SHORT TERM UPDATE

4-13

Quarterly Newsletter
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Headlines Belgian Economy

Special Topic in this issue

The sixth state reform in Belgium: sustainability of public finances

Federal Planning Bureau
Economic analyses and forecasts

.be

Quarterly Newsletter of the Federal Planning Bureau

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

HEADLINES BELGIAN ECONOMY

The FPB's latest short-term forecast dates from September (see STU 3-13). We projected, conditional on our traditional assumption of unchanged budgetary policy, a GDP growth rate of 0.1% in 2013 and 1.1% in 2014 for the Belgian economy. This forecast was established against the background of euro area GDP growth amounting to -0.5% and 1% for those years respectively.

This September forecast seems to still be valid for the time being. The Belgian and euro area GDP flash estimates for 2013Q3 (0.3% qoq and 0.1% qoq respectively) and recent forecasts by the European Commission (October) and the OECD (November) are in line with a scenario of a modest recovery for the euro area and for Belgium. Nevertheless, this scenario is still subject to similar economic, political and financial risks.

The FPB has not yet estimated the economic impact of the Belgian government's budgetary decisions taken in October (which are summarised in the "policy measures" section on page 21), but expects it to be quite small. The government's effort to reduce its structural deficit-to-GDP ratio by 1.2% of potential GDP in 2014 (according to its draft budgetary plan submitted to the European Commission) focuses on measures whose impact on economic activity should be limited.

The FPB's next short-term forecast will be published in February 2014.

STU 4-13 was finalised on 3 December 2013.

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

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

Contents

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).

The sixth state reform in Belgium: issues with regard to the sustainability of public finances

The state reform was elaborated at a moment when large fiscal consolidation measures were required to restore the long-term sustainability of Belgian public finances. The 2011 institutional agreement provided that the federated entities contribute, through the reform, to the fiscal consolidation. That contribution can be justified by the fact that the reform, by reducing the budgetary size of the federal level, decreases the federal level's room for manoeuvre and its capacity to resolve on its own the sustainability issue. A study by the FPB - presented at the 20th Congress of Belgian French-speaking economists on 21 November 2013 - shows that the transfer of fiscal burden to the federated entities provided by the reform seems, a priori, sufficient not to aggravate the sustainability challenge considering the reduced size of the federal level's budget.

Why did the sustainability issue matter for the design of the state reform?

The consolidation measures taken by the different levels of government since 2010 and the structural reforms with regard to pensions, early retirement and unemployment allowed the sustainability problem to be reduced to some extent. In spite of those efforts, however, the position of the public finances is still unsustainable. This is particularly so for the federal level, which remains in deficit and is exposed to considerable public debt, implicit liabilities associated with the costs of ageing and contingent liabilities associated with guarantees granted to financial institutions.

The state reform was negotiated against this background, which is even more challenging since the European budgetary surveillance procedures demand swift budgetary consolidation. The reform increases both the budget size and the powers of the federated entities and reduces those of the federal level. In the absence of a transfer of a part of the deficit to the federated entities in order to share the required fiscal adjustment more appropriately, the federal level would have faced increased difficulties in tackling the sustainability problem due to the reduction in its room for manoeuvre.

How should the fiscal adjustment requirement be distributed among the entities?

Several criteria can be considered in order to assess what is the appropriate distribution of the fiscal adjustment among the entities. In the Belgian socio-political context, the budgetary position of the entities prevailed in the debate, rather than economic or social efficiency. Still, this budgetary criterion leads to implicit political choices due to the contribution to the fiscal adjustment it entails for the entities and, thus, for the budgets corresponding to their respective powers.

In its report of March 2012, the High Council of Finance (HCF) recommended that each entity should return to budgetary balance in the medium term, but under the condition of a transfer of burden from entity I (federal government and social security) to entity II (regions, communities and local government) in order to prevent unacceptable strain on the main components of entity I: social security and taxation. This transfer of burden takes into account the state reform or is to be organised as a part of the reform. A criterion considered for a fair distribution of the consolidation efforts consists of sharing these in proportion to final primary expenditure (distribution key 65/35 for respectively entity I and entity II). According to this criterion (and by way of illustration), the HCF calculated the transfer of burden to be 1% of GDP at most in its report of March 2012 and between 0.26% and 0.9% of GDP in its 2013 report.

Furthermore, in a study published in November 2010 (Working Paper 23-10), the FPB underlined that restoring Belgian fiscal sustainability is likely to be more difficult if the reform reduces the taxation powers and the budgetary room for manoeuvre of the federal level, leaving it to deal with the whole of its deficit, debts and budgetary costs of ageing. Preserving the capacity to improve the sustainability of public finances would entail transferring to the federated entities, jointly with a budgetary capacity, the consolidation effort (estimated at 20%) that the federal level could have made in proportion to that budget. With the transfer of powers organized by the state reform estimated at 4.9% of GDP, the transfer of burden required by this criterion amounts to 1% of GDP, or 0.8% of GDP after an update of the calculations that is based on more recent data.

The July 2013 agreement

In the course of 2013, the different parameters of the state reform were finalized, taking over the provisions of the institutional agreement of October 2011 and concretizing the modalities of both a "contribution of the regions and communities to the consolidation of public finance" and a "contribution to the costs of ageing". The "contribution to the consolidation of public finance" consists of initial reductions (EUR 2.5 billion in 2016) in some transfers granted by entity I to finance the federated entities. These reductions subsequently implicitly develop in the same way as the transfers concerned. The "contribution to ageing costs" consists of reducing, as from 2017, the degree to which some transfers will be indexed to economic growth. For example, transfers related to labour market policy expenditure will be linked to only 55% of economic growth (instead of 75%, as initially provided); transfers related to elder care expenditure will be linked to only 65% of economic growth (instead of 82.5%).

Does the reform meet the criteria for allocation of the required fiscal adjustment among the entities?

To answer this question, all the components of the reform must be considered, not only the so-called "contribution to fiscal consolidation" and "contribution to the costs of ageing". The other aspects of the regions and communities funding reform must also be considered, including the partial regionalization of personal income tax (PIT) and the dynamics of this tax, the dynamics of expenditure on the powers transferred, the so-called "transition amounts" (lump-sum transfers, with a phasing-out), the "pension" contribution (a contribution charged to the federated entities in proportion to their civil servants' wages) and, lastly, the additional funding granted to the Brussels institutions. The FPB assessed the impact of the reform within a reference scenario based on its 2013-2018 Economic Outlook of May 2013 and on the long-term projection of July 2013 of the Study Committee on Ageing.

The reform had to respect a politically decided principle of "non-impoverishment" of the federated entities before contributions to "fiscal consolidation" and "the costs of ageing". This principle seems to be respected for entity II as a whole, provided that the dynamics of PIT revenues compensate for the growing underfunding of expenditure for new powers (in particular for elder care), the planned decrease in "transition amounts" and the gradual increase in "pension" contribution.

The "contribution to fiscal consolidation" and the "contribution to ageing costs" constitute the bulk of the transfer of burden from entity I to the federated entities. Of course, this transfer of burden will actually contribute to fiscal sustainability only if the federated entities compensate that burden by equivalent budgetary consolidation measures.

Within the macroeconomic reference framework and assuming the reform has a 10-year lifespan (close to the average lifespan observed for previous reforms; thereafter, the budgetary impact measured during the tenth year is set as constant over an infinite horizon), the transfer of burden to the federated entities amounts to 0.7% of GDP (measured in terms of a sustainability gap transfer, namely, expressed as a constant and permanent flow). The transfer increases only slightly for longer lifespans, as the dynamics of the different flows affected by the reform tend to offset each other.

Macroeconomic risks: what is their impact on the results?

The result in the previous section holds, provided that the regions take full advantage of the PIT revenue dynamics that can be expected in a constant legislation scenario. At constant legislation, on the one hand, the tax burden increases as a result of the progressivity of PIT in the case of positive growth of real per capita incomes, as assumed in the reference scenario; on the other hand, the tax base increases faster than GDP, given the development of pension incomes which contribute to a large extent to the ageing cost estimated by the Study Committee on Ageing. Since the principle of "non-impoverishment" seems to hold assuming constant legislation, it means that the reform does not grant the regions the resources needed to finance possible PIT reforms - they could consider stabilizing the tax burden under competitive pressure - or to ward off federal policies, such as possible pension reforms reducing tax base growth. Under a constant tax to GDP ratio assumption, the transfer of burden amounts to 0.9% of GDP for a 10-year lifespan (instead of 0.7% of GDP under a constant legislation assumption).

As regards the "contribution to ageing cost" obtained through a lower indexation to economic growth of some transfers granted by entity I to the federated entities, it will be noted that it vanishes in the case of economic stagnation, by design. Assuming a scenario of a lasting economic depression, it should even become negative, whereas the weight of the ageing cost for entity I should increase considerably.

Conclusion

Assuming a reform lifespan close to the average observed for previous reforms and within the macroeconomic reference framework, the transfer of burden from entity I to entity II seems to meet the criterion of not worsening the sustainability problem in view of the reduced budget size of entity I, as presented in the November 2010 FPB study. The federated entities have gained scale and powers but will have to contribute substantially to the efforts to restore fiscal sustainability, as recommended by the HCF.

Summary of Economic Forecasts

Economic forecasts for Belgium by different institutes

	GDP growth		Inflation		Government balance		Date of update
	2013	2014	2013	2014	2013	2014	
Federal Planning Bureau	0.1	1.1	1.2	1.3	.	.	09/13
INR/ICN	0.1	1.1	1.2	1.3	.	.	09/13
National Bank of Belgium	0.2	1.1	1.2	1.3	-2.8	-2.8	12/13
European Commission	0.1	1.1	1.3	1.3	-2.8	-2.6	11/13
OECD	0.1	1.1	1.1	1.1	-2.7	-2.4	11/13
IMF	0.1	1.0	1.4	1.2	-2.8	-2.5	10/13
ING	0.2	1.2	1.2	1.5	-2.6	-2.1	11/13
BNP Paribas Fortis	0.2	1.1	1.1	1.0	-2.7	-2.3	12/13
Belfius	0.2	1.2	1.3	1.3	.	.	11/13
KBC	0.2	1.2	1.1	1.2	-2.8	-2.7	12/13
Deutsche Bank	0.1	1.2	1.2	1.4	-3.0	-2.9	11/13
Oxford Economics	-0.1	0.8	1.3	2.0	-3.4	-3.0	11/13
IRES	0.1	1.6	1.1	1.3	-2.5	-2.4	10/12
Belgian Prime News	0.0	1.0	1.3	1.6	-2.7	-2.3	09/13
Consensus Economics	0.0	0.8	1.3	1.7	.	.	11/13
Consensus The Economist	0.1	1.1	1.2	1.3	.	.	12/13
Consensus Wirtschaftsinstitute	0.1	1.1	1.4	1.7	-2.9	-3.1	10/13
Averages							
All institutions	0.1	1.1	1.2	1.4	-2.8	-2.6	
International public institutions	0.1	1.1	1.3	1.2	-2.8	-2.5	
Credit institutions	0.1	1.1	1.2	1.3	-2.8	-2.5	

Economic forecasts for the euro area by different institutes

	GDP growth		Inflation		Government balance		Date of update
	2013	2014	2013	2014	2013	2014	
European Commission	-0.4	1.1	1.5	1.5	-3.1	-2.5	11/13
OECD	-0.4	1.0	1.4	1.2	-2.9	-2.5	11/13
IMF	-0.4	1.0	1.5	1.5	-3.1	-2.5	10/13
ING	-0.4	1.1	1.4	1.5	-3.0	-2.6	11/13
BNP Paribas Fortis	-0.4	1.0	1.3	0.9	-3.2	-2.5	12/13
Belfius	-0.4	1.1	1.5	1.5	.	.	11/13
KBC	-0.4	1.2	1.3	1.1	.	.	12/13
Deutsche Bank	-0.2	1.2	1.5	1.4	-2.9	-2.4	11/13
Morgan Stanley	-0.5	0.5	1.4	1.1	-3.1	-2.8	12/13
Oxford Economics	-0.3	1.0	1.5	1.5	-2.8	-2.6	11/13
Consensus AIECE	-0.4	1.0	1.5	1.5	.	.	11/13
Consensus Economics	-0.4	0.9	1.4	1.3	.	.	11/13
Consensus The Economist	-0.4	1.0	1.4	1.2	.	.	12/13
Consensus Wirtschaftsinstitute	-0.4	0.9	1.4	1.6	-3.2	-2.9	10/13
Averages							
All institutions	-0.4	1.0	1.4	1.3	-3.0	-2.6	
International public institutions	-0.4	1.0	1.5	1.4	-3.0	-2.5	
Credit institutions	-0.4	1.0	1.4	1.2	-3.0	-2.6	

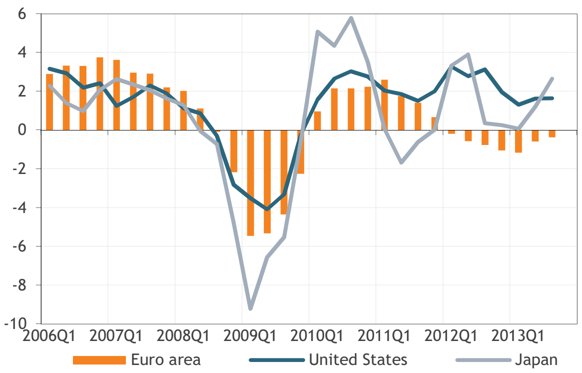
General economic activity

Table 1 - GDP growth rates (in %) [1]

			YoY growth rates, in %					QoQ growth rates, in %				
	2011	2012	2012Q3	2012Q4	2013Q1	2013Q2	2013Q3	2012Q3	2012Q4	2013Q1	2013Q2	2013Q3
Germany	3.4	0.9	0.9	0.3	-0.3	0.5	0.6	0.2	-0.5	0.0	0.7	0.3
France	2.0	0.0	0.0	-0.3	-0.4	0.5	0.2	0.2	-0.2	-0.1	0.5	-0.1
Netherlands	1.0	-1.3	-1.4	-1.3	-1.4	-1.9	-0.8	-1.0	-0.6	-0.3	0.0	0.1
Belgium	1.8	-0.1	-0.3	-0.4	-0.5	0.1	0.4	0.0	-0.1	0.0	0.2	0.3
Euro area	1.6	-0.6	-0.8	-1.0	-1.2	-0.6	-0.4	-0.1	-0.5	-0.2	0.3	0.1
United States	1.8	2.8	3.1	2.0	1.3	1.6	1.6	0.7	0.0	0.3	0.6	0.7
Japan	-0.6	1.9	0.4	0.2	0.1	1.2	2.6	-0.9	0.1	1.1	0.9	0.5

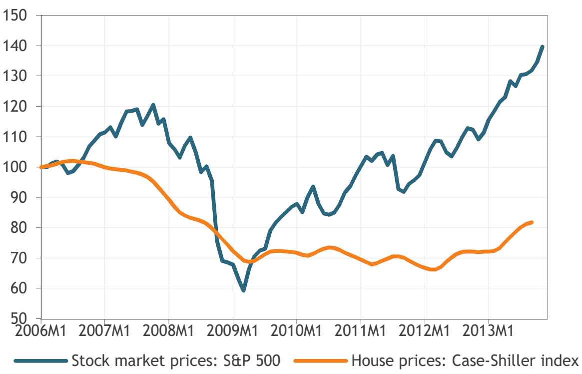
[1] Adjusted for seasonal and calendar effects
Source: INR/ICN, National sources, Eurostat

Graph 1 - GDP growth (YoY growth rates, in %)



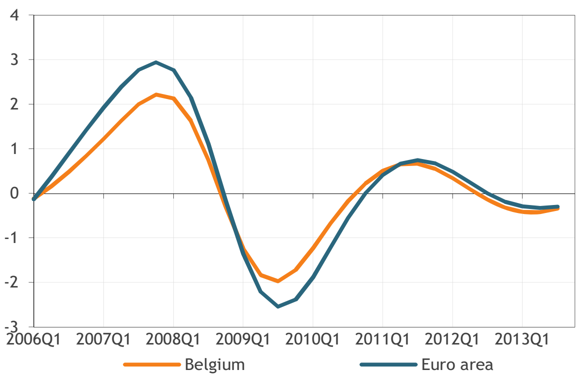
Source: Eurostat, National sources

Graph 2 - US stock market and house prices (indices, 2006M1=100)



Source: Standard & Poor's

Graph 3 - GDP business cycle (deviation from trend in %)



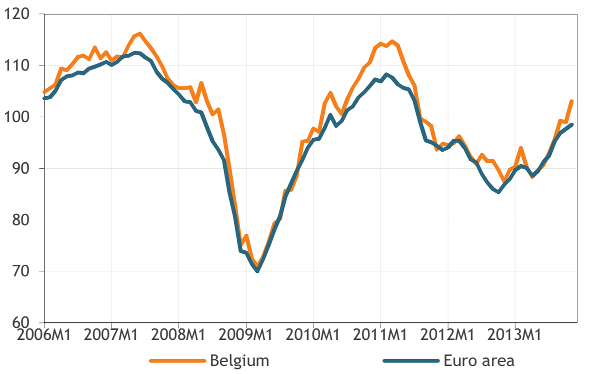
Source: INR/ICN, Eurostat, FPB

US economic growth amounted to 0.7% in 2013Q3, following growth rates of 0.6% and 0.3% in the first two quarters of the year. The rise in economic activity was broad-based as all demand components contributed positively to economic growth. GDP growth is expected to slow down in 2013Q4 as inventories are likely to be drawn down again (after the build-up in Q3) and as the government shutdown in October (due to the political impasse) is likely to have weighed somewhat on economic activity. Next year should allow an acceleration of economic growth (to about 3% annually versus 1.7% in 2013) as the pace of fiscal contraction ought to be reduced significantly. Also, further improvements in the labour market situation as well as higher house and stock prices should support private consumption, while an improved demand outlook and still cheap financing conditions ought to boost business investment.

Prime Minister Abe's plan to combine fiscal spending, aggressive monetary easing and economic reforms led to strong economic growth in Japan in the first two quarters of 2013 (1.1% and 0.9%). Reduced deflation fears boosted consumption and investment, while exports were boosted by the strong depreciation of the yen. In 2013Q3, the pace of expansion weakened to 0.5% on the back of a marked deceleration in private consumption and investment. In 2014Q4, growth ought to accelerate again as households boost spending and investment before an increase in the VAT rate (from 5 to 8%) next April. Without new fiscal stimulus it is unlikely that the Japanese economy will prove as buoyant next year as in 2013.

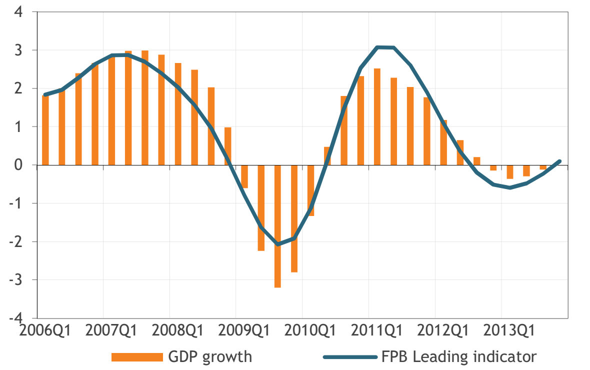
After a recession that lasted a year and a half, GDP in the euro area rose again (0.3%) in 2013Q2, mostly due to a sizeable contribution of net exports to growth. Consumer spending and investment stopped declining and there was probably also a technical upward effect after the harsh winter weather that had depressed economic activity in the first quarter.

Graph 4 - Economic sentiment indicator (indices, average 1990-2011=100)



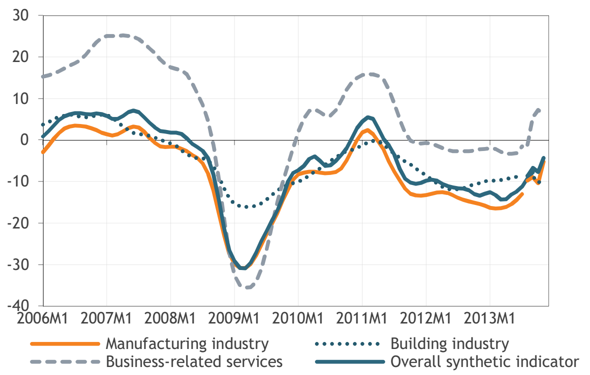
Source: European Commission

Graph 5 - Belgian GDP growth and leading indicator (YoY growth rates of 4-quarter moving averages)



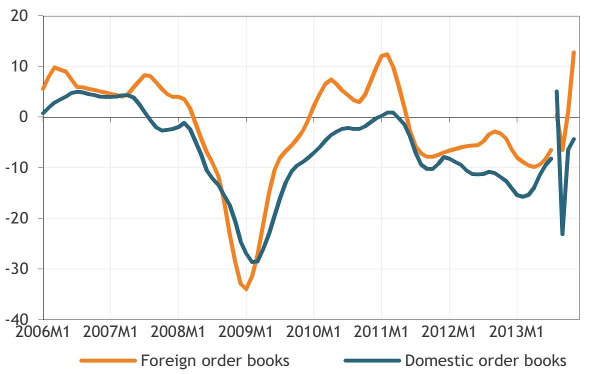
Source: INR/ICN, FPB

Graph 6 - Belgian business cycle indicator (indices)



Source: NBB

Graph 7 - Manufacturing industry: order books (business survey indices)



Source: NBB

In 2013Q3, economic growth slowed again to merely 0.1%. While the demand components on the euro area level have still not been released, indications from individual countries seem to point to a serious weakening of exports as the main culprit for the new slackening. This should come as no surprise as the euro has appreciated considerably (see Exchange Rates). In the next few quarters, euro area economic growth ought to strengthen gradually as the pace of fiscal tightening will be substantially lower in 2014 and as world economic growth is expected to accelerate (albeit moderately). This scenario is confirmed by several leading indicators (see Graph 4). The euro area recovery remains fragile, though, due to tight credit conditions, high unemployment rates and the risk of a new aggravation of the sovereign debt crisis.

Belgian economic activity rose by 0.3% in 2013Q3 after a 0.2% rise in the previous quarter. Belgium along with Germany, France and Austria are the only countries that are currently registering positive yoy GDP growth rates. The economies of the countries in the periphery have reduced their pace of contraction (Spain even managed a positive qoq growth rate for the first time in 2.5 years), but their economies remain in a feeble state.

The Economic Sentiment Indicator (ESI, Graph 4) summarises the development of consumer confidence and sentiment in several business sectors. The Belgian and euro area ESI reached a trough during 2012Q4. The following recovery was rather hesitant during the first half of 2013, but gained momentum afterwards. However, it should be noted that both indicators are still slightly below their long-term average of 100, suggesting a slow economic recovery. This is consistent with the scenario of our latest short-term forecasts, which were finalised in September.

Having bottomed out for more than a year, the overall synthetic indicator for the Belgian economy (Graph 6) started to recover around mid-2013. The improvement in sentiment was seen in all sectors covered by the survey, except for the building industry, which continues to suffer from a lack of orders and pessimistic demand prospects. The improvement in confidence in manufacturing industry is related to an upturn in order books and demand prospects, followed by a more optimistic employment outlook. Order books were supported by domestic as well as foreign demand (Graph 7), although the increase in the latter has been more pronounced recently. Sentiment in business related services recovered somewhat later than in other economic sectors and did so under the impulse of (current and expected) activity. Sentiment in the trade sector also improved, but only due to more optimistic demand prospects, while employment expectations stabilised.

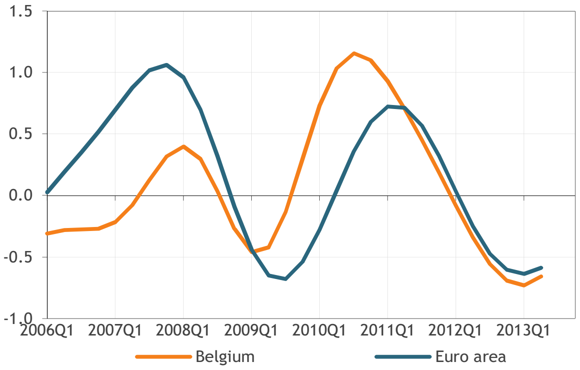
Private consumption

Table 2 - Private consumption indicators

	2011	2012	2012Q4	2013Q1	2013Q2	2013Q3	2013M6	2013M7	2013M8	2013M9	2013M10	2013M11
New car registrations [1]	4.5	-14.9	-24.0	0.5	2.9	-2.0	-9.4	-5.0	-4.6	3.7	-5.6	.
Consumer confidence indicator [2]	-5.2	-15.8	-22.0	-21.3	-19.0	-11.7	-18.0	-16.0	-12.0	-7.0	-6.0	-6.0

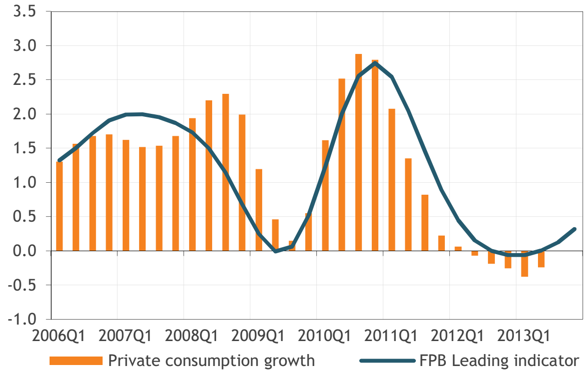
[1] Change (%) compared to same period previous year; [2] Qualitative data
Source: NBB, Febiac

Graph 8 - Private consumption cycle (deviation from trend, in %)



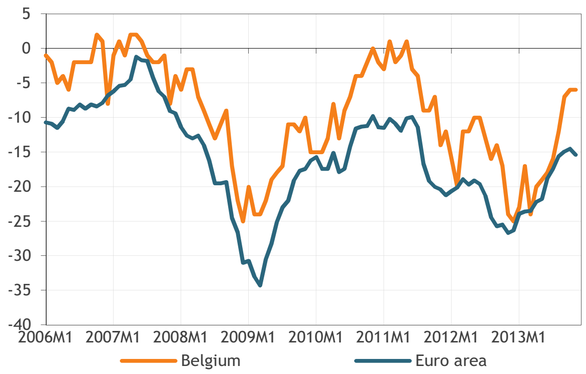
Source: INR/ICN, Eurostat, FPB

Graph 9 - Private consumption growth and leading indicator (YoY growth rates of 4-quarter moving averages)



Source: INR/ICN, FPB

Graph 10 - Consumer confidence: international comparison (indices)



Source: NBB, European Commission

Belgian private consumption (by volume) registered a decline of 0.3% in 2012, bringing it close to its level of 2010. This decline led to an increase in the savings rate of more than 1%-point, since households' real disposable income increased by 1.2%. As consumer confidence was significantly lower in 2012 than in 2011, precautionary savings probably explain a large part of the rise in the savings rate. During the first half of 2013, private consumption registered qoq increases of 0.4% and 0.3% respectively, which counterbalanced most of the decline seen during the last three quarters of 2012.

Private consumption in the euro area fell for six consecutive quarters (2011Q4-2013Q1) and was 1.4% lower on average in 2012 than in 2011. This decline was linked to the fall in households' real disposable income and would have been even stronger without the (limited) decline in the savings rate. In 2013Q2, a quasi-stabilisation was seen (+0.1%), but the poor performance of the labour market in many southern Member States is expected to continue to weigh on labour income and private consumption for quite some time.

Despite lower consumption growth in the euro area than in Belgium, both private consumption cycles (Graph 8) are at the same level and reached a trough in 2013Q1. Because of lower trend growth of private consumption in the euro area, less growth is needed to achieve an upturn in the consumption cycle than in Belgium.

Due to the abolition from January 2012 onwards of the price reduction for cars with low carbon dioxide emissions, new car registrations declined by almost 15% in 2012. Since the beginning of this year, yoy growth rates of car registrations have been close to zero. Belgian consumer confidence has improved markedly since April 2013 due to more optimistic expectations with respect to unemployment and the general economic situation. Consequently, the FPB leading indicator has increased somewhat in the course of 2013 and points to slightly positive growth for the year as a whole, which is consistent with our short-term forecasts of September.

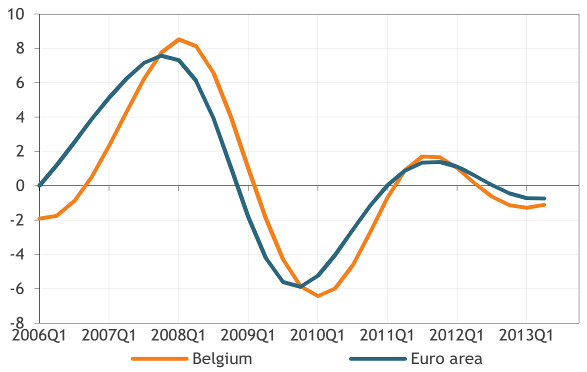
Business investment

Table 3 - Business investment indicators

	2011	2012	2013	2012Q4	2013Q1	2013Q2	2013Q3	2013M7	2013M8	2013M9	2013M10	2013M11
Business survey, capital goods [2]												
Synthetic indicator	-2.5	-8.7	.	-15.3	-11.8	-12.3	-7.3	-11.9	-5.5	-4.5	-2.2	-2.9
Order book appraisal	-13.2	-23.5	.	-29.7	-25.0	-27.7	-25.0	-25.0	-26.0	-24.0	-21.0	-14.0
Demand forecasts	-1.8	-9.8	.	-14.0	1.0	-4.7	-6.7	-10.0	-3.0	-7.0	1.0	3.0
Investment survey [1]	10.1	3.7	15.1									
Capacity utilisation rate (s.a.) (%)	79.3	76.7	.	75.6	75.2	76.1	77.1					

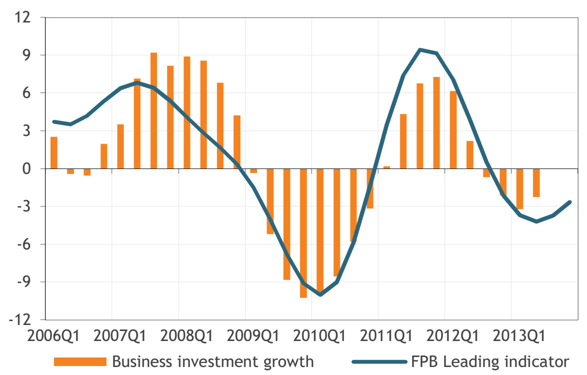
[1] Change (%) compared to same period previous year; [2] Qualitative data
Source: NBB

Graph 11 - Business investment cycle (deviation from trend, in %)



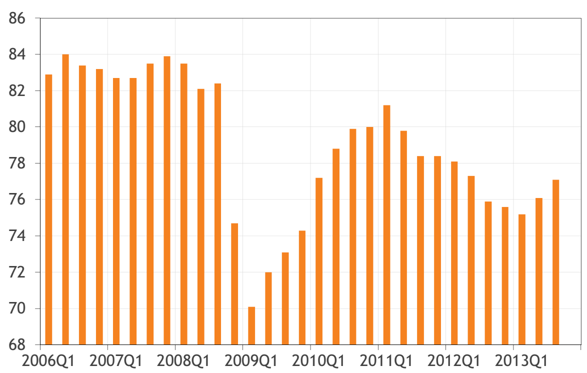
Source: INR/ICN, Eurostat, FPB

Graph 12 - Business investment growth and leading indicator (YoY growth rate of 4-quarter moving averages)



Source: INR/ICN, FPB

Graph 13 - Capacity utilisation in manufacturing industry (rate of capacity utilisation, in %)



Source: NBB

Belgian business investment registered a very strong decline during the Great Recession. The decline in economic activity made the capacity utilisation rate in the manufacturing industry plummet to merely 70% in the beginning of 2009, while its historical average is around 80%. To get rid of excess capacity, business investment was scaled back by 13% during the period 2009-2010. Together with an economic upturn, this made capacity utilisation increase to its historical average in 2011, triggering an increase in investment. However, economic growth has lost momentum again since mid-2011, which made business investment decline by almost 5% during the period 2011Q3-2013Q2.

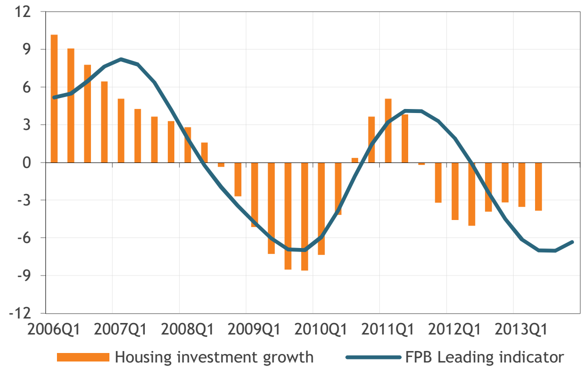
Investment and capacity utilisation in the euro area have developed in a similar way as in Belgium since 2009, although the upturn in 2011 was less pronounced and the following decline more intense. This is due to the weakness of investment in several southern euro area Member States.

While the Belgian investment cycle seems to have reached a trough recently, the euro area cycle is still declining (Graph 11), albeit at a very moderate pace. It should be noted that a cycle represents the relative performance of observed growth as compared to trend growth. So, even with lower investment growth in the euro area, its cycle has ended up very close to that of Belgium due to lower trend growth in the euro area.

Belgian business investment indicators show that even if a further decline in business investment in 2013 is very likely, positive investment growth should show up in 2014 in the scenario of a gradual economic recovery. Capacity utilisation increased by 2%-points during the last two quarters and should continue to do so. Moreover, business survey indicators for the capital goods sector have improved since mid-2013, signalling increased dynamism in demand. The results of the investment survey should be interpreted with caution. They already date from the spring and are generally revised downwards in the survey that will be published in December.

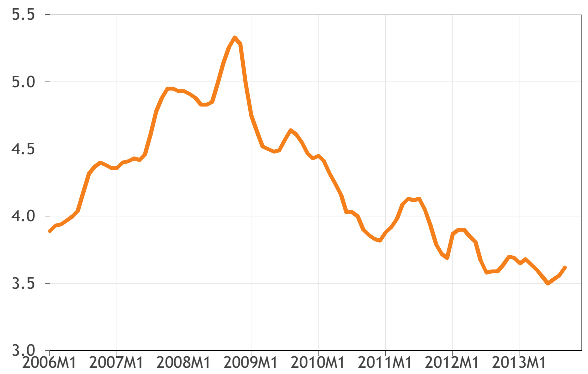
Housing investment

Graph 14 - Housing investment growth and leading indicator (YoY growth rates of 4-quarter moving averages)



Source: INR/ICN, FPB

Graph 15 - Mortgage rate (over 10 years initial rate fixation, in %)



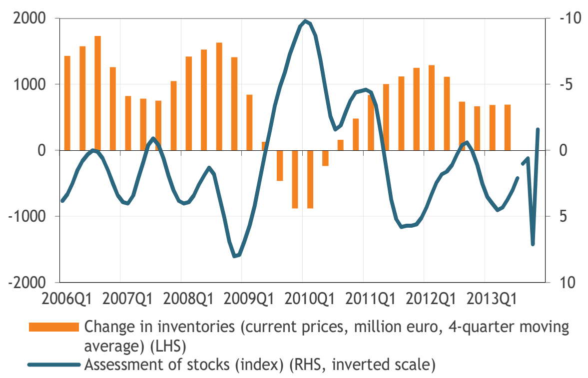
Source: NBB

Belgian residential investment contracted strongly for the fourth time in five years in 2012 (3.2%), and reached a level that is nearly 14% lower than its peak in 2007. The decline pushed down the (nominal) residential investment-to-GDP ratio from 6.3% on average in 2007-2008 to 5.6% in 2012, which is close to its average of the preceding 20 years (5.5%). Housing investment continued to act as a drag on economic growth in the first half of 2013, with qoq growth rates of -1.9% and -0.8%.

A modest recovery in housing investment growth is likely to start only in the course of 2014. This is confirmed by the FPB leading indicator, which declined as from mid-2011 and reached a trough by mid-2013. The indicator now points to a pick-up in the residential investment growth cycle, although growth rates could remain negative for quite some time. Some of its components (information from the architects' survey and the total value of mortgage applications) lead the development of housing investment by three to four quarters. Housing investment should also be supported by the historically low mortgage rate and by improving consumer confidence. Nevertheless, because of a negative carry-over from 2013, annual average residential investment may decrease again in 2014.

Stock building

Graph 16 - Stock building indicators



Source: INR/ICN, NBB

As changes in inventories can take on positive as well as negative values, the series that can be calculated using chain-linked volume indices does not provide any useful information and is no longer published in the quarterly national accounts. Therefore, changes in inventories are only shown at current prices in Graph 16. However, their contribution to real GDP growth can be derived as a residual, taking the contributions of other demand components into account.

Against the background of weak demand, changes in inventories dragged down economic growth by 0.4 %-point in 2012. This drag should become smaller as the number of entrepreneurs considering their stock levels as excessive decreased in 2013Q3 and business confidence has improved in recent months.

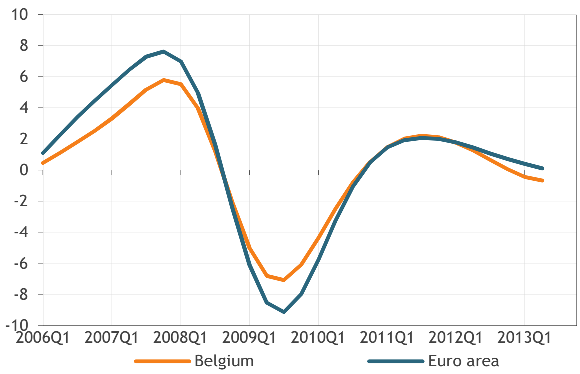
Foreign trade

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

	2011	2012	2012Q3	2012Q4	2013Q1	2013Q2	2013M3	2013M4	2013M5	2013M6	2013M7	2013M8
Exports - value [1]	13.5	1.8	1.4	2.0	-2.4	2.3	-3.8	4.6	3.6	-1.4	10.7	-4.6
Imports - value [1]	16.5	2.1	-0.4	4.0	0.6	0.1	-0.1	4.8	-1.5	-2.9	2.0	-6.1
Exports - volume [1]	3.2	-1.1	-0.8	0.4	-3.0	3.4	-4.5	6.4	5.1	-1.1	11.2	-4.0
Imports - volume [1]	4.4	-2.7	-4.4	1.1	-0.7	0.0	-0.7	4.8	0.2	-4.7	3.7	-3.1
Exports - price [1]	10.1	3.0	2.2	1.6	0.6	-1.2	0.8	-1.7	-1.4	-0.3	-0.5	-0.5
Imports - price [1]	11.7	4.9	4.2	2.9	1.3	0.1	0.6	0.0	-1.6	1.9	-1.7	-3.1

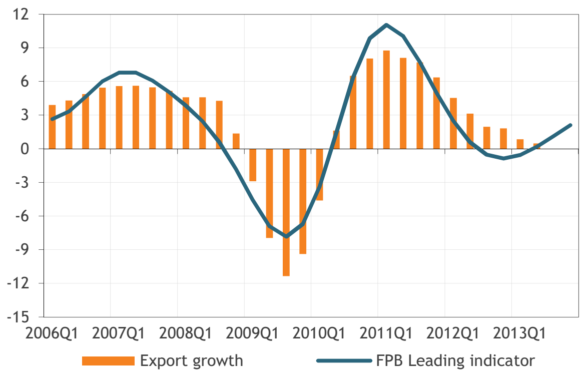
[1] Change (%) compared to same period previous year
Source: INR/ICN

Graph 17 - Export cycle (deviation from trend, in %)



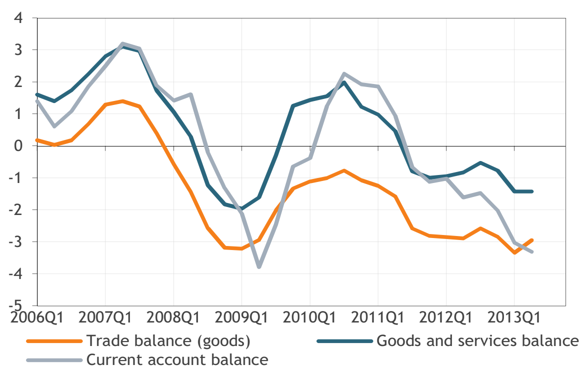
Source: INR/ICN, Eurostat, FPB

Graph 18 - Export growth and leading indicator (YoY growth rate of 4-quarter moving averages)



Source: INR/ICN, FPB

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



Source: INR/ICN, NBB, FPB

In line with the continued slide in world trade growth, both the Belgian and the European export cycles have declined unabatedly for two years now. However, since the middle of last year, a gap has opened between the two export cycles. While the Belgian export cycle is firmly below trend, the European export cycle is still (slightly) above.

Within the euro area, exports proved to be especially strong in Spain and Portugal so far this year, helped by a huge decline in relative labour costs. In Italy, which did not improve its competitiveness, exports were very weak again in the first half of the year. In volume terms, Italian exports are still more than 4% below their pre-crisis level. This is the worst export performance of the euro area, except for Finland (whose exports were torpedoed by the downturn of Nokia).

Belgian exports started 2012 on a high note, lost strength in the next two quarters and weakened substantially in 2012Q4 and 2013Q1 (-1.1% and -0.9% qoq) under the influence of a deepening recession in the euro area. In 2013Q2, Belgian exports surged back (1.3%) as euro area economic growth turned positive again and, more importantly, because the economic activity of our main two trading partners, Germany and France, proved to be particularly strong. Demand components of Belgian GDP in 2013Q3 are not available yet, but our trade partners' import growth appears to have weakened, which suggests more subdued Belgian export growth. Export growth should strengthen moderately in the course of next year in line with the expected pick-up in euro area economic activity. This scenario is confirmed by our leading indicator (Graph 18).

A combination of higher oil prices and weak exports caused the current account to move into negative territory in 2011. Going forward, this year's decline in oil prices and weak import demand should lead to some improvement. However, as Belgian cost competitiveness (expressed in terms of unit labour costs) has deteriorated considerably in the last three years, a return to a current account surplus is unlikely in the near term.

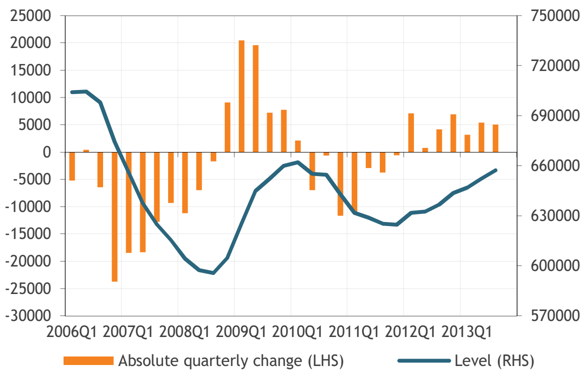
Labour market

Table 5 - Labour market indicators

	2011	2012	2012Q4	2013Q1	2013Q2	2013Q3	2013M5	2013M6	2013M7	2013M8	2013M9	2013M10
Unemployment [1][2]	627.7	636.3	643.8	647.0	652.4	657.4	652.6	653.3	656.3	655.9	660.1	661.0
Unemployment rate [2][3]	11.9	12.1	12.2	12.3	12.4	12.5	12.4	12.4	12.4	12.4	12.5	12.5
Unemployment rate-Eurostat [3][4]	7.2	7.6	8.0	8.3	8.5	8.8	8.5	8.6	8.7	8.8	8.9	.

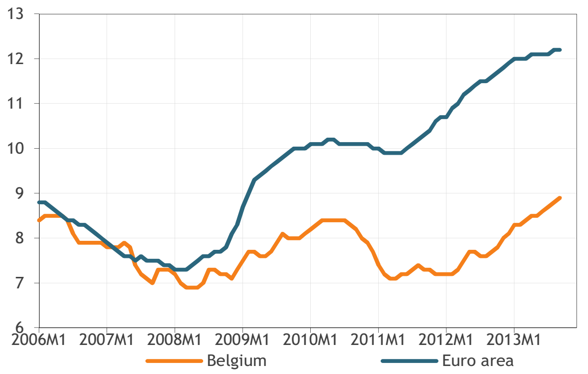
[1] Level in thousands, s.a.; [2] Broad administrative definition; [3] In % of labour force, s.a.; [4] Recent figures are based on administrative data and may be subject to revision
Source: RVA/ONEM, FPS Employment, Eurostat, FPB

Graph 20 - Evolution of unemployment (incl. older) (number of persons, seasonally adjusted figures)



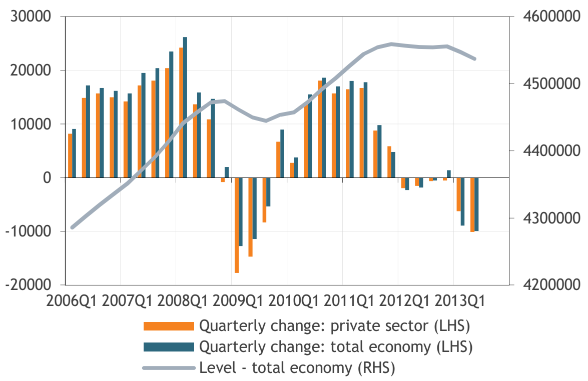
Source: RVA/ONEM

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



Source: Eurostat

Graph 22 - Evolution of domestic employment (number of persons, seasonally adjusted figures)



Source: INR/ICN

In spite of a deteriorating macroeconomic environment, qoq private sector employment growth was only marginally negative last year, confirming that the entire post financial crisis period has been characterized by persistently low productivity growth and substantial labour hoarding by firms. However, the latest national account figures point to a significant worsening of the employment situation during the first half of this year. Private sector employment shrank by 0.15% in 2013Q1 and by 0.25% in 2013Q2. Average working time also decreased significantly in 2013Q1, but this was largely the result of effective working time reductions in the construction industry related to adverse weather conditions, and was entirely compensated in 2013Q2.

As in the immediate aftermath of the financial crisis, employment growth has been particularly hit in cyclical industries, such as the interim services industry and certain manufacturing industries. However, the recent downturn was more evenly spread over all components of final demand, not just exports and investments. Slow growth in private consumption is affecting employment in industries such as trade, accommodation and food services, whereas fiscal consolidation measures are affecting employment in the public sector. In construction, employment has been declining since the beginning of last year, but the pace at which construction jobs are being lost intensified in the first half of this year.

Surprisingly, under these circumstances, the increase in unemployment has not accelerated further. The broad administrative unemployment rate has risen at an almost constant pace since the beginning of last year. Consequently, measured labour force growth was significantly negative during the first two quarters of this year (-0.1% in each quarter). It may be true that the growth in the population of working age has been slower than previously assumed, population figures for January 2013 having turned out to be 0.1% lower than projected. Still, even allowing for slower population growth, the measured overall activity rate diminished during the first half of this year, which seems hard to explain in the light of recent policy measures that should have already had an impact on activity rates in the older age brackets.

Prices

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

	2011	2012	2012Q4	2013Q1	2013Q2	2013Q3	2013M6	2013M7	2013M8	2013M9	2013M10	2013M11
Consumer prices: all items	3.53	2.84	2.42	1.25	1.26	1.14	1.59	1.51	1.01	0.89	0.63	0.81
Food prices	2.43	2.98	3.36	3.69	4.76	3.76	5.07	4.37	3.59	3.31	2.38	2.19
Non food prices	5.26	2.74	1.64	-0.37	-0.85	-0.83	-0.34	-0.16	-1.06	-1.25	-1.49	-1.14
Services	2.23	3.17	3.17	2.10	2.15	2.34	2.25	2.22	2.34	2.46	2.56	2.72
Rent	1.08	1.52	1.54	1.27	1.25	1.22	1.25	1.15	1.34	1.17	1.27	1.38
Health index	3.06	2.65	2.27	1.27	1.45	1.27	1.69	1.55	1.19	1.08	0.93	0.98
Brent oil price in USD (level)	111.3	111.7	110.1	112.5	102.6	110.4	103.0	107.9	111.3	111.9	109.2	108.0

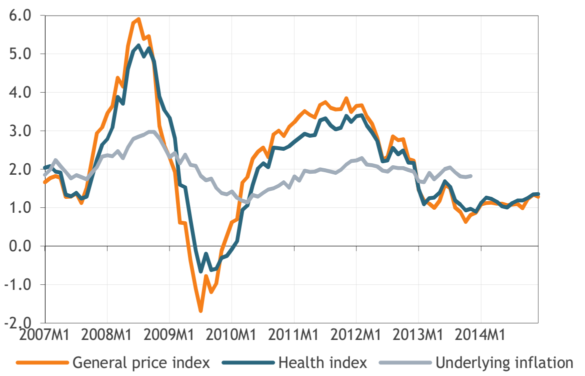
Source: FPS Economy, Datastream

Table 7 - Monthly inflation forecasts

	2013M1	2013M2	2013M3	2013M4	2013M5	2013M6	2013M7	2013M8	2013M9	2013M10	2013M11	2013M12
Consumer prices: all items	121.63	122.02	122.19	122.14	122.32	122.53	122.66	122.58	122.65	122.56	122.64	122.72
Consumer prices: health index	120.00	120.27	120.50	120.49	120.81	121.01	121.06	120.89	120.81	120.99	121.12	121.14
Moving average health index	119.97	120.07	120.21	120.32	120.52	120.70	120.84	120.94	120.94	120.94	120.95	121.02
	2014M1	2014M2	2014M3	2014M4	2014M5	2014M6	2014M7	2014M8	2014M9	2014M10	2014M11	2014M12
Consumer prices: all items	122.96	123.39	123.57	123.49	123.67	123.83	123.99	123.93	123.86	124.07	124.28	124.29
Consumer prices: health index	121.36	121.79	121.98	121.88	122.07	122.23	122.42	122.33	122.25	122.51	122.75	122.78
Moving average health index	121.15	121.35	121.57	121.75	121.93	122.04	122.15	122.26	122.31	122.38	122.46	122.57

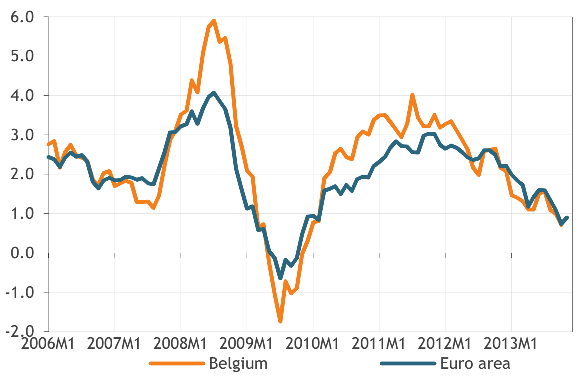
Source: Observations (up to 13M11): FPS Economy; forecasts: FPB

Graph 23 - Monthly inflation evolution (YoY growth rates, in %)



Source: FPS Economy, from 13M12 on: forecasts FPB

Graph 24 - Harmonised inflation rates (YoY growth rates, in %)



Source: Eurostat

Belgian headline inflation, as measured by the yoy growth rate of the national consumer price index (NCPI), has declined noticeably since January 2013 due to several factors. Firstly, the upward influence on inflation of the introduction of VAT on notaries in 2012 disappeared from January 2013 onwards. Secondly, it was decided to take price reductions made during sales periods (January and July) into account to calculate the NCPI, which has had a downward influence of 0.25%-points on inflation in 2013. Thirdly, the energy market has become increasingly dynamic, which can be seen from the remarkable rise in the number of supplier switches since 2012 and a large decline in the market share of the dominant supplier. Due to increased price competition, average gas and electricity prices declined in January 2013. Finally, yoy growth rates of oil prices in euro turned negative in January 2013, also exerting a downward influence on headline inflation.

Underlying inflation, which is not influenced by the above-mentioned factors, has remained relatively high due to relatively strong increases in processed food prices. It is expected to decline in the near future as lower unit labour costs feed into consumer prices.

Annual inflation should amount to 1.1% in 2013 and 2014, while health index growth is expected to be 1.2% this year and next year. The current pivotal index threshold (122.01) should be crossed in June 2014, leading to an adjustment (of 2%) to the higher cost of living of social benefits in July 2014 and of public wages in August 2014. The reduced VAT rate on electricity, which will apply from April 2014 onwards, has not yet been taken into account in these forecasts.

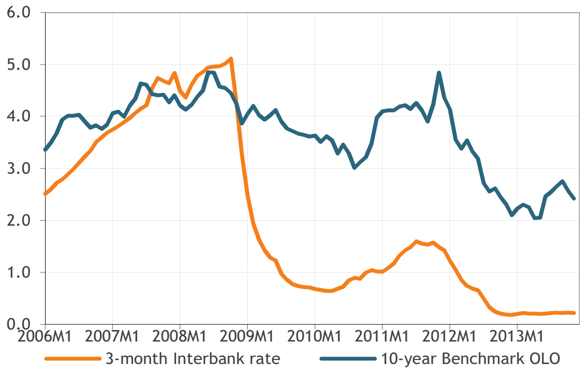
Interest rates

Table 8 - Interest rates

	2011	2012	2012Q4	2013Q1	2013Q2	2013Q3	2013M6	2013M7	2013M8	2013M9	2013M10	2013M11
Short-term money market rates (3 months)												
Euro area (Euribor)	1.39	0.57	0.20	0.21	0.21	0.22	0.21	0.22	0.23	0.22	0.23	0.22
United States	0.34	0.43	0.32	0.29	0.28	0.26	0.27	0.27	0.26	0.25	0.24	0.24
Japan	0.19	0.19	0.19	0.16	0.16	0.15	0.15	0.16	0.15	0.15	0.15	0.14
Long-term government bond rates (10 years)												
Belgium	4.22	2.99	2.28	2.26	2.19	2.66	2.46	2.55	2.66	2.76	2.57	2.42
Germany	2.65	1.55	1.42	1.51	1.41	1.78	1.62	1.62	1.80	1.92	1.81	1.72
Euro area	3.86	3.22	2.80	2.72	2.53	2.85	2.75	2.78	2.84	2.94	2.78	2.66
United States	2.77	1.78	1.69	1.93	1.98	2.70	2.29	2.56	2.73	2.80	2.60	2.71
Japan	1.11	0.85	0.75	0.71	0.73	0.76	0.84	0.82	0.75	0.71	0.63	0.61

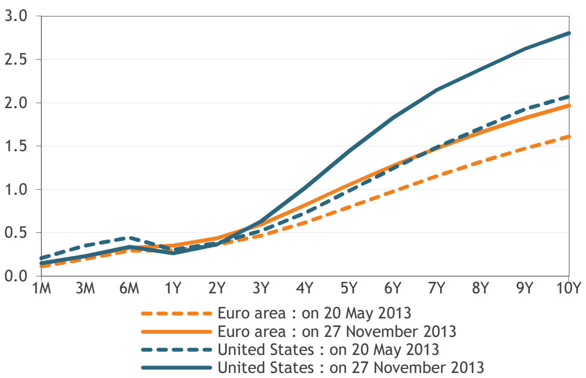
Source: Datastream

Graph 25 - Interest rate levels in Belgium (in %)



Source: NBB

Graph 26 - Yield curves for the euro area and the US (interest rate swap yields, in %)



Source: Datastream

In November, the ECB cut its policy rate to a record low of 0.25% in response to heightened fears of deflation as inflation in the euro area dropped to 0.7%. While the cut will not make much difference to lending rates for consumers and businesses, it gives a clear signal that the ECB will not stand idle in the face of mounting disinflation. Furthermore, the ECB prolonged the time for their provision of unlimited quantities of cheap loans to euro area banks to the end of 2015 and hinted that other options (such as negative deposit rates) might be used going forward. Meanwhile, Taylor rules for the different countries show that Germany would need a much tighter monetary policy, whereas in peripheral countries policy rates ought to be deeply negative. Business cycles of euro area countries have always diverged, but the current divergence is especially large, complicating the task of the ECB.

The US Federal Reserve has kept its policy rate within a range of 0 to 0.25% for 5 years now and intends to continue to do so for at least as long as the unemployment rate remains above 6.5% (currently at 7.3%). In September, the Fed backed away from earlier guidance to start reducing the amount of asset purchases (tapering) of 85bn USD a month later this year. Tapering is now expected in the course of next year, while the end of QE might not occur before 2015.

When the Fed merely hinted at contemplating tapering in May, US long-term interest rates surged in the subsequent months. In its wake, bond yields worldwide went up. When the Fed unexpectedly decided to delay the tapering of its quantitative easing, bond yields edged lower again, but still remained significantly higher than at the beginning of the year. This clearly shows that bond and other asset markets are dominated by the market's view on the Fed's likely future policy. Belgian long-term interest rates have followed the evolution of German bond yields very closely as the spread between them has remained relatively stable.

Exchange rates

Table 9 - Bilateral exchange rates

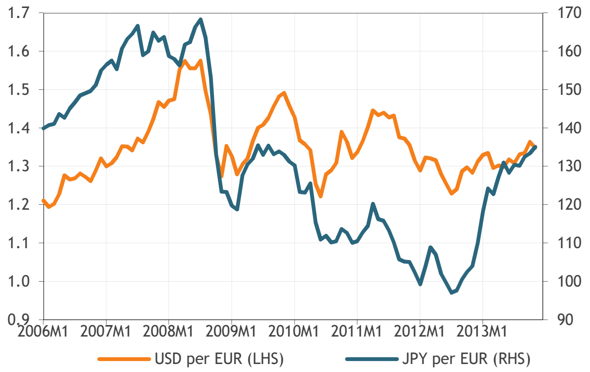
	2011	2012	2012Q4	2013Q1	2013Q2	2013Q3	2013M6	2013M7	2013M8	2013M9	2013M10	2013M11
USD per EUR	1.392	1.286	1.298	1.320	1.306	1.325	1.318	1.308	1.331	1.335	1.364	1.349
UKP per EUR	0.868	0.811	0.808	0.851	0.851	0.854	0.852	0.862	0.859	0.842	0.848	0.838
JPY per EUR	111.0	102.7	105.5	121.8	128.9	131.0	128.3	130.4	130.2	132.5	133.4	135.1

Table 10 - Nominal effective exchange rates (2010=100)

	2011	2012	2012Q4	2013Q1	2013Q2	2013Q3	2013M4	2013M5	2013M6	2013M7	2013M8	2013M9
Euro	99.2	93.2	93.4	97.0	97.7	98.9	97.1	97.6	98.4	98.6	99.3	98.8
Growth rate [1]	-0.8	-6.1	2.8	3.8	0.7	1.3	0.5	0.5	0.8	0.2	0.7	-0.4
US dollar	94.2	97.3	96.7	98.7	101.1	101.1	100.8	101.6	100.8	102.0	100.8	100.4
Growth rate [1]	-5.8	3.3	-1.4	2.2	2.4	0.0	0.2	0.8	-0.8	1.1	-1.1	-0.5
Japanese yen	105.7	108.4	105.5	92.7	87.5	87.1	88.1	85.6	88.8	87.0	88.0	86.2
Growth rate [1]	5.7	2.6	-5.0	-12.1	-5.6	-0.5	-3.2	-2.8	3.7	-1.9	1.1	-2.0

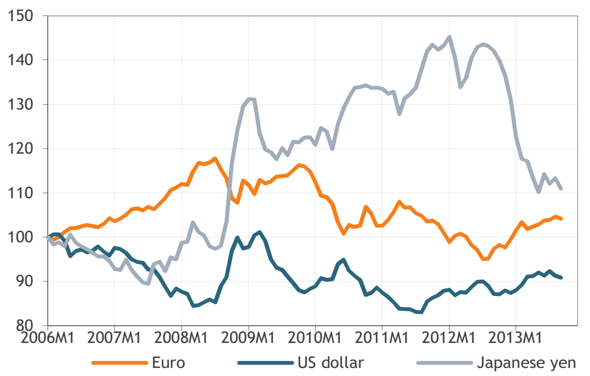
[1] Change (%) compared to previous period
Source: BIS, NBB

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



Source: NBB

Graph 28 - Nominal effective exchange rates (indices, 2006M1=100)



Source: NBB, BIS

The euro remained remarkably stable against the dollar in the first 8 months of the year, hovering between 1.29 and 1.33 dollars per euro. In September, however, the Fed's decision to delay the reduction in the pace of quantitative easing led to a substantial depreciation of the dollar against most currencies. The appreciation of the euro against the dollar was halted in November by the ECB's cut in policy rates and by its intention to use new unconventional monetary measures.

The euro appreciated against most currencies worldwide in the past year. In nominal effective terms the euro is now some 8% higher than one year ago. It especially gained ground against the currencies of emerging markets as these were hit by the fear of tapering by the Fed. Many of these countries experienced credit and commodity booms that brought high growth rates, but which now seem to have come to a halt. The near-end of ultra-cheap financing (the Fed's quantitative easing) resulted in an investor flight to developed markets. The euro appreciated, especially (by 20% and more) against the currencies of countries that depend most on capital inflows such as Turkey, India, Indonesia and South Africa.

The Japanese yen also depreciated strongly vis-à-vis the euro (-28% yoy in October) under the influence of the massive monetary easing of the Bank of Japan, which seeks to end nearly two decades of deflation. In order to reach its new 2% inflation target, the Bank of Japan is doubling its monetary base and its government bond holdings. This flooding of the market with extra yen weighed heavily on the currency.

Finally, the euro also gained much ground against the currencies of non-emerging commodity producers such as Canada, Norway and Australia (by some 15% yoy) owing to the slowdown in the world economy.

Tax indicators

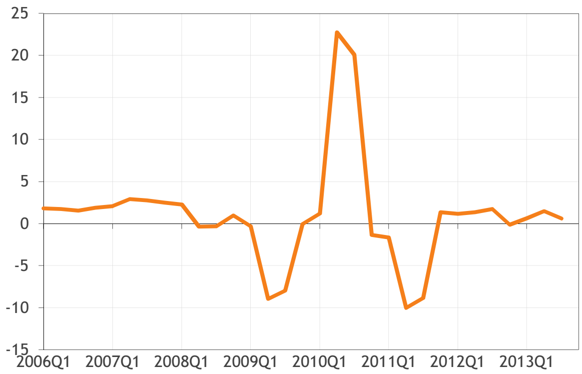
Table 11 - Tax revenues [1]

	2011	2012	2012Q4	2013Q1	2013Q2	2013Q3	2013M5	2013M6	2013M7	2013M8	2013M9	2013M10
Total [2], of which:	2.8	5.7	8.3	-2.5	2.1	6.3	11.0	4.2	2.2	2.7	20.8	0.2
Direct taxes, of which:	2.8	7.5	13.8	-4.3	6.0	8.9	18.0	6.4	2.4	3.7	34.4	-0.3
Withholding earned income tax (PAYE)	5.0	2.7	-1.9	3.9	5.6	0.8	9.7	10.8	-2.5	4.3	2.7	17.6
Prepayments	0.7	-0.5	-1.1	.	2.2	0.9	.	.	0.7	.	.	0.3
Value Added Tax and excise duties	1.9	3.8	2.5	-1.2	-3.5	2.4	1.9	-0.5	1.3	3.3	3.0	-1.0

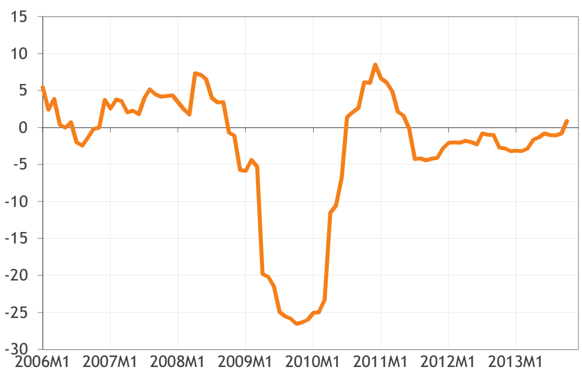
[1] Change (%) compared to same period previous year; [2] Total received by federal government, excl. of death-duties
Source: FPS Finance

Graph 29 - Real tax revenues [3]

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



Graph 31 - Real prepayments [3]



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

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

Tax bases remain depressed in the context of persistent economic stagnation since the last quarter of 2012. However, total tax revenue in 2013 showed a positive nominal growth rate after three observed quarters. Most of the progression in tax revenue is attributable to tax measures. The 2013 Budget provided for an increase in the withholding tax rate on dividends and interest, changes to the tax amnesty regulations, adjustments to the corporate tax system, increases in excise duties and increased taxation on life insurance investment premiums. The Budget adjustment in July 2013 led to the creation of a "fairness tax" on corporate businesses, increased taxes from financial institutions and introduced new increases in excise duties (and, as from 2014, the imposition of VAT on lawyers' services).

Measures in CIT may have effects more deferred than expected, considering the quite disappointing CIT receipts in 2013: figures for prepayments in October (October being the third due date) show a nominal yoy increase of only 0.3%, which is even worse than the figures for the two previous due dates in 2013. Up to now, favourable tax base effects resulting from the wage moderation and improvement in the terms of trade have not yet materialized in terms of profitability.

PIT revenue is affected by the zero growth rate of real wages imposed by the government for 2013-2014, by the stagnation of employment (a decrease in the public sector) and by an indexation of the progressive PAYE scales on the basis of the previous year's (2012) higher inflation. Only taxable social transfers support PIT revenue, especially pensions, since these transfers are granted real revaluations and their number of beneficiaries is increasing. Taxation on interest earnings is adversely affected by the fall in interest rates and by the persistent attraction of untaxed savings accounts.

Indirect tax revenue has suffered from the decrease in energy prices in recent months, as well as the sluggishness in private consumption and housing investment. Corrected for the evolution in consumer prices, VAT and excise duties on a 12-month moving average have been decreasing since spring 2013 (Graph 29). VAT has had a modest recovery in the most recent months, but the durability of this upturn remains to be confirmed.

Is offshoring driven by air emissions?

Over the last couple of decades, trade liberalisation has progressed and environmental regulations have become more stringent, in particular regarding emissions of air pollution. This has raised the fear in high-income countries that, in order to avoid the growing costs of compliance, emission intensive activities are increasingly carried out abroad, especially in countries with less stringent regulations. The idea that tighter regulations foster the relocation of polluting activities and imports of pollution-intensive products is generally referred to as the pollution haven effect. This paper develops a new approach for testing this effect for imported intermediate materials.

If there really is a pollution haven effect, then this has potentially far-reaching consequences for competitiveness as well as for trade policy and environmental policy in developed countries. However, the empirical evidence of a pollution haven effect remains relatively scarce despite some supportive findings. A major shortcoming is that the existing literature is mostly based on data for the 80s and 90s and has not yet taken into account the changing nature of globalisation during the last two decades. Trade in intermediates has strongly gained in importance, in particular through the emergence of global value chains, in which production is fragmented and organised at a multi-country level. This leads to offshoring, i.e. the sourcing of intermediates from abroad. While this is facilitated by trade liberalisation and falling transport costs, wage cost and productivity differentials are generally believed to be the main determinants of sourcing decisions. Environmental regulations may also play a role due to the associated compliance costs, i.e. they may foster the sourcing of intermediates from abroad, thereby giving rise to a pollution haven effect for imports of intermediates.

In an attempt to take this change in the nature of international trade into account, this paper develops an approach for testing the pollution haven effect for imported intermediate materials. The estimation strategy consists in including emission intensities as exogenous demand shifters in a system of cost share equations for variable input factors among which figure imported intermediates. Emissions of three types of air pollutants are analysed: greenhouse gases, acidifying gases and tropospheric precursor gases. The system of cost share equations is estimated with industry-level data for the Belgian manufacturing sector. They come from a time series of constant price supply-and-use tables that have been made consistent with the 2010 vintage of the national accounts. The period covered is 1995-2007. Two major features of these tables are the distinction between domestic and imported intermediates and their deflation with separate product-level price indices for domestic output and intermediates. The data on emissions are drawn from the Belgian air emission accounts.

According to the estimation results, industries with a higher emission intensity for acidifying gases (SO_2, NO_x and NH_3) have ceteris paribus greater demand for imported intermediate materials, i.e. on average, they source more materials from abroad. This result is robust to several sensitivity checks. Hence, there is evidence of a pollution haven effect for emissions of acidifying gases. It turns out to be stronger in footloose industries, which are defined in terms of the capital stock per unit of output. This is in line with previous findings in the literature. In terms of the interpretation of results, this pollution haven effect for acidifying gases is likely to be linked to the stricter enforcement of regulations for air quality, which act upon these gases. There is no evidence in the results of such a pollution haven effect for emissions of tropospheric precursor gases and in particular of greenhouse gases. Regarding the latter, despite stringent regulations, enforcement appears to be less strict and hence does not seem to influence offshoring decisions.

"Is offshoring driven by air emissions? Testing the pollution haven effect for imports of intermediates",
B. Michel,
Working Paper 12-13, October 2013

A new version of the HERMES model: HERMES III

This Working Paper presents the main features of the HERMES III model of the Belgian economy. HERMES III is the third published version of the medium-term macroeconometric model developed by the Federal Planning Bureau (FPB). The model is used for medium-term outlooks and for the analysis of the effects of both economic policy and exogenous shocks on the Belgian economy.

HERMES became operational in the mid-eighties. The first version was built during the period 1982-1986. The second version, which included several adjustments, notably with respect to the environment and in relation to the structure of industries, was developed during the period 1995-2000. Since then, the model has been maintained and developed on a regular basis. The most important developments of the model in the recent years have been:

- the disaggregation of employment in each industry by wage category (low-wage workers, high-wage workers and special employment programmes) and by age category (workers aged less than fifty and workers aged fifty or more);

- the further disaggregation of public finances: the former single account for all communities and regions has now been replaced by separate accounts, according to a bottom-up approach, for the Brussels Region (including the Community Commissions), the Walloon Region (including the German Community), the Flemish Region (including the Flemish Community) and the French Community;

- the implementation of a new health care module;

- the inclusion of a new European nomenclature of activities (NACE REV2) and its transposition in Belgium (NACE-BEL 2008), operational since 2011, which entailed redefining HERMES' industries;

- the introduction of data for greenhouse gases other than CO_2, such as methane CH_4, nitrous oxide N_2O and the fluorinated gases (HFK's, PFK's and SF_6), which are related to the activity of specific branches.

Moreover the main blocks of the original model, such as the production block, the private consumption block, external trade, etc., were completely reestimated (mainly for the period 1980-2011) and sometimes also (partially) revised.

The Working Paper takes stock of all these developments. It starts with the general characteristics of the model. Then, the main blocks of the model are dealt with. We focus on household demand (private consumption and housing investments), external trade, production, energy and greenhouse gas emissions and public finances. Finally, the two main uses of the model are described. Besides the elaboration of medium-term outlooks (which entails the computation of potential growth and an output gap), HERMES is also used to carry out variant analyses, that is to compute the impact on the Belgian economy of policy measures or external shocks. In order to illustrate the main properties and mechanisms of the model, the results of four variants are presented: an exogenous increase in public investment, a reduction in employers' social security contributions that is targeted at low-wage workers, higher VAT on private consumption and an oil price increase.

"A new version of the HERMES model: HERMES III",
D. Bassilière, D. Baudewyns, F. Bossier, I. Bracke, I. Lebrun, P. Stockman, P. Willemé,
Working Paper 13-13, November 2013

TransAccount - an accounting model for sustainable development scenarios

This working paper describes TransAccount, an accounting model created at the FPB to build sustainable development scenarios, in particular their climate and energy segment, using a backcasting approach. Using TransAccount starts from the overall long term objectives and hypothesis of a sustainable development scenario, such as the Pyramid or Mosaic scenarios from the Belgian 4th Federal Report on Sustainable Development. These objectives and hypotheses are then translated into specific and quantitative objectives as well as into hypotheses on technologies and on consumption and production patterns. TransAccount thus allows a transparent discussion on the changes needed in technology and in consumption and production patterns to meet the challenges of sustainable development.

TransAccount (from the merging of 'Transition to sustainable development' and 'accounting model') is an accounting model designed in the context of the Belgian Act on the Coordination of Federal Sustainable Development Policy to build sustainable development scenarios. Its first module is focussed on their climate and energy segment, and extensions to other fields relevant to sustainable development are possible. For each scenario, TransAccount computes the energy consumption and greenhouse gases (GHG) emissions of all activities present on the Belgian territory. Evolutions of these activities over time are consistent with a long-term macroeconomic scenario developed in another FPB report, the 2012 Report of the Study Commission on Ageing.

TransAccount is designed to be used with a backcasting methodology. Backcasting allows a larger range of options to be explored than with forecasting. A successful outcome is first imagined in the future. Then, the actions needed to reach that outcome are considered. In the approach chosen by the Task Force on Sustainable Development, the successful outcome is defined through a set of sustainable development objectives, based on commitments endorsed by public authorities and included in the long-term (2050) vision of a world in sustainable development. Alternative development paths between the current situation and these sustainable development objectives can then be studied.

The first chapter of this working paper describes the structure and the equations in TransAccount. Sectors are defined on the basis of the Common reporting format used by the National Inventories of GHG emissions. For each sector, the technologies covered in the model are described. Typical assumptions on these technologies are their maximum capacity on the Belgian territory (e.g. for wind or geothermal energy), their efficiency (e.g. for electricity and heat generation or transport) and their energy intensity (e.g. for industrial processes).

For each sector, energy consumption is computed by multiplying the level of activity in the sector (industrial production, kilometres driven, etc.) by the energy intensity of the technologies used. GHG emissions are then computed by multiplying the energy consumption by the emissions factors of each energy source. GHG covered by the model are those defined in the 1997 Kyoto Protocol, i.e. carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and fluorinated gases (F-gases).

The second chapter describes a mechanical update of the Pyramid and Mosaic scenarios, which were developed in the 4th Federal Report on Sustainable Development. This update is just an illustration of the working of TransAccount and the results should not be used as a reference. A full adjustment of the scenarios to the new context will be published in the forthcoming 7th Federal Report on Sustainable Development.

In these mechanical updates, following the backcasting methodology, assumptions on technologies and consumption and production patterns are calibrated so that energy consumption and GHG emissions reach the 2050 sustainable development objectives, in particular an 80% reduction in GHG emissions between 1990 and 2050. TransAccount can then be used to compute the development path between the current situation and 2050.

The scenarios built with TransAccount are not forecasts. They are explorations of the changes that are needed in technologies and in consumption and production patterns to reach a set of sustainable development objectives. Other sets of changes are of course possible. The aim of TransAccount is to support a discussion on those changes.

"Le modèle TransAccount - Un modèle comptable pour des scénarios de développement durable /
Het model TransAccount - Een rekenmodel voor scenario's van duurzame ontwikkeling",
Alain Henry, Dimi Jottier,
Working Paper 14-13, December 2013

Other Recent Publications

Outlook, September 2013
"Economische vooruitzichten 2013-2014 /
Prévisions économiques 2013-2014"

Working Paper 11-13, September 2013
"De energie-intensiteit van de componenten van de finale vraag 1995-2005 - Een input-output analyse in constante prijzen",
L. Avonds

Working Paper 10-13, September 2013
"Bijdrage van de componenten van de finale vraag van het bbp 1995-2005 - Een input-output analyse in constante prijzen",
L. Avonds

Working Paper 9-13, September 2013
"De gecumuleerde kosten 1995-2005
Een input-output analyse in constante prijzen",
L. Avonds

Working Paper 8-13, September 2013
"Les multiplicateurs de production, de revenu et d'emploi 1995-2005 - Une analyse entrées-sorties à prix constants",
C. Hambÿe

Working Paper 4-13, September 2013
"Analyse de l'adéquation de la production électrique en Belgique à l'horizon 2030 - Analyse basée sur les scénarios du projet d'EPE2",
D. Gusbin

Working Paper 7-13, September 2013
"Walking the green mile in employment: employment projections for a green future",
D. Devogelaer

Working Paper 6-13, August 2013
"De evolutie van de armoede bij ouderen nader bekeken",
K. Van den Bosch, G. De Vil

Report, July 2013
"Perspectives économiques régionales 2013-2018 /
Regionale economische vooruitzichten 2013-2018",
D. Bassilière, D. Baudewyns. F. Bossier, I. Bracke, V. Frogneux, G. Gentil, K. Hendrickx, L. Laloy (FPB) and B. Laine, P.-F. Michiels (IBSA), D. Hoorelbeke (SVR), F. Caruso, O. Meunier (IWEPS)

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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Input-Output tables 2010

The FPB is preparing the Belgian Input-Output tables for 2010.These are compiled using the European System of National and Regional Accounts ESA95, and will incorporate the new NACE Rev. 2 - CPA 2008 nomenclature. The National Accounts Institute will transmit the data to Eurostat. The tables will be available in a 64-industry disaggregation by the end of 2013.

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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 on data for individual companies.

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Innovation

Innovation is a key determinant of productivity growth. A comprehensive publication on this subject is planned for 2014. Particular attention will be given to public policy that will facilitate innovation leading to the creation of economic activity and jobs.

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Progress in economic modelling at the FPB

On-going projects aimed at incorporating new approaches in economic modelling are supported by different institutions. Partners from the three Regions (IBSA-BISA, SVR and IWEPS) support the development of a "bottom-up" approach in the regional/national medium-term model. The federal sickness and disability fund (RIZIV-INAMI) collaborates on modelling health care expenditure. The EC supports the development of a sectoral international model. A federal research fund (BELSPO) and the Federal Public Service Social Security support modelling migrations in the dynamic microsimulation model, which is managed using the LIAM2 software developed at the FPB with the support of Luxembourg partners (IGSS - the Ministry of Social Security - and CEPS/INSTEAD).

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Transport modelling

The FPB model on transport demand for passengers and goods PLANET will be further developed by introducing a regional dimension. The aim is to present the 2015 outlook for transport demand with a new version of the model. As regional governments have the competence on major issues affecting transport demand, a correct modelling of transport demand requires a development of the regional dimension.

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Environmental accounts

In September 2013, the environmental accounts for Belgium were officially published for the first time by the National Accounts Institute. These concerned the Air Emissions Accounts and the Environmental Taxes by Economic Activity for the period 2008-2011. By the end of 2013, the Economy-Wide Material Flow Accounts will also be published. The environmental accounts are satellite accounts to the national accounts and fall therefore within the remit of the FPB.

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Recent history of major economic policy measures

November 2013

The 29 November 2013 federal competitiveness pact charts three labour market measures:
- VAT on electricity consumption will be reduced to 6%, down from 21% (as from April 2014).
- The additional (across-the board) SSC cuts in 2015-2016 and 2017-2018 that are conditional on hitting the wage norm in 2013-2014 and 2015-2016 are to be replaced with a three-stage increase in employers' SSC cuts and wage subsidies (2015, 2017 and 2019) and will be financed by alternative taxes. Of this increase, 1/3 will be earmarked for low-wage workers, 1/3 will be across the board (80% profit, 20% nonprofit) and 1/3 will be channeled to industries under pressure from international competition.
- A three-stage increase (2015, 2017 and 2019) in the tax credit for workers eligible for the low-wage employees' SSC cuts will be implemented.

Measures were taken in the area of electronic communications. One year after the successful campaign to make citizens more aware of the liberalised energy markets, a similar campaign was held for telecommunications, mobile communications, internet and television. At several hundred town halls, federal and municipal public servants guided people through the process of choosing their supplier. It should be noted that this is more complicated than choosing an energy supplier. In the same spirit, the federal government approved a royal decree that will make operators draw up a standardised information card for each tariff scheme. This will allow consumers to compare services more easily. The government also approved bills that will streamline certain procedures and create more transparency in various areas of the industry. Finally, three 4G licences for the important 800MHz frequency band were auctioned. Since there were only three candidates - the incumbent (Belgacom) and the two other mobile network operators (Mobistar en Base) - the auction did not yield more than the basic stake of EUR 120 million per licence.

The ECB lowered its main policy rate by 25 basis points to 0.25%.

October 2013

The federal Budget for 2014 was set, based on the forecast made in July. It relies on assumptions of GDP and inflation growth rates of 1.1% and 1.3%, respectively. The headline deficit is set at 2.3% of GDP for entity I (the federal authority and social security administrations). Taking into account the commitment of entity II (the sub-federal entities) to a budget surplus of 0.1% of GDP, the general government deficit is to shrink to 2.1% of GDP, which corresponds to a structural deficit of 1.2% of GDP, in line with the April 2013 stability programme. The 2014 Budget includes the following labour market policy measures:
- re-engineering the across-the-board wage subsidy into an across-the-board employers' SSC reduction as from 2014;
- extending federal wage subsidies as from January 2014 for some categories of night work (higher nominal subsidy rate), for overtime in construction and catering (increase in the number of hours eligible for subsidies, conditional on installing anti-fraud technology) and to a broader class of the young unemployed who are eligible for activation subsidies;
- new federal wage subsidies - this is still without a timetable and dependent on the consent of the regions - for localized wage subsidies, targeting high-unemployment areas and/or firm-closure stricken areas, within the EU framework for aid to firms in disadvantaged regions;
- for employers' SSC cuts as from January 2014, automatic health-index-linked increases in the wage threshold up to which labour benefits from the low-wage labour SSC cut, and additional SSC cuts for increasing the workforce to 4 or 5 employees in small firms;
- increasing self-employed SSC cuts (as from July 2014) and the tax credit for workers eligible for the low-wage employees' SSC cuts (as from April 2014).

The federal government and the energy suppliers agreed on a more consumer-friendly working of the gas and electricity markets. The agreement is called (loosely translated into English) "The consumer in the liberalised electricity and gas markets". The major commitment is that the suppliers will inform their customers once a year of their lowest equivalent tariff. Further commitments were made on tariff simulators, the free change of supplier, rebates, repayments, automatic recovery and contract extension.

September 2013

Employers' SSC were reduced as compensation for the increase in labour costs due to the harmonisation of blue-collar and white-collar employee labour contracts.

July 2013

Negotiations for the finalization of the sixth state reform resulted in specific stipulations for the contribution of the regions and the communities to the consolidation of public finances and to the budgetary costs of ageing (an in principle agreement was adopted earlier in the institutional agreement of October 2011 and in the general policy statement of December 2011). The contribution to the budgetary consolidation takes the form of a reduction in certain allocations (for 0.6% of GDP in 2016); the contribution to the budgetary costs of ageing consists of a partial linking of certain allocations to economic growth.

A second budget adjustment for entity I (federal government and social security) led to new measures complementing those taken in the initial 2013 budget and in the budget adjustment of March. A foreshadowing of the 2014 budget was established in parallel. Among the measures is the creation of a “fairness tax” on corporate businesses (in order to collect tax from companies that would not have contributed, through their use of notional interest deductions and carrying forward losses), increased taxes from financial institutions, increased excise duties and, as from 2014, the imposition of VAT on lawyers’ services. The operating costs of public services remain highly constrained, as does health care expenditure; some top-ups in family allowances for specific groups of beneficiaries have been removed.

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

Abbreviations for names of institutions used in this publication

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

Other Abbreviations

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