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National Bank OF BELGIUM

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Contents

Economic projections for Belgium – Spring 2012

Introduction

While the economic situation in the world's main economic regions has improved slightly in the past six months, that in the euro area continues to give serious cause for concern, even though the measures taken by the ECB since December 2011, and primarily the provision of longer-term liquidity, have bolstered confidence in the financial institutions and reduced the risk of a credit crunch. Together with some of the measures adopted at EU level and intended to strengthen the emergency funding and financial stabilisation mechanisms, the actions of monetary authorities and governments contained the financial tensions which had again become very acute in November 2011.

However, while they may limit the contagion effects and offer some respite, these measures are no panacea for solving the underlying structural problems facing the euro area economies. Apart from the establishment of stricter economic and fiscal governance in the EU and in the euro area, it is the countries' ability to implement decisive policies which is crucial here, to provide a basis for the expectations of economic agents. Depending on the case, it is a question of pursuing the consolidation of public finances, restructuring financial institutions and/or boosting the competitiveness and growth potential of the economies.

Now that the safeguard measures have been largely defined and are in the process of being implemented, it is the structural challenges – which vary in scale from one country to another – which are the focus of attention for the financial markets, sometimes in a context of political instability. Thus, on some sovereign debt markets the tension has intensified again. Moreover, global demand also experienced a new phase of weakness at the turn of the year from 2011 to 2012, and oil prices have remained high, notably because of the geopolitical uncertainties surrounding supplies.

These various factors cast a shadow over the economic outlook at the time the new Eurosystem projections were set, whose results for the euro area are published in the June 2012 ECB Bulletin. On the assumption that the financial tensions do not intensify, the projections suggest a slow improvement in the economic situation during 2012 which should strengthen slightly in 2013. Taking account of the necessary adjustments in many countries, the improvement will initially be supported by demand from the rest of the world, but also by Germany. There are in fact significant divergences within the euro area, even though some progress has been made in removing macroeconomic imbalances, and that is expected to continue.

In Belgium, the slowdown in activity was relatively limited at the end of 2011, and according to the NAI's initial estimate, GDP grew by 0.3 % in the first quarter of 2012, whereas it stagnated in the euro area. More fundamentally, in comparison with previous periods, the installation of a government with full powers on 6 December 2011 reduced the political uncertainty which had prevailed for several years. While the fiscal consolidation measures adopted by the new government do depress incomes and demand slightly in the short term, when combined with the structural reforms now in progress concerning unemployment and pensions they form a vital step towards establishing permanent, sound foundations for the economy. They have also helped to improve the position of Belgian government securities on the financial markets in recent months.

Announced after the cut-off date for the previous exercise, these various measures could not be taken into account in the December 2011 projections for 2012. A brief update was therefore published in mid-February 2012, though without revision of the forecasts for the international environment or the technical assumptions. The new projections presented in this article relate to 2012 and 2013. They were finalised on 24 May 2012, on the basis of the Eurosystem's assumptions as at 15 May. Those assumptions are described in a box in section 1, which offers a more extensive account of the international environment and the projections for the euro area. The next three sections deal with the results for Belgium. Section 2 shows that domestic demand will continue to apply the brakes to the growth of activity in Belgium in 2012 and to a lesser extent in 2013. In that context, unemployment is expected to rise slightly. However, at 0.6 % in 2012 and 1.4 % in 2013, GDP growth is expected to exceed the figure for the euro area. Inflation (section 3), starting from a high level in 2011 and early 2012, is set to diminish gradually as the effects of the oil price rise fade away. Taking account of the assumption adopted for this exercise of a very moderate real increase, labour costs should mirror that trend. In regard to public finances (section 4), the deficit is projected at 2.8 % in 2012 and 3.1 % in 2013. Here, it should be noted that the projections for public finances take account only of measures which have been formally adopted by the government and for which the implementing arrangements have been specified in sufficient detail. The last section draws attention to the risk factors applicable to the economic outlook. In the current context, they are particularly significant; they essentially concern the definition and application of measures which are absolutely vital in the euro area to contain and alleviate the sovereign debt crisis and the resulting fall-out affecting financial institutions. Belgium is directly exposed to the hazards facing its European partners. Moreover, the efforts to restore the public debt to a sustainable path in the long term must continue, as must work on restructuring the financial institutions and strengthening the economy's growth potential and competitiveness.

1. International environment

1.1 The global economy

The modest economic recovery which set in after the Great Recession of 2008-2009 continued in 2011, albeit at a slower pace. The expansion of activity was curbed, in particular, by the disappearance of the positive effect of restocking in 2010 and by a fiscal policy increasingly geared to consolidation. From the spring, a series of temporary factors, such as the surge in commodity prices in the first four months of the year, which dampened the purchasing power of households and restrained their consumption, and the earthquake and tsunami in Japan, also led to a decline in economic activity and international trade. The growth slowdown was more marked from the summer, owing to the escalating financial market turbulence and the erosion of confidence. This renewed nervousness was due to doubts about the political leaders' ability to solve the problems relating to public debt sustainability. The debate over raising the ceiling on the federal public debt in the United States and the discussions surrounding the establishment of safeguard mechanisms for euro area countries beset by financing problems heightened that uncertainty.

On the financial markets, this public debt crisis caused tensions which were concentrated mainly on the sovereign bonds of euro area Member States. These developments had, once again particularly in the euro area, a serious impact on financial institutions, which hold large portfolios of public securities. Concerns about the sustainability of public finances and fears relating to the soundness of financial institutions became closely intertwined, and many of those institutions had difficulty in raising finance on the interbank markets. There were worries about the adverse effect which these problems might have on lending to businesses and households, and on economic activity. The financial market tension peaked in November 2011, with fears of a euro area break-up and a systemic financial institution defaulting.

In the face of the heightened tension, several central banks took measures to resolve the liquidity problems in the euro area and to support lending to businesses and households. In this connection, the measures announced by the ECB following its 8 December meeting merit particular mention. Apart from the adoption of two exceptional longer-term refinancing operations with a maturity of 36 months according to a full allotment procedure, it announced the extension of the range of assets accepted as collateral by the Eurosystem central banks and the reduction in the compulsory reserve ratio for credit institutions from 2 to 1 % [1]. Just before that, six leading central banks had decided on a coordinated 50-basis-point cut in the interest rate applied under the temporary US dollar liquidity swap, and extended the period for which this financing is available.

In addition to the central bank measures, a series of political initiatives eased the political uncertainty and

(1) The measures taken by the ECB are discussed in the article entitled "Monetary policy in the United States and in the euro area during the crisis".

improved the climate on the financial markets. First, at the European Council in early December, the Heads of State or Government of the EU Member States, with the exception of the United Kingdom[1], agreed on a new Fiscal Compact. The obligation concerning the structural budget balance is a key part of that agreement[2]. In addition, in February 2012, the Greek government concluded an agreement with private creditors on the restructuring of the country's public debt (PSI), and a second aid programme for Greece amounting to € 130 billion was approved by the Eurogroup. Furthermore, the combined maximum lending capacity of the European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM) was raised to € 700 billion, and additional resources were mobilised for the IMF. Finally, several countries took additional fiscal or structural measures. Those measures led to a gradual restoration of confidence and a decline in risk aversion. The flight to investments regarded as secure thus slowed down and a gradual improvement became apparent on the financial markets from the end of 2011. Yield spreads on sovereign bonds vis-à-vis the German Bund narrowed, the bank funding markets were partly reopened, the euro exchange rate appreciated and share prices rallied. Coinciding with this improvement on the financial markets, the economic climate became a little better with a revival in international trade and in a series of confidence indicators.

Despite this improvement, most markets were far from operating normally, and the economic and financial situation remained fragile. While the measures mentioned above did bring some respite, they did not offer a structural solution to the problems (property market bubbles, loss of competitiveness, the build-up of public and private sector debt) facing a number of euro area countries. That was confirmed when the financial market situation began to deteriorate again during March 2012, owing to renewed uncertainty over the economic forecasts and Spain's public finances. This was the factor that triggered a resurgence of the public debt crisis in the euro area and a new flight to investments deemed secure. The political uncertainty in Greece further intensified the tension from the end of April. These developments dented confidence and depressed the economic outlook in the second quarter of 2012.

The movement in commodity prices since the end of 2011 largely reflects the pattern of economic activity and the forecasts. After having fallen during 2011, commodity prices picked up from the end of that year. Crude oil recorded the steepest rise. Specific supply-side factors such as the geopolitical tension in a number of Middle Eastern and North African countries (Iran, South Sudan, Libya, Yemen, etc.) and the decline in North Sea output played a major role. Prices of other commodities also rose. However, in March, those prices began falling owing to less favourable economic figures and – in the case of crude oil – a series of moves to increase supplies.

Consumer price inflation slackened pace worldwide from the second half of 2011, largely as a result of the movement in commodity prices. Monetary policy could therefore become more accommodating. Thus, via two 25-basis-point cuts in November and December, the ECB reduced the interest rate on the main refinancing operations to 1%. The central banks of the United States, the United Kingdom and Japan stepped up their non-standard measures to support the economy. Several emerging countries also eased their monetary policy. From the end of 2011, the Chinese central bank reduced the compulsory reserve ratio of the major banks in three stages, from 21.5 to 20%. India and Brazil also relaxed their policy. So long as inflation expectations are firmly anchored, monetary policy can probably remain accommodating in the coming months in order to maintain support for the fragile economic recovery. The budget deficit cuts necessary to ensure the sustainability of the public debt, and the repair of private sector balance sheets in a number of countries, will continue to restrain demand during the period covered by these forecasts.

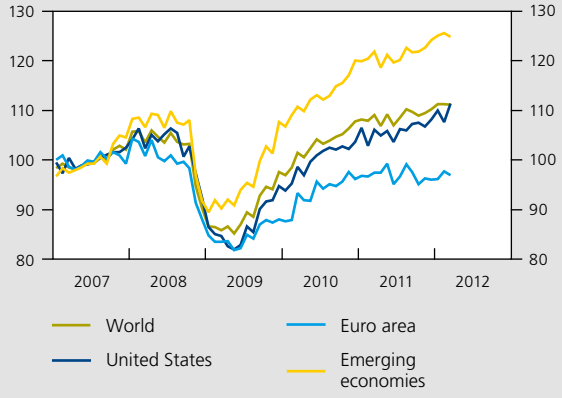
The growth outlook therefore indicates moderate expansion of global GDP with – according to the EC – a further slowdown in activity in 2012 to 3.3 % and a slight revival in 2013 to 3.7 %. Growth in the United States and Japan, especially in 2012, is likely to be well above the figure expected in the European Union and in the euro area, where growth is forecast at zero and –0.3 % respectively. The weak link in regard to the outlook for economic activity is Europe in general, and the euro area in particular. A gradual recovery is expected in the euro area during the year, driven by external demand, the low level of interest rates and the measures to support the economy. That prediction still masks substantial variations between Member States. Some countries, the most important being Germany, are expected to record positive albeit modest growth in 2012 and 2013. Conversely, in other countries, including Greece and Spain, GDP is forecast to contract during that period. These divergences reflect serious underlying imbalances which have arisen in the euro area since it was created in 1999, the importance of which was not fully appreciated until after the eruption of the economic and financial crisis.

(1) In the end, the new intergovernmental treaty was only ratified by 25 EU countries, and not by the United Kingdom and the Czech Republic.

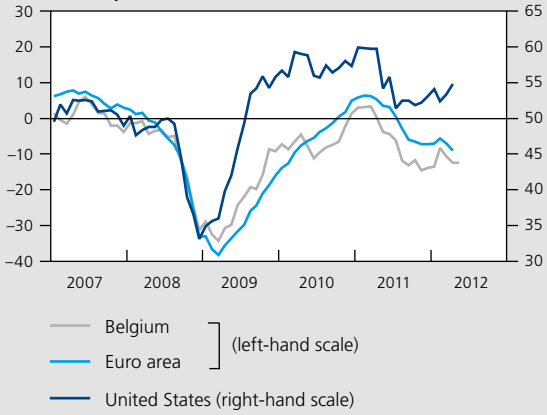
(2) For a more detailed description of the initiatives taken in the EU at the institutional level, see the article on "New developments in the economic governance of the European Union".

CHART 1 FINANCIAL MARKET DEVELOPMENTS, BUSINESS CONFIDENCE, INTERNATIONAL TRADE AND CYCLICAL DEVELOPMENTS

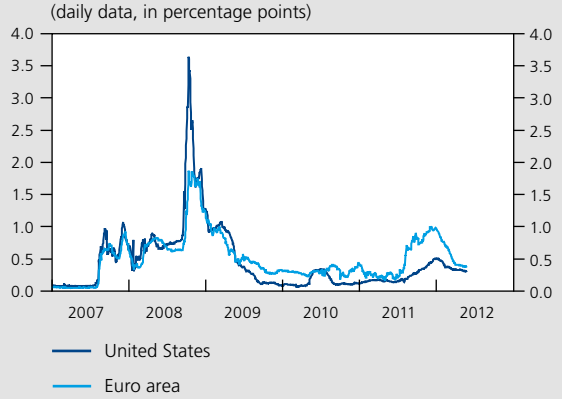
INTERNATIONAL TRADE IN GOODS
(seasonally adjusted monthly data, average of exports and imports, in volume, indices 2007 = 100)



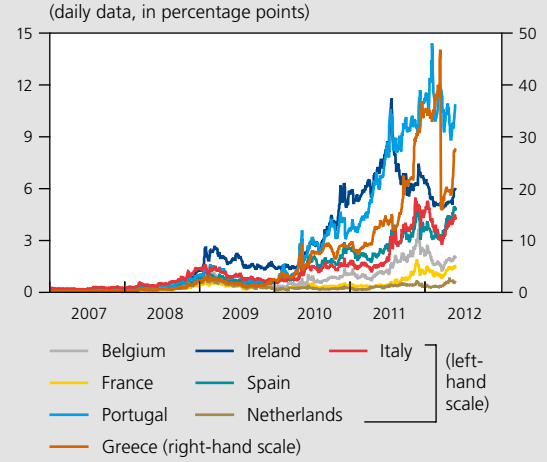
CONFIDENCE INDICATORS IN MANUFACTURING INDUSTRY
(monthly data)



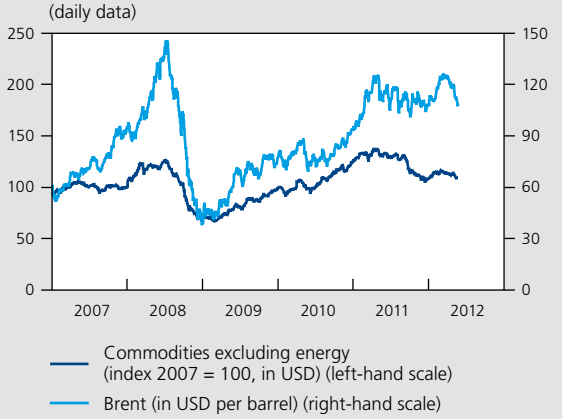
SPREADS BETWEEN LIBOR/EURIBOR AND THE OIS AT THREE MONTHS [1]
(daily data, in percentage points)



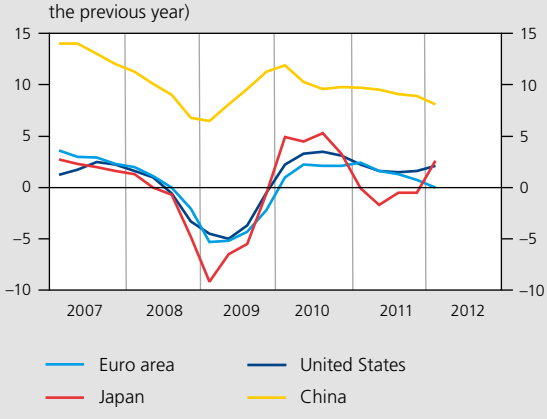
SPREADS ON TEN-YEAR GOVERNMENT BONDS IN RELATION TO THE GERMAN BUND
(daily data, in percentage points)



COMMODITY PRICES
(daily data)



REAL GDP GROWTH
(quarterly data, percentage changes compared to the previous year)



Source: Thomson Reuters Datastream.

(1) Spreads between the 3-month Libor/Euribor and the fixed rate paid by the counterparty on an interest rate swap receiving the overnight interest rate for a period of three months.

Since then, the peripheral euro area countries, in particular, have proved to be less dynamic, their activity growth being hampered by substantial adjustments to public and private sector balance sheets. The progress achieved in recent years in improving competitiveness and reducing excessive debt levels has been patchy, and needs to be maintained to secure balanced economic development which is sustainable in the long term. These adjustments will continue to depress activity in these economies, widening the performance gaps between the various countries. Consequently, in contrast to the situation in the United States and Japan, unemployment in the European Union will remain high, and could even rise further.

TABLE 1 PROJECTIONS FOR THE MAIN ECONOMIC REGIONS

(percentage changes compared to the previous year, unless otherwise stated)

	2011	2012	2013
	Actual figures	Projections	
GDP in volume			
World	3.7	3.3	3.7
of which:			
United States	1.7	2.0	2.1
Japan	–0.7	1.9	1.7
European Union	1.5	0.0	1.3
China	9.2	8.4	8.2
India	6.9	6.8	7.5
Russia	4.3	3.6	3.8
Brazil	2.7	3.1	4.2
p.m. World imports	*6.8*	*4.1*	*5.7*
Inflation (1)			
United States	3.2	2.5	2.0
Japan	–0.3	–0.3	0.8
European Union	3.1	2.6	1.9
China	5.4	3.3	3.0
Unemployment (2)			
United States	9.0	8.2	8.0
Japan	4.9	4.8	4.7
European Union	9.7	10.3	10.3

Sources: EC, IMF.
(1) Consumer price index.
(2) In % of the labour force.

1.2 Eurosystem projections for the euro area

After declining in the fourth quarter of 2011, activity stagnated in the euro area as a whole in the first quarter of 2012. However, that outcome conceals significant divergences within the euro area, with negative GDP growth in the countries undergoing substantial adjustments.

According to the Eurosystem projections, activity will only pick up slightly in the second half of 2012 before starting to expand a little more strongly in 2013. Thus, following an increase of 1.5 % in 2011, GDP growth is projected to be between –0.5 and 0.3 % in 2012 and to accelerate by between 0 and 2% in 2013.

The inertia in 2012 is due to the weakness of domestic demand within the euro area. As had already been the case in 2011, high inflation, the general uncertainty and the direct effects of fiscal consolidation, particularly via public consumption, are all affecting private consumption. In that context, investment is set to contract in 2012, in the case of both housing and investment by businesses and governments. However, since anaemic domestic demand is seriously curbing imports, net exports should make a positive, though insufficient, contribution to GDP growth. Exports of goods and services are likely to expand during the year after having been affected by the temporary sluggishness of external demand in late 2011 and early 2012.

A rebalancing of growth sources is projected to begin in 2013, thanks to low interest rates, the favourable effect on purchasing power of the expected fall in inflation, and some easing of the uncertainty. The projections are in fact also based on the assumption that the financial crisis does not intensify.

Inflation remained above 2.5 % throughout 2011 and in the first four months of 2012. It was fuelled largely by the persistent elevated level of oil prices on the international markets – an effect accentuated by the depreciation of the euro against the dollar –, but also by the indirect tax increases which a number of countries included in their fiscal consolidation plans. Those effects should gradually ebb away, causing inflation to slow down. Overall, inflation is put at between 2.3 and 2.5 % in 2012 – a figure close to the previous year's 2.7 % – and between 1 and 2.2 % in 2013.

TABLE 2 EUROSYSTEM PROJECTIONS

(percentage changes compared to the previous year)

	Euro area			*p.m. Belgium*		
	2011	2012	2013	*2011*	*2012*	*2013*
Inflation (HICP)	2.7	2.3 / 2.5	1.0 / 2.2	*3.5*	*2.6*	*1.5*
GDP in volume	1.5	–0.5 / 0.3	0.0 / 2.0	*2.0*	*0.6*	*1.4*
of which:						
Private consumption	0.2	–0.7 / –0.1	–0.4 / 1.4	*0.9*	*0.5*	*0.7*
Public consumption	–0.3	–0.7 / 0.3	–0.7 / 0.7	*0.6*	*0.4*	*1.6*
Investment	1.6	–3.2 / –1.0	–0.8 / 3.8	*5.2*	*0.8*	*1.4*
Exports	6.3	1.2 / 5.0	1.1 / 8.9	*4.4*	*0.0*	*4.5*
Imports	4.1	–0.7 / 2.9	0.9 / 7.9	*5.1*	*0.3*	*4.1*

Sources: ECB, NBB.

Box 1 – Assumptions adopted for the projections

Produced as part of a joint exercise, the Eurosystem's economic projections for the euro area, like the Bank's projections for Belgium, are based on a set of technical assumptions and forecasts for the international environment drawn up jointly by the ECB and the national central banks of the Eurosystem.

In the projections, exchange rates are assumed to remain unchanged at the average level recorded in the last ten working days before the cut-off date of 15 May 2012. On that basis, the euro is worth 1.30 US dollars.

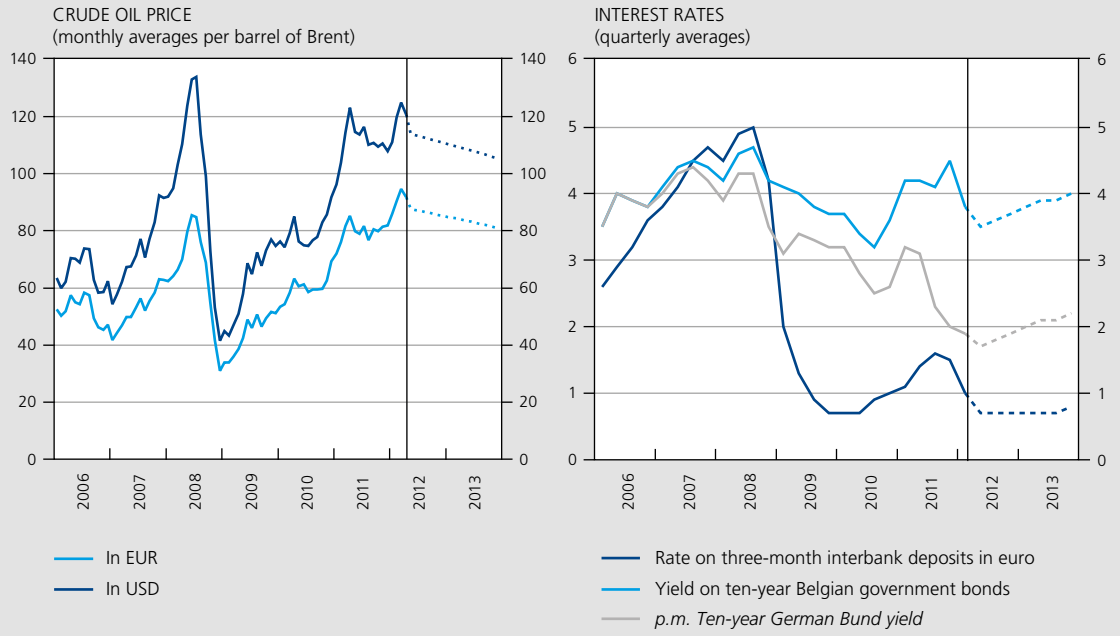
In accordance with the implicit prices in forward contracts on the international markets, the price per barrel of Brent crude oil, which peaked at an average of $ 124.9 in March 2012, is forecast to subside to an average of $ 114.6 over the year as a whole, before a further slight fall to $ 107.9 in 2013.

The interest rate assumptions are also based on market expectations as at mid-May 2012. The euro three-month interbank deposit rate is forecast to remain low, at an average of 0.8 % in 2012 and 0.7 % in 2013. Yields on ten-year Belgian government bonds are set to decline from 4.2 % in 2011 to 3.6 % in 2012, a particular factor being the narrowing of the spreads in relation to German Bund yields at the end of 2011 and in early 2012. In 2013, Belgian bond yields are projected at 3.9 %. The differential in relation to Bunds is held constant at 180 basis points over the whole projection period.

The rates which banks charge on loans to their private customers allow for these expected movements in market interest rates. They are set to rise slightly on mortgage loans, which are mainly long-term contracts, and remain stable on loans to non-financial corporations, such loans generally having a shorter initial maturity.

Having virtually stagnated at the end of 2011 and the beginning of 2012, mainly as a result of the weakness of demand within the euro area, Belgium's export sales should pick up steadily in 2012. The annual average volume growth of the export markets is put at 2.3 % in 2012 and 5.2 % in 2013, thus regaining a rate of expansion similar to that seen in 2011 (+4.9 %).

ASSUMPTIONS CONCERNING THE MOVEMENT IN OIL PRICES AND INTEREST RATES



Source: ECB.

Regarding public finances, the projections are based – in accordance with the Eurosystem conventions – on the macroeconomic environment and policy measures that have already been announced and specified in sufficient detail by governments, and which have been or are likely to be passed by parliament.

EUROSYSTEM PROJECTION ASSUMPTIONS

	2011	2012	2013
		(annual averages)	
Interest rate on three-month interbank deposits in euro	1.4	0.8	0.7
Yield on ten-year Belgian government bonds	4.2	3.6	3.9
EUR/USD exchange rate	1.39	1.30	1.30
Oil price (US dollars per barrel)	111.0	114.6	107.9
		(percentage changes)	
Export markets relevant to Belgium	4.9	2.3	5.2
Competitors' export prices	4.2	4.2	1.8

Source: ECB.

2. Activity, employment and demand

2.1 Activity and employment

Since mid-2011, the Belgian economy has felt the effects of the escalating financial tension and deteriorating economic climate in the euro area. Thus, after two years of robust volume growth, GDP stagnated in the third quarter of 2011 before shrinking very slightly by 0.1 % in the fourth quarter. The NAI's "flash" estimate recorded 0.3 % GDP growth in Belgium in the first quarter of 2012, compared to 0% in the euro area as a whole. That finding needs to be confirmed in the coming months, since non-recurring factors could affect the quarterly figures and, more fundamentally, in view of the renewed deterioration in the economic situation in the euro area since March. However, it bears out the finding that, following in Germany's footsteps, activity in Belgium is currently exhibiting some resilience, as it did during the 2008-2009 recession.

Nonetheless, the general uncertainty and the weakness of demand in the euro area will continue to have a strong restraining effect on growth in 2012. Growth is forecast to gain momentum in 2013 when these inhibiting factors are likely to weaken progressively. Overall, according to the Bank's new projections, GDP growth will amount to 0.6 % in 2012 and 1.4 % in 2013. In 2011, it came to 2 %. These figures are higher than those for the euro area as a whole. In fact, in the absence of very significant macroeconomic imbalances, domestic demand in Belgium has not experienced the impact of radical adjustments such as those that some European countries are having to make.

The slackening pace of activity in 2012 followed by a moderate recovery in 2013 is reflected immediately in the change in the volume of labour. After having expanded by 1.7 % in 2011, the total number of hours worked in the economy will increase by only 0.1 % in 2012, before a 0.8 % rise in the following year.

As usual, these cyclical fluctuations in activity are attenuated slightly at the level of employment in persons by adjustments to the implicit average working time per employee. This flexibility in the organisation of labour is due in particular to the use of the system of temporary lay-offs, in varying degrees, depending on the state of economic activity. Thus, the pace of employment expansion is estimated to remain virtually stable from 2012 to 2013 at 0.3 and 0.4 % respectively, as the revival in activity will initially lead to absorption of the under-utilisation of the available workforce before being reflected in net job creation.

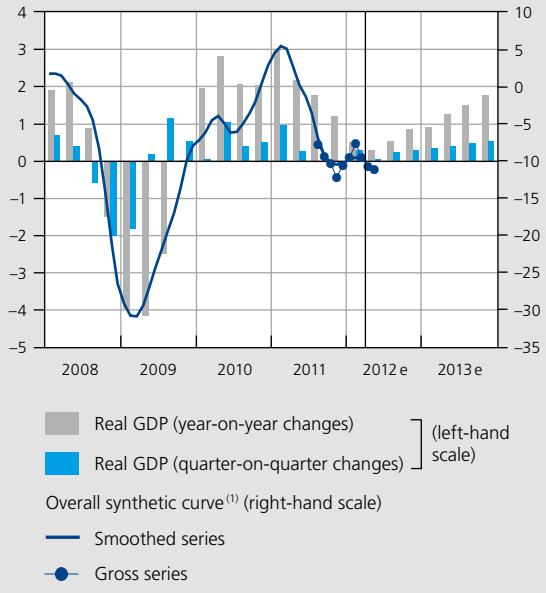
While the average annual number of net job creations is similar in 2012 (+14 300) and 2013 (+16 600), it nevertheless masks bigger fluctuations during the year. In fact, the average net job creation figure for 2012 gains a strong boost from the dynamism of the previous year, considering that only 3 300 additional jobs are expected to be created during the year. Conversely, in net terms, more than 27 000 jobs should be created during 2013.

Apart from the impact of a less buoyant economy, the decline in the number of jobs created in comparison with trends in preceding years is also due to measures to restrict the federal government and health care budgets in 2012 and 2013. Their impact is estimated at around 13 000 job cuts by the end of 2013.

Taking account of the combined effects of the slower pace of net job creation and the steady rise in the number of persons entering the labour market, the stabilisation of the unemployment rate in 2011, at around 7.2 % of the labour force, will be converted to a slight increase during the two years covered by the projections, at 7.5 % in 2012 and 7.7 % in 2013.

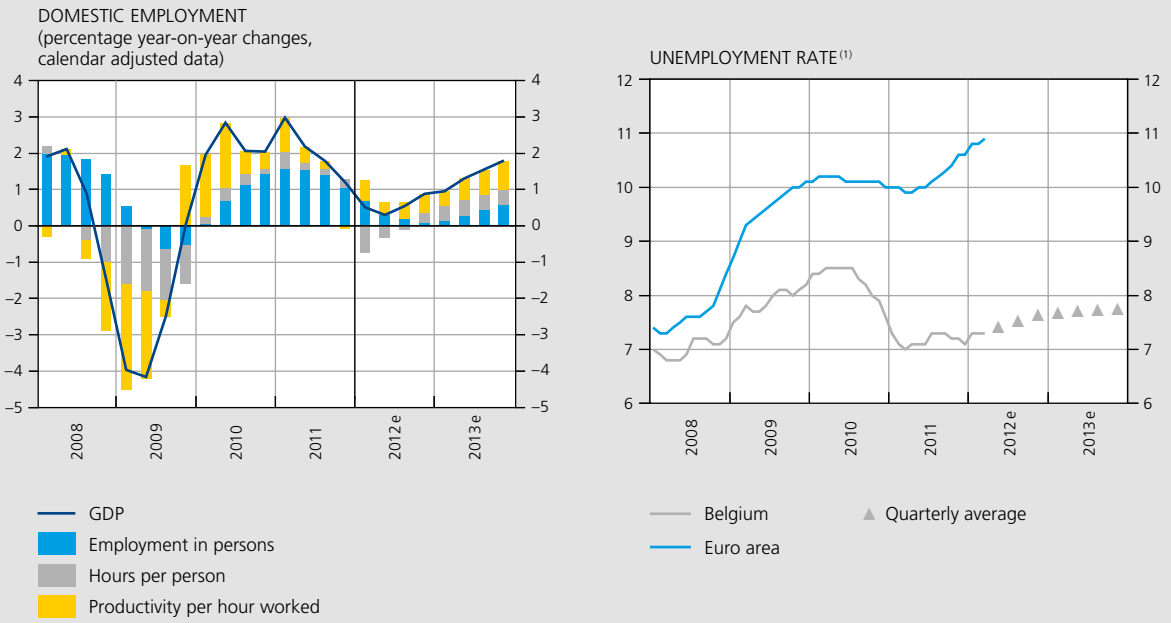
CHART 2 GDP AND THE BUSINESS SURVEY INDICATORS

(data adjusted for seasonal and calendar effects, unless otherwise stated)



Sources : EC, NAI, NBB.
(1) Seasonally adjusted data.

CHART 3 EMPLOYMENT AND UNEMPLOYMENT



Sources: EC, NAI, NEO, NBB.
(1) Harmonised unemployment rate, as a percentage of the labour force.

TABLE 3 LABOUR SUPPLY AND DEMAND

(calendar adjusted data, annual average changes in thousands of units, unless otherwise stated)

	2009	2010	2011	2012 e	2013 e
GDP (1)	–2.7	2.2	2.0	0.6	1.4
Total volume of labour (1)	–1.6	1.1	1.7	0.1	0.8
Domestic employment in persons (1)	–0.2	0.8	1.4	0.3	0.4
Domestic employment	–7.6	37.0	62.2	14.3	16.6
p.m. Change during the year (2)	*–23.2*	*63.4*	*46.7*	*3.3*	*27.1*
Employees	–12.1	31.0	52.0	8.1	12.1
of which branches sensitive to the business cycle	–36.0	6.0	33.1	1.1	1.1
Self-employed persons	4.5	6.0	10.2	6.2	4.5
Frontier workers	1.1	0.7	0.1	0.0	0.0
National employment	–6.5	37.8	62.3	14.3	16.6
Unemployed job-seekers	50.6	13.7	–19.8	24.4	23.5
p.m. Change during the year (2)	*59.8*	*–10.0*	*–10.8*	*37.5*	*12.8*
Labour force	44.1	51.5	42.5	38.7	40.1
p.m. Harmonised activity rate (3)	*66.9*	*67.7*	*66.7*	*66.9*	*67.2*
Harmonised employment rate (4)	*67.1*	*67.6*	*67.3*	*67.1*	*67.0*
Harmonised unemployment rate (5)	*7.9*	*8.3*	*7.2*	*7.5*	*7.7*

Sources: EC, NAI, NEO, NBB.
(1) Annual percentage changes.
(2) Difference between the fourth quarter of the year considered and the fourth quarter of the previous year.
(3) In % of the population of working age (15-64 years), non calendar adjusted data.
(4) In % of the population aged 20-64 years, non calendar adjusted data.
(5) In % of the labour force aged 15 years and over, non calendar adjusted data.

2.2 Demand components

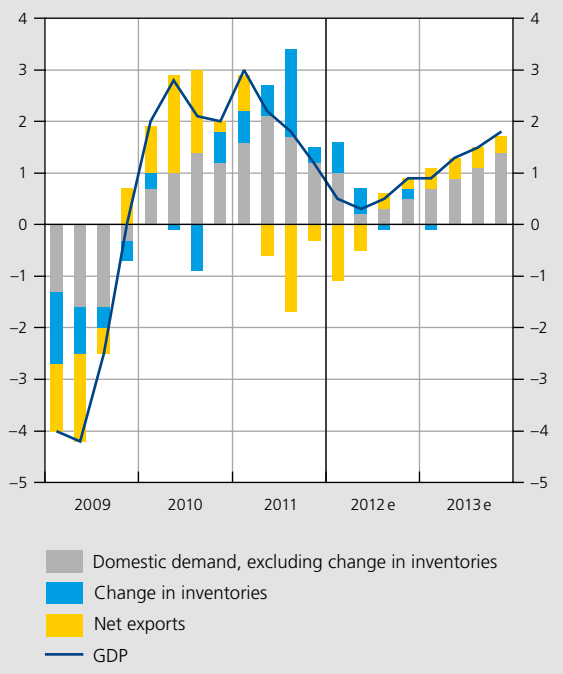
While the various sources of demand all participated to one degree or another in the GDP growth revival in 2010, that movement was reversed in the course of 2011, even though the average results recorded for that year reflect a favourable starting position. In regard to foreign trade, exports lost all their dynamism following the serious deterioration in the economic climate in the euro area and a slowdown on markets elsewhere. While imports remained steady – notably because they form a significant part of inventory building – net exports depressed GDP growth.

Among the other components of domestic demand, private consumption rapidly stagnated in 2011, initially owing to high inflation and, more generally, to a rise in the savings ratio. The revival in residential investment in 2010 also fizzled out. After that, the expansion of business investment, which had been particularly vigorous in the second quarter of 2011, ground to a complete halt. Only public expenditure continued to rise throughout the year.

According to the projections, this widespread weakness of demand is likely to persist in early 2012, even spreading to public consumption. A gradual improvement is predicted in the second half of the year and in 2013, under the impetus of exports and business investment. However, the contribution of domestic demand – constrained by the legacy of the 2008-2009 economic recession, via the continuing adjustments which that entails for governments,

CHART 4 MAIN DEMAND COMPONENTS

(contributions to annual GDP growth in percentage points; data adjusted for seasonal and calendar effects)



Sources: NAI, NBB.

TABLE 4 GDP AND MAIN EXPENDITURE CATEGORIES

(calendar adjusted volume data; percentage changes compared to the previous year, unless otherwise stated)

	2009	2010	2011	2012 e	2013 e
Private consumption expenditure	0.8	2.3	0.9	0.5	0.7
General government consumption expenditure	0.7	0.3	0.6	0.4	1.6
Gross fixed capital formation	–7.9	–1.0	5.2	0.8	1.4
Housing	–9.2	1.6	–2.8	–2.1	0.4
General government	10.5	–3.1	6.1	6.9	–9.7
Enterprises	–9.3	–1.6	8.8	1.3	3.2
p.m. Total final domestic expenditure	*–1.2*	*1.1*	*1.7*	*0.3*	*1.1*
Change in inventories[1]	–0.8	0.0	0.8	0.3	0.0
Net exports of goods and services[1]	–0.7	1.2	–0.5	–0.3	0.4
Exports of goods and services	–11.3	9.9	4.4	0.0	4.5
Imports of goods and services	–10.6	8.7	5.1	0.3	4.1
GDP	–2.7	2.2	2.0	0.6	1.4

Sources: NAI, NBB.
(1) Contribution to the change in GDP.

companies and households alike – is likely to be small compared to the pre-crisis years and to the economy's growth potential.

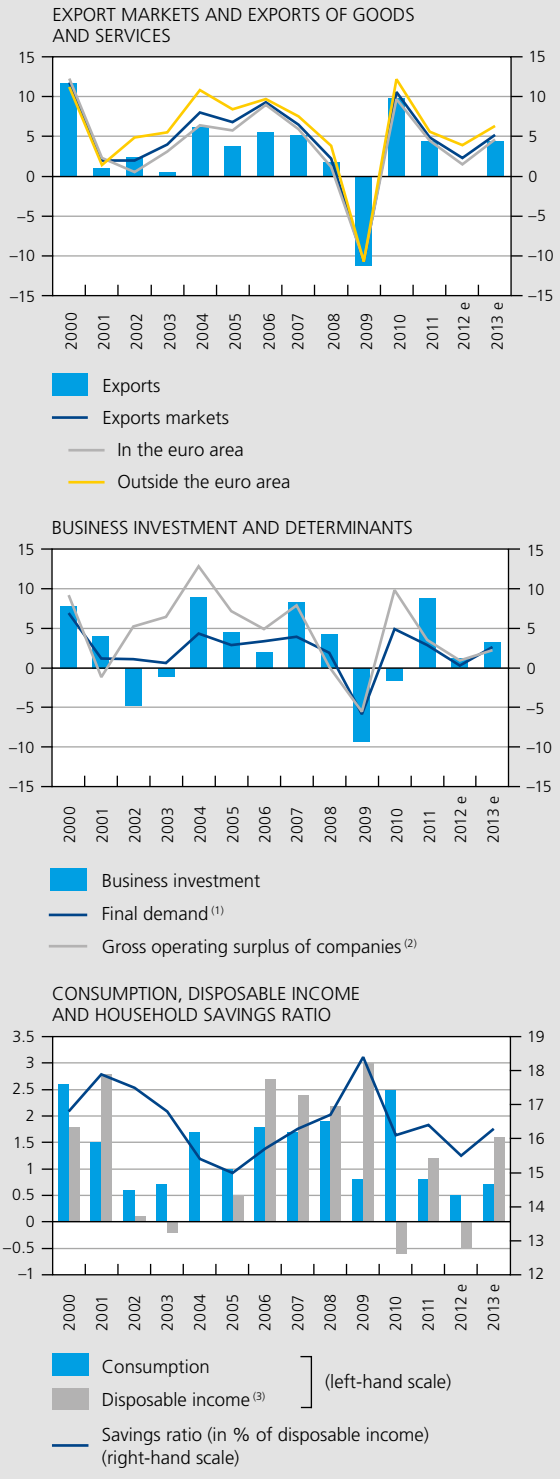
Following a strong upsurge in 2010 and at the beginning of 2011, the dynamism of external demand was seriously eroded by the deteriorating economic situation in the main economic regions during the second half of the year. The deceleration was particularly noticeable in the euro area, where markets contracted in the fourth quarter. Starting from this low point, Belgium's export markets are expected to begin expanding again from the first quarter of 2012, though at a slower pace than before the worldwide recession of 2008-2009. According to the Eurosystem's assumptions, their expansion rate will decline from 4.9 % in 2011 (it was 9.9 % in 2010) to 2.3 % in 2012, before picking up to 5.2 % in 2013. The movement in the volume of Belgium's exports is expected to lag behind the markets but exhibit a similar profile, since – following a 4.4 % growth in 2011 – annual average exports of goods and services are likely to stagnate in 2012, before rising by 4.5 % in 2013. The inertia in 2012, like the more significant losses of market share for that year – in the order of 2.3 %, against 0.5 % in 2011 – largely reflect the results at the end of 2011. The latest indicators, derived from foreign trade statistics and business surveys, suggest that Belgium's exports of goods picked up at the beginning of 2012, though the recovery was still weak.

After a sharp acceleration in the previous year which also helped to boost average growth in 2011, the sluggishness of private consumption seen during that year is likely to persist in 2012. However, the causes are different since, instead of being due to a rise in the savings ratio, as had been the case in 2011 in a context of great uncertainty over both the sovereign debt crisis in the euro area and the protracted political stalemate in Belgium, it is due this time to the expected fall in household disposable incomes, amounting to 0.4 % in real terms. Conversely, the savings ratio is set to fall, dropping from 16.4 % of disposable income in 2011 to 15.6 % in 2012, so that the volume of private consumption should rise by 0.5 %. Apart from the continuing high inflation, the reduction in purchasing power is due to the combined effects of the deteriorating economic conditions on employment, and hence on labour incomes, self-employed incomes and property incomes – both dividends and interest in view of the low level of interest rates – and to the measures adopted under the 2012 budget.

In 2013, these various effects are expected to wane rapidly with the forecast fall in inflation, the revival of activity and the absence of significant budget measures announced so far, even though such measures are necessary

CHART 5 DEVELOPMENTS IN DEMAND CATEGORIES

(calendar adjusted volume data, percentage changes compared to the previous year, unless otherwise stated)



Sources: ECB, NAI, NBB.
(1) Excluding changes in inventories.
(2) Non calendar adjusted value data.
(3) Non calendar adjusted data deflated by the private consumption deflator.

to attain the targets for the budget balance. Thus, disposable income is projected to rise by 1.7 %. Nonetheless, just as households, in their consumption behaviour, will partly disregard the decline in their disposable income in 2012, they will use the extra income to step up their savings in 2013. The savings ratio is forecast to revert to 16.4 %, with private consumption up by 0.7 %.

In a still highly uncertain context, household investment in housing is likely to decline again by around 2 % in 2012, thus continuing the downward trend which had begun in 2008 but was suspended temporarily in 2010, owing to the measures to revive the construction industry, particularly via a cut in the VAT rate on the first project tranche of executed work. A very slight rise in residential housing investment is expected in 2013.

The activity revival up to the beginning of 2011, and subsequently, the improvement in the capacity utilisation rate of businesses – up from 70.1 % in April 2009 to 81.2 % in April 2011, or a figure close to the average of the preceding two decades according to the survey of manufacturing industry – in parallel with the strengthening of final demand and the restoration of profitability had resulted in strong expansion of business investment in the first half of 2011. That did not continue thereafter, in view of the downturn in the economic situation. While the outlook for demand in fact weakened sharply, the gross operating surplus of enterprises is forecast to rise by only 1 % in 2012, and the industrial capacity utilisation rate dropped back to 78.1 % in April 2012, the low level of interest rates is the only factor likely to bolster investment. Overall, following an 8.8 % rise in 2011, investment is set to expand by just 1.3 % in 2012, then 3.2 % in 2013. Taking account of the recent developments presented in box 2, these projections disregard any credit tightening effect.

With due regard for the measures described in detail in part 4, government consumption expenditure is projected to rise by just 0.4 % in 2012. In 2013 it will increase again by 1.6 %. As in 2011, government investment is expected to expand strongly in 2012 by almost 7% per annum, owing to the impending local elections. After that, it is likely to drop by almost 10 %.

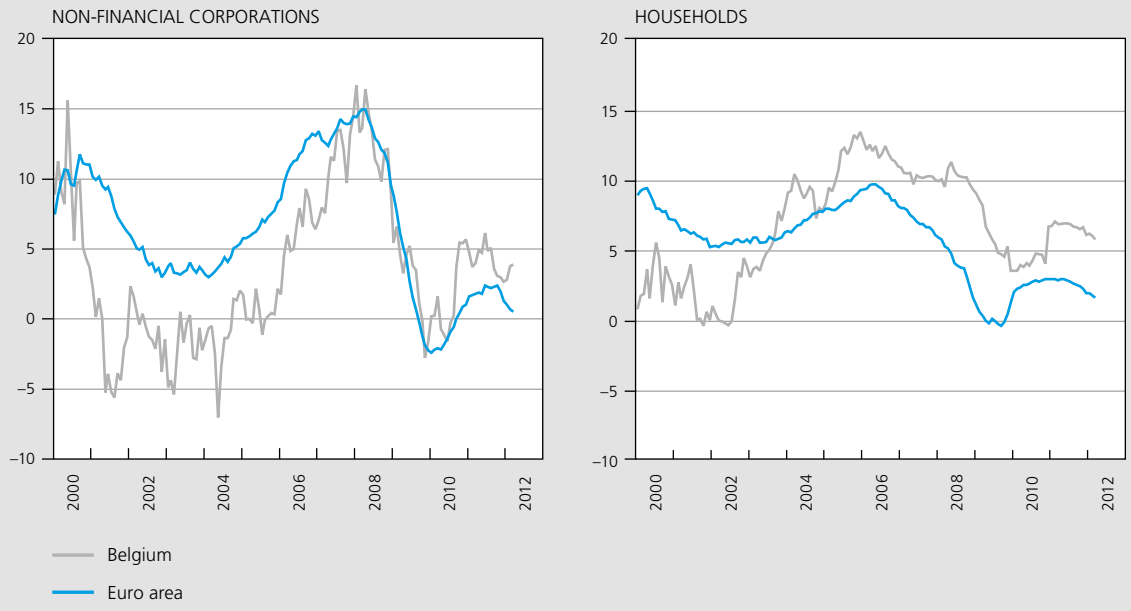
Box 2 – Bank lending : recent developments and outlook

Since the start of the financial crisis, bank lending to the non-financial private sector, i.e. households and non-financial corporations, has been closely monitored. The turbulence and the essential structural adjustments in the financial sector have in fact aroused fears of more difficult access to credit for the private sector, and hence the transmission of the financial tensions to the real economy. The sovereign debt crisis, via its impact on bank balance sheets, has also fuelled this anxiety. In that context, this box reports on the current situation concerning credit in Belgium and its determinants. On the basis of a comparison with the euro area it is evident that lending to the non-financial private sector is doing relatively well in Belgium. Since the low point of mid-2012, the growth of lending to both households and non-financial corporations has accelerated sharply again in Belgium. The comparison also reveals that lending in Belgium is expanding at well above the euro area average, particularly in the case of households. Nonetheless, the significant differences in relation to the euro area are due largely to the negative growth of lending in a number of peripheral countries, a factor which is clearly depressing the euro area average; the expansion of credit in Belgium is close to the figure for the main neighbouring countries. There has recently been a further decline in the growth of credit in the euro area, whereas it is tending to stabilise on an annual basis in Belgium, and – in contrast to the euro area – the net monthly flow of new lending remains positive.

In the current context, it is relevant to assess the determinants affecting the pattern of lending. The bank lending survey conducted quarterly on the main banks in the euro area provides information both on supply conditions (excluding interest rates) and on developments in demand for credit. This survey shows that, in Belgium, credit conditions have remained largely unchanged since the end of 2009, both for household credit and for lending to non-financial corporations. For the latter category, however, the banks mention the possibility of lending criteria being tightened in the second quarter of 2012. The survey also looks at the factors which determine those lending criteria. It is evident that factors relating purely to supply, such as the banks' balance sheet structure (i.e. their situation in terms of liquidity and capital) have not recently put stress on the criteria for lending to non-financial corporations. The Eurosystem's liquidity support measures (particularly the three-year longer-term refinancing

BANK LENDING TO NON-FINANCIAL CORPORATIONS AND HOUSEHOLDS IN BELGIUM AND IN THE EURO AREA[1]

(annual percentage changes)



Sources: ECB, NBB.

(1) Lending by resident banks to resident sectors. Data including securitised loans: for Belgium over the period as a whole, for the euro area since January 2010.

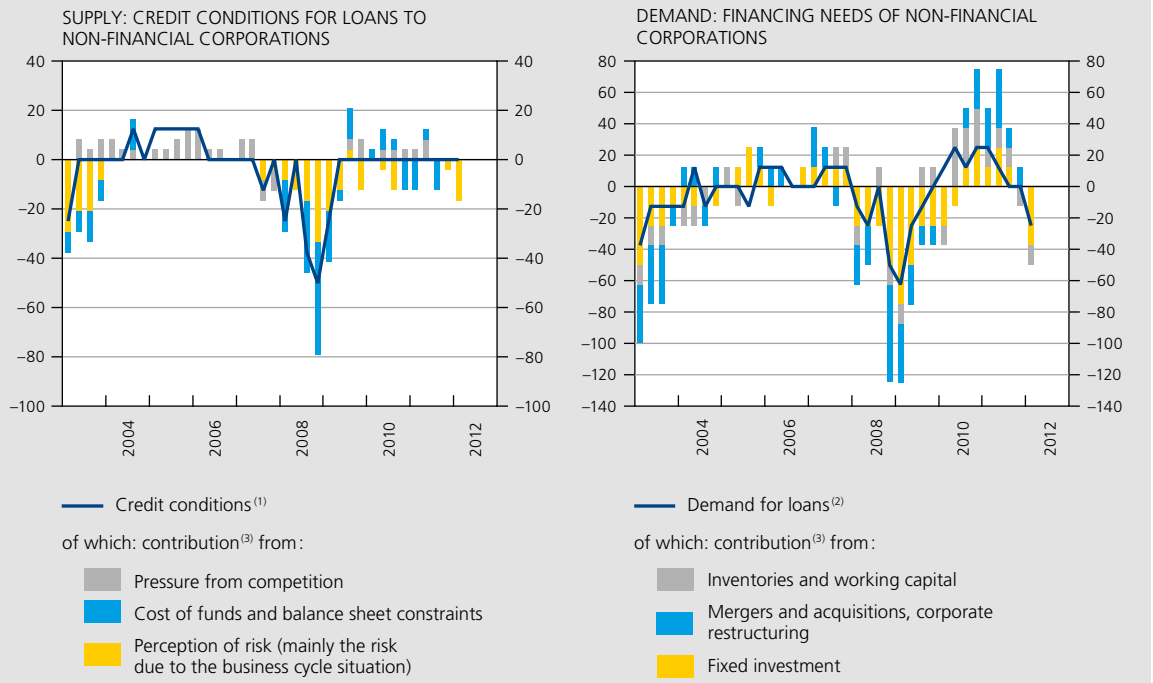
operations) are probably a contributory factor, so that the risk that the balance sheet position of the banks might constrain lending has become less of a threat than in the recent past. This improvement in the banks' balance sheet structure concerns the euro area as a whole. Despite these positive developments, general conditions for lending to non-financial corporations have remained unchanged according to the bank lending survey. The mounting concern over the business cycle situation since the beginning of 2012 accounts for this status quo.

That concern is corroborated by the movement in demand for loans expressed by non-financial corporations, as reported by the banks. The banks have seen that demand rise steadily since 2010, but in the first quarter of 2012 it seems to have declined, owing to the weakened propensity of non-financial corporations to invest in fixed assets. Other investments funded by credit, such as mergers and acquisitions or investment in inventories, also seem to have made a less positive contribution to demand for loans than in the recent past. This analysis therefore shows that any weakening of lending in the near future is likely to be due to (cyclical) factors on the demand side, rather than supply factors. The picture is similar in regard to household credit.

However, that does not mean that the banks' credit policy in the medium or long term cannot depress lending. Banks are actually facing a changing environment in which they need to adjust the focus of their activities, notably in order to satisfy the more stringent liquidity and capital requirements under the new regulations (Basel III). Up to now, however, the transition to these new regulations has not led to any significant contraction in bank lending to the private sector in Belgium, one factor being the Eurosystem's liquidity operations. In their credit policy, the banks also take account of the borrowers' financial health. If they consider that health to be fragile, the supply conditions could be tightened. In this connection, it must be noted that, despite the rise in the Belgian household debt ratio, the financial situation of Belgian households, and of the non-financial private sector in general, is still better than in the euro area.

BANK LENDING SURVEY : CREDIT CONDITIONS AND DEMAND FOR CREDIT IN THE CASE OF NON-FINANCIAL CORPORATIONS

(net percentages)



Source : NBB.

(1) Weighted net percentages of banks reporting whether credit standards have been eased (+) or tightened (–).

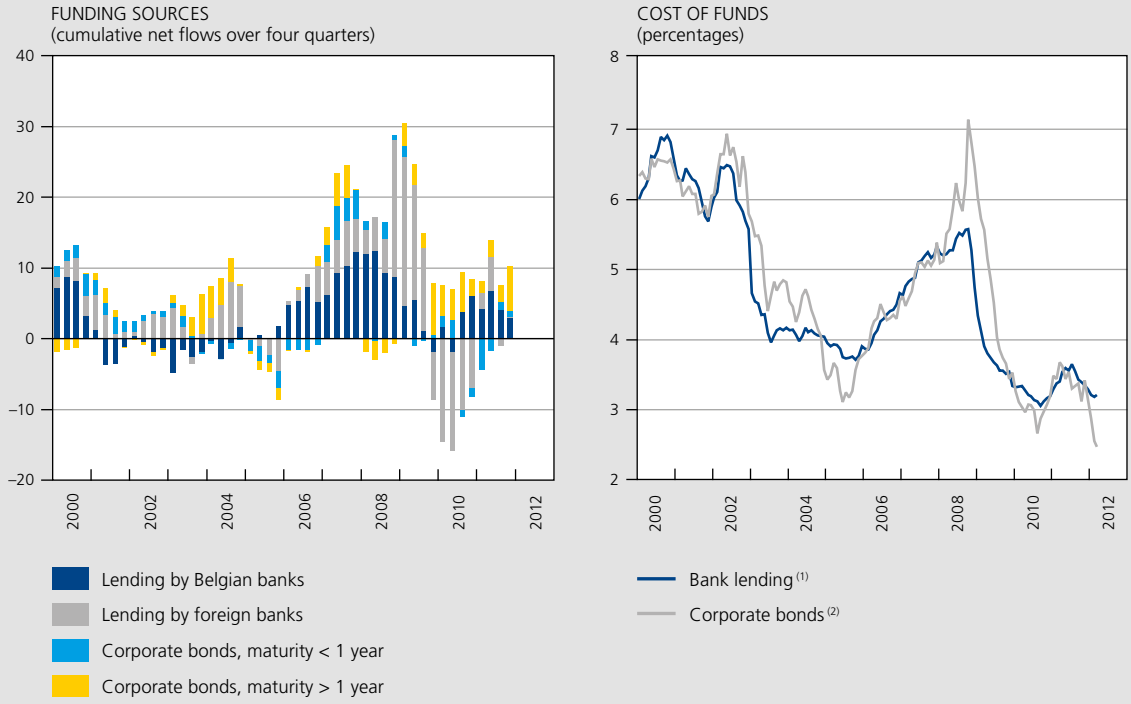
(2) Weighted net percentages of banks reporting whether demand for loans has risen (+) or fallen (–).

(3) Weighted net percentages of banks reporting whether these factors have contributed to the general developments in credit conditions or demand for loans.

Finally, there is a progressive shift taking place in the funding sources of non-financial corporations. Whereas in recent years Belgian non-financial corporations had made greater use of equity financing, two trends have emerged since the financial crisis : a shift from international to national bank lending, and a shift from bank lending to other forms of funding. Thus, it seems that corporations currently have sufficient liquid resources to finance a large part of their investment themselves, and that is probably also depressing bank lending. It also seems that Belgian non-financial corporations are increasingly applying to the bond market. Although this form of funding remains limited in Belgium – since it is often reserved for large, financially sound corporations – in recent quarters there has been greater use of this source, particularly for long-term funds.

This last factor may be connected with the increased appetite for risk on the corporate bond market, which has meanwhile driven down the yields for the capital raised by euro area non-financial corporations to a historically low level, below the weighted average interest rate charged on bank loans in Belgium.

NON-FINANCIAL CORPORATIONS: FUNDING SOURCES AND COSTS



Source: NBB.
(1) Weighted average interest rate charged by Belgian banks on new loans to enterprises.
(2) Yield on an index of euro-denominated bonds issued by euro area non-financial corporations.

3. Prices and costs

Standing at 2.9 % in April 2012, the latest reading available on the projection cut-off date, HICP inflation has fallen below 3% for the first time in eighteen months. It had peaked at 4% in July 2011. Inflation should continue to fall in 2012 – to around 2 % by the end of the year – and in 2013, albeit more slowly. Annual average inflation is projected to decline from 3.5 % in 2011 to 2.6 % in 2012 and 1.5 % in 2013. In that last year, it will then be 0.1 percentage point below the inflation forecast for the euro area, after having exceeded that figure by 0.7 and 0.8 percentage point respectively in 2010 and 2011, and by 0.2 percentage point in 2012.

The expected decline in inflation in Belgium and the narrowing of the gap in relation to the euro area, before its reversal in 2013, depend essentially on the predicted movement in oil prices. After rising by 40 % in 2011 compared to the previous year and peaking at 125 dollars in March 2012, prices on the international markets declined in the next two months, dropping to around 110 dollars per barrel. According to the assumptions adopted, the downward trend should continue during the projection period, albeit at a modest pace. Even though it is attenuated by the euro's depreciation against the US currency, the elimination of the negative base effects should cut the increase in the energy costs included in the HICP basket from 17 % in 2011 to 6 % in 2012. In 2013, the base effects should become favourable and the prices of these products should fall slightly, by 0.5 %.

In 2011 and 2012, the impact on inflation's energy component of the substantial rise in the electricity supply tariffs in a large area of Flanders, due to the high cost of the regional subsidies granted for the installation of photovoltaic panels, is estimated at 1 percentage point per annum. As a result of the tariff decisions by CREG, the

federal electricity and gas authority, supply costs should hardly increase at all in 2013. The government's decision to block – from April to December 2012 [1] – the gas and electricity price rises which would have resulted from the indexation formulas hitherto applied has only a very small influence on the projections, in view of the expected fall in the reference prices of crude oil. However, it will have greater repercussions in the event of an adverse movement in oil prices or the dollar exchange rate.

While a gradual deceleration resulting from the energy component is expected in 2012, underlying inflation is likely to remain high. As an annual average, it is estimated at 1.9 %, compared to 1.7 % in 2011. That rise broadly corresponds to the effect of specific increases in indirect taxes introduced by the budget, particularly on notaries' fees and digital television subscriptions. In the same context, there has also been an increase in the excise duty on tobacco, a product included in the "food" component of the harmonised index of consumer prices.

Overall, underlying inflation is based largely on movements in the price of services. In the case of this component, price increases are fuelled by adjustments directly linked to inflation or to other reference indices for a range of services, and by the indirect consequences of fuel price increases, e.g. in the case of travel. It is also driven by the strong rise in labour costs. These effects are likely to ebb away rapidly in 2013, so that – in the absence of additional indirect tax increases – underlying inflation should fall to 1.5 %, also contributing to the general slowing of inflation.

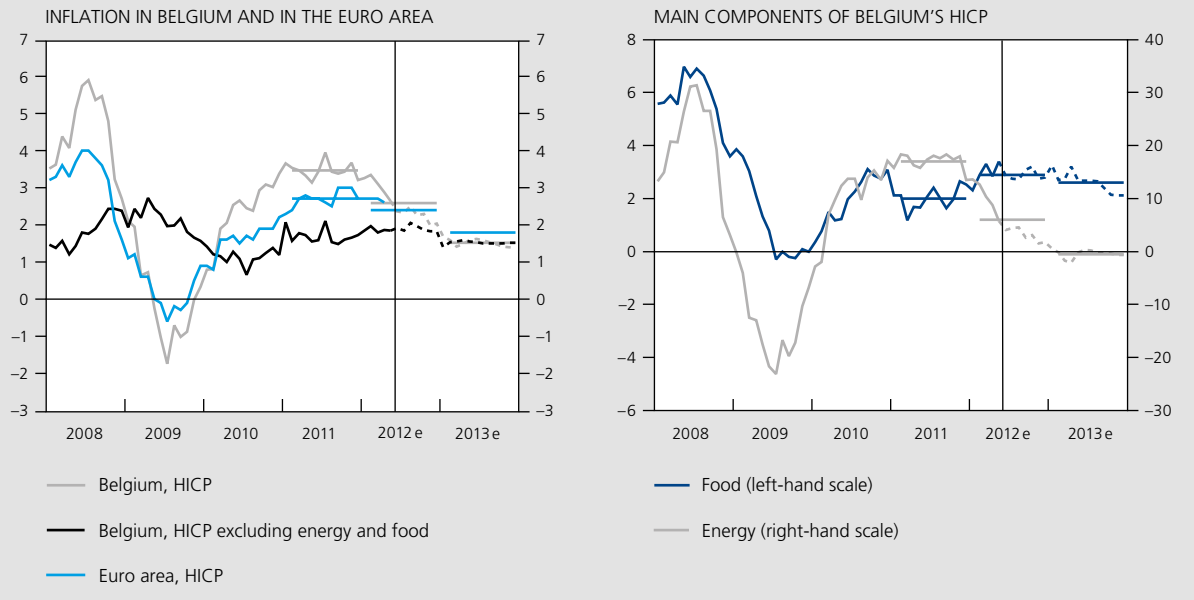
After having already risen by 2.1 % in 2011, unit labour costs in the private sector are set to rise even more sharply in 2012, reaching a figure of 3.1 %. Overall, the cumulative increase of more than 5% recorded for these two years significantly exceeds the figure for Belgium's three main partners, namely Germany, France and the Netherlands, and that is damaging the competitiveness of Belgian producers. According to the assumptions adopted, and taking account of the expected improvement in the business climate, the pace of unit labour cost increases should fall to 1.5 % in 2013.

The rate of labour productivity gains is in fact expected to recover slightly in 2013, after having been curbed by the weakness of activity at the end of 2011 and in 2012. However, these cyclical movements will probably be modest. It is therefore mainly the trend in hourly labour costs that accounts for these movements in unit costs. In the private sector, the increase in hourly labour costs will rise from 2.5 % in 2011 to 3.1 % in 2012, before subsiding to 2 % in 2013. These movements reflect

(1) The price freeze could be lifted sooner, if new formulas for the indexation of electricity and gas prices are adopted, or in the event of force majeure, e.g. owing to exceptional market conditions.

CHART 6 INFLATION

(HICP, percentage changes compared to the corresponding period of the previous year)



Sources : EC, NBB.

TABLE 5 PRICE AND COST INDICATORS

(percentage changes compared to the previous year, unless otherwise stated)

	2009	2010	2011	2012 e	2013 e
HICP	0.0	2.3	3.5	2.6	1.5
Health index	0.6	1.7	3.1	2.6	1.5
Underlying inflation[1]	2.1	1.1	1.7	1.9	1.5
GDP deflator	1.2	1.8	1.9	2.2	1.5
Labour costs in the private sector:					
Labour costs per hour worked	2.7	0.9	2.5	3.1	2.0
of which indexation	2.5	0.5	2.7	3.0	1.8
Labour productivity[2]	–1.0	1.0	0.4	0.1	0.6
Unit labour costs	3.8	–0.1	2.1	3.1	1.5

Sources: EC; FPS Employment, Labour and Social Dialogue; NAI; NBB.
(1) Measured by the HICP excluding food and energy.
(2) Value added in volume per hour worked by employees and self-employed persons.

almost exactly the effects of wage indexation. According to the projections, the health index – which is used as the reference for wage indexation – will rise by 2.6 % in 2012 and 1.5 % in 2013, following a 3.1 % increase in 2011. Taking account of the time lags resulting from the indexation mechanisms in the various sectoral joint committees, the automatic adjustments to wages will still be significant in 2012, even if inflation begins to slow down this year. In 2013, there should be a more marked decline in the indexation effects. Apart from indexation, the assumption concerning the movement in hourly labour costs in the private sector in 2012 allows for the maximum 0.3 % rise in negotiated wages specified in the provisions imposed by the government under the draft central agreement for 2011-2012 and, conversely, a negative movement in the other wage-setting factors, notably on account of smaller bonuses. Pending the outcome of the future wage negotiations for 2013, the assumption concerning the movement in hourly wages in the private sector in 2013 is based mainly on the expected indexation effect. In view of the recent rises in excess of those in neighbouring countries and the continuing sluggishness of economic activity, real increases are expected to be limited.

4. Public finances

4.1 Overall balance

In 2011, the Belgian government recorded a budget deficit of 3.7 % of GDP. In the macroeconomic context described above, the deficit should fall to 2.8 % of GDP in 2012. According to the projections – which take account only of fiscal measures which have already been announced and are specified in sufficient detail – the deficit will, however, rise again in 2013, to reach 3.1 % of GDP.

The movement in the overall balance of general government is due to four factors, namely the economic situation, changes in interest charges, the impact of temporary factors and, finally, the movement in the structural primary balance.

The economic situation is expected to have a negative effect on the overall balance in 2012. In 2013, its influence should be neutral overall.

Interest charges are expected to increase slightly in 2012, partly because of the decline in swap revenues – particularly high in 2011 – and partly because of the massive State intervention in favour of struggling euro area countries. That is likely to drive up the debt ratio during the period analysed, especially in 2012. However, the adverse impact of the debt ratio on interest charges should be partly offset by a reduction in the implicit interest rate on the public debt, both short- and long-term. In 2013, the continuing decline in the implicit interest rate on the public debt should lead to a further fall in interest charges.

The general government account should improve as a result of non-recurring factors in 2012. In 2011, those factors had in fact had a negative influence on the general government balance, notably because of the measures

TABLE 6 GENERAL GOVERNMENT ACCOUNTS[1]
(in % of GDP)

	2009	2010	2011	2012 e	2013 e
Revenues	48.1	48.8	49.5	50.8	50.5
Fiscal and parafiscal revenue	42.7	43.3	43.6	44.6	44.4
Other	5.3	5.6	5.9	6.2	6.1
Primary expenditure	50.0	49.3	49.9	50.2	50.3
Primary balance	–2.0	–0.4	–0.4	0.6	0.2
Interest charges	3.6	3.4	3.3	3.4	3.2
Overall balance	–5.6	–3.8	–3.7	–2.8	–3.1
p.m. Changes in the overall balance[2]		*1.8*	*0.1*	*1.0*	*–0.3*
due to changes in					
interest charges		*0.3*	*0.0*	*–0.1*	*0.1*
the cyclical component		*0.4*	*0.0*	*–0.4*	*0.0*
GDP growth		*0.6*	*0.4*	*–0.3*	*0.0*
composition effects		*–0.2*	*–0.4*	*–0.1*	*–0.0*
non-recurring factors		*1.0*	*–0.2*	*0.4*	*–0.2*
the structural primary balance		*0.1*	*0.3*	*1.0*	*–0.2*

Sources: NAI, NBB.
(1) According to the methodology used in the excessive deficit procedure (EDP).
(2) According to the methodology described in Bouthevillain C., Ph. Cour-Thimann, G. van den Dool, P. Hernández de Cos, G. Langenus. M. Mohr, S. Momigliano and M. Tujula (2001), *Cyclically adjusted balances: an alternative approach*, ECB Working Paper Series, No 77.

in response to the problems encountered by Holding Communal which, as a major shareholder in Dexia, had felt the full force of the collapse of the Dexia share price. Conversely, in 2012, non-recurring measures relating to government revenues should improve the overall balance. The disappearance of these factors in 2013 is therefore one of the determinants of the increase in the deficit in that year.

Finally, the movement in the structural primary balance is the last factor to single out. In 2012, that balance should improve considerably, reflecting the conduct of a restrictive fiscal policy during the year. That improvement is due to the various measures taken by the federal government and the Communities and Regions in order to achieve their budget targets. For 2013, the projections indicate a slight deterioration in the structural primary balance, the reason being that certain social benefits, such as pensions and health care expenditure, are projected to rise much faster than the trend growth of GDP.

The April 2012 stability programme assumes a deficit of 2.8 % of GDP in 2012, dropping to 2.15 % of GDP in 2013 and declining systematically thereafter to produce a balanced budget in 2015. According to the current projections, the 2012 target should be achieved. Conversely, to meet the targets for 2013 and subsequent years, it will be necessary to make further substantial consolidation efforts.

4.2 Revenue

Public revenues are expected to record a further sizeable increase in the period under review, as the expansion amounting to 1.2 percentage points of GDP in 2012 will be only partly negated by the 0.2 percentage point contraction in 2013.

Almost two-thirds of the strong surge recorded in 2012 is due to structural fiscal and parafiscal measures, and one-fifth to temporary factors, the remainder being attributable to non-fiscal and non-parafiscal revenues.

The many structural measures which have been taken can be grouped into a few main categories. The most important ones are aimed at increasing the tax on capital incomes. Thus, harmonisation of the tax on incomes from movable property at 21 % – with a few exceptions –, the levy on stock market transactions and the capital gains tax should generate over a billion in additional revenues. Households will contribute to the budgetary effort via

TABLE 7 STRUCTURAL MEASURES AND FACTORS CONCERNING PUBLIC REVENUES

(in € million, unless otherwise stated; changes compared to the previous year)

	2012 e	2013 e
Taxes	3 534	290
of which:		
Capital incomes	1 078	44
Percentage change in the risk capital allowance	715	0
Nuclear levy	300	0
Benefits in kind	370	0
VAT and excise duties	298	79
Measures to prevent tax evasion and improve collection	380	142
Increase in the tax-free allowance	0	–120
Allowance for energy-saving investments	0	260
Social security contributions	47	–183
Non-fiscal and non-parafiscal revenues	456	–108
Total	**4 037**	**–1**
p.m. In % of GDP	*1.1*	*0.0*

Sources: Budget documents, FPS Finance, NSSO, NBB.

higher taxes on benefits in kind, be it the provision of company cars or accommodation, the increase in indirect taxes on pay-TV and tobacco, and the ending of VAT exemption for notaries and bailiffs. As regards taxation of corporate profits, the notional interest system is to be subject to new limits in the form of a ceiling on the reference interest rate and restrictions on the possibility of carrying forward the resulting concession. This should raise more than € 700 million in extra revenue, compared to leaving the system unchanged. From 2012, the nuclear levy is to increase by € 300 million, which is additional to the previous € 250 million. Late payment of this levy for 2011 will also temporarily benefit revenues in 2012. Finally, the battle against tax evasion and benefit fraud will continue to be stepped up.

Some significant temporary effects also boost revenue growth in 2012. First, there is the advance collection of tax on life insurance reserves formed before 1993, normally due at the end of the contract. Next, the administrative procedures concerning succession should be shortened by one month, thus generating additional revenues for the Regions in the year of the acceleration. Finally, the impact in 2012 of the speeding up of the personal income tax and corporation tax assessments in 2011 should be neutral overall.

Non-fiscal and non-parafiscal revenues should also make a largely temporary contribution to the revenue expansion in 2012. Thus, the payments made by the financial sector in return for the aid and guarantees granted to it should increase by almost € 400 million. The repayment by bpost of state aid incompatible with the European competition rules, received between 2006 and 2010, will generate € 176 million in 2012. Exceptional dividends are also expected, as well as receipts following the cross-border agreements with France and Luxembourg.

The decline in the revenue ratio in 2013 will be due mainly to temporary factors in 2012 which will not recur. However, the restriction of tax allowances for energy-saving investment and the revenues from sales of emission permits, together with other less significant factors, should compensate slightly for the disappearance of these temporary factors.

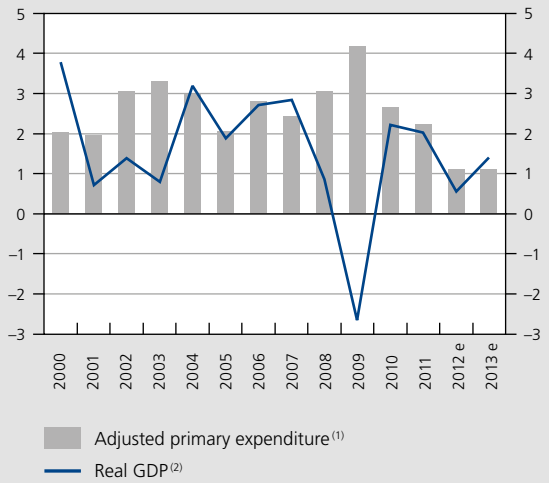
4.3 Primary expenditure

Primary expenditure expressed as a percentage of GDP is projected to rise by 0.2 percentage point in 2012 and in 2013, thus reaching a very high level in historical terms. The volume increase is estimated at 0.9% and 1.7% respectively over those two years, outpacing real GDP growth in each case. Adjusted for non-recurring and cyclical factors and the effects of indexation, the growth comes to 1.1% in both 2012 and 2013. Real expenditure growth in 2012 is in fact likely to be restrained primarily by non-recurring factors, whereas in 2013 the rise in wages and social benefits due to indexation should exceed the increase in the consumer price index.

The slight increase in primary expenditure expected for 2012 is the outcome of divergent developments in the general government sub-sectors. The federal government is expected to record a relatively large fall in its expenditure owing to a range of economy measures spread across several expenditure categories, decided at the time of the initial budget and the 2012 budget review. Social security expenditure is projected to rise more slowly than in previous years, mainly on account of the cost-cutting measures relating to health care and the structural labour market reforms. The growth of expenditure by the Communities and Regions is also expected to be moderate. Conversely, local authority expenditure is likely to rise considerably, owing to the traditional surge in investment in an election year.

CHART 7 PRIMARY EXPENDITURE OF GENERAL GOVERNMENT AND GDP

(percentage changes compared to the previous year)



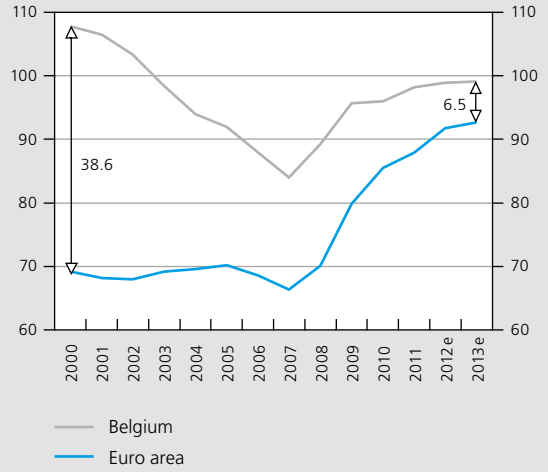
Sources: NAI, NBB.

(1) Primary expenditure deflated by the HICP and adjusted for cyclical, non-recurring and fiscally neutral factors, and for the effect of indexation. The latter is in fact due to the difference between the actual indexation of civil service pay and social benefits and the increase in the HICP.

(2) Calendar adjusted data.

CHART 8 CONSOLIDATED GROSS DEBT OF GENERAL GOVERNMENT

(in % of GDP)



Sources: EC, NAI, NBB.

The growth of primary expenditure in 2013 is obviously hard to estimate since the budgets for that year are not yet available. The estimates for 2013 project a relatively neutral expenditure policy. However, account is taken of the impact of the measures adopted under the federal government agreement for 2012-2014. Those measures are likely to exert slight downward pressure on the real growth of federal government and social security expenditure. In the case of the latter, expenditure growth, though tempered by the pension reform which will have an effect from 2013, will still significantly outpace GDP growth. Local authority expenditure is expected to contract sharply, owing to a marked decline in investment after the elections.

4.4 Debt

The general government debt ratio had fallen continuously from 1993 to 2007. In 2008, that decline came to an abrupt halt, as the government had to to inject capital into certain financial institutions during the crisis afflicting that sector. Since then, the debt ratio has continued to rise rather steeply. In 2011, the debt grew by 2.4 percentage points to 98.2 % of GDP, mainly owing to the acquisition of Dexia Bank Belgium (Belfius) for the State and the granting of loans to the Greek, Irish and Portuguese States.

According to the projections, general government debt will record a further significant increase to 98.9 % of GDP at the end of 2012. Once again, exogenous factors are driving up the debt. Thus, the loans granted under the second rescue package for Greece and the planned injection of capital in the European Stability Mechanism will considerably exceed the amount of the expected partial repayment in respect of capital assistance to the financial sector.

In 2013, the debt is expected to continue rising, but more slowly, to reach 99.2 % of GDP.

5. Risk factor assessment

The economic developments in Belgium and in the euro area over the past three years, since the Great Recession bottomed out in mid-2009, and the projections for 2012 and 2013 confirm the lessons of past financial crises: the resolution is slow, the recovery uneven and the intensity variable according to the situation of the economies concerned.

According to the results presented in this article, the widespread weakness of demand and activity during the second half of 2011 and at the beginning of 2012, owing

to the acute heightening of uncertainty, is only temporary. It should give way to an improvement, although that is likely to be limited. This is the most plausible scenario, given the assumptions taken into account, the most crucial being the absence of major disasters in the coming months. That clearly presupposes that the euro area crisis does not intensify and that it does not have irreparable repercussions on systemic financial institutions. Instead, the measures adopted by governments and monetary authorities in this connection should eventually take effect.

Under these conditions, the technical assumptions adopted – notably the low level of interest rates, the moderate fall in oil prices and the gradual strengthening of external demand – imply an improvement in economic activity, both in the euro area and in Belgium. However, the radical adjustments which are in progress and need to continue in regard to public finances, the position of financial institutions, competitiveness and the strengthening of the general economic potential will mean that the improvement is muted. In this connection, the credibility of the policies adopted and their resolute implementation are decisive for restoring the confidence of the economic agents. In a context of great uncertainty, any doubts on that subject trigger an amplified effect, particularly on the financial markets.

More specifically, the growth and inflation projections for Belgium are largely dependent on the international environment. In that regard, the risks of a gloomier outlook seem to predominate. Outside the euro area, the United States has yet to address the major challenges for public finances, while problems remain on the employment front and on the property market. There is also a question mark over the sustainability of the continuing rapid development of the emerging economies. Finally, while the above factors are likely to depress oil prices, geopolitical tensions could have the opposite effect of driving oil prices higher, and that would be particularly damaging in the current situation, especially in regard to inflation and labour costs in Belgium. Within the euro area, the expected revival of domestic demand in Germany should be a factor supporting activity in the neighbouring economies and encouraging the correction of imbalances in the peripheral economies facing radical adjustments. However, there are many pitfalls along the way.

On the domestic front, the fiscal consolidation of the past six months seems to have had only a limited direct impact on GDP growth, as is evident from the fact that the projections for 2012 are similar to those presented in December 2011, or at least, that impact was offset by more favourable movements in the household savings ratio and in market interest rates. In fact, even though it may exert temporary downward pressure on household and company incomes, the credible and sustainable consolidation of public finances also has the immediate effect of securing the confidence of economic and financial agents, and ultimately reinforcing the foundations of economic growth. To perpetuate the influence of these factors and bring the public debt back down to a path which is sustainable in the long term, it is necessary to maintain the budgetary efforts, as announced in the stability programme. On the basis of the measures which have currently been approved, the Bank's projections for the budget balance show an outcome for 2012 similar to that of the other institutions, notwithstanding a higher growth figure. In 2013, the deficit is expected to increase

TABLE 8 COMPARISON OF THE FORECASTS FOR BELGIUM

(percentage changes compared to the previous year)

	GDP in volume		Inflation (1)		Budget balance (2)		Publication date
	2012	2013	2012	2013	2012	2013	
NBB – Spring 2012	0.6	1.4	2.6	1.5	–2.8	–3.1	June 2012
p.m. Autumn 2011	*0.5*	*n.*	*2.4*	*n.*	*n.*	*n.*	*December 2011*
Federal Planning Bureau (FPB)	0.1	1.4	2.9	1.9	–2.6	–2.8	May 2012
IMF	0.0	0.8	2.4	1.9	–2.9	–2.2	April 2012
EC	0.0	1.2	2.9	1.8	–3.0	–3.3	May 2012
OECD	0.4	1.3	2.9	1.9	–2.8	–2.2	May 2012
p.m. Actual figures 2011	*2.0*		*3.5*		*3.7*		

(1) HICP, except FPB: final private consumption deflator.
(2) In % of GDP.

slightly and therefore deviate from the budget targets, as is also the case in the EC's projections, whereas the IMF and the OECD anticipate that additional measures will lead to a reduction.

So that the financial institutions can continue to play their vital role in financing the economy and safeguarding savings, they must continue their balance sheet consolidation. Taking account, in particular, of the interactions with the sovereign debt crisis in the euro area, the context remains difficult in that regard, despite the support provided by the ECB in granting liquidity.

As already stated, the Bank's inflation projections indicate a significant slowdown in 2013. More marked than in the forecasts by the other institutions, it is triggered by the expected movement in oil prices and enhanced by its transmission to labour costs, assuming very moderate real increases in those costs. That will attenuate the high level of increases in 2011 and 2012, exceeding those of competitors in neighbouring countries. Failing that, there will be a negative impact on activity and employment via exports and investment.

Generally speaking, structural measures should provide long-term support for fiscal consolidation and the improvement in the economy's growth potential and competitiveness. The government measures concerning the labour market and pensions are a vital step in the right direction. They should be reinforced and extended to other operational aspects of the economy so as to augment the stability of the long-term outlook for firms and households, and strengthen the economy's resilience to external shocks.

Annex

PROJECTIONS FOR THE BELGIAN ECONOMY: SUMMARY OF THE MAIN RESULTS

(percentage changes compared to the previous year, unless otherwise stated)

	2009	2010	2011	2012 e	2013 e
Growth (calendar adjusted data)					
GDP in volume	–2.7	2.2	2.0	0.6	1.4
Contributions to growth:					
Domestic expenditure, excluding change in inventories	–1.2	1.1	1.7	0.5	1.0
Net exports of goods and services	–0.7	1.2	–0.5	–0.3	0.4
Change in inventories	–0.8	0.0	0.8	0.3	0.0
Prices and costs					
Harmonised index of consumer prices	0.0	2.3	3.5	2.6	1.5
Health index	0.6	1.7	3.1	2.6	1.5
GDP deflator	3.4	1.8	1.9	2.2	1.5
Terms of trade	2.7	–1.5	–1.2	0.1	–0.1
Unit labour costs in the private sector	3.8	–0.1	2.1	3.0	1.5
Hourly labour costs in the private sector	2.7	0.9	2.5	3.1	2.0
Hourly productivity in the private sector	–1.0	1.0	0.4	0.1	0.6
Labour market					
Domestic employment (average annual change in thousands of persons)	–7.6	37.0	62.2	14.3	16.6
p.m. Change during the year, in thousands of persons[1]	*–23.2*	*63.4*	*46.7*	*3.3*	*21.1*
Total volume of labour[2]	–1.6	1.1	1.7	0.1	0.8
Harmonised unemployment rate[3] (in % of the labour force)	7.9	8.3	7.2	7.5	7.7
Incomes					
Real disposable income of individuals	3.0	–0.6	1.1	–0.4	1.7
Savings ratio of individuals (in % of disposable income)	18.5	16.2	16.4	15.6	16.4
Public finances[4]					
Overall balance (in % of GDP)	–5.6	–3.8	–3.7	–2.8	–3.1
Primary balance (in % of GDP)	–2.0	–0.4	–0.4	0.6	0.2
Public debt (in % of GDP)	95.7	95.9	98.2	98.9	99.2
Current account (according to the balance of payments, in % of GDP)	**–1.6**	**1.4**	**–0.8**	**–1.4**	**–1.0**

Sources: EC, DGSEI, NAI, NBB.

(1) Difference between the fourth quarter of the year concerned and the fourth quarter of the previous year.

(2) Total number of hours worked in the economy.

(3) In % of the labour force (15-64 years), non calendar adjusted data.

(4) According to the methodology used in the excessive deficit procedure (EDP).

What can we and can't we infer from the recourse to the deposit facility ?

J. Boeckx,
S. Ide (*)

Introduction

The two sizeable liquidity-providing operations conducted by the Eurosystem on 22 December 2011 and 1 March 2012 have not gone unnoticed. These operations, which enabled banks to borrow respectively € 489.2 and 529.5 billion for a three-year period, have attracted a great deal of attention in the various media and in market circles. They have helped the banks to easily cover their present and future funding needs. Following the turn for the worse in the financial crisis in late 2011, certain banks have indeed been faced with funding problems, for instance with customers withdrawing savings deposits or difficulties in issuing debt securities. In particular, the sharp rise in recourse to the deposit facility – an account with the central bank where banks can place their surplus liquidity at the end of the day at a penalty interest rate – has been given wide coverage by observers to illustrate the severity of the banking crisis and the growing mistrust among banks.

This article attempts to qualify two interpretations put forward for this recourse to the deposit facility. The first sees the daily fluctuations in amounts placed on the deposit facility as a day-to-day mirror image of tensions on the interbank market. Since banks have to meet on average a reserve requirement over a reserve maintenance period and they prefer to fulfill their requirements at the beginning of the period, there is a seasonal pattern with the fluctuating recourse to the deposit facility, which is not observed in the liquidity surplus on the money market. The latter is the sum of the recourse to the deposit facility and the banks' current account holdings with the Eurosystem over and above the reserve requirement. It is thus this surplus that appears to be best placed for gauging tensions within the banking system – that is, the extent to which the central bank acts as an intermediary between the banks.

A second misinterpretation is the assertion that the heavy recourse to the deposit facility means that banks are not lending to the real economy and that they are hoarding the central bank liquidity with the Eurosystem. Since the relationship between the Eurosystem and its counterparties is a closed circuit, the wide recourse to the deposit facility tells us, in principle, nothing about individual banks' lending to the non-financial sector or to what use the banks are putting the central bank liquidity they receive.

The article is structured as follows. It starts off by setting out a series of basic concepts concerning the liquidity management of the Eurosystem, in particular the central bank balance sheet, the consolidated liquidity need of the banking system, the liquidity surplus that has emerged as a result of tensions on the interbank market and the way in which this surplus appears in the Eurosystem's balance sheet. It then goes on to explain why it is the liquidity surplus, rather than the amounts placed on the deposit facility, that constitutes an indicator of the difficulties the banks are facing to fund themselves. Lastly, with the help of a few examples, it shows that the level of the liquidity surplus does not actually tell us anything about the commercial banks' behaviour as regards lending to the real economy.

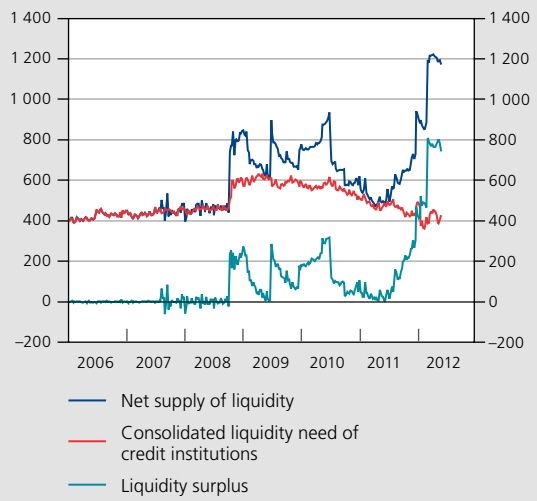
(*) The authors would like to thank L. Aucremanne, A. Bruggeman and E. De Koker for their comments and suggestions about this article.

1. Liquidity management of the Eurosystem: a few basic concepts

After the two liquidity-providing operations with a maturity of three years, the liquidity surplus – that is, the difference between the liquidity provided by the Eurosystem under its monetary policy operations and the consolidated liquidity need of credit institutions – had grown considerably in the euro area. It had already been constantly on the rise since July 2011, in parallel with the intensification of financial turmoil. As at 25 May 2012, the net supply of liquidity, involving mainly refinancing operations carried out with credit institutions, had reached € 1 170 billion, while liquidity needs came to 426 billion.

The consolidated financial statement of the Eurosystem provides a better understanding of how the liquidity need and surplus arise. On the assets side of the central bank balance sheet are items which have a positive impact on the liquidity available for the banking sector if they increase, while the liabilities side features those leading to liquidity absorption. The latter is facing liquidity needs because the autonomous liquidity-absorbing factors (such as banknotes in circulation or government deposits held with national central banks) are higher than the autonomous liquidity-providing factors (such as portfolio investment by the Eurosystem not for monetary policy purposes). The liquidity need is further increased by the minimum reserve requirements imposed on credit institutions.

CHART 1 LIQUIDITY IN THE EUROSYSTEM
(weekly data, billions of euro)



Source: Thomson Reuters Datastream.

The banking sector depends on the Eurosystem for refinancing this consolidated liquidity need (represented, respectively, by the red line and the red boxes in charts 1 and 2). This refinancing is mainly conducted through the Eurosystem refinancing operations, but can also be done via the marginal lending facility. Recourse to this facility is generally limited because it carries a penalty interest rate[(1)]. Furthermore, securities purchases for monetary policy purposes also help to meet the liquidity need. Liquidity-providing operations increase the current account holdings (which appear on the liabilities side of the central bank balance sheet) of the counterparty to such transactions with the Eurosystem. Conversely, both the fine-tuning operations and term deposits absorb liquidity from the market (they both lead to lower current account holdings with Eurosystem), so that the Eurosystem liquidity provision is reduced.

When the interbank market is functioning properly, banks easily lend their surplus liquidity to banks in deficit. This means that the banking sector taken as a whole is only soliciting refinancing from the Eurosystem up to its consolidated liquidity needs. Furthermore, before the crisis deepened in September 2008, the Eurosystem adjusted its liquidity provision so as to match supply and demand and thus keep the overnight interest rate stable at a level close to the central policy rate. In this case, the liquidity surplus – defined as the recourse to the deposit facility and current account holdings over and above required reserves – is very small (depicted, respectively, by the green line and the green boxes in charts 1 and 2). However, when the market is hit by turbulence, the banks no longer trade their surpluses and deficits amongst each other, and the banking sector can no longer be considered as homogeneous. It then requires further central bank refinancing than what seems strictly necessary in light of the consolidated liquidity need, implying a larger liquidity surplus.

At present, some banks are actually confronted with excess liquidity, owing, for instance, to an inflow of savings deposits, but they are no longer willing to lend this surplus to other banks that have, say, recorded an outflow of deposits. At the end of the day, the banks in surplus prefer to deposit their excess liquidity safely at the central bank, while the banks in deficit obtain funding by resorting to refinancing transactions with the central bank, on a collateralised basis. That was facilitated by the October 2008 decision to conduct all refinancing operations at a fixed rate, with full allotment. So, liquidity provision is entirely dictated by demand, a marked departure from the

(1) For a more detailed description, see also Aucremanne, Boeckx and Vergote (2007).

CHART 2 CONSOLIDATED AND SIMPLIFIED EUROSYSTEM BALANCE SHEET

(€ billion)

Assets	2007[1]	25 May 2012
Autonomous liquidity factors		
Net external assets	323,7	675,6
Other autonomous factors (net)	106,5	26,9
Monetary policy instruments		
Main refinancing operations	263,6	37,9
Longer-term refinancing operations	183,3	1061,8
Covered Bonds Purchase Programmes and Securities Market Programme	0,0	280,6
Marginal lending facility	0,2	2,1
Total	**877,3**	**2084,9**

Liabilities	2007[1]	25 May 2012
Autonomous liquidity factors		
Banknotes in circulation	629,6	879,8
Government deposits	52,5	143,0
Current account holdings		
Required reserves	187,4	106,6
Current account holdings in excess of required reserves	1,9	–16,6
Monetary policy instruments		
Fixed-term deposits	0,0	212,0
Fine-tuning operations (net)	5,4	0,0
Deposit facility	0,5	760,1
Total	**877,3**	**2084,9**

Source: ECB.
(1) 2007 average.

situation prior to October 2008. At the time, liquidity was allotted by tender, with an amount fixed in advance – depending on the consolidated liquidity need – being allocated in accordance with the interest rate offered by the counterparties (NBB, 2009).

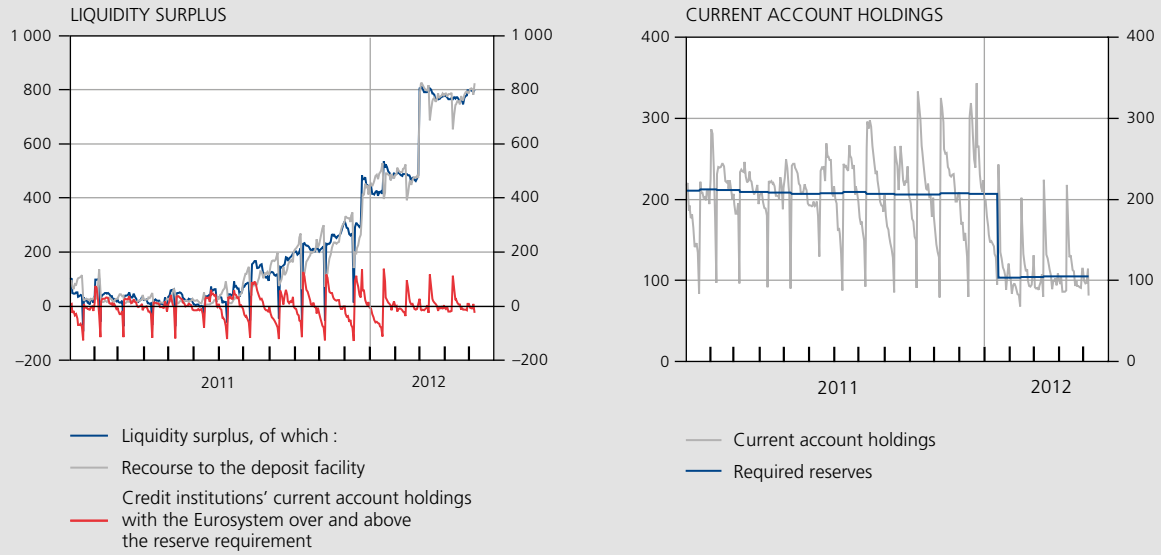
With the banks no longer willing to trade their liquidity surpluses easily, the banking sector taken as a whole disposes of more central bank liquidity than is necessary when the interbank market is working properly, as measured by the consolidated liquidity need. Thus, the size of the liquidity surplus does actually constitute an indicator of the extent to which the central bank has to assume the role of intermediary, and therefore also of the scale of mistrust among the banks themselves. The simplified Eurosystem balance sheet gives an illustration: at the end of May 2012, the assets side shows significant net supply of liquidity to the banking sector and, as a counterpart, on the liabilities side, a very large figure for liabilities towards the banking sector (current account holdings and recourse to the deposit facility). It is therefore quite right to claim that there is currently a considerable lack of trust between euro area banks; and, moreover, this statement of fact is corroborated by the still hefty risk premium incorporated into Euribor interest rates.

2. The liquidity surplus, rather than recourse to the deposit facility, as an indicator of tensions in the banking sector

There is a close link between the size of the liquidity surplus and the amounts placed on the deposit facility. However, these two variables do not correspond exactly because banks prefer to meet their average reserve requirements early in the course of the reserve maintenance periods, the latter running for about a month. This minimum reserve system effectively means that the banks must hold on average an amount on their current account with the Eurosystem over the reserve maintenance period. This amount is calculated according to the reserve base, which comprises most of the credit institutions' short-term liabilities, including deposits. The balance sheet at the end of a given calendar month serves to determine the required reserves for the reserve maintenance period starting two calendar months later. In this way, balance sheet data from the end of April serve as a basis for setting the required reserves for the reserve maintenance period beginning in June. The banks are remunerated for current account holdings at the rate for main refinancing operations – which stood at 1 % when this article was

CHART 3 LIQUIDITY SURPLUS AND CURRENT ACCOUNT HOLDINGS

(daily data, billions of euro)



Source : Thomson Reuters Datastream.

being finalised at the end of May 2012 –, but only to the extent that these holdings cover the minimum reserves : excess reserves do not earn any interest. Because required reserves are remunerated at the rate for main refinancing operations, the reserve requirements are cost-neutral for the banks. The fact that the minimum reserves are only an average to be held over a reserve maintenance period leads to an automatic stabilisation mechanism for the overnight interest rate, because it creates a buffer that can absorb liquidity shocks affecting individual banks.

The banks generally choose to meet this obligation early in the course of the maintenance period and therefore start by depositing their liquidity surpluses on their current account (the frontloading process)[1], and then, after having constituted their minimum reserves, placing their surplus funds on the Eurosystem deposit facility. The latter at least brings a return, albeit limited, for the banks : at the time of writing this article at the end of May 2012, it stood at 25 basis points. So, it is quite normal – for a given liquidity surplus – to see an increase in the amount placed on the deposit facility as the end of the reserve maintenance period is approaching, without that reflecting any greater mistrust among banks.

Besides the two financing operations with a maturity of 3 years, the Governing Council on 8 December 2011 adopted two other measures impacting on the recourse to the deposit facility, on excess reserves and the liquidity surplus. First of all, it was decided that there would no longer be a liquidity-absorbing fine-tuning operation on the last day of the reserve maintenance periods, as from the reserve maintenance period that started on 14 December. This type of operation is useful under a policy aimed at balanced liquidity conditions, as was the case before October 2008. It has the aim of countering any downward pressure on the overnight interest rate by reducing, at the end of the reserve maintenance period, the liquidity surplus that systematically emerged at that moment. In order to do so, counterparties had the option of placing liquidity with the Eurosystem for one day at an interest rate that was determined at an auction and was higher than the deposit facility rate. But in an environment of a large liquidity surplus and demand-driven liquidity conditions, these operations were no longer felt to be useful. So, since January 2012, the very sharp drop in the liquidity surplus and corresponding recourse to the deposit facility that could be observed at the end of each reserve maintenance period has disappeared. On the first day of a new reserve maintenance period, however, there is still a clear decline in recourse to the deposit facility, due to the preference of counterparties as mentioned above for constituting their average minimum reserves right from the start of the period.

(1) See NBB (2008) and NBB (2009) for further details.

Secondly, the Governing Council decided to cut the reserve ratio by half, as from the reserve maintenance period starting on 18 January 2012, bringing it down from 2 to 1 %. In the context of a policy of full allotment in refinancing operations, minimum reserves effectively no longer play an important role in the steering of liquidity conditions. Indeed, the shock-absorbing role that the average reserve requirement plays in overnight interest rate fluctuations no longer seems to be relevant in the current ample liquidity conditions, since the overnight interest rate has been close to the deposit facility rate for some time now. Moreover, cutting the reserve ratio by half automatically reduces the consolidated liquidity needs. *Ceteris paribus*, the banks have less need to use the Eurosystem refinancing operations, and this frees up collateral pledged previously in the context of these operations. Moreover, the typical seasonal pattern of current account holdings has become less pronounced, as the counterparties seem to be more reluctant to substantially scale down their current account holdings. Thus, the seasonal pattern that emerges with recourse to the deposit facility has also become less pronounced.

Lastly, it should also be pointed out that the two 3-year longer-term refinancing operations (LTROs) led to a total allotment of liquidity worth some € 1 019 billion, which will remain in circulation at least until 30 January 2013, since these operations allow for an early repayment after one year. Assuming unchanged liquidity needs of roughly € 426 billion, as was the case on 25 May, this means that there will still be a liquidity surplus in any case, even if the banks could regain access to their traditional sources of funding and if, consequently, they no longer sought refinancing through open market operations. Against this background, a degree of caution would be appropriate when interpreting the liquidity surplus as an indicator of tension in the banking system. Thus, in the present context, it is more the change in – rather than the absolute level of – the liquidity surplus that seems to be the pertinent factor for gauging changes in this banking stress. This was also the case after the allotment, in June 2009, of a total of € 442 billion requested under a 1-year refinancing operation.

3. The liquidity surplus and individual credit institutions' balance sheets

Does the presence of these sizeable holdings with the Eurosystem mean that credit institutions are not using the funds that it has lent but are simply hoarding them with the central bank ? Now, this seems to be a pertinent question, but one which should nevertheless not be answered in the affirmative, even if it cannot be denied that lending and the creation of money by euro area banks are, at least for the time being, tenuous. Two real-life examples can briefly illustrate this, and we refer to Keister and McAndrews (2009) for some more detailed examples. Both cases also refer to the circumstances described by the ECB President at the press conference held after the Governing Council meeting on 12 January (ECB, 2012a): "[…] it is actually quite interesting to see that, by and large, the banks that have borrowed the money from the ECB are not the same as those that are depositing the money with the deposit facility of the ECB."

Suppose that bank A obtains extra liquidity through a loan from the central bank (an increase in its current account holdings with the Eurosystem) and that it also grants a mortgage to a household (or subscribes to a government bond issue). This transaction is reflected in bank A's balance sheet by a loan to a household (or the holding government debt) on the assets side and by deposits of an equivalent amount on the liabilities side. The banks' current account holdings with the Eurosystem are not altered by granting the loan (or by the bond subscription). It is only when the household (or the government) in turn uses the funds received to pay its contractor (or its civil servants) that bank A's current account holdings actually fall. However, the contractor (or civil servant) then deposits these amounts, in their turn, with another credit institution, bank B, which thereby registers an inflow of funds into the current account that it holds with the central bank. This simple example shows that lending to the non-financial sector can increase while current account holdings by the banking sector as a whole with the Eurosystem remain unchanged. It is nevertheless worth noting that granting this loan (or the bond purchase), which effectively implies that a bank deposit is created in return, will push up the reserve base. This, in turn, will make the minimum reserves rise, so that the consolidated liquidity need will increase and, *ceteris paribus*, the liquidity surplus will be reduced. So, the funds allotted by the central bank gradually start to raise the minimum reserves and no longer appear as excess reserves or as recourse to the deposit facility[(1)]. There is nevertheless some time lag before this happens, since the reserve base for a given reserve maintenance period is determined, as mentioned above, on the basis of the credit institutions' balance sheets two months earlier. In other words, even in cases where the liquidity provided by the central bank is immediately used by the credit institutions to grant loans, it can only appear, initially, in the form of excess reserves

(1) In theory, with a reserve ratio of 1 %, one extra euro in central bank money can allow additional loans of € 100 to be granted, under the money multiplier theory. These loans effectively lead to extra bank deposits to the tune of € 100, which in turn increase the required reserves by one euro. For further details and explanations, see Aucremanne, Boeckx and Vergote (2007).

or higher recourse to the deposit facility. Moreover, with the reserve ratio at 1 %, this phenomenon is of limited magnitude, since an increase in lending of € 100 billion only pushes up required reserves by € 1 billion.

Data available up to the end of April 2012 suggest that the growth in lending to the non-financial sector and in the broad money supply has remained quite modest. Yet this does not necessarily mean that the funds provided by the Eurosystem have not been used. A second example will help throw some light on this point. As suggested in Box 4 of the ECB's January *Monthly Bulletin* (2012b), the high financing needs that the banks will face over the coming years have been a decisive factor in the degree of interest that the longer-term refinancing operations have attracted amongst banks. Thus, if bank A uses the extra refinancing from the Eurosystem to repay interbank debts that have fallen due, its current account holdings with the Eurosystem will decline (after having increased initially by an amount equivalent to this bank's demand in the LTRO), while the current account holdings of bank B, which had granted the loan to bank A but did not want to roll it over at maturity owing to a lack of trust in bank A, will increase. Once again, it appears that the current account holdings of the banking sector as a whole with the Eurosystem do not change, even when they are used for interbank transactions. In these circumstances, it is precisely because the Eurosystem stands between the individual banks that those short of funding are not forced into fire sales of assets or to suspend their lending to the real economy too abruptly. A scenario where credit institutions short of funds find themselves obliged to suddenly deleverage would in turn have negative repercussions on economic activity and thus entail downside risks to price stability. The large amount of central bank money put at the disposal of credit institutions by the Eurosystem can therefore be seen, from the angle of a mechanical money multiplier model, as a form of compensation for the sharp contraction of the money multiplier because of the financial crisis. That, in turn, helps to support normal creation of money and lending.

Conclusion

Some euro area banks are facing difficulty in ensuring funding via the financial markets. So, they are turning to the ECB for their refinancing needs, forcing the Eurosystem to play a bigger role as an intermediary. In accounting terms, this is reflected in an unusually high level of deposits by banks with the central bank, whether on their current account in the form of excess reserves, or on the deposit facility.

However, this accounting identity does not give any information about bank lending to the real economy : in fact, the central bank balance sheet only reflects the interaction between the central bank and its counterparties and says nothing at all about the interaction between the banks and the non-financial sector. To monitor this interaction, more appropriate statistics are available, such as monthly data on lending and creation of money by the euro area banks. Finally, in another article in this issue of the Economic Review, Cordemans and Ide (2012) go into a more in-depth analysis of the potential challenges that such excess liquidity implies for the conduct of monetary policy.

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Monetary policy in the United States and in the euro area during the crisis

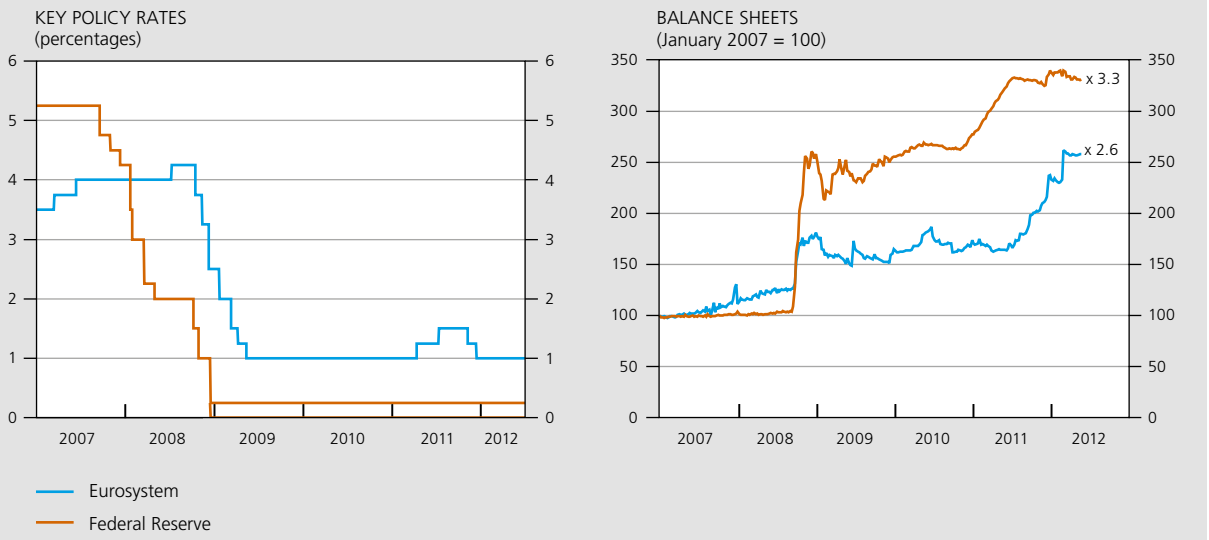
N. Cordemans
S. Ide

Introduction

On both sides of the Atlantic, the initial shocks of the financial crisis were experienced in the form of tensions on the money markets. These then quickly spread to the other segments of the financial markets before affecting the real economy. The announcement of the insolvency of the bank Lehman Brothers on 15 September 2008 transformed the ongoing financial turmoil into a general financial panic and a major worldwide economic crisis. These events gave rise to unprecedented challenges for the world's main central banks, which responded with strength.

In the context of the crisis, the Federal Reserve and the Eurosystem made profound changes to the conduct of their respective monetary policies. In order to prevent the collapse of the financial system and to support the economy, they implemented rapid and substantial falls in their key policy rates, which reached historic lows. Moreover,

CHART 1 KEY POLICY RATES AND BALANCE SHEETS OF THE FEDERAL RESERVE AND THE EUROSYSTEM



Sources: Federal Reserve, Thomson Reuters Datastream, ECB.

they adopted numerous non-conventional measures to provide liquidity and purchased securities on a massive scale, strengthening their role as an intermediary and considerably expanding the size of their balance sheets.

This article aims to present and analyse the policy responses of the Federal Reserve and the Eurosystem during the various stages of the crisis. The first part shows that, in spite of considerable differences in the action undertaken, the challenges encountered by both central banks were largely similar from the summer of 2007 until the autumn of 2009. The second part outlines the diverging evolution of the challenges in the course of the period that followed and the specific action undertaken by each of the central banks to cope with them. It also looks at the relationship between monetary policy and fiscal policy and the effects that the crisis has had on it. Lastly, the third part attempts to shed some light on the challenges posed by monetary policy at the present time. It is particularly concerned with the possible secondary effects of the non-conventional policy measures adopted during the crisis, the heterogeneity that prevails today in the euro area and the risks inherent in conducting an accommodating monetary policy over a long period.

1. Similar challenges up to autumn 2009

In the early stages of the financial crisis, the Federal Reserve and the Eurosystem largely pursued similar goals, that is preserving financial stability and the effective transmission of monetary policy. Whilst taking very different actions, they each adapted their operational framework so as to accommodate dysfunctional money markets and fully played their role of lender of last resort with respect to the financial sector. In the course of the period that preceded the collapse of Lehman Brothers, the two central banks mainly adjusted the composition of their balance sheets. The crucial role of intermediary that they adopted subsequently was in turn reflected in an unprecedented expansion of the size of these balance sheets.

1.1 From the appearance of tensions on the money markets to the failure of Lehman Brothers: August 2007 – September 2008

1.1.1 Tensions on the money markets and financial turmoil

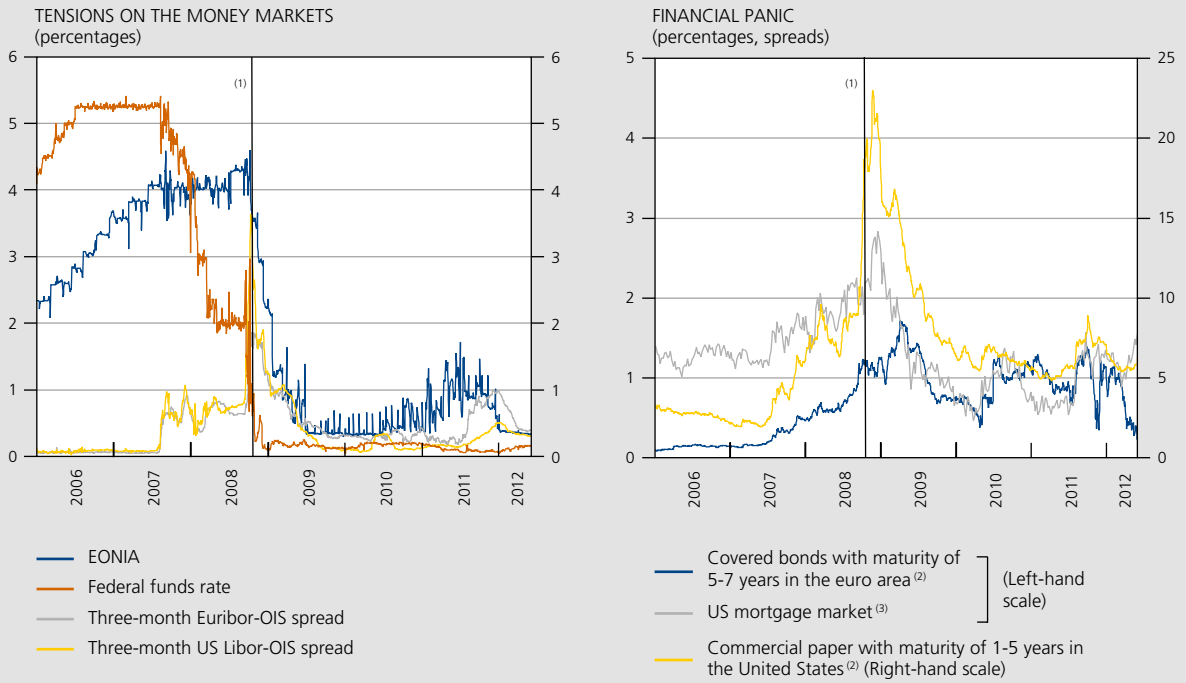
Following the sudden reversal in the US real-estate market and the rise in interest rates, payment defaults on mortgage loans granted to households with modest income and poor creditworthiness (subprimes) multiplied as from the first half of 2006. The prices of the securities backed by these mortgage debts then began to fall, bringing growing losses for the financial organisations that owned them, mainly in the United States, Europe and Asia.

On 9 August 2007, the French bank BNP Paribas announced that it couldn't fairly value three of its funds made up of securities backed by portfolios of debt (asset-backed securities or ABS), in particular mortgage debts. It adduced the non-liquidity of the assets held by the funds after the collapse of the securitisation market in the United States and, confirming existing fears of a worsening of the subprime crisis, sparked off the disturbance of the functioning of the money markets. Suddenly, the banks became concerned about the solvency of their counterparties and were more reluctant to lend to each other. They feared, moreover, having to financially support their investment vehicles holding securities backed by real-estate assets. This situation gave rise to the retention of liquidity by the financial institutions and the rapid deterioration of financing conditions on the interbank markets. The Eonia and the US federal funds rate, the rates on the overnight money market respectively in the euro area and the United States, were suddenly faced with huge volatility whilst, on the three-month money market, the differences between the rates of unsecured loans and those without risk soared. Whereas it typically settled at less than 10 basis points, the spread between the Euribor and the US Libor at three months on the one hand and the OIS rates at three months[(1)] on the other hand thus rapidly reached 50 basis points. Whilst posting high volatility, it climbed markedly above that in the subsequent period, raising fears for the effective transmission of monetary policy through the interest rate channel.

In parallel with these tensions on the money markets, the risk premiums on the other segments of the financial markets very largely followed an upward trend, starting from the end of July 2007. These movements were the expression of a correction in the perception of risk, which had been underestimated up to then, and drove up the borrowing costs of economic agents in the private sector. With regard to enterprises and households in the United

(1) Overnight Index Swap: the fixed rate paid by the counterparty of an interest-rate swap contract receiving the overnight rate (Eonia) for three months.

CHART 2 FINANCIAL DEVELOPMENTS IN THE UNITED STATES AND THE EURO AREA



Sources: Freddie Mac, Thomson Reuters Datastream.
(1) 15 September 2008: the date on which the bank Lehman Brothers was declared insolvent.
(2) Spread with respect to the corresponding sovereign bond with the same maturity.
(3) Spread between the 15-year fixed rate on the "prime" mortgage market and the rate of the 10-year Treasury securities.

States, the relative increase in yields on commercial paper and the rates on mortgage loans as compared to the yields on Treasury securities bears witness to this in particular. In the euro area, the widening of yield spreads between covered bonds and sovereign bonds in turn illustrates the increase in borrowing costs for the credit institutions.

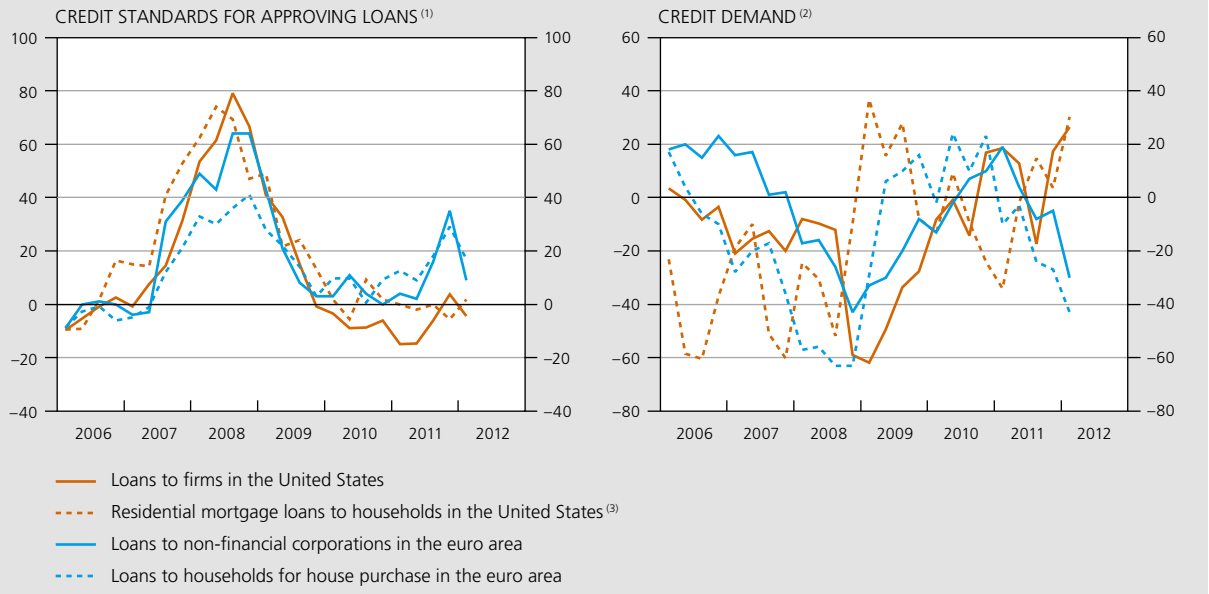
In March 2008, risk premiums reached an initial peak in the aftermath of the near failure of the investment bank Bear Stearns and its buy-out by JP Morgan Chase with the assistance of the Federal Reserve. They would literally go through the roof following the sale of Merrill Lynch to Bank of America and the collapse of Lehman Brothers on 15 September 2008.

1.1.2 Disturbances in the monetary transmission mechanism

The disturbances on the money and financial markets directly affected the banks' profitability, liquidity position and capacity to fund themselves. This was all the more true since the banks had considerably increased their recourse to short-term market financing in the course of the years that preceded the crisis. These developments therefore drove the credit institutions to adjust their balance sheets and to restrict lending to the non-financial private sector, that is to say households and enterprises. In these conditions, successive tightening of credit standards from 2007 illustrates the critical role played by the banks in the propagation of shocks from the financial sphere to the real economy. In the euro area, this was strengthened by the predominance of the banking sector in the external financing of the non-financial private sector. Whilst the reduction in demand in a worsened economic context contributed to a large degree to the fall in bank lending, it seems that, over the period 2007-2009, the balance-sheet constraints linked to the disruption of banks' access to wholesale funding and the banks' liquidity position played a very special role in the evolution of loans to the private sector in the euro area[1]. However, it seems that, overall, tighter credit standards targeted price conditions rather than the quantities allocated. The growing risk of a dysfunctional monetary transmission mechanism explains the essence of the non-conventional monetary policy

(1) For further details, cf. Hempell and Kok Sørensen (2010).

CHART 3 CREDIT STANDARDS FOR APPROVING LOANS AND CREDIT DEMAND IN THE UNITED STATES AND THE EURO AREA



Sources : ECB, Federal Reserve Board.
(1) Net percentages of replies from the banks consulted. These percentages indicate the degree to which the credit standards have been tightened or eased (–).
(2) Net percentages of replies from the banks consulted. These percentages indicate the degree to which the demand for loans has increased or decreased (–).
(3) As from the first quarter of 2007, only "prime" loans are counted.

measures taken by the Federal Reserve and the Eurosystem between August 2007 and mid-2009.

1.1.3 Specific policy responses to similar challenges

In the first stages of the crisis, the Federal Reserve and the Eurosystem sought to rapidly accommodate the impaired functioning of the money markets. In order to preserve the banks' capacity to refinance themselves and to minimise the volatility of money market rates, the two central banks basically geared themselves up to accommodate more volatile demand for liquidity from the banks with their preference for longer-term maturities. The actions undertaken were largely sterilised, however, so that the size of their balance sheets was not fundamentally affected.

In spite of similar challenges, the measures adopted by the Federal Reserve diverged largely with respect to those taken by the Eurosystem from the early days of the crisis. This specificity is largely due to the differences between the two central banks in the normal conduct of their respective monetary policies. Thus, the Eurosystem typically holds a large liquidity deficit which it makes up for by way of its weekly refinancing operations – around € 300 billion over the first seven months of 2007 – and its three-month refinancing operations – around € 50 billion over the aforementioned period. Moreover, it accepts a large range of assets as collateral for its refinancing operations and deals with a large number of counterparties – more than 2 000 in total. The Federal Reserve intervenes comparatively little on the money market. Prior to August 2007, its open market operations conducted on a daily basis rarely exceeded $ 10 billion and it only deals with about 20 counterparties – the primary dealers. Moreover, it only accepts three types of assets as collateral for its loan operations – Treasury securities, the debts of Government Sponsored Enterprises (GSEs) and the mortgage-backed securities (MBS) of the GSEs – and only the depository institutions have access to its permanent lending facility (discount window).

The limited role of the Federal Reserve with regard to providing liquidity in normal times forced it to develop new instruments and to make profound changes to the conduct of its monetary policy as from August 2007. Conversely, due to its broad and flexible monetary policy framework, the Eurosystem was able to respond to the initial tensions on the money markets basically by adapting the modalities of its existing framework.

Federal Reserve

When the crisis started at the beginning of August 2007, the first decision of the Federal Reserve was to expand the amounts allocated through its open market operations. Moreover, it quickly decided to extend the term and to lower the rate of the discount window in order to facilitate access to it. In spite of the lower rate, however, the banks entitled to use the loan facility remained reluctant to have recourse to it, owing to the stigma associated with it. What is more, the small number of primary dealers limited the capacity of the Federal Reserve to distribute liquidity where it was really needed in a period of turmoil.

In order to compensate for these obstacles to the refinancing of the financial institutions, the Federal Reserve developed, at the end of 2007 and the beginning of 2008, new programmes aimed at extending the availability of emergency and longer-term financing to the primary dealers and the depository institutions. Amongst the main programmes was the Term Auction Facility (TAF) which was launched in December 2007 and which appears as a remodelling of the discount window. It is aimed at the depository institutions and is innovative particularly in that it offers the guarantee of anonymity to the institutions that use it, as well as granting liquidity in the form of auctions. Two other new facilities were adopted in March 2008. The first is the Term Securities Lending Facility (TSLF) which extends the list of securities accepted as collateral and the term of the existing programme for loans of Treasury securities of the Federal Reserve. This has the aim of easing the tensions on the collateralised market by allowing securities that have developed poor liquidity to be exchanged temporarily for Treasury securities. The second facility was introduced in the aftermath of the rescue of the bank Bear Stearns. To counteract the lack of access to the discount window for the primary dealers, the Federal Reserve decided to create the Primary Dealer Credit Facility (PDCF) which is intended to offer the investment banks wider and more direct access to its liquidity.

In cooperation with other central banks, the Federal Reserve also took measures intended to ease the pressure on the interbank market in US dollars at the global level. Most foreign banks do not in fact have access to the facilities of the Federal Reserve, and their meagre stock of dollar deposits makes them particularly dependent on the interbank market for refinancing their dollar-denominated assets. To make up for this situation, the Federal Reserve announced, in December 2007, the establishment of currency swap agreements with the ECB and the Swiss National Bank (SNB). These agreements would allow them to provide liquidity in dollars directly to their own credit institutions.

Lastly, beyond its operations aimed at increasing the provision of liquidity, the Federal Reserve played a special role during the rescue of Bear Stearns. In order to facilitate its acquisition by JP Morgan Chase, it lent close to $ 30 billion on a ten-year term in order to finance the buy-out of a portfolio of securities by a fund set up with the aim of sheltering them. The company created for the occasion was called Maiden Lane from the name of the street that runs alongside the Federal Reserve Bank of New York, in Manhattan.

So as not to affect the size of its balance sheet, the Federal Reserve largely financed the new measures adopted through the sale of Treasury securities. Its policy up to September 2008 can thus be described as credit easing, in the sense that only the composition of its balance sheet was changed.

Eurosystem

In order to contain the rise in the money market rates and to keep Eonia close to the main policy rate, the Eurosystem, for its part, responded to the initial tensions by conducting a certain number of fine-tuning operations as from 9 August 2007. Subsequently, it largely accommodated the banks' new preferences in terms of liquidity provision without, however, changing its monetary policy stance, thus applying a "separation principle" between the stance and the implementation of its monetary policy. On the one hand, the Eurosystem largely satisfied the greater preference of the banks for longer-term maturities by expanding the number and volumes of its longer-term liquidity-providing operations. On the other hand, it increased the maximum duration of its long-term operations to six months as against three up to then. Lastly, with the aim of counteracting the excessive volatility of the Eonia rate, the Eurosystem responded to the banks' desire to meet their reserve requirements at an early point, by granting relatively larger volumes of liquidity at the beginning of the reserve maintenance periods and more limited volumes towards the end of the periods (front-loading). Following the swap agreements with the Federal Reserve, moreover, the Eurosystem took steps to supply liquidity in dollars to banks in the euro area in exchange for collateral in euros. The amounts of and the conditions for granting this liquidity varied considerably all through the crisis.

Whilst the empirical literature is not in agreement on the matter, the different actions undertaken by the central banks between August 2007 and September 2008 seem to have had some beneficial effects on risk premiums and the volatility of rates on the money market. The success achieved by several measures bears witness in itself to

their importance[1]. Whilst they calmed the tensions on the money markets, the liquidity measures adopted did not, however, allow the underlying problems of the financial sector to be resolved, that is to say the exposure of many institutions to "toxic" assets and the need to raise capital to absorb the losses. These weaknesses would become evident with the failure of Lehman Brothers in September 2008.

(1) For a review of empirical studies devoted to the effectiveness of the measures adopted by the Federal Reserve and the Eurosystem, cf. Cecioni *et al*. (2011).

Box 1 – Conventional monetary policy decisions

The financial crisis and the collapse of economic activity which stemmed from it prompted the central banks to lower their key policy rates with unprecedented vigour and scope. In spite of largely comparable macroeconomic situations, the Federal Reserve and the Eurosystem adopted differing attitudes in the course of the first few months of the turmoil. However, the failure of Lehman Brothers would quickly prompt each of them to reduce policy interest rates to historically low levels.

The Federal Reserve was the first to lower its key policy rates. After having reduced its discount rate by 50 basis points in August 2007, it began to reduce its target for the federal funds rate as from September 2007. Faced with the deterioration of the economic situation and despite a high level of inflation, it subsequently pursued this course and the cumulative reduction in its target rate reached 325 basis points in the spring of 2008. For its part, the Eurosystem kept its main policy rate unchanged at 4 % during this same period, pointing to healthy fundamentals for the economy of the euro area and high risks weighing on price stability. In the face of accelerating inflation following the continuous price rises for energy and other raw materials, and in order to prevent second-round effects – which have always been more pronounced in the euro area in the past – it even opted for a 25-basis-point increase of its key policy rates in July 2008, in spite of signs of a slowdown in economic activity.

These opposing attitudes of the Federal Reserve and the Eurosystem with regard to their interest rate policy in the initial stages of the crisis can be explained in part by a relatively more favourable economic context in the euro area but they are also due to differences in terms of mandate. Whereas that of the Eurosystem is centred on price stability, the Federal Reserve is entrusted with a dual mandate which forces it to concentrate on both price stability and full employment. In addition, whereas the Federal Reserve had no such target at the time, the Eurosystem had already had a clear quantitative objective since its inception, requiring it to keep inflation at a level below, but close to 2 % in the medium term. Lastly, it should be noted that, beyond its mandate, the greater determination of the Eurosystem to combat inflation can also be explained by its relative youth and by the still-felt need to prove itself in order to establish its credibility.

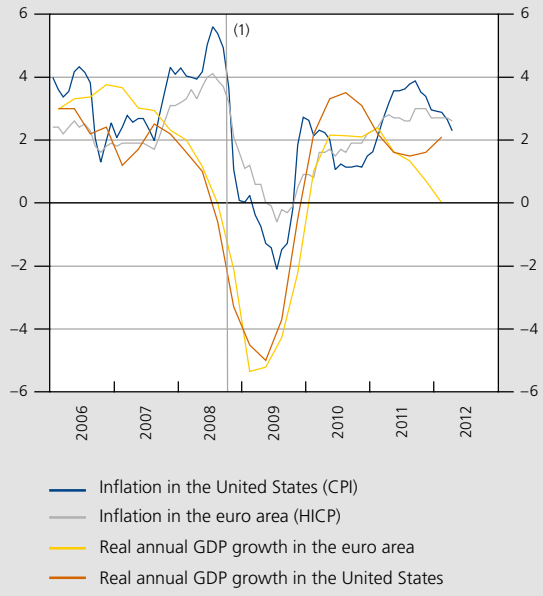
In the wake of the failure of Lehman Brothers, plummeting economic activity and the reversal of upside risks weighing on price stability at the global level would, however, quickly change the established order and prompt each of the central banks to adopt a decidedly accommodating monetary policy orientation. The Federal Reserve, the Bank of Canada, the Bank of England, the Eurosystem, the SNB and the Sveriges Riksbank decided by common accord on 8 October 2008 to each lower their key policy rates by 50 basis points. With regard to the Eurosystem, this downward movement was the first in a long series, which brought the main policy rate to a historic lower level of 1 % in May 2009. In the United States, the Federal Reserve pursued its course and established, in December 2008, a range for the federal funds rate of between 0 and 25 basis points, thus practising a policy of near-zero rates for the first time in its history.

1.2 Central banks faced with financial panic and recession: autumn 2008 – autumn 2009

1.2.1 Financial panic and general economic crisis

The collapse of the bank Lehman Brothers marks the point at which the crisis entered a phase of financial panic and net contraction of world economic activity. Apart from the direct or indirect losses incurred by the counterparties of Lehman Brothers, its disappearance sent a strong signal to the financial markets. This was expressed in an abrupt and very clear reassessment of risk as well as a generalisation of distrust, which brought with it a drying-up of liquidity, the modern version of a bank run. The spread of the financial crisis which occurred in the United States was accelerated by the effects of financial innovation, which made it difficult to identify the bearers of risk, and by the strong interdependence prevailing between the financial institutions throughout the world. In this context, the real economy was hit very hard: whilst a clear slowdown had already been observed in the course of 2008, both the United States and the euro area saw economic activity collapsing in the fourth quarter of 2008 and at the beginning of 2009, in parallel with the spectacular contraction in world trade. In the same period, inflationary pressure which had been increasing up to then due to repeated energy and other commodity price rises steadily reversed, offering greater room for manoeuvre for the action of central banks.

CHART 4 MACROECONOMIC DEVELOPMENTS IN THE UNITED STATES AND THE EURO AREA



Source: Thomson Reuters Datastream.
(1) 15 September 2008: the date on which the bank Lehman Brothers was declared insolvent.

1.2.2 Upheavals in the conduct of monetary policy

In the wake of the collapse of Lehman Brothers, each of the two central banks made radical changes to the conduct of its monetary policy, playing a more active role as an intermediary, market-maker and "lender of last resort". In contrast to events in the previous period, the new measures adopted were no longer being sterilised and resulted in a spectacular expansion in the size of their balance sheets, in addition to the radical changes made to the composition of the latter. Whilst the objective of maintaining financial stability and the effective transmission of monetary policy continued to be largely shared, differences in terms of the types of action undertaken were somewhat accentuated, reflecting both the specific nature of the two economies' operational frameworks for monetary policy and external financing structures. Since the weighting of the banking sector was greater than 70 % in the external financing of households and non-financial corporations in the euro area, the Eurosystem concentrated all its action on the banks. On the other hand, with close to 60 % of the external financing of households and 80 % for that of firms originating from other sources in the United States, the Federal Reserve broadened its interventions to other actors in the financial sector. More specifically, in the United States, the collapse of the markets for mortgage lending and securitisation, as well as the absence of manoeuvring room once key policy rates had fallen to rock-bottom levels, prompted the Federal Reserve to adopt a policy of purchasing long-term securities, a first stage along the road to quantitative easing.

Federal Reserve

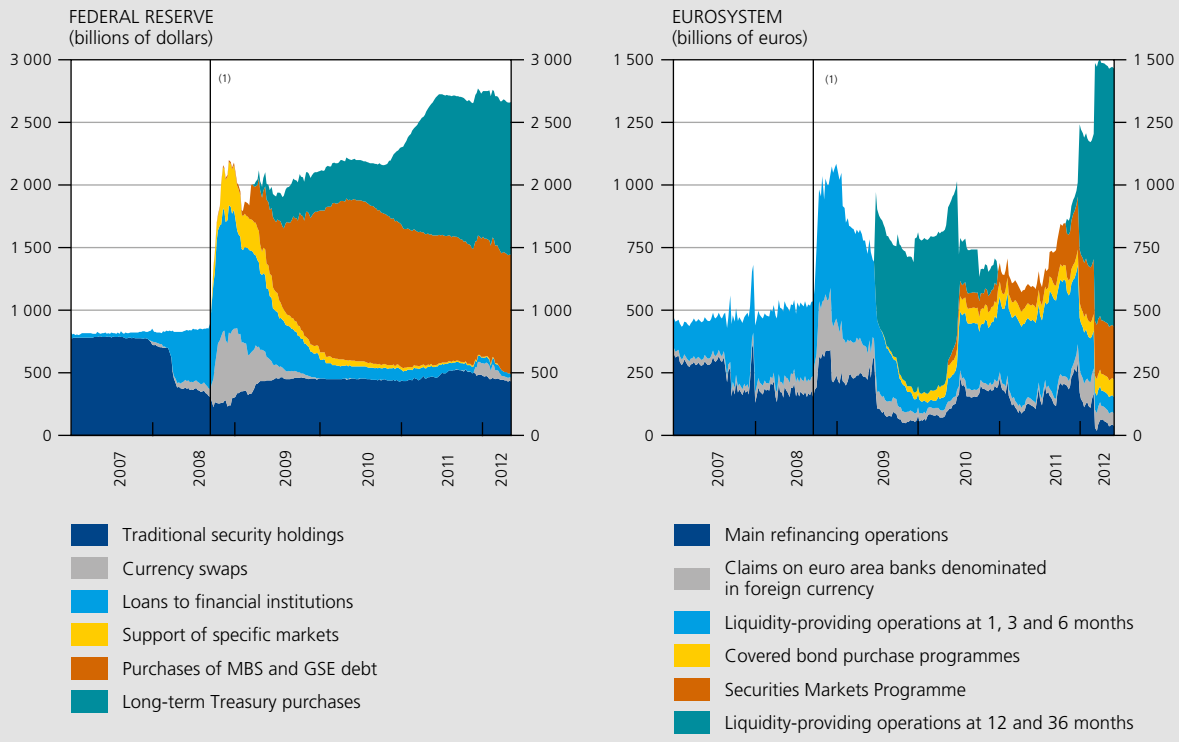
After the failure of Lehman Brothers, the Federal Reserve quickly realised that the supply of liquidity to the primary dealers and the depository institutions would not be enough to curb the panic that had taken hold of the markets. Amongst the financial institutions most affected by the slump in asset prices and the drying-up of liquidity were those in the shadow banking system, such as money-market funds, investment vehicles and hedge funds. These institutions had played an increasing role in the financing of the economy since the mid-1980s but, unlike the depository institutions, they do not take deposits and do not enjoy any direct access to the liquidity of the central bank. Yet they are likely to come up against the same lack of trust and the same financial difficulties as the banks. In order to prevent a collapse of the US financial system and to support the financing of firms and

households, the Federal Reserve thus decided to expand its existing programmes but also to develop new tools for the benefit of other categories of financial institutions and specific market segments.

Three programmes played a special role. The first is the Asset-Backed Commercial Paper Money Market Fund Liquidity Facility (AMLF) announced on 19 September 2008 and by way of which the Federal Reserve made loans to banks in exchange for high-grade asset-backed commercial paper (ABCP) acquired from the money market funds. The latter had been put under great pressure after the failure of Lehman Brothers and were facing major withdrawals that were endangering their operations. The AMLF was set up to maintain their financing by supporting the price of commercial paper and by limiting fire sales. The second programme, which pursued a similar objective, is the Commercial Paper Funding Facility (CPFF). It was announced by the Federal Reserve on 7 October. Following the collapse in demand for commercial paper coming from the money market funds, a number of issuers found themselves in difficulty. The CPFF thus had the objective of assisting the latter by offering them a temporary line of credit. Lastly, the Term Asset-Backed Securities Loan Facility (TALF) was put in place on 25 November with the aim of promoting lending to private individuals and small firms by providing long-term loans in return for newly issued asset-backed securities (ABS). The facility was later extended to commercial mortgage-backed securities (CMBS). As with the two previous programmes, the loans were established under the form of non-recourse repos. This type of arrangement is not without risk in that it offers the borrower the option of giving up his guarantee rather than repaying his loan if the value of the first is lower than the second.

Beyond the new facilities established and the pursuit of the policy of credit easing it started at the beginning of 2007, the Federal Reserve also turned its attention, towards the end of 2008, to the acquisition of long-term securities. Faced with the deterioration in the borrowing costs of the GSEs and the negative consequences for the mortgage market in the United States, it announced, in November 2008, a first programme for purchasing

CHART 5 MAIN ASSETS ON THE BALANCE SHEETS OF THE FEDERAL RESERVE AND THE EUROSYSTEM
(daily data)



Sources: ECB, Federal Reserve Bank of Cleveland.
(1) 15 September 2008: the date on which the bank Lehman Brothers was declared insolvent.

securities specifically intended for the GSEs. It thus envisaged purchasing debt from the GSEs for an amount of $ 100 billion and purchasing mortgage-backed securities (MBS) guaranteed by the GSEs for an amount of $ 500 billion. In March 2009, following the renewed weakening of economic activity and in the face of the dismal prospects on the real-estate market, the Federal Reserve extended its purchasing programmes, increasing them to $ 200 and $ 1 250 billion respectively for the debts of the GSEs and the MBS guaranteed by them. Lastly, with the aim of exerting a favourable influence on financing conditions in general for the private sector, the Federal Reserve announced at the same time its intention to acquire, over a period of six months, long-dated US Treasury securities for a total amount of $ 300 million. This was a first stage in the transition towards a policy referred to as quantitative easing (QE1) or Large-Scale Asset Purchases (LSAP1), which consists in expanding the size of the balance sheet without, however, affecting its quality in terms of credit risk. This decision was taken in order to stimulate the recovery at a time when the key policy interest rate had reached its zero lower bound.

As had already been the case with Bear Stearns in March 2008, the Federal Reserve was moreover involved in a number of rescue operations, such as that of AIG in September 2008. This intervention gave rise to the creation of the Maiden Lane II and Maiden Lane III funds. Lastly, at the same time, the currency swaps set up with the ECB and the SNB were broadened to include other central banks and their amounts were increased.

Given the scope of the amounts committed, the Federal Reserve was no longer in a position to sterilise all its new operations by the sale of Treasury securities, and the measures that it adopted as from September 2008 were thus expressed by a considerable rise in the size of its balance sheet. The latter increased from less than $ 900 billion in August 2008 to $ 2 100 billion at the end of 2009, that is to say a rise of 130 %. Whilst they represented the bulk of the assets on the balance sheet at the end of 2008 and the beginning of 2009, the support operations for the financial institutions and the specific markets quickly decreased in importance, however, and gave way to the asset purchase programmes. In terms of liabilities, the substantial expansion of the Federal Reserve's balance sheet was reflected in an increase in the deposits of the US Treasury and, in particular, substantial growth in the reserves held by the banks.

Eurosystem

As from October 2008, the Eurosystem also adopted a range of new measures bringing major innovations into its operational framework. Firstly, it agreed to the supply of liquidity – still in return for collateral – to the credit institutions in the euro area in unlimited quantities and at a fixed rate, for all refinancing operations. This decision enabled it to provide all the desired liquidity to credit institutions with certainty – both in terms of rate and quantity – and thus substantially contributed to stabilising the banking sector. Subsequently, the Eurosystem extended the list of assets accepted for use as collateral and increased the maximum term of its refinancing operations to 12 months. As it announced in May 2009, three operations with a term of twelve months were thus carried out, in July, September and December 2009 respectively. Whilst they were still carried out at a fixed rate, it was agreed that the rate for the December operation would correspond to the average rate of the main refinancing operations over the life of the operation. The Eurosystem also launched a programme for purchasing covered bonds in order to support a market of crucial importance for the financing of the banks in the euro area. In this context, it acquired securities for a total amount of € 60 billion over the period stretching from July 2009 to June 2010. Lastly, it re-opened and broadened its swap lines with the Federal Reserve and put in place swap lines with a certain number of other central banks such as the SNB, the Bank of England and the Bank of Denmark. The agreements with the Federal Reserve prompted it, beyond the supply of liquidity in dollars in exchange for collateral in euros, to carry out euro/dollar currency swap operations with credit institutions in the euro area. Since these operations only yielded limited success, they were, however, abandoned in January 2009.

All these non-conventional monetary policy measures were referred to as "enhanced credit support" because they were aimed at maintaining the availability of funding at an affordable cost for the non-financial sector. They were reserved for the banks, due to the predominance of the latter in the external financing of the private sector in the euro area. These measures considerably expanded the role of intermediary played by the Eurosystem in a situation of serious disturbances on the money market, which, as for the Federal Reserve, resulted in a significant expansion of its balance sheet. Between August 2008 and the end of 2009, the latter increased from around € 1 450 billion to close to € 1 900 billion, or in other words a rise of 38 %. This represented a small increase in comparison to that of the balance sheet of the Federal Reserve, but the Eurosystem's balance sheet was markedly larger prior to the crisis. The refinancing operations to

credit institutions, for their part, jumped by more than 60 % over the period, a trend which reflected in particular a more massive recourse to longer-term liquidity-providing operations. As regards liabilities, the substantial rise in the balance sheet was expressed in an unprecedented growth in recourse to the deposit facility of the Eurosystem, the counterpart in the euro area of the excess reserves held at the Federal Reserve. More details on this matter are contained in the third part of the article.

The new monetary policy measures taken by each of the central banks after the failure of Lehman Brothers complicated the interpretation of the monetary policy stance. In particular, the measures adopted in the euro area placed greater importance in this respect on the interest rate paid on the deposit facility, due to the fact that the sharp rise in excess reserves resulting from it brought the rate on the money market close to the rate on the deposit facility. Moreover, the stronger intermediary role of the Federal Reserve and the Eurosystem substantially increased their exposure to risk, even if the latter was offset by the adoption of conservative measures for controlling risk such as the application of haircuts to the collateral pledged.

2. Growing differences between the challenges for the Federal Reserve and those for the Eurosystem as from 2010

Whilst the monetary policies conducted by the Federal Reserve and the Eurosystem respectively were fairly similar during the initial phases of the crisis, if account is taken of the specific organisation of the financial system, this was less and less the case as from 2010. The Federal Reserve continued its near-zero interest rate policy, and applied a wider and wider range of non-conventional monetary policy instruments in order to be able to conduct a more expansionary monetary policy (section 2.1). The Eurosystem was also obliged to broaden its monetary policy instruments by including a programme for purchasing debt securities, in response to the emergence of the sovereign debt crisis (section 2.2). The improvement in the macroeconomic climate in the euro area enabled to conduct a slightly less accommodating interest rate policy in the first half of 2011 (section 2.3). However, the intensification of the sovereign debt crisis during the summer of 2011, which reached a peak in November 2011, forced the Eurosystem to conduct a particularly accommodating monetary policy once again (section 2.4).

(1) Cf., for example, Ball (2012), Stone *et al*. (2011) and Bernanke and Reinhart (2004).

2.1 Federal Reserve : pursuit of an expansionary monetary policy at near-zero rates

In a macroeconomic context characterised by the persistence of high unemployment and low levels of inflation expectations in the United States, the Federal Open Market Committee of the Federal Reserve (FOMC) decided in summer 2010 to pursue an expansionary monetary policy stance by keeping interest rates at virtually zero, that is to say to keep the target on federal funds rate within a range of between 0 % and 0.25 %. In addition, the FOMC decided in August 2010 to keep the holdings of debt securities unchanged, by reinvesting in government securities those debt securities issued or covered by the GSEs reaching maturity. Moreover, it was agreed in November 2010 to acquire, before the end of the second quarter of 2011, longer-term Treasury securities for an amount of US $ 600 billion, under the LSAP2 programme (or QE2).

According to the economic literature, a wide range of instruments is available for pursuing a policy of monetary stimulus when interest rates are near zero[(1)]. In view of the options chosen by the Federal Reserve in the last few years, a clear preference has emerged for a range of instruments that can be grouped into three large categories or channels.

The first channel is that of communication, by which an attempt is made to guide expectations relating to future key policy interest rates in order to align them with those of the central bank. The promise to keep key rates at a low level in fact exerts a downward effect on the yield curve for most financial assets, in particular at the short-term end. If the central bank manages to exert a downward influence on the interest rate expectations of economic agents, it thus provides support for economic activity. The FOMC used this channel by declaring that interest rates would remain at an exceptionally low level "for some time" (December 2008) and "for an extended period" (March 2009).

This so-called Forward Policy Guidance with regard to the expected level of key policy interest rates, in this case the maintenance of the status quo between 0 % and 0.25 %, was subsequently strengthened when phrases such as "for some time" and "for an extended period" were replaced by explicit calendar-date statements. Both the announcement made in August 2011 ("at least through mid-2013") and that in January 2012 ("at least through late 2014") clearly exerted a downward influence on expectations of key interest rates. Although this undoubtedly improved the transparency of monetary policy, some prefer to see this promise as dependent on an economic event

TABLE 1 SUMMARY OF THE FEDERAL RESERVE'S MAIN PROGRAMMES FOR PURCHASING SECURITIES

	Financial asset		Amount (in $)
November 2008	LSAP1	Purchases of debt securities issued or covered by the GSEs	600 billion
March 2009	LSAP1	Purchases of Treasury securities	300 billion
		Extension of the portfolio of debt securities issued or covered by the GSEs	Up to 1 450 billion
August 2010		Reinvestment of maturing debt securities issued or covered by the GSEs in Treasury securities	
November 2010	LSAP2	Purchases of Treasury securities	600 billion
September 2011		Reinvestment of maturing debt securities issued or covered by the GSEs in securities of the same type	
	Maturity Extension Program	Purchases of longer-term Treasury securities and sales of an equivalent amount of Treasury securities with remaining maturity of less than 3 years	400 billion

Source: Federal Reserve.

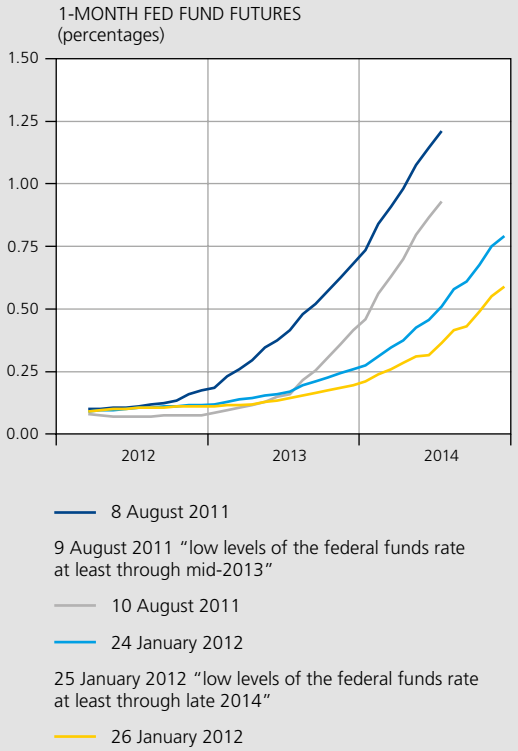
(for example Evans (2012)). Thus, this commitment could be linked, for example, to a decline in the unemployment rate or an acceleration in inflation to a level previously announced, so as to allow economic agents to have a better understanding of the conditional nature of this promise.

In January 2012, the FOMC decided to introduce a quantitative target for inflation and to publish the level of interest rates expected by its members underlying their macroeconomic projections. By introducing an inflation target of this type, the Federal Reserve joins a global tendency in the domain of monetary policy strategy, which has already been observed for some decades. At the same time, the Federal Reserve continues to pursue a dual mandate. However, it is difficult to implement a quantitative target for a maximum employment rate, this being mainly determined by non-monetary factors that evolve over time[(1)]. Due to the longer-term orientation of the inflation target, and in spite of the maintenance of its dual mandate, the Federal Reserve differs little from the other central banks (which are solely pursuing an inflation target) since these central banks, for their part, also apply so-called flexible inflation targeting. The focus on price stability does not imply that other central banks are not, for all that, completely insensitive to other economic considerations. Apart from the priority given to the primary objective (price stability), flexible targeting of inflation makes it possible to concentrate on other criteria in the short term, such as economic activity. The aim is to prevent the excessive volatility, both in economic activity and nominal interest rates, associated with strict inflation targeting. Whilst the objective of price stability and the search for sustainable growth over the long term are not contradictory – they even complement each other – monetary policy in the short term may be faced with dilemmas, in the case of supply shocks, for example, and a gradual response is often recommended[(2)].

Moreover, in addition to its individual members' expectations for economic growth, unemployment and inflation, the FOMC decided to publish their expected future level for the key policy interest rate, an aspect that helps to further enhance the transparency and accountability of monetary policy. These projections were published for the first time after the meeting of 25 January last. In concrete terms, they include the view of each member of the FOMC as to the level of the federal funds rate at the end of the next few calendar years and over the long term. Apart from the diversity in interest rate levels between the members of the FOMC, this publication could appear at first sight to be contradictory with respect to the outcome of the aforementioned meeting of the FOMC, that is to say the announcement of the maintenance of exceptionally low levels of the federal funds rate at least through late 2014. This disparity can be explained in part by the difference between the interest rate expectations of the FOMC members as a group and those of the FOMC members who had been allowed to take part in the vote during this meeting. Furthermore, these projections reflect the

(1) Cf. FOMC (2012).
(2) Cf. Svensson (1999).

CHART 6 FEDERAL RESERVE: FORWARD POLICY GUIDANCE



Sources: Bloomberg, Federal Reserve, Thomson Reuters Datastream.

interest rate views at the start of the meeting and they do not therefore necessarily correspond to the final decision adopted after discussion [1].

More generally, publication of the expected interest rate path may allay the uncertainty of households and enterprises with regard to their investment decisions. When the projections of the FOMC provide an indication of a downturn in inflation, for example, this makes it possible to determine more clearly whether this is attributable to a restrictive monetary policy or not. At the same time, it is important to emphasise the fact that the interest rate views published do not embrace any promise as to the future level of key interest rates. In fact, the level of key rates expressed by the members of the FOMC is subject to change in line with the economic context. If a central bank wishes to take full advantage of the effectiveness of this improved transparency, it is essential that the economic agents, for their part, also have a sufficient understanding of its conditional nature.

The second channel comprises modification of the composition of the central bank's balance sheet. By varying the relative supply of a given financial instrument such as Treasury securities, the central bank can in fact influence its price. The third channel consists of an increase in the size of the balance sheet of the central bank. In this case, the provision of liquidity or the purchase of financial assets goes hand in hand with a rise in the central bank's supply of reserves. In the first place, this channel moderates the liquidity risk in the financial system. In the light of events, most of the central banks combine these two channels to improve the effectiveness of the non-conventional policy measures adopted. [2]

The second channel, that is to say modifying the relative supply of two separate financial instruments, was used in 2008 by the Federal Reserve before the financial crisis erupted in September of the same year (see Part 1). This allowed the central bank to focus its action on specific segments of the financial market in order to influence interest rates and risk premiums in these particular segments, so that activity picks up on these markets. Moreover, the sale of Treasury securities by the Federal Reserve made it possible for the counterparties to take out secured loans more easily on the interbank market. When it comes to a mere modification of the maturity structure of Federal Reserve holdings of Treasury securities, as applied in the Maturity Extension Program put in place in September 2011, then the main aim is to modify the slope of the yield curve of Treasury securities. The Maturity Extension Program provides for the purchasing, up to June 2012, of Treasury securities with a maturity between 6 and 30 years for an amount of US $ 400 billion, as well as the sale, for a similar amount, of Treasury securities with a remaining maturity falling between three months and three years, so that the effect is limited to a lengthening of the average maturity of the portfolio of Treasury securities held by the Federal Reserve. This programme can therefore be compared to the operation Twist launched at the beginning of the 1960s which was aimed at flattening the yield curve by lowering long-term interest rates, whilst at the same time leaving short-term interest rates as a whole unchanged. Meaning and Zhu (2012) estimate that lengthening the average maturity of the portfolio of Treasury securities held by the Federal Reserve by a single month would bring about a fall of 3.4 basis points in the 10-year interest rate. These authors therefore assert that the Maturity Extension Program is capable of reducing the 10-year interest rate by 85 basis points, assuming that the stock and maturity of the outstanding Treasury debt remains unchanged. Part of the impact could in fact be neutralised if the US Treasury

(1) Cf. Evans (2012).

(2) See, for example, Borio *et al.* (2009) or Shiratsuka (2010) for a discussion of the size and composition of the central bank's balance sheet as an instrument of monetary policy.

decided to issue relatively more longer-term debt so as to take advantage of the decline in interest rates[1].

The programmes for purchasing securities put in place by the Federal Reserve combine the second and, in particular, third channels. These programmes, better known under the title LSAP or QE, comprise a significant instrument in the context of the recent crisis for generating monetary stimulus in the United States. The first programme, LSAP1 (November 2008 and March 2009), was basically aimed at providing support for the mortgage market, but also at influencing the interest rates on Treasury securities, a major benchmark for fixing the prices of a wide range of financial assets. This programme was strengthened by an additional purchase of Treasury securities in the context of the LSAP2 programme (November 2010).

A programme for purchasing debt securities by the central bank can have an influence on the relevant financial and macroeconomic variables by way of several channels. Various studies report a significant announcement effect[2]. In fact, the announcement of purchasing programmes reveals information about the future evolution of interest rates, in addition to what the central bank has decided and communicated up to then. Thus, the announcement may indicate that macroeconomic prospects are gloomier than was thought, which lowers the anticipated level of key policy interest rates and may even reduce uncertainty in this respect[3]. The effect of the announcement, therefore, pulls down the longer-term interest rates. By making use of a method referred to as 'event study', several authors propose a considerable and significant effect of these purchasing programmes on the relevant interest rates[4]. It is mainly the first purchasing programme LSAP1 which had a notable impact on the interest rates for Treasury securities, whilst the effect of the LSAP2 programme seems to have been more limited.

The element which undoubtedly assumes significance for economic activity is the degree to which these programmes can, over and above the announcement effect, lower long-term interest rates to lasting effect. This capacity to pull interest rates downwards comes from the fact that financial assets are not all precisely interchangeable. The purchasing of Treasury securities reduces their supply on the market. Since some investors prefer to hold (US) Treasury securities, they are willing to pay a higher price for these "scarce" securities, that is to say to accept a lower interest rate. This theory of the 'portfolio rebalancing channel' goes back to Tobin's 'portfolio balance' model and to Modigliani and Stutch's theory of 'preferred habitat'. These theories start from the principle that investors do not all have the same preferences for the various financial assets. This limits the functioning of the arbitrage mechanism between the various financial assets and enables a key market player such as the central bank to influence, by purchasing and selling on a massive scale, the supply on the market to the point of influencing prices and interest rates. Thus, Gagnon *et al.* (2010) report a constant downward effect of 10 basis points on the 10-year interest rate on US Treasury securities, whilst D'Amico and King (2010) find an effect of 67 basis points for the massive purchasing of sovereign bonds. Certain studies also evaluate the macroeconomic implications. Chung *et al.* (2011) find a substantial upward effect on GDP growth, employment and inflation.

2.2 Eurosystem: first phase of the sovereign debt crisis

When, in May 2010, the sovereign debt market in certain euro area countries showed growing signs of becoming dysfunctional, the Governing Council of the ECB, taking account of the crucial role that this segment plays in the financial system of the euro area, decided to adopt a new non-conventional measure: the Securities Markets Programme. This programme makes it possible to purchase both public and private securities on the secondary market with the aim of re-establishing the proper functioning of the asset markets and consequently to restore an appropriate monetary policy transmission mechanism. In fact, the central bank can only have a direct influence on very short-term interest rates whilst the transmission of monetary policy decisions to the real economy takes place via the financial markets and bank lending. The government debt market plays a prominent role in this process by way of three channels: prices, liquidity and the balance sheet.

Via the price channel, the interest rates on sovereign bonds influence the financing conditions within the economy in that they constitute the benchmark *par excellence* for fixing the longer-term interest rates applied to households and enterprises. When the risk premiums contained within the interest rates on sovereign securities reach values that are no longer justified as a result of market malfunction, they threaten to disturb the transmission of monetary policy by creating upward pressure on financing costs within the economy. The liquidity channel operates because sovereign bonds constitute the main form of collateral for market financing of the banks. A fall in the price of sovereign bonds therefore exposes the banks

(1) Cf., for example, McCauley and Ueda (2009).
(2) Cf., for example, Cecioni *et al.* (2011), BIS (2011) for an overview.
(3) Cf. BIS (2011) and Williams (2011).
(4) Cf. Gagnon *et al.* (2010).

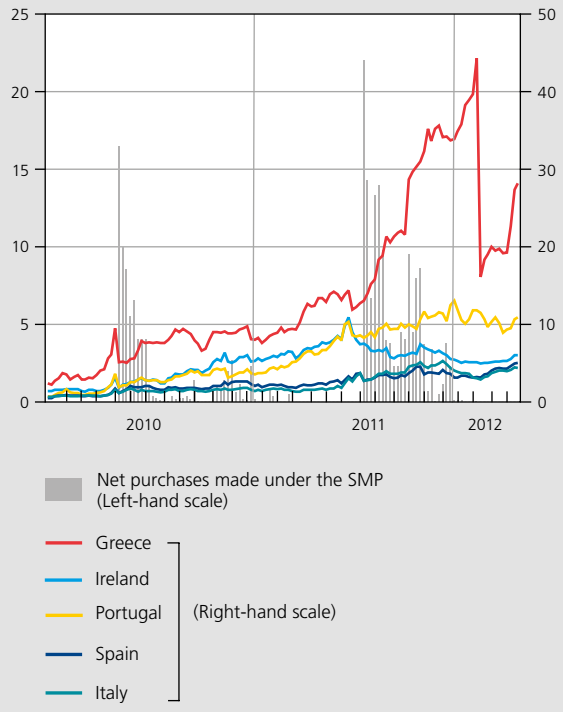
to a liquidity risk since they need to compensate for this reduction in value by providing additional collateral or by borrowing less. If the liquidity of these instruments dries up, this can paralyse the interbank market – as happened at the beginning of May 2010 – with the result that access to market financing was impeded and lending to the economy was jeopardised. The balance-sheet channel operates by the fact that a fall in the prices of sovereign bonds causes losses for their holders. That affects the capital of the banks, which may prompt them to reduce the volume of their lending. Furthermore, this situation rekindles doubts as to the solvency of certain banks and therefore makes it harder for them to obtain market financing.

The main objective of the programme was to restore the monetary policy transmission mechanism. It is therefore important to emphasise that the liquidity injected by purchases effected under the aegis of this programme are completely sterilised on a weekly basis, unlike most of the Federal Reserve's operations for purchasing securities which create additional central bank liquidity. Most of the initial purchases made in the context of the programme were concentrated in May and June 2010. The total amount of purchases was € 55 billion at the end of June 2010.

An appreciation of the effectiveness of the programme is fairly complex given that, in the first place, a "normal" functioning of the monetary policy transmission mechanism is relatively difficult to summarise in a few clear criteria or indicators and that, in the second place, it is difficult, if not impossible, to determine the precise contribution of an individual non-conventional measure in a context largely characterised by the fall in the prices of sovereign bonds. Having said this, the purchases of securities carried out in the context of the programme seem to have had an effect, albeit short-lived, on yields on ten-year sovereign bonds, for example. This was the case in May 2010 for most countries and for Greece in particular. Moreover, the programme may have been able to help to contain the contagion effect regarding the problems of an individual country spreading to the other countries in the euro area [1].

CHART 7 PURCHASES MADE UNDER THE SECURITIES MARKETS PROGRAMME (SMP) AND SPREADS ON TEN-YEAR SOVEREIGN BONDS [1]

(billions of euros, percentage points)



Sources: ECB and Thomson Reuters Datastream.
(1) Differences with respect to the German Bund.

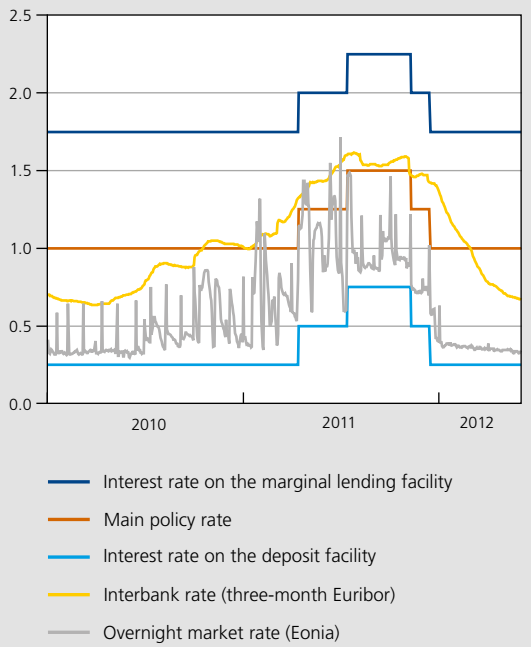
2.3 Eurosystem: prudent economic recovery at the beginning of 2011

The first half of 2011 was characterised by a recovery in economic activity, which fuelled a certain optimism with regard to future economic growth. At the same time, upward pressure on inflation steadily strengthened under the impact of price rises for energy and the other raw materials. In order to prevent the upside risks for price stability from materialising in an environment of economic recovery, the Governing Council of the ECB decided to raise key rates in two stages. Having been held at the historically low level of 1 % for close to two years, the main policy rate was thus successively increased to 1.25 % on 7 April and 1.50 % on 7 July. In spite of an overall improvement in the functioning of the financial markets in the euro area, in particular the money market, seen at the end of 2010 and the beginning of 2011, the Governing Council retained the non-conventional monetary policy measures that were in place at the end of 2010. This was decided given the continued disruption in certain segments of the financial markets in the euro area in the context of the sovereign debt crisis.

(1) Cf., for example, Boeckx and Dewachter (2012).

CHART 8 KEY POLICY RATES AND MONEY MARKET RATES IN THE EURO AREA

(percentages)



Sources: ECB and Thomson Reuters Datastream.

2.4 Eurosystem: sovereign debt crisis and the risk of a credit crunch

During the summer of 2011, based on new worries as to the ability of Greece to repay its debt, a resurgence of tensions arose on several sovereign debt markets in the euro area. The spreads against the German Bund widened for all sovereign bonds and Italy and Spain were especially affected, marking a new stage in the contagion of the sovereign debt crisis. These changes were accompanied by a general increase in risk aversion and a clear deterioration in the situation on the interbank market. On the money market, the difference in rates between the Euribor and the three-month OIS rate climbed once again, whilst recourse to the liquidity-providing operations of the Eurosystem increased.

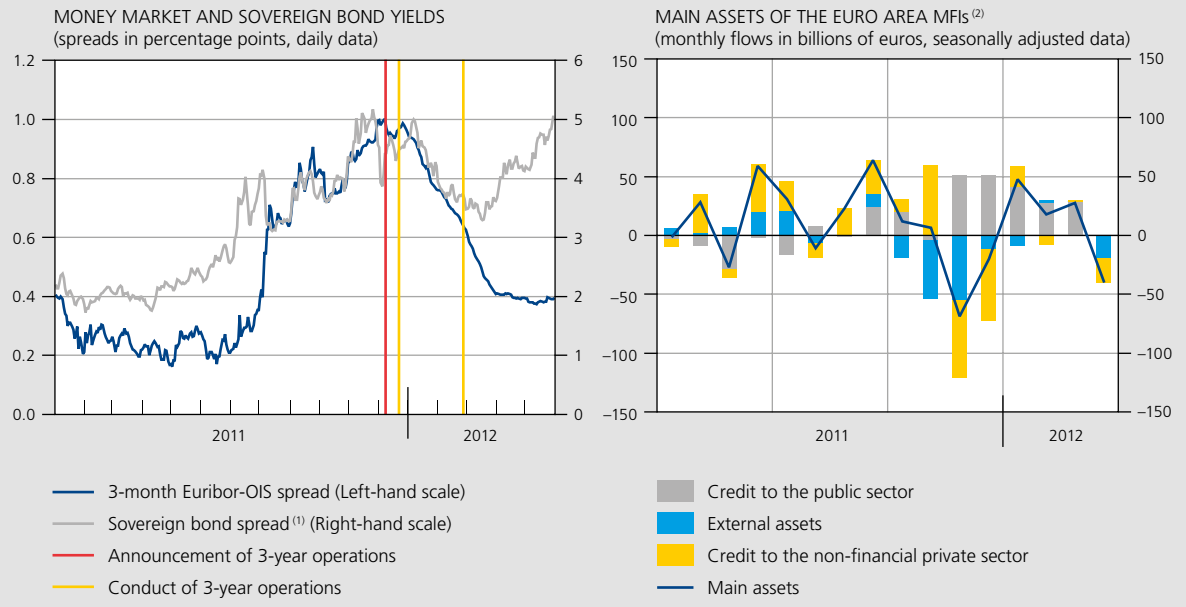
This new turmoil, generated by a worsening of the sovereign debt crisis, drove the banks to raise their credit standards and therefore posed a threat to the effective transmission of monetary policy. In this context, and in order to relax the borrowing constraints applying to the credit institutions, the Governing Council of the ECB steadily took new non-conventional monetary policy measures. It decided, firstly, to undertake, as from August 2011, a new six-month liquidity-providing operation and to reactivate the SMP[1]. In September, it subsequently agreed to carry out three additional liquidity-providing operations in United States dollars. These operations complemented the seven-day operations already implemented on a weekly basis. In October, a new package of measures was adopted: in order to further reduce uncertainty with regard to refinancing for the banks, the Governing Council decided to conduct two additional longer-term liquidity-providing operations, one with a maturity of twelve months and the other with a maturity of thirteen months. Moreover, it announced that it would continue the full allotment policy for all refinancing operations at least until mid-2012, at a fixed rate corresponding to the average rate of the main refinancing operations over the entire life of the operation. Lastly, it agreed to launch a second covered bonds purchase programme, for a total of € 40 billion over a period of a year starting in November 2011.

In the face of worsening economic prospects and the anticipated reduction in upside risks weighing on price stability, the Governing Council of the ECB lowered its key rates by 25 basis points at each of its meetings in November and December. In December, faced with the growing risk of a rationing of the granting of funding to the private sector, it adopted a new series of measures aimed at supporting the liquidity of the banks and the funding to the economy. The main measures announced include the conduct of two very long-term refinancing operations with a maturity of 36 months, the broadening of the list of eligible collateral for the Eurosystem loans and the reduction of the reserve ratio from 2 to 1 % as from January 2012. The two 36-month operations conducted on 22 December 2011 and 1 March 2012 led to the allocation of € 489.2 and € 529.5 billion respectively, for a total net injection of liquidity of around € 520 billion.

According to the results of the April 2012 euro area bank lending survey, these longer-term operations helped to improve banks' access to market financing and their liquidity position. Moreover, they benefited various governments, such as those of Spain and Italy, which saw their borrowing costs fall considerably following the purchasing of sovereign bonds by the banks. More generally, they generated a resurgence of optimism on the markets in the weeks that followed, in particular on the money market, as witnessed by the clear narrowing of the spreads between the Euribor and the three-month OIS rate. However, in a worsened economic context characterised by weak demand for funding, these long-term operations

(1) At the end of May 2012, the total amount of sovereign bonds held by the Eurosystem under the SMP was € 212 billion, as against € 74 billion at the beginning of August 2011.

CHART 9 SOVEREIGN DEBT CRISIS AND RISK OF CREDIT CRUNCH IN THE EURO AREA



Sources: ECB, Thomson Reuters Datastream, US Department of Agriculture.
(1) Differences in yields on ten-year sovereign bonds for Belgium, Spain, Ireland, Italy and Portugal with respect to the German Bund, GDP-weighted average.
(2) Monetary financial institutions excluding the Eurosystem.

did not translate into an evident improvement in loans to the private sector. Moreover, at the end of March, their favourable effects on the markets had faded somewhat and the sovereign spreads turned upwards again in several countries. These trends show that the Eurosystem's liquidity measures, whilst relieving the banks and allowing some time to be gained, are not a substitute either for raising capital or conducting healthy fiscal and structural policies that promote lasting growth and the stability of the European economy (1).

(1) Cf. Draghi (2012).

Box 2 – Monetary policy and fiscal policy

While the options for the political authorities to intervene in the conduct of monetary policy are limited on both sides of the Atlantic, the differences between the two central banks in terms of mandate and institutional characteristics specific to each of the economic zones give rise to very dissimilar attitudes with regard to the purchase of sovereign bonds. Moreover, the financial crisis has to some extent shifted the dividing lines that prevailed between monetary and fiscal policy.

Independence and purchasing of Treasury securities

Economic theories and empirical evidence have given rise to a consensus according to which it is preferable to entrust the management of monetary policy to independent institutions. In fact, it is acknowledged that this arrangement makes it possible to isolate the conduct of monetary policy from political pressure which could

potentially generate inflation, and that it thus provides a more stable environment which promotes economic growth and employment. This principle of independence has increasingly guided thinking in the advanced economies from the end of the 1970s; and it has become the rule at the Federal Reserve and in the Eurosystem since it was created. It was accompanied by an affirmation of the objective of price stability and, in concrete terms, it was expressed in particular by the prohibition of monetary financing of government deficits and the proscription of purchasing government debt on the primary market by central banks.

The principle of central bank independence thus limits the possibility of the latter to purchase Treasury securities. But it does not outlaw it since this is potentially a powerful instrument of macroeconomic policy. Whilst the Federal Reserve and the Eurosystem purchased sovereign bonds during the crisis, the attitudes and objectives pursued in this respect were different, however, reflecting differences both in terms of mandate and institutional characteristics.

In the euro area, the Eurosystem's mission and primary objective is to maintain price stability. It has moreover a "unique" level of independence. In the first place, its independence assumes a virtually constitutional status in the sense that it is laid down in the Treaty on European Union which can only be amended by a unanimous vote of the Member States. Furthermore, due to the very structure of the euro area, the Eurosystem is not directly accountable before any national executive or legislative authority and it cannot accept instructions from any level of government whatsoever. These aspects largely explain why the purchases of sovereign securities made up to now were reduced to those made in the context of the SMP, with the objective of preserving the tranmission of monetary policy in those countries that found themselves at the heart of the sovereign debt crisis.

In the United States, the purchase and sale of Treasury securities are key instruments of traditional monetary policy, whether in the form of outright purchases or repurchase agreements. The status of being a "risk-free" and very liquid asset for Treasury securities explains why they are practically the only collateral that the Federal Reserve typically holds in its portfolio and accepts in its daily liquidity-providing operations. Moreover, the dual mandate of the Federal Reserve more clearly imposes on it the task of stimulating the economy when the situation so demands. The continuing sluggishness of economic activity and the rock-bottom level of key rates thus explain why it undertook massive purchases of Treasury securities during the crisis. Lastly, it is worth noting that the independence of the Federal Reserve is referred to as "within government", which expresses the fact that the conduct of monetary policy in the United States is delegated to the Federal Reserve by the US Congress. Although it is autonomous on the financial and decision-making levels, it is thus officially responsible before Congress which, if it so wishes, has the power to amend its governing rules and the breadth of its responsibilities by law. Moreover, it is envisaged that the Federal Reserve "must work within the framework of the overall objectives of economic and financial policy established by the government". For some, these institutional characteristics, together with the uniqueness of fiscal policy in the United States, make the Federal Reserve subject to certain political pressure, in particular in the run-up to elections.

Monetary policy and fiscal policy in the context of the financial crisis

The combination of a serious financial crisis and major fiscal imbalances has sown some discord both in the United States and the euro area as to monetary policy perimeters and the role of the central bank, in particular in its relationship with fiscal policy.

On the one hand, as the crisis progressed, the central banks took measures that blurred the distinction between monetary policy and fiscal policy. For example, the Federal Reserve threw itself into support programmes for specific markets such as commercial papers and ABS. It also purchased assets such as debts of government-sponsored enterprises (GSEs) and MBS in order to support the real-estate market. Lastly, it was widely involved in the rescues of Bear Stearns and AIG and it undertook massive purchasing of Treasury securities. In the euro area, the Eurosystem

in turn launched two programmes for purchasing covered bonds and the Securities Markets Programme, which was expressed in the purchasing of sovereign bonds on the secondary market. Moreover, the national central banks of the euro area provided arm's-length support for several banking institutions by supplying emergency liquidity assistance (ELA). Some of the actions adopted during the crisis thus changed the allocation of funding between market segments and advantaged or disadvantaged some economic agents. Although they were limited in particular by the application of haircuts, most of the measures also caused certain risks to weigh on the public finances of the States, whether through the capacity of the central banks to distribute the benefits of seigniorage or by way of potential losses. Moreover, the actions of central banks in territory that is close to fiscal policy is not devoid of risks for the central banks themselves. Once they have entered the domain of fiscal policy, they could in fact find themselves more easily subject to pressure from the private sector, the financial markets or governments, in order to pursue the use of their balance sheets to substitute for fiscal policy decisions[1]. A situation of this kind may generate moral hazard in that it leads to a reduction in fiscal discipline. Moreover, it increases the risk of fiscal domination of monetary policy and therefore constitutes a potential threat to the independence and the credibility of the central bank, in particular in the case of monetary financing of losses or government debt.

On the other hand, the need to compensate for the financial difficulties that many States are faced with, while at the same time stimulating economic activity, has sparked off new discussions on the objectives and the role of central banks. There are those who argue against the strict objective of price stability which has been assigned to the central banks and the Eurosystem in particular. Some regard the tolerance of a higher level of inflation as an effective way of stimulating the economy at low cost. The arguments put forward range from the devaluation of government and private debts to the strengthening of the central banks' ability to respond in times of crisis[2]. Others are in favour of the Eurosystem performing a true role as "lender of last resort" for the benefit of the States[3]. Whereas the Eurosystem has already acted as a provider of liquidity on certain sovereign bond markets, when their sudden drying-up harmed the transmission of monetary policy, they advocate an unlimited commitment in this sense. These two paths pose however a question in the sense that they open the door to a monetisation of government debt and, possibly, to the emergence of an inflationary spiral. They thus present potential dangers for the independence and the credibility of central banks. In this context, and swimming against the current of certain ideas, it is significant that the Federal Reserve equipped itself in January 2012 and for the first time in its history with a long-term target for inflation of 2 %.

The scope of the crisis and the rapid progression of events very largely justify the unprecedented extension of the central banks' activities during the last few years. Whilst at the same time maintaining a firm anchoring of inflation expectations, the measures adopted made it possible to prevent the collapse of the financial system and to support economic activity. However, it is important to bear in mind that monetary policy also has its limits. Whilst the crisis demands a rethink on how macroeconomic policy is conducted, it is necessary to remain alert to potential diversions in a context of historically high government debt. The independence of the central banks draws strength from their credibility, and it is vital that the crisis does not sweep away this principle which is so essential to the stability and the prosperity of the economy.

(1) Cf. Plosser (2012).
(2) Cf. Blanchard *et al.* (2010).
(3) Cf. De Grauwe (2011).

3. Key challenges for monetary policy

The monetary policy conducted during the last few years clearly illustrates the breadth of the challenges that confronted decision-makers. The impact of non-conventional monetary policy in particular has been and continues to be uncertain. However, it is already possible to state that the monetary policy of the United States and the euro area have made a crucial contribution to preventing a complete collapse of the economic and financial system. At the same time, it is worth bearing in mind the risks and challenges to come, which this policy created in turn. Three of these will be examined in this section : firstly, that of the implementation of monetary policy in a context of a large central-bank

balance sheet and major excess liquidity; secondly, the presence of a strong heterogeneity in the euro area both with regard to the transmission mechanism and macroeconomic prospects; thirdly, preventing undesirable secondary effects of a particularly accommodating monetary policy.

3.1 Monetary policy in a context of high excess liquidity

So far, the effects of non-conventional monetary policy had been analysed mainly from the viewpoint of the asset side of the central banks' balance sheets. Recently, however, attention has shifted more towards the liability side, in particular since the sharp rise in the Eurosystem's balance sheet following the three-year refinancing operations. In fact, the scope of the liquidity surplus and its possible impact on monetary growth, bank lending and, not least, inflation are giving rise to more and more questions.

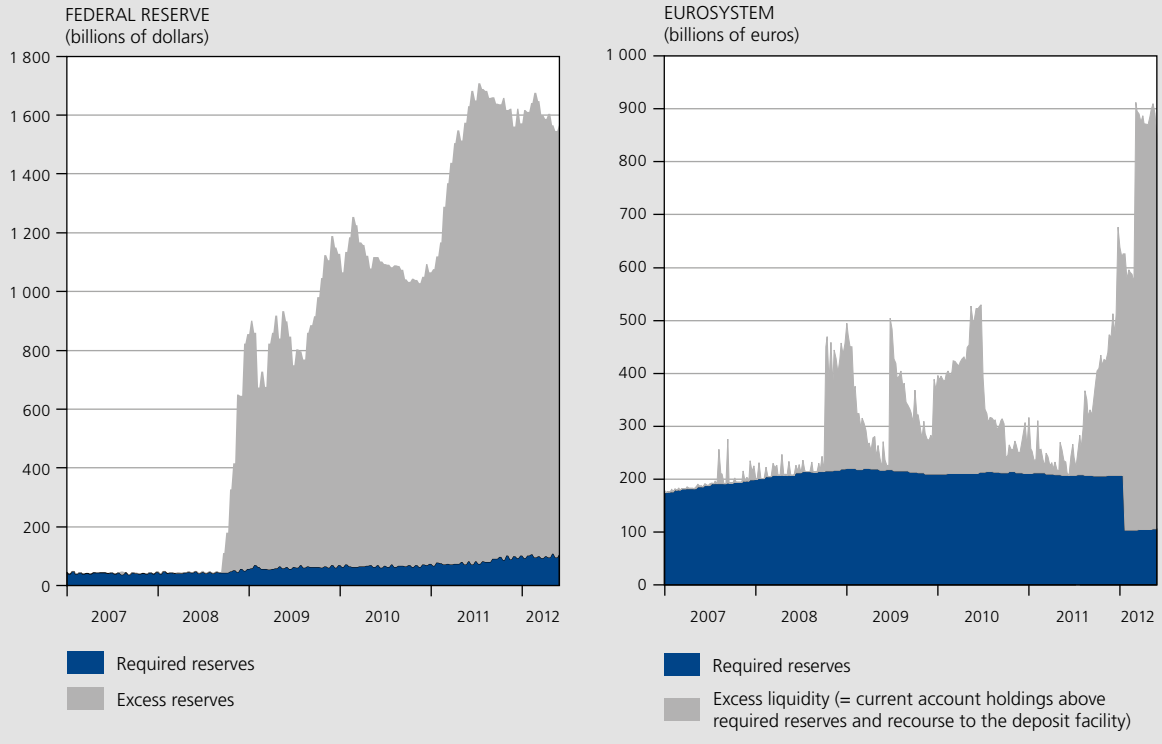
(1) The exceptions to this principle comprise changes in autonomous factors which the central bank does not control directly, such as fluctuations in the demand for banknotes in circulation, government deposits and the monthly outstanding amount of the required reserves.

(2) For more information on the liquidity surplus in the Eurosystem and the use of the deposit facility, see Boeckx and Ide (2012).

The expansion of central bank liabilities is an automatic consequence of policy measures relating to the asset side of the balance sheet and which has made it possible for the central banks to support the financial markets, the institutions in the financial sector and/or the tranmission of monetary policy during the crisis. Every time the central banks supply additional liquidity, whether via refinancing operations or the purchase of assets, the corresponding amount is credited to the current account of the counterparty. An individual bank can reduce its excess of liquidity, for example by granting loans, which is not the case for the banking system taken as a whole. Even if the banks lend the central bank liquidity, or use it to purchase securities, as many times as they wish, it changes nothing as regards the liquidity surplus of the banking system as a whole. It is therefore clear that the liquidity surplus is almost entirely determined by the actions of the central bank [1]. With regard to the Federal Reserve, these actions take the form of reserves held by the depository institutions. In the Eurosystem, only a very limited, and non-interest bearing, part of the liquidity surplus is maintained on the current account, the bulk being transferred to the deposit facility, which bears interest at a specific rate [2].

CHART 10 LIQUIDITY SURPLUS IN THE UNITED STATES AND THE EURO AREA

(selection of liability items)



Sources: ECB, Federal Reserve.

In order to understand the relationship between bank lending on the one hand and the liquidity surplus on the other, it is important to regard the liquidity surplus as one of the many items on the asset side of a commercial bank's balance sheet. Holding this asset item does not therefore need to be regarded as undesirable but rather as the result of a risk/return trade-off. The reserves of a central bank constitute an extremely liquid asset that is devoid of risk, bearing a low interest rate (that is to say the interest on reserves in the United States and the rate on the deposit facility in the euro area, both currently at 0.25 %). The fact that this substantial liquidity surplus does not bring about an unbridled credit growth (or, as the manuals say, the monetary policy multiplier remains low) is explained by an opportunity cost that is too low for the holding of this liquidity surplus. In other words, the banks prefer to hold an extremely liquid asset, devoid of risk and bearing interest at 0.25 % rather than granting credit to an enterprise or a household or purchasing an asset with a higher interest rate. This preference for holding assets that bring a low rate of return but are free of risk in the current macroeconomic and financial context also stems from the low level of yields on German government securities, for example, that those investors who do not generally have access to the facilities of the central banks are inclined to accept.

The current economic and financial context, in particular in the euro area, is such that there is a greater risk of seeing a credit rationing (credit crunch) and an over-valuation of risk (overpricing) than an uncontrolled expansion of credit. It is also in this context that the liquidity surplus is not necessarily accompanied by a strong upward inflationary risk. However, if the opportunity cost of the excess liquidity were to grow to the point where the banks wish to change the composition of their assets by providing credit or acquiring other assets, with the consequence of the emergence of high inflationary risks, the central bank could, however, tighten its policy. In this way, the opportunity cost of holding excess liquidity would decrease again.

It is in this context that it is worth appreciating the significance of the introduction by the Federal Reserve, in October 2008, of the interest rate paid on reserves (interest on reserves) which can be considered equivalent to the interest rate on the deposit facility in the Eurosystem. This rate tends to create a lower bound, or floor, to prevent the overnight market rate (the federal funds rate) moving to close to zero in the case of considerable excess reserves in the United States. In contrast to what had been expected, however, it does not constitute an absolute floor in that many financial institutions do not have access to the system of interest-bearing reserves and that the necessary arbitrage has not taken place. Nevertheless, it should assume some importance when the central bank estimates that a rise in rates is required owing to macroeconomic conditions.

It can be seen, therefore, that it is not the volume of the liquidity surplus but rather its price, that is to say interest rate received on excess liquidity, that will determine the effect on credit growth, the real economy and inflation. However the volume of the liquidity surplus may have an impact on the overnight market rate within the corridor of interest rates. This can be seen clearly in the euro area since the implementation of the fixed rate full allotment policy, in which the demand for central bank liquidity by the banks is fully met. Thus, variations in the demand for liquidity by the banks in addition to their liquidity requirement always bring about fluctuations in the overnight market rate (Eonia). When the liquidity surplus was substantial, the overnight market rate approached that of the deposit facility, as was clearly the case between June 2009 and June 2010, and again since the end of December 2011 (see Chart 8). When the liquidity surplus was less than an amount falling between € 100 billion and € 200 billion, however, this was clearly less so. This does not take away the fact that this may impact on the monetary policy stance, to the extent that the difference between the overnight market rate and the main policy rate is passed-through other interest rates. In order to counteract its potentially inflationary effect, either the corridor can be narrowed or the liquidity surplus can be absorbed, for example by offering term deposits at a higher rate of interest than that on the deposit facility.

3.2 Heterogeneity in the euro area

3.2.1 Asymmetric transmission of monetary policy

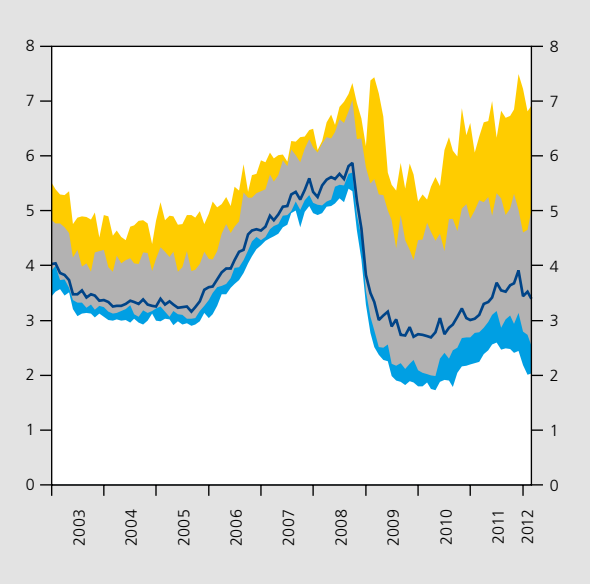
The current financial crisis, in particular the sovereign debt crisis, underlined or even strengthened the heterogeneity between the States in the euro area, to the extent that the domestic banking sector and the national authorities were interconnected. This situation brought with it a greater heterogeneity in the transmission of monetary policy, as shown by the increased dispersion of interest rates on loans to non-financial corporations in the different countries of the euro area. Whereas the maximum dispersion hovered around 2 percentage points prior to the crisis, it grew after its onset to reach 4 to 5 percentage points. Moreover, it is important to note the dispersion increased both upwards and downwards. Thus, during the first few months of 2012, this interest rate settled below the level of 3 % in countries such as Belgium, Netherlands, Austria and Germany, whereas in Portugal and Cyprus, for example, the interest rate climbed above 6 %.

Several factors may explain this increased dispersion. Thus, the funding cost for the banks, such as the interest rates paid on bank deposits and the rates on their own debt securities issuances, are characterised by increasing differences between the countries in the euro area. In the same way, access to market financing has become more difficult in certain countries, an aspect that has caused a further rise in funding costs. In order to maintain their profitability, the banks are constrained to pass on this rise on their lending rates.

In order to counteract this heterogeneity between countries with regard to the transmission of monetary policy, the Eurosystem had recourse to the measures referred to as non-conventional. Alongside the purchasing of securities in the context of the SMP instituted in May 2010, the main measure was undoubtedly the fixed-rate-full allotment procedure established in October 2008, which made it possible for all the banks (counterparties) in the euro area to obtain financing at the key policy rate, on condition of having sufficient collateral. With the decision of the Governing Council on 8 December 2011 to put forward two three-year refinancing operations, this certainty was offered over a longer term. Moreover, the Governing Council decided to widen the range of assets accepted as collateral for the refinancing operations of the Eurosystem, by lowering the rating threshold for certain asset-backed securities (ABS) and by allowing the national central banks to accept as collateral additional performing credit claims (namely bank loans) that satisfy specific eligibility criteria. In addition, the reserve ratio was reduced from 2 % to 1 % from the maintenance period starting on 12 January 2012, thereby reducing the consolidated liquidity need of the credit institutions and freeing up assets used as collateral for refinancing operations of the Eurosystem.

CHART 11 MFI LENDING RATES IN THE EURO AREA COUNTRIES : LOANS TO NON-FINANCIAL CORPORATIONS

(percentages, quartiles, all maturities combined)



Sources : ECB, NBB.

3.2.2 Macroeconomic differences

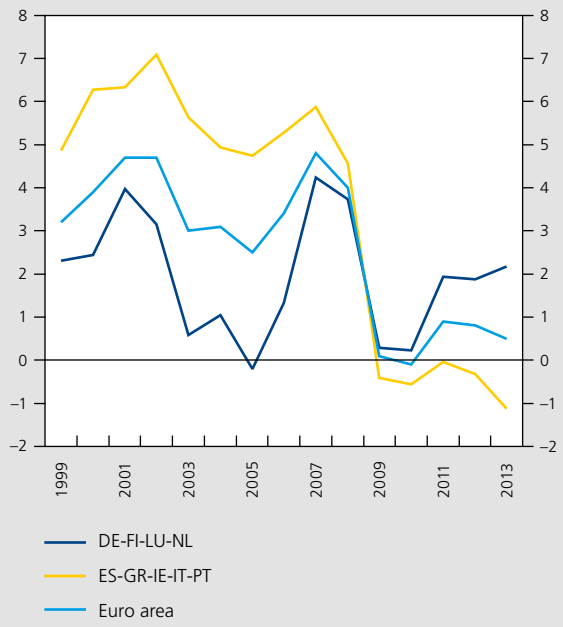
The monetary policy of the Eurosystem faces heterogeneity not only in the transmission of monetary policy but also in macroeconomic developments. In Ireland and Greece mainly, but also in Italy, Portugal and Spain, the prospects for economic growth remain lower than those of the group DE, FI, LU and NL, and Germany in particular. This is expressed in turn by discrepancies with regard to national inflation as measured by the harmonised consumer price index (HICP) excluding energy and food products. This divergence can be illustrated with the aid of a synthetic measure, that is to say a normative Taylor rule [1]. The latter gives an indication on the desirable policy rate as a function of inflation and economic growth. In this exercise, the desirable policy rate in nominal terms is equal to the nominal equilibrium interest rate (equal to the sum of the real equilibrium interest rate and the inflation target) adjusted by the difference compared to, respectively, the inflation target and the potential output [2]. It thus turns out that the desired key policy rate in the group of countries where the balance sheets of the credit institutions and the public authorities have remained relatively healthy (DE, IF, LU and NL) is currently higher than that of the group of countries where this is not the case (IT, ES, PT, IE and GR). For the euro area as a whole, the desired rate is hovering at present, according to this criterion, between 0.5 % and 1 %, which is close to the current level of interest rates.

Since the implementation of the Eurosystem's monetary policy is aimed at maintaining price stability in the euro area as a whole, the Governing Council evaluates the monetary policy stance for the euro area as a whole. The national trends form part of the available information on which the monetary policy decisions are based but the latter are never tailored to the benefit of one country in particular. It is not the first time that the euro area has seen strong macroeconomic divergence, but at that time the groups of countries occupied opposite positions to those that they occupy currently. In those days, the rule

(1) Cf. Taylor (1993).

(2) Measurement of the potential level of activity is, in particular since the recent recession, mired in numerous uncertainties. Consequently, the precise level of the key policy rate desired as prescribed by a normative Taylor rule must be interpreted with all the necessary caution. Nevertheless, it is not inappropriate to state that alternative criteria for measuring economic activity would not invalidate the finding of a substantial divergence within the euro area.

CHART 12 NORMATIVE TAYLOR RULE [1]



Sources: December 2011 OECD Economic Outlook, calculations by the NBB.

(1) The normative Taylor rule as applied is: $i_t = R^*_t + \pi^* + 1{,}5(\pi_t - \pi^*) + 0{,}5(\text{output gap}_t)$. R^*_t = equilibrium real interest rate approximated by the potential output growth during the year t, π_t = inflation measured by the harmonised consumer price index (HICP) excluding energy and food products, π^* = inflation target = 1,9 %. The groups of countries are weighted by GDP. DE-FI-LU-NL represent around 37 % of the euro area GDP, ES-GR-IE-IT-PT around 34 %.

was the same: monetary policy was conducted for the benefit of the euro area as a whole but, during the period 2002-2007, the desirable key rate according to the normative Taylor rule settled a little above the main policy rate of the ECB.

3.3 The risks of a highly accommodating monetary policy over a prolonged period

Whilst it is not easy to determine its exact scope, the highly accommodating nature of the respective monetary policies of the Federal Reserve and the Eurosystem at the present time is in no doubt. At 1 % for the Eurosystem and sitting within a range of 0 % to 0.25 % for the Federal Reserve, the key policy rates are in fact standing at historic lows. In real terms, they have now been largely negative for around two years. Moreover, owing to the liquidity surplus prevailing on the money market, the Eonia rate in the euro area is situated at a level close to the rate on the deposit facility, that is to say 0.25 %. Lastly, in the euro area, the opportunity offered to the banks to obtain the entirety of the liquidity demanded at a fixed rate indexed to the main policy rate is a guarantee for them that they are able to refinance themselves on particularly advantageous terms.

This accommodating nature of monetary policy is justified by the continued weak financial and macroeconomic situations. However, in order to prevent any perverse effects in the future, it is important to keep an eye on the potential secondary effects. Various risks may result from the conduct of a particularly accommodating monetary policy over a long period. In this article, seven of these are presented.

The first risk is that of delaying the necessary adjustments of the balance sheets. Very low interest rates and generous liquidity provision in fact reduce the opportunity costs for the banks of holding non-performing assets. They offer time to adjust balance sheets but do not resolve the solvency problems [1]. As far as the public sector is concerned, moreover, low yields are keeping interest rate charges at a low level, something which may give the impression that the debt is sustainable or even that it can swell further.

The second is that of encouraging risk-taking and indebtedness. Experience shows that particularly low interest rates tend to encourage carry-trade operations, which are aimed at speculating on differences in yields. The search for high yields in turn promotes risk-taking and the development of speculative bubbles. Moreover, the combination of low interest rates over a long period and the rise in the value of the assets that it generates tends to reduce the perception of risk. It may thus bring about excessive credit growth and indebtedness.

The third is the loss of markets' capacity for correct price-setting in a context where the purchasing and lending operations of central banks may considerably affect this price-setting for certain assets. The holding of large quantities of assets by the central banks may thus weaken the signal sent by the market or reduce it to a simple reflection of the market's expectations with respect to the central banks' future action. Moreover, changes in the criteria for the assets accepted as collateral for liquidity-providing operations may also be a source of distortion for prices on the markets.

Fourthly, and not unrelated to the previous risk, an overly significant role of the central banks in the capacity of market-maker may simply result in the atrophy of the markets and a situation where the central bank acts in the capacity of financial intermediary in the place of the private sector. Moreover, with regard to the money

(1) Cf. Hannoun (2012).

market more specifically, it has been observed that a low interest rate had a squeezing effect on the market. When the operational costs linked to the execution of operations are higher than the rate received, the participants tend in fact to turn away from these operations, something which reduces the size of the market[1]. Currently, the question thus arises of knowing whether the money market will one day recover the activity as it was prior to the crisis or whether the central bank will retain a more pronounced intermediary's role in the future.

Fifthly, a highly accommodating monetary policy is a potential source of inflation. On the one hand, a rapid and unexpected credit expansion could generate an increase in domestic demand and upward pressure on prices. On the other hand, a rise in the holding of assets, and sovereign bonds in particular, by the central bank could kindle fears of monetary financing and could be expressed in an upward revision of expectations for inflation. This is the risk linked to the fiscal dominance that was examined in Box 2.

Sixthly, the combination of low short-term interest rates and a steeper yield curve intensifies the exposure of economic agents to interest-rate risk. In fact, it makes long-term investments more profitable but tends to promote short-term loans, an aspect which magnifies the refinancing risk in the case of an unexpected increase in interest rates.

Seventhly and lastly, the longer the policies remain in place, the more difficult it is to exit from them. The combination of delayed adjustments, new sources of fragility, a disturbed market signal and the atrophy of the market may make the central banks more reluctant to normalise policies[2]. The addiction of many banks in the euro area to the Eurosystem and, potentially, of the US government to the Federal Reserve complicates matters additionally. It is essential that the fundamental problems are compensated for by way of adequate measures (budgetary rebalancing, structural reforms and restoration of the banks' capital base), at the risk of an overly slow and overly delayed exit. Moreover, the fact that highly accommodating policies are being conducted at the same time by the world's main central banks globalises the reach of the risks attached to them.

(1) Cf. BIS (2010).
(2) Cf. Hannoun (2012).

Conclusion

Beyond the lowering of their key policy rates, the Federal Reserve and the Eurosystem both responded to the financial crisis by adopting numerous non-conventional monetary policy measures. From the appearance of the initial tensions on the money markets up to the months that followed the insolvency of Lehman Brothers, the two central banks were largely faced with the same challenges, namely preserving financial stability, maintaining the effective transmission of monetary policy, stimulating economic activity and ensuring price stability. Whilst each of them revised the operational framework of its monetary policy, the initial monetary policy framework and the predominance of the non-banking financial sector in financing the economy in the United States forced the Federal Reserve towards more substantial changes.

Since the beginning of 2010, however, the challenges have clearly diverged and elicited more specific responses. In order to stimulate growth and reduce the risk of deflation in a context of historically low rates, the Federal Reserve, for example, undertook massive purchasing of Treasury securities with the aim of applying pressure to long-term rates and developed its communication policy in order to influence expectations. For its part, in order to preserve the effective transmission of monetary policy in the context of the sovereign debt crisis, the Eurosystem launched its Securities Markets Programme. In the face of the improvement in the economic situation and the upside risks weighing on price stability at the beginning of 2011, it raised its key rates before reducing them again at the end of the year, following a worsening of the tensions on the sovereign debt markets and a deterioration in the macroeconomic outlook. In order to prevent a credit rationing, it moreover took additional, non-conventional measures of monetary policy.

The action taken by the central banks in the course of the last few years has largely made it possible to prevent the collapse of the financial system and to support economic activity. However, this in turn presents its own share of challenges and risks. Whilst the current high level of excess liquidity is not a direct threat to price stability, conducting an accommodating monetary policy over a long period may bring with it numerous perverse effects. It is important to remain aware of the limits of monetary policy, which is not a substitute either for the capital strengthening or the conduct of healthy fiscal and structural policies. Whilst the crisis demands a rethink on how macroeconomic policy is conducted, it is moreover essential, in a situation of high government debt, to safeguard the principles on which the credibility of the central banks is based.

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Reform of the Special Finance Act for the Communities and Regions

P. Bisciari
L. Van Meensel (*)

Introduction

On 10 October 2011, eight parties with a special majority in the federal parliament concluded an agreement on the sixth reform of the Belgian State (1). From an economic and budgetary point of view, the two most important aspects of that reform are the transfers of new powers from the federal level to the Communities and Regions, and the revision of the Special Finance Act for the Communities and Regions of 16 January 1989, which has been amended on a number of occasions since that date.

As in previous State reform phases – in 1970, 1980, 1988/89, 1993 and 2001 –, powers are being transferred from the federal level to the federated entities. In the Belgian federal structure, the Walloon, Flemish and Brussels-Capital Regions, which are territorially defined entities, already exercise their powers in spheres such as land use planning, housing, the environment, public works, supervision over local authorities and their general funding, and certain aspects of policy concerning agriculture, energy, transport, employment and the economy. The French, Flemish and German-speaking Communities mainly have powers relating to personal matters, such as education, culture and certain aspects of social support and health policy. In the bilingual Brussels-Capital Region, some community powers are exercised by the French and Flemish Communities, and others by the Joint Community Commission, the French Community Commission and the Flemish Community Commission. In Flanders, the community and regional institutions have been merged.

In most cases, the agreement on the revision of the Finance Act concerns principles and mechanisms. The reference amounts for the transfer of powers and for the variation parameters have not yet been finally set. Since the figures are not fixed, the ones presented in this article should be treated with a degree of caution.

Taking account of the legislative process for the adoption of the texts implementing the sixth State reform, the new Finance Act and the power transfers would probably only come into force in 2014. However, a number of mechanisms should be applied before that date. That should be the case in 2012 for the refinancing of the Brussels institutions and the mechanism giving the federated entities more responsibility for pensions.

The article is structured as follows. Section 1 outlines some key features of the macroeconomic and demographic reference framework, focusing particularly on developments in the three Regions of the country. Section 2 sets out the main mechanisms of the current Finance Act and presents the results of a projection of the main revenues of the Communities and Regions, assuming there is no change of policy. Section 3 reviews the transfers of powers. Section 4 explains the changes which will be made to the Finance Act. The article concludes with some final remarks.

(*) With the assistance of K. Van Cauter.

(1) A special majority is required for the adoption of institutional reform laws. It implies a majority of two-thirds in the Chamber of Representatives and in the Senate, and a simple majority in each language group (French or Dutch).

1. Demographic and macroeconomic prospects per Region

The political negotiations on the reform of the Finance Act were conducted with the technical assistance of the Federal Planning Bureau and the Bank. Simulations of the institutional variants were produced on the basis of a consistent demographic and macroeconomic framework for the three Regions and for the country as a whole up to 2030. They are based on the medium-term economic outlook published by the Federal Planning Bureau in May 2011.

This demographic and macroeconomic framework determines the expected developments concerning the revenues transferred from the federal government to the Communities and Regions under the current Finance Act. It is also a key background element of the institutional negotiations, both for revising the mechanisms of the law dated 16 January 1989 and for organising the funding of transfers of new powers covering such diverse spheres as family allowances, support and health care for the elderly, or employment schemes.

1.1 Population

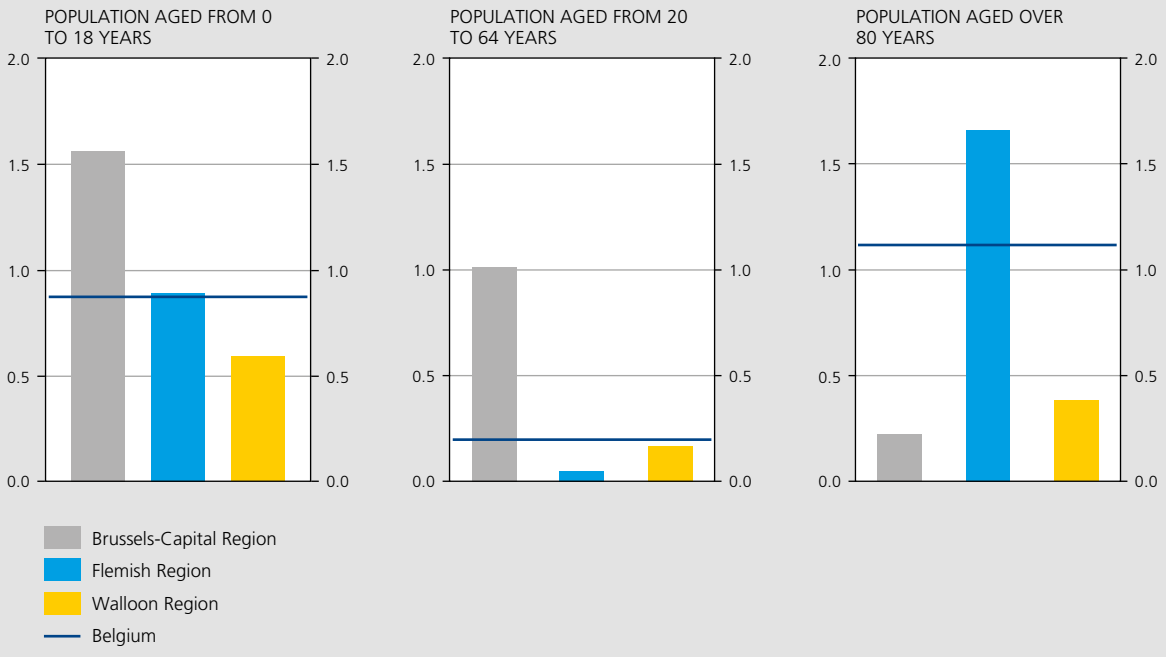
According to the forecasts, the population of Belgium is expected to rise from 11.1 million in 2012 to 12.1 million in 2025, implying annual average growth of around 0.8 % over the period considered. The population growth is likely to be strongest in the Brussels-Capital Region. It is expected to be a little more pronounced in the Flemish Region than in the Walloon Region.

During the period 2012-2025, the population aged from 0 to 18 years is projected to grow very strongly in the Brussels-Capital Region, around twice as fast as in the Flemish Region and at almost three times the growth rate in the Walloon Region. The main factor behind the strong population growth of the first Region is therefore likely to be the birth rate.

The population aged from 20 to 64 years, which reflects the population of working age, is expected to increase only slightly in the country as a whole, by around 0.2 % per annum throughout the period. Once again, there are divergences between the Regions. The population of working age is set to stagnate in the Flemish Region. In the Walloon Region, it is likely to expand at a slightly

CHART 1 POPULATION FORECASTS

(percentage average annual change over the period 2012-2025)



Source : FPB.

lower rate than this low national average. Conversely, the Brussels-Capital Region will be an exception, with the population of working age growing by around 1 % per annum, on average. That reinforces the image of a young, dynamic population in that Region.

Taking account of the assumptions concerning life expectancy, the number of persons over the age of 80 years is likely to rise considerably in Belgium by 2025. The average growth rate for that age group is estimated at 1.1 %, which is higher than for the other two age groups considered here. That growth is very unevenly distributed between the Regions. It is driven primarily by the Flemish Region, where the number of very elderly persons is expected to increase by an annual average of 1.7 % between now and 2025. In the other two Regions, the rise is put at less than 0.5 %. The stronger growth in the Flemish Region is due both to a higher birth rate in the past and to longer life expectancy.

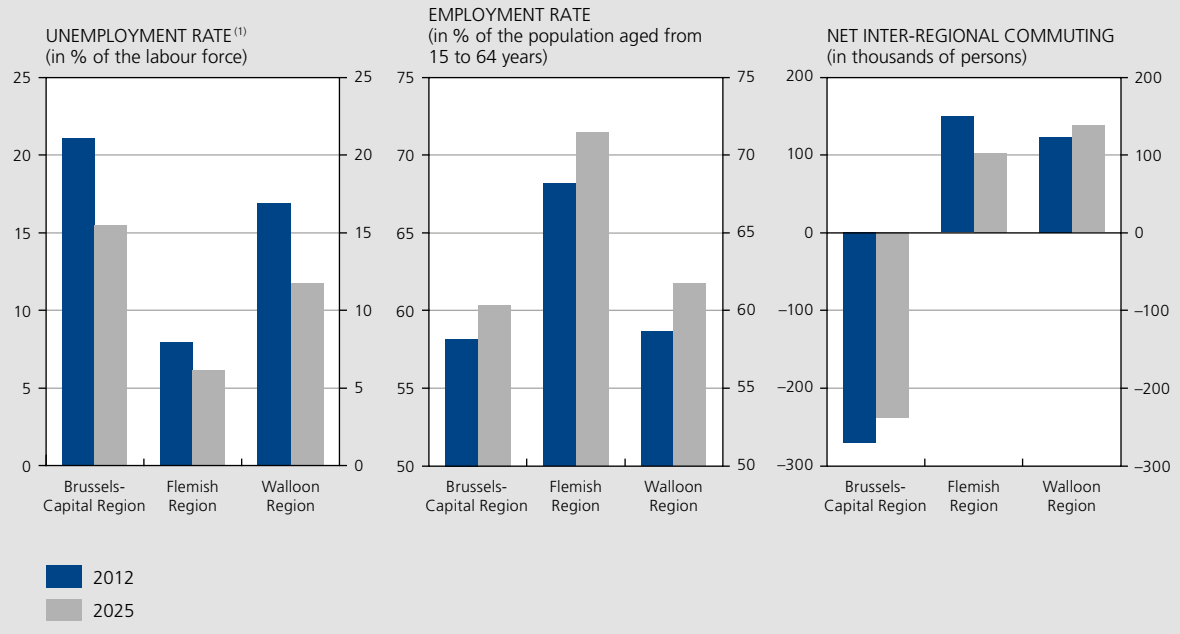
1.2 Labour market

Between 2012 and 2020, the unemployment rate is estimated to fall by just over 2 percentage points in each of the Regions. In the Flemish Region, it should drop to a low point in 2020 of 6.2 % according to the broader definition including older unemployed persons, and will subsequently stay at this low level, considered to be a minimum. In the other two Regions, the unemployment rate should continue falling after 2020. This means that it is likely to fall by much more in the Walloon Region and the Brussels-Capital Region than in the Flemish Region, while remaining at significantly higher levels, respectively representing 11.8 and 15.5 % of the labour force in 2025.

The employment rate is forecast to rise in the three Regions during the period considered, but is likely to increase more strongly in the Flemish Region (+3.3 percentage points) and in the Walloon Region (+3 points) than in the Brussels-Capital Region (+2 points). Consequently, the employment rate will remain much higher in the Flemish Region than in the other two Regions.

Maintaining the dynamism of employment in the Flemish Region requires a significant change in commuter flows with the other Regions. In 2012, the difference between the number of persons going to work in the Brussels-Capital Region while living in the Flemish Region or the Walloon Region and the number of persons living in the Brussels-Capital Region and working in one of the other two Regions of the country is estimated at 271 000

CHART 2 MAIN LABOUR MARKET VARIABLES



Source : FPB.

(1) According to the administrative concept in the broad sense used by the Federal Planning Bureau. That includes all persons registered as job-seekers with the regional employment agencies, and older unemployed persons not seeking work.

persons. In net terms, 149 000 of them are from the Flemish Region and 122 000 from the Walloon Region. In the macroeconomic reference scenario, this net flow of commuters to the Brussels-Capital Region is forecast to decline to 239 000 persons by 2025. That fall is notably attributable to a rise in the number of Brussels commuters finding work in the Flemish Region. Over the same period, increasing numbers of Walloons are also expected to find jobs in the Flemish Region. Consequently, the net total of commuters from the Flemish Region is likely to fall to 102 000.

1.3 GDP by volume

In the macroeconomic reference scenario, the average annual growth of GDP by volume comes to 1.9 % over the period 2012-2025. Compared to the national average, the growth rate during that period is likely to be 0.1 percentage point lower in the Brussels-Capital Region and in the Walloon Region, whereas it should be marginally higher in the Flemish Region. The stronger economic growth in this last Region, more apparent at the end of the period, is due essentially to more sustained employment growth.

1.4 Personal income tax

During the period 2012-2025, with no change of policy, and therefore no change in the tax laws, personal income tax revenues tend to rise faster than GDP for two reasons.

First, the personal income tax yield increases faster than the tax base owing to the progressive character of the tax – the tax rates go up at the transition from one tax band to the next – and because some tax relief schemes and the tax-free allowance do not increase as quickly as the tax base.

Second, the tax base expands faster than GDP because, unlike the latter, it includes pension incomes (transfers in the national accounts), and those incomes are rising as a result of population ageing.

The Region with the strongest economic growth, namely the Flemish Region, will not be the one to see the fastest rise in personal income tax revenues. In fact, that Region will actually record the smallest increase in the personal income tax yield between 2020 and 2025, despite having the strongest expansion of activity. This situation is due to substantial changes in commuter flows. GDP is in fact calculated on the basis of the place of production, and therefore the place of work, whereas personal

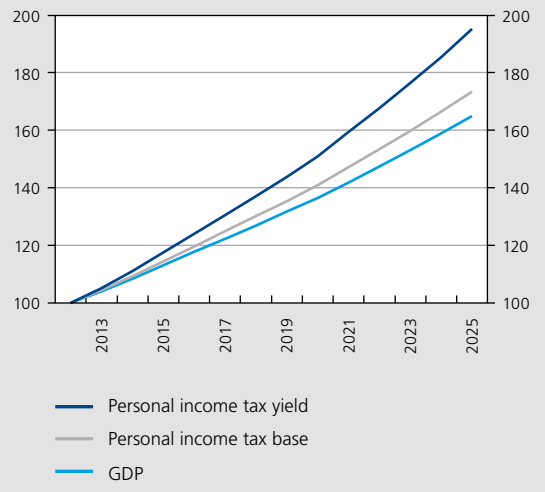
CHART 3 MACROECONOMIC REFERENCE SCENARIO

(percentage changes compared to the previous year)

Source : FPB.

CHART 4 PERSONAL INCOME TAX YIELD AND TAX BASE IN RELATION TO GDP

(projections with no change in the law for Belgium, indices 2012 = 100, in nominal terms)



Sources: FPB, NBB.

income tax revenues are calculated according to the place of residence. The extra number of Walloon and Brussels commuters to the Flemish Region will contribute simultaneously to stronger growth and employment in the Flemish Region and a faster increase in the personal income tax yield in the Walloon Region and the Brussels-Capital Region.

2. Analysis of the current Finance Act

2.1 Principal mechanisms of the Finance Act

The current method of financing the Communities and Regions has been in force since 2002. In fact, the special law of 13 July 2001 on the refinancing of the Communities and extension of the fiscal powers of the Regions, which had implemented the Lambermont Agreement, brought profound changes in the calculation of the budgets available to the federated entities.

The revenues of the Communities and Regions consist mainly of part of the personal income tax and VAT revenues handed over to them by the federal government in accordance with parameters defined in the Finance Act. The Regions can also collect their own tax revenues. Finally, the federated entities receive grants from the federal government, plus the proceeds of the sale of goods and services and miscellaneous other revenues.

PERSONAL INCOME TAX RESOURCES PASSED ON

The revenues derived from personal income tax and attributed to the Communities and Regions are linked to inflation as measured by the national consumer price index, and to the movement in GDP at constant prices. The resulting amount is shared between the entities on the basis of the yield from the personal income tax collected in each territory. Regarding the determination of the allocation key between the Communities, 80 % of the personal income tax collected in the Brussels-Capital Region is allocated to the French Community and 20 % to the Flemish Community.

The amounts paid to the Regions by way of personal income tax are reduced by a "negative term" to compensate for the supplementary regional taxes granted since 2002 under the Lambermont Agreement. The adjustment of this negative term is indexed on prices and 91 % linked to GDP growth, except for the part related to the radio & television licence fees transferred from the Communities to the Regions. This part of the negative term as well as a compensatory grant received by the Communities are only adjusted in line with inflation.

In addition, a national solidarity allowance is paid to the Regions whose per capita proceeds from personal income tax is below the figure for the country as a whole. This solidarity allowance constitutes part of the personal income tax transferred by the federal government.

Finally, the resources derived from personal income tax include two smaller transfers effected since the implementation of the Lambermont Agreement, the first in favour of the French and Flemish Community Commissions and the second for the municipalities of the Brussels-Capital Region, channelled via that Region.

VAT RESOURCES PASSED ON

When the Special Finance Act of 16 January 1989 was first introduced, the VAT revenues attributed to the Communities corresponded to budget appropriations for education. Since then, there has no longer been any explicit link between the two, as the Communities have total autonomy over all their revenues. Initially, under the Finance Act, these resources were adjusted only in line with the national consumer price index and with 80 % of the change in the number of persons under the age of 18 years living in the Community where the number of young people had risen the most or fallen the least since

1988. In that connection, 80 % of the number of young people under the age of 18 years in the Brussels-Capital Region is attributed to the French Community and 20 % to the Flemish Community. The Lambermont Agreement considerably increased the VAT revenues passed on by granting flat-rate increases of € 198 million in 2002, € 149 million in 2003 and 2004, € 372 million in 2005, € 124 million in 2006 and € 25 million for the period between 2007 and 2011. In addition, from 2007 the total amount of the VAT grant has been 91 % linked to real growth of GDP at constant prices.

In regard to the sharing of VAT revenues, the Finance Act initially envisaged a progressive transition from the allocation of the education appropriations in force in 1988 to an allocation based on the number of pupils registered in 1987. At the time of the Saint-Éloi Agreement of 1 December 1999, it was decided that, from the year 2000, the revenues would be allocated on the basis of an annual pupil census. However, the Lambermont Agreement ended the sole use of the number of pupils as the basis for allocating the VAT grant, and accorded growing importance to the personal income tax revenues in each Community. In practice, in 2002 the allocation of the additional resources provided for by the Lambermont Agreement – and therefore not the budget originally provided for in the 1989 Finance Act – was based 65 % on the number of pupils and 35 % on the personal income tax revenues. The latter percentage increased gradually to 100 % in 2012.

OWN TAX REVENUES

The resources at the disposal of the Regions are also derived from their fiscal autonomy. The Regions' own tax revenues consist mainly of regional taxes and levies. The regional taxes are taxes which used to be exclusively federal and were then regionalised, in whole or in part, by the Finance Act and its successive revisions. In practice, this concerns inheritance taxes, gift taxes, certain registration fees, road tax, vehicle licence tax, Eurovignette, withholding tax on income from immovable property, radio & television licence fees and three minor taxes, namely the tax on amusement machines, the tax on gambling and betting and the tax on the opening of establishments selling drinks. The regional levies are taxes or levies collected by the Regions on matters within their sphere of responsibility, notably water and waste management.

The Lambermont Agreement also gave the Regions more fiscal autonomy over personal income tax. Since 2004, the Regions have been able to levy additional percentages or grant tax relief of up to 6.75 % of the personal income tax collected in the Region. In practice, no Region has raised any additional resources by this means. Conversely, in the recent part, the Flemish Region has made use of the option of cutting taxes, notably via the tax relief for people in work (*jobkorting*).

The Communities have virtually no tax revenues of their own since they have no exclusive territory and hence no tax-raising powers.

OTHER GRANTS FROM THE FEDERAL STATE

Apart from the VAT and personal income tax revenues handed over, the federal government also funds the Communities and Regions on the basis of various grants with their own specific adjustment rules and allocation keys. The German-speaking Community is funded primarily by a federal grant. The country's other two Communities receive two other federal grants, one to finance foreign students and the other for inter-university cooperation. The three Regions are given drawing rights for the funding of programmes for getting the unemployed back to work. The Brussels-Capital Region receives two additional grants, one by way of mortmain and the other, known as Beliris, for the purpose of public investment. The Joint Community Commission also receives a grant from the federal government.

2.2 Expected trend in the revenues of the Communities and Regions

We begin with a general account of the expected trend in the revenues of the Communities and Regions, assuming there is no change in the institutional framework. Next, we present more detailed comments on two funding mechanisms which, under the agreement on the State reform, see changes to their implementing arrangements. This concerns the transferred VAT revenues and the national solidarity allowance.

2.2.1 Overview

Under the current Finance Act, taking account of the demographic framework and the macroeconomic reference scenario, the main revenues of the federated entities – the three Communities, the three Regions and the three Community Commissions – would increase by around 0.2 percentage point of GDP between 2012 and 2025.

The resources of the Flemish Community would expand steadily as a percentage of GDP. That growth would be due to the Community's share, the main factor being that the VAT resources increase not only with inflation and real economic growth, but also with demographics.

TABLE 1 MAIN REVENUES OF THE COMMUNITIES AND REGIONS[1]

(reference scenario, in % of GDP)

	2012	2015	2020	2025	Change 2012-2025
Flemish Community	6.55	6.62	6.73	6.78	0.23
Community	3.49	3.55	3.65	3.72	0.23
Region	3.06	3.08	3.08	3.06	0.00
French Community	2.33	2.34	2.34	2.35	0.02
Walloon Region	1.68	1.67	1.65	1.63	–0.05
Brussels-Capital Region	0.66	0.66	0.66	0.65	–0.01
German-speaking Community	0.04	0.04	0.04	0.04	0.00
Community Commissions	0.02	0.02	0.02	0.02	0.00
Total	**11.27**	**11.36**	**11.44**	**11.46**	**0.19**

Sources: FPB, NAI, State revenue and resources budgets, NBB.

(1) These are transferred resources derived from personal income tax and VAT (excluding settlement balances), own tax revenues (regional taxes and certain regional levies) and various other federal grants.

The population under the age of 18 years is estimated to expand between now and 2025. Moreover, the additional resources granted under the Lambermont Agreement, allocated on the basis of the personal income tax key which is more favourable to the Flemish Community than the pupil key, will make up a growing share of the resources derived from VAT (cf. Section 2.2.2.). The population factor also has a positive influence on the VAT resources of the French Community, but the latter feels the increasing effect of the personal income tax key, which is less advantageous than the pupil key in this case. Consequently, the resources of the French Community are projected to grow much more slowly than those of the Flemish Community.

As a percentage of GDP, the resources of the Walloon Region are set to diminish steadily, while those of the Flemish and Brussels-Capital Regions are expected to stagnate. There are several factors behind these divergences. First, the three Regions will see their own tax revenues and the federal grants other than transferred personal income tax revenues rise more slowly than GDP owing to Finance Act parameters or underlying assumptions, depending on the case. Conversely, there is the effect of the negative term. Insofar as the initial amount of personal income tax transferred is linked to real GDP growth and inflation, and the negative term – deducted from that initial amount – increases more slowly than GDP, the amount ultimately assigned to the Regions increases faster than GDP. Finally, two other aspects linked to the personal income tax revenues transferred tend to erode the revenues assigned to the Walloon Region to a greater extent than those assigned to the Brussels-Capital Region. First, since the basic amount of the solidarity allowance is only index-linked, the weight of the latter in GDP declines over the years in these two Regions, but the expected fall should be curbed in the Brussels-Capital Region by the strong population growth. Second, the personal income tax key is expected to work against the Walloon Region and in favour, primarily, of the Brussels-Capital Region.

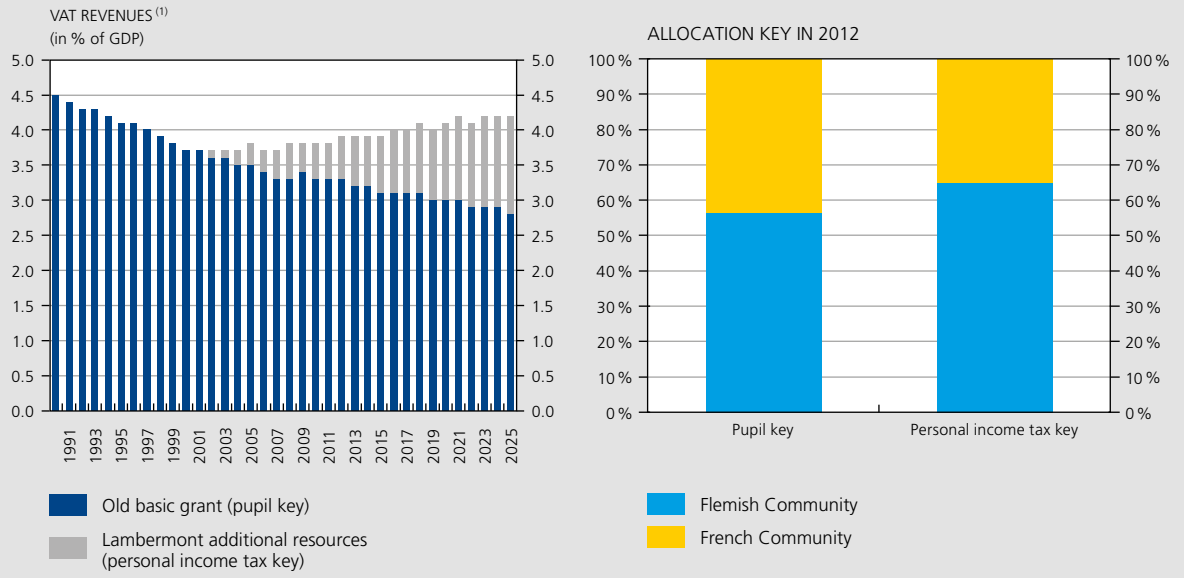
The relatively limited resources granted to the Community Commissions taken as a whole and to the German-speaking Community are likely to keep pace with GDP up to the year 2025.

2.2.2 Transferred VAT revenues

Until 2001, the VAT revenues assigned to the Communities, allocated according to the pupil key, were adjusted solely in line with inflation and the change in the number of young people under 18 years of age. Consequently, that VAT grant declined steadily in relation to GDP: between 1990 and 2000 it had fallen from 4.5 to 3.7 % of GDP.

From 2002, following the Lambermont Agreement, additional resources derived from VAT were granted to the Communities. These include – since 2007 – a 91 % link between the overall VAT grant (old basic VAT grant plus additional resources) and real GDP change. The main factor which could affect the ratio between that grant and GDP is therefore demography. At the time, taking account

CHART 5 VAT RESOURCES TRANSFERRED TO THE COMMUNITIES



Sources: FPB, State revenue and resources budgets, NBB.
(1) Excluding settlement balances.

of the expectation of a slight fall in the birth rate, the resources transferred to the Communities and Regions were projected to virtually stagnate as a percentage of GDP, as a result of this refinancing. On the basis of the latest population forecasts which imply a relatively high birth rate until 2025, the VAT grant could rise slightly faster than GDP, increasing from around 3.8 to 4.2 % of GDP between 2012 and 2025.

The Lambermont Agreement accorded growing importance to the personal income tax yield in each Community as allocation key. The old basic VAT grant is in fact only adjusted in line with inflation and the population under the age of 18 years, so that it is declining as a percentage of GDP, while the additional resources derived from VAT, allocated according to the personal income tax key, considerably outpace the rise in GDP, hence the name "Lambermont turbo". These divergences have some implications for the sharing of resources between the Communities, as the personal income tax key is much more favourable to the Flemish Community than the pupil key. Thus, in 2012, according to the reference projection, the personal income tax key would assign 65.2 % to the Flemish Community and 34.8 % to the French Community, while the figures according to the pupil key would be 56.6 % for the Flemish Community and 43.4 % for the French Community.

2.2.3 National solidarity allowance

The solidarity allowance is a transfer from the federal government to the Regions where the proceeds from personal income tax per capita are less than the figure for the country as a whole. In 1988, the basic amount of this allowance stood at € 11.60 per head of population and per percentage point difference between the regional figure and the national average for proceeds from personal income tax per capita. That amount is indexed annually.

The Flemish Region has never received any solidarity allowances, since the proceeds of personal income tax per capita have always exceeded the national average there.

Conversely, the Walloon Region has received a solidarity allowance each year. The negative gap in terms of the proceeds of personal income tax per capita in relation to the national average, which was already nearly 10 % in 1990, widened further and fluctuated between 10 and 15 % over the period as a whole. In 2012, it is estimated at around 12 %.

In the Brussels-Capital Region, personal income tax per capita has fallen sharply in relative terms. While the level of personal income tax revenues per capita there was still 12 % above the national average in 1990, that

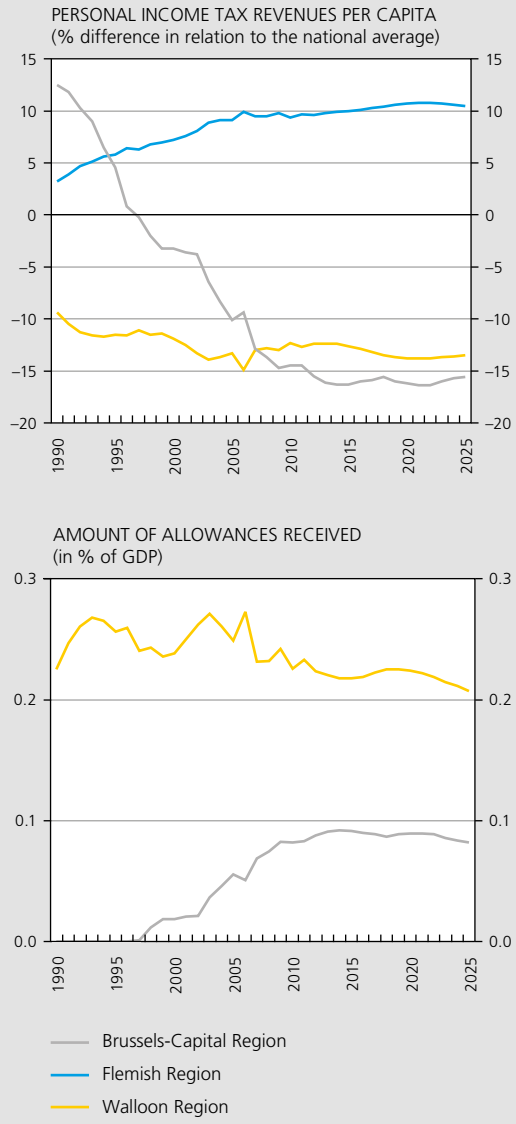
positive gap narrowed steadily and changed to a negative gap. That gap then widened to over 15 % in 2012. The Brussels-Capital Region has therefore qualified for a solidarity allowance since 1997, and the amount of it has risen rapidly, too, on account of the particularly strong population growth in that Region.

The increase in the ratio between the solidarity allowance and GDP is therefore due mainly to the addition of the Brussels-Capital Region as a recipient and the rapid increase in the amount paid to that Region.

In the future, according to the reference scenario, the negative gaps in the personal income tax per capita in relation to the national average could continue to widen slightly, both in the Walloon Region and in the Brussels-Capital Region. However, the solidarity allowances paid to each of those two Regions should decline as a percentage of GDP, since the allowances are not linked to the volume of economic activity.

The solidarity allowance mechanism has attracted criticism, notably from the academic world[1]. It has the perverse effect that an improvement in the relative economic situation in a Region receiving this allowance is liable to lead to a reduction in its revenues. In fact, the loss of revenue by way of the solidarity allowance would be greater for the Region than the positive effects of a better key for the allocation of the personal income tax resources. However, that argument is only valid if these two elements of regional finances are considered on their own, excluding other regional revenues, Community funding – in which part of the grants is also allocated according to the proceeds from personal income tax – and municipal funding which depends very much on the additional percentages charged on personal income tax. Moreover, even if the comparison is confined to regional finances, the perverse effect would eventually weaken over time until it disappeared, since the initial amount of the personal income tax revenues allocated to the Regions moves in line with GDP, whereas the solidarity allowance is only indexed and linked to the population.

CHART 6 SOLIDARITY ALLOWANCE



Sources: FPB, State revenue and resources budgets, NBB.

(1) The proceeds from personal income tax used for the calculations for a year (t) correspond to those recorded for the previous tax year and therefore to the revenue from tax due on income earned in t–2.

2.3 Reasons for revising the Finance Act

The revision of the Finance Act was on the State reform agenda for two main reasons. First, it was necessary to define the mechanisms for funding the new powers devolved to the Communities and Regions. Second, there were calls from various political parties on both sides of the language divide, demanding changes to certain facets of the Finance Act.

The agreement reached on the Finance Act adhered to a number of principles which had been set in the summer of 2010. The aim was to increase the financial autonomy of the federated entities, notably by significantly boosting their own revenues. However, the greater fiscal autonomy desired in regard to personal income tax had to meet three requirements, namely to avoid unfair competition,

(1) Cf. in particular Cattoir and Verdonck (2002), Algoed and Heremans (2008), Chaidron *et al.* (2009), Leibfritz (2009), Verdonck *et al.* (2009) and Heremans *et al.* (2010).

maintain the progressive character of the tax, and maintain the fiscal prerogatives of the federal government regarding the inter-personal redistribution policy. The strengthening of the financial autonomy of the federated entities was also to entail their assumption of increased responsibility in relation to their powers and the policy which they pursue.

Other principles were intended to ensure a balanced agreement. Thus, the issues at stake simultaneously concerned avoiding the structural impoverishment of one or more federated entities, guaranteeing the long-term viability of the federal State, and ensuring the financial stabilisation of the entities. In a deteriorated overall fiscal context, another principle stated that account must be taken of the efforts which all the entities must make in order to consolidate public finances.

Some specific features of the Finance Act also needed revising. The Brussels-Capital Region was to be refinanced with due regard for externalities, such as inter-regional commuter flows, and the sociological reality and specific role of that Region as the capital of Belgium and of the EU. A solidarity mechanism was to be maintained between the entities, but it must be free of any perverse effects. Finally, in the revision of the Finance Act, it was agreed to take account of criteria concerning population and pupils. For example, there is implicit reference to the use of demographic criteria for allocating the resources relating to the new powers devolved to the Communities and the Community Commissions. In addition, greater importance was attached to the pupil criterion for allocating the transferred VAT resources originally intended to fund the principal competence of the Communities, namely education.

3. Transfer of powers

The State reform implies an additional transfer of powers accompanied by budget resources from Entity I, comprising the federal government and social security, to the Communities and Regions. For 2011, the size of this transfer of new powers can be estimated at around € 16.2 billion, or 4.4 % of GDP. More powers were transferred to the Communities – including the Community Commissions in the case of Brussels – than to the Regions.

The majority of the resources transferred to the Communities and the Community Commissions concerns family allowances. A substantial amount is also provided for health care and social support, including the health care provided for the elderly, essentially accommodation facilities such as retirement homes, retirement and care homes, and separate geriatric hospitals, and support allowances for elderly persons. The other expenditure on health care and social support comprises hospital infrastructures, mental health services, preventive medicine and the organisation of front-line health care. Most of these powers concern expenditure which currently comes under social security. Expenditure relating to other powers, notably in the sphere of justice, has also been transferred to the Communities.

In regard to the Regions, the main item transferred – from the point of view of the budget – concerns the labour market. These transfers originate from both the federal government and social security. A significant proportion of these powers relates to revenue rather than expenditure. This primarily concerns reductions in certain social security contributions. Another important power transferred to the Regions concerns tax expenditure, which is effectively a reduction in revenues. The main tax expenditure concerns housing (own-home allowance, tax relief for home savings, and additional deduction for mortgage interest), energy-saving investment and the use of service

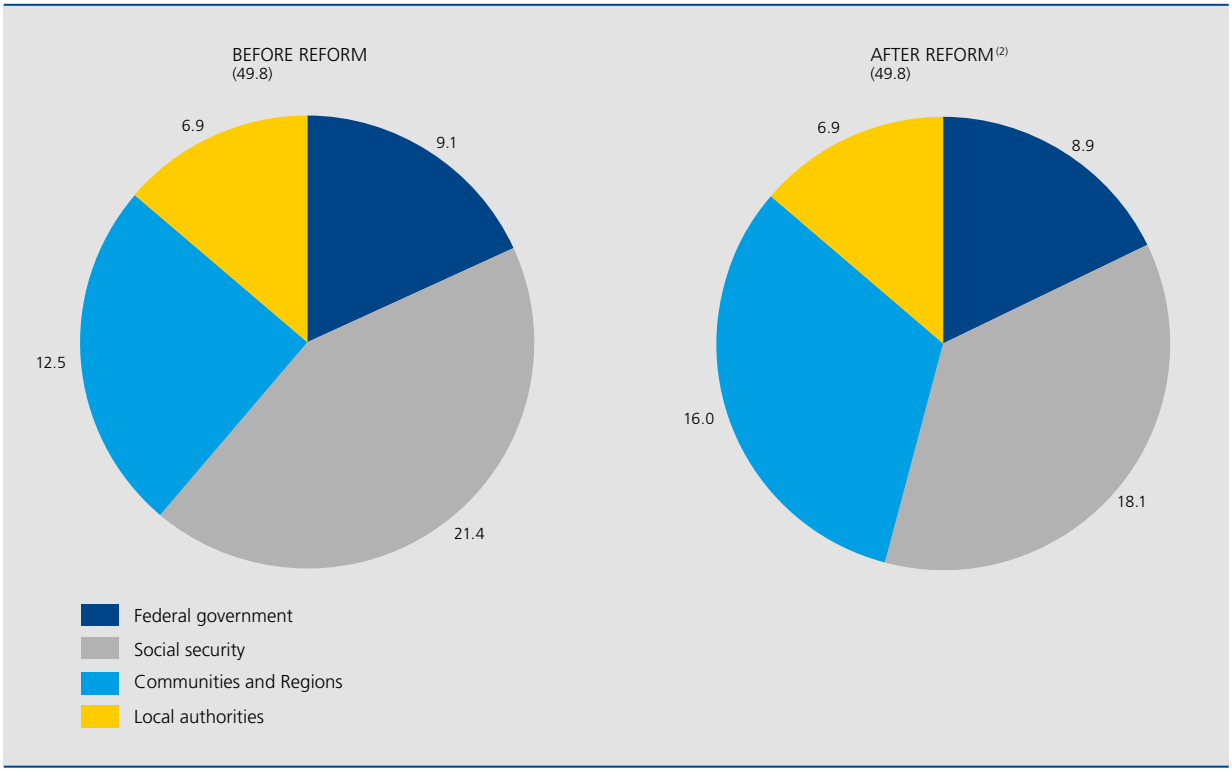
TABLE 2 TRANSFER OF POWERS TO THE COMMUNITIES AND REGIONS

	Amounts[1] (in € billion)	In % of GDP
To the Communities and Community Commissions	10.2	2.8
Family allowances	5.9	1.6
Health care and social support	4.2	1.1
of which:		
Accommodation facilities for the elderly	2.5	0.7
Support allowances for elderly persons	0.5	0.1
Other powers	0.1	0.0
To the Regions	6.0	1.6
Labour market	3.8	1.0
of which:		
Reductions in revenues	1.3	0.3
Tax expenditure	1.9	0.5
Other powers	0.2	0.1
Total	**16.2**	**4.4**

Source: Agreement on the State reform, NAI, NBB.

(1) These are the amounts mentioned in the agreement on the State reform, excluding the drawing rights for the funding of programmes for getting the unemployed back to work, since those rights were already the subject of a federal grant to the Regions, while the Participation Fund expenditure is not included since, in the national accounts, that Fund does not come under the general government sector. Most of the estimates concern the year 2011, but – depending on the subject – these amounts may relate to other years. In any case, they precede the implementation of substantial cuts in the federal budget for 2012, particularly regarding the tax deduction for energy-saving investment.

GRAPHIQUE 7 FINAL PRIMARY EXPENDITURE OF THE GENERAL GOVERNMENT SUB-SECTORS[1]
(in % of GDP, estimate based on 2011 figures)



Sources: Agreement on the State reform, NAI, NBB.
(1) Not including transfers between general government sub-sectors so that only final expenditure is considered.
(2) Excluding powers transferred on the revenue side (tax expenditure and reductions in social security contributions).

vouchers. Finally, miscellaneous other transfers concern small amounts.

All of these transfers of fiscal powers mean a significant change in the relative weight of the general government sub-sectors. On the basis of the 2011 figures, if the reform had been implemented, the primary expenditure of the Communities and Regions would have risen from 12.5 to 16 % of GDP. The additional 3.5 percentage points would have come almost exclusively from social security expenditure, which would have fallen from 21.4 to 18.1 % of GDP. The federal government's primary expenditure would be down only slightly, from 9.1 to 8.9 % of GDP. This is the first time that such significant powers have been transferred from social security.

4. Revision of the Finance Act

The financial aspects of the agreement on the State reform concerns the mechanisms of the Finance Act, the terms of the fiscal autonomy of the Regions, and the refinancing of the Brussels institutions. Some of the Finance Act variables, such as the reference amounts for the transfers of powers and their variation parameters, have yet to be set following the debate on the consolidation of public finances, which is to restore a balanced budget in Belgium by 2015. The situation of the German-speaking Community requires a specific review.

The ensuing sub-sections will review the new funding mechanisms of the Regions and Communities respectively. Two specific aspects will then be analysed, namely the refinancing of the Brussels institutions and the contribution giving the federated entities more responsibility for the pensions of their permanent staff.

4.1 Revision of regional funding

4.1.1 Overview

For the Regions, one of the main changes resulting from the agreement on the Finance Act concerns their increased fiscal autonomy. Thus, they can levy 'extended' additional percentages on the personal income tax federal

revenues. In the future, those additional percentages will constitute the principal revenue of the Regions. They will replace the basic personal income tax grant and the bulk of the negative term, and will provide part of the funding for the transferred tax expenditure.

Most of the transferred tax expenditure and new powers concerning employment attract additional resources shared between the Regions on the basis of a fiscal key.

A national solidarity allowance is retained, but the details are adjusted to eliminate the perverse effects.

Apart from these revenues, a very small number of other grants remain unchanged[1]. Regional taxes and levies are also unchanged.

Taking account of all the changes to the method of regional funding, some entities would receive fewer resources under the new system than under the old one. There is a transitional mechanism to ensure that no entity gains or loses at the time of the switch from the old law to the new one. The amount of the transitional mechanism is held constant in nominal terms for ten years. It is then reduced in a straight line for the following ten years until it disappears.

There is an exception for certain elements, in that the transitional mechanism does not compensate for them, so that they exert an immediate budgetary effect on relations between the federated entities and the federal government. This concerns the refinancing of the Brussels institutions and two specific mechanisms for the transfer of responsibility, the first concerning pensions and the second climate[2]. If a Region exceeds its target for greenhouse gas emissions for buildings, it receives a financial bonus charged to the federal share in the auction of emission quotas. Conversely, if a Region fails to meet its target it must pay a penalty.

4.1.2 Extension of fiscal autonomy

The agreement on the State reform considerably increases the fiscal powers and autonomy of the Regions in regard to personal income tax. We shall begin by examining the degree to which fiscal autonomy has been extended before explaining the detailed arrangements and the limits of the fiscal autonomy. Finally, we shall mention a crucial budgetary issue raised by fiscal autonomy, namely elasticity gains.

4.1.2.1 Scale of the fiscal autonomy

The fiscal autonomy concerns a sum of € 10.7 billion in 2012, or around a quarter of the personal income tax revenues collected in Belgium. That sum corresponds to the old basic personal income tax grant, estimated at € 14.3 billion, reduced by the major part[3] of the negative term (€ 4.3 billion) and increased by 40 % of the transferred tax expenditure. Since the latter amounts to around € 1.9 billion, that 40 % represents roughly € 0.8 billion.

The increased fiscal autonomy in relation to personal income tax is additional to the autonomy already existing as a result of successive institutional reforms. For each Region, the scale of the fiscal autonomy – whether it relates to personal income tax or other taxes – can be measured by the share of the total revenues represented by the Region's own tax revenues, defined as regional taxes, certain regional levies and the personal income tax additional percentages or reductions. Before the revision of the Finance Act, fiscal autonomy for the year 2012 amounted to 38.5 % in the Walloon Region, 43.5 % in the Flemish Region and 51 % in the Brussels-Capital Region.

Following the reform, taking account of the resources transferred to cover the new powers, the share of own tax revenues – including fiscal autonomy relating to personal income tax – in the total revenues considered increases to 66.1 % in the Walloon Region, 68.1 % in the Brussels-Capital Region and 78.4 % in the Flemish Region.

4.1.2.2 Detailed rules on fiscal autonomy

In practice, the increased fiscal autonomy is granted in the form of 'extended' regional additional percentages on personal income tax revenues. Those additional percentages are levied on the tax retained at federal level, after deduction of the amount covered by fiscal autonomy. Box 1 gives a broad outline of this new system.

The regional additional percentages apply to the tax according to the tax scales, after taking account of the tax-free allowance – including the supplementary allowance for dependants – and tax relief on replacement incomes and incomes of foreign origin. Applying the additional percentages at a fairly low level in the calculation of the tax means that the yields between Regions are similar to

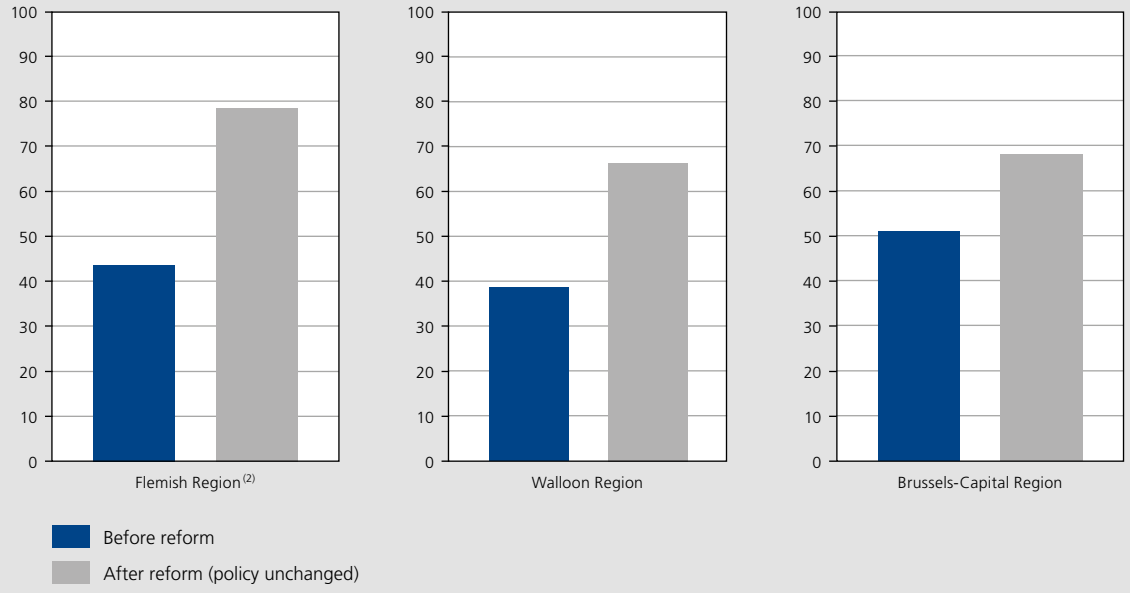
(1) These grants concern additional resources made available under previous revisions of the Finance Act (1993 for agriculture and 2002 for a series of powers having a minor budgetary impact) and certain grants specific to Brussels, created by the Lambermont Agreement (such as the one for the municipalities with at least one Dutch speaker on the municipal board and the one for the single-language Community Commissions).

(2) The details of this mechanism have yet to be devised and will be defined by an ordinary law, to be adopted at the same time as the Finance Act.

(3) A small part is not subtracted in determining the amount for which fiscal autonomy applies. It forms the residue of the negative term. These amounts are no longer included separately and therefore come under the transitional mechanism.

CHART 8 SHARE OF OWN TAX REVENUES IN THE TOTAL RESOURCES OF THE REGIONS[1]

(on the basis of estimated figures for 2012, in %)



Sources: FPB, State revenue and resources budgets, NBB.

(1) The resources considered in the analysis include the own tax revenues, the transferred resources derived from personal income tax and VAT, and other federal grants. The new resources to be transferred following the sixth phase of the State reform are also taken into account.

(2) In the case of the Flemish Community (taking the Region and the Community together), the share of own tax revenues will rise from 20.3 to 34.4 %.

those obtained on the basis of the key for the proceeds of personal income tax. Compared to the key for the personal income tax base, this key allocates almost 2 % more to the Flemish Region and around 2 % less to the Walloon Region. This difference is due to various factors. First, since the average income is higher in the Flemish Region, the tax collected in that Region is greater owing to the progressive character of the tax. Next, the tax relief on replacement incomes affects the Walloon Region more than the Flemish Region, particularly in view of the higher unemployment rate. Finally, proportionately more residents of the Walloon Region than the Flemish Region receive incomes of foreign origin, particularly incomes from transfrontier work.

The agreement puts down some markers defining fiscal autonomy. The federal government retains exclusive competence to determine the tax base and the payroll tax, and to collect the tax. It is also free to set the tax rates. The federal government exercises all these rights without the Regions being able to invoke any conflict of interests. To preserve the strictly federal character of the tax base, the transferred tax expenditure is – or will become – a set of instruments affecting the tax due, and not the tax base. Therefore, for example, the own-home allowance is to be converted to tax relief in the same way as that for home savings. The aim is thus to avoid any interference between regional policies and federal policy.

TABLE 3 REGIONAL ALLOCATION KEYS FOR VARIABLES RELATING TO PERSONAL INCOME TAX

(estimated amounts with no change of policy for the 2012 income year, in %)

	Flemish Region	Walloon Region	Brussels-Capital Region
Extended regional additional percentages	63.3	28.2	8.5
Personal income tax proceeds[1]	63.2	28.1	8.7
Personal income tax base	61.4	30.2	8.4

Sources: FPB, NBB.

(1) Excluding municipal additional percentages.

For their part, the Regions will in future be able to levy proportional general additional percentages, and grant fixed-rate or proportional general reductions – without

Box 1 – Practical arrangements concerning the extended additional percentages on personal income tax revenues

The operation of the new system is illustrated by the simplified example of a single person with no dependants, with a taxable income of € 30 000 in 2011, not qualifying for any tax relief or special tax deductions.

On the basis of the tax rates and taxable income bands in the 2012 tax year, under the current system the person would have to pay € 9 350 in tax, taking account of basic tax of € 10 992 and a tax-free allowance of € 1 643, i.e. 25 % of total tax-free income (€ 6 570).

To illustrate the new system, the formula for allocation between the federal government and the Regions is taken as 75 %-25 %. In that case, to maintain the tax burden and tax revenues unchanged overall, an additional 33.3 % would need to be levied on the federal tax cut by a quarter.

Under the new system, each of the tax bands is cut by a quarter. The basic federal tax in the example comes to € 8 244, i.e. three-quarters of the tax levied by the federal government under the current system. The reform allows the Regions to subdivide this basic federal tax into bands as they wish, and for each of those bands the Regions are free to decide the additional percentage to be levied, but the basic federal tax – cut by a quarter – remains unchanged.

Next, federal tax relief is calculated, corresponding to the tax-free allowance, the extra tax-free allowance for dependants, and the tax relief on replacement incomes. The amount of this federal tax relief is subtracted from the basic federal tax calculated according to the taxable income, beginning with the lowest tax bands. In the example

CALCULATION OF THE PERSONAL INCOME TAX BEFORE AND AFTER REGIONALISATION FOR A SINGLE PERSON WITH A TAXABLE INCOME OF € 30 000

(tax year 2012; in € unless otherwise stated)

Taxable income bands	Marginal rate (in %)	Tax accruing to the federal government			Tax accruing to the Regions	Total tax
		Basic tax	Tax-free allowance	Federal tax excluding allowance		
Current system (before regionalisation)						
0 – 8 070	25	2 018	1 643	375		375
8 070 – 11 480	30	1 023	0	1 023		1 023
11 480 – 19 130	40	3 060	0	3 060		3 060
19 130 – 35 060	45	4 892	0	4 492		4 492
Total		**10 992**	**1 643**	**9 350**		**9 350**
New system (after regionalisation, with no change of policy, with application of uniform 33.3 % regional additional percentages)						
0 – 8 070	25	1 513	1 232	281	94	375
8 070 – 11 480	30	767	0	767	256	1 023
11 480 – 19 130	40	2 295	0	2 295	765	3 060
19 130 – 35 060	45	3 669	0	3 669	1 223	4 892
Total		**8 244**	**1 232**	**7 012**	**2 338**	**9 350**

given here, only the tax-free allowance is taken into account. That allowance, also cut by a quarter, is subtracted from the lowest tax band. It is thus equivalent to € 1 232, or likewise 25 % less than the relief calculated under the current system.

Overall, the single person considered would therefore have to pay tax of € 7 012 in favour of the federal government, or 25 % less than under the current system.

If the Region where the single person in the fictitious example lives levies an additional 33.3 % on the federal tax in each of the tax bands, the single person will have to pay € 2 338 in favour of the Region, so that the total payable in tax, taking all levels of power together, will be € 9 350, as under the current system. If there is no change of policy, the new system is therefore neutral for taxpayers.

The simplified example takes no account of certain incomes or certain tax relief. Under the new system, the tax relief on incomes of foreign origin will be imputed proportionately. The regional additional percentages will also apply to certain incomes which are taxable separately, except for income from movable property and some miscellaneous incomes such as taxable capital gains, which remain within the exclusive competence of the federal government. Furthermore, for these incomes there will be a uniform, single additional percentage rate, in that there will be no differentiation between bands and a single rate will apply whatever the federal tax rate on that income.

any limits – and refundable tax credits in their sphere of competence. They are also free to decide their tax bands and the rate of the additional percentage per band without constraints where it is a matter of making the system more progressive, but with two restrictions if the system is being made more regressive. First, the regional surcharge on a tax band cannot be less than 90 % of the highest surcharge on the lower tax bands. Second, the concession per taxpayer cannot exceed an indexed figure of € 1 000 per annum.

4.1.2.3 Elasticity gains

As already explained in Section 1.4, if the tax laws remain unchanged, personal income tax revenues will rise faster than GDP. The resulting revenue differential is often referred to as "personal income tax elasticity gains". Under the current Finance Act, the federal government benefits from these gains. In fact, the resources derived from personal income tax which it transfers to the Regions are linked only to the change in GDP. In future, the Regions will benefit from these gains to the extent of the amount of the personal income tax revenues covered by fiscal autonomy. To compensate for the resulting loss of revenues for the federal government, the new regional grant – essentially covering the resources for employment and transferred tax expenditure – will only be 70 % linked to real GDP growth.

No one can be sure about the net effect resulting from the interplay between, on the one hand, this incomplete link between the new regional grant and economic growth, and on the other hand, the elasticity gains for the Regions amounting to the extent of their fiscal autonomy. It is in fact difficult to predict accurately the extent to which personal income tax revenues will grow faster than GDP. Moreover, the elasticity gains are based on the assumption that there is no change in the law, and that implies an increase in the tax pressure. Yet the tax laws could be changed between now and 2025, and that might affect the outcome *ex post*.

4.1.3 Funding the new regional powers

Since 40 % of the resources necessary to cover the tax expenditure are included in the regional fiscal autonomy relating to personal income tax, the remaining 60 %, like the 90 % of the resources needed to exercise the powers relating to employment, are provided for the Regions in the form of a new grant for the transferred powers. In the case of employment, the amount in question (€5.3 billion in 2012) also includes the drawing rights which were already transferred to the Regions in the form of a special grant (€0.5 billion). The transitional mechanism covers the other 10 %.

The new grant will be adjusted in line with inflation and 70 % of real GDP growth. This grant is allocated according to the key concerning the personal income tax retained at federal level, i.e. the personal income tax collected by the federal government from which is deducted the part over which the Regions have fiscal autonomy. That deduction is intended to ensure that a Region's resources are not affected by the fiscal policies chosen by the other Regions, more specifically by the exercise of their fiscal autonomy. In 2012, the key concerning the personal income tax retained at federal level would allocate 63.5 % of the resources to the Flemish Region, 28 % to the Walloon Region and 8.5 % to the Brussels-Capital Region.

In regard to the other powers, which have less impact on the budget, the institutional agreement is still relatively vague. It is a question of one or more specific grants. The adjustments to those grants have yet to be determined. The grants will be allocated according to "usage" keys and hence according to need.

4.1.4 Revision of the solidarity allowance

A national solidarity allowance has been retained. As before, this concerns a vertical transfer in the form of a grant from the federal government to the Regions where the personal income tax per capita is below the national average.

However, the details concerning the allowance have been revised. The amount due to the recipient Regions under the new mechanism is determined by the following formula : 80 % x (db – dpb) x V. In this formula, db represents the Region's share in the population of Belgium, and dpb is the Region's share in the personal income tax retained at federal level. V is the basic amount taken into account for calculating the solidarity allowance. That basic amount is equal to the whole amount covered by fiscal autonomy and all or part of the regional and community grants allocated according to a fiscal key. In 2012, that would correspond to € 20.1 billion, or the € 10.7 billion covered by regional fiscal autonomy relating to personal income tax, € 5.3 billion of the new regional grant shared according to a fiscal key (labour market and tax expenditure), and 50 % of the € 8.2 billion grant paid to the Communities and allocated according to a fiscal key.

Consequently, the allowance now only compensates for 80 % of the gap between a Region's share in the population and its share in the personal income tax retained at federal level, but the basic amount now includes both regional and community resources. In 2012, the new mechanism leads to a solidarity allowance which is lower than the old one. Conversely, the basic amount will increase not only with inflation, as under the old system, but also with real economic growth.

4.2 Revision of the funding of the Communities

4.2.1 General

In order to exercise their new powers, the Communities are being allocated additional resources in the form of grants. These grants are allocated on the basis of demographic keys depending on the nature of the power in question (cf. 4.2.2.).

The resources available to the Communities for their old powers are restructured. They comprise a grant allocated according to the number of pupils attending French-language and Dutch-language schools, plus a grant allocated according to a fiscal key (cf. 4.2.3.).

The other federal grants are unchanged. They concern funding for foreign students and inter-university cooperation.

As in the case of the Regions, a transitional mechanism is provided to ensure that no entity loses resources at the time of the switch to the new Finance Act, and the mechanism giving the Communities more responsibility for pensions is strengthened.

4.2.2 Financing the new powers

The basic amounts for the three main new powers transferred to the Communities, namely family allowances, various matters relating to elderly persons, and other powers transferred in regard to health care and social support, are determined on the basis of the resources granted by the federal government. For 2012, the total amount concerned is estimated at € 10.6 billion.

The basic amounts are then shared among the entities on the basis of demographic keys. Once these resources have been shared out, they follow their own dynamics within each entity. The entities concerned vary slightly according to the subject. The Flemish and French Communities are always involved, but in the case of the Brussels-Capital Region, the transfer always takes place via the Joint Community Commission, the French and Flemish Community Commissions also share competence for matters concerning the elderly. The German-speaking Community is mentioned in the agreement on the State reform in regard to the transfer of family allowances.

The resources for family allowances are allocated according to the population aged from 0 to 18 years in each entity. Those concerning the elderly are allocated on the basis of the population over the age of 80 years. The resources to cover the other aspects of health care and social support are allocated between the entities in proportion to the total population.

Apart from inflation, the criteria for adjusting the resources to cover the new Community powers vary from case to case. The finance for family allowances only tracks the movement in the population aged from 0 to 18 years in the various entities, but part of the "welfare" budget may also permit an adjustment in real terms for resources devoted to this type of social benefit. The funding of responsibilities relating to the elderly is adjusted both according to the change in the population aged over 80 years in each entity and 82.5 % of real GDP growth per capita at national level. The resources allocated to other health care and social support are adjusted in line with 82.5 % of real GDP growth. The agreement on the State reform presents the restriction of the link to growth to 82.5 % as a form of contribution by the federated entities to the cost of ageing.

Finally, in the case of the other powers transferred to the Communities, notably those concerning justice, the resources will be allocated on the basis of "usage" keys. The criteria for adjusting these resources are yet to be determined.

4.2.3 Funding of the old powers

The old powers – the main one in terms of budgetary importance being education – are funded essentially by a new grant allocated according to the number of pupils aged between 6 and 17 years, attending French-language and Dutch-language schools. That criterion was used to share out the resources of the old basic VAT grant, i.e. the part of these revenues allocated which existed before the Lambermont Agreement. That allocation criterion now applies to this new grant which includes two other elements, as well as the old basic VAT grant. The first element is the "link to economic growth" element of the additional resources over the period 2010-2012 under the Lambermont Agreement. The second is the compensatory grant for the radio & television licence fee which used to form part of the allocated personal income tax revenues.

The new grant is estimated at around € 13.8 billion in 2012. While the old basic VAT grant was not linked to economic growth, the new grant, allocated according to the number of pupils, is linked to growth. As used to be the case for the VAT grant as a whole, the new grant is indexed and linked to 91 % of real GDP growth. The link to population is still limited to 80 % and based on the Community with the fastest expanding population under the age of 18 years since 1988.

Alongside the grants based on demographic keys, there is still a grant allocated according to a fiscal key. The allocation key here is again the proceeds from personal income tax retained at federal level. In regard to the proceeds from personal income tax collected in the Brussels-Capital Region, the institutional formula used previously is unchanged. It allocates 80 % of those proceeds to the French Community and 20 % to the Flemish Community. That grant comprises not only the resources derived from personal income tax but also the additional resources derived from VAT, granted under the Lambermont Agreement, except for the element now included in the grant allocated according to the pupil key. In other words, the additional resources derived from VAT and transferred to the grant allocated according to a fiscal key are the flat-rate annual increases and the share of the link to economic growth over the period 2007-2010. The grant allocated according to a fiscal key, estimated at € 8.2 billion in 2012, will be adjusted according to inflation and 82.5 % of real GDP growth.

One of the innovations concerning the funding of the old Community powers therefore consists in the termination of the "Lambermont turbo". From now on, the old basic VAT grant and the additional resources essentially form part of two separate grants largely linked to economic growth, the first allocated according to the pupil key and the second according to the key concerning the personal income tax retained at federal level.

4.3 Refinancing of the Brussels institutions

There is provision for refinancing the Brussels institutions to the tune of € 461 million by 2015. Several mechanisms have been introduced, concerning either the Brussels-Capital Region, or the Community Commissions or the municipalities in the Brussels-Capital Region. Each mechanism has its own rationale and its own dynamics, but the agreement concerns the figures for 2015, rather than the mechanisms.

By 2015, the Brussels-Capital Region, the municipalities in that Region and the French and Flemish Community Commissions will receive refinancing amounting respectively to € 363, € 58 and € 40 million. In addition, as was assumed in the projection with no change of policy, the amounts currently allocated to Beliris (€125 million) are confirmed.

TABLE 4 REFINANCING OF THE BRUSSELS INSTITUTIONS

(in € million)

	2012	2013	2014	2015
Part applicable from 2012	134	175	217	258
Amounts allocated	110	151	192	233
of which:				
Security (municipalities)	30	30	30	30
Language premiums (municipalities)	25	26	27	28
Mobility	45	75	105	135
Community Commissions	10	20	30	40
Amount not allocated (mortmain)	24	24	25	25
Finance Act part[1] (amounts not allocated)	0	61	129	203
Compensation for commuters[2]	0	13	28	44
Compensation for employees of international institutions	0	48	101	159
Total	**134**	**236**	**346**	**461**
of which:				
Amounts allocated	110	151	192	233
Amounts not allocated	24	85	154	228

Source: Agreement on the State reform.

(1) Assuming the Finance Act enters into force in 2012, this part applies from 2013 to prevent the effects of refinancing being negated by the transitional mechanism.

(2) Since this compensation is horizontal, it is not charged to the federal government but to the other Regions.

The refinancing of the Brussels institutions is in two parts. The first should enter into force in 2012 pursuant to a special law which will also modify various aspects of the organisation of the Brussels-Capital Region and its periphery. The 2012 budgets of the federal government and the Brussels-Capital Region take account of this refinancing. The second part would come into force with the new Finance Act.

4.3.1 Part applicable from 2012

For the first part, the only refinancing mechanism in which the amount is not allocated to a specific need is the increase in the compensation for the "mortmain". This concerns the exemption from withholding tax on income from immovable property, applicable to certain buildings belonging to public legal entities. The resulting shortfall for the municipalities is compensated by the federal government. This particularly affects the municipalities of the Brussels-Capital Region owing to its status as a capital city and the high concentration of national and international organisations in its territory. In the 1989 Finance Act, for these municipalities, the mortmain compensation has been transferred to the Region. Under the revision of the Finance Act, the refinancing in relation to mortmain consists in increasing the compensation from 72 to 100 % and extending it.

Four other mechanisms for the refinancing of the Brussels institutions consist in granting amounts earmarked for a predetermined expenditure item. The only mechanism benefiting the Brussels-Capital Region is a new mobility policy grant paid directly by the federal government, intended particularly for public transport. Another mechanism aims to boost the resources of the single-language Community Commissions. The special grant which has existed since the Lambermont Agreement is increased in a linear fashion over four years from 2012. That grant is still allocated on the basis of 80 % for the French Community Commission and 20 % for the Flemish Community Commission. The last two mechanisms benefit the municipalities. This respectively concerns a "language premium" grant and a supplementary appropriation granted to the Fund for the financing of expenditure relating to security, resulting from the organisation of European summits.

4.3.2 Part implemented by the new Finance Act

The second part enters into force in the year following the introduction of the new law, so that the effects of this refinancing are not negated by the transitional mechanism guaranteeing that, in the first year, no entity is a winner or loser.

This part first consists of an adjustment for commuters. The idea is that many commuters living in the Flemish Region or the Walloon Region use public services in Brussels without the Brussels-Capital Region receiving any financial support so far, since personal income tax is calculated on the basis of the household's place of residence, not the place of work. In future, the Brussels-Capital Region will therefore receive a grant which will make up for part of this shortfall. Since the compensation for commuters is a horizontal mechanism, the revenues accruing to the Brussels-Capital Region will come from the other Regions rather than from the federal government. The total cost of the refinancing of the Brussels institutions borne by the federal government is therefore the total minus the compensation for commuters.

This second part also comprises a mechanism to compensate for the fact that regional taxes have not been collected from employees of international institutions such as the EU or NATO. There are proportionately greater numbers of those workers in the Brussels-Capital Region than in the other two Regions of the country. Their wage bill represents 15.4 % of the tax base of the Brussels-Capital Region, compared to barely 0.7 % in the Flemish Region or the Walloon Region. The grant will apply only to the higher proportion of international officials in the tax base of the Brussels-Capital Region than in the other two Regions.

After 2015, the agreement on the State reform provides for the refinancing to be capped at 0.1 % of GDP but only in the case of the Brussels-Capital Region, i.e. excluding the municipalities and the Community Commissions. In order to respect that constraint, the agreement comprises a number of brakes on the growth of the mechanisms described above. Thus, the resources allocated to the two mechanisms of the part relating to the Finance Act, i.e. those compensating for the effect of commuters and employees of international institutions, will be frozen in nominal terms, the "mobility" grant will be linked to inflation and only 50 % of real GDP growth, and – as in the reference scenario with an unchanged institutional framework – the mortmain grant will continue to be indexed only.

4.4 Contribution of the federated entities to the budgetary cost of ageing

The institutional debates took place against the backdrop of a Belgian general government deficit that was deemed excessive according to the European rules. In 2011, the deficit was located primarily at federal level, while the Communities and Regions as a whole recorded only a slightly negative balance. Moreover, since the bulk of the budgetary costs of population ageing are still in the future and will mainly affect the federal government and social security, the State reform agreement provides for two mechanisms whereby the federated entities will share in the effort to consolidate general government finances. The agreement targets the two sectors coming under the federated entities which are most directly affected by the lengthening life expectancy, namely the powers transferred under the institutional reform and relating to elderly persons, and the pensions for their civil servants.

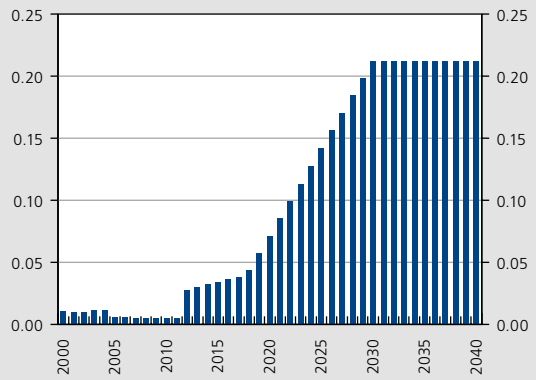
Regarding support and health care for the elderly, the participation of the Communities – or the Community Commissions in the case of Brussels – results from the application of a partial link between the corresponding grant and economic growth. The grant is adjusted according to the number of persons over the age of 80 years in each entity, inflation and 82.5 % of real GDP growth per capita. The same applies to the other transferred powers relating to health care and social support, for which the resources are linked to inflation and 82.5 % of real GDP growth.

The pension costs of Communities' and Regions' civil servants are borne by the federal State. Since 1994, there has been a mechanism for sharing responsibility, to ensure that the federated entities contribute to the cost of these pensions. However, the federated entities' contribution to the payment of pensions for their permanent staff was particularly small. The special law of 5 May 2003 introducing a new method of calculating the responsibility contribution due from certain public sector employers provided for increasing that contribution, but the new mechanisms were never applied. Under the State reform agreement, the mechanisms will enter into force in 2012. The 2012 federal budget includes the corresponding amounts. The State reform agreement also introduces a new mechanism from 2016, whereby the federated entities pay the federal government a contribution towards the salaries of their permanent staff : by 2030, that will match the rate applicable to contract workers, currently 8.86 %. From 2016, the contribution collected will be the higher of the two : the one resulting from application of the special law of 5 May 2003 or the one under the new mechanism. The new mechanism should supersede the old one fairly quickly.

The contribution of the federated entities concerning responsibility for pensions is set to increase steadily and accelerate from 2019. Up to 2018, it would be less than 0.05 % of GDP. In 2030, it would reach 0.21 % of GDP. The biggest contributions would always come from the Communities rather than the Regions, owing to their relatively larger wage bill due primarily to the presence of teaching staff.

CHART 9 CONTRIBUTION OF THE FEDERATED ENTITIES CONCERNING RESPONSIBILITY FOR PENSIONS[1]

(in % of GDP)



Sources: FPB, NAI, NBB.

(1) After 2030, the civil servants' wage bill is assumed to grow in line with GDP, and the contribution rate is held at 8.86 %.

It should be remembered that, since the mechanism concerning responsibility for pensions is separate from the transitional mechanism, it represents a transfer from the federated entities to the federal government from 2012.

5. Final remarks

The State reform agreement comprises the transfer of powers amounting to around 4.4 % of GDP. The transferred powers mostly come under social security rather than the federal government. This is the first time that substantial social security powers have been shifted. Moreover, the powers are transferred largely to the Communities and Community Commissions – institutions with no fiscal powers of their own – rather than to the Regions.

In view of the main aims and principles defined before the revision of the Finance Act, the fiscal autonomy of the Regions is increased in relation to personal income tax, but with certain limits, and if there is no change in the legislation, the federated entities should not be any poorer, thanks to the personal income tax elasticity gains. For their part, the Brussels institutions are refinanced. A solidarity allowance is maintained but it is adjusted. There is also provision for a transitional mechanism to neutralise the effects of the reform when it enters into force, and to limit the scale of its effects during the first decade.

As it stands, the agreement on State reform does not solve the issue of the various entities' participation in the necessary consolidation of Belgian public finances. Although the agreement includes an increased contribution from the federated entities towards the budgetary cost of ageing, the federal government and social security still bear most of the expenses associated with this demographic phenomenon. It is therefore important to determine the sharing of the consolidation efforts needed to restore a balanced budget in Belgium by 2015, to specify the arrangements for the participation by the federated entities and, in that connection – as stipulated by the agreement – to finally set certain Finance Act variables, such as the reference amounts for the transfer of powers and their variation parameters.

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Asset formation by households during the financial crisis

Philip Du Caju

Introduction

The financial crisis which erupted in 2008, in the aftermath of the mid-September bankruptcy of American bank Lehman Brothers, is still affecting the world economy today. The resultant market turmoil caused investors to take refuge in assets regarded as safe. Governments had to take exceptional measures to help the banking sector, because the vulnerability of the banks was a threat to the financial system as a whole.

This turbulence naturally also affected Belgian households. The impact on household finances was manifold, affecting the savings ratio, asset values, portfolio decisions, etc. This article takes a close look at that last element. Traditionally, economists analyse the allocation of savings to the various investment instruments on the basis of macroeconomic statistics from the financial accounts. However, the Bank now also interviews households about their financial behaviour, using a survey specially devised for that purpose. This means that microeconomic data on household finances are now also available. The first wave of this survey took place in 2010. The questionnaire included a set of questions on the impact of the financial crisis on household wealth. The answers to these specific questions are now available and are analysed in this article.

The first section of this article explains the information used at household level, as these data – which are still partial and provisional – are being used for the first time. It gives a brief outline of the organisation and operation of the survey on the financial behaviour of households, and describes the composition of the household sample and the content of the questionnaire, including specific *ad-hoc* questions about the financial crisis.

The second section of the article focuses on the structure of household assets. That structure will be illustrated on the basis of microeconomic data from the household survey. Here, the survey data mainly concern the period prior to the crisis. In the case of decisions concerning assets, and more particularly the response in the context of the financial crisis, the willingness of households to take risks plays an important role. This is therefore examined as well.

The third section deals with changes in household assets since the start of the financial market turbulence. As far as possible, it looks at the period before, during and after the financial crisis. After that, the article analyses whether, how and to what extent households switched resources between different asset components in the context of the financial crisis. It also examines which assets households want to avoid in future, after the turbulence.

1. Information on the financial situation of households

The financial accounts are the classic macroeconomic data source most commonly used for the purpose of analysing the financial situation, and more specifically the assets, of households. The financial accounts offer a detailed overview of the trend in the claims and financial debts of the national institutional sectors – non-financial corporations, financial corporations, government and households – in relation to one another and of the national economy in relation to the rest of the world. Those accounts form an integral part of the system of national accounts, comprising a coherent series of continuous, coordinated accounts. In contrast, until recently there was little or no

microeconomic information available in Belgium at the level of individual households. That has changed now that the Bank conducts a survey on this subject covering a sample of Belgian households. That survey is explained below.

1.1 Organisation of a survey on the financial behaviour of households

Since there is no general asset register in Belgium, and since such registers in other countries never offer a full picture of all types of asset components, survey data are vital to gain an idea of the distribution of assets between households and the asset structure of individual households.

Some countries, such as France, Italy, the Netherlands and Spain, but also the United States, have for some time had surveys which inquire into the assets of households and their financial behaviour. The aim of such surveys is to supplement the existing macroeconomic data from the financial accounts with microeconomic information at the level of individual households, in order to permit specific scientific research and policy-relevant analysis, and to gain an insight into aspects concerning the breakdown of assets and liabilities. Furthermore, the individual data can be used to improve the financial accounts. The National Bank therefore decided to organise a household asset survey in Belgium, too. The plan is to conduct such surveys every three years. For the first wave, interviews were carried out in Belgium from April to September 2010. The Bank is currently processing the raw data obtained. For this article we used partial, provisional results of the survey.

The sample of Belgian households was composed on the basis of three regional strata (the Regions) with the aim of making the survey results representative. It was also intended to obtain the best possible estimate of total household wealth. The aim was therefore to interview relatively larger numbers of affluent households than the less well-off. Since there are no usable register data on the level of the assets of individual households, the approach was to interview relatively more households with higher incomes. However, individual income data cannot be used to select households. The population was therefore divided into eight income strata (from the lowest to the highest income band) on the basis of the average taxable income of the statistical sector (a district in a municipality) in which they live.

Altogether, 2 364 households were interviewed, covering the three regional strata and the eight income strata. More than 11 000 households had to be contacted for this purpose; the response rate was 21 %. If we look at the share of various household types (size) and household members (age group) in the total population and in the interviewed survey sample, there will of course be differences. However, those differences are not all that big. Single-person households and households comprising persons over 65 years of age are relatively underrepresented in the survey sample.

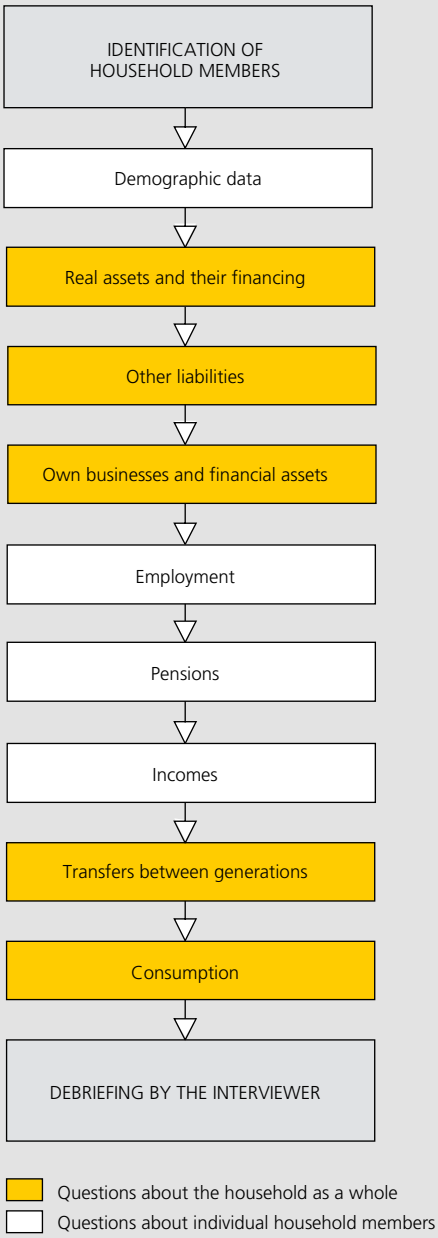
1.2 Content of the household survey

The questionnaire for the survey of the financial behaviour of households is fairly long. For households which have many different assets and financial resources, the interviews could take over an hour, and sometimes much longer. When answering the questions, respondents were able to use documentation such as statements of account, pay slips, etc. Naturally, this enhances the completeness and accuracy of the data collected. Some of the questions concern individual household members, while others concern the household as a whole.

The questionnaire is in nine sections:

- the first section contains questions on the household's demographic data. For example, this section gives information on the size and type of household, and on the age, sex and level of education of the household members;
- the second section deals with real assets and their financing. This mainly concerns real estate (primarily the household's own residence) and the associated mortgage loans. In addition, there is information on other real possessions, principally vehicles;
- the third section supplements this with the other liabilities, such as consumer credit. Specific attention also focuses on any credit constraints which households have recently experienced;
- the fourth section covers own businesses and financial assets. As well as own businesses (including self-employed occupations) and shares in unlisted companies, this concerns all the financial instruments which households may use;
- the fifth section concerns employment. It looks at the labour market situation of the household members, namely their status (working, retired, etc.), occupation, type of contract, etc.

CHART 1 STRUCTURE OF THE QUESTIONNAIRE FOR THE SURVEY OF THE FINANCIAL BEHAVIOUR OF HOUSEHOLDS



Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

– the sixth section covers pensions. This section is intended to ascertain the degree to which household members are covered by statutory or supplementary pension systems;

– the seventh section on household incomes is interested in all income sources, ranging from earned income and benefits of all kinds to other income sources (such as investments);

– the eighth section concerns transfers between the generations, covering both inheritances and gifts;

– the ninth section on consumption is reasonably short. This section contains quantitative questions on consumption of food and drink and more qualitative questions about expenditure in general, and its relationship to income.

The questions were answered by the person most familiar with the household finances. Normally, i.e. if that person is a member of the household (and not an external bookkeeper or guardian, for example), that individual is also the household's reference person for the study. Certain individual characteristics used to divide households into categories then concern that person (e.g. age and education).

This article uses partial and provisional results for the second and third sections of the questionnaire, particularly household assets, both real and financial. More especially, it analyses the households' answers to a number of specific *ad-hoc* questions about the impact of the financial crisis on asset decisions (e.g. on the asset structure before the crisis, shifts during the crisis, and changed behaviour as a result of the crisis). Information from the first and fifth sections (household characteristics, demographic data and information on the labour market position) is used to analyse differences between households in regard to real and financial assets.

2. Risk willingness and asset structure

This section analyses the asset structure of households. First, it focuses on the willingness of households to run risks when taking financial decisions, because that willingness influences the structure of their assets.

2.1 Willingness to take risks in financial decisions

Willingness to take risks when making financial decisions plays a crucial role in all theoretical models of financial markets, and is a key explanatory factor for interpreting empirical findings concerning the financial behaviour of households.

TABLE 1 HOUSEHOLDS' WILLINGNESS TO TAKE FINANCIAL RISKS IN DECISIONS ON SAVINGS AND INVESTMENTS

(in % of all participating households which answered the question)

	In %	Number
Take substantial financial risks and expect to earn substantial returns	0.8	19
Take above-average financial risks and expect to earn above-average returns	4.7	109
Take average financial risks and expect to earn average returns	23.9	559
Unwilling to take any financial risk	70.7	1 656
Total	**100.0**	**2 343**

Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

The survey therefore explicitly asks households about their risk willingness when inquiring about their financial behaviour. More specifically, they are asked: "*Which of the following attitudes best describes the financial risks that you are willing to take in decisions on savings and investments?*". The households taking part had to choose from the following possible answers:

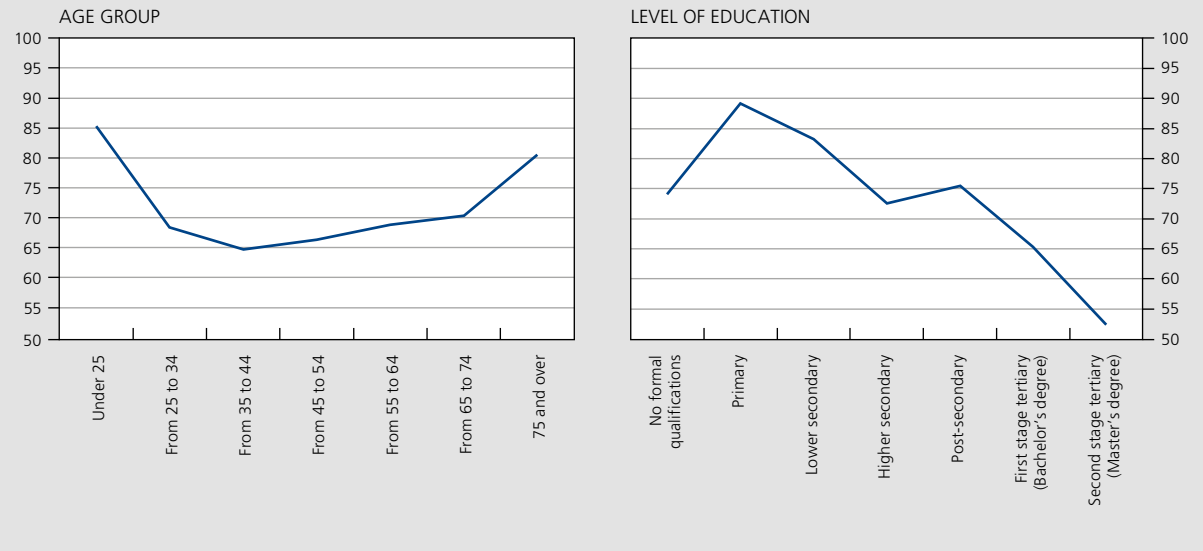
- *I take substantial financial risks and expect to earn substantial returns*
- *I take above-average financial risks and expect to earn above-average returns*
- *I take average financial risks and expect to earn average returns*
- *I am not willing to take any financial risk.*

Of the 2 343 households which answered this question, the great majority (70.7 %) stated that they were unwilling to take any risks. Another 23.9 % take average financial risks, while 4.7 % say that they are wiling to take above-average risks. Only 0.8 % (19 households) claim to take substantial financial risks. Since the category unwilling to take any risks is so large and the other three are a lot smaller, we shall compare this large category of risk-averse households with the other three smaller categories combined in some parts of the subsequent analysis in this article.

Willingness to run risks when taking financial decisions is connected with (almost) totally exogenous factors such as age and level of education. That willingness is also determined partly by socio-economic circumstances, such as whether or not the household owns its home, and also by the household situation (the reference person of the household is single or one of a couple, and with or without other dependent household members).

CHART 2 HOUSEHOLDS WHICH ARE NOT WILLING TO TAKE FINANCIAL RISKS IN DECISIONS ON SAVINGS AND INVESTMENTS

(in % of the households concerned which answered the question)



Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

In most cases, the youngest households (age of the reference person) are not willing to take financial risks; their resources and income sources are still very limited. Willingness to take financial risks is greater in the broad intermediate age group (25 to 64 years), or the age at which most people are able to work. Risk willingness declines after the age of 65, when some income sources may be lost and the time perspective is shorter.

Apart from households in which the reference person has no formal qualifications (this concerns a small number of households in the survey), the proportion of households unwilling to take any risks declines as the level of education rises. The better educated have a relatively clearer understanding of the link between risk and expected return, and have relatively more resources from income at their disposal, enabling them to invest part of it with some risk.

The socio-economic circumstances, illustrated here by whether or not the household needs to rent (and therefore does not own) its home, also have an influence. Households which do not need to rent their home because they own it or because they can live there free of charge are relatively less common in the category unwilling to take any risks, and relatively more common in each of the three categories willing to take average or greater risks.

Finally, the household situation is one of the determinants of risk willingness. Couples who can share household tasks and often also have multiple income sources are relatively more willing to take financial risks than single persons. Apart from the household situation, households in which the reference person has a job are more inclined to take risks.

TABLE 2 HOUSEHOLDS' WILLINGNESS TO TAKE FINANCIAL RISKS IN DECISIONS ON SAVINGS AND INVESTMENTS

(broken down according to whether or not they rent their home, in % of the households concerned which answered the question)

	Do not need to rent their home	Rent their home	Total
Take substantial financial risks	0.8	0.7	**0.8**
Take above-average financial risks	5.1	3.3	**4.7**
Take average financial risks	27.2	12.9	**23.9**
Unwilling to take any financial risk	66.9	83.1	**70.7**
p.m. Number of households	*1 792*	*551*	***2 343***

Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

2.2 Structure of household assets

This section looks at the structure of household assets. Households' willingness to take risks when making financial decisions will play a role here, alongside other demographic characteristics of the households. In the household survey, household asset components are divided into seven categories:

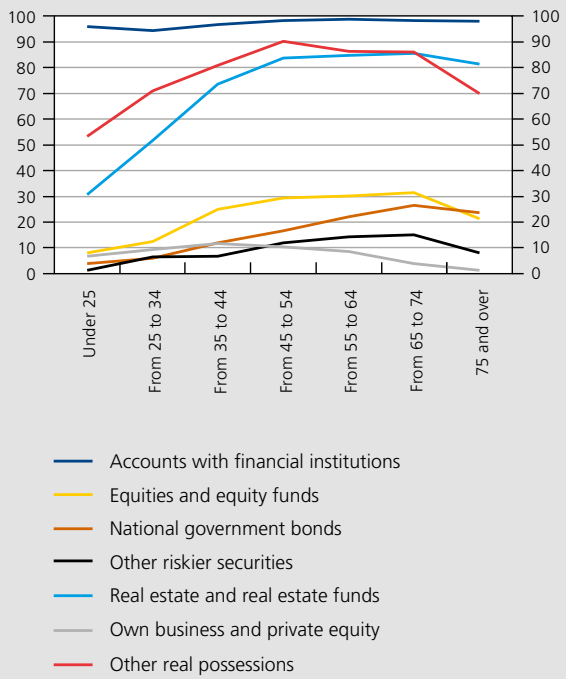
- the first category 'accounts with financial institutions' covers accounts, bank deposits, life insurance contracts and private pension insurance contracts;
- the second category 'equities and equity funds' covers individual shares and equity investment funds;
- the third category 'national government bonds' covers bonds issued by the national government and non-speculative bond investment funds;
- the fourth category 'other riskier securities' covers corporate bonds, risky (foreign) government bonds, hedge funds, etc.
- the fifth category 'real estate and real estate funds' covers the household's principal residence (if owned), other properties owned, and real estate investment funds;
- the sixth category 'own business and private equity' covers own businesses and investments in unlisted companies;
- the seventh category 'other real possessions' covers cars and other vehicles, valuables (such as works of art and jewellery), etc.

We start with a summary of the proportion of households owning a particular asset component, broken down by household type. A distinction is made according to the marital status of the household's reference person, distinguishing between single persons (the reference person is unmarried, divorced, a widow or widower) and couples (the reference person is married or cohabiting). Another aspect considered is whether there are other persons (dependants) in the interviewed household, in addition to the single person or couple.

Almost all the households interviewed which answered the question have assets on accounts with financial institutions (97.6 %). More than three-quarters of the participating households (77.3 %) own real estate or amounts in real estate funds; this is relatively more common for couples (married or cohabiting), regardless of whether there are other dependent household members. The great majority (81.3 %) of responding households also have other real possessions. Since this mainly concerns vehicles, couples are relatively more strongly represented here, but so are single persons with dependants. A quarter (25.6 %) of participating households own equities or units in equity funds. Here, too, there are relatively more couples than single persons. That also applies to government bonds, which are held by 18 % of these households. One-tenth (10.6 %) of the households own other riskier securities, and it is noticeable that both single persons and couples are more likely to hold such securities if they have no dependants, and can therefore afford to take more risks. In the survey sample, 7.7 % of households own a business or a business investment. Here we find relatively more families, where there are other household members in addition to the single person or couple.

CHART 3 COMPONENTS OF THE ASSETS OF HOUSEHOLDS IN THE SURVEY

(in % of households answering the question, broken down by age group of the reference person)



Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

If we break down the households according to the age group of the reference person, we find that all age groups maintain accounts with financial institutions to roughly the same extent.

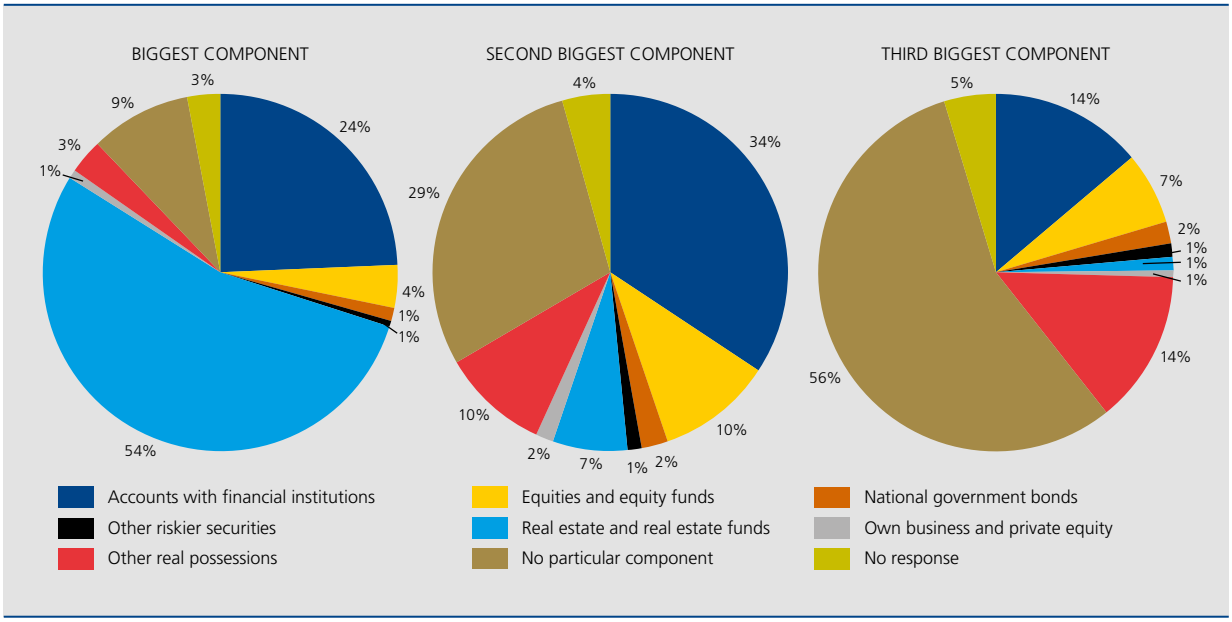
Real estate exhibits a definite age-related pattern. Young households are less likely to own real estate. Fewer than half of the participating households under the age of 35 (reference person) own real estate, compared to more than 80 % of households over the age of 45. Overall, real estate ownership rises steadily with age up to 75 years, after which it declines slightly. In fact, all asset categories decline after that age. There is little or no further asset building, and the existing assets are reduced to provide for personal maintenance or to make gifts. The age profile of other real possessions is similar to that of real estate, except that these other real possessions are already present to a greater extent at an earlier age, and do not increase so much as people get older.

Younger households hold few equities and equity funds, which are more common among households between the ages of 35 and 64, i.e. at a stage in life when most people work, income is generated and assets are built up. Moreover, these households still have a long-term perspective, which justifies the risk associated with equities. After the age of 75, there is therefore a dramatic fall in equity holding. The holding of national government bonds rises in line with age. These bonds are most popular among investors aged between 65 and 74. Here, too, there is a decline in the oldest age group (75 and over). Own businesses and private equity are found primarily among households aged from 35 to 44, probably the age when entrepreneurship is relatively greatest and the resources may be available for such investments. From the age of 45, investment in this asset component is already declining. The holding of other riskier securities also rises slightly with age, and again falls sharply from the age of 75.

Households were asked which was the biggest, second biggest and third biggest component of their assets two years before the interview, i.e. around the start of the financial turbulence. For 54 % of participating households, the biggest asset component was real estate (including their own home) or real estate funds. Of course, this is due to the large number of owner-occupiers in Belgium. For 24 % of the households, assets consisted mainly of amounts held on accounts with financial institutions, and 9 % of households could not indicate any particular component as the biggest. These two categories, and primarily the last one, probably consist mainly of the less well-off households. Households for which other real possessions are the biggest asset category (3 % of

CHART 4 BIGGEST ASSET COMPONENTS OF HOUSEHOLDS IN THE SURVEY

(in % of all participating households)



Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

participants) probably have relatively small assets. For 4 % of households, assets consist mainly of equities and equity funds; they probably belong to the wealthier population group. Small groups of households (in each case around 1 % of all participants) hold their assets mainly in the form of either their own business or private equity, or national government bonds, or other riskier securities. The last 3 % of households interviewed did not answer the question. While 9 % of households could not indicate any specific largest component, that figure increased to 29 % and 56 % for the second and third largest component. Real estate is seldom the second biggest (7 %) or third biggest (1 %) component. Conversely, equities and equity funds (10 % and 7 %), and other real possessions (10 % and 14 %), are more important as the second and third biggest component.

A look at the combinations of biggest and second biggest asset components offers a bit more insight into the overall structure of household assets. The largest group of households (33.7 % of those answering the question) holds assets primarily in the form of real estate and real estate funds, and secondly on accounts with financial institutions. There are relatively few single persons with no family in this group. Conversely, they are over-represented in the second group covering 12.2 % of all responding households, which have assets consisting primarily of accounts with financial institutions and are unable to indicate any specific second biggest component. Single persons with or without a family are also over-represented in the group of households unable to indicate any specific biggest asset component, still less any specific second biggest component. This group totals 9.9 % of households. As expected, there are relatively many single persons among the households which are presumably less well-off. For 8 % of respondents, the major part of their assets consists of real estate and real estate funds, supplemented in second place by equities and equity funds. Among these probably wealthier households we find mainly couples, with or without other household members. A fifth group of households (7.3 % of participants) holds assets mainly in the form of real estate and other real possessions. Here we find relatively more families with dependants, both couples and single persons. They have a relatively greater need for vehicles, which form the main component of their other real possessions. All other possible combinations of biggest and second biggest asset components represent less than 5 % of households in each case. Altogether, they account for 28.9 % of the responding households. More than two-thirds of households therefore belong to one of the five categories mentioned above.

An earlier section described the risk behaviour of households. The attitude towards risk has an impact on the composition of the households' asset portfolio. It is not surprising that households which are willing to run some

TABLE 3 COMMONEST COMBINATIONS OF BIGGEST AND SECOND BIGGEST ASSET COMPONENTS

(in % of households concerned who answered the question)

	All households	Single persons		Couples	
		with no dependants	with dependants	with no dependants	with dependants
Real estate / Bank accounts	33.7	24.4	33.7	40.5	37.5
Bank accounts / No other specific	12.2	18.6	11.0	8.4	9.6
No specific / No other specific	9.9	14.0	15.6	5.0	6.2
Real estate / Equities	8.0	5.8	4.4	11.0	10.2
Real estate / Other real assets	7.3	4.3	9.0	5.2	11.4
Other combinations	28.9	33.0	26.3	30.0	25.1

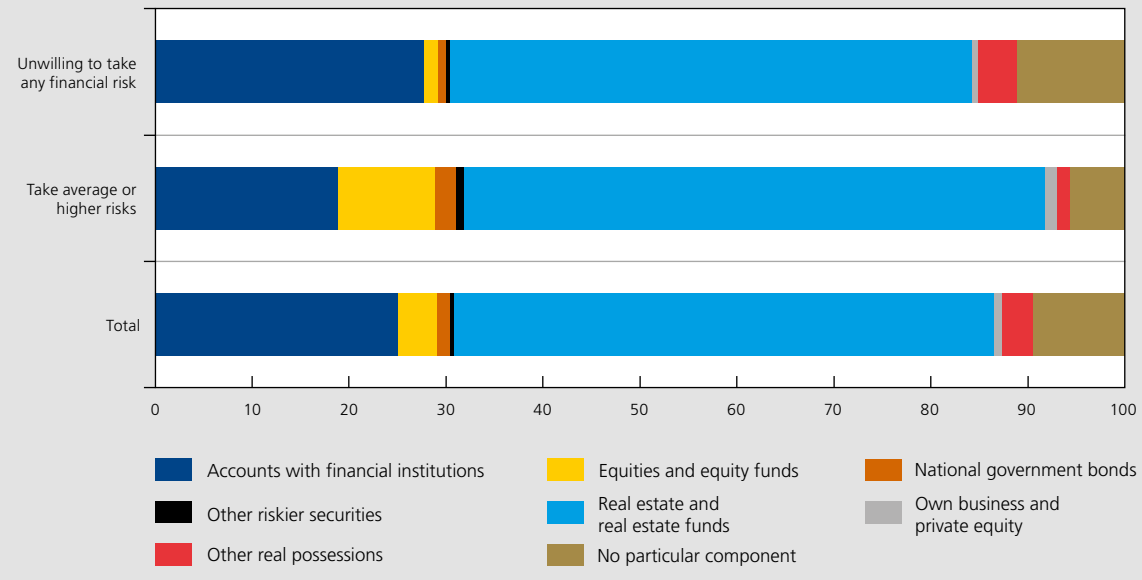
Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

risk when taking financial decisions invest more in equities and equity funds. For 10 % of those households, this is the principal form of assets, while that applies to only 1.5 % of households unwilling to take any risks. The latter hold more assets in the form of accounts with financial institutions. For 27.7 % of them, this is the principal component, compared to 18.9 % of households which do not avoid all risks.

The answer to the question about the biggest asset component can be broken down by age group of the reference person of the household. We find that more than one-third (36.2 % of respondents) of the youngest households (under 25 years) hold assets mainly in the form of accounts with financial institutions. Another 14.5 % of these young households primarily hold other real assets. The significance of these asset forms declines with age. Households of

CHART 5 BIGGEST ASSET COMPONENTS OF HOUSEHOLDS, BROKEN DOWN BY RISK WILLINGNESS

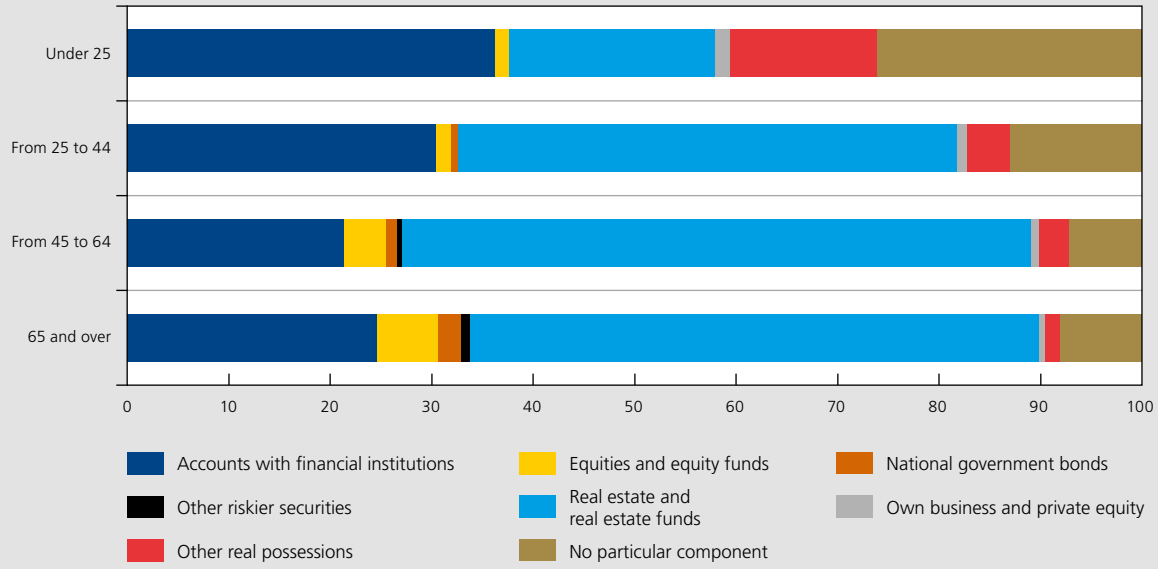
(in % of the households concerned which answered the question)



Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

CHART 6 BIGGEST ASSET COMPONENTS OF HOUSEHOLDS, BROKEN DOWN BY AGE GROUP

(in % of participating households answering the question)



Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

working age (reference person) put more of their assets in real estate, and to a slightly greater extent also in equities and bonds or funds with these underlying assets. These households have income sources and a long-term perspective, and are building up their assets. For the oldest age group (65 or over), the importance of real estate declines and the share of accounts with financial institutions increases. These households have a less long-term perspective.

Leaving aside households which do not answer the question and households which indicate other real possessions or no specific asset component as the biggest, the breakdown of the biggest components can be compared with the share of these asset forms in the aggregate figures from the financial accounts and the estimates of real estate wealth. These macroeconomic figures relate to 30 June 2008, since the question concerns the position two years before the interview, and the interviews were conducted in the second and third quarter of 2010. For example, for 64 % of the households concerned, assets consist primarily of real estate and real estate funds, and real estate and real estate funds accounted for 58 % of the total assets of Belgian households as at 30 June 2008 (€ 1 680 billion). For another 29 % of the households taking part in the survey, the biggest asset component consists of accounts with financial institutions. On 30 June 2008, such accounts represented 28 % of the total assets of households. A similar correlation was also found for the other asset groups. Although these two yardsticks are obviously not directly comparable, this finding nevertheless indicates that at first sight there is no discrepancy between the financial accounts and the (partial and provisional) data from the household survey. The microeconomic survey data therefore provide a meaningful addition to the macroeconomic financial accounts.

3. Changes in household assets

Following the analysis of the structure of household assets and the determinants of variations between households, this section discusses changes in those assets. Those changes will be illustrated by the survey results. Although the survey has only been conducted once, so that no comparisons can be made with other waves, it does contain information that is relevant here. During the interviews conducted from April to September 2010, households were asked how they thought their assets had changed in the two years preceding the interview. For simplicity, we shall call this the period 2008-2010. Here we see the possible impact of the financial crisis. In addition, households were also asked about their expectations for the two years following the interview, and their planned financial behaviour. For simplicity, we call this the period 2010-2012. Here we see possible changes in behaviour due to the financial crisis.

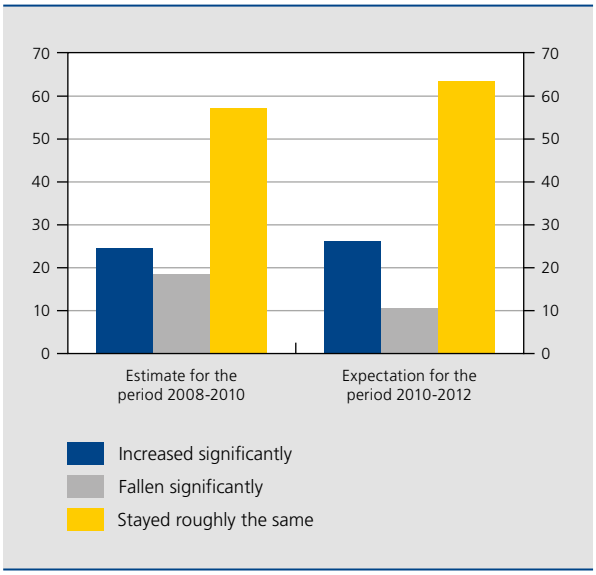
3.1 Overall changes in household wealth

One of the *ad-hoc* questions put to households in order to analyse the impact of the financial crisis was: "*Looking at the net value of the household's possessions, namely everything that the household owns less the money which the household owes, has that net value risen significantly, fallen significantly or stayed roughly the same in comparison with two years ago?*". The answer to this question gives an idea of how households view the impact of the financial crisis on their overall wealth.

The survey results reveal that the net wealth of around 57 % of the participating households remained roughly the same between 2008 and 2010. Nevertheless, for a significant number of households, the asset picture was different. A quarter of respondent households stated that their wealth had risen significantly during that period. Conversely, 18 % of households saw a significant decline in their wealth. Although this figure cannot be compared with results for another period, the percentage seems relatively large. In fact, it is not much smaller than the percentage with a strong increase in their wealth, for a variable which (in normal circumstances) exhibits a clear upward trend. It is evident from the estimates for the period 2010-2012 that only around a tenth of households expect a significant decline in their net wealth, whereas more than a quarter of households assume that their wealth will increase significantly. In all, it is evident that aggregate macroeconomic time series concerning movements in wealth may mask considerable variations between individual households.

CHART 7 CHANGE IN THE NET WEALTH OF HOUSEHOLDS

(in % of all participating households answering the question)



Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

First, let us look at how households estimated the change in their assets during the period 2008-2010, and more specifically, how the change in their total net worth varies according to the principal component of those assets. Whereas, out of the 2 248 households which answered the question, 57 % said that their net worth remained roughly the same, it is to be expected that the figure was higher (62.9 %) for households which hold the bulk of their assets in the form of accounts with financial institutions. The value of those assets does not generally fluctuate very much. It is also normal that, in the case of households which invest most of their assets in their own business or private equity or in other risky securities, there were fewer than average reporting that those assets have remained roughly the same. Such assets display more idiosyncratic and volatile movements. The categories of households which are probably less well-off, with assets held mainly in other real possessions or with no specific biggest component, feel that they became poorer to an above-average extent during the crisis. Such a lack of financial reserves could be a socio-economic policy issue. However, the most striking thing is that almost one-third (31.2 %) of households which hold their assets mainly in the form of equities and equity funds saw their wealth decline significantly between 2008 and 2010. That is, of course, connected with the movement in share prices during that period.

It appears that these households, with the biggest percentage of their assets in equities or equity funds, are again more optimistic about the situation following the interview (2010-2012). Their expectations regarding the movement in their net worth does not really differ from the average for all households taken together: roughly two-thirds expect their net worth to remain broadly the same, around a quarter expect a significant rise, and roughly 10 % predict a significant fall. Households with the bulk of their assets in their own business and private equity or in other risky securities appeared to become more optimistic at the time of the interview about the future changes in their assets: more than average numbers predicted a significant rise.

3.2 Transfers between household asset components

The household asset structure is influenced not only by the allocation of (additional) savings and the change in the value of the various assets, but also by any transfers which households make between and within the various

TABLE 4 CHANGE IN THE NET WORTH OF HOUSEHOLDS: ESTIMATE FOR THE PERIOD 2008-2010

(broken down according to the household's biggest asset component, in % of households concerned which answered the question)

	Risen significantly	Fallen significantly	Stayed roughly the same	*p.m. Number of households*
Accounts with financial institutions	18.1	19.0	62.9	*564*
Equities and equity funds	15.1	31.2	53.8	*93*
National government bonds	24.1	24.1	51.7	*29*
Other riskier securities	27.3	27.3	45.5	*11*
Real estate and real estate funds	29.9	14.7	55.4	*1 264*
Own business and private equity	36.8	31.6	31.6	*19*
Other real possessions	20.6	24.7	54.8	*73*
No specific component	14.4	27.2	58.5	*195*
Total	**24.6**	**18.2**	**57.2**	***2 248***

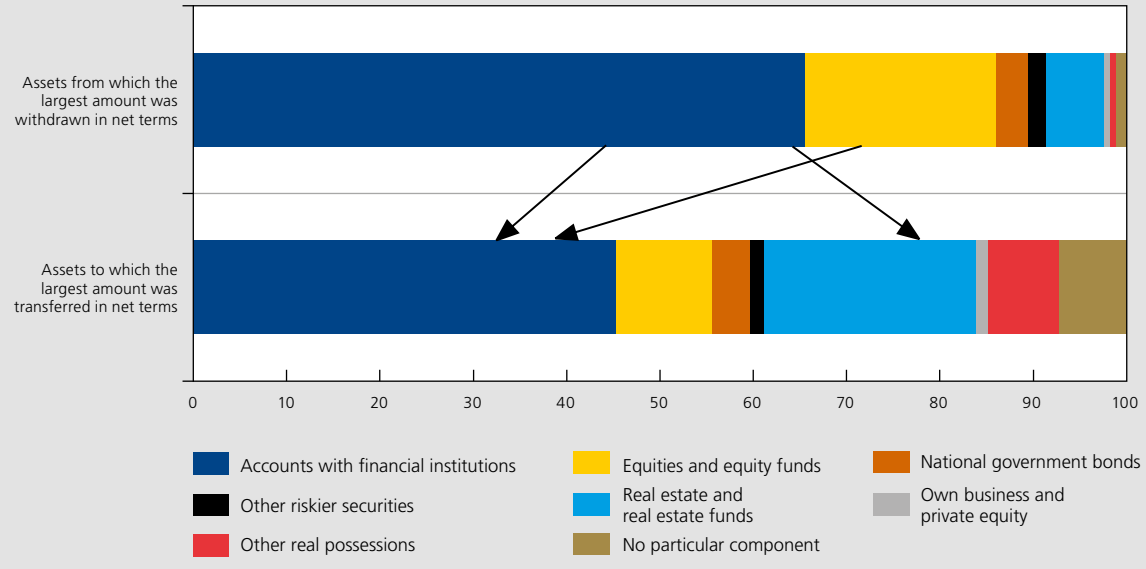
Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

components of their assets. Such transfers are determined partly by estimates of the expected return on those assets and by the risk assessment.

The survey of financial behaviour examines asset transfers on the basis of a number of *ad-hoc* questions. For instance, during the interview households were asked: "*Has anyone in the household made a net transfer of money from one asset component to another in the past two years?*". Of the 2 171 households which have savings and which answered this question, 78.7 % answered no and 21.3 % answered yes. If the reference person of

CHART 8 TRANSFERS BETWEEN HOUSEHOLD ASSET COMPONENTS

(in % of households concerned which answered the question)



Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

the household has a job, the proportion making a transfer between assets increases to just over a quarter. Such transfers may indicate active asset management, which is more commonly associated with people who are willing to take a risk when making financial decisions. Indeed, we find that households which are willing to take an average or higher risk have made relatively more asset transfers, namely 30.2 % of those households, compared to just 17.4 % of participating households which are unwilling to take any financial risks. For this last category of households, the motive was probably a switch to greater security (see below).

If we examine the asset components from which households have made withdrawals, then the survey shows that, for most households, this concerns accounts with financial institutions. The role of these accounts as a 'waiting room' pending the acquisition of other assets is a factor here, but probably so is the uncertainty over these accounts that prevailed at certain points during the financial crisis. In addition, a significant proportion of households made their largest withdrawals from their equities and equity funds. They were clearly taking flight from risky assets.

When households were asked about the asset component to which they had transferred the largest amount, it emerged that this mainly concerned less risky assets, primarily accounts with financial institutions and secondly real estate and real estate funds. The commonest transfers took place between accounts with financial institutions, from such accounts into real estate and real estate funds, and from equities and equity funds into accounts with financial institutions.

That is evident from the cross table showing the asset components from which resources were withdrawn and the components to which resources were added. The table shows that over a quarter of respondent households (27.2 % of households which made a transfer) withdrew the largest amount from accounts with financial institutions and transferred it to other accounts with financial institutions. Among these households we find a relatively large number that are averse to financial risk. This illustrates the crisis of confidence and the uncertainty over the security of such accounts, particularly with some banks which appeared in a bad light. The stronger competition between banks and the rise of new, small players on this market may also have been a factor. Moreover, a number of households evidently spread their savings among banks to a greater extent than before. The maximum limit on savings protected by the deposit guarantee scheme probably had an impact here.

Many households (13.4 % of those answering this question, with households which are willing to take average or above-average risks being over-represented) switched out of equities and equity funds and transferred the corresponding resources to accounts with financial institutions. This clearly illustrates the flight to greater security during the financial crisis.

However, even more households (21 % of respondents) transferred resources from accounts with financial institutions into real estate or real estate funds. The extent of this movement was similar in relative terms for both risk-averse households and those willing to take average or above-average risks. One factor, of course, is the role of bank accounts as a 'waiting room' pending investment

TABLE 5 TRANSFERS BETWEEN HOUSEHOLD ASSET COMPONENTS

(in % of households concerned which answered the question)

In \ Out	Accounts with financial institutions	Equities and equity funds	National government bonds	Other riskier securities	Real estate and real estate funds	Own business and private equity	Other real possessions
Accounts with financial institutions	27.2	13.4	2.7	1.0	3.0	0.2	0.2
Equities and equity funds	8.2	1.7	0.0	0.2	1.2	0.0	0.0
National government bonds	3.0	1.0	0.0	0.2	0.2	0.0	0.0
Other riskier securities	0.5	0.7	0.0	0.5	0.0	0.0	0.0
Real estate and real estate funds	21.0	3.0	0.2	0.0	0.5	0.2	0.0
Own business and private equity	1.0	0.0	0.0	0.0	0.2	0.2	0.0
Other real possessions	6.4	1.0	0.5	0.0	0.2	0.0	0.0

Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

in other assets, including real estate. On the other hand, the large number of households also indicates that real estate was seen as one of the last safe havens, including in relation to bank accounts.

There was therefore a two-fold flight to greater security: from equities into bank accounts and from bank accounts into real estate.

Most other movements between different asset components are far less frequent. Among these atypical movements there are two which still occur to some extent. Some households (8.2 % of respondents) mainly transferred resources from accounts with financial institutions to equities and equity funds; for those prepared to take risks, that is a rational decision when share prices are low. Other households (6.4 %) mainly tapped their bank accounts to buy other real assets. This category primarily concerns vehicles, for which very attractive terms were available at certain points. In addition, some people may use other real assets such as gold, jewellery and art as a safe haven.

To examine whether the financial crisis influences the future investment behaviour of households, the survey includes some *ad-hoc* questions. One question is: "*In the case of the asset components which the household owned two years ago, are there components in which you would not invest any more under the current circumstances?*". Of the 2 295 households which have savings and which answered this question, 87 % said no and 13 % said yes. Here, it was mainly households in which the reference person is retired that answered this question in the affirmative (15 %). Once again, we find that households which are willing to take average or above-average risks and which are more active in managing their assets are relatively more likely to want to avoid certain asset components, namely 20.6 % of those households compared to only 9.8 % of households which are not willing to take any financial risk. For this last category of households in the sample, a general mistrust of all forms of investment is probably a factor.

When the households which had answered that they would no longer make certain investments in future (13 %) were asked which asset components they would no longer invest in at all (for which purpose they could indicate more than one component simultaneously), 70.8 % of these households (i.e. 9.2 % of all households) answered that they would avoid equities and equity funds. Some (12 % of 13 % = 1.6 %) of households would avoid accounts with financial institutions.

Households willing to take a financial risk and wishing to avoid certain assets seemed to be wary of equities and bonds to the same extent as households which are totally risk averse. The other asset components are avoided to a relatively greater extent by households which are not willing to take any risk.

TABLE 6 ASSET COMPONENTS IN WHICH HOUSEHOLDS DID NOT WISH TO INVEST ANY ADDITIONAL AMOUNTS

(in % of the 13 % of households wishing to avoid certain assets, multiple components possible per household)

	All households	Households not willing to take any risk	Households willing to take risks
Accounts with financial institutions	12.0	13.9	10.0
Equities and equity funds	70.8	70.9	70.7
National government bonds	7.2	7.3	7.1
Other riskier securities	10.7	12.6	8.6
Real estate and real estate funds	6.2	7.3	5.0
Own business and private equity	1.0	2.0	0.0
Other real possessions	3.1	4.6	1.4

Source: NBB, Survey of the financial behaviour of households (2010), provisional data.

Overall, it is noticeable that very few households withdrew assets from real estate during the crisis, and that few households want to avoid real estate as an investment vehicle in the future. Although real estate is, of course, generally an asset which does not change hands so readily or so frequently, this shows that Belgian households still regard bricks and mortar as a safe haven and an attractive investment.

To what extent are the changes that the financial crisis caused in the investment behaviour of some households visible in the macroeconomic statistics on the aggregate wealth of Belgian households? The total value of the outstanding assets increased from € 1 680 billion on 30 June 2008 to almost € 1 900 billion on 30 September 2011. In that period, the asset value therefore rose by 13 %. Despite the shifts described above within the assets of individual households, there was little change in the structure of the total assets of households according to the financial accounts and macroeconomic estimates. The share of real estate in the total assets of Belgian households increased from 58 % to 59 %, whereas that of equities and equity funds declined from 4 % to 2 %. The microeconomic analysis in this article shows that there

were also substantial shifts within some groups of asset components, particularly accounts with financial institutions. Those transactions are not reflected in the macroeconomic statistics. In all, the financial crisis did alter the investment behaviour of part of the population, at least temporarily. If that change of behaviour were to continue, then – slowly but surely – the structure of household assets could change.

Conclusion

This article presented a microeconomic analysis of asset formation by households and the impact which the financial crisis has had on that. Here, data from a survey of households' financial behaviour were used for the first time. The partial, provisional results of that survey constitute plausible findings. An – albeit limited – comparison with the aggregate figures from the financial accounts and macroeconomic estimates does not reveal any discrepancy. The survey data are a useful addition to the existing macroeconomic information, both statistically and from the point of view of economics and policy. They shed light on the breakdown of assets and liabilities between households, and they permit examination of the determinants of that breakdown and of the financial behaviour of households.

The willingness of households to take risks has an impact on their financial decisions. The survey offers direct information on households' attitudes to financial risk, and the impact of that on their financial behaviour. The household's demographic and socio-economic characteristics are also a factor. Thus, the survey tells us something about the age at which households invest in the various asset components and the impact on that of such factors as the household's composition and the labour market position of its members.

The overall picture of the asset position of households provided by the financial accounts and the macroeconomic estimates masks wide variations between individual households and groups of households. This may have major economic implications and be relevant for both social and financial/economic policy.

The known macroeconomic picture that households invested relatively more in assets regarded as safer during the crisis can be refined on the basis of the survey data. During the crisis, many households deserted equities in favour of bank accounts, and bank accounts in favour of real estate. On the other hand, there were some households which actually invested more in equities during this period. Many households also made transfers between various bank accounts, and some households avoided particular assets. Risk willingness and other household characteristics play a role in these movements.

Some specific portfolio choices which households have made since the beginning of the financial crisis can be indicated as follows. First, there were noticeably large numbers of transfers between accounts with financial institutions. Positions in equities and equity funds were reduced in many cases, whereas there were still some households wanting to invest more in these assets. Therefore, not all Belgian investors were averse to (calculated) financial risks. Finally, real estate continues to play a clear role as a safe haven. Many households withdrew cash from bank accounts in order to invest in real estate, and it seems that few households intend to retreat from it.

New developments in the economic governance of the European Union

E. De Prest
H. Geeroms
G. Langenus

Introduction

In the past few years, it has become painfully clear that the financial markets' loss of confidence confronting certain euro area countries could swiftly spread to other Member States, ultimately threatening the orderly functioning and stability of the euro area as a whole.

In 2007, before the financial crisis erupted, vulnerable positions had already become apparent within the euro area. In the absence of adequate fiscal discipline, the initial budgetary position in several euro area countries was not very favourable. Moreover, there were wide divergences in competitiveness and domestic demand within the euro area, and the situation in some Member States had become particularly fragile following structural losses of competitiveness or property market bubbles combined with the accumulation of household debts, or because of the vulnerable state of the banking sector. Decision-makers and financial markets have long underestimated the importance of these macroeconomic imbalances. The coordination of economic policies fell short of the ambitions: the way in which the fiscal rules were interpreted and applied was too flexible, and the macroeconomic surveillance of structural policy was insufficiently rigorous, as the recommendations were not binding and there were no effective instruments for checking compliance with the rules. However, following the financial crisis of 2008-2009, it became apparent that these imbalances had a destabilising effect.

Aware of the seriousness of the situation, the European Council had already at the beginning of 2010 decided to strengthen the economic governance of the European Union (EU), its fiscal rules included. The Van Rompuy task force was set up, and the European Commission (EC) drafted six legislative proposals which were formally approved in amended form by the European Parliament and the Ecofin Council in the autumn of 2011 (the Six Pack). After that, the EC proposed two additional legislative texts to ensure even more rigorous budgetary surveillance (the Two Pack). In addition, the EU Member States – except for the United Kingdom and the Czech Republic – concluded a new intergovernmental Treaty on Stability, Coordination and Governance in the Economic and Monetary Union. In parallel with these measures to strengthen governance within the EU, various mechanisms have been set up since the beginning of 2010 to contain the debt crisis, and a number of Member States have received emergency funding from the EU and the International Monetary Fund (IMF).

This article presents the initiatives taken at EU institutional level since the start of the debt crisis in the euro area.

1. Macroeconomic imbalances in the euro area

1.1 Institutional organisation of the Economic and Monetary Union

The institutional organisation of Economic and Monetary Union (EMU) among the euro area countries is unique,

since monetary policy is unified whereas fiscal policy is still largely decentralised.

However, when the institutional framework of EMU was designed, there was an awareness of the need to keep watch over the sustainability of public finances and to arrange binding policy coordination. Fiscal policy coordination and the surveillance of public finances were laid down in binding rules, partly in the articles of the EU Treaty concerning the need to avoid excessive government deficits and in the excessive deficit procedure, and partly in the provisions of the Stability and Growth Pact.

Structural policy, like fiscal policy, remained the responsibility of the Member States. While there was some policy coordination in this sphere, it was a "soft" form of coordination, with no binding rules. It was organised via the broad economic policy guidelines and the employment policy guidelines which, from 2005, were amalgamated in the integrated guidelines and which, since 2010, have played an important role in the implementation of the Europe 2020 strategy.

The Member States' stability and convergence programmes and their national reform programmes put this fiscal and macroeconomic framework into practice.

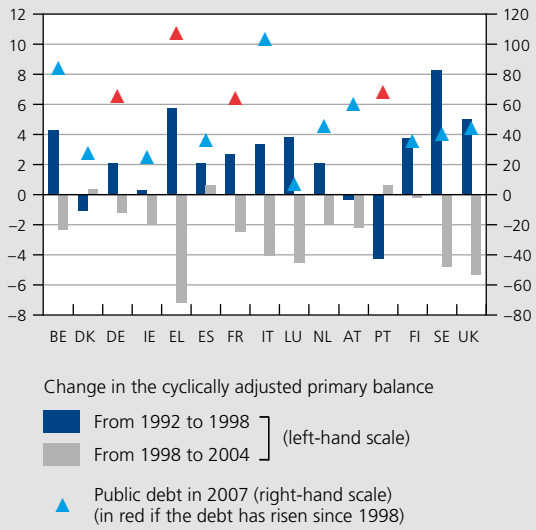
1.2 Fiscal fatigue in the initial years following the introduction of the euro

In principle, fiscal discipline was to be reinforced once the euro was introduced since – under the provisions of the Stability and Growth Pact, in force since 1999 – the remaining public deficits were to be eliminated. Yet the reality was very different. Once the countries which would first adopt the euro had been named in 1998, there was a marked relaxation of fiscal discipline. This fiscal fatigue was fairly widespread : with a few exceptions, the cyclically adjusted primary balance of the Member States deteriorated significantly from 1998 to 2004. In many cases, the budgetary efforts made in the preceding six years in order to satisfy the Maastricht criteria and eliminate the excessive deficits were largely or even entirely cancelled out.

Regarding the reasons for this failure to apply the fiscal rules, the first which come to mind are the unreliability of the budget statistics in certain countries (notably Greece) and over-optimistic growth forecasts, implying underestimation of the structural deficits. In addition, there were loopholes in the rules, as the initial Stability and Growth Pact does not clearly specify the time allowed for correcting the remaining deficits. Finally, there were doubts (quite rightly) about the proper application of the

CHART 1 FISCAL FATIGUE FOLLOWING THE DECISION TO INTRODUCE THE EURO

(in % of GDP)



Source : EC.

EU fiscal rules, in view of the Ecofin Council's extensive powers in that regard [1].

Just after the start of the new millennium, when economic conditions deteriorated, this lack of fiscal discipline in the initial years of the euro led to a first (in retrospective rather small) wave of excessive budget deficits. However, the implementation of the excessive deficit procedure, especially in regard to the large member countries, was systematically watered down, as the Ecofin Council did not actually follow the EC's recommendations in certain cases, even though they were often very flexible. In November 2003, when the Council did not implement the EC's recommendations that France and Germany should be officially ordered to take measures to correct their excessive deficits, the two institutions became embroiled in a legal dispute via proceedings before the European Court of Justice, which meant *de facto* suspension of the excessive deficit procedure against those two Member States – and more generally, all implementation of the Stability and Growth Pact, pending a revision of the rules.

In 2005, the Stability and Growth Pact underwent formal revision. The ESCB's concern regarding that revision was in stark contrast to the favourable view taken by other

(1) For a more detailed analysis, see the article entitled "The Stability and Growth Pact : an eventful history" (G. Langenus (2005), NBB, Economic Review, June).

European authorities, including the EC, which stated that the pact was being made "more intelligent" and "more flexible". The main points of concern for the European monetary authorities were the increased complexity of the new rules (numerous exceptions and general lengthening of procedures) and the marked increase in the Council's scope for interpretation.

In practice, the new "flexibility" was amply exploited, notably in setting the deadlines for eliminating excessive deficits. The financial penalties available under the rules were not even mentioned for any of the Member States. The budget position of most of the euro area countries was therefore not very strong at the start of the recent Great Recession. Thus, in 2007, the average cyclically adjusted budget deficit in the euro area countries was 1.9 % of GDP, while the average public debt still stood at around 66 % of GDP.

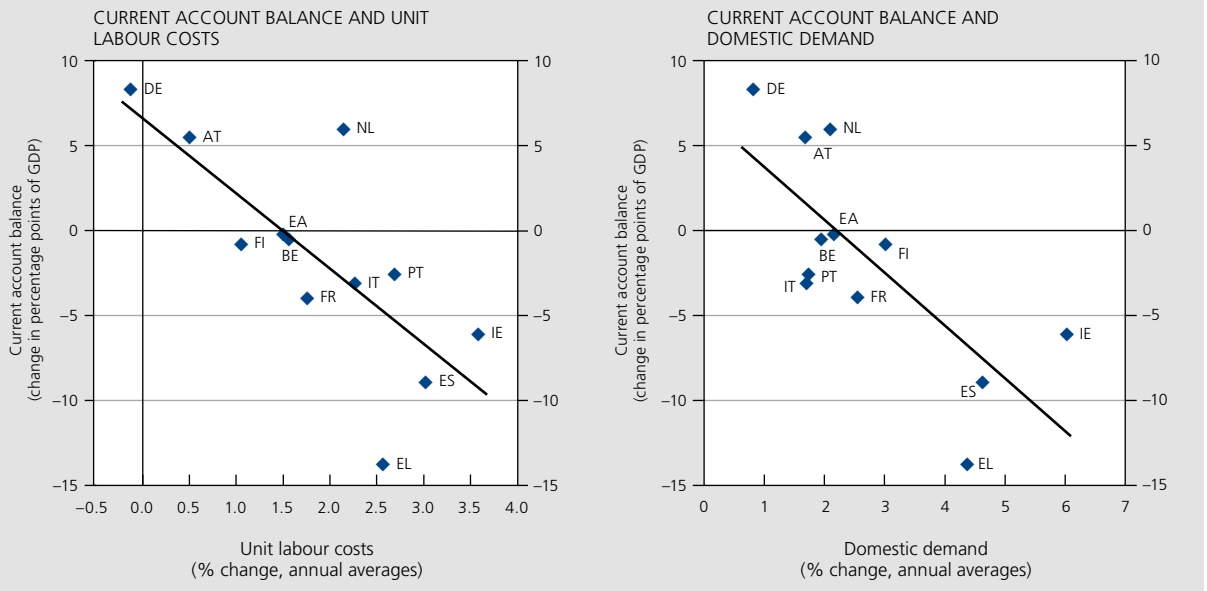
This also illustrates that budget positions (especially in nominal terms) cannot be the only indicators of European governance: for example, in Ireland and Spain – two Member States which were severely affected by the sovereign debt crisis – the public debt was well below the reference value in 2007 [1]. Nonetheless, there were other macroeconomic imbalances in those two countries.

(1) In this regard, it should be noted that Ireland's cyclically adjusted deficit was already at 1.5 %, while Spain's fiscal policy was to be eased substantially in the ensuing year (with the cyclically adjusted primary balance falling by almost 6 % of GDP in 2008), notably as a result of large tax cuts.

1.3 Persistent internal and external macroeconomic imbalances

In 2007, there were wide divergences in competitiveness and domestic demand within the euro area, with some countries becoming particularly vulnerable owing to persistent macroeconomic imbalances. Since the introduction of the euro, unit labour costs in certain euro area Member States had risen sharply in relative terms, gradually eroding those countries' competitiveness. At the same time, domestic demand recorded a marked rise in some of those countries – notably Ireland, Spain and Greece – often triggered by strong expansion of lending to households and a surge in household debt against the background, especially in the case of Ireland and Spain, of soaring house prices. In addition, financial institutions often underestimated the credit risks; in some countries such as Ireland, the banking system had become particularly fragile. Conversely, other euro area Member States, particularly Germany, recorded substantial competitiveness gains, while the growth of domestic demand and household lending had remained very moderate. These developments were reflected in contrasting current account balances across the various euro area countries.

CHART 2 MACROECONOMIC IMBALANCES IN THE EURO AREA IN THE PERIOD 1999-2007 [1]

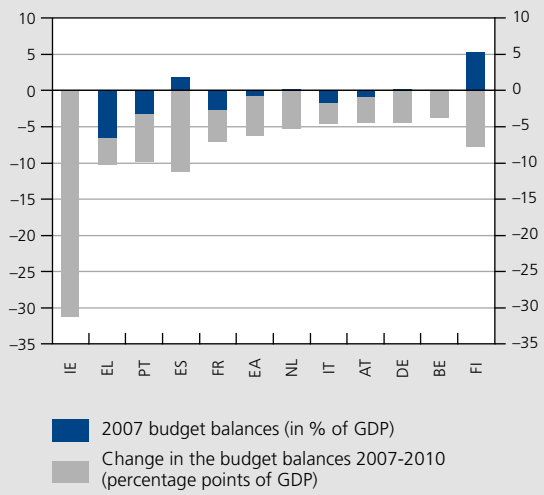


Source : EC.
(1) Only the eleven euro area Member States with the biggest GDP in 2011 are represented individually.

It was assumed that effective adjustment mechanisms were operating within the euro area which would lead to correction of these imbalances. Thus, the presumption was that the effects of excessive domestic demand, associated with high inflation and current account deficits, would eventually be corrected by the negative impact on growth of a loss of competitiveness. However, it subsequently emerged that the operation of these adjustment mechanisms was too weak, and came too late, so that the macroeconomic balance in a number of euro area Member States was persistently disrupted.

Structural policy was incapable of preventing or, if necessary, correcting these serious internal and external macroeconomic imbalances within the euro area. At EU level, the coordination methods proved too "soft": the recommendations were not binding and the institutional framework offered too few surveillance instruments, and was insufficiently focused on the emergence of macroeconomic imbalances and their potential spillover effects to other countries. In the wake of the financial crisis, it became clear that the ensuing benign neglect could put the euro area's stability at risk.

CHART 3 IMPACT OF THE FINANCIAL CRISIS ON BUDGETS IN THE EURO AREA (1) (2)



Source : EC.
(1) Only the eleven euro area Member States with the biggest GDP in 2011 are represented individually.
(2) The countries are ranked in order of the size of their budget deficit in 2010.

1.4 Impact of the financial crisis

The crisis which had set in by mid-2007 and turned into a global crisis in September 2008 triggered an adjustment process in the countries where expansion had been based to an excessive extent on debt; this led to a weakening of domestic demand and a reduction in the current account deficits, but at the cost of a marked slowdown in growth. Some euro area governments also had to take significant fiscal measures owing to the crisis, in order to contain the seriousness of the recession. Impressive recovery plans supplemented the automatic stabilisers, to prevent the collapse of economic activity. In some countries, especially Ireland, where the financial sector was seriously exposed to risks, the government had to intervene to support the banks. All this had a very detrimental impact on the budget position, which was already not very favourable from the start in several countries.

The financial markets reacted to the dramatic deterioration in public finances in a number of euro area Member States by increasingly questioning the sustainability of the budget positions. This led to a marked upward revision in the risk associated with sovereign debt, inflating the yields on government bonds of several countries. From the start of 2010 there was a significant widening of the spreads on the public debt of certain countries in relation to the German Bund, against the backdrop of mounting concern about the reliability of the statistics and the sustainability of the Greek public debt. The nervousness then spread to other vulnerable euro area countries which, in varying degrees, combined a high public debt with chronic current account deficits or a banking system which had become particularly fragile.

From May 2010 onwards, various mechanisms were therefore established to contain the debt crisis and prevent the spread of such crises in the future. Apart from the emergency funding which enabled Greece to borrow € 110 billion under a three-year programme, May 2010 also saw the creation of the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF). Originally set up for a period of three years (up to June 2013), these mechanisms aimed to grant conditional financial assistance to countries facing difficulties in raising finance. Altogether, the lending capacity of these two mechanisms totalled € 500 billion. The IMF was closely associated with this financial assistance, taking part in drafting the lending conditions and in supervising the rescue plans, and contributing an additional € 250 billion. Ireland and Portugal received support funding via these new mechanisms in November 2010 and May 2011 respectively. Initially, a permanent mechanism – the European Stability Mechanism (ESM) – was to take over the role of the EFSF and the EFSM from July 2013 in granting financial assistance to euro area Member States. However, in December 2011,

the euro area Heads of State or Government decided to bring forward the date of entry into force, with July 2012 as target date. At the end of March 2012, the ceiling on the joint lending capacity of the EFSF/ESM was raised to € 700 billion.

The cross-border contagion shows that the lack of confidence prevailing on the financial markets was not confined to the sustainability of public finances, but that there were also doubts about the smooth functioning of EMU itself. In fact, the policy coordination at European level had not been able to prevent or correct a number of diverse imbalances, and the financial crisis showed that, in view of the close economic and financial integration in the euro area, one country's instability could rapidly spread to others, thus damaging the cohesion and stability of the entire euro area.

2. Strengthening of economic governance in the EU

Realising the seriousness of the situation, the European Council and the euro area Heads of State or Government have taken a number of important initiatives since March 2010. Concerned about public finances, which had to be restored to a sustainable level, they decided that the coordination of economic policies had to be reinforced.

For that purpose, a task force was set up, directed by the permanent President of the European Council, and was therefore generally known as the Van Rompuy task force. Working closely with the EC, it developed proposals for consolidating the European fiscal rules and extending the European surveillance and macroeconomic coordination procedures. It also proposed better management of the timetables of the national reform programmes and the stability and convergence programmes in a European Semester.

At the end of September 2010, the EC had already formulated six legislative proposals (five regulations and one directive) – subsequently known as the Six Pack – intended to modify the regulatory framework. On the basis of those proposals and the final report of the Van Rompuy task force, and following intense negotiation between the EC, the Council and the European Parliament (the "trialogue"), the European Parliament approved the new Six-Pack legislation on 28 September 2011, while the Ecofin Council endorsed it on 4 October. Formal approval by the Council followed on 8 November. Since the rules entered into force on 13 December 2011, they were already being applied under the 2012 European Semester. Although this represents progress in the coordination of European policies, it should be noted that the Council greatly watered down the initial proposals during the lengthy negotiation process.

A crucial political decision in this respect was the agreement concluded by the German Chancellor and the French President on 18 October 2010 in Deauville, providing for restrictions on the automatic application of the sanctions as the Van Rompuy task force had planned and wished to propose to the European Council. Like Germany before, the EC and the European Central Bank had declared their support for more automatic sanctions. The European Central Bank was therefore disappointed at a number of the features of the Deauville agreement. The European Parliament was likewise disappointed, but was able to make some adjustments during the trialogue.

However, as the debt crisis worsened, the EC and the Council quickly concluded that it was desirable to go farther in reforming economic governance.

By the end of November 2011, the EC proposed two new legislative texts (dubbed the Two Pack) for further strengthening budgetary surveillance in the euro area. When this article went to press, those texts were still being negotiated in the trialogue between the Council, the European Parliament and the EC.

With the exception of the United Kingdom and the Czech Republic, the EU Member States also concluded a new intergovernmental treaty: the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union. The treaty aims to reinforce fiscal discipline further by introducing more automatic sanctions and stricter surveillance (the Fiscal Compact), and to step up the coordination of the Member States' economic policies. If sufficient numbers of Member States ratify the treaty, it will enter into force on 1 January 2013.

2.1 New Six-Pack regulations

2.1.1 Stronger fiscal discipline

Four of the six legislative texts comprising the new rules on the governance of the EU introduced by the Six Pack concern public finances. There have been fundamental changes to both the preventive rules and the corrective measures specified by the Stability and Growth Pact. In addition, the decision-making procedures have been modified, and minimum requirements have been imposed regarding the EU Member States' national budgetary frameworks.

a) Preventive rules of the Stability and Growth Pact

One of the main problems which emerged in the implementation of the Stability and Growth Pact was that the preventive rules – aimed at achieving a budget position "close to balance or in surplus" (before the 2005 reform) or the medium-term objective set for each country[1] ("MTO" since the 2005 reform) – gave the Member States insufficient incentive to respect fiscal discipline.

The obligation to achieve a "safe" medium-term objective for each country is maintained, as is the definition of the appropriate speed for reaching that objective (the benchmark is an annual improvement in the structural balance amounting to 0.5 % of GDP, or more than 0.5 % of GDP for countries whose public debt exceeds 60 % of GDP or which present greater risks to their debt sustainability). However, from now on, progress towards the medium-term objective will be assessed in a broader framework ("overall assessment") in which, though the change in the structural balance remains the reference point, expenditure growth will also be taken into account. The concept of "prudent expenditure growth" was introduced in that regard.

A reference rate for potential GDP growth in the medium term is used in this connection, but a distinction is made between Member States which have already achieved their medium-term objective and those which have not yet done so. For the first group, spending growth must not exceed potential GDP growth ; for the others, expenditure growth must be lower than potential GDP growth, the downward deviation being aligned with the pace of convergence required to achieve the medium-term objective. In both cases, adjustments are made to take account of the budgetary impact of the measures taken at the level of revenues : for example, tax increases permit stronger expenditure growth, while measures to reduce public revenues further curtail the growth of spending.

However, the expenditure concept used for this new spending rule is defined in restrictive terms. It takes no account of interest charges, the cyclical component of unemployment expenditure, or all the spending relating to the European programmes financed by EU funds.

In principle, any deviation from the adjustment path towards the attainment of the medium-term objective specific to each country triggers a warning and, if appropriate, subsequent sanctions (see below), but only if they are significant. The definition of a "significant" deviation takes account of a numerical criterion – a budgetary impact of at least 0.5 % of GDP over a given year, or at least 0.25 % of GDP per annum on average over two consecutive years (in the case of deviations concerning the reduction in the structural deficit or expenditure growth) – while leaving some scope for interpretation. Thus, it is possible to make allowance for unusual events beyond the Member State's control, having a major impact on the budget position, and for a severe economic recession. In addition, the deviation is not classed as significant (and therefore has no institutional consequences) if the budget position was already better than the medium-term objective and if the attainment of that objective at the end of the period covered by the stability or convergence programme is not compromised. Member States which have already created some budgetary scope in relation to the medium-term objective can therefore use it to ease their fiscal policy. Finally, account is also taken of structural reforms which, in the short term, could have a negative impact on budget positions but which, in the long term, improve the sustainability of public finances, so long as a safety margin is maintained in relation to the limit of 3 % of GDP which the budget deficit must not exceed, and the deviation from the adjustment path towards attainment of the medium-term objective is temporary and is limited to the direct budgetary impact of the reform. In this connection, there is a particular focus on pension reforms (e.g. the switch to funded schemes) but reforms designed to enhance potential economic growth also receive attention, though without further details.

b) Corrective rules of the Stability and Growth Pact

In regard to the corrective arm of the Stability and Growth Pact, the principal – or at least the most striking – modification is the operationalisation of the debt criterion, which supplements the deficit criterion. In reality, even before the Stability and Growth Pact, the debt criterion was already part of the EU governance framework, being one of the convergence criteria under the Treaty on European Union (Maastricht criteria) : if the public debt exceeds the reference value of 60 % of GDP, the debt ratio must decline sufficiently and approach that reference value at a satisfactory pace. In principle, the excessive deficit procedure could be initiated against Member States which did not satisfy this criterion, even if their budget deficit was below 3 % of GDP. However, there was never any definition of the decline considered "sufficient" and the convergence classed as "satisfactory", so that this criterion remained unworkable.

(1) That objective is proposed by the Member States themselves, but must satisfy three requirements : it must 1) maintain a safety margin in relation to the maximum deficit of 3 % of GDP (on the basis of minimum benchmarks calculated by the EC) ; 2) guarantee rapid progress towards a sustainable budget position (while also taking account of the budgetary impact of ageing) ; and 3) provide sufficient scope in the budget, e.g. for public investment.

The new rules now put a figure on the pace of convergence required to achieve the reference value: it is necessary to achieve an average annual reduction in the debt ratio of one-twentieth of the excess over the reference value of 60 %. This reduction must take place either during the last three years for which data are available, or during the latest year for which data are available and during the two subsequent years (according to the EC's estimates).

However, failure to respect this quantified debt rule does not automatically trigger an excessive deficit procedure. Just as in cases where the budget deficit exceeds 3 % of GDP, the EC has to produce a report assessing the situation. First, it has to take account of the impact of the business cycle on the debt reduction, as weaker nominal growth hampers debt reduction. In addition, a list of "relevant factors" is taken into account, explicitly referring to such aspects as the adjustment path followed in order to achieve the medium-term objective, the primary balance, the sustainability of the public debt, the quality of the national budgetary framework, the existing guarantees and the level of the financial assets (notably those formed in connection with operations designed to support other Member States or the financial sector). The Member State concerned can itself put forward other factors "relevant" for the assessment of compliance with the criteria concerning the budget deficit and the public debt.

c) Decision-making procedures and sanctions

Apart from the changes made to the preventive and corrective arms of the Stability and Growth Pact, the decision-making procedures and sanctions were also adjusted to improve the application of the fiscal rules. The main problem which had arisen so far was not in fact the inadequacy of the fiscal rules or their lack of clarity, but – as already stated – the shortcomings in their application. As before, any financial sanctions only concern euro area countries and not the other Member States.

One of the general aims of the new governance framework is to make the procedures more automatic. To do that, a new voting procedure was introduced for actually and formally imposing sanctions, whereby the Council has only a very brief period (ten days) in which it can reject the EC's recommendations by a qualified majority, whereas previously the recommendations had to be adopted by a qualified majority. This reverse qualified majority voting appears once in the preventive arm of the pact and in two provisions of its corrective arm.

(1) Following the Council's adoption of the recommendation in accordance with these procedures, the EC may, however, at the reasoned request of the Member State, recommend a reduction in the amount of the deposit, or even its cancellation.

As mentioned earlier, it is now possible to impose effective sanctions on Member States which do not respect the rules set out in the preventive arm of the pact, which was not the case previously. Moreover, the power to decide on early warnings concerning budgetary slippages now rests with the EC, even though this only concerns the launch of a procedure which has to be pursued by the Council. In principle, the imposition of any sanctions under the preventive arm begins with such a warning, i.e. if the EC considers that convergence towards the medium-term objective is inadequate, with expenditure growth also being taken into account. The fact that the EC can itself decide to initiate such a warning is a modest but, in our opinion, important adjustment to the previous system whereby the EC could only recommend that such a warning be given, after which the Council had to explicitly adopt that recommendation, which it sometimes did not do.

Within a maximum of one month of this warning, the Ecofin Council has to examine the situation and make a recommendation to the Member State concerned so that the latter takes the necessary measures. The time allowed for remedying the situation is explicitly set at a maximum of five months, and it may be reduced to three months if the EC considers the situation to be particularly serious and urgent. During this period, the Member State must report to the Council on the measures taken.

If the Member State does not apply this Council recommendation – or, for example, if it fails to implement the measures announced – the Council may, on the EC's recommendation, find by a qualified majority that no effective action has been taken. In that case, the EC has 20 days to recommend that the Council impose a sanction in the form of an interest-bearing deposit equal to 0.2 % of the previous year's GDP. The Council can only reject that recommendation by the reverse qualified majority voting procedure mentioned above. It may also amend the recommendation by a qualified majority[1]. If the Council decides, on the EC's recommendation, that the budget overrun has been eliminated, the deposit and the accrued interest are returned to the Member State.

As regards the corrective arm of the pact, the sanctions regime has likewise been adjusted. Sanctions may range from a non-interest-bearing deposit to an actual fine, the maximum once again being set at 0.2 % of the previous year's GDP in both cases.

Within a maximum of twenty days of the Council's decision – on the EC's recommendation – that there is an excessive deficit, the EC must recommend the Council to impose a non-interest-bearing deposit. Once again, that recommendation can only be rejected by a reverse

qualified majority. At this stage, if the preventive arm of the Pact was effective, an interest-bearing deposit will already have been imposed on the Member State concerned, as the latter had failed to respond to the EC's warning. In that case, the interest-bearing deposit is converted to a non-interest-bearing deposit. If there has been no decision to impose an interest-bearing deposit, it is possible to impose a non-interest-bearing deposit immediately if the failure to respect the fiscal rules is "particularly serious".

The procedure for imposing the possible subsequent fine is largely the same as under the previous rules. The only difference is that, in regard to the actual imposition of the fine – on the EC's recommendation no later than 20 days following the Council's decision, again on the EC's recommendation, that the Member State has not taken effective action to correct its excessive deficit –, there is provision for another reverse qualified majority vote[1]. If the Council concludes, upon the EC's recommendation, that the excessive deficit has been eliminated, the deposit is returned to the Member State.

An initial, crucial stage in the procedure, which may possibly lead to the formation of compulsory deposits or the imposition of a fine, is the finding that the Member State concerned has failed to take effective action in response to the Council's recommendations, or that there is an excessive deficit. The Council still has some discretion, especially in assessing the actual measures taken by the Member State. Without these preliminary stages, no deposit or fine can be imposed. It is in regard to this decision that the Council's power has only been partially modified compared to the previous rules (interest-bearing deposit under the preventive arm) or has not changed at all (non-interest-bearing deposit and fine under the corrective arm). This is one of the main criticisms of the new rules.

The new regime introduces another new sanction: the fine for statistics that misrepresent the data on the budget deficit or the public debt. This fine is also limited to 0.2 % of the previous year's GDP, and can only be imposed after detailed investigations by the EC, during which the Member State concerned must be given a hearing. The budget figures need not have been deliberately manipulated. In principle, serious negligence may also lead to a fine. These fines are imposed via the "old" voting procedure – and therefore not by the reverse qualified majority vote: an EC recommendation on the subject has to be explicitly adopted by the Ecofin Council deciding by a qualified majority.

(1) Here, too, at the reasoned request of the Member State, the EC may, however, recommend a reduction in the amount of the deposit or the fine, or even its cancellation.

(2) The provisions on numerical fiscal rules do not apply to the United Kingdom.

d) National budgetary frameworks

Finally, a new EU Directive imposes certain minimum requirements on national budgetary frameworks. Though relatively vague, they aim at greater consistency between national and European rules and institutions; the principles of the European rules (such as multi-annual planning, numerical fiscal rules, etc.) must thus be reflected to a sufficient degree in the national institutional framework. This mainly concerns the following aspects of the national budgetary framework:

– First, sufficient reliable statistics must be available in good time to permit monitoring of the implementation of the budget (aspect monitoring). These budget figures must cover the entire public sector, to ensure that budget problems do not arise in government subsectors without being noticed. These statistics must also be subject to internal control and independent audits. Note that, following the many problems encountered in regard to the accuracy of the budget figures of the Member States, Eurostat has already had extended auditing powers in this matter since July 2010.

– Member States must also introduce "appropriate" numerical fiscal rules concerning the deficit and/or the debt, with provision for corrective mechanisms if the rules are broken[2]. There is no obligation regarding the legal basis of these rules (constitution, ordinary law, current government guidelines). Nonetheless, it is stipulated that independent bodies (or bodies with functional autonomy vis-à-vis the government) must verify that these rules are respected; this is an implicit reference to the budget councils which exist in a good many countries. However, there are no additional obligations, e.g. regarding the method of appointing the members and the exact powers of these budget councils.

– Member States must also draw up detailed plans, if they have not already done so, for the attainment of the medium-term objective specified in the stability or convergence programme. Those plans must imply a commitment; they must be based on realistic estimates of the main revenue and expenditure categories, and must also indicate how the measures to be taken will influence the sustainability of public finances in the long term.

– Budgetary procedures must also fulfil certain requirements, particularly in regard to the underlying macroeconomic and budgetary estimates. The latter must be realistic or prudent. Clear reasons must be given for any significant differences in relation to the EC's estimates, and the methodology used must be transparent and subject to regular technical consultation with the EC.

– Finally, the said Directive provides that the countries must set up adequate coordination mechanisms across all general government sub-sectors. These must concern all relevant aspects of fiscal planning, ranging from the budget estimates themselves to compliance by the general government as a whole with the said fiscal rules.

In principle, the adjustments to the national budgetary frameworks must have been made by the end of December 2013.

2.1.2 Surveillance of macroeconomic imbalances: the macroeconomic imbalance procedure (MIP)

In order to prevent, and if necessary correct, macroeconomic imbalances in the EU in the future, the economic surveillance and policy coordination, which used to be geared essentially to fiscal policy, had to be widened to include a new formal surveillance framework.

The new macroeconomic imbalance procedure is based on two of the six legislative texts contained in the Six Pack, one concerning the identification, prevention and correction of macroeconomic imbalances, and the other concerning a system of sanctions.

As in the case of the fiscal rules, the aim is for decisions to become more automatic, on the basis of the reverse qualified majority rule. The application of the two Regulations will be assessed initially after three years, and then every five years thereafter.

The Regulation on the prevention and correction of macroeconomic imbalances applies to all European Union Member States, but with a distinction between the euro area countries and the other EU Member States. The second Regulation, which concerns the sanctions, applies only to euro area countries.

Some Member States had insisted that only countries with a current account deficit on the balance of payments should be subject to closer surveillance. However, the European Parliament made the mechanism more symmetrical. Nevertheless, it is specified that policy action is particularly necessary in Member States recording persistent balance of payments deficits and losses of competitiveness, even though Member States accumulating large current account surpluses also need to take measures to help strengthen domestic demand and growth potential. Moreover, the Ecofin Council on 8 November 2011 explained that, unlike deficits, "large and sustained current account surpluses do not raise concerns about the sustainability of external debt or financing capacity that affect the smooth functioning of the euro area", and that such surpluses would not give rise to sanctions.

Imbalances will be dealt with in phases: first, the detection of imbalances (alert mechanism) and preventive measures to avoid a serious imbalance; and next, if serious imbalances nevertheless develop, corrective measures by application of the excessive imbalance procedure. If necessary, as stated in the second Regulation, sanctions may be imposed.

a) Preventive arm of macroeconomic surveillance

The early detection of imbalances operates via an alert mechanism. This is based on a "scoreboard" comprising thresholds. However, the results cannot be interpreted mechanically but must be combined with an assessment by the EC, which, if necessary also takes account of other relevant information, and not just the scoreboard. If the thresholds are exceeded, that therefore does not necessarily imply the existence of macroeconomic imbalances. Every year, the EC has to produce an Alert Mechanism Report (AMR), presenting the results of the scoreboard and of its assessment.

The EC's annual Alert Mechanism Report and its discussion by the Ecofin Council and the Eurogroup are part of the annual multilateral surveillance under the European Semester.

The scoreboard comprises a small number of macroeconomic and macrofinancial indicators accompanied by thresholds which are meant to reveal imbalances, not only those that emerge in the short term but also those due to structural and long-term trends. The scoreboard undergoes regular assessment. If need be, the indicators and thresholds are adjusted in the light of any changes which have occurred in the nature of the macroeconomic imbalances.

The indicators first concern internal imbalances, notably those which relate to the debts of the government and the private sector, and developments concerning the housing market, private sector credit and unemployment. It must also be possible to detect external imbalances such as those relating to movements in the balance of payments current account, the net investment position, the real effective exchange rate, export market shares and competitiveness.

Regarding the current composition of the scoreboard and the thresholds, see the assessment presented in this article of the EC's first Alert Mechanism Report, which formed the starting point for the macroeconomic imbalance

procedure under the 2012 European Semester (see below). This shows that, following the compromise between the Council and the European Parliament on symmetrical treatment, both lower and upper alert thresholds are applied to the balance of payments current account and the real effective exchange rate. Differentiation between the euro area countries and the other EU Member States is reflected in the different thresholds used for the real effective exchange rate and for nominal unit labour costs.

If, following discussions on the Alert Mechanism Report in the Ecofin Council, or in the Eurogroup in the case of euro area countries, it emerges that there are potential or actual macroeconomic imbalances in certain countries, or in the event of unforeseen significant economic developments calling for urgent analysis, the EC prepares an in-depth review of the countries concerned. This study has to take account of the conditions specific to each country and be based on a broad range of economic variables.

Should, on the basis of the in-depth review, the EC identify macroeconomic imbalances, the Council may – on a recommendation from the EC – address a recommendation to the Member State on the required preventive policy response. The latter must be monitored under the European Semester.

b) Corrective arm of macroeconomic surveillance: the excessive imbalance procedure (EIP)

If, following its in-depth review, the EC finds "excessive" imbalances, the Council may – on a recommendation from the EC – address a recommendation to the Member State establishing the existence of an excessive imbalance and advocating corrective action as well as a deadline by which the Member State must submit its corrective action plan.

Following the submission of the plan, the Council has two months in which to assess it on the basis of a report by the EC. If the plan is satisfactory, it is approved and a surveillance timetable is drawn up. However, if the Council decides that the measures or the implementation periods are not satisfactory, the Member State has to submit a new corrective action plan, within two months as a rule.

The Member State must present regular reports on the progress of its corrective action. The EC monitors its implementation. On the basis of the EC's report, the Council makes an assessment.

– If the Council decides that the Member State has taken the necessary corrective action, the excessive imbalance procedure is considered to be on track and is held in abeyance. However, the monitoring continues in accordance with the set timetable.

– If the Member State has not taken the necessary corrective action, the Council, acting on a recommendation from the EC and by a reverse qualified majority, shall adopt a decision establishing "non-compliance" with the corrective action and address a recommendation to the Member State specifying new deadlines for corrective action.

If the Council decides that there is no longer an excessive imbalance in the Member State concerned, the excessive imbalance procedure is closed.

c) Sanctions

Decisions on sanctions are taken by the Council on the basis of an EC recommendation, acting by reverse qualified majority.

The sanctions are as follows:

– An annual fine if, during the same excessive imbalance procedure, the Council has issued two successive recommendations stating that the corrective action plan is insufficient.

– An interest-bearing deposit if the Council decides that the Member State has not taken the necessary corrective action.

– An annual fine if, during the same excessive imbalance procedure, the Council has on two successive occasions found "non-compliance", implying that the Member State has not taken the necessary corrective measures. More specifically, the interest-bearing deposit which had been imposed earlier under the procedure is converted into a fine.

In principle, both the interest-bearing deposit and the fine represent 0.1 % of the previous year's GDP of the Member State concerned.

2.2 The European Semester

One of the first recommendations by the Van Rompuy task force was to align the timetables for the national reform programmes and the stability and convergence programmes under the European Semester. The first European Semester was launched in 2011.

The European Semester implies that the surveillance of budgets and other macroeconomic and structural developments will from now on form part of a cycle of closer *ex-ante* policy coordination. Even where the existing procedures, such as those under the Stability and Growth Pact and the broad economic policy guidelines, remain legally separate, their timetables are now harmonised.

Regarding the timetable, the European Semester cycle begins with a horizontal review: the Annual Growth Survey which identifies mutual economic challenges and determines the strategic policy stance. That document is then approved at the spring European summit. In the spring, the Member States draw up their stability and convergence programmes and their national reform programmes, taking account of these strategic decisions. Their programmes are submitted in April and are then assessed by the EC and the Council in June and July. That implies that these two institutions issue their guidelines at a time when the main fiscal measures are still being prepared in most countries. That will improve the synchronisation of surveillance within the European Union with national budgetary procedures.

The new macroeconomic imbalance procedure forms part of the European Semester timetable. The EC publishes its Alert Mechanism Report in February. Next, the Economic Policy Committee (EPC) prepares the discussions to be conducted in the Council. In mid-May the EC publishes its in-depth review.

2.3 The Euro Plus Pact

In March 2011, the Heads of State or Government of the euro area and of six other EU Member States reached agreement on the Euro Plus Pact. This pact aims to strengthen further the economic pillar of EMU and enhance the quality of economic policy coordination. The pact's main objective is to boost competitiveness and, in so doing, to achieve a higher degree of convergence.

The Member States which signed the pact agree to take concrete measures every year which will be implemented in the subsequent twelve months. These measures are also presented in the stability and convergence programmes and in the national reform programmes. The purpose of the Euro Plus Pact is to secure concrete commitments from the Member States, since the measures announced in the national reform programmes were often vague and non-committal.

2.4 The Two Pack

The term "Two Pack" refers to two Regulations proposed by the EC on 23 November 2011, intended to strengthen further fiscal surveillance in the euro area countries. Following an examination conducted under the trialogue procedure between the Council, the European Parliament and the EC, the two Regulations are likely to be finalised and to enter into force at the earliest during the summer of 2012.

The first proposal for a Regulation aims to strengthen and harmonise the budgetary procedures in the euro area countries, and to impose additional surveillance and reporting obligations in the case of an excessive deficit. In particular, in regard to the first point, a common budgetary timetable must be respected: draft budgets including the main parameters of the budgets of lower levels of government must, in principle, be produced by 15 October in the preceding year, then submitted to the EC which has to examine them before the end of November; the EC's assessment is discussed in the Eurogroup and may also be presented to the parliament of the Member State in question if such a request is made. The budgets have to be approved by no later than the end of December of the preceding year, though emergency procedures must be in place in case that does not happen for reasons beyond the control of the government concerned. The budgets must also be based on independent macroeconomic estimates; autonomous budget councils are accorded a key role in checking compliance with the numerical fiscal rules, and an *ex-ante* reporting obligation vis-à-vis the EC and the Eurogroup is introduced for the issuance of debt certificates.

The second proposal for a Regulation provides for a closer surveillance regime in euro area countries which request financial assistance from the European emergency funds or which, in the EC's opinion, face serious financial stability problems which could have negative contagion effects on other euro area countries or on the euro area as a whole. The current approach being followed for countries receiving assistance from the EU funds (Greece, Ireland and Portugal) is largely institutionalised. Among the key features: one of the articles of this draft Regulation states that any euro area country which has "insufficient capacity" or which experiences significant problems in implementing the adjustment programme imposed must seek the "technical assistance" of the EC which may, for that purpose, set up a group of experts in collaboration with other Member States and international institutions, which may be based permanently in the country concerned. This appears to be a first step towards the possible abolition of the national sovereignty of a euro area Member

TABLE 1 OVERVIEW OF THE NEW EU GOVERNANCE FRAMEWORK

	Six Pack	Two Pack	TSCG[1]
What?	5 EU Regulations and 1 EU Directive	2 EU Regulations (currently being negotiated)	International treaty
Who?	EU-27 (with some distinction between the euro area countries and the others)	Euro area countries	EU-25 (excluding UK and CZ)
Date of entry into force	13 December 2011	expected: summer 2012 (after the trialogue procedure)	after ratification by at least 12 euro area countries (target: January 2013)
Content	• stricter and broader fiscal surveillance (e.g. operational debt criterion and expenditure rule) • broader macroeconomic surveillance • new decision-making procedures • minimum requirements for national budgetary frameworks	• more advanced fiscal surveillance and coordination in the euro area • independent national institutions responsible for monitoring compliance with the fiscal rules • precise timetable for the annual budget and preliminary review by the EC • tougher surveillance regime for countries with financial difficulties (automatic for those receiving assistance)	• limit on the structural deficit, preferably enshrined in the constitution • the euro area countries commit to accepting in principle the EC's recommendations regarding the excessive deficit procedure[2] • role for the European Court of Justice • provides for enhanced coordination

Source: NBB.
(1) Treaty on Stability, Coordination and Governance in the Economic and Monetary Union. The term "fiscal compact" is often used to refer to the fiscal issues which it includes.
(2) The euro area countries agree to accept any EC recommendation concerning the existence of an excessive deficit unless the recommendation is rejected by a qualified majority.

State pursuing a policy that has adverse effects on other Member States and incapable, for any reason, of implementing an international adjustment programme.

2.5 The Treaty on Stability, Coordination and Governance in the Economic and Monetary Union

At the European summit on 8 and 9 December 2011, all the EU Member States with the exception of the United Kingdom declared their willingness to conclude a new Fiscal Compact and to achieve even closer coordination of their economic policies. The new pact aims to enhance fiscal discipline by providing for more automatic sanctions and stricter surveillance. In addition, the Member States will coordinate their economic policies. These agreements are defined in a new intergovernmental Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, signed at the beginning of March 2012, in the margins of the European Council meeting, by 25 EU Member States (all the Member States except the United Kingdom and the Czech Republic). It will enter into force on 1 January 2013 so long as it is ratified by at least twelve euro area Member States. It will only be binding for the euro area countries (that have ratified it); for the other Member States it will be binding once they introduce the euro, or before then at their request.

The Fiscal Compact is the fiscal part of the new treaty. Its main provision specifies that the budgetary position of the general government must be in balance or in surplus. That condition is deemed to be met if the annual structural budget balance is at the level of the medium-term objective specific to each country, on the understanding that the lower limit for this balance is a deficit of 0.5 % of GDP[1]. It is important to converge rapidly towards the medium-term objective specific to each country, the adjustment path for that purpose being proposed by the EC.

If the annual structural budget balance deviates significantly from the medium-term objective or the adjustment path towards that objective, a correction mechanism will be activated automatically, obliging the Member State concerned to correct the deviation within a well-defined period. Only "exceptional circumstances" may justify a – temporary – deviation from the said objective or the adjustment path. Any dispute between the EC and a

(1) For countries whose public debt is significantly lower than 60 % of GDP and which face a low risk to the sustainability of their public debt, that limit is lowered to a deficit of 1 % of GDP.

Member State has to be settled by the European Court of Justice.

These new rules must be transposed into national law – preferably in the constitution or in another law guaranteeing compliance in all respects – and be implemented by no later than one year after entry into force of the intergovernmental treaty. If a Member State signatory to the treaty finds, independently or on the basis of a report on the subject by the EC, that a country has not incorporated the new rules appropriately in its national law, it may bring proceedings before the European Court of Justice. The Court's judgment is then binding, and the Court may impose the necessary measures. If a Member State then finds, independently or on the basis of a report on the subject by the EC, that the measures imposed by the European Court of Justice have not been respected, it may bring another action before the Court and apply for financial sanctions. In that case, the Court may impose a fine of up to 0.1 % of GDP.

The treaty also repeats that if the public debt exceeds 60 % of GDP, it must be reduced each year by one-twentieth of the difference between the actual debt level and 60 % of GDP.

Member States subject to an excessive deficit procedure must set up a fiscal and economic partnership programme comprising the measures to be implemented in order to ensure the lasting correction of their excessive deficit. The presentation of this programme to the EC and to the Council, and its monitoring, take place in the context of the existing surveillance procedures under the Stability and Growth Pact. In addition, the rules on the excessive deficit procedure have been tightened up for euro area Member States. The latter undertake to support any recommendation submitted by the EC concerning the existence of an excessive public deficit unless that recommendation is opposed by a qualified majority. The measures and sanctions proposed or recommended by the EC are supported unless they are opposed by a qualified majority.

To improve the coordination and planning of public debt security issues, the Member States have to report in advance to the EC and the Council.

Apart from the Fiscal Compact, the new treaty also comprises a section on economic policy coordination and governance in the euro area, providing for additional "Euro summits" to be held at least twice a year.

Finally, the preamble to the new treaty also stipulates that the financial assistance given under the European Stability Mechanism will be conditional upon ratification of the new treaty and the transposition of the budgetary measures concerned into national law within the specified periods.

In the absence of unanimity among the Member States, the new intergovernmental Treaty on Stability, Coordination and Governance in the Economic and Monetary Union therefore does not imply any revision of the EU Treaty. However, the aim is that, within five years of its entry into force, the necessary measures to incorporate this intergovernmental treaty in the legal framework of the EU will have been taken. That should prevent the establishment of new institutional frameworks and parallel policy coordination outside the EU Treaty. Moreover, it is necessary for the EU institutions which the new intergovernmental treaty entrusts with important tasks, in this case the EC and the European Court of Justice, to represent the EU as a whole on the basis of European legislation, and not just certain Member States.

3. Assessment of the new rules on economic governance

Only part of the new governance framework has entered into force. It is therefore too soon to make an overall assessment. The next section presents a series of general considerations concerning the Six Pack, applicable since the end of 2011, and the new Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, before examining the conclusions of the first Alert Mechanism Report.

3.1 Initial considerations concerning the Six Pack and the TSCG

The new fiscal rules set out in the Six Pack are in any case a step in the right direction. The more binding character of the preventive arm of the Stability and Growth Pact, including the provisions on possible sanctions, and the greater attention to the national budgetary frameworks and the accuracy of the budget statistics are particularly positive features. In regard to macroeconomic imbalances, as already stated, there was an urgent need to have better rules at the European level. However, this is not the "quantum leap" required to minimise the risk of further macroeconomic and budgetary slippages.

Thus, it must be said that the more automatic character of the new fiscal rules is actually rather disappointing. It is doubtful that the limited transfer of decision-making powers from the Ecofin Council to the EC will mean better application of the rules in all cases.

As already mentioned, regarding the fiscal rules, the reverse qualified majority voting procedure was introduced solely for the purpose of the formal stage relating to the imposition of a sanction. Conversely, the Ecofin Council's powers relating to the necessary prior decision (no effective policy response or existence of an excessive deficit) remain more or less unchanged. Only the assessment of whether a Member State has actually complied with the Council's recommendations under the preventive arm of the Stability and Growth Pact gives rise to a new, complex voting procedure. During the trialogue negotiations, the European Parliament had argued for much more extensive use of the reverse qualified majority voting procedure than that advocated by the EC and the Council, but in the end only limited changes were made to the existing voting procedure. This concerns a double vote. First, the Ecofin Council must – as before – adopt by a qualified majority the EC's recommendation that no effective action has been taken to comply with the Council's recommendations following a warning. If the Council does not adopt it, and if the EC stands by its view that the recommendations have not really been implemented, it may, after one month, address a second recommendation to the Council which is considered to be adopted unless the Council, acting by a simple majority, explicitly rejects it within ten days (reverse simple majority voting).

In regard to the other two decisions which must precede any sanction, the procedure is unchanged: the Ecofin Council must explicitly adopt an EC recommendation on the subject by a qualified majority, otherwise no sanction can be imposed. It therefore does not seem unreasonable to suspect that the Ecofin Council will prove to be even more "prudent" when it comes to taking these prior decisions, knowing that the subsequent progress of the procedure is more automatic in character.

Under the macroeconomic imbalance procedure, reverse qualified majority voting is likewise reserved primarily for the imposition of sanctions: reverse qualified majority voting is not specified for the Council's decision on the existence of excessive imbalances, nor for the preventive arm of the macroeconomic imbalance procedure. In contrast to what applies to the fiscal rules, reverse qualified majority voting is mandatory if it is found that the corrective measures have not been implemented.

The rules are also being made far more complicated, which may hamper the effectiveness and speed of application. An increase in the number of rules does not necessarily lead to more consistent and more coherent surveillance. More specifically in regard to the macroeconomic imbalance procedure, the extensive range of issues surrounding the imbalances must be taken into account. The imbalances cover numerous aspects of the economy which interact. In view of the complexity of the question, it was not in fact desirable to confine the assessment of any imbalances to an automatic reading of the scoreboard. Conversely, the current legislation leaves the door open to interpretation, and has ended up relatively complicated.

Moreover, the new rules also raise some specific questions. In regard to the preventive arm of the fiscal rules, for example, there are still no specific details on the way in which the new rules on expenditure will be applied. Thus, the estimate of potential economic growth presents a considerable technical problem when it comes to estimating the structural budget balances and hence judging the adjustment path towards the medium-term objective. Moreover, it will be far from being a simple matter for the EC to analyse accurately and objectively the budgetary impact of the measures concerning revenues, necessary to determine the permissible expenditure growth. As interest charges are excluded from the expenditure rule, compliance with the rule might not always lead to the required elimination of the structural deficit.

In regard to the corrective arm of the fiscal rule, there remains the question as to what precise added value the debt rule will bring. Of course, it is perfectly reasonable to require countries saddled with heavy debts to make a greater budgetary effort. However, opting to do that by imposing a new direct numerical limit on the movement in the debt (and not a stricter limit on the budget balance) brings its own set of problems. The movement in the consolidated gross debt (a concept derived from the Maastricht Treaty) is in fact determined not only by the budget balance but also by nominal GDP growth and by adjustments between the deficit and the debt (such as changes in financial assets, exchange rate fluctuations, divergences between cash flows and revenue and expenditure according to the ESA 95 methodology, etc.). In principle, all these factors should be taken into account when assessing the movement in the debt: for example, how will compliance with the debt criterion be assessed if the reduction in the debt is due essentially to the sale of financial assets (something which does not influence either the net debt or the sustainability of public finances)? The list of "relevant factors" – which goes far beyond the business cycle and the said adjustments between the deficit and the debt – does not facilitate consistent application of the debt criterion: far from it. In general, under normal economic circumstances and in the case of normal adjustments between the deficit and the debt, it is likely that a budget

balance close to the medium-term objective, as defined in the preventive arm of the Stability and Growth Pact, will automatically lead to the required debt reduction. The value added of this new rule concerning the debt is therefore relative.

Finally, it must be said that the requirements imposed in the said Directive concerning national budgetary frameworks remain vague in many respects. A number of Member States go much farther in strengthening their national fiscal rules and budgetary institutions.

Regarding the new Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, it largely follows – and even overlaps with – the Stability and Growth Pact as amended under the Six-Pack legislation; nonetheless, it does reinforce it. Thus, the medium-term objectives for structural budget balances and the automatic correction mechanism have to be enshrined in national law, at constitutional or comparable level. In addition, the provision whereby the Member States must abide by the proposals and recommendations of the EC under the excessive deficit procedure unless they are opposed by a qualified majority is stricter than the comparable provisions of the Six Pack. Conversely, the Fiscal Compact under the new treaty appears to have the drawback of further increasing the complexity of the rules on governance.

3.2 The first Alert Mechanism Report, February 2012

In February 2012, the EC published its first Alert Mechanism Report, the first stage in the macroeconomic imbalance procedure. As already mentioned, this report is based on a series of relevant indicators and thresholds which make up the scoreboard.

3.2.1 Findings of the first Alert Mechanism Report

The first scoreboard is based on data from the end of 2010. For many Member States, it indicates the following principal problems: large current account balances (even if they have recently been corrected to some extent), the still substantial level of the net external debt, loss of export market shares and the debt levels of households and businesses as well as governments. Property price bubbles were also identified among the problems facing a number of countries, although a correction is in progress on this point.

Several indicators exceed the thresholds and are thus highlighted in red for many countries:

- 15 of the 27 Member States record a net international investment position which is too negative as a percentage of GDP, or a loss of export market shares, or a too high private sector debt as a percentage of GDP; in a number of cases, these three imbalances are combined;
- in 14 Member States, the public sector debt exceeds 60 % of GDP;
- in 11 Member States the current account imbalance is highlighted in red, 9 recording a deficit which exceeds the threshold of –4 % of GDP, and 2 recording a surplus which exceeds the threshold of +6 % of GDP;
- apart from these common imbalances, a substantial change in the real effective exchange rate, in nominal unit labour costs and in the unemployment rate are mentioned a number of times, while property price rises and private sector credit flows are in red in one or two cases.

On the basis of this scoreboard, the EC selected 12 Member States for an in-depth review. The programme countries[1] – Ireland, Greece, Portugal and Romania – were excluded as they are already under closer surveillance. The countries selected for an in-depth review include seven euro area Member States (Belgium, Cyprus, Finland, France, Italy, Slovenia and Spain) and five which are not in the euro area (Bulgaria, Denmark, Hungary, Sweden and the United Kingdom).

All these countries exceed at least three thresholds, or two if the excess is very substantial. Excluding the programme countries, it is Spain and Cyprus that exceed the largest number of thresholds, namely six.

Luxembourg and Sweden both have a current account surplus which exceeds the upper threshold of 6 % of GDP, but – in accordance with the conclusions of the Ecofin Council on 8 November 2011 – this was not considered to be an aspect likely to raise "concerns about the sustainability of external debt or financing capacity that affect the smooth functioning of the euro area".

3.2.2 Assessment of the scoreboard and of the first Alert Mechanism Report

While it is always possible to criticise the selection of the indicators and the method of calculating the thresholds, that debate took place before the scoreboard was first applied. It has now been approved by the Council and by the

(1) The programme countries receive support from the EFSF, the EFSM or bilateral loans (Greece, Ireland and Portugal), or balance of payments support from the EU (Romania).

TABLE 2 ALERT MECHANISM REPORT: THE 2010 SCOREBOARD

	External imbalances and competitiveness					Internal imbalances				
	3 year average of current account balance as % of GDP	Net international investment position as % of GDP	% change (3 years) of real effective exchange rate with HICP deflators	% change (5 years) in export market shares	% change (3 years) in nominal unit labour cost	Year-on-year % change in deflated house prices	Private sector credit flow as % of GDP	Private sector debt as % of GDP	Public sector debt as % of GDP	3 year average of un-employment
Thresholds	–4 / +6 %	–35 %	±5 % & ±11 % (1)	–6 %	+9 % & +12 % (1)	+6 %	15 %	160 %	60 %	10 %
BE	–0.6	77.8	1.3	–15.4	8.5	0.4	13.1	233	96	7.7
BG	–11.1	–97.7	10.4	15.8	27.8	–11.1	–0.2	169	16	7.5
CZ	–2.5	–49.0	12.7	12.3	5.1	–3.4	1.7	77	38	6.1
DK	3.9	10.3	0.9	–15.3	11.0	0.5	5.8	244	43	5.6
DE	5.9	38.4	–2.9	–8.3	6.6	–1.0	3.1	128	83	7.5
EE	–0.8	–72.8	5.9	–0.9	9.3	–2.1	–8.6	176	7	12.0
IE	–2.7	–90.9	–5.0	–12.8	–2.3	–10.5	–4.5	341	93	10.6
EL	–12.1	–92.5	3.9	–20.0	12.8	–6.8	–0.7	124	145	9.9
ES	–6.5	–89.5	0.6	–11.6	3.3	–3.8	1.4	227	61	16.5
FR	–1.7	–10.0	–1.4	–19.4	7.2	5.1	2.4	160	82	9.0
IT	–2.8	–23.9	–1.0	–19.0	7.8	–1.4	3.6	126	118	7.6
CY	–12.1	–43.4	0.8	–19.4	7.2	–6.6	30.5	289	62	5.1
LV	–0.5	–80.2	8.5	14.0	–0.1	–3.9	–8.8	141	45	14.3
LT	–2.3	–55.9	9.1	13.9	0.8	–8.7	–5.3	81	38	12.5
LU	6.4	96.5	1.9	3.2	17.3	3.0	–41.8	254	19	4.9
HU	–2.1	–112.5	–0.5	1.4	3.9	–6.7	–18.7	155	81	9.7
MT	–5.4	9.2	–0.6	6.9	7.7	–1.6	6.9	212	69	6.6
NL	5.0	28.0	–1.0	–8.1	7.4	–3.0	–0.7	223	63	3.8
AT	3.5	–9.8	–1.3	–14.8	8.9	–1.5	6.4	166	72	4.3
PL	–5.0	–64.0	–0.5	20.1	12.3	–6.1	3.8	74	55	8.3
PT	–11.2	–107.5	–2.4	–8.6	5.1	0.1	3.3	249	93	10.4
RO	–6.6	–64.2	–10.4	21.4	22.1	–12.1	1.7	78	31	6.6
SI	–3.0	–35.7	2.3	–5.9	15.7	0.7	1.8	129	39	5.9
SK	–4.1	–66.2	12.1	32.6	10.1	–4.9	3.3	69	41	12.0
FI	2.1	9.9	0.3	–18.7	12.3	6.8	6.8	178	48	7.7
SE	7.5	–6.7	–2.5	–11.1	6.0	6.3	2.6	237	40	7.6
UK	–2.1	–23.8	–19.7	–24.3	11.3	3.4	3.3	212	80	7.0

Source: EC.
(1) For euro area and other EU countries respectively.

Parliament even though, as already mentioned, the list of indicators and the thresholds may be revised in the future. Moreover, the choice of indicators is not the only important aspect; their precise definition is just as important.

Thus, the data on private debt may be extremely misleading if they are based on non-consolidated data, as is currently the case. In certain countries, such as Malta, Luxembourg and Ireland, but especially in Belgium, the non-consolidated data differ greatly from the consolidated data.

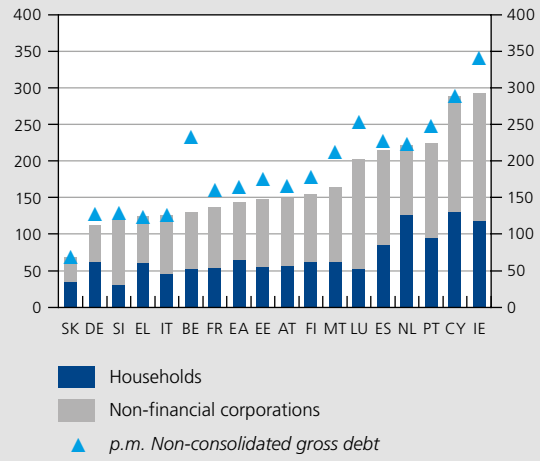
For Belgium, for example, this difference is due to the strong presence of multinationals which manage their internal financial flows from this country. The non-consolidated debt of the non-financial corporations sector is therefore very high in Belgium. It came to 180 % of GDP at the end of 2010, compared to 78 % of GDP on a consolidated basis.

Non-consolidated data are useful for gaining an idea of the sector's financing structure. Inter-company loans – especially within the same group – are generally more stable than bank lending and the associated risk is lower.

However, a consolidated indicator does seem more relevant for analysing the potential risks inherent in macroeconomic imbalances, and that should be the aim of the

CHART 4 CONSOLIDATED GROSS DEBT OF THE NON-FINANCIAL PRIVATE SECTOR[1]

(data at the end of 2010, in % of GDP)



Source: EC.

(1) Households and non-financial corporations, total loans and securities excluding shares.

MIP. On the basis of the consolidated data, the debt ratio of non-financial corporations is more or less the same in Belgium as in the euro area. The corresponding debt ratio for the non-financial private sector as a whole in Belgium is only 131 % of GDP, compared to an average of 147 % in the euro area.

Another point to be treated with caution is that the selection of the Member States subject to an in-depth review may be considered arbitrary: some countries exceeding the threshold for two indicators are selected, whereas others need to have four indicators highlighted in red. Eight Member States have three indicators in red, but Belgium is the only one selected for an in-depth review. Of course, the EC conducts an overall assessment in which it need not assign the same weighting to all the overruns.

Finally, the 2012 Alert Mechanism Report uses data from the end of 2010, which may therefore no longer be up to date at the time of the assessment. The use of 2011 data rather than 2010 data is already revealing notable improvements in certain Member States at the level of the current account deficit (Malta, Slovakia and Spain) and changes in unit labour costs (Austria, Estonia, Greece, Italy and Slovakia). Conversely, other indicators have deteriorated in certain countries, such as the unemployment rate in Spain. This situation clearly shows that the scoreboard is only a snapshot. The rules therefore provide for it to be interpreted in a broader framework.

At the end of May 2012, the EC presented its in-depth reviews on twelve Member States. It concludes that there are macroeconomic imbalances requiring preventive treatment and careful monitoring. It also finds that these imbalances are already being corrected, as is evident from the shrinking of current account deficits, the convergence of unit labour costs, the decline in excessive lending and the house price correction. In a number of cases, however, the cumulative internal and external imbalances still present a major challenge, e.g. as regards private and public sector debt.

Although, according to the EC, excessive imbalances are not present in any of the twelve Member States, it nevertheless makes a distinction between these twelve countries. Spain and Cyprus are among the most worrying cases, followed by France, Hungary, Italy and Slovenia. Among the twelve Member States undergoing an in-depth review, Belgium is classed among the least worrying countries; the main point noted in Belgium's review is the loss of competitiveness and the high level of public debt, while the review rightly states that the high non-consolidated private sector debt does not indicate any risk because the consolidated debt is relatively low.

Conclusion

The macroeconomic imbalances which have accumulated since the introduction of the euro in some Member States were never adequately counteracted by the previous Stability and Growth Pact and the structural economic policy.

Those imbalances grew larger, culminating in the May 2010 crisis when Greece effectively lost access to the financial markets and the country had to resort to international financial assistance. The EU was forced to opt swiftly for bilateral public funding of the Greek sovereign debt and the creation of two temporary financial support mechanisms which, from mid-2012, will be succeeded by the permanent European Stability Mechanism, the ESM.

At the same time, it was decided at the highest political level to strengthen the economic policy coordination framework within the EU.

The aim was to prevent macroeconomic imbalances or eliminate them faster and more vigorously in all EU Member States, and especially in the euro area, with the aid of a series of automatically binding rules. December 2011 saw the new Six-Pack rules enter into force, not only strengthening the previous Stability and Growth Pact but also introducing the key macroeconomic imbalance procedure.

During the decision-making process, owing to national political considerations, the original proposals for more automatic decision-making procedures under the Six Pack were weakened to some extent, although the European Parliament partly corrected that. There were other initiatives, such as the Euro Plus Pact and, more importantly, the new Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, which includes the Fiscal Compact. Two new Regulations are also being discussed in the trialogue procedure between the Council, the European Parliament and the EC, namely the Two Pack, whereby euro area Member States must submit their draft budgets to the EC, which would be entitled to assess them in the light of the European fiscal rules.

In contrast to the 2005 reform of the Stability and Growth Pact, the recent and current changes to the EU's governance framework are clearly a key step in the right direction. On the other hand, the rules have become much more complicated, and an increase in the number of regulations does not necessarily lead to more consistent and more coherent surveillance. Moreover, the initiatives overlap to some extent, deploying not only Community methods but also intergovernmental ones, further adding to the complexity.

The way in which the new governance framework will be implemented will now determine its credibility. Strict implementation of the procedures and of the sanctions, where applicable, may make a contribution here. National ownership, notably by the parliaments of the Member States, is another key factor for credibility.

In the past two years, the EU has made more progress in further developing the "economic pillar" of EMU than in the past decade. As a result, we are moving closer to the EMU proposed by Pierre Werner in his 1970 report. But there is still a long way to go. Significant new steps will be needed, and must be accompanied by greater transfer of sovereignty to the European level in order to give it the power to prevent and combat the imbalances which led to the debt crisis in the euro area.

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Summaries of articles

Economic projections for Belgium – Spring 2012

The current economic situation in the euro area is causing serious concern. While the measures adopted by the European authorities since the end of 2011 did temporarily ease the uncertainty and financial tensions at the beginning of 2012, renewed nervousness on the sovereign debt markets and among the economic agents has emerged in recent months, owing to the very worrying situation in the countries undergoing significant budgetary adjustments and/or radical restructuring of their economy. The resulting contagion is affecting financial institutions in the euro area.

The projections for 2012 and 2013 presented in the article are based on the assumption that these tensions will ease, on the premise that the euro area crisis does not grow any worse and does not have irreparable repercussions on systemic financial institutions. External demand is assumed to strengthen gradually, with interest rates remaining low, while the oil price is expected to record a modest fall.

In the euro area, the economic situation should gradually improve in the second half of 2012, and the recovery should strengthen in 2013. Significant divergences between countries are expected to persist. Inflation is projected to decline gradually, the main factor being the expected fall in oil prices.

Since mid-2011, the Belgian economy has felt the effects of the worsening financial tensions and deteriorating economic situation in the euro area. GDP growth is forecast to reach just 0.6 % in 2012, rising to 1.4 % in 2013. The outlook is slightly more favourable than for the euro area as a whole. In the absence of any adjustment having a major impact on domestic demand, activity in Belgium, in Germany's wake, continues to exhibit some resilience, as was the case during the 2008-2009 recession.

The slowdown in activity in 2012 followed by a moderate revival in 2013 should be directly reflected in the employment market, where only 3 300 additional jobs are forecast to be created in net terms in 2012, and just over 27 000 in 2013. The weakness of job creation is also due to the budget restraint which the new government has introduced for the federal authorities and health care. Unemployment is expected to rise to 7.5 % in 2012 and 7.7 % in 2013.

Since peaking in mid-2011, inflation has fallen steadily in Belgium and should continue to ease, averaging 2.6 % in 2012 and 1.5 % in 2013, the main factor being the expected fall in oil prices. Before subsiding in 2013, underlying inflation is set to remain high in 2012 owing to the effect of the increase in certain indirect taxes and the rise in labour costs, which should still be strong.

The general government deficit is projected to fall to 2.8 % in 2012, deteriorating slightly thereafter, and rising to 3.1 % in 2013. The public debt is set to rise significantly in 2012, to 98.9 % of GDP, owing to exogenous factors relating to the Greek rescue package and participation in the European Stability Mechanism, and is projected to record a smaller increase in 2013 to reach 99.2 % of GDP.

JEL codes : E17, E25, E37, E66

Key words : Belgium, macroeconomic projections, Eurosystem

What can we and can't we infer from the recourse to the deposit facility ?

In the wake of the two longer-term refinancing operations with a maturity of three years conducted in December 2011 and February 2012, amounts placed on the Eurosystem's deposit facility surged to unprecedented high levels of around € 800 billion. The article clarifies how this high recourse to the deposit facility should be interpreted.

First, daily changes in the amounts being placed on the deposit facility should not necessarily be interpreted as daily changes in stress on the interbank market as there is a seasonal pattern in the use of the deposit facility. That seasonal pattern stems from the fact that Eurosystem counterparties have to meet a reserve requirement on an average basis. Hence, it is better to watch the money market liquidity surplus, defined as the sum of the recourse to the deposit facility and the current account holdings in excess of the required reserves, as a proxy for the central bank's intermediation role on the money market.

Second, high recourse to the deposit facility is an automatic corollary to increased central bank liquidity provision because the relationship between the central bank and commercial banks can be seen as a closed system. Hence, as illustrated by some examples, large amounts being placed on the deposit facility are not informative as to whether or not the liquidity is actually "being put to use", for instance, to grant credit to the non-financial sector or to pay back maturing bank debt. A number of examples illustrate this.

JEL codes : E52, E58

Key words : Eurosystem, deposit facility, monetary policy implementation

Monetary policy in the US and the euro area during the crisis

The article aims to present and analyse the policy responses of the Federal Reserve and the Eurosystem during the various stages of the economic and financial crisis that began in the summer of 2007. It also looks at the relationship between monetary policy and budgetary policy, and attempts to shed some light on the challenges of conducting monetary policy at the present time.

In the context of the crisis, the Federal Reserve and the Eurosystem made profound changes to the conduct of their monetary policy. In order to prevent the collapse of the financial system and to support economic activity, they decided on rapid and substantial cuts in their key interest rates, which reached historic lows. Moreover, they adopted numerous non-standard measures to provide liquidity and purchased assets on a massive scale, broadening their role as intermediary and considerably expanding the size of their balance sheets. Whilst each of the central banks significantly revised the operational framework of its monetary policy, the initial circumstances of how monetary policy was conducted and the predominance of the non-banking financial sector in financing the economy in the United States resulted in more substantial changes in the case of the Federal Reserve.

The scale of the crisis and the rapid progression of events justify to a great extent the unprecedented extension of central banks' activities during the last few years. It should be borne in mind, however, that monetary policy has its limits. Whilst the high level of excess liquidity at the present time is not a direct threat to price stability, conducting an accommodating monetary policy over a long period may in fact entail numerous risks.

JEL codes: E44, E52, E58, E61, E63

Key words: monetary policy, budgetary policy, Federal Reserve, Eurosystem, economic and financial crisis, sovereign debt crisis, non-standard measures, euro area, United States, independence

Reform of the Special Finance Act for the Communities and Regions

On 10 October 2011, eight parties with a special majority in the federal parliament concluded an agreement on the sixth reform of the Belgian State. The article presents the two most important aspects of the reform from an economic and budgetary point of view, namely the transfer of new powers from federal level to the federated entities, and the revision of the Special Finance Act for the Communities and Regions of 16 January 1989. The agreement on the revision of the Finance Act mostly concerns principles and mechanisms.

The powers transferred represent around 4.4 % of GDP. These transfers come under social security rather than federal government, and more powers are devolved to the Communities and Community Commissions – institutions with no fiscal powers of their own – than to the Regions.

For the Regions, one of the main changes pursuant to the new draft Finance Act concerns the greater fiscal autonomy accorded to them in regard to personal income tax. For their new powers, the Regions also receive additional resources allocated according to a fiscal key. Finally, a national solidarity allowance is maintained, but the detailed arrangements are modified.

Likewise, the Communities receive additional resources for their new powers, but they are allocated on the basis of demographic keys. The resources available to the Communities for their old powers are being restructured.

There is also a transitional mechanism to neutralise the effects of the reform for the various entities when it comes into force, and to limit the scale of the effects during the first decade. Separately from this mechanism, the Brussels institutions are to be refinanced and the agreement includes a higher contribution from the federated entities towards the budgetary cost of ageing.

As it stands, the agreement on State reform does not solve the issue of the various entities' participation in the necessary consolidation of Belgian public finances. It is therefore important to determine the sharing of the consolidation efforts needed to restore a balanced budget in Belgium by 2015, to specify the arrangements for the participation by the federated entities and, in that connection – as stipulated by the agreement – to finally set certain Finance Act variables, such as the reference amounts for the transfer of powers and their variation parameters.

Jel codes: H11, H70, H74

Key words: public finance, fiscal, Belgian State reform, Special Finance Act, Communities and Regions

Asset formation by households during the financial crisis

The article presents a microeconomic analysis of asset formation by Belgian households and the impact which the financial crisis has had on that. For the first time, data from a survey of households' financial behaviour are used. The survey data are a useful addition to the existing macroeconomic information. During the crisis, many households deserted equities in favour of bank accounts, and bank accounts in favour of real estate. On the other hand, there were some households which actually invested more in equities during this period. Many households also transferred funds between various bank accounts, and some households avoided particular assets altogether. The survey offers direct information on households' attitudes to financial risk and demographic and socio-economic characteristics that play a role in these movements. Some specific portfolio choices which households have made since the beginning of the financial crisis can be pointed up. First, there were noticeably large numbers of transfers between accounts with financial institutions, probably partly owing to the mounting mistrust of such accounts and of certain financial institutions in particular. Secondly, positions in equities and equity funds were reduced in many cases, whereas there were still some households wanting to invest more in these assets. Therefore, not all Belgian investors were averse to (calculated) financial risk. Real estate continues to play a clear role as a safe haven. Many households withdrew cash from bank accounts in order to invest in real estate, and it seems that few households intend to retreat from it.

JEL codes: D14, G11

Key words: household finance, asset formation, financial crisis, household survey

New developments in economic governance in the European Union

In the past few years it has become painfully clear that the financial markets' loss of confidence confronting certain euro area countries can swiftly spread to other Member States, ultimately threatening the orderly functioning and stability of the euro area as a whole.

Back in 2007, before the financial crisis, vulnerable positions had become apparent within the euro area. In the absence of adequate fiscal discipline, the initial budgetary position of several euro area countries was not very strong. Moreover, there were wide divergences in competitiveness and domestic demand within the euro area, and the situation in some Member States had become particularly fragile owing to structural losses of competitiveness or property market bubbles combined with the accumulation of household debts, or because of the vulnerable state of the banking sector. Decision makers and financial markets have long underestimated the importance of these macroeconomic imbalances. The coordination of economic policies fell short of the ambitions: the way in which the fiscal rules were interpreted and applied was too flexible, and the macroeconomic surveillance of structural policy was insufficiently rigorous. However, following the financial crisis of 2008-2009, it became apparent that these imbalances had a destabilising effect.

Aware of the seriousness of the situation, the European Council had already at the beginning of 2010 decided to strengthen the economic governance of the European Union (EU), including its fiscal rules. The Van Rompuy task force was set up, and the European Commission (EC) drafted six legislative proposals which were formally approved in amended form by the European Parliament and the Ecofin Council in the autumn of 2011 (the "Six-Pack"). The EC then proposed two additional regulations to ensure more rigorous budgetary surveillance (the "Two-Pack"). In addition, the EU Member States – except for the United Kingdom and the Czech Republic – concluded a new intergovernmental treaty on stability, coordination and governance in the Economic and Monetary Union. In parallel with these measures to strengthen governance within the EU, various mechanisms have been set up since the beginning of 2010 to contain the debt crisis, and a number of Member States have received emergency funding from the EU and the International Monetary Fund.

Key words: economic governance in the EU, stability and growth pact, macroeconomic imbalance procedure

JEL codes: E61, E62

Abstracts from the Working Papers series

218. Economic importance of air transport and airport activities in Belgium – Report 2009, by X. Deville, S. Vennix, December 2011

The study assesses the economic importance of air transport and airport activities in Belgium in terms of employment, value added and investment over the period 2007-2009. The sector considered embraces not only business directly connected with air transport, but also all the activities which take place on site at the six Belgian airports (Antwerp, Brussels, Charleroi, Kortrijk, Liège, Ostend). The direct and indirect effects of the sector are estimated respectively on the basis of microeconomic data (mainly obtained from the Central Balance Sheet Office) and macroeconomic data (from the National Accounts Institute). The study also includes an analysis of the social balance sheet and certain ratios on the basis of Central Balance Sheet Office information.

In 2009, the air transport sector thus defined generated over € 6.1 billion in direct and indirect value added (or 1.8 % of Belgium's GDP), and provided direct or indirect employment for 80 300 people in full-time equivalents (or 2 % of domestic employment in FTE). Brussels Airport was the most affected by the decline in global traffic in 2009, as a result of the economic crisis : in that year, it ceased to be Belgium's principal cargo airport, ceding that position to Liège Airport. However, the national airport still ranks first in the passenger market, accounting for almost three-quarters of traffic in 2010, despite the exponential growth of traffic at Charleroi Airport. Together, these two airports accounted for almost 97 % of passenger traffic passing through Belgium in 2010.

219. Comparative advantage, multi-product firms and trade liberalisation : An empirical test, by C. Fuss, L. Zhu, January 2012

The paper investigates how economies of scope in multi-product firms interact with comparative advantage in determining the effect of trade liberalisation on resource reallocation, using Belgian manufacturing firm- and firm-product-level data over the period 1997-2007. The authors first provide evidence on industry integration induced by multi-product firms producing simultaneously in multiple industries and on the extent to which industry integration occurs between industries that have different degrees of comparative advantage. They then examine the impact of opening up trade with low-wage countries on both inter- and intra-industry resource reallocation, taking into account heterogeneity in the integration rate across sectors and industries. Their results indicate that, within more closely integrated sectors, trade liberalisation with low-wage countries leads to less reallocation from low-skill-intensity (comparative-disadvantage) industries to high-skill-intensity (comparative-advantage) industries, both in terms of employment and output. More integrated

industries experience less skill upgrading after trade liberalisation with low-wage countries. Furthermore, within sectors with a low integration rate, trade liberalisation with low-wage countries induces relatively more aggregate total factor productivity (TFP) and average firm output growth in comparative-advantage industries than in comparative-disadvantage industries, in line with the prediction made by Bernard, Redding and Schott (2007), while the opposite is true in highly integrated sectors. Decomposition of the industry-level aggregate TFP changes reveals that the result is mainly driven by reallocation between incumbent firms within industries. Overall, the results are highly consistent with the predictions of the Song and Zhu (2010) model.

220. Institutions and export dynamics, by L. Araujo, G. Mion, E. Ornelas, February 2012

The authors study the role of contract enforcement in shaping the dynamics of international trade at the firm level. They develop a theoretical model to describe how agents build reputations to overcome the problems created by weak enforcement of international contracts. They find that, all else equal, exporters start their business activities with higher volumes and remain as exporters for a longer period in countries with better contracting institutions. However, conditional on survival, the growth rate of a firm's exports to a country decreases with the quality of the country's institutions. These predictions are tested using a rich panel of Belgium exporting firms from 1995 to 2008 to every country in the world. The authors adopt two alternative empirical strategies. In one specification, firm-year fixed effects are used to control for time-varying firm-specific characteristics. Alternatively, selection is modelled more explicitly with a two-step Heckman procedure using "extended gravity" variables as exclusion restrictions. Results from both specifications support the predictions. Overall, the findings suggest that weak contracting institutions cannot be regarded simply as an extra sunk or fixed cost to exporting firms; they also significantly affect firms' trade volumes and have manifold implications for firms' dynamic patterns in foreign markets.

221. Implementation of EU legislation on rail liberalisation in Belgium, France, Germany and The Netherlands, by X. Deville, F. Verduyn, March 2012

The study provides a detailed and easy-to-read overview of railway liberalisation in Belgium and the three neighbouring countries. The European Union's liberalisation Directives are often complex and implemented in very specific ways in the different Member States. The analysis goes into some detail about the Commission's underlying motives and economic theories for letting network industries, which had previously been regarded as natural monopolies, convert into competitive enterprises with the separation of infrastructure from operations.

The study takes a look at the impact of the European rail liberalisation Directives in Belgium and its neighbours – France, Germany and the Netherlands. There are considerable variations in the way in which the Directives are applied. This is reflected in the way in which the infrastructure was separated from the transport services within the railway companies, and in the degree of market opening in freight and passenger transport.

The analysis shows that the dominance of the former monopolists in the different Member States means that private rail operators still face major obstacles. The financial analysis of the railway companies reveals wide variations in economic performance. The combination of better balance sheet figures and a bigger domestic market means that some major players in Europe are financially better off, giving them superiority over the smaller railway companies. This raises the question whether these circumstances will ultimately lead to distortion of competition.

222. Tommaso Padoa-Schioppa and the origins of the euro, by I. Maes, March 2012

Tommaso Padoa-Schioppa was one of the great architects of the euro. He is remembered in particular as co-rapporteur for the Delors Committee and as a founding member of the European Central Bank's Executive Board. For Padoa-Schioppa, becoming Director-General of the European Commission's DG II (from 1979 to 1983), was a defining moment in his career and life. This period is the main focus of this paper. At the Commission, Padoa-Schioppa's main priority was the European Monetary System, which was launched in March 1979. He was closely involved in several projects to strengthen the EMS, to improve economic policy convergence and the position of the ECU. The other main objective for Padoa-Schioppa was the strengthening of DG II's analytical capacity, especially its model-building capacity and its links with the academic world. As such, he played a crucial role in the professionalisation of economics at the Commission and in preparing DG II for the important role it would play in the EMU process. At the Commission, Padoa-Schioppa also became immersed in several European networks. Of crucial importance here were his contacts with Jacques Delors. This would be of major importance for his further career, becoming one of the architects of the single currency.

223. (Not so) easy come, (still) easy go? Footloose multinationals revisited, by P. Blanchard, E. Dhyne, C. Fuss, C. Mathieu, March 2012

The paper revisits the hypothesis surrounding the "footloose" nature of multinational firms (MNFs). Using firm-level data for Belgium over the period 1997-2008, the authors rely on a Probit model and take into account the endogeneity of the determinants of firm exit. Their results may be summarised as follows. First, the unconditional exit probability of MNFs is lower than that of domestic firms. Second, controlling for firm and sector characteristics – firm age, total factor productivity, sunk costs, size, competition on the product market, sector-level value added growth, and sector dummies – the difference between the exit probability of MNFs and domestic firms becomes positive. Third, the results show that MNFs are less sensitive to sunk costs and size than domestic firms, which may be interpreted as lower exit barriers due to greater possibilities of relocating tangible and intangible assets to foreign affiliates.

224. Asymmetric information in credit markets, bank leverage cycles and macroeconomic dynamics, by A. Rannenberg, April 2012

The paper adds a moral hazard problem between banks and depositors, along the lines of Gertler and Karadi (2011), to a Dynamic Stochastic General Equilibrium (DSGE) model with a costly state verification problem between entrepreneurs and banks as in Bernanke, Gertler and Girlchrist (1999, BGG). This modification amplifies the response of the external finance premium and the overall economy to monetary policy and productivity shocks. It enables the model to match the volatility and correlation with output of the external finance premium, bank leverage, entrepreneurial leverage and other variables in US data better than a BGG-type model. A reasonably calibrated simulation of a bank balance sheet shock produces a downturn of a magnitude similar to the "Great Recession"

Conventional signs

e.g.	for example
i.e.	id est
p.m.	pro memoria
$	US dollar
€	euro
%	per cent

List of abbreviations

Countries or regions

BE	Belgium
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
IT	Italy
CY	Cyprus
LU	Luxembourg
MT	Malta
NL	Netherlands
AT	Austria
PT	Portugal
SI	Slovenia
SK	Slovakia
FI	Finland
EA	Euro area
BG	Bulgaria
CZ	Czech Republic
DK	Denmark
LV	Latvia
LT	Lithuania
HU	Hungary
PL	Poland
RO	Romania
SE	Sweden
UK	United Kingdom
EU-25	European Union, excluding United Kingdom and Czech Republic
EU-27	European Union
US	United States

Others

ABCP	Asset-Backed Commercial Paper
ABS	Asset-Backed Securities
AIG	American International Group
AMLF	Asset-Backed Commercial Paper Money Market Fund Liquidity Facility
AMR	Alert Mechanism Report
BIS	Bank for International Settlements
CMBS	Commercial Mortgage-Backed Securities
CPFF	Commercial Paper Funding Facility
CPI	Consumer Price Index
CREG	Commission for Electricity and Gas Regulation
DGSEI	Directorate General for Statistics and Economic Information Belgium
EC	European Commission
ECB	European Central Bank
EDP	Excessive deficit procedure
EFSM	European Financial Stabilisation Mechanism
EFSF	European Financial Stability Facility
EIP	Excessive imbalance procedure
ELA	Emergency Liquidity Assistance
Eonia	Euro Overnight Index Average
EPC	Economic Policy Committee
EMU	Economic and Monetary Union
ESA	European System of Accounts
ESCB	European System of Central Banks
ESM	European Stability Mechanism
EU	European Union
Euribor	Euro Interbank Offered Rate
FOMC	Federal Open Market Committee (United States)
FPB	Federal Planning Bureau
FPS	Federal Public Service
GDP	Gross domestic product
GSE	Government-Sponsored Enterprises
HICP	Harmonised index of consumer prices
IMF	International Monetary Fund
Libor	London Interbank Offered Rate
LSAP	Large-Scale Asset Purchases
MBS	Mortgage-Backed Securities
MFI	Monetary Financial Institutions
MIP	Macroeconomic Imbalance Procedure
MTO	Medium-term objective
NAI	National Accounts Institute
NATO	North Atlantic Treaty Organization

NBB	National Bank of Belgium
NBER	National Bureau of Economic Research
NEO	National Employment Office
NSSO	National Social Security Office
OECD	Organisation for Economic Cooperation and Development
OIS	Overnight Index Swap
PDCF	Primary Dealer Credit Facility
PSI	Private Sector Involvement
Q&A	Questions and answers
QE	Quantitative Easing
SMP	Securities Markets Programme
SNB	Swiss National Bank
TAF	Term Auction Facility
TALF	Term Asset-Backed Securities Loan Facility
TSCG	Treaty on Stability, Coordination and Governance in the Economic and Monetary Union
TSLF	Term Securities Lending Facility
VAT	Value added tax

National Bank of Belgium
Limited liability company
RLP Brussels – Company number: 0203.201.340
Registered office: boulevard de Berlaimont 14 – BE-1000 Brussels
www.nbb.be

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Director

National Bank of Belgium
Boulevard de Berlaimont 14 – BE-1000 Brussels

Contact for the Review

Luc Dufresne

Secretary-General

Tel. +32 2 221 24 96 – Fax +32 2 221 30 91
luc.dufresne@nbb.be

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