

SHORT TERM UPDATE

2-10

Quarterly Newsletter
May 2010

Headlines Belgian Economy

Special Topic in this issue
Follow-up of the wage norm
in Belgium

Quarterly Newsletter of the Federal Planning Bureau

Short Term Update (STU) is the quarterly newsletter of the Belgian Federal Planning Bureau. It contains 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 new medium-term outlook for Belgium is based on an international context that is marked by a stronger-than-expected recovery, particularly spurred on by the large Asian emerging economies and the American economy. Nevertheless, the uncertainty surrounding these forecasts continues to be higher than before the financial crisis. The important budget deficits and global trade and capital flow imbalances continue to threaten the stability of worldwide economic growth.

The yearly growth of the Belgian economy should amount to 1.4% in 2010 and 1.7% in 2011 and exceed 2% in 2012-2015. After a sharp decline in 2009, domestic demand should start rising again in 2010, despite the ongoing fall in business investment. As of 2011, domestic demand should rise at an average yearly rate of just above 2% as its various components regain their trend-based growth. Belgian exports, which fell by 11% in 2009, are expected to recover from 2010 onwards. The contribution of net exports to GDP growth should be largely positive in 2010 (+0.7%-points) and weaken from 2011 onwards (+0.2%-points on average) due to the acceleration in domestic demand.

Belgian inflation should not exceed 2% on a yearly basis as the limited increase in nominal unit labour costs (average annual growth of 1% during the period 2010-2015) should keep underlying inflation in check. However, this limited increase masks a decline in 2010 followed by a gradual acceleration to 2% in 2015.

Employment should decline by 33 000 units in 2010 and increase by as little as 7 000 units in 2011. As economic growth accelerates in 2012-2015, employment should expand by nearly 50 000 persons per year on average. Employment as a percentage of the population aged between 20 and 64 years, should initially fall from 68% in 2008 to 66.3% in 2010 but should recover to 67.7% in 2015, a rate still far below the 75% target set by the EU. In 2012, unemployment (broad administrative definition) is expected to peak at a level that is 128 000 units higher than in 2008. From 2013 onwards, unemployment should slowly decline and reach 698 000 units in 2015.

The general government budget deficit should shrink from 5.9% of GDP in 2009 to 4.8% of GDP in 2010. However, under the assumption of constant policy, the deficit should again exceed 5% of GDP from 2011 onwards. A further and considerable fiscal adjustment is thus necessary to cut back the deficit to 3% of GDP in 2012 and achieve a balanced budget in 2015 in accordance with the Stability Programme of January 2010.

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

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

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Follow-up of the wage norm in Belgium

In the face of increased exposure to global economic pressures in general, and increased wage competition within the EU in particular, calls for framing the free wage negotiations at industry and firm level into a more institutionalised arrangement had grown louder in Belgium in the late 1980s. As a result, the Law of 26 July 1996 on employment and competitiveness came into effect. In a bid to internalise the international economic environment, the law entrenches the biennial wage negotiations between labour unions and employers into a wage norm. It defines anticipated nominal foreign wages as the upper bound for wage negotiations in Belgium.

The benchmark is the weighted average of expected wage cost increases in Belgium's neighbouring countries (France, Germany, the Netherlands). In practice, Belgian gross wages in real terms (deflated by the health index) are set in advance so that the negotiated nominal wage does not exceed the OECD forecast of wage increases abroad for given anticipated domestic inflation and employers' Social Security contributions. The 1996 Law also prescribes that the wage norm should be less than the anticipated increase in foreign wages if the previous bargaining round has resulted in domestic wages rising faster than foreign wages, but this safety valve is not triggered automatically and has not been invoked yet.

Table 1 is based on the most recent observations and estimates (2009-2010) of nominal hourly wages. Cumulated over 1997-2010, i.e. ever since the 1996 Law on competitiveness came into effect, the nominal wage cost in the neighbouring countries has increased by 36.2% (by

2.2% annually on average), whereas Belgian wages have risen by 41.6% over the same time (by 2.5% annually on average). Before 2007, in spite of excess wage growth in 2001-2002 (by 1.9%), Belgian wages were in synch with wages abroad on the whole (see also the graph below). Indeed, the wage handicap was occasionally reversed, notably in 1999-2000 (-1% in that period) and more obviously in 2003-2004 (-1.4% in that period). Since then, Belgian wage increases have been or will be out of kilter with foreign wages, particularly in 2007-2008 (excessive growth of wages by 2.3%) but also in 2009-2010 (by 0.9%).

Graph 1 - Domestic and foreign nominal wage indices
1996 = 100

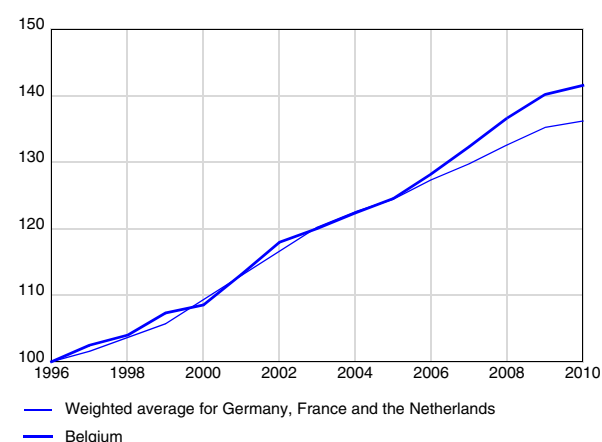


Table 1 - Assessment of the wage handicap since 1996
increases in percent by period

	1997 - 1998	1999 - 2000	2001 - 2002	2003 - 2004	2005 - 2006	2007 - 2008	2009 - 2010	1997 - 2010
Observed nominal wages abroad (OECD figures)	3.63	5.43	6.63	5.19	3.93	4.13	2.71	36.22
Observed nominal hourly wage cost in Belgium	3.99	4.38	8.69	3.73	4.79	6.55	3.62	41.59
Wage handicap	0.34	-1.00	1.93	-1.38	0.83	2.33	0.88	3.94

Table 2 - Breakdown of the wage cost handicap
difference in percentage points by period

	2003	2005	2007	2009
	2004	2006	2008	2010
Gap between the observed nominal hourly wage cost in Belgium and observed nominal hourly wage cost abroad	-1.4	0.8	2.4	0.9
of which:				
Gap between the wage norm and the observed nominal hourly wage cost abroad	0.3	0.6	0.9	3.0
Gap between the observed nominal hourly wage cost in Belgium and the wage norm, of which due to:	-1.7	0.2	1.5	-2.1
Gap between the observed indexation of wages to prices and anticipated indexation	-0.1	0.6	0.7	-2.0
Gap between the observed and anticipated employers' Social Security contributions	-0.2	-0.6	0.1	0.5
Gap between the observed and negotiated gross wage deflated by the health index	-1.4	0.3	0.6	-0.6

Source: National Accounts (ICN/INR), OECD December 2009, FPB Economic Outlook 2010-2015.

Table 2 looks into the reasons underlying the failure of the last four interprofessional agreements (IPA) to keep domestic wages in line with observed wages abroad at all times. Forecast errors for foreign wages and the fact that Belgian wage agreements are based on anticipated rather than observed foreign wages partly account for the differences between wage growth in Belgium and wage growth abroad. Moreover, observed wages, whether domestic or foreign, are subject to frequent revisions - at times, of sizeable magnitude.

Nominal hourly wage increases in Belgium undercut the observed wage growth abroad by 1.4% in 2003-2004 in spite of the downward revision for foreign wage growth of 0.3%, reversing some of the accumulated wage handicap. Indeed, observed nominal hourly wage growth was 1.7% lower than the wage norm, mainly because the real gross wage increase was 1.4% less than the rate of growth allowed by the IPA.

Nominal hourly wage growth exceeded foreign wage increases for the following six years. In 2005-2006, the discrepancy mounted to 0.8% because foreign wage growth was revised downwards (by 0.6%) and because Belgian wage cost growth exceeded the wage norm by 0.2%. In 2007-2008 nominal wage costs exceeded the wage norm by 2.4% for two reasons: foreign wage growth was revised downwards by 0.9% and the actual domestic nominal wage growth rate was 1.5% higher than the wage norm. The non-compliance of observed wages with the wage norm itself was attributed to both higher-than-anticipated inflation (0.7%) and higher-than-anticipated real gross wage rises (0.6%).

The most recent estimates and forecasts for 2009-2010 suggest that foreign wage growth should be 3% lower than the wage norm. In spite of this, the domestic nominal hourly wage growth rate should only be 0.9% higher than the actual foreign wage increase. In fact, actual domestic nominal hourly wage growth should undercut the wage norm by 2.1%, of which 2% would be due to lower than anticipated inflation.

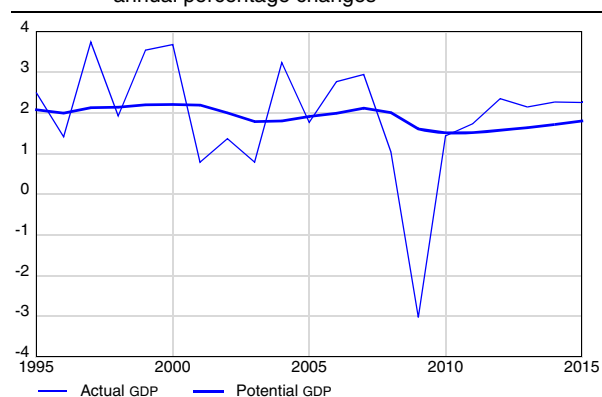
The analysis so far has been based on the national accounts definition of wage cost. While acknowledging the impact of reductions in employers' SSCs on labour costs, the national accounts definition ignores the impact of wage subsidies on labour costs because these are treated as production subsidies. The difficulty is that labour cost reduction policies have been shifting from employers' SSC cuts to wage subsidies in the last ten years. Between 2000 and 2010, on average the former have increased annually by as little as 6% (more than EUR 2 billion) whereas the latter have risen annually by as much as 26% (up from EUR 0.5 billion in 2000 to EUR 4.5 billion in 2010). Taking into account the wage subsidies, domestic labour costs would have increased by 37.1% instead of 44.6% over 1997-2010.

Importantly, unit labour cost is a more relevant gauge of competitiveness than wages. Since the odds against Belgium in comparison with its neighbouring countries are stacked more unfavourably in terms of unit labour cost than in terms of wages, the shortfall in Belgian productivity is a bigger problem than excessive nominal wages.

The new Economic outlook for Belgium for the period 2010-2015 is linked to a worldwide context that is marked by a better-than-expected recovery at the beginning of the projection, particularly spurred on by the large rising economies of Asia and the American economy. The substantial fiscal and monetary stimuli and the operations in support of the financial sector largely account for this upturn. This global recovery should consolidate in the medium term, even gaining momentum after 2011, but remaining rather modest in the euro area. However, the error margin for these forecasts is considerably high: booming deficits and public debts, unstable financial markets, and persistent imbalances in trade and capital flow between large zones and between euro area Member States all constitute threats to growth stability.

In such a scenario the yearly growth of the Belgian economy should amount to approximately 1.5% in 2010 and 2011 and afterwards exceed 2%, i.e. a similar rate to that averaged over the last twenty years. Note that during the period 2012-2015, GDP growth should largely exceed potential GDP growth. However, a negative output gap would still persist until the end of the projection.

Graph 1 - Actual and potential GDP growth
annual percentage changes

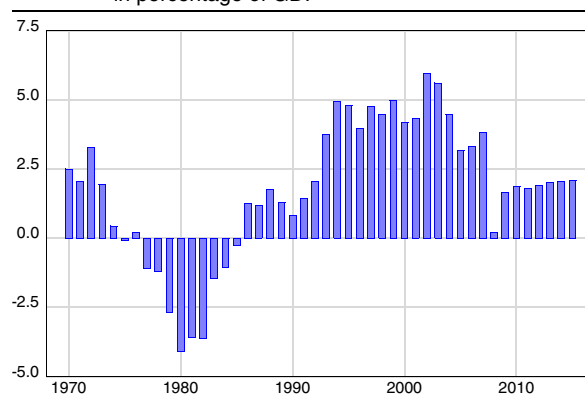


In the context of the economic recession bearing heavily on private consumer confidence, households increased their precautionary savings dramatically in 2009, thus lowering their consumption level (-1.5%). Strongly unfavourable sales prospects, combined with both a sharp cut in profitability and a toughening of external financing conditions explained the collapse in business investments (-7.5%). The growth of domestic demand therefore fell back significantly in 2009 (-3.1%), in spite of the support of public spending. Domestic demand should start rising again slightly in 2010, thanks to a (slight) increase in private consumption (notably explained by a falling savings rate), despite a persistent fall in business investments. As of 2011, domestic demand, while its

various components regain their trend-based growth, should increase at an average yearly rate of just above 2%.

The volume of Belgian exports, which was markedly lowered in 2009 (-11%) is expected to recover in 2010 (+4.7%) and to grow again in 2011 (+3.7%). From 2012 onwards, Belgian exports should again reach a level close to their historic growth rate (+4.5 %). The contribution of net exports to GDP growth should be largely positive in 2010 (+0.7%-points) and weaker from 2011 onwards (+0.2%-points on average). The current external surplus, which had almost disappeared in 2008, markedly improved in 2009, thanks to more favourable terms of trade. The external balance should improve slightly again in the medium term so that a surplus equivalent to 2.1% of GDP should be registered at the end of the projection.

Graph 2 - Current external balance
in percentage of GDP



Inflation should not exceed 2% each year, in spite of the increase – in particular in 2010 – of oil and energy prices but taking into consideration the exceptional decrease in nominal unit wage costs in 2010. These should grow by less than 1% per year in 2011-2012 and by almost 2% in 2013-2015.

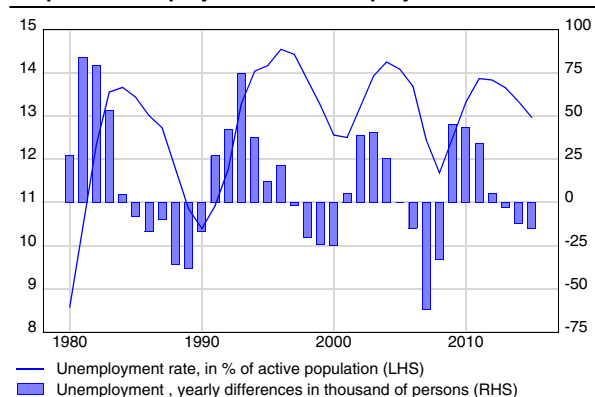
The 2009 recession will continue to have sizeable effects on employment: employment will decline by 33 000 units in 2010 and increase by as little as 7 000 units in 2011. As economic growth accelerates in 2012, employment will expand by nearly 50 000 units per year on average. Employment as a percentage of the population aged between 20 and 64 year will initially fall from 68% in 2008 to 66.3% in 2010 but will recover to 67.7% in 2015, a rate still far below the 75% target set by the EU.

In 2009, the rise in unemployment was less sharp than expected as losses in employment were curbed by a steep fall in hourly productivity and by lowering work-

ing time through various temporary unemployment schemes. Moreover, the increase in the labour force was less strong than anticipated, mainly among the lower age groups. Unemployment, including the older non-job-seeking unemployed, will increase by 43 000 units in 2010 and by 34 000 units in 2011.

In 2012 unemployment is expected to peak and will be 128 000 units higher than in 2008, the year the crisis started. Because the economy should recover faster than previously anticipated, the rise in unemployment should be less sizeable than initially feared. Starting in 2013, unemployment will slowly decline and level off to 698 000 units in 2015.

Graph 3 - Unemployment and unemployment rate



The Kyoto target to cut greenhouse gas emissions (GHG) will be amply met. During the period 2008-2012, annual greenhouse gas emissions will amount to an average of 131 million tons of CO₂ equivalents – approximately 4 million tons below the target – thanks to the climate policy and as a result of high energy prices and an activity level that continues to be affected by the 2009 recession. Furthermore, by 2015, the emissions level should be compatible with the 2020 target subscribed to by Belgium under the terms of the EU Climate and Energy Package concerning emissions from sectors not covered by the EU Emission Trading System. As for the share of renewable energy in final gross energy consumption, substantial efforts are still to be made to meet the target.

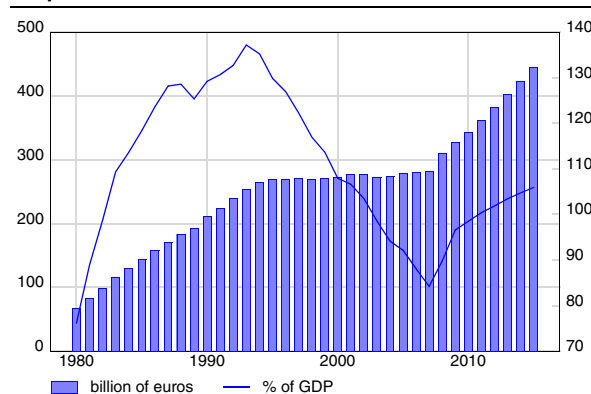
The general government budget deficit should shrink from 5.9% of GDP in 2009 (EUR 20 billion) to 4.8% of GDP in 2010. However, with constant policy, the deficit should once again exceed 5% of GDP as of 2011. A further and considerable fiscal adjustment is thus necessary to cut back the deficit to 3% of GDP in 2012 and achieve a balanced budget in 2015 in accordance with the Stability Programme of January 2010.

Without new fiscal measures, the primary deficit (i.e. before interest charges) should remain negative in the medium term (at about 1% of GDP). The evolution of primary expenditure is characterised by social expenditure rising faster than GDP and other primary expenditure

decreasing as a percentage of GDP. Interest charges should grow from 3.7% of GDP in 2009 to 4.5% of GDP in 2015. The snowball effect, which restarted in 2009, should bring public debt to above 100% of GDP as from 2011.

Broken down by level of government, the public finances projection shows sharp contrasts: the communities and regions as a whole should restore budget balance by 2015, whereas the deficit of Entity I (federal government and social security combined) should grow to 4.9% of GDP in 2015 after 4% of GDP in 2010. In 2015, the federal government and social security are expected to record deficits, respectively, of 3.8% of GDP and 1.1% of GDP (assuming that the special transfer from the federal government to social security in view of confining the latter's deficit in 2010 and 2011 is not extended after 2011). Without new measures, the local authorities should also have to deal with a deficit (0.2% of GDP in 2009 and 0.4% of GDP in 2015), thus maintaining a deficit in Entity II (communities, regions and local government).

Graph 4 - Public indebtedness



Key figures for the medium-term economic outlook

Period averages, changes in volume unless otherwise stated

	1998-2003	2004-2009	2010-2015
Potential export market	6.4	3.9	6.0
Private consumption	1.6	0.9	1.6
Public consumption	2.3	1.9	1.8
Gross fixed capital formation	1.3	4.0	1.9
Stock building (contribution to GDP growth)	-0.1	0.4	0.1
Final domestic demand	1.6	2.2	1.8
Exports	4.6	1.9	4.4
Imports	4.0	2.3	4.1
Net exports (contribution to GDP growth)	0.6	-0.2	0.3
GDP	2.0	1.5	2.0
Private consumption prices	1.6	2.5	1.8
Real disposable income - households	1.5	1.5	1.4
Domestic employment (annual changes in '000)	42.7	46.2	27.8
Unemployment, FPB definition ^a			
-thousands	684.6	645.7	698.0
-% of labour force	13.9	12.5	13.0
Current account balance (% of GDP) ^a	5.6	1.7	2.1
General government financing capacity (% of GDP) ^a	-0.2	-5.9	-5.3

^aEnd of period

"Perspectives économiques 2010-2015 / Economische vooruitzichten 2010-2015", FPB, May 2010.

Summary of Economic Forecasts

Economic forecasts for Belgium by the Federal Planning Bureau

Changes in volume (unless otherwise specified) (cut-off date of forecasts: 15 April 2010)

	2008	2009	2010	2011
Private consumption	1.1	-1.5	0.8	1.2
Public consumption	3.3	1.5	1.5	1.2
Gross fixed capital formation	4.3	-4.1	-1.4	3.0
Final national demand	2.3	-3.1	0.7	1.6
Exports of goods and services	1.5	-10.9	4.7	3.7
Imports of goods and services	3.1	-11.1	3.8	3.6
Net-exports (contribution to growth)	-1.2	-0.2	0.8	0.2
Gross domestic product	1.0	-3.0	1.4	1.7
p.m. Gross domestic product - in current prices (bn euro)	344.68	338.07	348.37	360.13
National consumer price index	4.5	-0.1	1.8	1.7
Consumer prices: health index	4.2	0.6	1.3	1.6
Real disposable income households	1.3	2.7	-0.7	1.3
Household savings ratio (as % of disposable income)	16.6	20.0	18.6	18.6
Domestic employment (change in '000, yearly average)	82.1	-23.3	-32.8	7.4
Unemployment (Eurostat standardised rate, yearly average) [1]	7.0	7.9	8.4	8.8
Current account balance (BoP definition, as % of GDP)	-2.9	0.5	0.7	0.6
Short term interbank interest rate (3 m.)	4.6	1.2	0.8	1.6
Long term interest rate (10 y.)	4.4	3.9	3.7	4.0

[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
	2010	2011	2010	2011	2010	2011	
Federal Planning Bureau [1][3]	1.4	1.7	1.8	1.7	-4.8	-5.1	05/10
INR/ICN [1]	1.4	1.7	1.6	1.7	.	.	02/10
National Bank of Belgium [2]	1.0	.	1.6	.	-5.4	.	12/09
European Commission [2]	1.3	1.6	1.6	1.6	-5.0	-5.0	04/10
OECD [2]	1.4	1.9	1.8	1.4	-4.9	-4.2	05/10
IMF [2]	1.2	1.3	1.6	1.5	-5.1	-4.4	04/10
ING [1]	1.3	1.6	1.7	1.9	-4.8	-4.1	06/10
Dexia [1]	1.3	1.8	1.8	1.8	.	.	05/10
KBC Bank [1]	1.6	1.7	1.4	1.8	-5.3	-4.8	03/10
Deutsche Bank	1.5	1.4	1.6	1.5	-4.8	-4.0	05/10
IRES [1]	1.5	.	1.7	.	-5.2	.	04/10
Consensus Belgian Prime News [2]	1.5	1.9	1.5	1.7	-5.4	-5.7	03/10
Consensus Economics [2]	1.3	1.7	1.2	1.7	.	.	05/10
Consensus The Economist [2]	1.3	1.5	1.4	1.4	.	.	05/10
Consensus Wirtschaftsinstitute [2]	1.1	1.5	2.0	1.2	-4.8	-4.2	04/10
Averages							
All institutions	1.3	1.6	1.6	1.6	-5.0	-4.6	
International public institutions	1.3	1.6	1.7	1.5	-5.0	-4.5	
Credit institutions	1.4	1.7	1.6	1.7	-5.0	-4.6	

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

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

[3] Inflation forecasts were recently revised upwards. See page 15 for more information.

General economic activity

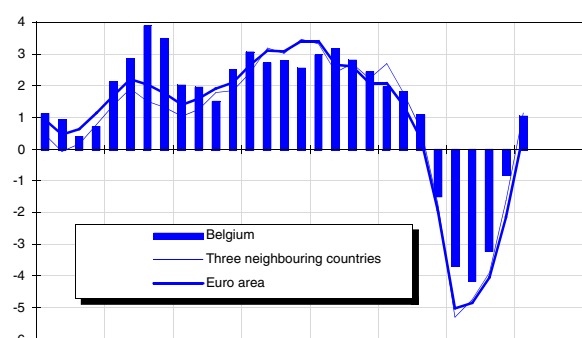
Table 1 - GDP growth rates, in% [1]

	2008		YoY growth rates, in %					QoQ growth rates, in %				
	2008	2009	2009Q1	2009Q2	2009Q3	2009Q4	2010Q1	2009Q1	2009Q2	2009Q3	2009Q4	2010Q1
Germany	1.0	-4.9	-6.7	-5.8	-4.8	-2.2	1.5	-3.5	0.4	0.7	0.2	0.2
France	0.1	-2.5	-3.9	-3.2	-2.6	-0.4	1.2	-1.4	0.2	0.3	0.5	0.1
Netherlands	2.0	-4.0	-4.1	-5.2	-4.0	-2.6	0.1	-2.4	-1.1	0.6	0.4	0.2
Belgium	0.8	-3.0	-3.7	-4.1	-3.2	-0.8	1.0	-1.7	-0.1	0.7	0.3	0.1
Euro area	0.4	-4.0	-5.0	-4.8	-4.0	-2.1	0.5	-2.4	-0.1	0.4	0.0	0.2
United States	0.4	-2.4	-3.3	-3.8	-2.6	0.1	2.5	-1.6	-0.2	0.6	1.4	0.8
Japan	-1.2	-5.2	-8.6	-6.0	-4.8	-1.4	4.2	-4.2	1.8	0.1	1.0	1.2

[1] Adjusted for seasonal and calendar effects

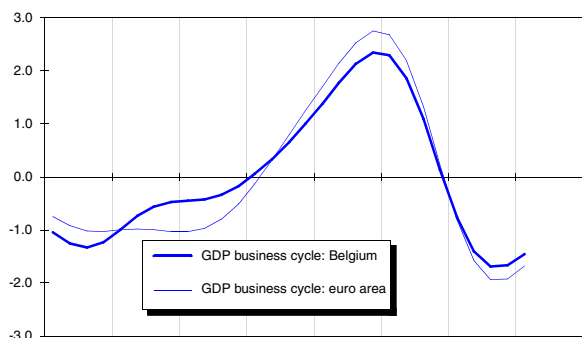
Source: INR/ICN, National sources, Eurostat

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



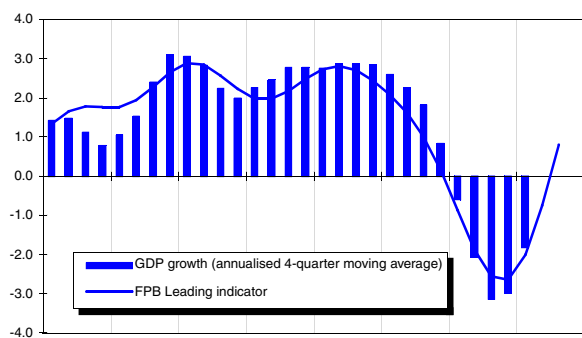
Source: INR/ICN, National sources, Eurostat

Graph 2 - GDP business cycle



Source: INR/ICN, Eurostat, FPB

Graph 3 - GDP growth and leading indicator



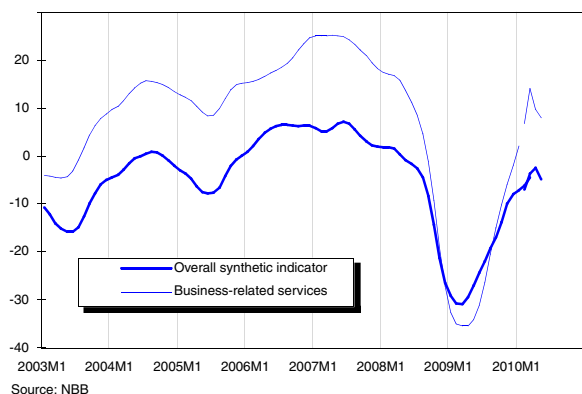
Source: INR/ICN, FPB

The US economy grew by 0.8% in 2010Q1, driven by private consumption and restocking. Following qoq growth rates of 0.6% and 1.4% in the second half of 2009, this constitutes a vigorous recovery. Some weakening of US and world economic growth is expected, though, as fiscal and monetary stimuli are being withdrawn, as the strongly positive contributions of stocks to growth are likely to fade and as credit supply remains restrained in the wake of the financial crisis. The fear of a double-dip in the world economy, which had receded over the last half year, has been gaining traction again recently.

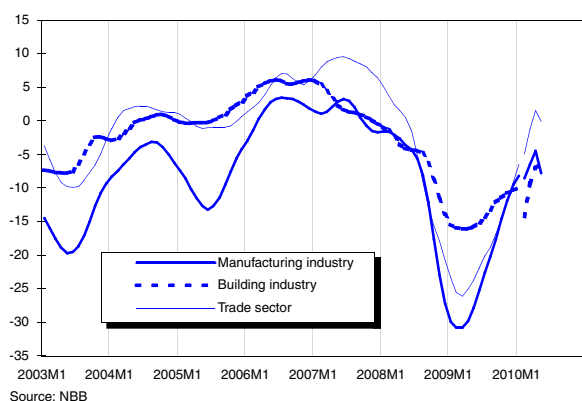
The Japanese economy was severely hit during the global recession, but rebounded more quickly and strongly than other developed economies. In fact, yoy GDP growth in 2010Q1 amounted to 4.2% in Japan, compared to only 2.5% in the US and 0.5% in the euro area. As domestic demand remains quite lacklustre, this strong performance was buoyed by booming exports to Asia, where economic activity is growing at very rapid pace. Japan's huge dependence on external demand hence remains unaltered.

The economic recovery in the euro area remains very modest. While there are no details available yet on the 2010Q1 figure (+0.2% qoq following a standstill and 0.4% in the previous quarters), the increase in economic activity seems to be mostly due to stronger export growth and a positive contribution from inventories. As the cold winter months put construction activity on hold for many weeks and depressed economic activity in this quarter, this augurs for a rebound in the next quarter. However, growth divergences among the euro area countries are likely to remain substantial. In its latest forecast, the European Commission expects the euro area as a whole to grow by 0.9% this year. Greece, Ireland and Spain, however, should suffer from another year of recession as these economies are weighed down by severe austerity programmes to bring their huge budget deficit down.

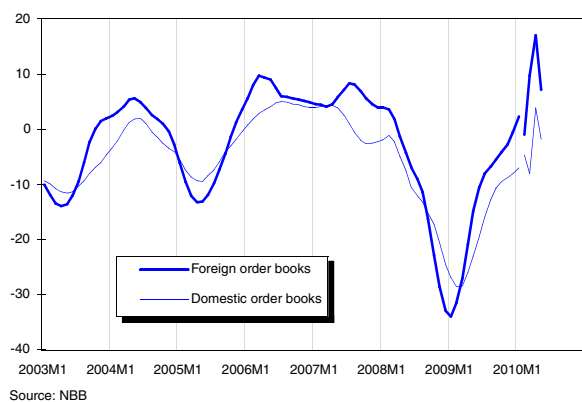
Graph 4 - Business cycle: global evolution



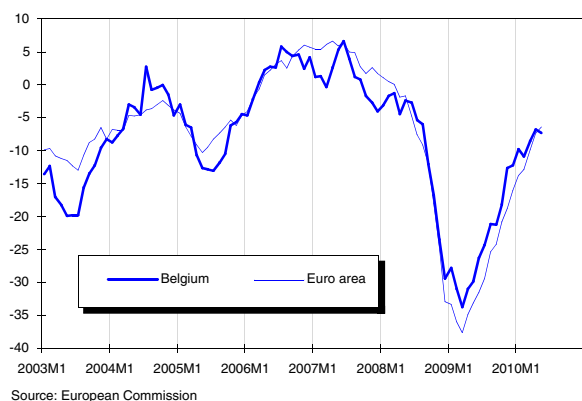
Graph 5 - Business cycle: sectoral evolution



Graph 6 - Manufacturing industry: order books



Graph 7 - Industrial confidence: international comparison



While Belgium's economy activity declined less than the euro average during the great recession, the subsequent economic recovery is proving quite faint after only one solid quarter (0.7% in 2009Q3), with growth rates of 0.3% in 2009Q4 and 0.1% in 2010Q1

The overall synthetic indicator for the Belgian economy (Graph 4) recovered remarkably quickly from its historical low in March 2009. The upturn was seen in all sectors covered in the survey (the manufacturing industry, the building sector, the trade sector and business-related services), although sentiment in the building sector improved less than in the other sectors. It also seems that the current upturn in economic activity is mainly supported by demand coming from outside the euro area, more specifically from Asian emerging economies. This is confirmed by the comparison of the domestic and foreign order book appraisals (Graph 6), which shows that foreign demand started to go up earlier and that it increased faster than domestic demand. It should be noted, however, that the foreign order book appraisal of Belgian managers is also influenced by demand from within the euro area. Correcting for this would probably yield an even more vigorous upturn in foreign orders.

Sentiment in the manufacturing industry has lost some momentum since the beginning of 2010. Initially, this was related to the deceleration in world trade growth that affected the assessment of demand addressed to this export-oriented sector. The deterioration of sentiment in May, however, was due to a worsening of prospects linked to the sovereign debt crisis in some Southern European countries.

Building industry confidence was less affected by the economic recession, helped by the reduction in the VAT rate on the construction of new houses that was part of the Belgian economic recovery plan, but the subsequent upturn was also less vigorous than in other sectors. During the first two months of 2010, sentiment fell as the exceptionally cold winter months led to lower utilisation rates of equipment. During recent months, these temporary factors have disappeared and building industry confidence has returned to its path of the second half of 2009.

Confidence indicators in the trade and in the business-related services sector mainly depend on managers' expectations for future activity, demand and employment. As expectations were hardly affected by the deceleration in European economic growth during 2010Q1, these indicators continued to improve up to March (business-related services) and April (trade sector). Since then, however, fears of a double-dip scenario have started to surface again, which has led to increased pessimism about future economic growth and a worsening of confidence indicators.

Private consumption

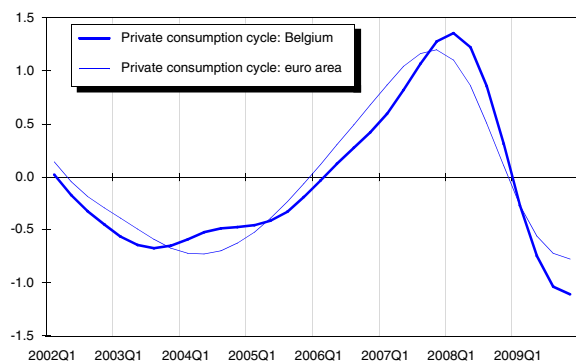
Table 2 - Private consumption indicators

	2008	2009	2009Q2	2009Q3	2009Q4	2010Q1	2009M12	2010M1	2010M2	2010M3	2010M4	2010M5
New car registrations [1]	2.1	-11.1	-19.6	-7.6	6.4	12.1	21.1	3.5	3.7	28.0	20.3	25.7
Consumer confidence indicator [2]	-11.3	-16.9	-19.7	-13.0	-12.3	-14.3	-15.0	-15.0	-15.0	-13.0	-8.0	-13.0

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

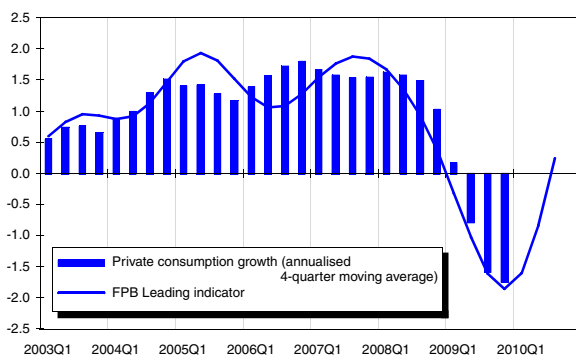
Source: NBB, Febiac

Graph 8 - Private consumption cycle



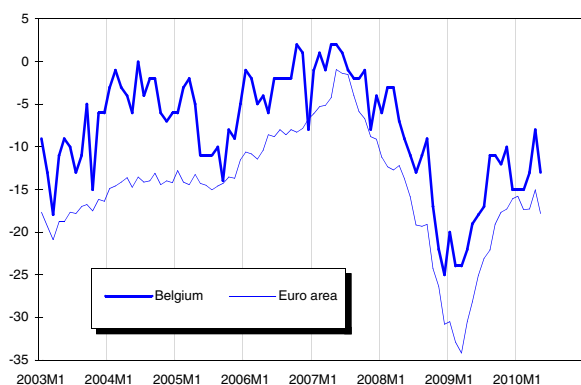
Source: INR/ICN, Eurostat, FPB

Graph 9 - Private consumption growth and leading indicator



Source: INR/ICN, FPB

Graph 10 - Consumer confidence: international comparison



Source: NBB, European Commission

From the first half of 2008 onwards, private consumption in Belgium and in the euro area has registered sub-trend growth, resulting in a decline in the private consumption cycles (see Graph 8). When the financial crisis was at its peak, Belgian private consumption fell at an unprecedented pace and declined by 2.5% from 2008Q4 to 2009Q2. Euro area private consumption resisted better and only fell by 1% during this period. During the second half of last year, euro area as well as Belgian private consumption roughly stabilised, limiting the downward momentum of the cycle.

According to the latest national accounts, Belgian private consumption fell by 1.8% in 2009, which is attributable to a massive decline in consumer confidence and a drop in households' (financial) wealth. This pushed up the private savings rate to its highest level since the mid-nineties (around 20%) as households' disposable income continued to increase and even accelerated, despite the fall in employment. The main drivers behind the performance of disposable income were the relatively high indexation of wages and social benefits and measures leading to a temporary decline in the total amount of personal income tax.

By 2009Q1, consumer confidence in Belgium as well as in the euro area declined to historically low levels. Since then, all components of consumer confidence have improved markedly, although expectations related to the general economic situation and the evolution of unemployment have been the (traditional) main drivers behind the rise in consumer confidence. In May, however, part of the gain disappeared due to the sovereign debt crisis in some Southern European countries, which is likely to result in a severe fiscal tightening across the euro area. Although this is expected to continue to weigh on confidence during the coming months, the FPB indicator points to an improvement in private consumption growth in 2010 that should also lead to a decline in the savings rate.

Having reached historically high levels from 2006 to 2008, new car registrations in 2009 dropped to their lowest level since 2003. During the last few months, car sales have gone up again as a result of the biennial motor show in Brussels held in January 2010.

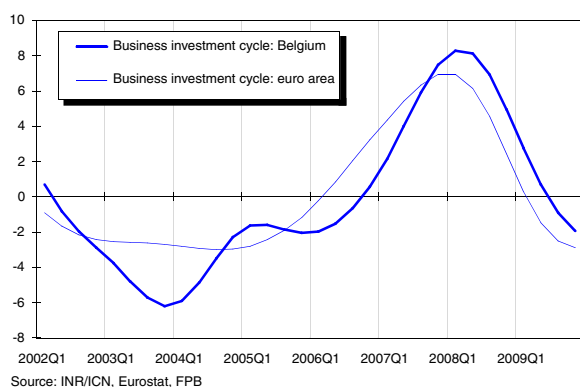
Business investment

Table 3 - Business investment indicators

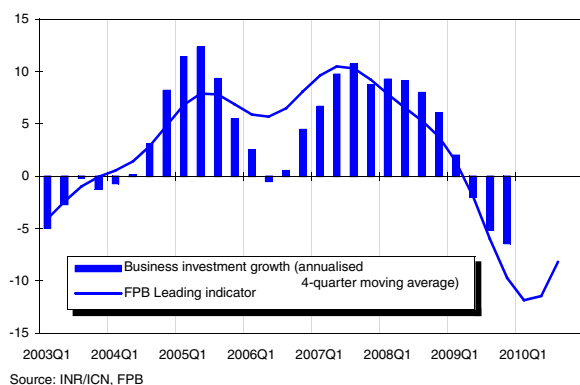
	2008	2009	2010	2009Q2	2009Q3	2009Q4	2010Q1	2010M1	2010M2	2010M3	2010M4	2010M5
Business survey, capital goods [2]												
Synthetic indicator	-6.7	-25.5	.	-29.8	-25.3	-16.0	-11.7	-13.4	-10.3	-11.5	-5.0	-8.7
Order book appraisal	1.0	-46.0	.	-47.3	-46.7	-48.3	-47.3	-49.0	-45.0	-48.0	-42.0	-38.0
Demand forecasts	-3.7	-28.0	.	-35.7	-18.7	-15.3	-5.3	-5.0	-4.0	-7.0	8.0	0.0
Investment survey [1]	1.1	-22.4	11.2									
Capacity utilisation rate (s.a.) (%)	80.6	72.5	.	72.0	73.1	74.3	77.2					

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

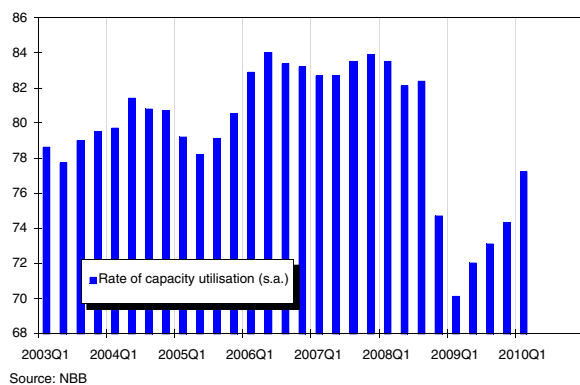
Graph 11 - Business investment cycle



Graph 12 - Business investment growth and leading indicator



Graph 13 - Capacity utilisation in manufacturing industry



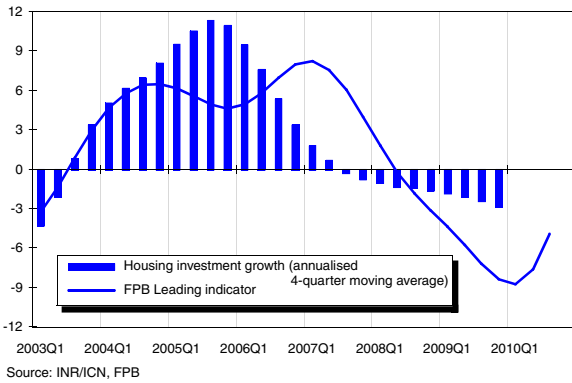
As the filter methods used to calculate the trend/cycle-decomposition of a series are generally subject to an end-point bias, it is difficult to assess the cyclical position at the current juncture. Especially for business investment and exports, which are traditionally heavily-fluctuating series, this problem could be quite important. As the construction of the FPB leading indicators is partly based on a trend/cycle-decomposition, the sample of these indicators in this STU was restricted to 2010Q3 to avoid false signals.

Between mid-2008 and 2009Q4, the volume of Belgian business investment fell for five consecutive quarters and lost 8.8%. As a result, the investment cycle plunged by 10 %-points, which is comparable to the decline registered between mid-2001 and the end of 2003. However, the turning point has not been reached yet, so a further decline in the cycle can be expected during the forthcoming quarters. Contrary to past business cycles, where the euro area investment cycle registered a smaller amplitude than the Belgian investment cycle, both have developed in a very similar way during the last two years.

While the Belgian investment rate (business investment as a percentage of GDP at current prices) stood at 15.2% in 2008, it declined to 13.9% last year and is expected to decline further this year. In fact, despite its increase during the last quarters, the capacity utilisation rate is still below its historical average (79%). Moreover, indicators for the capital goods sector show that although company directors' forecasts have clearly improved, the order book appraisal is lagging behind. This does not bode well for the short-term outlook for business investment, which is confirmed by the FPB leading indicator, which remains in negative territory. On the other hand, the investment survey in the manufacturing industry points to investment growth of 11% (at current prices). However, Belgian managers tend to scale down their investment plans over the course of the year and the euro area average from the survey, which does not have this characteristic, points to a quasi-stabilisation of investment in the manufacturing sector.

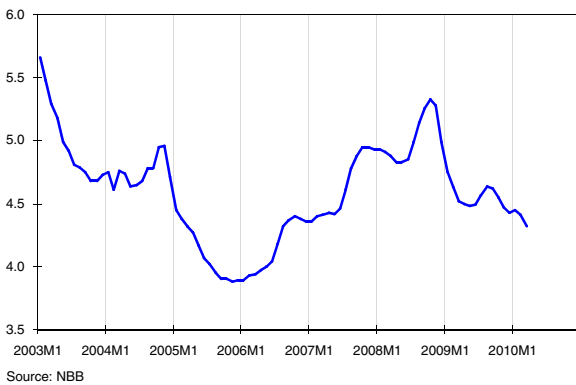
Housing investment

Graph 14 - Housing investment growth and leading indicator



After average annual growth of more than 6% during the period 2003-2006, housing investment became a drag on economic growth. In 2007 and 2008 Belgian housing activity contracted by 0.8% and 1.6%, respectively. According to the latest quarterly national accounts, this decline intensified in the course of 2009, with qoq growth rates between -0.6% and -1.5% (against growth rates between -0.1% and -0.7% in the course of 2008), so that Belgian residential investment contracted even more in 2009 on average (-2.9%). Nevertheless, this fall was cushioned somewhat by the temporary VAT rate reduction on residential construction and the decline in mortgage rates (from 5.2% in the second half of 2008 to 4.6%, on average, in 2009). This correction remains relatively benign compared to countries with the most pronounced housing downturns (Ireland, Spain, the United States and the United Kingdom).

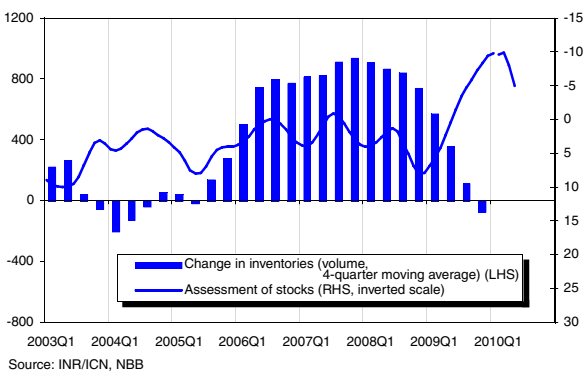
Graph 15 - Mortgage rate (%)



The downturn in housing investment is confirmed by the FPB leading indicator, which went down between the beginning of 2007 and the end of 2009. Most of the housing investment indicators, such as the total amount of mortgage applications and indicators from the architects' survey, reached a trough by the beginning of 2009. They generally lead the development of housing investment cycle by about four quarters, implying a pick up in the residential investment growth cycle in the course of 2010. Moreover, mortgage rates lowered again somewhat in 2010Q1 (4.4%) and should therefore continue to support housing demand.

Stock building

Graph 16 - Stock building indicators



According to the quarterly national accounts, stock building contributed negatively to economic growth in 2008Q4 and (on average) in the course of 2009. As a result, the inventory cycle dragged down economic growth in 2009 by 1%-point. However, since the beginning of 2009 a decreasing number of company directors have been willing to reduce their stock levels. Combined with the upswing in industrial confidence during the second half of 2009 and 2010Q1, the contribution of stock building to economic growth is expected to turn positive in the course of 2010.

Foreign Trade

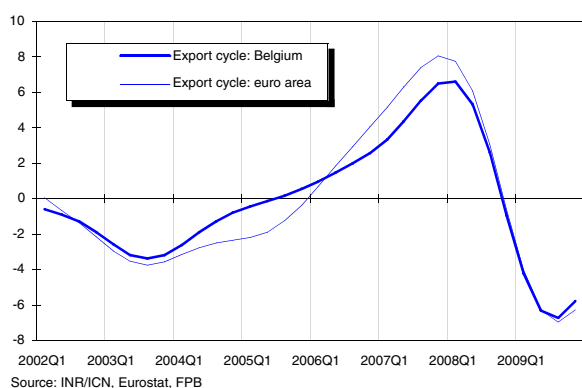
Table 4 - Belgium - Trade statistics (goods, intra/extrastat, national concept)

	2008	2009	2009Q1	2009Q2	2009Q3	2009Q4	2009M9	2009M10	2009M11	2009M12	2010M1	2010M2
Exports - value [1]	2.8	-19.6	-23.7	-27.4	-23.2	-1.4	-20.5	-13.4	3.0	10.4	9.1	13.0
Imports - value [1]	8.3	-22.3	-23.9	-29.8	-26.4	-7.5	-24.2	-21.5	-5.4	8.4	10.5	15.9
Exports - volume [1]	-2.3	-13.7	-19.8	-20.3	-16.0	3.8	-13.8	-9.8	10.0	14.8	5.2	8.3
Imports - volume [1]	-0.6	-13.5	-17.0	-19.7	-16.4	0.6	-14.2	-13.3	4.4	13.7	7.6	8.6
Exports - price [1]	5.1	-6.8	-4.8	-8.9	-8.6	-4.7	-7.7	-4.1	-6.4	-3.8	3.7	4.4
Imports - price [1]	9.0	-10.2	-8.3	-12.6	-11.9	-7.9	-11.7	-9.4	-9.4	-4.7	2.7	6.7

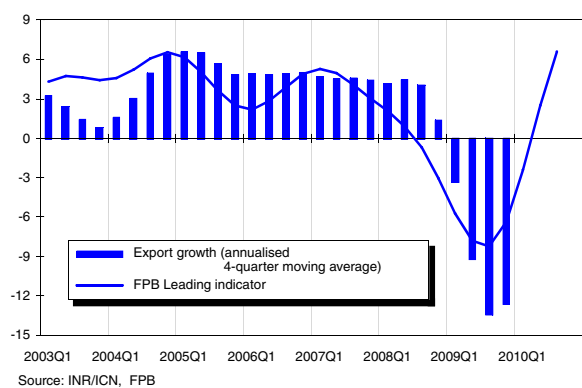
[1] Change (%) compared to same period previous year

Source: INR/ICN

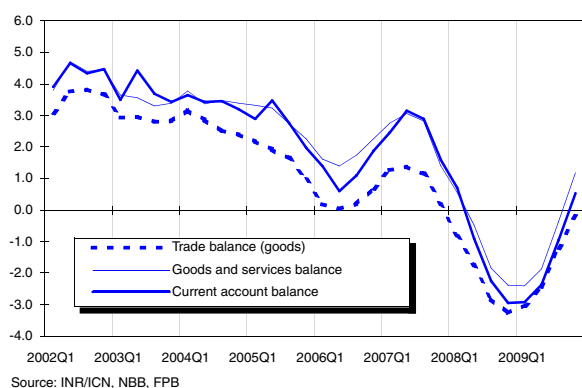
Graph 17 - Export cycle



Graph 18 - Export growth and leading indicator



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



Following the steep decline of the Belgian and the European export cycle in the wake of the financial crisis, both export cycles have now bottomed out. Some prudence in interpreting these cycles remains recommended, however, as trend-cycle decomposition is rather tricky in view of the huge fluctuations in exports. Export growth in the euro area rose quite strongly in the second half of last year. Although the expenditure components of euro area GDP are not yet available for 2010Q1, export growth in the euro area probably accelerated, judging from the export data of Germany, France and the Netherlands.

Belgian exports rose strongly in 2009Q3 (+3.1%) and 2009Q4 (+2.8%) in line with the strong acceleration of world trade. The recovery in world trade was remarkably vigorous due to the extra-ordinary monetary and fiscal stimuli and the quick improvement in business confidence. On a regional basis it is clear that Asia (and particularly China) is leading the rest of the world owing to the size of the stimulus and the fact that it remained largely insulated from the financial crisis. In spite of the fact that the European recovery is lagging on a global level, Belgian exports have grown strongly. During the first half of 2010, export growth could decelerate somewhat, but is expected to remain relatively strong. Later this year and in early 2011, restrictive fiscal policies and the wearing off of the beneficial effect of restocking should lead to a deceleration in export growth, although the recent depreciation of the euro should limit this somewhat.

The main reason for the current account balance moving back to surplus in 2009 was the strong improvement in the terms of trade related to the decrease (on a yearly basis) of oil and other raw materials prices. Since January, import price growth has been outpacing export price growth again because of the strong rise in oil prices. This unfavourable base effect will not last long, especially as oil prices have receded strongly recently.

Labour market

Table 5 - Labour market indicators

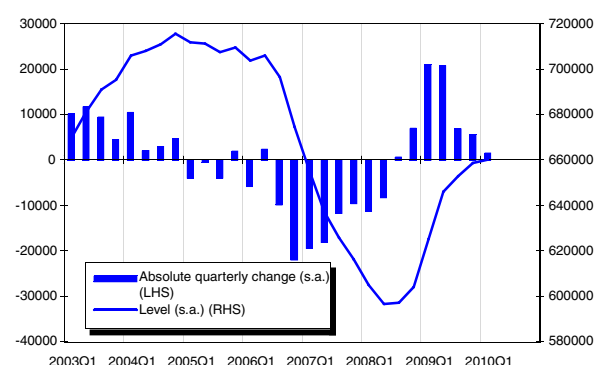
	2008	2009	2009Q2	2009Q3	2009Q4	2010Q1	2009M11	2009M12	2010M1	2010M2	2010M3	2010M4
Unemployment [1][2]	600.7	645.7	646.0	653.0	658.5	660.0	657.9	662.5	661.7	660.4	658.0	654.1
Unemployment rate [2][3]	11.7	12.5	12.5	12.6	12.7	12.8	12.7	12.8	12.8	12.8	12.7	12.7
Unemployment rate-Eurostat [3][4]	7.0	7.9	7.7	8.1	8.0	8.0	8.0	8.0	8.0	8.0	8.1	8.2

[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

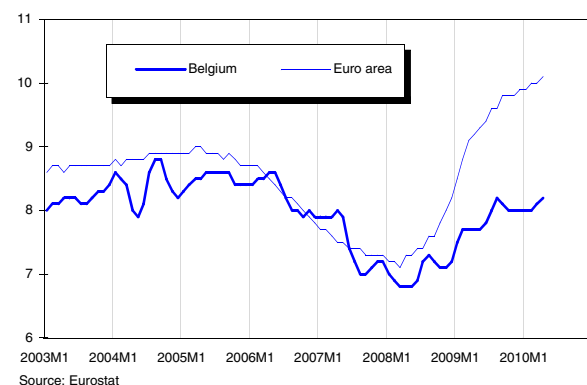
Source: RVA/ONEM, FPS Employment, Eurostat, FPB

Graph 20 - Evolution of unemployment (incl. older)



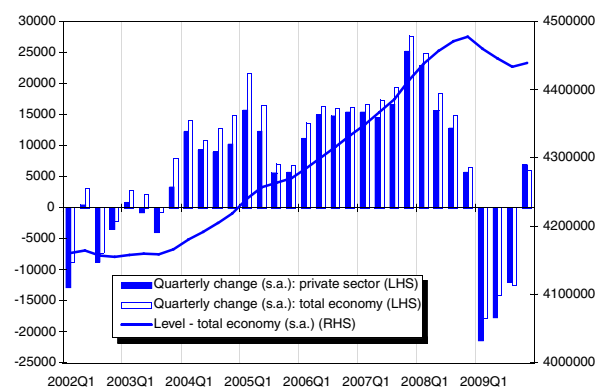
Source: RVA/ONEM

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



Source: Eurostat

Graph 22 - Evolution of domestic employment



Source: INR/ICN

It is now well-confirmed that the increase in broad administrative unemployment has slowed down quite strikingly since 2009Q3. Unemployment grew at a severe 3.3% per quarter during the first half of last year, the (seasonally adjusted) unemployment rate soaring from 11.7% in 2008Q4 to 12.5% in 2009Q2. During the second half of last year, however, the quarterly growth in unemployment dropped to just over 1% per quarter, with the unemployment rate merely rising to 12.7%. Moreover, in the first quarter of this year unemployment hardly grew at all; on a monthly basis, it has even come down slightly for four consecutive months now.

Administrative unemployment figures are instantaneously available at the closing of each month, whereas employment (and activity) data lag by one quarter. Over the course of the last year we have been inclined to attribute slower-than-expected unemployment growth to sharp drops in the growth of the labour force. However, with hindsight, and as more employment data has become available, it has turned out time and again that a substantial part of the explanation rather resided in better-than-expected (or less adverse) activity and employment figures.

The latter has been particularly the case in 2009Q4, with private sector employment growth turning significantly positive (+0.2%) after three quarters of substantial (but decreasing) job losses. This outcome seems to be strongly related to a turnaround in the growth of jobs catered for by temporary employment offices. On the other hand, average working time, which had started to pick up in the third quarter (+0.2%), decreased in the fourth (-0.3%). Although one-off factors (notably the adverse weather conditions, important in the construction industry) are partly responsible, the number of people on government-subsidised programmes supporting the reduction of working time also remained very high and has barely diminished since. This implies that employee retention has been stretched further, which in its turn may hold back job creation in the quarters to come.

Prices

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

	2008	2009	2009Q2	2009Q3	2009Q4	2010Q1	2009M12	2010M1	2010M2	2010M3	2010M4	2010M5
Consumer prices: all items	4.49	-0.05	-0.30	-1.22	-0.28	0.99	0.26	0.62	0.70	1.66	1.80	2.27
Food prices	5.82	1.06	1.33	-0.33	-0.24	0.23	-0.24	-0.26	0.13	0.81	0.66	1.03
Non food prices	5.95	-2.72	-3.74	-4.59	-2.08	1.08	-0.72	0.25	0.52	2.49	2.86	3.69
Services	2.01	2.85	3.46	2.69	1.97	1.28	1.74	1.59	1.18	1.06	1.14	1.30
Rent	1.90	2.01	2.10	2.08	1.77	1.43	1.68	1.50	1.43	1.36	1.15	1.17
Health index	4.22	0.59	0.70	-0.50	-0.38	0.33	-0.25	-0.08	0.13	0.94	1.05	1.59
Brent oil price in USD (level)	96.9	61.5	58.8	68.2	74.6	76.3	74.4	76.2	73.6	78.9	84.8	75.6

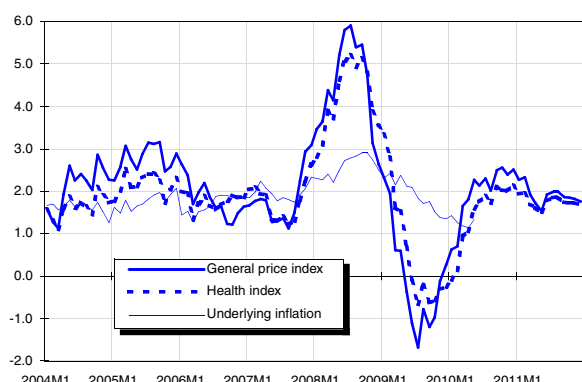
Source: FPS Economy, Datastream

Table 7 - Monthly inflation forecasts

	2010M1	2010M2	2010M3	2010M4	2010M5	2010M6	2010M7	2010M8	2010M9	2010M10	2010M11	2010M12
Consumer prices: all items	112.05	112.52	112.94	113.33	113.78	113.41	113.52	113.56	113.80	113.91	114.02	114.34
Consumer prices: health index	111.36	111.90	112.11	112.34	112.72	112.45	112.55	112.56	112.79	112.89	112.98	113.31
Moving average health index	110.93	111.24	111.58	111.93	112.27	112.41	112.52	112.57	112.59	112.70	112.81	112.99
	2011M1	2011M2	2011M3	2011M4	2011M5	2011M6	2011M7	2011M8	2011M9	2011M10	2011M11	2011M12
Consumer prices: all items	114.59	115.15	115.12	115.27	115.53	115.59	115.78	115.82	115.92	116.01	116.10	116.35
Consumer prices: health index	113.52	114.09	114.02	114.16	114.42	114.44	114.63	114.66	114.76	114.84	114.94	115.20
Moving average health index	113.18	113.48	113.74	113.95	114.17	114.26	114.41	114.54	114.62	114.72	114.80	114.94

Source: Observations (up to 10M5): FPS Economy; forecasts: FPB

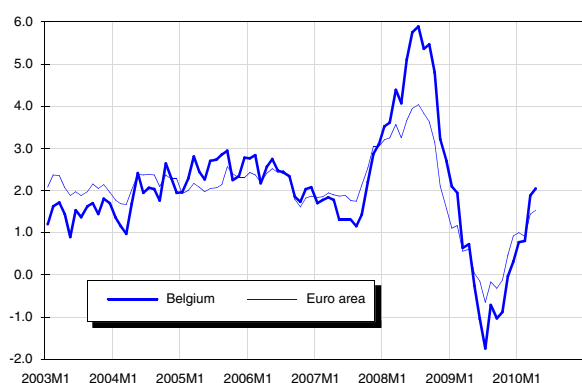
Graph 23 - Monthly inflation evolution in% (t/t-12)



Source: FPS Economy, from 10M6 on: forecasts FPB

Belgian inflation, as measured by yoy growth of the national CPI, went up from -1.7% in July 2009 to 2.3% in May 2010 due to the marked evolution of energy prices. In fact, yoy growth rates of crude oil prices expressed in euro increased from -46% in July 2009 to more than 60% recently. As consumption prices of natural gas and electricity typically react with a lag to crude oil prices, the positive contribution of energy prices is even expected to gain strength during the coming months. On the other hand, underlying inflation went down during this period due to the widening negative output gap and the pass-through of lower energy prices (compared to mid-2008) to prices of non-energy goods and services.

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



Source: Eurostat

The negative differential between Belgian and euro area inflation of mid-2009 has turned into a positive one. This is also related to energy price developments: energy products not only have a higher weight in the Belgian HICP, natural gas and electricity prices also seem to react more strongly to oil price movements in Belgium than in the euro area. It should also be noted that Belgian inflation measured on the basis of the HICP is higher than that measured on the basis of the national CPI, which is related to the yearly revision of the weighting scheme of the HICP.

Overall, Belgian inflation is expected to amount to 2.0% in 2010 and 1.9% in 2011, while the health index should rise by 1.4% and 1.8%, respectively. The next pivotal threshold (112.72) should be crossed in November 2010.

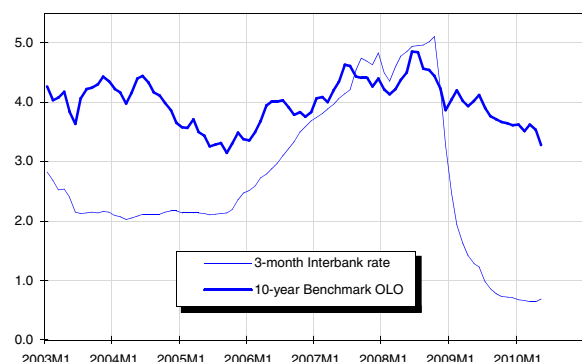
Interest rates

Table 8 - Interest rates

	2008	2009	2009Q2	2009Q3	2009Q4	2010Q1	2009M12	2010M1	2010M2	2010M3	2010M4	2010M5
Short-term money market rates (3 months)												
Euro area (Euribor)	4.63	1.23	1.31	0.87	0.72	0.66	0.71	0.68	0.66	0.65	0.64	0.69
United States	2.96	0.56	0.62	0.30	0.22	0.21	0.21	0.20	0.19	0.23	0.30	0.45
Japan	1.05	0.52	0.58	0.43	0.35	0.29	0.29	0.27	0.30	0.30	0.29	0.30
Long-term government bond rates (10 years)												
Belgium	4.40	3.89	4.03	3.80	3.64	3.59	3.61	3.63	3.51	3.62	3.54	3.29
Germany	3.99	3.26	3.37	3.33	3.23	3.20	3.22	3.29	3.19	3.12	3.08	2.75
Euro area	4.24	3.71	3.86	3.69	3.56	3.53	3.53	3.59	3.52	3.49	3.48	3.30
United States	3.65	3.24	3.30	3.50	3.45	3.71	3.59	3.72	3.68	3.72	3.82	3.40
Japan	1.48	1.34	1.44	1.34	1.31	1.33	1.26	1.32	1.33	1.34	1.34	1.27

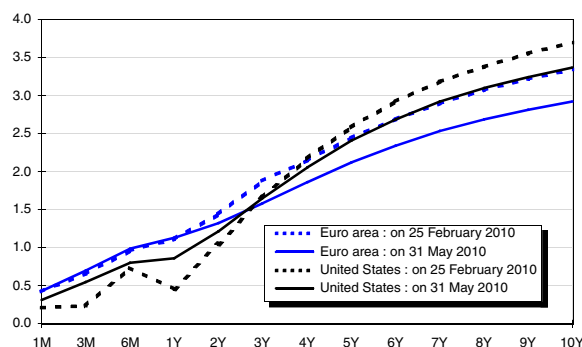
Source: Datastream

Graph 25 - Interest rate levels in Belgium,%



Source: NBB

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



Source: Datastream, data based on interest rate swaps

While the US Federal Reserve has kept the federal funds rate close to 0%, it has scaled back its extraordinary measures (massive liquidity provisioning, quantitative easing) taken to stem the financial crisis. Financial markets are anticipating a first rate hike of the Fed substantially later than they did three months ago. This has to do with the very low level of core inflation (just 0.9%) and the renewed fear of a double-dip in the US economy. While keeping the policy rate at 1%, the ECB had taken back some of the extraordinary measures since the end of last year. However, with the full-blown eruption of the European sovereign debt crisis (in April), it has been obliged to loosen its policy again by providing more liquidity and by buying government securities of the most troubled countries. While the ECB will try to sterilise this quantitative easing move, its credibility has suffered a blow as the move was perceived as ceding to political or market pressure. The crisis has put renewed pressure on money markets because of European banks' exposure to the debt of the problem countries. This resurgence of counterparty risk translates into rising inter-bank market rates.

The renewed fear of a cooling of world GDP growth and the related European sovereign debt crisis has resulted in a move by investors towards bonds from the governments of the safe haven countries and away from risky assets. Hence, US long term interest rates have declined substantially for the first time since the financial crisis erupted. Long-term interest rates for the euro area as a whole have also declined, but the divergence among euro area countries is huge. German rates have plunged to a historic low as it benefits from its safe haven status. The rates of the problem countries have risen substantially. Belgium's long-term interest rate has declined somewhat since the start of the year, although the spread with German rates, as for all countries in the euro area, has increased.

Exchange rates

Table 9 - Bilateral exchange rates

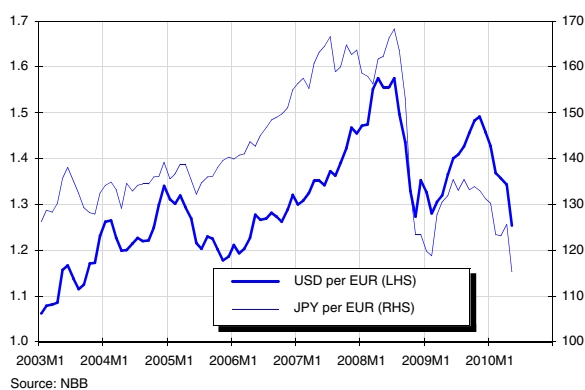
	2008	2009	2009Q2	2009Q3	2009Q4	2010Q1	2009M12	2010M1	2010M2	2010M3	2010M4	2010M5
USD per EUR	1.471	1.393	1.362	1.430	1.477	1.384	1.458	1.427	1.368	1.357	1.342	1.254
UKP per EUR	0.797	0.891	0.879	0.872	0.904	0.887	0.899	0.883	0.876	0.902	0.875	0.856
JPY per EUR	152.3	130.3	132.6	133.8	132.7	125.6	131.3	130.2	123.3	123.2	125.6	115.3

Table 10 - Nominal effective exchange rates (2005=100)

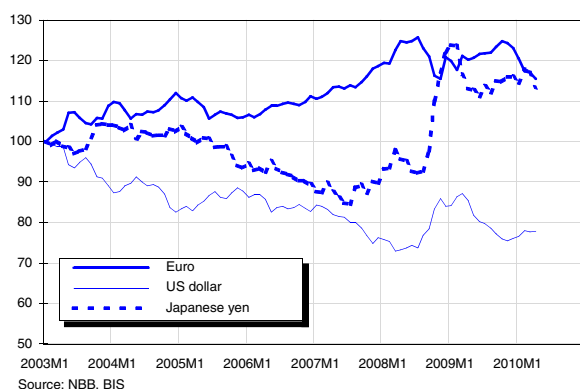
	2008	2009	2009Q2	2009Q3	2009Q4	2010Q1	2009M11	2009M12	2010M1	2010M2	2010M3	2010M4
Euro	112.6	112.8	112.0	113.5	115.0	109.7	115.3	114.1	111.7	108.8	108.5	107.0
Growth rate [1]	6.6	0.2	1.0	1.3	1.3	-4.6	-0.3	-1.0	-2.1	-2.6	-0.3	-1.4
US dollar	90.0	94.0	96.1	91.5	88.3	90.2	87.9	88.7	89.2	90.9	90.5	90.6
Growth rate [1]	-3.7	4.4	-3.8	-4.8	-3.5	2.1	-0.6	0.9	0.6	2.0	-0.5	0.1
Japanese yen	101.0	116.9	113.4	114.7	116.8	117.6	117.1	117.1	115.5	119.0	118.3	114.4
Growth rate [1]	14.0	15.7	-7.4	1.1	1.8	0.7	0.9	0.0	-1.4	3.0	-0.6	-3.2

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

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



Graph 28 - Nominal effective exchange rates (2003M1=100)



The euro lost ground against the dollar in the first few months of 2010 because of rising worries about the state of public finances in some member countries. In May the pace of the depreciation of the euro accelerated as the European sovereign debt crisis evolved into a general crisis of confidence in the whole euro area project. Even the massive 750 bn EUR rescue package from euro area members and the IMF could not stem the tide as it does not address the solvency issue, the need for deep structural reforms and as doubts about the precise execution of the plan remain numerous. Moreover, the ECB loosened its monetary policy again by the reintroduction of its long-term financing operations (with banks) and by its decision to start buying government debt of the problem countries. As GDP growth also proved to be quite weak in 2010Q1, it will take much longer than previously thought before the ECB can start raising interest rates. This is also making the euro a key funding currency for carry trade, especially in the current risk-averse environment, resulting in further selling pressure on the euro.

Since the start of the year, the euro has been losing ground against almost all currencies worldwide. Two notable exceptions were the Korean Won (because of the threat of war with North Korea) and the Venezuelan Bolivar (devaluation). The broad depreciation of the euro is reflected in its nominal effective exchange rate, which has now dropped by some 8% over the last 6 months.

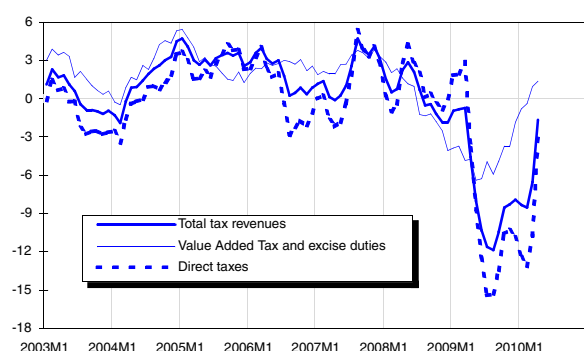
Tax indicators

Table 11 - Tax revenues (1)

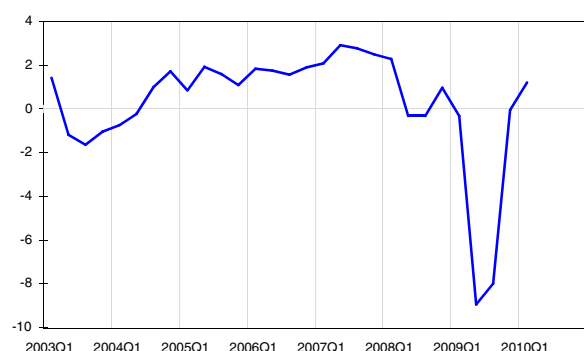
	2008	2009	2009Q2	2009Q3	2009Q4	2010Q1	2009M11	2009M12	2010M1	2010M2	2010M3	2010M4
Total [2], of which:	2.5	-8.0	-28.5	-4.0	5.5	4.7	0.8	0.6	-3.6	-7.2	37.6	21.1
Direct taxes, of which:	4.5	-11.0	-40.8	-6.2	8.8	1.6	5.3	-1.6	-12.0	-14.9	84.8	35.3
Withholding earned income tax (PAYE)	5.5	-0.1	-36.8	3.7	35.8	2.6	36.6	20.7	4.0	-3.8	8.3	71.4
Prepayments	-1.7	-26.1	-33.0	-29.1	-15.2	.	.	-13.2	.	.	.	4.5
Value Added Tax and excise duties	0.2	-2.0	-6.7	0.5	2.2	8.9	-5.0	3.4	12.8	3.7	9.0	3.3

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

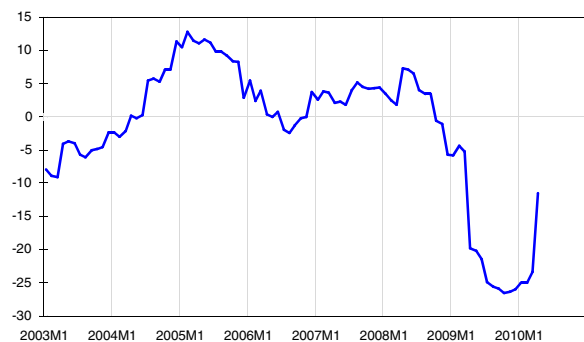
Graph 29 - Real tax revenues (3)



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



Graph 31 - Real prepayments (3)



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

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

Tax revenues collapsed in 2009, reflecting the context of a severe business cycle downturn and the measures from the December 2008 stimulus packages. A moderate recovery in tax collection has been noticeable from the end of 2009 onwards: total tax revenues recorded a nominal yoy increase of 5.5% in 2009Q4 and 4.7% in 2010Q1. Most, but not all, tax categories contributed to this positive evolution, reflecting to some extent the business cycle profile but also administrative shifts in the tax collection calendar.

However, the collection of prepayments from businesses and the self employed remains disappointing. Figures for April 2010 (April is the first due date for prepayments and represents about 40% of the annual total) show a moderate increase of 4.5% as compared to April 2009 receipts, which were very low (nearly -30% on a yoy basis). Prepayments have been the tax category most affected in the crisis: throughout 2009, a quarter of the tax revenue was lost as compared to 2008.

Taxes on interest payments were still declining in 2010Q1 (due to lower interest rates and households' preference in 2009 for untaxed savings accounts) as well as taxes collected by means of assessment (affected by an acceleration in the assessment process and, therefore, in reimbursements to households).

PAYE personal income tax collection (Graph 30) has recovered from a shift in tax collection in 2009 that was caused by the possibility (from the December 2008 stimulus package) of temporary deferral by employers of withholding taxes on wages. Employment is not yet expected to underpin tax receipts in the coming quarter.

Growth in indirect taxes has become positive again since 2009Q3 and accelerated in 2009Q4 and 2010Q1. This has been due to a decrease in VAT reimbursements (related to a delayed reaction to export developments), while rising export growth has increased receipts of export-related gross VAT and household consumption has been on an upward path. Registration duties have benefited from the recovery of the real estate market.

The Belgian Input-Output Tables for 2005

In this publication, the Belgian Input-Output Tables for the year 2005 are presented. In accordance with the Law of December 1994 on the reform of the Belgian statistical system, the Federal Planning Bureau is responsible for drawing up these five-yearly input-output tables within the framework of the National Accounts Institute.

According to the European System of Accounts (ESA 1995), the input-output framework consists of supply and use tables (SUT) and symmetric input-output tables (IOT), which are derived from the former. The input-output framework offers a detailed view of the economy: it maps out production processes, the use of goods and services and income generated through production. Forming an integral part of the national accounts system, SUT and IOT provide a consistent framework for balancing national accounts. Moreover, they constitute an appropriate basis for many different types of economic analysis.

This publication describes the methodology used for the compilation of symmetric (product-by-product) input-output tables at current prices for the year 2005. The Belgian SUT and IOT for 2005 were published and transmitted to Eurostat in March 2010. This meant that there was a delay of approximately one year compared to the ESA95 transmission programme, which was due to the decision to take account of the 2009 benchmark revision of the Belgian national accounts (expenditure approach).

The compilation of the input-output framework is a complex process as data taken from many different sources are combined in the balancing process. Moreover, SUT and IOT are interrelated and their compilation must fully comply with the rest of the national accounts system, especially with the production account and the distribution and use of income accounts. An additional element of complexity in the Belgian context is the fact that the compilation work for SUT and IOT is spread over two institutions (namely the NBB and the FPB).

Starting from a first version of balanced SUT at purchasers' prices (129 industries by 318 products), valuation matrices (for distribution margins and taxes and subsidies on products) are computed to convert the use table valued at purchasers' prices into a use table valued at

basic prices. Next, the use table is broken down into two sub-tables according to the origin of supply: imports and domestic output.

The final stage is the transformation of SUT to symmetric (product-by-product) IOT (131x131), both for the total table and differentiating between domestically produced and imported products. In most cases, this transformation is based on the product technology principle, assuming that each product is produced in its own specific way, irrespective of the industry where it is produced. In some cases, however, the assumption of product technology has been relaxed and (exceptionally) even replaced by industry technology, assuming that an industry has its own specific way of production that applies to all products it produces. The resulting compilation model can best be described as a 'mixed technology model', with a clear predominance of product technology.

The application of the product technology assumption to compile product-by-product IOT gives rise to negative input elements. In a first run, the share of negatives amounted to 5.5% of total intermediate consumption. A profound analysis of the causes of these negatives led to different types of remedies: adjustments and correction of errors in the SUT, disaggregations of industries or application of industry technology (only in the financial sector). The remaining negatives (2.2% of intermediate consumption) were eliminated by applying a purely mathematical method, namely the Almon procedure (combined with a final RAS).

As an illustration of the methodology, the publication presents results at all stages of the compilation process (including valuation matrices and import tables) at a very aggregated level (6x6). More detailed tables (17x17, 31x31, 60x60) are available via the FPB website.

*"Tableaux Entrées-Sorties de la Belgique pour 2005",
"Input-outputtabellen van België voor 2005",
National Accounts Institute/Federal Planning Bureau,
May 2010.*

Analysis of the impact of various theoretical schemes for the introduction of road pricing in Belgium

In Planning Paper 107, the FPB showed that, under the business-as-usual scenario, the projected growth in passenger and freight transport should further deteriorate traffic conditions in Belgium. This implies a strong increase in the marginal external congestion costs, calling for new policy measures. Economic policy suggests that it is best to aim at a better correspondence between taxes and external costs via a change in transport pricing. This Working Paper presents various road pricing scenarios and analyses their impact on transport activity, congestion, the environment and welfare by using the PLANET transport model for Belgium.

Road pricing scenarios differ according to the area of application and level of the tax and between the peak and off-peak periods. The three areas of application studied are lorries, then lorries and vans, and finally all road vehicles. In the scenarios studied, when road pricing is introduced, the Eurovignette and the purchase and ownership taxes on road vehicles are abolished. The resulting extra budgetary resources are used to reduce labour taxes or general taxes. These scenarios are purely theoretical at this stage.

The Working Paper starts by analysing a scenario where all external environmental and congestion costs of transport are internalised. This scenario is close to the optimal pricing described in the economic literature and therefore constitutes a valuable benchmark for our road pricing scenarios. The internalisation of external costs may lead to a significant improvement in welfare and reduction of congestion. It should also have a positive effect on the environment, although these effects are relatively small. However, such a policy is difficult to implement in the short term for technical and political reasons (high tax level).

The introduction of road pricing solely for lorries would generate additional tax revenue while reducing producers' welfare. In general, this policy would lead to a reduction in the use of lorries for freight traffic that is compensated for by inland shipping, rail and vans. The effects on congestion are small and the impact on the environment is negative since the share of vans would increase.

Extending road pricing to vans makes it possible to avoid shifting part of the road freight to vans, thus eas-

ing freight congestion. This policy would improve welfare in comparison with a tax that applies exclusively to heavy goods vehicles. Indeed, the further decrease in producer surplus would be more than counterbalanced by the increase in tax income.

The generalisation of road pricing to all road vehicles (freight traffic and passenger traffic) would allow for a further improvement in welfare, notably thanks to an easing of road congestion. Nevertheless, combined with the allocation of public transport subsidies, this policy induces a very marked surge in the demand for rail and other public transport (buses, trams and metros). This demand could exceed the rail network capacity and entail serious traffic congestion and management problems for those transport modes.

If a general road pricing system were to be combined with the total withdrawal of public transport subsidies, the traffic congestion and management problems which could occur in the previous scenario for public transport modes would be avoided. This transport policy is the one most closely related to the scenario of the internalisation of external costs in terms of economic efficiency. Nevertheless, it should be kept in mind that the tariff policies for public transport are not only based on economic efficiency criteria, but also on other criteria such as fostering sustainable transport behaviours and general access to mobility.

In conclusion, introducing road pricing only for lorries should be considered with caution because some provisions can affect general welfare. This is the case when the tax levels applied to lorries do not really vary according to travelling time. Indeed, differentiating tax levels according to travelling time is key when it comes to improving the efficiency of road pricing. The way the additional tax revenue is distributed is another key element in determining welfare. It should be more efficient to use the additional revenue ensuing from road pricing to reduce labour taxes than to limit general taxation.

“Analyse de l’impact de différents schémas théoriques d’une taxe routière en Belgique”
D. Gusbin, I. Mayeres, M. Nautet (in collaboration with the FPS Mobility and Transport),
Working Paper 14-09, December 2009.

Survey of distributions of targets and opportunities of the Climate and Energy package in Belgium

This study defines options for the distribution, among Belgium's Regions and its federal State, of the EU Climate and Energy package targets and public revenues, compatible with principles of sustainable development. It was carried out at the request of the federal Minister for Climate and Energy, also responsible for Sustainable Development. In order to provide information to the political decision makers, it highlights the reasons underpinning these distribution options and calculates the outcomes from them. However, it is left to the political decision-makers to make the decisions on the most appropriate options.

For Belgium, four components of the package are subject to distribution: first, the revenues from the auctions of emission allowances within the EU Emission Trading System (ETS); second, the 15% reduction in greenhouse gas (GHG) emissions between 2005 and 2020 for the sectors not included in the ETS; third, the 13% share of renewable energy in gross final consumption of energy, to be reached in 2020; and finally, the 10% share of renewable energy in transport, to be reached in 2020.

The literature was first surveyed to identify existing or proposed distribution options, as well as criteria used to select from among various options. Options proposed in the EU package were also included. Most of the identified options were based on indicators such as GDP, income, population, GHG emissions, energy consumption or costs. In the case of Belgium, the latter indicator could not be used, as information on costs per Region was not available.

Furthermore, GDP had to be replaced by gross regional income (GRI) or disposable income (DI). Indeed, regional GDP is computed based on the economic activity in each Region, while GRI and DI are computed based on the residence of the employee. As a large number of workers cross regional borders daily, this creates huge differences in regional GDP, in particular between the Brussels Region and the other two Regions.

Three sustainable development principles were also identified in the literature to choose the distribution to be analysed: the principles of responsibility (the effort should be proportional to the contribution to the problem), capacity (the effort should be proportional to the capacity to contribute to the solutions) and needs (the effort should be consistent with the eradication of pov-

erty and the right to develop). Only distribution options that were consistent with at least one of these principles and not contradictory with the principle of needs were chosen.

The selected distribution options were then analysed.

- In the case of ETS auction revenues, important factors in the choice of a distribution were discussed. No distribution was, however, calculated as no scientific arguments or sustainable development principles allowed specific distributions to be selected. The choice can, *in fine*, only be based on political arguments.
- In the case of non-ETS GHG emission reductions, the retained distribution options were calculated. For all the distributions calculated, the objectives attributed to the Flemish and Walloon Regions are close to the national objective of 15%, although in general slightly above this for the Flemish Region and slightly below it for the Walloon Region. For the Brussels Region, the attributed objectives varied widely, depending on the distribution options, from 3% to 30% because of the characteristics of this Region, which is small and urbanised.
- In the case of renewable energy in general, the federal state contributes directly to the objective (1.4%-point of the 13% objective) through the windmills to be installed in the North Sea. Beyond this, almost all the retained options attribute lower objectives to the Flemish Region and higher ones to the Walloon Region in a situation that is the inverse of what happens for non-ETS emission reductions. For the Brussels Region, attributed objectives again vary widely, depending on the distribution options, for the same reasons as given above.
- In the case of renewable energy in transport, the study suggested defining this objective at a national level. No suggestion was made, however, for the level of authority at which to set the responsibility for reaching the target, which is again a political choice. However, the study underlines, for this component as for the others, the importance of signing cooperation agreements between the Regions and the federal state.

“Survey of distributions of targets and opportunities of the Climate and Energy package in Belgium”,
A. Henry, N. Gouzée,
Working Paper 17-09, December 2009.

The PLANET model - Methodological report: the car stock module

Past versions of the FPB transport model, PLANET, assumed an exogenous evolution of the size and composition of the car stock, with data taken from external studies. Obviously this state of affairs limited the scope of the analysis of policies that may heavily affect vehicle choice, such as differential taxation of fuels.

Working Paper 2-10 presents a first extension of the current model that endogenises the total car stock by three size classes and two fuel types (diesel and gasoline). As of yet, other vehicle types are still modeled exogenously, with resource and environmental costs determined by tonne and vehicle kilometers.

The total car stock is determined by a simple stock-flow model, with the stock per vehicle and age class evolving due to new sales and depreciation/scrappage. New sales are determined as the difference between the desired stock and the number of vehicles remaining after scrappage. The desired stock is determined as a function of economic development, transport costs and population. Scrappage rates for each vehicle type are determined by an age dependent hazard function. Data for estimation of this function are taken from the age distribution of the car fleet in Belgium for 1997 – 2005, provided to us by the DIV, the federal department responsible for vehicle registration.

The distribution of new vehicle sales follows a nested logit model in size and fuel class. The number of cars by fuel class is further broken down into conventional, hybrid, CNG and LPG classes according to exogenous shares.

Calibration of the model requires further information on the value of the income elasticity and the elasticity with respect to the monetary variable costs of annual mileage. Using information on costs and taxes from the PLANET database, mileages and sales probabilities from the benchmark version of the vehicle stock module, the model is calibrated so as to produce elasticities taken from the literature..

Situated in the broader PLANET model, the results of the new vehicle stock module will feed back into the modal and time choice module through newly-endogenised average monetary costs, fuel costs and taxes per road mode.

*“The PLANET model - Methodological Report: The Car Stock Module”,
I. Mayeres, M. Nautet, A. Van Steenberghe (2010),
Working Paper 2-10, February 2010.*

Belgium’s export market share 1993-2008: structural changes and competitiveness

Belgium’s export market share for manufactured goods fell over the period 1999-2008. Decomposing those export market share losses through a Constant Market Shares Analysis (CMSA) reveals that they were due to a structural weakness. The geographic specialisation of Belgian exports proves unfavourable. Its negative impact on Belgium’s export market share largely outweighs the positive impact of the product specialisation of Belgian exports. Moreover, there has been a fall in the competitiveness of the manufacturing industry that has also contributed to the market share losses.

The export market share and the competitiveness of the manufacturing industry are crucial issues for the Belgian economy, given its high degree of openness and the relatively high share of manufacturing in its total trade. The aim of this paper was to analyse trends in Belgium’s export market share for manufactured goods to see whether Belgium has managed to maintain its share of world trade, whether it has been able to seize export opportunities in emerging markets, whether the product mix of its exports is well-adapted to the product compo-

sition of world imports and whether Belgium’s exports of manufactured goods remain competitive on world markets. A traditional way of addressing these issues is by decomposing the changes in the export market share into a structural effect – reflecting the impact of the product specialisation and the geographical specialisation of a country’s exports – and a competitiveness effect – reflecting market share gains or losses that do not come from changes in the structure. The most frequently used decomposition method is called ‘Constant Market Shares Analysis’ (CMSA). Two previous FPB working papers – Working Paper 2-00 and Working Paper 7-05 – have applied this method, decomposing the export market share of the Belgium-Luxembourg Economic Union (BLEU) for the years 1991 to 1997 and 1997 to 2001. This paper updates and upgrades their analysis using data (in current prices) for the BLEU and Belgium for the period 1993-2008 from the United Nations’ COMTRADE database. A dynamic version of the CMSA has been developed and applied.

The results are split into two sub-periods. For the years

1993-1998, COMTRADE only contains data for the BLEU. Performing a CMSA with these data confirms the results reported in the two above-mentioned earlier working papers. For the years 1999-2008, separate data for Belgium are available in COMTRADE. The results of the CMSA for this period can be summarised as follows. First of all, Belgium lost export market shares for manufactured goods over the period 1999-2008. However, the losses found in this paper are smaller than those reported in other papers on that subject. This may to some extent be explained by the fact that those papers do not exclude raw materials and energy products when computing the CMSA. Second, the decomposition of the changes in Belgium's export market share shows that the market share losses between 1999 and 2008 mainly came from a negative structural effect. This is driven by an unfavourable geographic specialisation of Belgian exports. Although the product specialisation of those exports turns out to favour export market share gains, this is not sufficient as a compensatory effect. Third, Belgium's geographic export specialisation leads to export market share losses since, on the one hand, more than 70% of Belgian exports go to the old member states of

the European Union (EU) where import demand growth is slow, and, on the other hand, the share of fast-growing markets such as the new member states of the EU, China or the Middle East is small in Belgian exports. Fourth, the product specialisation of Belgian exports led to market share gains for the country between 1999 and 2008. Indeed, Belgian exports of pharmaceutical and metal products met a very dynamic world import demand during that period. Nonetheless, it must also be mentioned that the large share of motor vehicles in Belgian exports has acted as a drag on market share growth. Finally, the decomposition shows that there has been a moderate loss in competitiveness for the Belgian manufacturing industry, which has also contributed to the overall market share loss. It turns out that this competitiveness-driven export market share loss matches trends in unit labour costs for the manufacturing industry with a one-year lag.

*"La part de marché à l'exportation de la Belgique 1993-2008: changements structurels et compétitivité",
M. Matte, B. Michel,
Working Paper 6-10, March 2010.*

The Belgian long-term care system

This paper is the Belgian contribution to Work Package 1 of ANCIEN, a research project financed under the 7th European Framework Programme and aimed at assessing care needs in European countries. The country reports provide background information about the organisation of the national long-term care (LTC) systems, used in Work Package 1 to derive a typology of LTC systems at the European level.

Long-term care in Belgium consists of a wide range of services organised at the federal, regional and municipal levels, and is related to health and social service provision. The bulk of LTC services is provided as part of the federal public compulsory health insurance system, which is financed by social security contributions and general taxes. Since public health insurance covers practically the whole population, LTC coverage is also nearly universal. However, since long-term care services provided through the health insurance system only cover nursing care (as well as paramedical and rehabilitation care), a whole range of services is organised and provided at the regional and local level. Generally speaking, the Belgian LTC system can be characterised as a mixed system with extensive publicly-financed formal care services that are complemented by significant amounts of informal care, provided mainly within the family.

Formal long-term care services consist of benefits in cash and in kind. The main cash benefit is the 'Allowance for Assistance to Elderly Persons'. It is a


means-tested monthly allowance, allocated to elderly persons (aged 65 years or older) who score a minimum of 7 points on a scale that includes ADL and IADL limitation items as well as a medical assessment. Long-term care benefits in kind consist of nursing care at home and in homes for the elderly, day care and short-stay centres, and personal care and home help. Broadly speaking, the part of long-term care covered by the universal health insurance system (residential and home nursing care) is financed by social security contributions paid by workers, employers, and retirees. Other LTC services and allowances are financed by general taxes, collected mainly at the federal level. A part of these taxes is used to contribute to the federal social security budget (including health care); another part is used for LTC subsidies and allowances at the federal and regional level.

Current long-term care needs seem to be adequately covered by a combination of informal and formal care supply. However, the ageing of the Belgian population can be expected to be a major driver of increasing demand for long-term care services, requiring a commensurate increase in future supply.

The overall goal of Belgian LTC policy is to provide universal access to affordable and high-quality LTC, aimed at allowing elderly care-dependent people to keep on living in their own homes as long as possible. Recent reforms aim at improving access and affordability, available services, and quality. To summarise the discussion of

Belgium's long-term care system: it is probably fair to conclude that it provides sufficient, high-quality care services, given the current needs. The main immediate challenges are the coordination and integration of care in different settings (hospitals, nursing homes, home care) and the affordability of care for financially vulnerable groups. In the longer run, however, given the projected share of elderly persons in the population in the decades to come, the overall financial burden of the system will become a major challenge. While the future financial burden of LTC will be studied in more detail in subsequent Work Packages in the ANCIEN project, the likely magnitude of future LTC expenditures can be in-

ferred from the expected doubling of the number of elderly persons with moderate to severe limitations over the next fifty years (assuming constant dependency rates). Moreover, the projected growing number of dependent elderly people will pose the problem of finding equally growing numbers of informal and formal carers in order to maintain the current levels and quality of long-term care in the future.

 *"The Belgian long-term care system"*
P. Willemé,
Working Paper 7-10, March 2010.

The macroeconomic impact of organising a FIFA World Cup in Belgium

The organisation of a football world championship is usually considered as beneficial for the organising country. It will get attention from all over the world, which may have a positive impact upon its reputation, its tourism and other exports. In order to achieve this, the country must bear considerable costs for organising the event. Nevertheless, such costs may represent an stimulus to economic activity.

Belgium and The Netherlands are preparing a joint candidanship for organising the 2018 (or 2022) FIFA World Cup. In Belgium, the construction or upgrading of stadiums to meet FIFA standards and the provision of security are expected to cost between 440 and 840 million euro. The FIFA Local Organising Committee and the foreign press and supporters may spend between 290 and 830 million euro. Although these amounts can be considered as costs and benefits, they would both provide a stimulus to the Belgian economy – as long as this economy is below full employment. The financial value of this stimulus may thus lay between 730 and 1 670 million euro, with a reference amount of 1 150 million euro.

Two economic models - an input-output model (IOM) and the macroeconometric simulation model HERMES - have been applied to assess the economic activity that may be generated by the stimulus. Both models differ in their behavioural mechanisms. This has led to differences in simulation results, which were relatively large for some macroeconomic variables.

The outlook covers a ten-year period. Between 2011 and 2016, five or six new stadiums are to be built in Belgium. During 2017 and 2018, the Confederations Cup and the World Cup itself are to be played consecutively. For 2019 and 2020, the HERMES simulation projected some dynamic effects of the stimulus given in the years before. The basic outcome of the simulation has been that during the year that the World Cup is being played, Belgian

GDP should be about 0.13% higher than without this mega-sporting event, and employment should be about 0.09% higher. For the government budget, there should be an annual negative impact of about 20 million euro up to 2017, caused by the public share in financing the construction of the stadiums. This should, however, be compensated by additional fiscal revenues in 2018 and the dynamic impact afterwards. On balance, the budgetary impact should be slightly positive over the whole period.

The input-output analysis showed that the economic activity generated, in terms of gross output, should amount to 1.8 times the initial stimulus. There should be work for an additional 750 persons during the years running up to the World Cup, essentially for building the stadiums. In the year the World Cup is being played, there should be additional employment amounting to 8 250 person-years. In terms of contribution to GDP, this represents an annual amount of 53 million euro running up to the event, and 484 million in 2018.

As concerns the impact upon GDP, the HERMES and IOM simulations agreed. As regards employment, however, there were differences, with HERMES giving the weaker outlook. The cumulated impact over 2011-2020 was 9 100 and 13 500 person-years, respectively. For HERMES, this amounts to about 500 per year up to 2017 and about 4 100 in 2018. Contrary to the IOM, it gave dynamic impacts of about 1 100 workers in 2019 and 500 in 2020.

In short, it is not surprising that the economic impact of the World Cup is expected to be relatively weak. The cumulated 1.15 billion euro stimulus is not more than 0.3% of GDP, as projected for 2018. This evidently is a weak stimulus, weaker than usually projected for Olympic Games. It nevertheless represents some hundreds of millions of euro, for the most part spent on the construc-

tion and hotel industries. Depending on the model applied, about 400 or 750 persons could be employed from next year to 2017, and during the event's year, a peak of about 4 000 or 8 000 person-years is expected to be generated.

"Analyse des répercussions macroéconomiques de l'organisation d'une Coupe du Monde FIFA en 2018 en Belgique - Analyse van de macro-economische gevolgen van de organisatie van een FIFA Wereldbeker 2018 in België",
D. Baudewyns, J. van der Linden,
Working Paper 8-10, March 2010.

Shifting of red tape? The impact of authority behaviour on tax compliance costs

The compliance costs for private taxpayers are not only affected by the tax law itself but also by its implementation through the tax authorities. The paper analyses the effect of administrative actions on the tax compliance costs for private businesses using Belgian micro data collected by the administrative burdens survey conducted every two years since 2000.

In addition to optimal tax law, the optimal enforcement of tax regulations is an important economic issue. However, the effects of authority behaviour on tax complexity and the administrative compliance costs for private businesses have not been taken into account within the existing theoretical and empirical literature. In this paper, the authors analyse the relationship between the tax collection agency and private taxpayers from an administrative burdens perspective. As the payment of taxes reduces the economic resources of private persons and businesses, there is a need to supervise compliance with tax legislation. Typical instruments of the tax administration are tax audits and information requirements that reduce the information asymmetry between the tax administration and the taxpayer. However, the use of these instruments significantly affects the compliance cost burden. If the administrative authorities do not take into account the overall cost burden, this may result in a "shifting" of red tape from the administration to private taxpayers. The authors demonstrate, in a theoretical model, that the externalities of tax authority behaviour could yield to an economically inefficient solution.

Using data on private businesses in Belgium collected by the two-yearly administrative burdens survey, the authors find empirical support for the expected correlation between authority behaviour and compliance costs. Based on information about the quality of the adminis-

tration, they are able to give a quantitative estimate of the accordant effects. According to the estimate, businesses that did not obtain the information they requested bear an additional cost burden of about 26%. A severe delay in answering a request adds a further 15% to the cost burden. Altogether, these two rating variables explain between 10% and 14% of the average cost burden. To control for possible endogeneity, the authors used comparable rating variables on tax legislation. They demonstrated that there is a significant and separate effect of tax administration and tax legislation on the costs of red tape. Taking into account legislative aspects, the most important subjects seem to be the understandability and consistency of the tax law. Furthermore, new legislation should be introduced in a way that leaves enough time for businesses to take the new regulations into account. The rather low significance of these variables results from the fact that they are a measure for similar aspects.

The results imply that the simplification of the tax system is not only a legislative but also an administrative issue. To reduce the costs of red tape, it seems appropriate to incorporate the externalities of administrative control and audit strategies into the decision-making of the tax administration itself. Furthermore, and corresponding to parts of the literature, a "shifting" from an audit-oriented to a service-oriented tax administration could also have a positive effect on overall compliance with tax law.

"Shifting of red tape? The impact of authority behaviour on tax compliance costs",
S. Eichfelder, C. Kegels,
Working Paper 9-10, March 2010.

An analysis of the long term adequacy of the Belgian public pension system

This working paper describes the second version of MIDAS (an acronym for 'Microsimulation for the Development of Adequacy and Sustainability'), a dynamic population model with dynamic cross-sectional ageing. MIDAS simulates the life spans of individuals in the base

dataset, their interactions, for the years between 2003 and 2060. It enables an adequacy assessment of pensions in Belgium to be produced that is coherent with the baseline budgetary projections of the 2009 report of the Study Committee for Ageing produced by the Federal

Planning Bureau's semi-aggregated MALTESE model. The adequacy of pensions is analysed through the replacement ratio, inequality measures among pensioners and poverty risk indicators for the elderly. This working paper is jointly published by the Federal Planning Bureau and the Federal Public Service Social Security.

Microsimulation models in recent years have gained popularity in the assessment of social security systems in terms of their adequacy, and specifically of pension policy. Contrary to the first version of the model, which was intended for use in an international setting, this second version of the dynamic microsimulation model, MIDAS is intended for use in the Belgian context only. One of the consequences of this is that the MIDAS model aligns its adequacy assessment of pensions in Belgium to the latest budgetary projections and assumptions of the reference scenario of the Study Committee for Ageing 2009 report. These projections take into account the consequences of the financial crisis. Also, the model is extended to include disability benefits and unemployment benefits so that the adequacy of pensions can be put into perspective with the income of other inactive individuals.

The adequacy of pensions is reflected by the replacement ratio, inequality among pensioners and the poverty risks of the elderly. During the first 20 simulation years, the replacement rate of women increases while the replacement rate of men slightly decreases. The women's trend over that period is a result of the increasing length of their careers, and the strong increase of the minimum pension from 2007 on. The period between about 2020 up to 2060 shows a parallel decreasing development of the replacement rate of men and women,

where the average replacement rate of women is about 8% above that of men.

Until the late 2010s, inequality among pensioners increases because of the increased labour market participation of women, which causes earnings to become more important as a source of income for pensioners. In the second stage, from the early 2020s to the mid 2040s, income inequality among pensioners decreases. This, among other things, is the result of the increasing proportion of single pensioner's households and ageing among the elderly. And finally, between the mid 2040s and 2060, inequality among retirees increases again somewhat due to the relatively large cohort entering into retirement.

Probably the most informative indicator of pension adequacy is the poverty risk indicator for retirees. This indicator is expected, first, to decrease over the next 40 years, secondly, to stabilise at below the level of the working population poverty rate between 2040 and 2050 and finally, to increase slightly over the last decade. The evolution during the first two periods is a result of the increasing length of career of women relative to that of men, and a strong increase in the guaranteed minimum for the elderly from 2007 on. The evolution during the last decade is due to the decoupling of the adjustment growth rate of minima and the wage growth rate that, finally, after 50 years, will have an impact on the poverty level of pensioners.

*"The long-term adequacy of the Belgian public pension system: An analysis based on the MIDAS model",
G. Dekkers, R. Desmet, G. De Vil,
Working Paper 10-10, May 2010.*

Sustainable development indicators: study of two types of aggregated environmental indicators

Two Working Papers bring their contribution to the overall debate about how to measure the progress of society from a sustainable development perspective. They study two types of environmental synthetic indicators that complement GDP: indicators based on the Environmental Satellite Accounts and the Ecological Footprint (EF) and BioCapacity (BC) indicators. These aggregated environmental indicators, which reflect a variety of important data that are not included in the GDP, have emerged since the eighties, along with the need to explore interlinkages between economic performance and environmental challenges.

The Ecological Footprint and Biocapacity indicators, as well as the indicators based on Environmental Satellite Accounts, both provide insights into the pressures exert-

ed by our consumption patterns on the natural environment. These two types of indicators also have in common the fact that they are "aggregated", which means that each of them is based on an accounting system and is expressed in one common (monetary or physical) unit of account.

However the processes that have determined the present structure and status of these two statistical systems are very different from each other. The indicators based on the Environmental Satellite Accounts are compiled by statistical authorities and are directly linked to official national accounts systems that have been defined and harmonised at the international level for several decades. Unlike this official context, the status of the EF and BC, calculated by a non-governmental organisa-

tion called the *Global Footprint Network*, is based on a rather new environmental accounting system. This system has been developed from a completely different perspective, without seeking connection to the official accounts of consumption and production activities.

The potential of these two types of indicators to bring out robust and relevant information and to support decision-making from a sustainable development perspective is detailed and questioned in both of these Working Papers.

Ecological footprint and biocapacity

This Working Paper studies two associated indicators: the EF and the BC. The EF measures some of the pressures exerted by a given population on the natural environment through its consumption of several kinds of renewable resources and of fossil energy and through its infrastructure. In order to calculate the EF, these various pressures are first translated into normalised hectares of land and water called “global hectares” (gha), and then aggregated. The BC also measures in gha the capacity of the land and water area (over the territory where this population lives) to produce the renewable resources taken into account in the EF. By comparing the EF to the BC, the Global Footprint Network indicates whether a population shows an ecological surplus or deficit over its own territory.

Chapter One presents the EF and the BC, pointing out what these indicators really measure and the kinds of messages that can come out of them. This chapter also examines potential linkages with the national accounts.

The next two chapters address, respectively, the method and the data. Chapter Two examines in more detail the EF and the BC accounts, clarifying in particular how the apparent consumption of renewable resources and fossil energy as well as the land occupied by infrastructure are converted into global hectares. It also specifies and comments on some accounting rules, namely those regarding the various energy sources. Chapter Three then reviews the data sources used in these accounts. It also illustrates the problems of data quality and availability in the EF and BC accounts, on the basis of an analysis of the Belgian EF and BC conducted by Statistics Belgium.

The last chapter highlights the strengths and weaknesses of the EF and BC as instruments to support decision-making for sustainable development. It questions, in particular, the clarity of the concepts, the normative dimension of the BC, and the link with the national accounts as well as the status and quality of the EF and BC accounts.

Indicators based on the Environmental Satellite Accounts

Based on the Environmental Satellite Accounts, this Working Paper explores the relationship between household characteristics and some of the environmental pressures exerted by their consumption patterns in Belgium. It studies, from a sociological point of view, the household characteristics that are responsible for the main environmental impacts.

The opening chapter sets out the research questions. It describes the experimental database that has been framed to answer these research questions. This database links data concerning household consumption selected from the Belgian Household Budget Survey to data on energy use and air pollution derived from the Environmental Satellite Accounts (compiled by the Federal Planning Bureau) for the year 2002. This chapter also presents a model called the “Social Practices Approach”, which is used to structure the analysis. This model focuses on actual behavioural practices (e.g. cooking, commuting) of human agents and relates them to the social structure in which they take place and to the lifestyles of the agents.

The next four chapters describe in detail different aspects of the relationship between household characteristics and the environmental pressures caused by their consumption patterns on the basis of the experimental database. A first key result measures the link between households’ fuel expenditure for heating and private transport - which is related to the social practices associated with the dwelling and the use of modes of transport - and the environmental pressures of household consumption. It appears that the degree of urbanisation of the households’ residence is an important structural parameter: in rural regions, the natural gas network and the public transport network are less extensive. Households in rural areas consume more petrol because petrol-derived fuels are used for heating and for private transport. The opposite is true for households living in urban areas.

The study also analyses some of the relationships between the lifestyles of households and the environmental pressure exerted by their consumption expenditures. It shows that wealthy households (according to income and non-income characteristics) contribute more to the various forms of environmental pressures than other less well off households because of their social practices, which are influenced by their lifestyles.

Conclusions drawn from the study in the last chapter point out the main interlinkages between households’ characteristics and the environmental pressures exerted

by their consumption patterns. Such information on interlinkages can be very useful to support decision-making from a sustainable development perspective. But taking into account the exploratory nature of this study, the conclusions also underline that further research is needed to better understand all the structural and actor-related parameters that might influence these interlinkages.

Electric cars: back to the future?

Even in the absence of specific, dedicated policies and measures, electric motorised vehicles (cars, buses, trucks and motorcycles) have a future in the long term. To secure this future, it is crucial to start laying the necessary building blocks in the short to medium term already. It is essential not to miss out on this opportunity since electric vehicles present a number of attractive solutions to modern challenges such as climate change, energy supply security and the economic crisis since they cut greenhouse gas emissions in the transport sector, reduce reliance on fossil fuels and may create (or maintain) employment in the national automotive industries.

According to the scenario analysis undertaken on two sets of scenarios, the first being the 20/20 target scenario of the FPB's Working Paper 21-08¹, the second a selection of scenarios taken from the Prospective Study on Electricity², we see that, in the absence of dedicated policies, two factors seem to have an impact on the resurrection of electric vehicles (EVs) in the medium to long term: first and foremost, the ambition of actions undertaken to halt climate change; second, and to a far lesser extent, the presence of nuclear energy.

In the absence of specific, dedicated EV public programmes, post 2012 climate policy sparks off the penetration of EVs, mainly on a longer time horizon (2030): with post-Kyoto climate policy in place, battery electric vehicle (BEV) penetration in 2020 attains approximately 2% of the road vehicle fleet, while in 2030 around 5% of the road vehicle fleet will be electrically propelled, compared to almost 0% when no climate policy is adopted after 2012. These figures ought to be higher if plug-in hybrids (PHEVs) develop more significantly than BEVs.

1. Bossier et al., Impact of the EU Energy and Climate Package on the Belgian energy system and economy, Study commissioned by the Belgian federal and three regional authorities, Working Paper 21-08, Federal Planning Bureau, November 2008.
2. FPS Economy, Federal Planning Bureau, Studie over de perspectieven van elektriciteitsbevoorrading 2008-2017, December 2009.

"Biocapacité et empreinte écologique: des indicateurs d'aide à la décision en matière de développement durable ?"

N. Zuinen, N. Gouzée, Working Paper 11-10, June 2010.

"De milieudruk van de huishoudelijke consumptie in België in 2002: een sociologische analyse"

J.-M. Frère, J.-C. Quertinmont, Working Paper 12-10, June 2010.

In the time span up to 2020, assuming enhanced climate policy, the electricity consumption of the EVs is rather small, ranging between 0.4 and 0.5 TWh. It is not until 2025 and 2030 that EVs start to have a more visible impact on electricity consumption, stretching out to between 1.2 and 1.4 TWh, which represents approximately 1% of the total final electricity demand in 2030.

The availability of nuclear electricity can be a modest incentive for EVs through a decrease in electricity prices - assuming perfect market functioning - hence triggering a slightly higher EV penetration.

According to a concise literature overview, several studies cite even higher penetration rates. Our analysis shows that the impact of higher penetration rates on electricity consumption is non-negligible: if pure EVs' penetration rates reach 20% (30%) by 2030, additional electricity demand will turn out to be 3.8 (6.3) TWh, adding up to a total overall road transport electricity consumption of about 4.9 (7.4) TWh.

An important lesson to be drawn from the analyses, then, is that the impact of an enhanced post-2012 climate policy on EV development is, although not insignificant, rather minor. If policy makers decide they want to support and even intensify the expansion of EVs, considering their positive impact on oil independence, transport efficiency and possibly job retention/creation, further policy measures embedded in a long term national master plan are of utmost importance.

"Electric cars: Back to the future?"

D. Devogelaer, D. Gusbin, Working Paper 13-10, May 2010.

Competition in the wholesale and retail trade

An exploratory analysis of the relationship between regulation, competition and productivity in the Belgian wholesale and retail trade has been made. From theoretical considerations and empirical analyses, this relationship does indeed seem to exist, in such a way that productivity can be enhanced by deregulation. Nevertheless, factors other than productivity are important for social utility.

The wholesale and retail trade in Belgium is a large industry, producing about 13% of GDP and employing over 600 000 people (14% of total employment). It is important not only because of its size but also because the major share of goods consumed in the economy are traded there. Yet its economic performance is not optimal. During about 1975-2000 a significant part of the lead in labour productivity was lost. Total factor productivity (TFP) even decreased. Since 2004, prices of food and manufactured consumption goods have risen to above the eurozone averages.

The relatively weak performance might be related to the relatively heavy level of regulation. Belgium has (together with Luxembourg) the heaviest regulation of retail among OECD countries. This is expressed, among other things, in the licencing procedure for large outlets, the legislation on commercial practices and the legislation on shop opening hours. Moreover, competition law has not been particularly strong for many years. Nevertheless, the past decade has been characterised by deregulation.

Economic literature states that regulation may have a negative impact upon competition and that competition is the link between regulation and productivity. Competition is a phenomenon that can only be measured indirectly. This study applied five measures to data that were, in most cases, available for a period no longer than 1996-2005. The measures were entry and exit, market concentration, market stability, profit elasticity and the price-cost margin. Only the latter was available for a longer period (1970-2004). At first sight, the application of the measures did not give a uniform picture of the evolution of competition. According to some of the measures, competition had increased; according to others it had decreased. Nevertheless, it could be concluded that during the first half of the past decade there has been a strengthening rather than a weakening of competition. For two of the measures there were comparable foreign

data from which it appeared that competition in Belgian wholesale and retail is weaker than in other countries.

A comparison of the time series of the available data showed that labour productivity and TFP were most stagnant during the years in which regulation had been heaviest, viz. 1975-2000. Likewise, the deregulation of the past decade seemed to be attended by strengthening competition. These tendencies seem to be confirmed by some estimations that apply a simple index for regulation as the dependent variable. This index gives a quantitative score for the heaviness of the three kinds of industry-specific regulation listed above and general competition law. It should, however, be noted that the available time series were insufficiently stationary to safeguard sufficiently reliable outcomes. Hence the estimations rather have an indicative value. When regulation was introduced, there was a significant relationship with labour productivity growth, with a two-year lag. There also was a significant relationship between regulation and most measures for competition. The only insignificant relationship was that with profit elasticity. For the price-cost margin and market concentration, an interpretation that deviated from the common interpretation seemed to prevail: competition may lead to a market characterised by a small number of large but efficient suppliers. This is a plausible result since for a long time regulation favoured a fragmented Belgian retail industry. Finally, the estimate of market stability gave the expected sign, whereas it did not for entry and exit.

The issue of competition thus requires consideration at the level of society. Competition among efficient chain stores may indeed be conducive to productivity, but may also be at the cost of consumers and the self-employed or of regional planning and the environment. As a policy issue, it is important that other factors of social utility are understood as well, and that there is an awareness of the reverse impact deregulation may have upon utility. Consequently, one may end up with a balanced assessment of the social impact of regulation.

“Concurrentie in de Belgische distributie”,
J. van der Linden,
Working Paper 15-10, June 2010.

Other Recent Publications

Working Paper 5-10, March 2010

“Fragiliteit van de financiële structuur van de industrie en bepaalde niet-financiële diensten in België anno 2007”, H. Spinnewyn

Working Paper 4-10, March 2010

“De eerstestijlerpensioenen aan de vooravond van de vergrijzing: doorlichting van de bedragen, gerechtigden en doelmatigheid”, G. De Vil

Working Paper 3-10, March 2010

“Competition and Regulation, Belgium, 1997 to 2004”, C. Braila (FPB), G. Rayp (UGent), S. Sanyal (UGent)

Working Paper 1-10, February 2010

“Le système d'innovation en Wallonie”, B. Biatour, Ch. Chatelain, Ch. Kegels

Planning Paper 108, January 2010

De administratieve lasten in België voor het jaar 2008”, “Les charges administratives en Belgique pour l'année 2008”, C. Kegels

Working Paper 18-09, December 2009

“Quotients de mortalité prospectifs - Hommes, femmes et unisexe”, J.M. Paul

Research in progress

Determinants of total factor productivity growth in Belgium

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

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General equilibrium modelling

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

contact: transport@plan.be

Wage formation

New approaches based on detailed micro data are being developed to better understand determinants of wage formation in Belgium.

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Environmental accounts

Publication of an update of the environmental accounts data for Belgium is planned for the first half of 2011. Data on air emissions, environmental protection and environmental taxes will be included. Analyses of the data is also underway.

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Long-term energy outlook

Publication of an energy outlook for Belgium up to 2030, including a reference scenario and several alternative policy scenarios is planned for January 2011.

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Offshoring

The FPB is continuing to work on offshoring. The project describes the level and evolution over time of offshoring of activities carried out in Belgium, as well as the impact on employment and productivity. The analysis is made on an industry-level, as well as for data for individual companies.

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The long-term budgetary and social challenges of ageing

Different aspects of the long-term dynamics of acute health care, long-term care and pension expenditure are being scrutinized. A long-term model is being used to project the budgetary consequences of ageing; the social dimension of pension benefits is being investigated using a microsimulation model.

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Employment in the civil service

The question of whether the level and the structure of employment in government bodies in Belgium is appropriate has been raised frequently. A research project at FPB addresses this question.

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Macroeconomic, budgetary and GHG emissions prospects

Using a consistent modelling approach, medium-term macroeconomic prospects and evolution of greenhouse gas (GHG) emissions are investigated. A consistent regional-national version of the model developed in collaboration with experts from the regional governments of Brussels, Flanders and Wallonia generates regional results.

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Recent history of major economic policy measures

- April 2010** Some ownership separation took place in the energy industry. GdF-Suez sold its remaining share of the gas transport system operator (TSO), Fluxys, to the public shareholder, Publigas. This included the strategic terminals at Zeebrugge seaport. The transaction increased Publigas' stake in the company to 90%. The electricity incumbent, Electrabel, sold its shares in TSO Elia. Part of Electrabel's holding also went to a public shareholder, Publi-T, increasing its stake in the company to 48%. Meanwhile, some of the remaining public shares in the former public electricity production company, SPE, were sold to Electricité de France, bringing its stake to 64%.
- March 2010** The Constitutional Court judged the extraordinary fiscal levy the government imposed on the nuclear energy production of Electrabel and SPE as lawful and non-discriminatory.
A licence to roll out an experimental 4G mobile network was granted to Telenet, the former Flemish cable TV incumbent.
- January 2010** In a 2009-2012 update of the Stability Programme, the Belgian authorities reaffirmed their commitment to balancing the general government budget by 2015. As an interim target, the 2012 deficit should be limited to the 3.0% of GDP Maastricht threshold (instead of a 4.4% of GDP deficit target for 2012 in the previous update of September 2009), of which a deficit of 2.6% of GDP is at the federal level (central government and social security) and a deficit of 0.4% of GDP is from the sub-federal public entities (Regions, Communities and local authorities together)
- October 2009** The federal October budget conclave established a budget for 2010 and a tentative budget for 2011. These were based on assumptions of GDP growth rate of 0.4/1.9% and of inflation rates of 1.5/1.6%, respectively in 2010/2011.
The Government expects a deficit for entity I (the federal authority and social security) in 2010 of 4.2% of GDP. This represents, according to government figures, an improvement of 0.7% of GDP as compared to the 2009 deficit (4.9% of GDP) and a 0.5% of GDP adjustment as compared to the expected 2010 deficit with unchanged policy (4.7% of GDP). The deficit in entity I breaks down into a 3.7% of GDP deficit for the federal authority and 0.5% of GDP deficit for social security (taking into account an exceptional 0.7% of GDP transfer from the former to the latter). Assuming that entity II (the regions, communities and local authorities) meets its objectives in the September 2009 Stability program (1.5% of GDP deficit), the general government deficit for 2010 should stabilise, as compared to 2009, at 5.7% of GDP.
The 2010 budget relies on structural new tax and non-tax receipts, among which are increased excise duties on diesel, increased taxation of company cars, selective adjustments in the corporate tax system (regarding the interest rate for the risk capital deduction and the conditions for the deduction of definitief belaste inkomsten/revenus définitivement taxés), a contribution from the nuclear sector (in the context of extending the lifetime of nuclear plants), new fees from the financial sector for the state guarantee on deposits, and the fight against tax fraud.
On the other hand, a 12% reduced VAT rate will be introduced for the catering sector (on meals only) and the reduced VAT rate for the building sector in 2009 decided in the December 2008 stimulus package will be extended to 2010Q1. Other minor tax reliefs have also been decided, notably for environmental purposes.
Savings measures on the expenditure side mainly concern public employment, particularly in the Defence department. The 4.5% real growth rate norm for the health care budget has been maintained, but effective expenditure is expected to grow at a slightly slower pace. New health care initiatives have been decided (a wage increase for nurses and developments in preventive medicine, notably), but also savings (reduced prices of generic and older drugs, and others). Pensions in the self-employed scheme will be raised by an additional EUR 20/month (singles and survivors) or EUR 25/month (household rate) as from August 2010. Welfare increases in social allowances granted under the 2005 Generation Pact are confirmed for 2010 and 2011.
The October conclave also includes crisis measures to support employment. In 2010 and 2011, different groups of young workers (the low-skilled, "allochthonous", disabled and aged under 19) will be fully exempt from social security contributions, and "activation" wage subsidies for young and older workers will be increased. Wage subsidies will also be increased for the non-profit sector. The additional employers' SSC cuts for temporary reductions in working time are likely to be extended to June 2010.
The sub-federal Governments also defined their 2010 budgets and medium-term targets. The Flemish Region plans to restore budgetary balance by 2011, while the non-Flemish entities are aiming at a 2015 horizon. Operating costs will be strictly controlled in all Regions. The tax rebate for working Flemish residents, increased in 2009, will be strongly reduced as from 2010.
- September 2009** Complementing the 2009-2013 Stability Programme, the Belgian authorities reaffirmed their commitment to balancing the general government budget by 2015, which requires a (now revised) adjustment of 6.7% of GDP as compared to a constant policy scenario. As an interim target, the 2012 deficit should be limited to 4.4% of GDP, of which 3.7% is a GDP deficit at the federal level (central government and social security) and 0.7% is a GDP deficit for the other public entities (Regions, Communities and local authorities all together).

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

Other Abbreviations

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