

# Quarterly Newsletter of the Federal Planning Bureau

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*Short Term Update (STU) is the quarterly newsletter of the Belgian Federal Planning Bureau. It contains 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

*Since the start of 2012, tensions in money and bond markets have receded somewhat in most euro countries. Together with the recent uptick in most confidence indicators, this is expected to lead to a bottoming out of European GDP. Assuming the sovereign debt crisis does not intensify again, economic activity should gradually pick up in the second half of the year. Nonetheless, on a yearly basis, this implies negative euro area GDP growth of -0.3%, which is a substantial downward revision as compared to our September forecasts (1.2%). This scenario remains highly uncertain, with renewed turmoil in financial markets as the main risk.*

*Belgian economic growth amounted to 1.9% in 2011, although economic activity fell slightly during the second semester. In 2012, quarterly growth should remain very modest against the background of a gradual pick-up in the European business cycle and of the austerity measures already taken by the Belgian government. Economic activity ought to stabilize in 2012Q1, followed by a slight export-led upturn (up to qoq growth of 0.2% in 2012Q4). Economic growth should remain limited to 0.1% on a yearly basis.*

*Due to the lack of dynamism in the business cycle, job creation has stagnated since mid-2011 and should only slightly recover in the course of this year, leading to an average annual increase of 6 400 units in 2012. As a result, the harmonised unemployment rate (Eurostat definition) should rise from 7.2% in 2011 to 7.5% in 2012.*

*Our most recent inflation forecasts were finalised at the end of February. Belgian inflation, as measured by the yoy growth rate of the national consumer price index, should amount to 3.0% on average this year. This upward revision (compared to our 2.7% forecast at the end of January) is largely due to price increases for energy products as a result of higher oil prices.*

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



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

## Decomposition analysis of changes in CO<sub>2</sub> emissions by the Belgian industries

Emissions of carbon dioxide, the most important greenhouse gas, have been a major focal point in policy making during the last decade. In the context of the Kyoto protocol many countries, including Belgium, assumed the task of decreasing such emissions. Production, by private enterprises or by the government, was responsible for the largest part of Belgian CO<sub>2</sub> emissions - specifically, 75% in 2008. Within the Belgian National Accounts Institute, the Federal Planning Bureau has been assigned responsibility for the environmental satellite accounts, an environmental database consistent with the National Accounts. Two of these accounts, the Physical Energy Flow Accounts and the Air Emissions Accounts, contain data on the basis of which the driving forces behind the changes in CO<sub>2</sub> emissions by the Belgian producers can be investigated by means of decomposition analysis.

Decomposition analysis allows changes in CO<sub>2</sub> emissions to be broken down in terms of the impact of volume changes, namely economic growth and changes in the structure of the economy, and the impact of efficiency changes. These efficiency changes can be linked to either energy efficiency or the emission intensity of the energy mix. The first part of the text briefly explains the methodological issues. The following parts present the decomposition results for CO<sub>2</sub> emissions by the Belgian industries between 1995 and 2008.

### Decomposition analysis

On the basis of the available data, Belgian producers' CO<sub>2</sub> emissions can be decomposed into four underlying causes. These causes are: economic growth (measured by GDP), changes in the structure of the economy (measured by the share of value added of the different industries in GDP), the energy intensity of value added creation (measured as the amount of energy needed per unit of value added), and the emission intensity of the energy used (measured as the amount of carbon dioxide emitted per unit of energy used). As yet, no technology is used to capture CO<sub>2</sub> emissions. Therefore, changes in the emission intensity are caused by changes in the energy mix.

This can be formalised as follows:

$$POL_i = \frac{POL_i}{E_i} \cdot \frac{E_i}{VA_i} \cdot \frac{VA_i}{GDP} \cdot GDP \quad (1)$$

With:

$POL$  = physical amount of CO<sub>2</sub> emissions in thousands of tons

$E$  = total energy used in TeraJoules

$VA$  = value added in millions of euros at constant 2005 prices

$GDP$  = gross domestic product in millions of euros at constant 2005 prices

$i$  = industry 1 to 54<sup>1</sup>

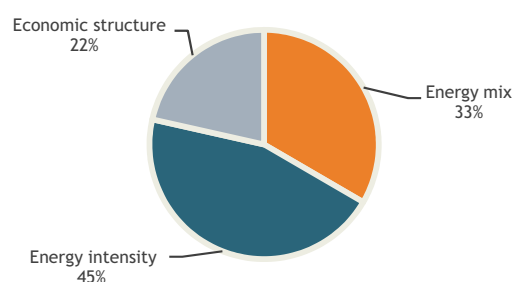
Changes in CO<sub>2</sub> emissions can then be expressed as a weighted sum of the right-hand side variables in equation (1).<sup>2</sup>

The decomposition method was applied to the 54 industries for which the necessary energy, emissions and economic data exist. The sum of the last two explanatory variables shows the impact on emissions of the economic growth of a given industry. Economic growth of an industry consists of two components, namely economic growth of the entire economy (GDP), and the change in the share of the industry in total value added ( $VA_i/GDP$ ). Adding the impacts of the latter for all industries gives the total impact on emissions of the change in the economic structure.

### Global results

Total Belgian producers' CO<sub>2</sub> emissions decreased by 9% between 1995 and 2008. Real economic growth during that period equaled 31%. This implies an absolute decoupling of CO<sub>2</sub> emissions from economic growth. This is explained by changes in the energy mix, energy intensity and the structure of the economy.

**Graph 1 - Contribution to absolute decoupling of CO<sub>2</sub> emissions from economic growth (1995-2008)**



Source: FPB calculations

1. These are the 60 NACE Rev1.1 two digit industries, except for mining and quarrying for energy producing materials and metal ores, and activities of households. For these industries at least one of the variables involved in the analysis is equal to zero over the entire period.
2. A thorough explanation of the specific decomposition method, which considers only isolated effects and uses a mixed evaluation, can be found in Seibel, S. (2003), Decomposition analysis of carbon dioxide emission changes in Germany, Eurostat Working Papers and Studies, Theme 2, February.

Graph 1 shows that during the period under consideration, the most important factor for CO<sub>2</sub> emission mitigation was the decrease in energy intensity of the Belgian industries. The gain in energy efficiency accounted for almost half of the emissions decrease. The change in the energy mix towards less carbon-dioxide-intensive fuel types accounted for a third. The change in the economic structure towards less carbon-dioxide-intensive industries accounted for over a fifth of the decrease.

### Industry specific results

The upper part of Table 1 shows the decomposition results for the five industries with the highest share in total 2008 CO<sub>2</sub> emissions by Belgian producers. Together, these five industries accounted for over two thirds of total industry emissions. The electricity, gas, steam and hot water industry, which accounted for almost a quarter of producer CO<sub>2</sub> emissions in 2008, registered an emissions decrease of 13% between 1995 and 2008. The factor that clearly contributed the most to this tempering of CO<sub>2</sub> emissions was the decrease in energy intensity, the fact that less energy was needed by the electricity, gas, steam and hot water industry to create each unit of its value added. If all other factors had remained constant, except for energy intensity, its emissions would have been 37% lower in 2008 than in 1995. Together with a substantial contribution from the change in the energy mix, this more than compensated for the impact of economic growth and structural changes.

**Table 1 - Impact of underlying causes on CO<sub>2</sub> emissions by industry (1995-2008, in % - last column in kg per euro of 2005)**

Industry	CO <sub>2</sub> emissions	Energy mix	Energy intensity	Economic structure	Economic growth	p.m.: Share in 2008 emissions	p.m.: 2008 CO <sub>2</sub> / value added
Electricity, gas, steam, hot water	-13	-21	-37	+14	+31	23.7	4.02
Basic metals	-23	-6	-27	-21	+31	14.9	3.64
Other non-metallic minerals	-3	-4	+9	-38	+31	12.1	4.45
Chemicals	-0	-13	-21	+3	+31	10.5	1.04
Land transport	+1	-7	+10	-32	+31	6.6	0.94
Agriculture, fishing, mining and quarrying	-33	-25	-18	-20	+31	2	0.76
Manufacturing, energy, water and construction	-9	-12	-17	-11	+31	75	0.98
Services	-2	-14	-21	+2	+31	23	0.09
Total	-9	-13	-18	-8	+31	100	0.31

Source: FPB calculations

Emissions by the basic metals industry decreased by no less than 23%. Just as for the electricity, gas, steam and hot water industry, the major factor contributing to this decrease was the fall in energy intensity. In contrast to the electricity, gas, steam and hot water industry, the second most important factor causing its emissions to fall was its waning importance in the Belgian economy. Carbon dioxide emissions by the chemical industry, the other non-metallic mineral products industry and land transport were about as high in 2008 as in 1995. The reasons underlying this stabilization differ for the three industries. For the non-metallic mineral products industry and land transport, the major factor was their diminishing importance in the Belgian economy, supported by a moderate decrease due to a change in the energy mix. Their energy intensity, however, increased over the period considered. This contrasts sharply with the chemical industry. Its gain in energy efficiency and the change in its energy mix almost exactly compensated for the increase in carbon dioxide emissions due to the value added growth of the chemical industry.

The lower part of Table 1 shows that carbon dioxide emissions by the natural resources industries were slashed by a third. Changes in the energy mix, gains in energy efficiency, as well as a decreasing share in total value added, all contributed significantly to this spectacular decrease. Its impact on total Belgian CO<sub>2</sub> emissions was minimal, however. The manufacturing, energy, water and construction industries were responsible for three quarters of Belgian producers' CO<sub>2</sub> emissions. Their emissions fell by 9% between 1998 and 2005, due to a fall in their energy intensity, a change in their energy mix and a decrease in their economic importance. The smallest emissions decrease was registered for the services industry, although the impact of changes in its energy intensity and energy mix on its emissions exceeded the corresponding impact for the manufacturing industry. The rising economic importance of the services industry almost entirely wiped out its carbon dioxide savings due to these efficiency gains.

### Conclusion

Between 1995 and 2008, changes in the structure of the economy towards less CO<sub>2</sub>-intensive activities, and in the energy mix towards types of energy with a lower carbon content, as well as the decrease in the energy intensity of the Belgian industries, all compensated for the impact of economic growth on their CO<sub>2</sub> emissions. The decrease in the energy intensity was the most important factor, accounting for almost half of the absolute decoupling of CO<sub>2</sub> emissions from economic growth.

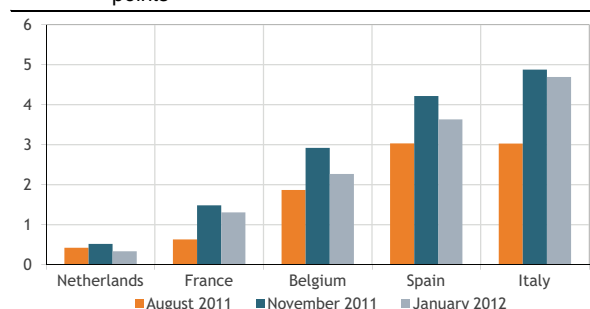
## Economic forecasts 2012

**A slight downturn of economic activity in the euro area...**

Since the summer of 2011, the European business cycle has to a large extent been defined by the evolution of the sovereign debt crisis and the way European policy makers have dealt with it. Financial markets' distrust of the financial situation of certain Member States and the fear of a new bank crisis reached a high in the fall. The ongoing crisis weighed heavily on business and consumer confidence. Combined with high oil prices and the Member States' restrictive budgetary policy, the euro area's GDP growth should turn negative in 2011Q4 and 2012Q1.

Since the start of 2012, tensions in money and bond markets have receded somewhat in most euro countries, owing to, among other things, additional ECB bank funding. Partly due to this, European GDP seems to be bottoming out gradually, which is in line with the early recovery of a number of confidence indicators. Assuming the sovereign debt crisis does not intensify again, economic activity should gradually pick up in the euro area as a whole in the second half of the year. Nonetheless, on a yearly basis, that implies negative GDP growth of -0.3%, leading to a substantial downward revision compared to our September forecasts (1.2%).

**Graph 1 - Interest rate spreads with Germany**  
10 year government bonds, spreads in percentage points

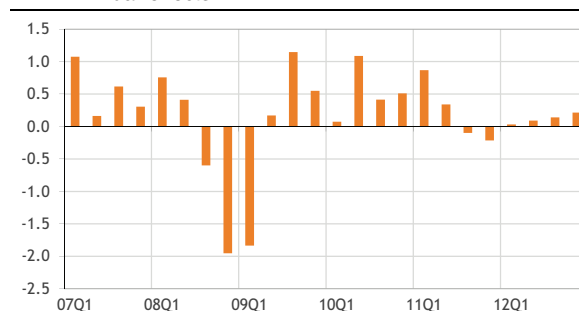


This scenario remains highly uncertain, with renewed turmoil in financial markets as the main risk. That would raise public financing costs, affect banks' capital positions and cause a general loss of confidence. In such a scenario, the gradual recovery of the European economies is put at risk, causing economic activity to fall back more than anticipated in 2012.

**.... as a result of which the Belgian economy will barely grow**

The Belgian economy still grew vigorously in 2011Q1 (0.9%), but slowed down considerably, in line with the international business cycle. 2011Q2 still showed modest growth (0.3%), but economic activity fell slightly during the second semester. As a result, economic growth amounted to 1.9% on a yearly basis.

**Graph 2 - Quarterly GDP growth**  
qoq growth rates, corrected for seasonal and calendar effects



In 2012, quarterly growth should remain very modest against the background of an only gradual pick-up in the European business cycle and of the austerity measures already taken by the Belgian government. Economic activity ought to stabilize in 2012Q1, followed by a slight export-led upturn (up to 0.2% in the fourth quarter). Economic growth should remain limited to 0.1% on a yearly basis.

Belgian exports still posted a strong increase in 2011Q1. Due to the sharp slowdown of foreign export markets, exports decreased during the remainder of the year. In the course of 2012, exports should recover gradually but, owing to an unfavourable starting position, annual growth should only amount to 0.5%, compared to 5% in 2011. Both in 2011 and 2012, the current account balance will have been strongly affected by high oil prices and limited export growth, resulting in a current account deficit of 1% of GDP in 2012.

Households' real disposable income increased by 1.2% in 2011. The evolution of purchasing power was backed by a rise in employment and a relatively limited increase in the net proceeds of personal income tax (due to accelerated tax assessments from 2011 onwards). The eroded consumer confidence sent the savings rate soaring to 16.5%, limiting private consumption growth to 0.8%. Given subdued economic growth and taking into account recent budgetary measures, purchasing power

should decrease (-1%) in 2012. Moreover, the accelerated tax assessments should strongly boost the net proceeds from personal income tax in 2012 (compared to their 2011 level). The decline in private consumption will remain limited (-0.1%) as the decline in income is dampened by a fall in the savings rate.

Business investment still posted strong growth until mid-2011. Due to robust economic growth, corporate profitability improved and the industrial capacity utilisation rate rose above its long-term average during the first half of 2011. Backed by those strong first six months, business investment grew by 8.8% in 2011, even though investments came to a standstill in the second half of 2011 as a result of a weak demand outlook. In the course of 2012, business investment should pick up slightly, in line with economic activity, although annual growth should remain limited to 0.9%.

After a short rebound in 2010, households' housing investment was cut back sharply in 2011 (-3.7%). Indeed, the favourable effects of the temporary VAT reduction on building projects submitted before April 2010 dissipated, mortgage rates rose gradually and economic uncertainty affected consumer confidence. Together with an unfavourable evolution in purchasing power, those factors will entail a further decline in construction in 2012 (-3.2%).

Growth in the volume of public consumption should remain limited to 0.9% in 2012. In contrast, public investment is expected to increase by almost 12% due to investments by local authorities in the run-up to the local elections this autumn and due to investments by the federal government.

### Employment

Domestic employment rose sharply in the course of 2010 and the first half of 2011. This explains the strong net increase in employment by 56 200 units on average in 2011. Due to the lack of dynamism in the business cycle, job creation has stagnated since mid-2011 and should only slightly recover in the course of this year, remaining limited to around 6 400 units on average in 2012. Nearly a quarter of the net job creation in the period 2011-2012 is to be attributed to a further increase in the number of people that work in the government-subsidised voucher programme for domestic-type services.

**Graph 3 - Evolution of working population and unemployment**  
Changes in thousands



The employment rate grew stronger than the labour force in 2011, reducing unemployment by well over 26 000 units on average. This year, however, unemployment is expected to rise by 19 400 units. As a result, the harmonised unemployment rate (Eurostat definition) should rise from 7.2% in 2011 to 7.5% in 2012.

### Inflation cools down to 2.7% on average in 2012<sup>1</sup>

Belgian inflation, as measured by the yoy growth rate of the national consumer price index, averaged 3.5% last year. This acceleration in inflation is largely due to price increases for energy products as a result of higher oil prices. Moreover, underlying inflation also crept up as the rise in commodity prices fed into prices of other goods and services with a certain delay.

Crude oil prices remain below their record levels of the end of April 2011 and, according to futures market quotations, should moderate further. As a consequence, growth in consumer prices of energy products in 2012 should be less strong than last year. However, underlying inflation should pick up to 2.2% on average this year (compared to 2% in 2011). In addition, some budget measures are expected to have an upward effect of 0.2 percentage point on inflation. All in all, consumer price inflation should moderate to 2.7% on average this year.

The increase in the health index, which is not affected by the price developments of petrol and diesel, should also amount to 2.7%. The pivotal index of public wages and social benefits (119.62) should be exceeded in October 2012.

*“Economische begroting 2012 – Budget économique 2012”, INR/ICN February 2012.*

1. Inflation forecasts were recently revised upwards. See “Headlines Belgian Economy” for further information.

## Summary of Economic Forecasts

### Economic forecasts for Belgium by the Federal Planning Bureau

Changes in volume (unless otherwise specified) (cut-off date of forecasts: 9 February 2012)

	2009	2010	2011	2012
Private consumption	0.8	2.5	0.8	-0.1
Public consumption	0.8	0.2	0.9	0.9
Gross fixed capital formation	-8.1	-0.7	5.4	0.7
Final national demand	-2.5	1.2	2.1	0.3
Exports of goods and services	-11.2	9.9	5.0	0.5
Imports of goods and services	-10.7	8.7	5.4	0.7
Net-exports (contribution to growth)	-0.7	1.1	-0.1	-0.2
Gross domestic product	-2.8	2.3	1.9	0.1
p.m. Gross domestic product - in current prices (bn euro)	340.4	354.4	369.5	378.0
National consumer price index [1]	-0.1	2.2	3.5	2.7
Consumer prices: health index [1]	0.6	1.7	3.1	2.7
Real disposable income households	2.9	-0.5	1.2	-1.0
Household savings ratio (as % of disposable income)	18.4	16.2	16.5	15.7
Domestic employment (change in '000, yearly average)	-7.6	37.0	56.2	6.4
Unemployment (Eurostat standardised rate, yearly average)	7.9	8.3	7.2	7.5
Current account balance (BoP definition, as % of GDP)	-1.7	1.5	-0.4	-1.0
Short term interbank interest rate (3 m.)	1.2	0.8	1.4	0.9
Long term interest rate (10 y.)	3.9	3.4	4.2	3.8

[1] Average consumer price inflation and the average growth of the health index in 2012 were recently revised to 3% and 2.8% respectively

### Economic forecasts for Belgium by different institutions

	GDP-growth		Inflation		Government balance		Date of update
	2012	2013	2012	2013	2012	2013	
Federal Planning Bureau [1]	0.1	.	2.7 <sup>a</sup>	.	.	.	02/12
INR/ICN [1]	0.1	.	2.7	.	.	.	02/12
National Bank of Belgium [2]	-0.1	.	2.6	.	-3.4	.	02/12
European Commission [2]	-0.1	.	2.7	.	.	.	02/12
OECD [2]	0.5	1.6	2.3	1.7	-3.2	-2.2	11/11
IMF [2]	1.5	1.7	2.0	2.0	-3.4	-3.3	09/11
ING [1]	-0.1	1.5	2.9	2.1	-3.0	-1.8	03/12
BNP Paribas [2]	0.0	1.4	2.5	1.8	-3.1	-2.3	02/12
Belfius [1]	0.3	1.2	2.3	2.0	.	.	02/12
KBC [1]	0.2	1.4	2.5	2.1	-3.4	-2.8	02/12
Deutsche Bank	-0.6	1.2	2.0	1.6	-5.0	-5.0	02/12
IRES [1]	-0.3	.	2.2	.	-4.2	.	01/12
Consensus Belgian Prime News [2]	0.1	.	2.2	.	-3.1	.	01/12
Consensus Economics [2]	0.0	1.3	2.2	2.0	.	.	03/12
Consensus The Economist [2]	-0.1	1.2	2.4	2.2	.	.	03/12
Consensus Wirtschaftsforschungsinstitute [2]	0.8	.	1.6	.	-4.6	.	10/11
<b>Averages</b>							
All institutions	0.1	1.4	2.3	1.9	-3.6	-2.9	
International public institutions	0.6	1.7	2.3	1.9	-3.3	-2.8	
Credit institutions	0.0	1.3	2.4	2.0	-3.5	-3.0	

[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

a. Inflation forecasts for 2012 were recently revised to 3%

## Pursuing the Europe 2020 Strategy in Belgium

In June 2010 the European Council decided on a new strategy for structural reform, called 'Europe 2020: A European strategy for smart, sustainable and inclusive growth'. This strategy sets objectives to be achieved by 2020.

### Principles of the new strategy

The Europe 2020 Strategy aims to strengthen the economic structure of the EU in order to create jobs and growth. The focus is on five headline targets<sup>1</sup>:

- 75% of the population aged 20-64 should be employed;
- 3% of the EU's GDP should be invested in R&D;
- The 20-20-20 climate/energy targets should be met<sup>2</sup>;
- The share of early school leavers should be below 10% and at least 40% of the younger generation should have a tertiary degree;
- 20 million fewer people should be facing a risk of poverty.

These targets are to be met at the European level. The Member States had to translate them into their own national targets and are responsible for pursuing them. According to the initial situation of each Member State, the national targets may be leaner or stricter than the European targets. The existing European instruments of the internal market, the community budget and the external policy will also be used. The Council carries out an annual follow-up during the European Semester. This will be done on the basis of the National Reform Programmes (NRP) and the Stability and Convergence Programmes (SCP).

This FPB publication gives an international benchmarking for the Europe 2020 Strategy in Belgium, focussed on the progress in achieving the targets. It does so by reviewing the five headline targets and certain other indicators for the policy areas concerned.

### Progress on the implementation of the strategy

Concerning the headline targets, the situation is mixed. Belgium performs better than the EU average on education and social inclusion. It has a relatively high share of people with a tertiary degree, a relatively low school dropout and people face a relatively low risk of poverty. This justifies the stricter targets. The performance on R&D is equal to the EU average. The employment rate, however, is lower than the EU average, although it has

risen during the past decade. For the climate/energy targets, such comparisons would not be relevant. Targets and performance for greenhouse gases and energy consumption are measured in absolute units. The renewable-energy shares and targets partly depend on the natural geography of the Member States, providing opportunities for the generation of e.g. solar or hydroelectric power.

### Performance with respect to the EU headline targets\*

Indicator	Belgium	Belgian target	EU average	EU target
Total employment rate	67.6%	73.2%	68.6%	75%
R&D expenditure as % of GDP	2.03%	2.82%	2.01%	3%
- including fiscal incentives	2.17%	3%		
Emission of greenhouse gases (Mt)	78.3	66.8	3,523	3,124
Share of renewable energy	5.1%	13%	11.7%	20%
Primary energy consumption (Mtoe)	53.9	43.6	1,647	1,474
Early school leavers	11.9%	9.5%	14.1%	10%
Young people with a tertiary degree	44.4%	47%	33.6%	40%
People facing a risk of poverty	20.8%	15.6%	23.4%	18.6%

Sources: Eurostat (Europe 2020 Indicators) and FPB

\*) Data for the most recent year available (2009/2010). For further definitions and explanations, see the respective indicators on the following pages.

With only one year of evidence after the implementation of the Strategy, it is too early to judge whether the Member States are on schedule to achieve the targets by 2020. Taking this one year of evidence at face value, Belgium seems to be on schedule for employment and innovation. For climate/energy and education, the evidence is mixed. As concerns climate/energy, it is ahead of schedule for renewables, but for greenhouse gases and energy efficiency it has moved away from the target. As concerns education, it is ahead of schedule for tertiary graduates, but it has moved away from the target for early school leavers. Such a diversion was also the case for poverty risk. One year after implementation, Belgium is thus ahead of or on schedule for half of the targets, but has diverged from the targets for the other half.

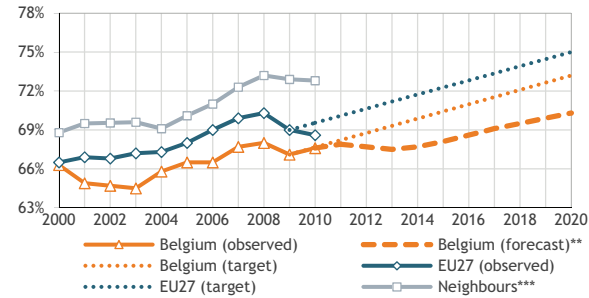
1. COM(2010)2020, p.3.

2. For one of the three (energy efficiency) the targets are of an indicative nature.



Employment

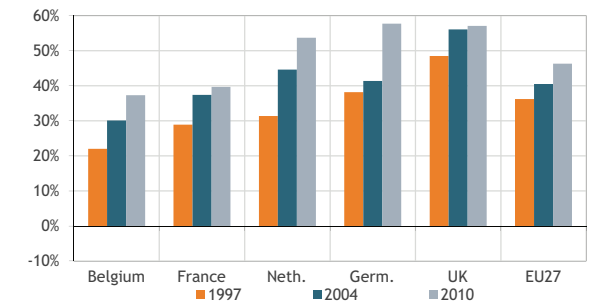
Graph 1 - Total employment rate\*



Source: Eurostat (Europe 2020 Indicators)  
 \* The number of persons aged 20 to 64 in employment, divided by the total population of the same age group  
 \*\* HERMES model, March 2012  
 \*\*\* Average of Germany, France and the Netherlands, weighted by GDP shares

In spite of the clear increase in the employment rate over the last two decades, the Belgian labour market indicators remain far from the European targets. After rising sharply during the second half of the nineties, the Belgian employment rate remained stable at around 65% until 2004. In 2008, it peaked at 68%, only to slide back to 67.1% in 2009 as a result of the recession. Although Belgium's employment rate rose more than the EU27 rate between 1997 and 2010, it still stood 1 percentage point below the European average in 2010. The latest FPB outlook predicts a rise to 70.3% in 2020 if policies remain unchanged, which is 2.9 percentage points below the Belgian target set for the EU2020 strategy.

Graph 2 - Employment rate of older workers\*

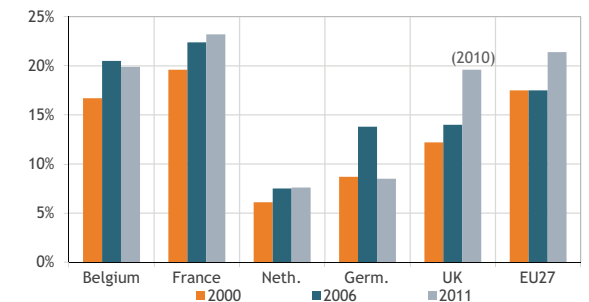


Source: Eurostat (Labour Force Survey)  
 \* The number of persons aged 55 to 64 in employment, divided by the total population of the same age group

While the Belgian male employment rate has remained stable at around 74% over the last decade, the Belgian female employment rate has been increasing continuously since the beginning of the nineties and is catching up with the European average. In 2010, it amounted to 61.6%, which is still 0.5 percentage point below the European average.

The Belgian employment rate for older workers has been rising continuously since the mid-nineties and converging gradually to the EU27 average. However, at 37.3% in 2010, as against 46.3% in the EU27, it is still one of the lowest in Europe.

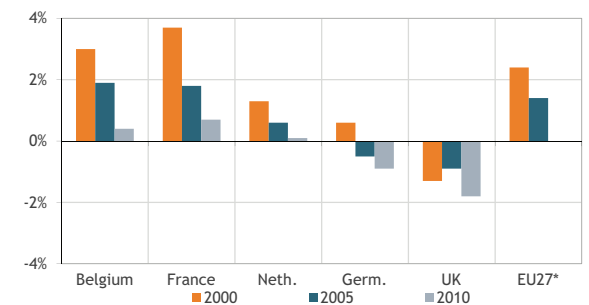
Graph 3 - Youth unemployment rate (-25 years)



Source: (Labour Force Survey)

At the beginning of the last decade, youth unemployment increased in many European countries. This increase can be explained by weak economic growth. In Belgium this factor countered efforts to improve young peoples' inclusion, notably through the measures of the Generation Pact. Although the Belgian youth unemployment rate fell between 2004 and 2008 (to 18%), it went up again to 22.4% in 2010 (as in most European countries). At 19.9% in 2011, it is 1.5 percentage points lower than the EU27 average.

Graph 4 - Unemployment rate, gender gap females-males

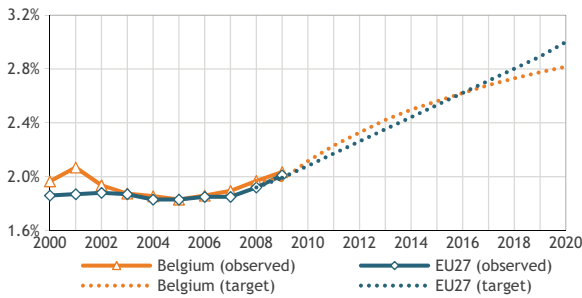


Source: Eurostat (Labour Force Survey)  
 \* 2010: there is no bar in the chart since the gender gap has been reduced to 0%

As far as the gap between the male and female unemployment rates is concerned, a downward trend can be noted across Europe. The gender-linked difference in Belgian unemployment rates has decreased clearly since the end of the nineties. In 2004, it went up again and stabilised at about 2%. It decreased to 1.1% in 2008 and to 0.4% in 2010, which was 0.4 percentage point higher than that of the EU27.

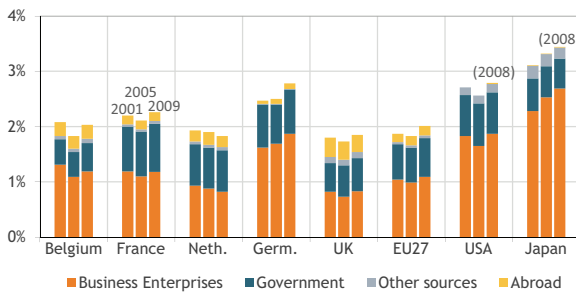
Innovation

**Graph 5 - Gross domestic expenditure on R&D as % of GDP**



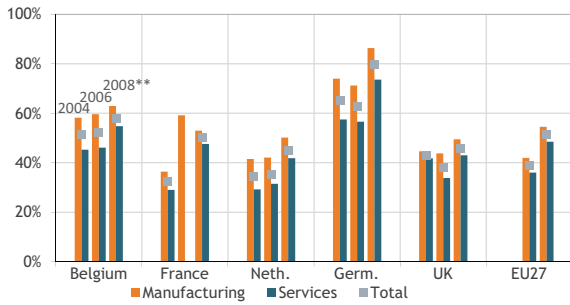
Source: Eurostat (Europe 2020 Indicators)

**Graph 6 - R&D expenditure by source of funds as % of GDP**



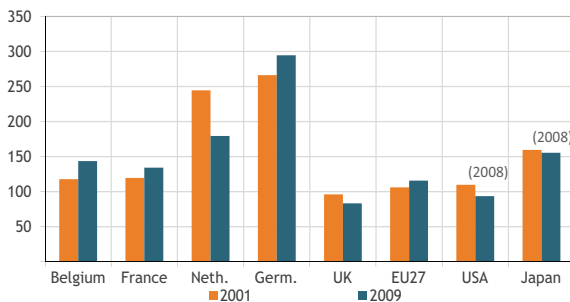
Source: Eurostat (Research and Development) and Belgian Science Policy  
\* 2005 and 2007: no source of funds available

**Graph 7 - Rate of innovation\***



Source: Eurostat (Community Innovation Survey)  
\* Percentage of enterprises responding that they have innovated. Innovation includes product, process, ongoing or abandoned innovation, and for 2008 also organisational and marketing innovation.  
\*\* NACE Rev.2: for manufacturing Section C; for services Sections H and K and Divisions G46, J58, J61, J62, J63 and M71; total includes manufacturing, services and Sections B, D and E

**Graph 8 - Patent applications at the EPO per million inhabitants**



Source: Eurostat (Patent Statistics)

Innovation, as a major source of productivity growth, plays an important role in economic growth. It also helps to address social challenges such as health problems and environmental degradation. Inside the Europe 2020 framework, the quantitative objective assigned to the EU is to reach an R&D intensity of at least 3% at the 2020 horizon. Each Member State has to announce an objective compatible with the European Union target. The Belgian authorities have announced that R&D expenditure will reach 3.0% of GDP in 2020, as illustrated in Graph 5. The Belgian objective has been calculated by including the cost of the 75% payroll tax exemption for researchers within R&D expenditure.

In 2009, R&D intensity in Belgium (2.03% of GDP) was slightly above the EU27 average (2.01% of GDP), but was much lower than the performances of France, Germany, the USA and Japan. After a fall in Belgian R&D intensity from 2001, a slight increase has been observed since 2006.

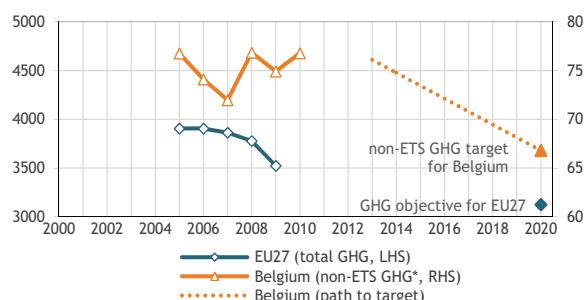
Belgian firms financed R&D at a level of 1.19% of GDP in 2009, which was above the EU27 average. R&D intensity financed by the public authorities reached 0.51% of GDP, which was significantly below the European average but has been on an increasing trend since 2007. Finally, funds from abroad constitute an important source of financing of R&D activities in Belgium, as illustrated in Graph 6.

Although R&D is an important input, it is far from being the only determinant of innovation. Moreover, innovation can be implemented without input from R&D expenditure. To provide a broader picture, every two years the Community Innovation Survey (CIS) publishes the share of firms that conduct innovative activities. As shown in Graph 7, Belgium is relatively well-positioned in terms of the innovation rate in manufacturing as well as in services. In 2008, the innovation rate of Belgian firms (58.1%) was above the EU27 rate (51.6%) and also above the rate of the neighbouring countries, with the main exception of Germany (79.9%).

The number of patent applications is an indicator of the intellectual property protection conferred on innovation. In 2009, the number of patent applications to the European Patent Office from Belgium increased and remained above the European average (115.8). With 143.6 patent applications per million inhabitants, Belgium was above France (134.3), the UK (83.42) and the USA in 2008 (93.7). However, Japan in 2008 (155.5), the Netherlands (179.5) and, particularly, Germany (294.5) were greatly above the Belgian results.

Climate and energy

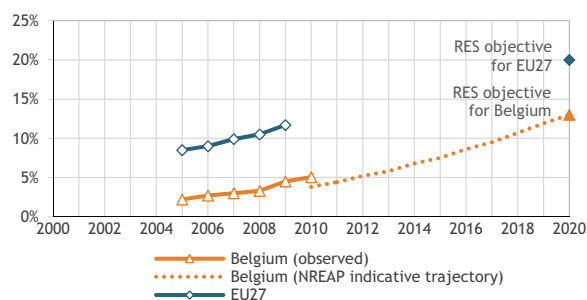
**Graph 9 - Greenhouse gas emissions (GHG) in Mt**



Source: Eurostat (Europe 2020 Indicators) and the Belgian Regions (GHG inventories)  
 \* ETS = Emissions Trading Scheme

In order to achieve the EU’s target of a 20% reduction in greenhouse gas (GHG) emissions by 2020 compared to 1990, the Climate-Energy legislative package includes two main elements: the revised EU Emissions Trading System (ETS) Directive and a decision setting a binding GHG emission target for each Member State in sectors not covered by the EU ETS. For ETS sectors, there is no national target but there is a cap on EU GHG emissions. For non-ETS sectors, Belgium’s target is a 15% reduction in GHG emissions by 2020 compared to 2005. Total GHG emissions in the EU were below the 1990 level by 17% in 2009 whereas Belgium’s GHG in the non-ETS sectors were comparable to the 2005 level in 2010. In Graph 9, the dotted line shows the path towards the reduction target.

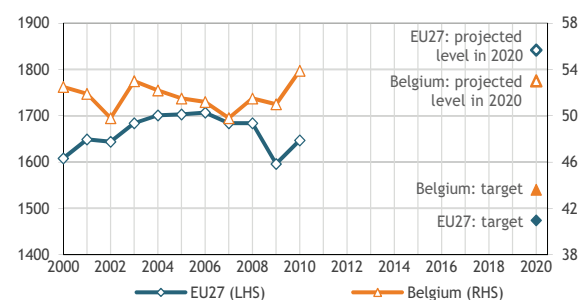
**Graph 10 - Share of renewables (RES) in gross final energy consumption**



Source: - National renewable energy action plan of Belgium (NREAP): 2005 and indicative trajectory  
 - Eurostat: Belgium 2006-2008 and EU27 2006-2009  
 - Report of Belgium on progress in the promotion and use from renewable sources: Belgium 2009-2010

Directive 2009/28/EC on renewable energy sets targets for each individual Member State such that the EU will reach a share of gross final energy consumption from renewable energy sources of 20% by 2020 and a 10% share from renewable energy in the transport sector specifically. The overall target for the share of energy from renewable energy sources for Belgium is 13%. The share of gross final energy consumption from renewable energy sources increased steadily: from 8.5% to 11.7% in the EU over the period 2005-2009, and from 2.2% to 5.1% in Belgium over the period 2005-2010. The recent development of renewables is faster than indicated in Belgium’s national renewable energy action plan, which provides an indicative path towards the target (shown by a dotted line in Graph 10).

**Graph 11 - Primary energy consumption in Mtoe**

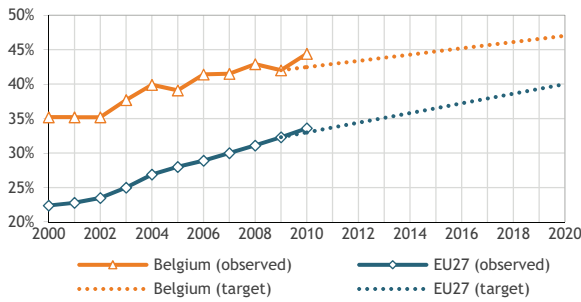


Source: Eurostat (Energy Statistics), Belgium’s NRP 2011 and EC (DG Energy, PRIMES baseline 2007)

Reducing energy consumption is another main goal of the European Union. In this respect, the EU agreed on the target of saving 20% of its primary energy consumption compared to projections for 2020. For Belgium, the objective is 18%, as indicated in the National Reform Programme of 2011. The reference projection referred to in the EU ‘energy efficiency’ objective is the 2007 baseline from the energy model, PRIMES. Graph 11 shows the progress towards the objectives for 2020. After an overall decreasing trend in 2009, primary energy consumption in Belgium and in the EU increased in 2010, pushed notably by economic growth. In 2010, the EU was almost halfway to its energy efficiency target whereas Belgium’s primary energy consumption stepped back from the objective in 2020 and recorded its highest level in the period 2000-2010.

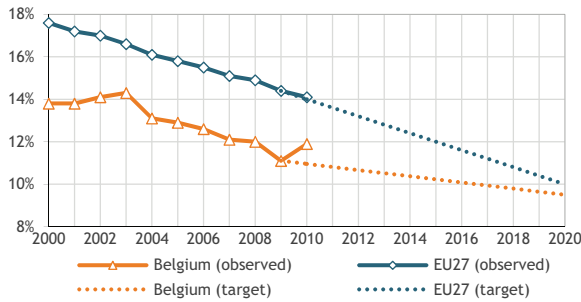
Education

Graph 12 - Tertiary educational attainment\*



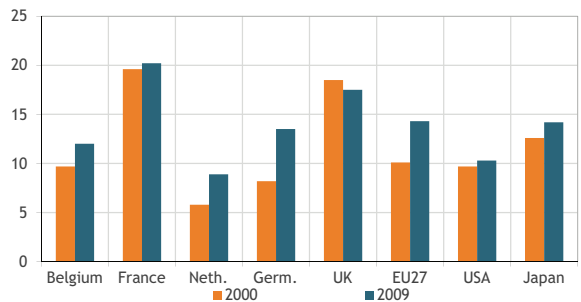
Source: Eurostat (Europe 2020 Indicators)  
 \* The share of the population aged 30-34 years who have successfully completed tertiary-level education (ISCED 1997: level 5-6)

Graph 13 - Early leavers from education and training\*



Source: Eurostat (Europe 2020 Indicators)  
 \* Share of the respondents aged 18-24 whose highest level of education or training attained is ISCED 0, 1, 2 or 3c-short, and who have declared that they have not received any education or training in the four weeks preceding the survey

Graph 14 - Graduates in science and technology in %\*



Source: Eurostat (Education Statistics)  
 \* Number of persons per 1,000 of population aged 20-29 who graduated in science and technology at post-secondary level (ISCED 5 and above) during the given year

Human capital is generally considered to be an important determinant of innovation, productivity, economic growth and well-being. Investing in education and training is essential, in view of the rising demand for high-skilled workers, e.g. due to globalization and technological change. Matching the rising demand with an increase in the relative supply of high-skilled workers permits opportunities and challenges to be addressed, employability to be improved and avoidance of the surge in wage inequality witnessed in countries where the number of university graduates has fallen short of the number required by the labour market.

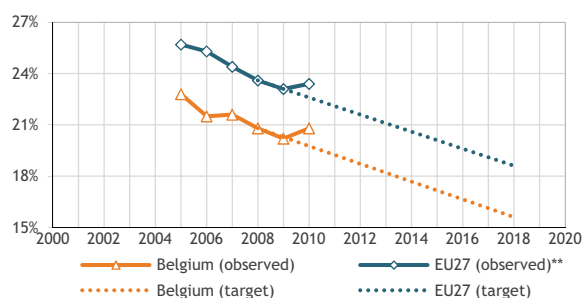
Education takes a prominent position in the Europe 2020 strategy. The European Commission recommends increasing the proportion of young people with a tertiary degree from less than a third to 40% and cutting the school dropout rate from the current 15% to 10%. The targets concern the EU as a whole and Member States have been asked to set their own targets in line with past experience and the overall EU targets.

The share of the population aged between 30 and 34 that has completed tertiary or equivalent education has increased considerably in Belgium since 2000, reaching 44.4% in 2010, i.e. above the EU target for 2020 and well above the EU27 average of 33.6% (see Graph 12). In 2010, Belgium ranked 7<sup>th</sup> out of all EU Member States. For 2020, the Belgian government has set its target at 47%.

The dropout rate, i.e. the share of the population aged between 18 and 24 years leaving school without having finished secondary education was 11.9% in Belgium in 2010 (see Graph 13). Though well below the EU27 average of 14.1%, Belgium only held joint 15<sup>th</sup> position in 2010 and the rate, moreover, had increased from an 11.1% low in 2009. The 2020 target for Belgium has been set at 9.5%.

Because of their important role in R&D and innovation, graduates in science and engineering are of great interest. The availability of qualified researchers is often cited as an important driver for companies in the location of their R&D facilities. Failing to educate a sufficient number of researchers could seriously hamper ambitions to reach the R&D target. The number of people holding a degree in mathematics, science and technology per 1 000 inhabitants aged between 20 and 29 years increased in Belgium from 9.7 in 2000 to 12 in 2009 (Graph 14). However, this number is still below the EU27 average of 14.3 and below the number in France, Germany and the UK.

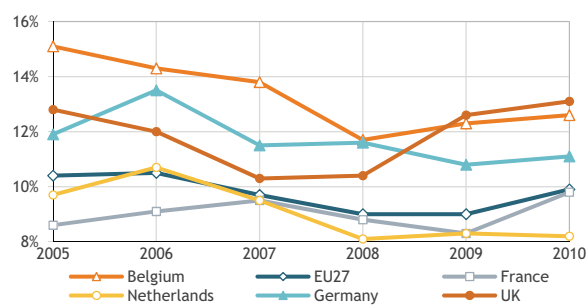
## Poverty and exclusion

**Graph 15 - Share of the population at risk of poverty and exclusion\***

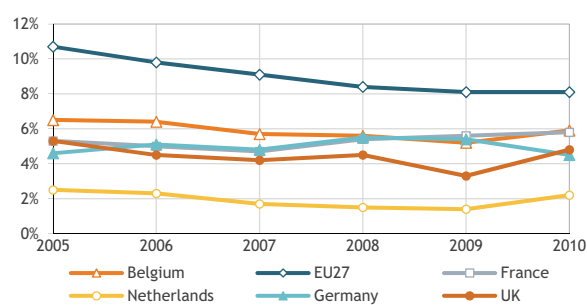
Source: Eurostat (Europe 2020 Indicators) These indicators are usually available with a one- to two-year time lag.

\* For the period 2012-2018, the % is calculated using the population estimates of the Eurostat Europop 2010 convergence scenario

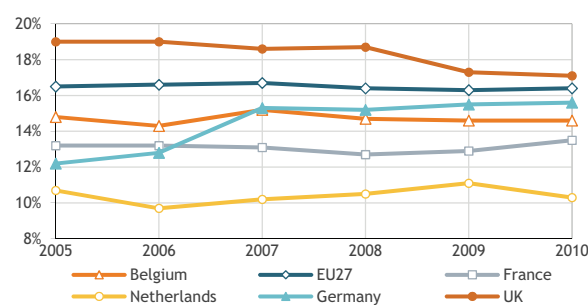
\*\* 2005-2006: estimates

**Graph 16 - Share of the population living in a low work intensity household**

Source: Eurostat (Europe 2020 Indicators)

**Graph 17 - Share of the population suffering from severe material deprivation**

Source: Eurostat (Europe 2020 Indicators)

**Graph 18 - At-risk-of-poverty rate**

Source: Eurostat (Europe 2020 Indicators)

The Europe 2020-strategy aims to reduce the population facing a risk of poverty or social exclusion, defined as living in a very low work intensity household, suffering from severe material deprivation or having a disposable income below the poverty threshold (at-risk-of-poverty rate). The Europe 2020 objective is to reduce the targeted population in the EU by at least 20 million compared to the situation in 2008. Member States translated this objective into national targets in their National Reform Plans for 2011. The Belgian target is to reduce the targeted population by 380 000 compared to the situation in 2008. Belgium also announced that secondary objectives on child poverty, very low work intensity households and excessive indebtedness will be adopted.

The EU average of the share of the population facing a risk of poverty or social exclusion dropped from 25.7% to 23.1% between 2005 and 2009 and increased to 23.4% thereafter. In Belgium it also declined between 2005 and 2009, from 22.8% to 20.2%, and increased to 20.8% afterwards. As shown in Graph 15, the 2010 figures for the EU and for Belgium diverge from the hypothetical path to the agreed objectives (respectively, an estimated 18.6% and 15.6% in 2018).

It appears that primarily labour market evolutions influence this recent development. After a decline from 15.1% in 2005 to 11.7% in 2008, the percentage of persons living in very low work intensity households rose in Belgium by 2010 to 12.6% (Graph 16). The EU average percentage also increased in 2010 to 9.9%, as is the case in Germany, France and the UK.

The share of persons suffering from severe material deprivation in Belgium increased in 2010 to 5.9%, after a decrease from 2005 to 2009 (Graph 17). In the EU, the decreasing trend stabilized in 2010 around 8.1%. In 2010, this indicator increased in France, the Netherlands and the UK.

Finally, in the period 2005-2010 the at-risk-of-poverty rate of Belgium and the EU-average stabilized around, respectively, 14.6% and 16.4% (Graph 18). This stability does not, however, show that in 2010, for the first time, more people moved towards the bottom of the income distribution in the Baltic States, Poland, Sweden, Spain, Malta, the Czech Republic, Slovenia, Hungary and Romania because the income corresponding to the national poverty thresholds (60% of the national median equivalised disposable income after social transfers) for 2010 had an unprecedented decline. In the other EU countries - except the UK, Portugal and Italy - the income corresponding to this threshold grew more slowly in 2010 than the year before.

## The procedure to prevent and correct macroeconomic imbalances

The “six-pack”, a set of regulations for improving economic governance in Europe, contains new regulations concerning economic and fiscal surveillance. While the latter has been widely discussed, the former (contained in regulations 1174/2011 and 1176/2011) is much less known. Yet the regulations with regard to general economic surveillance apply from December 2011 on and their impact is likely to be substantial. In the following, the procedure for preventing and correcting macroeconomic imbalances will be explained while the results of the application of the Scoreboard for Belgium will also be presented.

### Origin and method

The aim of the procedure is to prevent macroeconomic imbalances from occurring in each EU Member State in order to reach the objectives of sustainable growth and employment. The origin can be found in the built up of substantial, unsustainable imbalances in the 2000s: large current account deficits in Greece, Spain and Portugal; large current account surpluses for Germany and the Netherlands; large house price increases in Ireland and Spain; high debt levels for households and companies in Ireland and Spain; etc. Globalisation and deepening European integration increased the impact of these countries’ imbalances on other European countries. This was particularly important for euro area countries as an integrated financial sector led to strong spill-over effects. While some imbalances might be benign and temporary, others can have a long-lasting harmful impact both on the country in question and on others. The latter can be called excessive imbalances and the aim of the procedure is to prevent them from occurring or, if they appear, to correct them.

The procedure is based on Article 121.6 of the Treaty that deals with the coordination of EU Member States’ economic policies. This coordination is deemed necessary in order to avoid unsustainable trends that have been observed over the last decade.

The procedure has a large scope, encompassing both external and internal balances and can be divided up into two parts: a preventive part and a corrective part.

### Prevention of macroeconomic imbalances

The aim of the preventive arm of the procedure is to detect macro-economic imbalances at an early stage by means of a scoreboard of indicators. As this scoreboard plays a central role, it is no surprise that long discussions between the European Commission, Parliament and Council have taken place to select the specific indi-

cators. The current version contains a set of ten indicators (see next page), but is likely to change in several ways in the future. First, as better statistics become available, current indicators will be replaced by new indicators. Second, one or more indicators reflecting imbalances in the financial sector will be added. Finally, new economic developments might lead to the incorporation of other indicators.

For each of the indicators, thresholds have been determined. As long as the indicators fluctuate between the thresholds, they are considered as not posing an immediate threat. Every year the European Commission will publish an Alert Mechanism Report based on the scoreboard indicators and their “economic reading” (i.e. the interpretation of the figures, taking into account, e.g., the severity of the situation). The report will also include a list of countries that should be studied “in-depth”. The Council will then discuss this report while the Commission will take this discussion into account when deciding which countries will need an “in-depth” analysis.

In the “in-depth” review, more indicators will be taken into account as well as the country’s specific situation, its recommendations and the plans announced in both the national reform and the stability and convergence programmes. At the end of this process, it ought to be clear whether the imbalances exist and whether they are benign or harmful. If considered benign, the procedure will end there. If not, the Commission considers that a country experiences imbalances, it will inform the Council, and the Council, on the recommendation of the Commission, may address recommendations to the country.

### Correction of macroeconomic imbalances

If the imbalances are considered harmful, the Commission will inform the Council, and the Council, on the recommendation of the Commission, may address recommendations to the country and recommend the country to take corrective action. The country is then invited to submit a corrective action plan, which will be assessed by the Council. If considered sufficient, the Council will endorse the plan; but if this is not the case, the country will be invited to present a new action plan.

The Commission will monitor the implementation of the corrective action plan. If a country fails to respond correctly twice (because the plan is insufficient or the country has not taken the corrective action), the Council will impose an interest-bearing deposit and an annual fine.

**Table 1 - Scoreboard for Belgium, Germany, France and the Netherlands**

	Thresholds	Belgium	Germany	France	Netherlands
Current Account (% GDP) - 2010	+6/-4%	-0.6	5.9	-1.7	5.0
Net International Investment Position (% GDP) - 2010	-35%	78	38	-10	28
Real Effective Exchange Rate (% 3 years change) - 2011	+/-5%	-0.6	-3.9	-3.3	-1.7
Export Market Shares (% 5 years change) - 2010	-6%	-15.4	-8.3	-19.4	-8.1
Unit Labour Cost (% 3 years change) - 2010	+9%	8.5	6.6	7.2	7.4
House Prices (% year-on- year change) - 2010	+6%	0.2	0.7	5.0	-2.8
Private Sector Credit flow (% GDP) - 2010	15%	13.1	3.1	2.4	-0.7
Private Sector Debt (% GDP) - 2010	160%	233	128	160	223
Public Sector Debt (% GDP) - 2010	60%	96	83	82	63
Unemployment rate (% 3 year average) - 2011	10%	7.8	6.9	9.7	4.2

The European Commission's main tool used to identify the risks of emerging macroeconomic imbalances in Member States is a scoreboard of ten indicators, five related to external imbalances and competitiveness and five to internal imbalances. For each indicator, a threshold has been identified, usually based on statistical analysis and common findings in the economic literature<sup>1</sup>. The choice of indicators was guided by four principles: (1) the indicators focus on the most relevant dimensions of macroeconomic imbalances and competitiveness losses; (2) the scoreboard needs to provide a reliable signalling device for potentially harmful imbalances and competitiveness losses at an early stage of their emergence; (3) the scoreboard has an important communication role limiting the number and the complexity of indicators selected<sup>2</sup> and (4) the indicators should be of high statistical quality in terms of timeliness and comparability across countries. Furthermore, the Commission will consider additional indicators in its economic reading of the scoreboard in order to take country-specific circumstances and institutions into account.

The scoreboard appears to indicate that Belgium is in a slightly more favourable position than France but fares far worse than Germany and, to a lesser extent, the Netherlands (Table 1).

On the external side, the export market shares indicator is flashing red, as well as for the three neighbouring countries, pointing to a possible deterioration in competitiveness. This view is reinforced, in the Belgian case, by the emergence of a current account deficit (albeit

smaller than in France), the relatively rapid increase in unit labour cost (ULC) approaching the threshold and the limited improvement of the real effective exchange rate (HICP deflated) compared to the improvement recorded by the three neighbouring countries. However, the net international investment position of the Belgian domestic sectors vis-à-vis the rest of the world remains solid.

On the internal side, the Belgian situation appears to be less problematic. As is the case for other countries, the level of public sector debt is above the threshold, which is both a historical legacy and the consequence of the recent financial and economic crisis. The private sector non-consolidated debt is also above the threshold due to the importance of inter-enterprise loans, given the presence in Belgium of many multinational firms. The only element of potential concern is the rapid increase in private sector credit flow (on a non-consolidated basis).

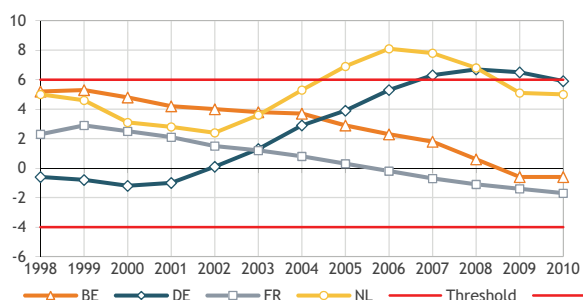
In the next four pages, the indicators for Belgium, Germany, France and the Netherlands are put into a historical perspective, alongside some indicators giving some extra information on the problem areas.

1. Thresholds are different between Euro Area Member States and non-Euro Area Member States for the real effective exchange rate – respectively, +/-5% and +/-11% – and the nominal unit labour cost – respectively, +9% and +12%.

2. Transformations are also kept as simple as possible. 3-year average of current account balance, % of change over 3 years in real effective exchange rate, % of change over 5 years in export market shares, % of change over 3 years in nominal unit labour cost, year-on-year % of change in deflated house prices and 3-year average of unemployment. All these indicators are publicly available on the Eurostat website.

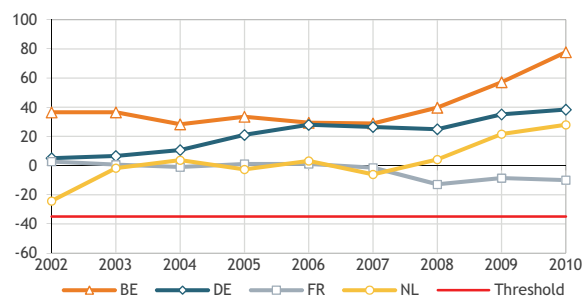
External imbalances and competitiveness

**Graph 1 - Current account balance - 3 year average as % of GDP**



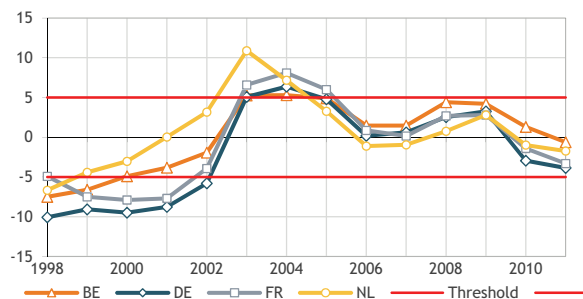
Source: Eurostat, Macroeconomic Imbalance Procedure

**Graph 2 - Net international investment position as % of GDP**



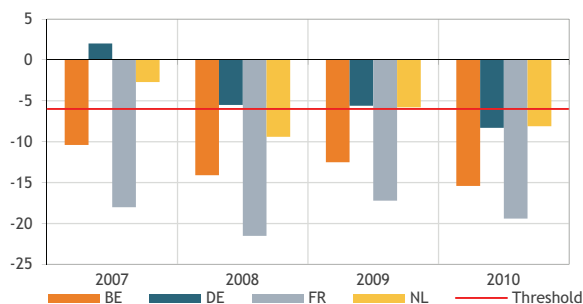
Source: Eurostat, Macroeconomic Imbalance Procedure

**Graph 3 - Real effective exchange rate, HICP deflators relative to 35 industrial countries as % change 3 years**



Source: Eurostat, Macroeconomic Imbalance Procedure

**Graph 4 - Goods and services export market shares as % change 5 years**



Source: Eurostat, Macroeconomic Imbalance Procedure

The first external imbalances indicator consists of the current account balance as a percentage of GDP. As it concerns a 3-year backward moving average transformation, the information of the most recent year's data is diluted, making it difficult to distinguish between countries currently in deficit from countries currently in surplus. According to this indicator (Graph 1), the Belgian current account has been on a declining trend since the beginning of the 2000s. This trend accelerated between 2005 and 2009 before stabilizing in 2010, with the current account balance becoming positive after two years of deficit. This evolution is similar to that observed in France. However, the French current account balance has been negative since 2005, indicating a worse external position than that of Belgium.

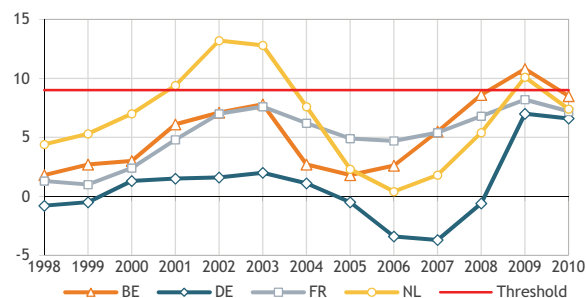
To complement this flow indicator with a stock indicator, the Commission also includes the net international investment position (IIP) as a percentage of GDP as an indicator of the net asset position of the domestic sectors of the economy vis-à-vis the rest of the world (Graph 2). Over the whole period, the Belgian net IIP was the highest among the countries selected. Among the neighbouring countries, divergences have appeared since 2008 between France, where the net IIP turned negative, and the Netherlands, which has improved its net IIP.

As a measure of persistent changes in prices' competitiveness relative to the major trading partners of the respective country, the Commission includes in the scoreboard an indicator on the real effective exchange rate (REER) based on the harmonised index of consumer prices deflators. As shown in Graph 3, in the four euro area countries, the REER has followed a very similar evolution since 2005, remaining in the narrow band defined by the Commission for EA members (+/-5%). However, Belgium exhibits the least favourable evolution. This is mainly explained by Belgian inflation, which has been significantly higher than the inflation recorded in France, Germany and the Netherlands since 2006.

In order to identify slow and persistent losses in competitiveness, the Commission also considers an indicator on export market shares capturing components of competitiveness or the ability to exploit new sales opportunities due to rapid demand growth in emerging economies (Graph 4). According to this indicator, all four countries have recorded losses in their export market shares since 2008 but Belgium and France are the only ones to have recorded exports market share losses larger than the threshold since the beginning of the period considered.

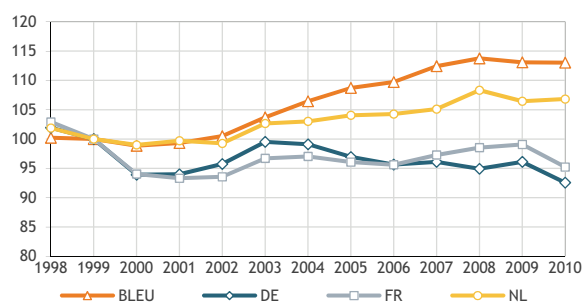


**Graph 5 - Nominal unit labour cost as % change 3 years**



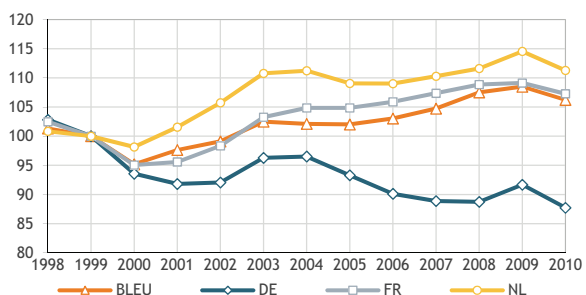
Source: Eurostat, Macroeconomic Imbalance Procedure

**Graph 6 - Real effective exchange rate, export prices deflators relative to 35 industrial countries 1999=100**



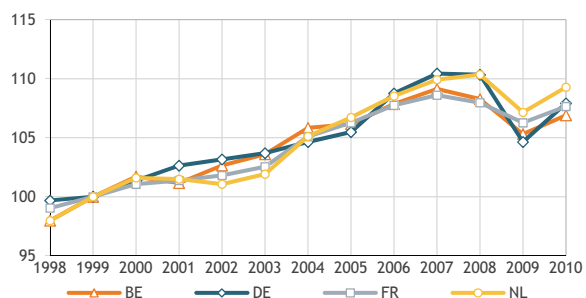
Source: European Commission, Competitiveness Report

**Graph 7 - Real effective exchange rate, ULC deflators relative to 35 industrial countries 1999=100**



Source: Eurostat, Macroeconomic Imbalance Procedure

**Graph 8 - Real labour productivity per person employed 1999=100**



Source: Eurostat, Macroeconomic Imbalance Procedure

Belgian exporters have been particularly hit by the European economic downturn – their main export markets – which has especially affected investment and durable goods, their main export products<sup>1</sup>.

The last external imbalance indicator (Graph 5) proposed by the Commission is the 3-year percentage change in the ratio of nominal compensation per employee to real GDP per person employed (or unit labour costs). According to this indicator, Belgian nominal ULC have increased faster than ULC in neighbouring countries since 2008. Since 2005, the profile of the evolution has been similar in Belgium and the Netherlands as these two countries crossed the threshold (9%) in 2009 before coming back to just below it in 2010. Therefore this is another indication of losses in price competitiveness of the Belgian economy.

As price competitiveness is important for a small open economy such as Belgium, three other indicators have been taken into account to refine the analysis. Moreover, as current evolutions could be dependent on previous losses or gains in competitiveness, the three additional indicators are presented as an index rather than as a percentage of change in order to keep track of historical developments.

Graph 6 shows the evolution of the real effective exchange rate index (1999 = 100), using export prices of goods and services as deflator, vis-à-vis 35 other industrialised countries. The most striking element is the divergent evolutions of Germany and France, who succeeded in maintaining a more or less constant REER, and Belgium and the Netherlands, who recorded a deterioration in their REER over 2003-2008 (a substantial one in the case of Belgium). This confirms a problem of price external competitiveness for Belgium.

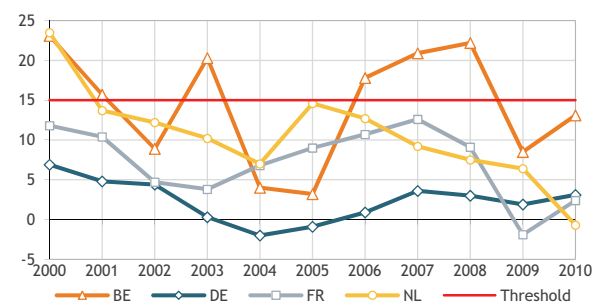
As labour costs are usually one of the main determinants of prices, Graph 7 shows the evolution of the real effective exchange rate index (1999 = 100), using ULC as deflator, vis-à-vis 35 other industrialised countries. In this case, divergences appear between Germany on the one hand and France, the Netherlands and Belgium on the other hand. The three latter experienced a comparable deterioration in their REER, while Germany registered an improvement.

It is also interesting to compare the evolution of productivity to see if the roots of the divergences are in productivity or wage developments. Graph 8 shows real labour productivity per person employed (index, 1999 = 100). The evolutions of productivity in the four countries appear to be much closer to each other than that which has been observed in terms of ULC-based REER. The divergences in cost competitiveness are therefore mainly due to divergences in nominal wage increases.

1. For a detailed analysis of Belgian export performances, including alternative measures of export market shares, see "Les défis de la compétitivité", a joint note of the National Bank of Belgium, the Central Council of Economy and the Federal Planning Bureau, 20/09/2011.

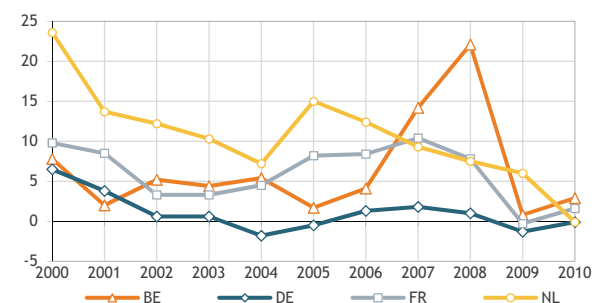
Internal imbalances indicators

**Graph 9 - Private sector credit flow non-consolidated as % of GDP**



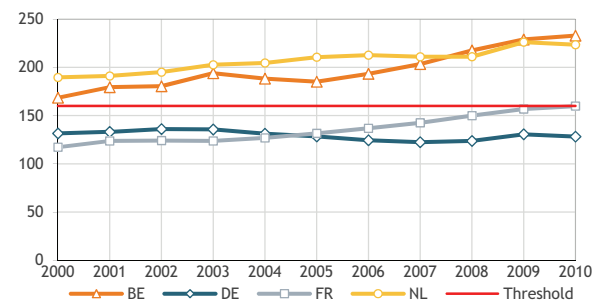
Source: Eurostat, Macroeconomic Imbalance Procedure

**Graph 10 - Private sector credit flow consolidated as % of GDP**



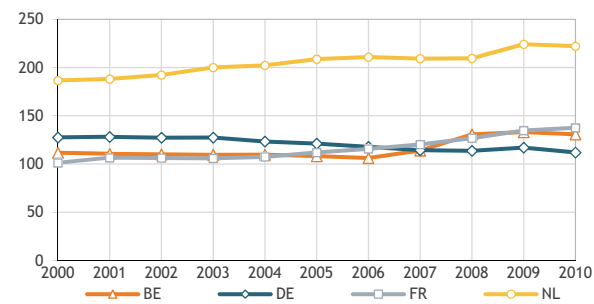
Source: Eurostat, Macroeconomic Imbalance Procedure

**Graph 11 - Private sector debt non-consolidated as % of GDP**



Source: Eurostat, Macroeconomic Imbalance Procedure

**Graph 12 - Private sector debt consolidated as % of GDP**



Source: Eurostat, Macroeconomic Imbalance Procedure

In order to facilitate the economic reading of the internal imbalances part of the scoreboard, the relevant indicators are not presented in the same order as the order followed in the scoreboard.

Graph 9 presents an indicator on credit flows to the private sector, defined as securities other than shares and loans to non-financial corporations, households and non-profit institutions serving households on a non-consolidated basis and expressed as a percentage of GDP. According to the Commission, high credit flows appear to be one of the best indicators for predicting crises early on. Contrary to the three neighbouring countries, the flow of credit to the Belgian private sector has recently been large, passing the threshold in 2006, 2007 and 2008. However, because of its non-consolidated nature, this indicator has to be interpreted with caution for Belgium. The presence of many centres of multinational firms usually entails large flows of inter-enterprise loans that are linked to the optimisation of firms' treasury management rather than the emergence of an asset bubble.

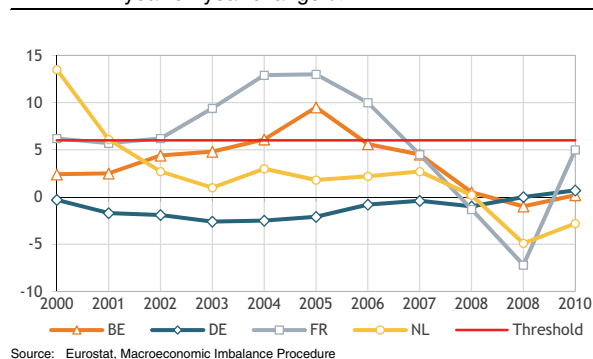
For this reason, Graph 10 presents this indicator of credit flow to the private sector but on a consolidated basis. Except for the Netherlands, the passage from a non-consolidated to a consolidated indicator reduces the relative importance of the credit flow to the private sector. It is for Belgium that this reduction is the most important.

The Commission also includes in the scoreboard a stock indicator in the form of the private sector debt level as a percentage of GDP. According to this indicator (Graph 11), Belgium is above the threshold over the whole period covered. However, as underlined for the credit flow indicator and for the same reason, the debt indicator has to be interpreted with caution.

The exclusion of intra-sector liabilities such as intra-enterprise loans gives rise to the same indicator but on a consolidated basis. As shown by Graph 12, except for the Netherlands, the relative importance of private sector debt has reduced. This reduction is particularly large for Belgium, reaching 100% of GDP. On a consolidated basis, Belgium had a level of private sector debt as a percentage of GDP between the German and the French level in 2010.

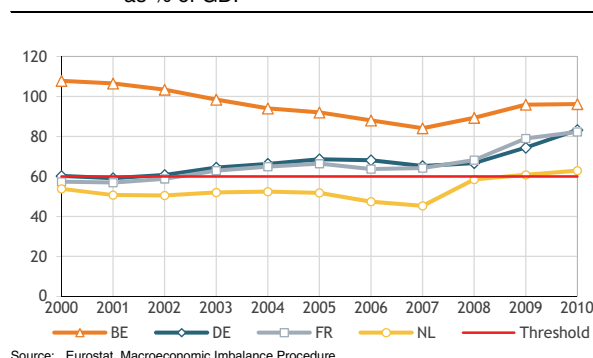
Finally, these indicators also have to be interpreted with caution because they are established on a gross and not a net basis. Private sector debt is generally used to accumulate assets (houses, financial assets, etc.). The amount and the nature of the accumulated assets are also important in judging the potential disequilibrium nature of the level of private sector debt.

**Graph 13 - Real house price**  
year-on-year change %



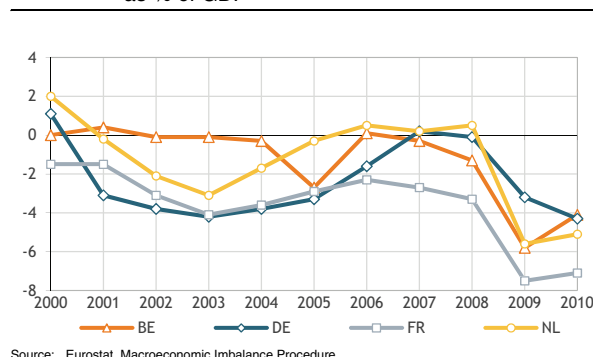
As housing market developments have figured prominently in many of the previous financial crises, the Commission has decided to include the year-on-year change in real house prices, defined as the house price indicator deflated by the Eurostat households and non-profit institutions serving households' final consumption deflator. According to this indicator (Graph 13), the Belgian real house price index increased relatively rapidly between 2001 and 2005, passing the threshold last year. However a correction occurred in the subsequent years with, first, a reduction in the rate of growth and, in 2008, even a decrease in the real house price.

**Graph 14 - Public sector debt**  
as % of GDP



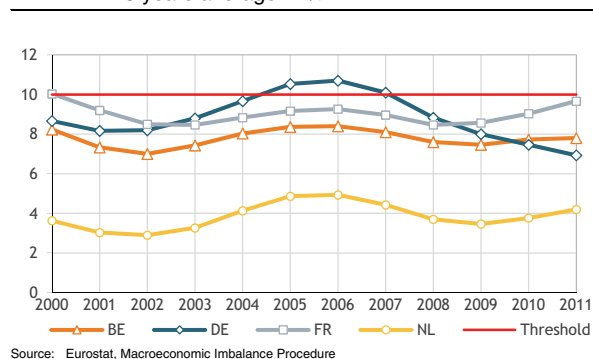
To consider the potential contribution of public debt to macroeconomic imbalances, the Commission has also included in the scoreboard a complementary indicator: the general government consolidated gross debt, as defined in the Excessive Deficit Procedure (EDP) as a percentage of GDP (Graph 14). The threshold is the same as the limit fixed by the Treaty. As is well-known, Belgium has a large public sector debt, which exceeded the threshold, 60% of GDP, over the whole period covered. However, this ratio was on a clear downward trend from 1994 until 2007. Since 2008 and the resurgence of public deficits, as a consequence of the economic crisis and the public financial intervention in most European countries to save their banking systems, the public debt ratio has again increased. As a result of these developments, in 2010, the four countries presented a public debt as a percentage of GDP that exceeded the threshold.

**Graph 15 - Net lending (+) / Net borrowing (-) under the EDP**  
as % of GDP



The credibility of Belgian public authorities to meet their European commitments could also be judged in terms of the public deficit. The public deficit as a percentage of GDP, as defined in the EDP, is presented in Graph 15. Between 2000 and 2009 and as a consequence of the economic crisis, the Belgian public deficit did not exceed the 3% of GDP limit imposed by the Treaty, contrary to what was observed in Germany and in France.

**Graph 16 - Unemployment rate**  
3 years average in %



Finally, the Commission also takes into consideration the real economy potential imbalances through an indicator for the unemployment rate that is designed to monitor high and persistent rates of unemployment pointing towards a potential misallocation of resources and general lack of further adjustment capacity in the economy. As illustrated by Graph 16, this indicator is not considered problematic for Belgium. In 2010 and 2011, the effect of the economic downturn on the labour market was already visible in France, the Netherlands and Belgium but not yet in Germany, where the indicator continued to improve.

## Administrative burden in Belgium in 2010

In response to the Council of Ministers and in collaboration with the Dienst voor Administratieve Vereenvoudiging / Agence pour la Simplification Administrative, the FPB has estimated the cost of the administrative burden for companies and self-employed persons in 2010. The Planning Paper analyses the quantitative and qualitative results of the 2010 survey.

The estimation of the administrative burden is based on a national survey and uses the same methodology as that used in the surveys carried out for the years 2000, 2002, 2004, 2006 and 2008. Companies, as well as self-employed persons, are invited to assess the administrative burden imposed by three areas of legislation: environmental, employment and tax legislation.

The administrative burden on companies and self-employed persons is estimated to equal EUR 6.35 billion in 2010, or 1.79% of GDP, compared to 1.72% in 2008. In comparison with the 2008 survey, the administrative burden on companies increased in nominal terms by 11% but in comparison with the 2000 survey, it decreased by 19%. The burden reached 1.43% of GDP after 1.33% in 2008 but 2.55% in 2000. The administrative burden slightly decreased in nominal terms for self-employed persons. It is estimated at EUR 1.28 billion or 0.36% of GDP in 2010, after EUR 1.34 billion or 0.39% of GDP in 2008, and EUR 2.29 billion or 0.93% of GDP in 2000.

As in previous surveys, small businesses (with less than 10 employees) faced the highest administrative burden, expressed per employee or as a percentage of turnover. In comparison with the 2008 survey, small and medium businesses saw an increase in their average administra-

tive cost expressed per employee while large companies continued to record a decrease. However, expressed as a percentage of turnover, the average administrative cost increased for all companies, regardless of size.

In addition to this quantitative analysis, the survey also has a qualitative part in which business' sentiment is analysed on issues relating to the quality of legislation and contact with the civil services.

In 2010, as had already been observed in the previous surveys, companies and self-employed persons were generally more satisfied with their contact with the civil services than with the quality of legislation. For all areas of legislation, companies and self-employed persons were relatively satisfied with the information available to the public that accompanied legislation and the quality of responses obtained from the public administration. Lack of flexibility of legislation with regard to specific situations was the most criticised aspect of legislation whatever the legislative domain considered. For companies, improvement in the quality of legislation and in the quality of contact with the civil servants was mainly visible concerning employment regulation, while the opinion of self-employed persons on the quality of legislation and contact with the civil service was mainly driven by fiscal regulation, with improvements for a majority of proposals submitted to their judgement.

*"De administratieve lasten in België voor het jaar 2010, Les charges administratives en Belgique pour l'année 2010", C. Kegels, Planning Paper 110, January 2012.*

## Personal income tax elasticity: determinants, regionalization and outlook

This Working Paper aims to analyse the determinants of the elasticity of personal income tax in Belgium and the relationship between the elasticity and the per capita real income growth. It also deals with regional and federal elasticities in the context of the regionalization of the personal income tax approved in 2011.

This Working Paper discusses the elasticity and the progressivity of personal income tax. Both concepts deal with the same object but from a different perspective: elasticity has a temporal angle and indicates how personal income tax revenue evolves as the taxable base grows over time, whereas progressivity has a cross-sectional angle and measures how the tax system causes richer taxpayers to pay a larger personal income tax.

Progressivity is here estimated based on the distribution statistics of taxable income and taxes.

The paper distinguishes the main determinants of the evolution of the elasticity over time: tax reform, income distribution and income growth. A method is introduced to assess the negative relationship between progressivity and real income growth per capita. This negative relationship is due to the fact that as the taxable base grows, the average tax rate converges to the marginal tax rate, which reduces the progressivity of the tax system. In retrospect, we disentangle the incidence of income growth on progressivity from other factors. We show that the evolution of progressivity during recent decades is mainly explained by income growth.

Looking ahead, the incidence of real income growth per capita on elasticity can be used to project – under an unchanged policies assumption – an evolution of elasticity different from the constant elasticity hypothesis, typical of short- and medium-term models, and from the unitary elasticity hypothesis, typical of long-term models. In this context, besides the negative impact of real income growth on progressivity, the larger share of pensions in the tax base impacts progressivity positively. We show that elasticity, estimated at 1.55 in 2008, converges to 1.44 in 2030 in the FPB's autumn 2010 long term reference scenario.

Finally, this Working Paper discusses the regionalisation of personal income tax approved within the framework of the Institutional Agreement for the sixth Reform of

the State of 2011. More specifically, it demonstrates how the treatment of elements from the tax system with a fixed dimension (zero tax bracket, tax relief) and elements with a progressive dimension (income scale) influences the specific elasticity of the regional and the federal tax shares in personal income tax.

*“De elasticiteit van de personenbelasting - Prospectieve macro-economische benadering van de nationale elasticiteit en de elasticiteit van de geregionaliseerde personenbelasting”*  
*“L'élasticité de l'impôt des personnes physiques - Approche macroéconomique prospective de l'élasticité nationale et de l'élasticité de l'impôt régionalisé”,*  
 V. Frogneux and M. Saintrain,  
 Working Paper 1-12, March 2012.

### Some considerations on the "wage norm"

The Federal Planning Bureau (FPB) reports annually to the Central Economic Council (CEC) and the National Labour Council on the medium-term evolution in its 'Economic Outlook'. Within this framework, the FPB analyses, in particular, the monitoring of the wage norm as defined in the Law of 26 July 1996 on employment promotion and the preventive safeguarding of competitiveness. This analysis has revealed the existence of different concepts of wage costs. This publication aims to clarify and explain these different concepts. It seeks to raise questions relating to those concepts, particularly in terms of international comparability.

The discussion on the institutional sectors of the national accounts allows the origin to be highlighted of the disparities between the evolution of the nominal hourly wage cost in the private sector, used by the CEC and the OECD, and in the enterprises concept. The latter corresponds to all market industries that form the macrosectoral basis for the 'FPB's Economic Outlook'. According to the analysis, these disparities can be almost exclusively attributed to the branch 'Domestic servants', which is taken into account in the private sector but not in the enterprises concept. As a result of the implementation of the service voucher system, some of those domestic servants (on the black market) were engaged as salaried workers in companies. In the private sector, the expansion of the service voucher system curbs the increase in wage costs, though to a lesser extent than in the enterprises concept, because the number of domestic servants diminishes as service voucher employment expands. Over the 1997-2010 period, wage cost growth in Belgium in the private sector was 4.1% higher than in the three countries referred to in the law, but only 3.5% in the enterprises concept.

The issue of wage subsidies is also discussed in the paper. In Belgium, wage subsidies have grown progressively since the beginning of 2000s. Looking at their cumulative effect over the 1997-2010 period, we see that labour cost growth in Belgium and in the three countries referred to in the law is approximately equal. Of course, labour cost growth in the three reference countries may be lower than the wage cost increase owing to possible wage subsidies. This matter is analysed in the paper too.

Next, the paper discusses the effective international comparability of the data used by various institutions. Due to uncertainty about the estimate of some variables (domestic servants, service vouchers, etc ...) and the accounting practices in the four countries referred to in the law, an international comparison of wage cost concepts can probably only be made with some degree of approximation.

Finally, the study tries to identify the reasons why there is no systematic ex post compliance with the ex ante wage norm. It suggests that forecasting errors, common to all economic outlooks, are one of the main obstacles to wage norm management.

*“La loi du 26 juillet 1996 relative à la promotion de l'emploi et à la sauvegarde préventive de la compétitivité : quelques éléments de réflexion sur la norme salariale”,*  
 L. Masure,  
 Working Paper 2-12, January 2012.

## Track record of the FPB's short-term forecasts

The Federal Planning Bureau is responsible, within the National Accounts Institute, for producing the macroeconomic forecasts that are used to set up the federal government budget. The economic budget is published twice per year: in September of year t-1 to prepare the budget for year t and in February of year t to estimate the necessary figures for the budgetary control of that year. This working paper presents an update of the *ex post* assessment of the quality of the forecasts published within this framework.

Compared to the previous working papers devoted to this topic, the analysis is extended in several ways. Firstly, the analysis on an annual basis now covers the period 1994-2010, while in the preceding study the sample ended in 2005. Secondly, the number of variables examined and the amount of statistical tests have been markedly increased. Thirdly, an evaluation of the quality of the quarterly forecasts for GDP growth and inflation is presented for the first time. In addition, this information is used to calculate the probability distribution of these forecasts and to construct a fan chart, aimed at illustrating graphically the uncertainty surrounding the central scenario.

Although several hundreds of variables are forecast in an economic budget, only those most relevant for establishing the government budget were selected for the evaluation on an annual basis. Real growth in GDP and expenditure components were chosen as the most important indicators of economic activity, while growth in the consumer price index and the GDP deflator were singled out as the most representative price variables. Finally, growth in employment and unemployment were

considered the most relevant indicators for the labour market.

The statistical tests show that forecast errors for all variables decline as the horizon shortens, but one-year-ahead forecasts exhibit sizeable mean absolute errors and do not outperform predictions based on the sample mean. Errors are particularly large in the case of severe economic downturns or sudden changes in inflation. The positive bias observed in first-round GDP forecasts is nonetheless not statistically significant and disappears completely in February. These second-round forecasts undeniably outperform naïve forecasts and predict growth accelerations and decelerations correctly in most cases. This illustrates the utility of the budgetary control in bringing the economic parameters used in the budget closer to their outcome.

The track record of the quarterly forecasts, starting in 2002, is gauged through GDP growth and CPI inflation. Up to three quarters ahead, neither GDP growth nor inflation forecasts suffer from a statistically significant bias, but the mean forecast error tends to be slightly positive for the former and rather negative for the latter. The observed distribution of the forecast errors is then used to calculate probability intervals around the forecasts. These confidence intervals are subsequently used to construct a fan chart, representing the central scenario surrounded by its confidence bands, painted in different colours.

*"Track record of the FPB's short-term forecasts: an update",  
L. Dobbelaere and I. Lebrun,  
Working Paper 3-12, February 2012*

## System of innovation in Wallonia

This Working Paper evaluates the performance of the system of innovation in Wallonia for the most recent available period. The six main components of a system of innovation are: knowledge development, human resources, valorisation of R&D, innovation absorption capacity, entrepreneurship and innovation financing. A country's performance depends not only on the relative strength of each individual element but also on how effectively the components interact. These six components are evaluated from a European perspective.

These European comparisons allow the very good positioning of the Walloon Region in terms of knowledge development to be underlined, in particular concerning the capacity of the private sector to mobilise resources in

favour of R&D. Increasing since 2005, R&D intensity reached 2.22% in Wallonia in 2009. The detailed analysis also shows that since the beginning of 2000s, the concentration of R&D expenditure in high-tech sectors has increased, in particular in the pharmaceutical industry, which accounted for 49% of business R&D expenditures in 2009 against only 23% in 1995. This analysis also underlies another type of concentration linked to the previous one: R&D expenditures are increasingly financed by large companies (more than 1 000 employees). This category of companies financed 56% of business R&D expenditures in 2009 against only 39% in 2002.

In contrast, the human resources component shows important signs of weakness, mainly concerning the flux of

competencies, with the proportion of new graduates in science and engineering remaining too low and an insufficient participation of adults in lifelong learning. Moreover, this bad positioning is more pronounced in comparison with 2000.

The valorisation capacity component is at an intermediary position, with an innovation rate slightly above the European average. The detailed analysis also shows a difference in performances according to the size of enterprise: Walloon large firms are particularly innovative, belonging to the leading group in Europe, while the opposite is observed for Walloon medium and small enterprises.

Finally, the absorption capacity pillar shows that innovative Walloon companies, and in particular large businesses, are efficient at obtaining public funding whatever the source of financing (Europe, Federal or regional authorities).

The lack of available statistics prevents the international comparison of performances in terms of entrepreneurship. However, the comparison with the other Belgian Regions underlines the very good performance in terms of demography of enterprises in high tech services. However, this performance is only average concerning high tech manufacturing and is very weak concerning medium-high-tech manufacturing.

Recent indicators of innovation financing are only available for Belgium as a whole. They show an improvement in venture capital use in Belgium in comparison with its low, reached in 2005, with a use above the EU15 average in 2009. The use of early-stage venture capital has also been more intensive in Belgium than in the EU15 since 2007.

*“Le système d’innovation en Wallonie”,  
B. Biatour, C. Daubresse, C. Kegels,  
Working Paper 4-12, February 2012*

### The methodology developed by the FPB to produce long-term scenarios

Since 1987, the FPB has been providing long-term projections focused on the evolution of social expenditure within an overall framework of public finance, using the MALTESE system of models. This outlook is based on different scenarios: demographic, socio-economic, macro-economic and welfare adjustment. This Working Paper describes the methodology for constructing the socio-economic and macroeconomic scenarios and illustrates it by presenting the main results from the 2011 Annual Report of the Study Group on Ageing.

The population projection is first split into four socio-economic categories by gender and age (or age group): the school population, the potential labour force (employment and unemployment as well as ‘pre-pension’ and full-time career breaks), the disabled and others. The projection of the potential labour force and the disabled relies on a cohort approach and results from probabilities of maintaining persons in a category or probabilities of transition from one category to another between two periods. The school population aged 15 to 34 is assumed to evolve inversely to the potential labour force for this age group.

The long-term macroeconomic scenario is prepared as follows. Using the observed past trend in labour market efficiency gains, the evolution of the structural unemployment rate can be computed. Given the unemployment rate trajectory, the development in the labour force and an assumption regarding total factor productivity growth, employment and GDP are determined simultaneously using a small macroeconomic supply-side model. Relying on the concept of potential output, a specific

simulation procedure ensures full consistency between the medium and the long-run macroeconomic scenario produced by the FPB.

Once the overall evolution of employment and unemployment is known, the second phase of the socio-economic projection disaggregates employment and unemployment further and estimates the number of pensioners. Employment is divided by scheme (wage earners, self-employed and civil servants), gender and age group, on the basis of assumptions. The projection of the number of pensioners is carried out at a highly disaggregated level per scheme, gender and age group by letting the existing number of pensioners grow old and adding new pensioners based on recent “retirement behaviour” and historical participation rates.

The computation of the number of beneficiaries in the various schemes allows determination, in combination with a projection of the corresponding benefits and of the healthcare expenditure, of the so-called budgetary cost of ageing or the change in total social allowances compared to a base year. Finally, those social expenditures are included in a projection of the general government account. Those final steps are provided only as an illustration of the overall methodology but are not described in detail in this Working Paper.

*“The methodology developed by the Federal Planning Bureau to produce long-term scenarios”,  
N. Fasquelle, K. Hendrickx, C. Joyeux and I. Lebrun,  
Working Paper 5-12, February 2012.*

## Other Recent Publications

### Forecasts, December 2011

“Perspectives de population 2010-2060 / Bevolkingsvooruitzichten 2010-2060”, Federal Planning Bureau, Directorate-general Statistics and Economic information

### Sustainable development report, December 2011

“Twintig jaar engagement voor duurzame ontwikkeling? / Développement durable: 20 ans d’engagement politique?”, Task Force Sustainable Development

### Working Paper 13-11, December 2011

“Concurrentie in België: Intensiteit en evolutie tegen een Europese achtergrond”, J. van der Linden

### Forecasts, November 2011

“Energievooruitzichten voor België tegen 2030 / Perspectives énergétiques pour la Belgique à l’horizon 2030”, D. Devogelaer and D. Gusbin

### Economic forecasts, September 2011

“Prévisions économiques 2011-2012 / Economische vooruitzichten 2011-2012”

### Working Paper 12-11, August 2011

“A computable general equilibrium for Belgium with a special focus on transport policies”, A. Van Steenberghe, M. Vandress, I. Mayeres

## Research in progress

### 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, notably taking the new pension reform into account; 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, including the implications of public employment dynamics on public pensions.

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### Macroeconomic, budgetary and GHG emissions prospects

Using a consistent modelling approach, medium-term macroeconomic and budgetary prospects as well as the 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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### Environmental accounts

Publication of an update of the environmental accounts data for Belgium is planned for the first half of 2012. Data on energy accounts, air emissions, environmental protection and environmental taxes

will be included. Analyses of the data is also underway.

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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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### Long-term transport outlook

Publication of a transport outlook for Belgium up to 2030, including a reference scenario with also attention for the impact of transport on pollution is planned for September 2012.

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### Determinants of R&D

Based on data for individual companies, the impact is estimated of fiscal incentives and subsidies to encourage R&D expenditure.

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### Sustainable development

Based on scientific inputs and on a backcasting method, the Task Force on Sustainable Development is preparing a contribution to the strategic long term vision which will be adopted by the Federal Government in 2012, according to the Law on the Coordination of the Federal Policy on Sustainable Development.

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## Recent history of major economic policy measures

January 2012

European leaders agreed a new "Treaty on Stability, Coordination and Governance in the EMU" (the so-called "Fiscal Pact"). This treaty aimed at strengthening fiscal discipline and introducing more automatic sanctions and stricter surveillance within the euro area, in particular by introducing a "balanced budget rule". According to this rule, national budgets are required to be in balance or in surplus, a criterion that would be met if the annual structural government balance is at its country-specific medium-term objective, with a lower limit of 0.5% of GDP (or 1.0% of GDP where debt is below 60% and where risks in terms of sustainability of public finances are low). This balanced budget rule must be incorporated into the Member States' national legal systems, preferably at constitutional level. In the event of deviation from this rule, an automatic correction mechanism would be triggered. This mechanism will be defined by each Member State on the basis of principles proposed by the European Commission.

The European Commission imposed the repayment by postal incumbent Bpost to the Belgian state of EUR 417 million of incompatible aid. The largest part of the amount concerns overcompensation for public service obligations, paid out during 2006-2010. The contested EUR 300 million capital grant of 2003 was not considered as incompatible. The decision may have implications for the present amount of compensation for public services.

December 2011

The political parties negotiating to form a new government have agreed on labour market and pension system structural reforms. Together with the reform of the State agreed in October and the budget for 2012 (and the orientations for 2013-2014) agreed in November, these structural reforms make up the socio-economic core of the new coalition agreement.

In the unemployment insurance scheme, numerous measures will affect young people finishing their studies and entering the labour market: on the one hand, the duration of the professional integration period (former waiting period) will be prolonged as a whole (and also in the case of negative evaluations); on the other hand, integration allowances (former waiting allowances) will be suspended for 6 months in the case of a negative evaluation and limited to three years for heads of households, single people and privileged cohabitants aged 33 and over, as well as for all other cohabitants. The reform also introduces an accelerated degression of work-based unemployment benefits through a higher calculation rate for the first three months of unemployment, a shorter second period and the introduction of a third period for heads of households and single people younger than 55, who will then receive the minimum allowance. Finally, the seniority supplement will only be allowed from the age of 55 instead of 50.

For pre-pensions, the minimum career length requirement will be gradually increased to 40 years. The minimum age will remain 60 years in general and be increased to 60 years for specific cases that currently have a lower minimum age (with the exception of companies in troubles or undergoing restructuring, in which the age of entry will be gradually raised to 55 years, and the "Interprofessional Agreement" schemes). Part-time pre-pensions will be abolished.

The maximum duration of a career interruption for workers younger than 50 in the public sector will be reduced by one year. On the other hand, stricter conditions will apply to time credit allowances (private sector): a reduction of the maximum duration and a strengthening of the career requirements for a time credit, with or without motive; and an increase in the age of entry for an end-of-career time credit, accompanied by a strengthening of the career conditions.

A parametric pension reform aimed at delaying early retirement and restricting access to it was voted by Parliament at the end of December 2011. In the three main old-age pension schemes (private wage-earners, self-employed, civil servants), the minimum early retirement age and the minimum number of career years required for eligibility will gradually be increased, from 60 to 62 years and from 35 to 40 years, respectively (in fact, before the reform, the 35-year threshold did not apply to the civil servant scheme). People with a 42-year career will still be eligible for early retirement at 60 (and at 61 with a 41-year career). The transition starts from 2013 and the reform will be completed in 2016 (a few years later for specific schemes with higher accrual rates). The impact of the reform on workers presently aged 57 and over who have worked at least 31 years will be capped at 2 additional working years. In the civil servant scheme, the pension amount will take into account earnings over the last 10 years instead of the last 5 years. This reform will not apply to civil servants who reached the age of 50 on 1 January 2012.

Other parts of the reform include measures on an easier combination of work and pension after 65 years, a limitation of the survivor's pension and the reduction in pension entitlements for certain periods of unemployment and certain career interruptions.

The Parliament approved the transposition of the Third Energy Package into Belgian law. This will make the federal market regulator (CREG) more independent, extend the prospective studies, and make CREG better guarantee consumer rights. In the area of electronic communications, the Council of Ministers approved the transposition of Directives 2009/136 and /140. These concern: the switching of operator; consumer protection and rights on the internet; the independence of the regulator; and the modernisation of the universal service.

## Recent history of major economic policy measures

November 2011

The federal budget conclave established a budget for 2012 and a tentative budget for 2013-2014 (with a view to restoring the general government structural balance by 2015). The 2012 budget, which is clearly restrictive in contrast with the fiscal stance in place since the early 2000s, is based on assumptions of GDP and inflation growth rates of, respectively, 0.8% and 2.0%. The Government is setting a deficit target for 2012 of 2.4% of GDP for Entity I (the federal authority and social security, and in fact for the federal authority only since special federal transfers will insure that the social security ESA account is balanced over the entire 2012-2014 period). This represents, according to government figures, an improvement of 0.8% of GDP as compared to the 2011 deficit (3.2% of GDP) and a 2.6% of GDP adjustment as compared to the expected 2012 deficit with unchanged policy (5.0% of GDP). Assuming that Entity II (the regions, communities and local authorities) meets its objectives in the April 2011 Stability program (0.4% of GDP deficit), the general government deficit for 2012 should be reduced to 2.8% of GDP (from 3.6% of GDP in 2011), allowing Belgium to leave the Excessive Deficit Procedure.

The 2012 federal budget relies on structural new tax and non-tax receipts, among which are: increased withholding tax on dividends and interest (the 15% tax rate being raised to 21% or 25%); adjustments to the corporate tax system (a 3% cap on the notional interest used for the risk capital deduction and removal of the possibility to carry forward that deduction, taxation of capital gains on assets held for less than a year); increased taxation of company cars; selective increases in VAT rates (on notarial acts), excise duties (on tobacco) and other indirect taxes (on insurance premiums, on stock exchange); an increased contribution from the nuclear sector; new fees from the financial sector for the state guarantee on deposits; and the fight against tax fraud.

Savings on the expenditure side will come mainly from the strict control of operating costs and public employment developments, lower subsidies to public enterprises, lower expenditures for development cooperation, and the removal of the subsidies for the purchase of green cars. Savings are also expected in health care expenditure (via reductions in operating costs, in the price of medicines, and in fees for medical services or acts) and in unemployment and early retirement allowances (through structural reforms in this area).

Additional saving measures are planned for the 2013-2014 period. The (federal) tax incentives for energy saving investments will be removed. The consumer contribution in the service-voucher system will be increased. The budget available for real increases in social benefits will be limited to 60% of the amounts granted under the 2005 Generation Pact in 2013-2014. The real growth rate norm for the financing of the health care budget will be limited to 2% in 2013 and to 3% as from 2014 (instead of 4.5%). Savings are also expected in pension expenditure (through structural reforms in this area).

Four 4G mobile licences were auctioned. They were bought by the three incumbent mobile providers (Proximus, Mobistar and Base) and the Asian group BUCD. The auction brought in EUR 78 million, slightly less than expected. The licences will run from July 2012 until June 2027.

October 2011

The political parties negotiating to form a new government agreed on a sixth reform of the State, including the devolution of new competences to the communities and regions and the revision of the current financing act. This reform contains four main points. First, competences worth 4.4% of GDP (equivalent to EUR 17 billion or 14.5% of primary expenditures of Entity I) will be transferred to the regions (tax relief, part of the labour policy) and the communities (child benefit, part of the health care policy). These new competences will be mainly financed through grants paid by Entity I. Second, the main part of the existing grants to the regions (for an amount of about EUR 10 billion) will be replaced by a regional personal income tax and the current solidarity mechanism will be revised. Third, Brussels will get new grants of about EUR 460 million. Finally, regions and communities will have to contribute to the financing of the pensions of their own civil servants.

Postal incumbent Bpost acquired Hong Kong-based Citipost. Although it concerns just a small company, the acquisition is of strategic importance for the delivery of Bpost's consignments in South-East Asia.

September 2011

The European authorities adopted a new set of rules (the so-called "Six-Pack") reinforcing the Stability and Growth Pact (SGP) to better ensure fiscal discipline and foster economic governance in the EU. The new rules increase the operationality of the debt criterion of the Treaty: a Member State that does not respect the 60% reference for the debt-to-GDP ratio will be put into the excessive deficit procedure (even if its deficit is below 3%) if the gap between its debt level and the 60% reference is not reduced by 1/20th annually (as a three-year average). A new expenditure benchmark was introduced under the preventive arm of the Pact: Member States that have not yet reached their country specific medium-term objective are required not only to improve their structural balance by 0.5% of GDP a year, but also to cap the growth rate of their public expenditure according to a medium-term rate of growth. In order to identify and correct macro-economic imbalances, a new surveillance and enforcement mechanism was set up: the Excessive Imbalances Procedure (EIP). Under the EIP, a preventive recommendation can be addressed to Member States based on a scoreboard consisting of a set of economic indicators. In more serious cases, an excessive macro-economic imbalance procedure can be opened, requiring the Member State concerned to submit a corrective action plan. In all areas (fiscal, macro-economic, preventive or corrective), financial sanctions will apply to a euro area Member State that does not respect its obligations, under a so-called "reverse qualified majority" voting procedure (i.e. unless a qualified majority of Member States vote against the sanction).

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



