not subject to the above-mentioned distortions) points to a near-stabilization of unemployment during the last quarter of last year. A profile of this kind would be more plausible in view of the slight decline (-0.2%) that seems to be confirmed for the first quarter of this year, no matter which source is used.

Prices

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

	2003	2004	2004Q2	2004Q3	2004Q4	2005Q1	2004M11	2004M12	2005M1	2005M2	2005M3	2005M4
Consumer prices: all items	1.59	2.10	2.26	2.23	2.56	2.63	2.55	2.27	2.26	2.57	3.07	2.76
Food prices	2.04	1.53	2.05	0.81	1.41	2.08	1.40	1.78	1.23	1.92	3.10	2.26
Non food prices	1.18	2.23	2.45	2.82	3.39	3.01	3.35	2.79	2.49	3.12	3.44	3.73
Services	1.75	2.36	2.21	2.51	2.34	2.64	2.39	1.95	2.75	2.39	2.78	1.85
Rent	2.22	1.88	1.94	1.80	1.78	1.79	1.71	1.81	1.91	1.75	1.71	1.89
Health index	1.45	1.63	1.69	1.60	1.90	2.10	1.89	1.72	1.78	2.00	2.52	2.09
Brent oil price in USD (level)	28.8	38.2	35.4	41.5	44.1	47.5	42.9	39.6	44.2	45.4	53.0	51.8

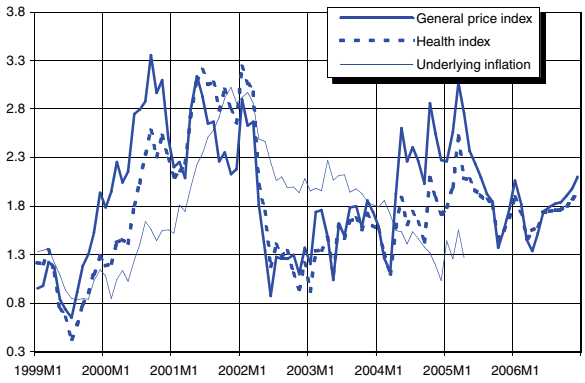
Source: FPS Economy, Datastream

Table 7 - Monthly inflation forecasts

	2005M1	2005M2	2005M3	2005M4	2005M5	2005M6	2005M7	2005M8	2005M9	2005M10	2005M11	2005M12
Consumer prices: all items	115.88	116.66	117.41	117.68	117.68	117.48	117.72	117.66	117.65	117.67	117.74	117.61
Consumer prices: health index	114.68	115.28	115.90	115.87	116.02	115.89	116.19	116.15	116.13	116.16	116.25	116.17
Moving average health index	114.48	114.67	115.03	115.43	115.77	115.92	115.99	116.06	116.09	116.16	116.17	116.18
	2006M1	2006M2	2006M3	2006M4	2006M5	2006M6	2006M7	2006M8	2006M9	2006M10	2006M11	2006M12
Consumer prices: all items	118.27	118.78	119.12	119.25	119.47	119.53	119.83	119.81	119.81	119.91	120.07	120.08
Consumer prices: health index	116.85	117.28	117.60	117.66	117.86	117.90	118.22	118.19	118.17	118.26	118.43	118.44
Moving average health index	116.36	116.64	116.98	117.35	117.60	117.76	117.91	118.04	118.12	118.21	118.26	118.33

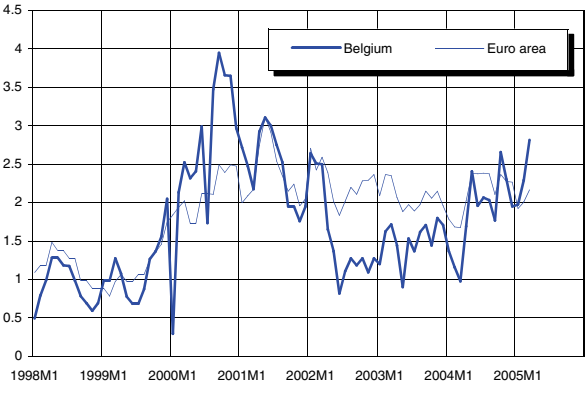
Source: Observations (up to 05M4): FPS Economy; forecasts: FPB

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



Source: FPS Economy, from 05M5 on: forecasts FPB

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



Source: Eurostat

The Brent oil price, as expressed in euro, rose by more than 30% during the first four months of 2005. This pushed up its yoy growth rates from 21% in December 2004 to 44% in April 2005. These strong oil price increases were due to concerns that oil supply would not be sufficient to meet demand, particularly since the demand for gasoline in the US peaks every year during summer ('driving season'). Political instability in Iraq, Nigeria and Venezuela further intensified these fears. Consequently, headline inflation, as measured by the yoy growth rate of the NICP, rose from 2.3% in January to 3.1% in March. Oil prices fell from April onwards, which implies a downward profile for inflation during the coming months.

Underlying inflation reached a four year low in December 2004 (1%), while it fluctuated around 1.4% during the first four months of this year. For the remainder of the year, underlying inflation is expected to rise somewhat (to 1.6% in December) as higher oil prices are passed on to prices of other goods.

All in all, average NICP inflation should be 2.1% this year. According to our monthly forecasts for the 'health index', the pivotal index for public wages and social benefits (currently 116.15) should be exceeded in October 2005. The next pivotal index threshold (118.47) should not be crossed during 2006.

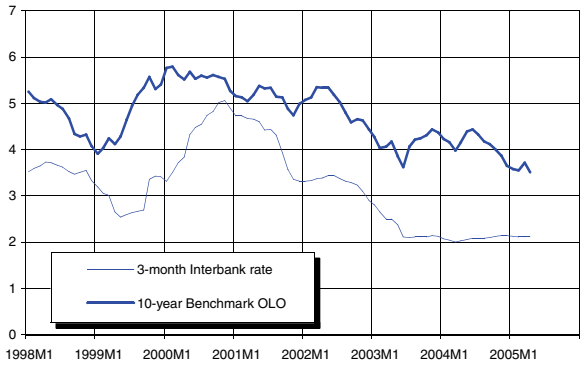
Interest rates

Table 8 - Interest rates

	2003	2004	2004Q2	2004Q3	2004Q4	2005Q1	2004M11	2004M12	2005M1	2005M2	2005M3	2005M4
Short-term money market rates (3 months)												
Belgium	2.31	2.08	2.06	2.09	2.14	2.12	2.15	2.15	2.13	2.12	2.12	2.12
Euro area (Euribor)	2.33	2.11	2.08	2.12	2.16	2.14	2.17	2.17	2.15	2.14	2.14	2.14
United States	1.15	1.56	1.25	1.70	2.25	2.78	2.26	2.45	2.61	2.77	2.97	3.09
Japan	-0.03	-0.03	-0.04	-0.02	-0.01	0.00	-0.01	-0.01	0.00	0.00	0.01	0.02
Long-term government bond rates (10 years)												
Belgium	4.14	4.13	4.34	4.21	3.84	3.62	3.87	3.65	3.58	3.56	3.72	3.51
Germany	4.09	4.06	4.24	4.13	3.79	3.62	3.80	3.65	3.59	3.56	3.72	3.51
Euro area	4.13	4.10	4.30	4.18	3.82	3.64	3.84	3.67	3.59	3.59	3.74	3.55
United States	3.99	4.26	4.58	4.29	4.16	4.29	4.19	4.22	4.21	4.17	4.50	4.33
Japan	0.99	1.49	1.60	1.63	1.43	1.38	1.45	1.35	1.36	1.37	1.42	1.29

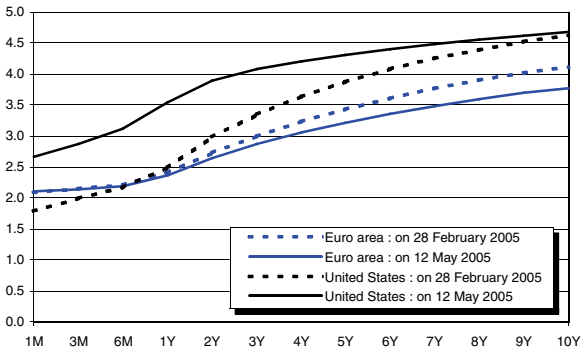
Source: NBB, ECB

Graph 25 - Interest rate levels in Belgium, %



Source: NBB

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



Source: Datastream, data based on interest rate swaps

Since June 2004 the Federal Reserve has raised interest rates by 25 basis points at every meeting. This has brought the Federal Funds rate to 3%, as compared to 2.25% at the beginning of the year. The Fed announced that it would continue to tighten monetary policy at a measured pace. Financial markets are currently expecting the federal funds rate to reach 3.75% by the end of this year.

During the past two years the ECB has kept its main refinancing rate unchanged at 2%. While three months ago a first rate hike was seen coming during the summer, financial markets are now not expecting it until the first quarter of next year. Weak economic growth in the fourth quarter of 2004 and a sharp deterioration of business and consumer confidence seem to be outweighing the ECB's fear of a possible asset bubble and its desire to follow the Fed in moving rates back to more neutral levels.

US long-term interest rates rose considerably in February and March of this year (from 4% to 4.6%) as the apparent rise in firms' pricing power fuelled fears of an acceleration in inflation. In April, however, a string of weaker growth indicators pushed yields lower once again, leaving them slightly higher than at the start of the year. Euro area long-term interest rates followed the evolution of US long-term rates but to a lesser extent as downside risks for the European economy have become more important. Euro zone long-term interest rates are now slightly lower (by some 20 basis points) than their level at the beginning of the year. This implies another widening of the spread between US and euro zone long-term interest rates, which seems logical in view of the divergence in economic growth expectations in the two zones. In the euro area the yield curve has flattened slightly since February, while the flattening was more pronounced in the US due to the tightening of monetary policy.

Exchange rates

Table 9 - Bilateral exchange rates

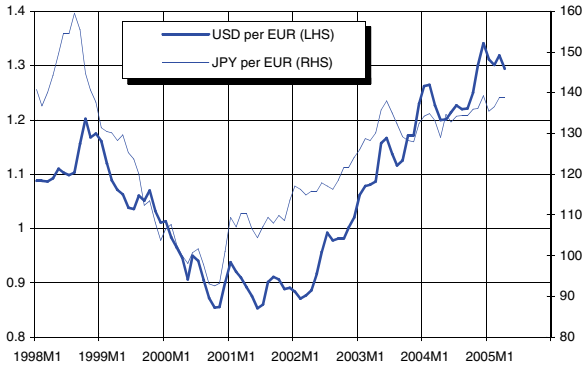
	2003	2004	2004Q2	2004Q3	2004Q4	2005Q1	2004M11	2004M12	2005M1	2005M2	2005M3	2005M4
USD per EUR	1.132	1.244	1.205	1.222	1.297	1.310	1.300	1.341	1.311	1.301	1.319	1.294
UKP per EUR	0.692	0.679	0.667	0.672	0.695	0.693	0.699	0.695	0.698	0.690	0.692	0.683
JPY per EUR	131.0	134.4	132.2	134.4	137.1	137.0	136.1	139.2	135.5	136.6	138.8	138.8

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

	2003	2004	2004Q2	2004Q3	2004Q4	2005Q1	2004M11	2004M12	2005M1	2005M2	2005M3	2005M4
Euro	90.9	93.8	92.2	93.1	95.6	95.7	95.4	96.8	95.7	95.3	96.0	95.1
Growth rate [1]	11.0	3.2	-2.2	1.0	2.6	0.1	1.1	1.4	-1.0	-0.5	0.7	-0.9
US dollar	107.5	99.7	102.1	101.0	96.0	94.7	95.2	93.9	94.6	95.3	94.3	95.9
Growth rate [1]	-10.4	-7.3	2.6	-1.1	-4.9	-1.3	-3.8	-1.4	0.8	0.7	-1.0	1.7
Japanese yen	140.1	142.8	142.9	141.7	142.6	142.4	143.6	142.6	144.3	142.3	140.7	139.3
Growth rate [1]	-0.1	2.0	-0.8	-0.8	0.6	-0.1	1.4	-0.6	1.2	-1.4	-1.1	-1.0

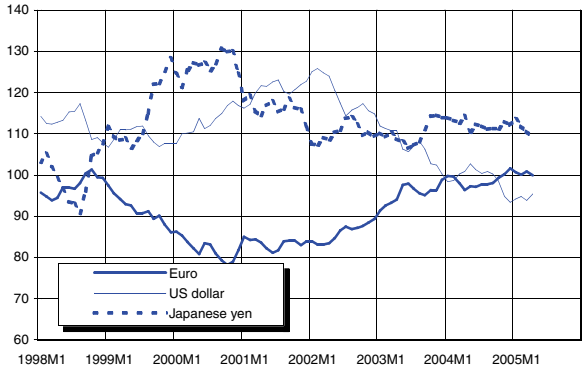
[1] Change (%) compared to previous period
Source: BIS, NBB

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



Source: NBB, before 1999M1: ECU instead of EUR

Graph 28 - Nominal effective exchange rates (Jan. 97=100)



Source: NBB, BIS

Since the end of last year the dollar has appreciated against the euro. This trend was only temporarily reversed between mid-February and mid-March as rumours about a possible diversification of Asian central banks' reserves out of the dollar and the publication of a strong increase in the American trade deficit in January weighed on the dollar. From then on however, financial markets have once again focused on the increasing divergence of economic growth expectations between the US and the euro area. Even fears about accelerating inflation in the US have not stopped the appreciation of the dollar. Moreover, the current rise in both short-term and long-term interest rate differentials between the US and the euro area is supporting the dollar. Due to both the size and the lack of any improvement of the US current account deficit, however, the upward potential for the dollar should be limited.

Since the beginning of the year the Japanese yen depreciated somewhat versus the dollar (-2.6%), but appreciated slightly vis-à-vis the euro (+2.2%).

The euro has lost territory against the British pound since the beginning of this year (-4%) as the differential between euro zone and UK short-term interest rates is not expected to narrow soon if the first ECB rate hike does not occur before the end of this year. In the UK the economy also seems to be slowing down, but it should still perform better than the euro area economy.

After almost three years of appreciation, the nominal effective euro exchange rate finally seems to be levelling off. It has even depreciated by almost 2% since December 2004.

Tax indicators

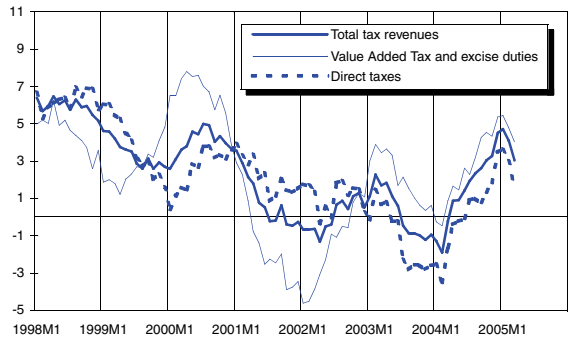
Table 11 - Tax revenues (1)

	2003	2004	2004Q2	2004Q3	2004Q4	2005Q1	2004M10	2004M11	2004M12	2005M1	2005M2	2005M3
Total [2], of which:	0.6	6.7	5.4	5.4	8.6	1.7	7.2	5.1	11.8	4.2	-2.1	2.3
Direct taxes, of which:	-1.1	5.7	3.5	1.9	9.9	-0.7	8.7	6.1	12.7	4.3	-3.6	-4.3
Withholding earned income tax (PAYE)	0.5	3.9	0.7	6.1	5.3	1.6	8.6	-0.3	6.6	6.2	-5.1	2.3
Prepayments	-0.8	13.8	9.5	22.2	16.6	.	11.6	.	21.9	.	.	.
Value Added Tax and excise duties	2.2	7.6	7.4	8.6	6.8	2.5	4.9	1.7	11.5	2.2	-1.2	6.5

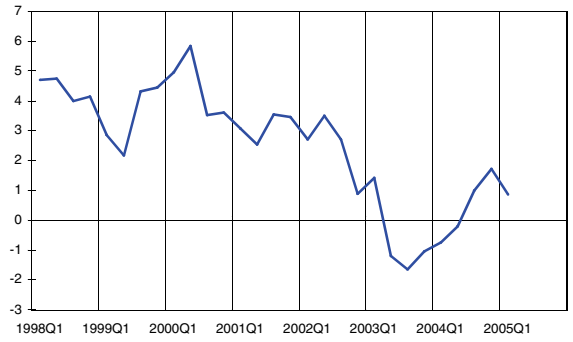
[1] Change (%) compared to same period previous year; [2] Total received by federal government, excl. of death-duties

Source: FPS Finance, FPB

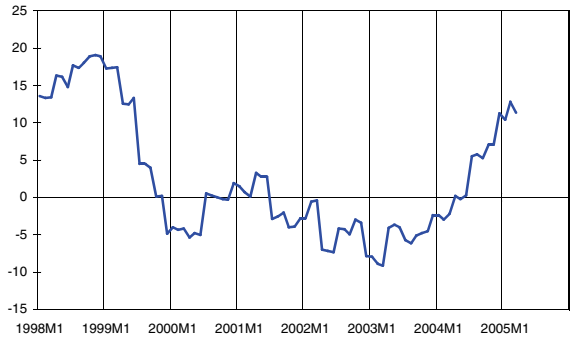
Graph 29 - Real tax revenues (3)



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



Graph 31 - Real prepayments (3)



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

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

Total revenue from taxes in 2004 recorded a nominal increase of 6.7%, which was the highest growth rate seen since 1997. During the first quarter of this year, however, yoy growth in total tax revenues fell to 1.7%. This rather poor figure was certainly linked to the weak economic growth seen in 2005Q1. Moreover, yoy growth rates in February were also negatively affected by a calendar effect as 2004 was a leap year. Consequently real yoy growth of tax revenues on a 12-month moving average basis fell from February 2005 onwards.

Although yoy growth rates in both direct and indirect taxes declined markedly in the first quarter of this year, the slowdown in indirect taxes was much less pronounced, which was mainly due to two factors. Firstly, as the date of Easter was in March this year, while it was in April in 2004, this boosted yoy growth of VAT receipts in March 2005, while the opposite should be seen in April 2005. Secondly, excise duty per liter of fuel for transport rose faster during the first few months of this year compared to last year. These factors counterbalanced the depressing influence on indirect taxes of the negative yoy growth rates of car sales (related to the biannual motor show in January 2004) and the strong yoy increase in refunds (related to robust export growth in the last quarter of 2004).

Due to administrative reasons, PAYE revenue (mainly wage-related) has shown a very erratic pattern during the first few months of 2005, making a clear interpretation of the recent figures more difficult.

Advance payments are traditionally very low during the first three months of the year (less than 5% of the annual total). Consequently, the figure for the first quarter of the year is not informative and has not been reported in the table. Provisional figures for April 2005 show a significant increase as compared to April 2004.

Market reform in network industries

In Belgium and other member states of the EU a process of reforming network industries is presently taking place. The aim of these reforms is to bring about effective competition in a unified European market. This should lead to an increase in economic efficiency. The reform basically consists of a pro-competitive regulation of the infrastructure network and of allowing free entry to the other segments. Each network industry, however, has its own specific features that may require departures from this basic approach. The Planning Paper comprises an analysis of the economic impact of reforms in five major network industries. The result is that the reform generally gives rise to economic effects that are consonant with the objectives of the reform.

The theoretical analysis is based on the micro-economic theory of producer behaviour. This theory states that in a monopoly, which was in many cases the market structure of network industries before reform, there may be a lack of economic efficiency. Prices may be too high or too low to be efficient, costs may be too high, productivity too low and there may be excess profits or subsidies. This can apply in both private and public monopolies. Market opening may attract other players, after which the market mechanism will restore efficiency in all these areas. Market opening is not, however, possible in all segments of a network industry. It is especially in the infrastructure network that a natural monopoly exists. In such a case there are economies of scale so that entry and duplication of the network is not efficient. Here, reform means a type of regulation that leads to efficient costs and prices and equal access for all producers. Regulation of the natural monopoly is one of the central issues in the analysis of network industry reform. The Planning Paper analyses the economic impact of reform in three ways.

The first analysis involves international benchmarking. Eight cases are worked out: electricity in the United Kingdom, Germany and Spain; railways in the United Kingdom, Germany and Sweden; postal services in the Netherlands and Sweden. For each of the three sectors, a comparison with the Belgian case has been made.

In most cases the economic impact was found to be as expected. The reform brought about higher efficiency and more innovation, employment fell back and prices became more cost-related. A less clear relationship was found with quality and universal service. The design of the reform is a significant factor in its success. Each country seems to have its own approach, which is applied in a more or less similar way to most of its network industries. Belgium may, therefore, learn lessons from ineffective designs of reforms.

The second analysis is a review of academic studies. Three types of studies are considered: econometric studies, descriptive studies and model simulations. A central element in at least the econometric studies is the development of a meaningful indicator of market reform. In such an indicator, qualitative information on regulation has to be converted into a quantitative score.

Many studies have yielded results that support the predictions of theoretical analysis. Market reform is generally associated with higher productivity and lower prices. A few studies give evidence of greater investment and higher quality. There is a positive relationship with employment at the macro-economic level. At the sectoral level different results were found, for example: employment growth in telecommunications but decline in electricity. Model simulations resulted in a temporary acceleration of GDP growth, leading to a higher GDP per capita in a new steady state.

The third analysis involves an outlook for Belgium. This outlook is based on the OECD regulation indices for non-manufacturing industries. These are available for 1975-1998 and expressed on a scale from 0 to 6. For the five network industries analysed, the scores ranged from 2.6 (telecommunications) to 5.6 (railways) in 1998. Due to market reform and increased competition, the indices may fall to a range of 1 to 2 in 2010, only remaining high in the case of railways (3.8). Prudent application of certain OECD models that are based on the indices led to estimations of a positive impact on investments, productivity and employment. These results were, however, considered to be rather optimistic and require further study.

Finally, the current Belgian regulatory framework was briefly evaluated. In some cases it seems adequate, in other cases it entails certain risks. These risks are expressed when regulation gives rise to market conduct that does not lead to an efficient outcome. The major role of government is to create the right conditions for a market that functions well. Every measure should thus be tested against a number of criteria, such as independence of the infrastructure, monitoring of dominant market positions and efficient pricing.

"Markthervorming in netwerkindustrieën in België - Réforme de marché dans les industries de réseau en Belgique",
J. van der Linden, Planning Paper 98, May 2005.

Network industries: theoretical framework and international benchmarking

The FPB is analysing the economic impact of network industry reform in Belgium. In addition to a Planning Paper (see p.19 of this issue) it has published four Working Papers on this theme. One Working Paper sets out a theoretical framework. The other three analyse the experiences of other EU member states with network industry reform. The papers respectively deal with electricity, railways and postal services. From this benchmarking process Belgium can learn lessons that will be useful in the reform and regulation of its own network industries.

Tables 1 and 2 show the economic significance of five network industries in Belgium in terms of value added and employment. These five industries cover the three included in the benchmark and also the telecommunications and gas sectors. Although their economic significance is diminishing somewhat, the five industries still produced 5.5% of value added and employed 4.0% of Belgian wage-earners in 2003.

Table 1 - Value added creation of network industries in Belgium
million euro, current prices

	1995	1999	2003
Network industries	10,895	12,469	13,833
GDP	190,080	218,691	249,943
Share in GDP	5.7%	5.8%	5.5%

Source: INR/ICN (calculation based on national accounts)

Table 2 - Employment in Belgian network industries
number of employees, annual averages

	1995	1999	2003
Telecommunications	27,956	27,942	30,219
Electricity & gas	21,098	20,302	17,711
Postal services	50,790	49,496	49,419
Railways	41,416	40,207	41,607
Total network industries	141,259	137,947	138,957
Total Belgium	3,138,584	3,318,506	3,461,524
Share of employment	4.5%	4.2%	4.0%

Source: INR/ICN (calculation based on national accounts)

Theoretical framework

Before the reforms, network industries often had the market structure of a monopoly. In the basic model there are no economies of scale and the monopolist producer is a private company. When this company strives to maximise profit, market performance will be characterised by a lack of economic efficiency. Prices may be too high to be efficient, costs may be too high and productivity too low, and there may be excess profits.

Contrary to the basic model, there are often economies of scale in the infrastructure network and the producer may be a public company. Although there may be no striving for maximum profit in this case, market performance may still be characterised by a lack of economic efficiency. In addition to the performance of the basic model, prices may also be too high to be efficient and there may be excessive subsidies.

In order to reform the sector adequately and restore efficiency, the infrastructure network can be separated from the other segments of the industry. This network may then remain a monopoly, but regulated in such a way that efficiency is warranted. An effective system of regulation may involve the introduction of maximum prices or maximum profit margins. Moreover, specific circumstances may allow for the introduction of yardstick competition or an auction of licences. The design of the regulatory framework for the natural monopoly is one of the central issues in the analysis of network industry reform. In the other segments, entry can be permitted and some of the markets may well turn out to be contestable markets. In these cases the market mechanism will restore efficiency irrespective of whether market entry actually occurs. Market reform may go hand in hand with privatisation. Although privatisation in itself is less effective than market opening, it may give rise to a level playing field for all producers in the market.

Higher efficiency does, in principle, lead to lower costs and prices. This may improve the competitive position of both the industry itself and the country's economy. In terms of employment, the improved efficiency of the sector will basically result in job losses and possibly in a deterioration of labour conditions. Improved competitiveness, on the other hand, may result in the creation of jobs.

"Hervorming van netwerkindustrieën: theoretisch kader", J. van der Linden, Working Paper 08-05, May 2005.

Benchmarking electricity

Since the first European directives on electricity in 1996, most European countries have made important reforms in their electricity markets. The Working Paper looks at the situation in Belgium and in three countries where important changes have been made (Great Britain, Germany and Spain) with the aim of learning from their experiences and improving the regulatory framework in Belgium.

The directives stipulate legal unbundling of the three market segments (production, transmission and delivery), effective competition in the first and third of these market segments and the creation of an independent sectoral regulator.

Great Britain is seen as a forerunner in Europe. Their reforms took place in the nineties and were completed in 1998, even though some further adjustments have been made since then. In Spain, reforms were completed in 2003, while Germany has substantial experience of an alternative tariff access regulation system. Moreover, Germany has recently been making a number of adjustments to its system that should be approved by the German parliament during the summer of 2005. In Belgium, the unbundling is almost completed and effective competition has been fostered by public auctions of some of the incumbent's power capacity. The reform is nevertheless incomplete, as the installation of a power exchange and the complete opening of the market for domestic consumers in Wallonia and Brussels still remains to take place. At the European level, a major obstacle to the achievement of a single European market for electricity is the lack of interconnection capacity between the member states.

The reforms seem to lead to lower costs, prices and employment and to a higher level of productivity. Wholesale and consumer prices declined until 2003, particularly in Great Britain, even though it is difficult to make the link between the reforms and performance in this sector. Other factors (e.g. oil prices) also have a part to play.

The experience of Great Britain indicates that in order to benefit from potential lower tariffs, reserve production capacity has to be available. The economic environment has to be favourable to investors in order to reach a sufficient level of investment. Lower investment may be associated with lower costs and prices in the short term but higher costs and prices in the long run.

Alternatively, a higher rate of investment may lead to lower costs and prices in the long run at the expense of higher prices in the short term. It is therefore essential that electricity producers should have enough incentives to invest in reserve production capacity.

"Réforme du marché de l'électricité en Belgique: leçons de l'Espagne, de l'Allemagne et de la Grande Bretagne",
C. Huveneers, Working Paper 09-05, May 2005.

Benchmarking railways

Traditionally, railways have been organized nationally as state monopolies responsible for both infrastructure and services, but recent years have seen a move away from this model. The liberalisation of Europe's railways was initiated politically by EU Directive 91/440/EEC (July 1991). The extent and form of deregulation, however, varies among the countries in Europe, and some countries have progressed significantly, such as Sweden, Great Britain and Germany, while other countries have only put forward limited deregulation initiatives (Belgium). The railway system in Sweden, Germany and Great Britain is characterised by a vertical separation between infrastructure provision and train services and also by horizontal disaggregation. In Great Britain, British Rail was separated into about 100 organisations and largely privatised. In Germany the vertical separation took the form of public companies operating as part of a holding company and in Sweden a state agency is responsible for infrastructure. In Sweden and Germany the market is horizontally disaggregated into intercity services and local services.

It is difficult to compare the different market models directly, as there is no inherent superiority in any of the models. We therefore first set out the variation between the selected countries in terms of the reforms implemented. Secondly, we consider the impacts resulting from these reforms and what we can learn from it for Belgium. In particular, we examine the effects in terms of efficiency, subsidies for public service obligations, safety and prices.

The literature shows that reforms may help to improve companies' efficiency and productivity. Introducing a number of reforms at the same time, as a package, however, does not improve efficiency. Sequential reforms, however, do improve efficiency. At the same time mechanisms have to be introduced to minimise the problems or costs caused in the sector by these reforms, e.g. problems of coordination between the body owning the infrastructure and the operators (Great Britain).

The experiences of Sweden and Great Britain teach us that subsidies for public service obligations can decrease. In Sweden this was achieved by tendering unprofitable lines under lower subsidy criteria. The potential of state aid to trigger investment is, however, crucial in determining the effectiveness of an aid scheme.

Many people believe that safety has deteriorated on the privatised railway in Great Britain. A number of studies, however, show that safety has actually improved since the reforms. The same findings have been made in Germany and Sweden.

After reforms the benchmark countries introduced a more commercial pricing structure. Instead of fares directly related to distance, prices became dependent on ticket conditions and the advance booking period. This resulted in price increases in Germany and Sweden. In Sweden this was outweighed by higher service frequencies and shorter travelling times. In Great Britain, most operators have either frozen fares or kept the increases very low.

In accordance with the Directive on unbundling railway services, Belgium has changed the structure of the in-

cumbent (SNCB). Since January 2005 it has a structure similar to that used in Germany, consisting of two public limited liability companies within the framework of a holding company. Although the Belgian government has taken some measures to guarantee the independence of the infrastructure manager, care should be taken to exclude discrimination against third-party operators, as was the case in Germany.

"Hervorming van de spoorwegen in België: lessen uit Zweden, Duitsland en het Verenigd Koninkrijk",
P. Mistiaen, Working Paper 10-05, May 2005.

Benchmarking postal services

The reform of the postal market is largely driven by European legislation concerning the creation of an internal market, but also by a worldwide tendency to deregulate economic activities that were formerly under direct government control. In the EU a gradual process of market opening began in 1998 and will be completed in 2009 at the earliest. At present free entry is possible for items weighing at least 100 grams or with a price of at least three times the basic tariff, and for all outward cross-border mail. A decision on complete market opening depends on a study of the impact of free entry on the provision of universal service.

Sweden and the Netherlands in particular, as well as certain other EU member states, have anticipated the EU legislation. Sweden introduced free entry in the early nineties. The Netherlands introduced private ownership in the mid-nineties, and provides significantly more opportunities for entry than the EU legislation requires. From the experience of these countries it can be ascertained what impact market reforms may have in Belgium.

In Sweden and the Netherlands there have been falls in real prices for many postal products, and rises in productivity. This seems to be driven by the threat of entry rather than by actual entry. In both countries the market share of the postal incumbent is still around 95%. It should be noted that prices have become more cost related, which means that some prices have risen rather than falling. There also seems to have been an impact on profits and quality. As regards profits, margins in competitive segments are lower than those in monopolised segments. As regards quality, the postal incumbents in both countries achieve the highest percentages in the EU for items delivered the day after being mailed. There seems to have been little impact on postal volumes. In combination with rising productivity, this gives rise to falling employment in the postal sector itself.

In Belgium the economic impact of reform will probably not be very different from the other countries. There are reasons to expect that the impact will be greater: for example the high population density, which facilitates the development of a countrywide covering network. There are also grounds to expect the impact to be smaller: for example the moderate number of postal items per inhabitant, which hampers the realisation of scale economies.

"Hervorming van de posterijen in België: lessen uit Zweden en Nederland",
J. van der Linden, Working Paper 11-05, May 2005,

Analysis of the rubber and plastics industry

The study provides an analysis of the economic situation of the rubber and plastics industry and production in Belgium during the period from 1995 to 2003. This is done by looking closely at national statistics concerning production, exports and imports, value added, employment and investment, and comparing Belgium's economic performance with that of other EU countries (including some new member states) and the US.

The rubber and plastics industry has a 0.75% share of total value added. Its share of total employment amounts to 0.63%. These shares are relatively low when compared to other European countries. The rubber and plastics industry itself, however, represents only 65% of rubber and plastic production in Belgium in 2000. Its production also does not include the production of rubber and plastics in primary forms which is a part of the chemical industry.

For these reasons the industry approach, typically used in national accounts, has been supplemented by a product approach for data concerning production, imports and exports. The production approach reveals major differences in economic performance between three product groups.

The first is rubbers and plastics in primary forms. In 2003, this product group had a production value of 8.4 billion euro. While output prices have fallen since 2000, the annual real growth rate of production has accelerated from 3.4% between 1997 and 2000 to 5% between 2001 and 2003. Production growth has leaned heavily on exports. Since 1995, Belgium had an increasing trade surplus in primary forms, amounting to 4.4 billion euro in 2003.

The second product group is plastic products. In 2000, production of plastic products amounted to 5.3 billion

euro, a figure that was not matched in later years. The real annual rate of growth in production of plastic products fell from 4.9% during the 1997-2000 period to 0% during the period 2001-2003. The trade surplus for plastic products amounted to 1.2 billion euros in 2000.

The third product group is rubber products. The production value of rubber products fell from 0.7 billion euro in 2000 to less than 0.5 billion in 2003. This change was due to the closure of an important tire plant near Liège in the period 2001-2002. Belgium has a trade deficit in rubber products amounting to almost 0.5 billion euro in 2003.

The large and/or improving positive trade balances between 1995 and 2002 for plastics in primary forms, for plastic plates, sheets tubes and profiles, plastics for the construction industry and other plastic products indicates that Belgian manufacturing is specialising in these products. For primary forms of rubber, rubber tires and plastic packaging products, Belgium has a trade deficit.

Data for areas other than production and trade flows are only available at the industry level, which makes them more vulnerable to statistical problems like the (re)allocation of firms to different industries.

The real rate of growth in production in the rubber and plastics industry was 1.9 % during the period from 2001 to 2003. The value of production fell by 0.6% annually. Despite this, value added grew annually by 4.3%. This was made possible by a decrease in intermediate costs in the same period. The nominal wage sum grew by 5.1% annually, thus exceeding the value added growth rate. Profitability was also negatively influenced by increasing depreciation of the capital stock.

Since 2002, investment has been lower than depreciation in the rubber and plastics industry. As a result the net capital stock fell in 2002 and 2003. The capital intensity of the rubber and plastics industries has fallen since 1995. The number of people employed declined from 27000 in 2001 to 25400 in 2003.

The international comparison based on national account data reveals a tendency for Central European Countries to specialize in rubber and plastics production in the period 1995-2002. New EU member states such as Hungary, the Czech Republic and Slovakia have seen high growth rates in value added and also an increase in their share of the rubber and plastics industry in terms of total value added and employment.

Higher growth rates are also being seen in some Mediterranean countries (except Italy), Finland and (to a lesser extent) Sweden and Austria. Belgium still slightly outperformed neighbouring countries in terms of the rate of annual growth in value added.

In 2002, the hourly wage cost was higher in Belgium than in the rubber and plastics industries in the US and other European countries (except Luxembourg). Nevertheless, the Belgian rubber and plastics industry has a wage distribution that is average for the Belgian manufacturing sector. In terms of unit labour cost, measuring nominal labour costs per product, Belgium's rubber and plastics industry was performing better than those of its neighbouring countries in 2002. Countries with lower labour costs per unit of value added include Hungary, Romania, Portugal and Lithuania.

With 4.4% of value added in R&D expenditures in 2000 and 2001, the Belgian rubber and plastics industry is only outperformed by Finland (6%) and France (5.1% in 2000).

The production of plastic products in Belgium also benefits from the presence of efficient production of plastics in primary forms by the chemical industry. R&D expenditure by the Belgian chemical industry (excluding pharmaceuticals) was 10.4% of value added in 2000. Higher figures were only seen in Germany (12.3%) and Japan (15.2%).

"Analyse van de rubber- en kunststofnijverheid - Analyse de l'industrie du caoutchouc et du plastique",
B. Van den Cruyce, Working Paper 12-05, June 2005

Innovation and R&D in the Belgian Regions in a European perspective

Economic growth literature emphasises the role of new knowledge as a primary source of long-run growth in GDP. Innovation does not occur in isolation or as a direct result of R&D investment, but rather as the product of interactions between the various actors and components of the innovation system. This Working Paper describes and aims to evaluate the different components of the innovation system in each of the three Belgian Regions: the Brussels Capital Region (Brussels), the Flemish Region (Flanders) and the Walloon Region (Wallonia).

Innovation, R&D and the diffusion of scientific and technological knowledge have become crucial factors in ensuring long-term growth in a context of increased competition and globalisation and the transition to a knowledge-based economy. In line with these developments, businesses have changed their R&D strategies and the issue of increasing investment in innovation and R&D is now high on the political agenda. The European Union agreed upon an action plan (European Research Area) to give Europe a stronger public research

base and to make it more attractive and competitive in R&D and innovation. Policy commitments should not, however, be limited to increasing the intensity of R&D and thereby fulfilling the Barcelona Objective. The quality of available human resources and their capacity to learn, the diffusion of knowledge, adding value and entrepreneurship are at least equally crucial in ensuring the strength of the innovation system.

The innovation system approach, a conceptual framework used by academics and politicians to improve understanding of the complexity of innovation processes, has a central part to play in the evaluation of the innovation systems of the three Belgian regions. Six main components could be identified: knowledge development, human resources, capacity to add value, absorption capacity, entrepreneurship and the financing of innovation. A country's performance depends not only on the relative strength of each individual element of the NIS, but also on how these components interact. The Working Paper analyses these six components for each of the regions from a European perspective. Flanders and Wallonia are compared with European countries because of the primary responsibility given to the Belgian regions in the areas of science, innovation and technology. To take into account the specific economic structure, other capital city regions are used as far as possible in the analysis of Brussels' innovation system.

The diagnosis of the regional innovation systems has revealed both strong and weak points in each of the Belgian regions. Certain common characteristics exist, however: a high level of education in the working population, a high labour productivity level, a low level of input from public research, a weak participation rate in lifelong learning and relatively poor performance in the area of entrepreneurship. Apart from those observations, the Belgian regions and Flanders in particular have shown an important increase in R&D budget allocations during the last few years. Furthermore, Wallonia is characterized by a low level of patent activity. A large share of both patent applications and R&D activities in the Belgian regions are, however, concentrated among large firms and owned or co-owned by foreign business enterprises. The results for Brussels are highly determined by its specific economic structure. Economic activity in this region is oriented towards high-technology and public and other knowledge-based services. Those sectors are, despite the relatively low R&D intensity of service sectors, recognised as important drivers of innovation.

The results of the Working Paper demonstrate that each of the Belgian Regions needs to continue and even reinforce the various innovation policy measures and convert these into structural initiatives. Important challenges for the public authorities will be to increase levels of public research input and participation in lifelong training, to promote public-private partnerships and to strengthen R&D output and knowledge diffusion. Major concerns also include supporting entrepreneurship and monitoring the supply of capital for start-up and innovation activities.

"Innovatie en O&O in de Belgische regio's in een Europees perspectief - Innovation et R&D dans les régions belges dans une perspective européenne"
Jeroen Fiers, Working Paper 13-05, June 2005

Sustainable development and energy

Strong economic growth has been sustained in developed countries during the last two centuries, with equally strong increases in production and consumption levels. One of the key enabling factors behind such a social and economic development is abundant energy. This Working Paper investigates the issue of the compatibility between a sustainable development and the use of energy implied by this type of development. To answer this question, this Working Paper looks at energy policy as a whole, in Belgium, in Europe and worldwide, with a particular focus on two important long-term issues: climate change and nuclear energy.

The Working Paper starts with two observations. First, energy production and consumption are growing worldwide. Although energy use is much higher in industrial countries than in developing countries, the largest contribution to growth is now coming from developing countries. The second observation is that fossil fuels remain the predominant energy source and account for 80% of worldwide final energy use. Renewable energy (a large proportion of which is biomass used in poor countries) accounts for 17% and nuclear energy for 3%.

The second chapter sets out an inventory of the impacts of current energy production and consumption patterns on economic, human and environmental capital. There are, of course, a large number of positive impacts, such as those on standard of living and health. This chapter, however, focuses on significant negative impacts and their likely increase, which points to the fact that the current development is not on a sustainable path. Those negative impacts include the lack of access to clean and safe energy for 2 billion people in developing countries, climate change, air pollution, the buildup of large quantities of nuclear waste, risks associated with the use of nuclear energy or the insufficient energy security of supply.

The areas in which policies can be implemented to put development on a sustainable path are reviewed in chapter three. In addition to demand and supply policies, this Working Paper stresses how crucial it is to rapidly adopt an integrated approach and take into consideration the impact on energy use of non-energy policies such as land use, housing, food, transport, research, etc.

The next three chapters review the actual political responses that have been developed to face these challenges. Responses are first examined at the international level, such as the organisation of the market for greenhouse gas (GHG) emission allowances or the nuclear non-proliferation treaty. At the Belgian level, energy and climate policies are described, and uncertainties about current energy and GHG emission data are underlined. The climate plans developed by the regions are reviewed.

The last chapter investigates the future, using the information presented in the Working Paper and existing forecasts. The scale of the reductions in GHG emissions needed to limit climate change (-30% to -50% worldwide between 1990 and 2050), while emissions are still growing worldwide, calls for the combined use of demand, supply and overarching policies at all levels. The use of nuclear energy can provide a limited contribution to the reduction of GHG emissions, but will give rise to a number of risks. The political decision as to whether or not to use nuclear energy should balance these risks and benefits with those associated with alternative policies. At the international level, strong policies oriented towards the reduction of the development gap between rich and poor countries are also a necessity.

At the Belgian level, the full implementation of existing climate plans, including the purchase by the Federal government and the Regions of additional emission allowances for 8 to 9 million tons of CO_2 per year, should allow Belgium to fulfil its obligation from the Kyoto Protocol. This is shown by comparing the latest projections from the Federal Planning Bureau with the regional climate plans. Further reduction will be needed after 2012. Several scenarios are presented and show the magnitude of this challenge.

"Quelle énergie pour un développement durable ?"
A. Henry, Working Paper 14-05, June 2005.

The financial implications of working longer: an application for a micro-economic model of pensions in Belgium

A Micro-economic Pension Model is used to assess the financial implications for wage earners when postponing retirement. It is shown that both the pension scheme and the conventional early leavers' scheme offer financial incentives to retire early, albeit of a different magnitude, and that this is even more applicable when taxes and social contributions are taken into account.

As a result of structurally low fertility and ever-increasing life expectancy, the Belgian population is ageing rapidly. In the 2004 report, the 'Studiecommissie voor de Vergrijzing' estimates the budgetary costs of ageing to be 3.4 percent of GDP. It is generally acknowledged that a policy designed to stimulate older workers to stay in the labour market and postpone their retirement would reduce these costs considerably. In this respect Belgium faces an important challenge, since the percentage of older workers is well below the EU average.

The purpose of this working paper is to provide an insight into the financial implications that arise when older workers voluntarily leave the labour market and enter retirement. To assess these implications, a Micro-Economic Pension (MEP) model is developed. The MEP calculates the effects of postponing retirement on individual wealth, which is the sum of accumulated salaries and pensions. It does this by setting the gains from postponing retirement (extra salary) against the associated losses (foregone expected pension, for all future years until decease) associated with a specific retirement scheme. The gains generally outweigh the losses, so total wealth increases when retirement is postponed. Nevertheless, the increases in wealth are (sometimes considerably) lower than the salary suggests, and this may help to account for the fact that a proportion of wage-earners choose not to work but to retire instead.

The accumulated pension wealth that a person loses as a result of postponing retirement can also be expressed as a fraction of the wage which that person receives. The lost pension wealth is therefore an 'implicit tax' on the salary. This again suggests that the losses from postponing retirement make it less profitable to continue working.

The MEP calculates these and other variables expressing the wealth effect of postponing retirement by one or more years. It does this for both the pension scheme ('rustpensioen') and the conventional early leavers' scheme ('brugpensioen'), referred to below as CELS[1]. The MEP also considers four typical fictitious employees, representing male and female white and blue collar workers, and makes a distinction between single individuals and those having a partner without any pension rights

of his or her own. Finally, the MEP takes the regulations governing tax and social security contributions into account, making it possible to simulate the effect of the advantageous effective tax and social contribution rate for retirees on the implicit cost of a prolonged career.

A first and expected conclusion is that the generosity of a retirement scheme is one of the factors determining the wealth effects associated with working longer within that scheme.

A second conclusion is that the wealth effect of postponing retirement is also determined by whether or not the retirement benefit increases with the length of the career.

1. This is an unemployment scheme for older employees, who are released from the obligation to look for a job and receive an unemployment benefit with a supplementary benefit based on their last net salary. It should not be confused with the old-age unemployment scheme, where a supplementary benefit is not paid.

If this is the case, the total loss of postponing retirement will be lower than if the benefit is independent of the length of the career. The MEP in fact shows that the implicit taxes associated with working longer are considerably higher for people benefiting from CELS than for those in the pension scheme (or, equivalently, that the gain in wealth from postponing CELS is much lower than that of postponing retirement), and that this difference can be explained by the two effects mentioned above.

A third and final conclusion is that the implicit taxes on working longer are higher when taxes and social contribution regimes are taken into account.

"De financiële implicaties van langer werken: een Micro-Economisch Pensioen model (MEP)",
G. Dekkers, Working Paper 15-05, June 2005.

Other Recent Publications

Working Paper 4-05, February 2005
"Een vergelijkende analyse van de Input-Output-tabellen van 1995 en 2000"
L. Avonds

Working Paper 6-05, March 2005
"The Macroeconomic Effects of an Oil Price Shock on the World Economy - A Simulation with the NIME Model"
E. Meyermans, P. Van Brusselen

Working Paper 5-05, March 2005
"Regionale emissievooruitzichten"
I. Bracke, G. Vandille

Working Paper 7-05, March 2005
"Trends in export market shares between 1991 and 2001 - An international comparison with a focus on the Belgium-Luxembourg Economic Union"
B. Michel

Research in Progress

Transport and mobility

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

Relocation of industrial activities

The FPB has undertaken several studies on the importance of relocation in Belgium in the second half of the 90's. In this new project, we will look at the most recent studies that have appeared during the last few years and consider them alongside the opinions of employers in the manufacturing and ICT sectors.
contact: bh@plan.be, ck@plan.be

Health care expenditure

Different research projects concerning the determinants of health care expenditure are currently underway, in collaboration with various agencies and institutions.
contact : mln@plan.be

Special topics in the area of pensions

The FPB is investigating the impact of the 1996 pension reform and the dynamics of the pension benefits for self-employed and for civil servants.
contact : maltese@plan.be

Public finances and macroeconomic performance

FPB is updating its studies into the interactions between macroeconomic performance and different categories of public revenue and expenditure.
contact : fb@plan.be, db@plan.be

Recent history of major economic policy measures

May 2005	In accordance with EU legislation, the Walloon government decides to open up the remaining parts of the regional electricity and gas markets in 2007.
April 2005	The federal government confirms the objective of keeping the budget in balance in 2005. To this end, various measures are taken and a very strict system for monitoring expenditure is put in place, particularly for the health care sector.
February 2005	APX Gas has launched a gas exchange at the Zeebrugge Hub in close co-operation with Fluxys subsidiary Huberator. The exchange should give added boost to liquidity at the Zeebrugge Hub and foster competition in the context of the opening up of the European gas markets.
January 2005	The federal government announces that the account for public administrations as a whole is in balance in 2004 for the fifth consecutive year. Representatives of the social partners reach a compromise concerning wage developments for the next two years. The main important decisions refer to: • the wage norm: the increase in the nominal hourly wage cost would be limited to 4.5% cumulated over two years (2005-2006), allowing for a 1.2% increase in real terms given the assumed pace of inflation (3.3%); • maximum authorized overtime per employee is raised to 130 hours a year; • various additional reductions in taxes and contributions are provided, in order to decrease the labour cost of overtime, work organised in shifts and low-paid jobs. The agreement was ultimately rejected by some of the social partners but will nevertheless be enforced by the federal government. The federal electricity and gas market regulator (CREG) submitted the 2005-2014 indicative programme for electricity generation for approval to the Ministry of Energy. The national railway company NMBS/SNCB has been split up into a holding company structure. Under this holding company are an operator for infrastructure and an operator for train services. This restructuring fulfills minimum requirements of EU legislation. At the same time the historical debt has been taken over by the federal government, and a supervisory body has been established within the transport ministry. The historic debt amounts to 7.4 billion euros, which is 2.8% of GDP.
November 2004	Two measures were taken in the field of privatisation. Australian investment company Macquarie acquired a 70% share in Brussels airport operator BIAC, the remainder staying in public hands. Postal incumbent De Post/La Poste was allowed to raise private capital (but not to privatise its existing capital).
September 2004	Transport system operator ELIA announces to establish next year a short term electricity exchange. This exchange will cooperate with the Dutch and French electricity exchanges.
July 2004	In accordance with EU legislation, the electricity and gas markets have been opened up for all business customers. This increases the total degree of market opening in both markets to 90%. The remaining captive customers are residential customers in Wallonia and Brussels, who make up less than half of the Belgian population. The federal government has approved a draft bill that will transpose the European package of directives on electronic communications into Belgian law.
May 2004	There were two small but significant commercial developments in telecommunication. In mobile communications, a first commercial UMTS service was introduced, albeit on a limited scale. For the time being, this service will be available to professional customers and in the six largest cities only. In the area of broadband connections, Belgacom has followed Telenet in launching an offer for a light Internet service at a price of less than 30 euros per month and with a limit on the connection speed and download capacity.
April 2004	Two small but noticeable measures relating to renewable energy were taken: one was positive and the other was negative. The positive measure is the provision of a license to build a windmill site in the North Sea. From 2007 onwards this site may produce electricity for 400,000 households. The negative one is the decision by the Government of Flanders to suspend the exemption from network access fees for renewable electricity. It was warned by the European Commission because the exemption did not apply to imported electricity.
March 2004	The telecommunications incumbent Belgacom has been floated on the Brussels stock exchange. The equity involved was already held by a private investment consortium. The federal government remains the majority shareholder (51.6%). The federal government has made significant progress in the development and financing of two important railway investment projects for the coming decade. One project is the creation of a high-capacity commuter network around Brussels (RER/GEN), while the other is the building of direct connections to the national airport from cities other than Brussels. Social policy measures are announced, mainly consisting in adjustments to the welfare system affecting certain benefits: in particular, a 2% increase for older pensioners and people with long-term disabilities (wage-earners scheme) in 2005, 2006 and 2007, and increases and wage indexation of ceilings in disability insurance.

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
DULBEA	Département d'Economie Appliquée de l'Université Libre de Bruxelles
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
ECU	European Currency Unit
EMU	Economic and Monetary Union
EUR	Euro
JPY	Japanese yen
LHS	Left-hand scale
NIS	National Innovation System
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)