1. Global economy and euro area

In 2014, the growth of global activity was moderate and patchy. The economic upturn was most evident in the United States and the United Kingdom. In China, growth slowed slightly owing to a residential property market correction and risks in the shadow banking sector, while commodity producers suffered from the slump in prices. Like Japan, which slipped back into recession, the euro area trailed behind the other economies. Although its GDP grew by 0.8% on average over the year, following a 0.5% fall in the previous year, activity slowed from the spring despite the accommodative monetary policy stance, the improvement in financing conditions and the less restrictive fiscal policy. Inflation continued to decline more steeply than expected, dropping to 0.4% in 2014. While most economies that had made radical adjustments began expanding again, growth was generally sluggish in the euro area, as was potential growth. In view of the downward trend in risks to price stability in the euro area, the ECB Governing Council cut the key interest rates on two occasions in 2014, bringing the rate on the main refinancing operations to 0.05% and taking the deposit facility rate into negative territory. In its forward guidance, the Governing Council constantly repeated that, in view of the assessment of the economic outlook, the key rates would remain low for an extended period. In addition, the Eurosystem conducted targeted longer-term refinancing operations to boost lending by the banks. From October, it also began purchasing assets – asset-backed securities (ABSs) and covered bonds issued by euro area banks – to achieve a further easing of monetary policy. In January 2015, the Governing Council decided to include these transactions in an expanded asset purchase programme covering government bonds as well, amounting to € 60 billion a month. These asset purchases are expected to be made until the end of September 2016 and in any case will be continued until there is evidence of a sustained change in the inflation trend in line with the price stability objective.

1.1 Global economy

Moderate and patchy revival of global activity…

The revival of global activity that had been fairly widespread in 2013 continued at a modest pace in 2014. The lack of vigour contrasted with the plainly more optimistic sentiment which still prevailed on the financial markets. It also reflected the varying strength of the recovery across the different economic regions.

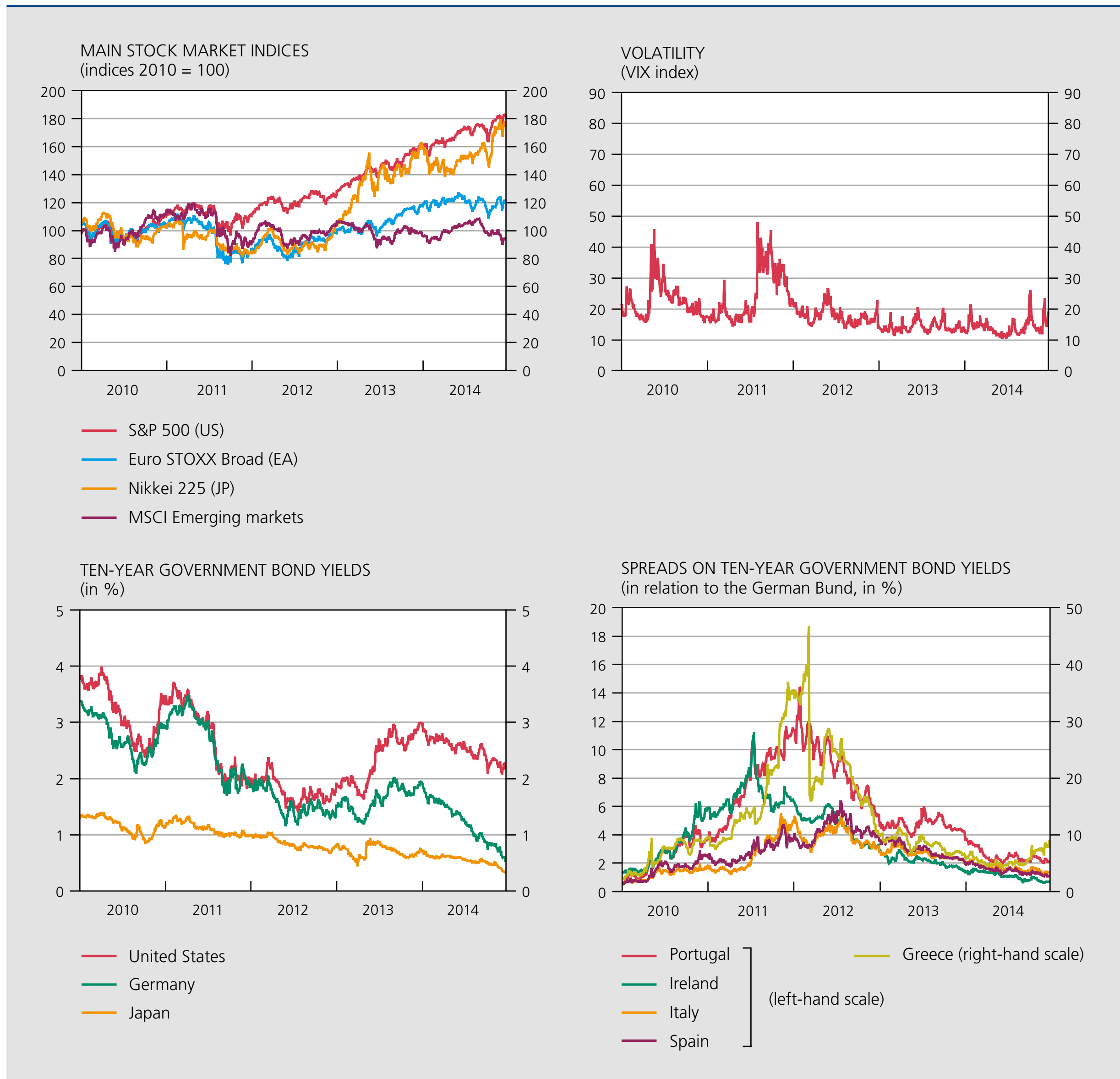
The clearest signs of economic recovery were seen in the United States and the United Kingdom. Although the emerging countries still record the highest average growth rates, their growth was nevertheless lower than in 2013, following a sometimes marked slowdown in a number of countries. In contrast, Japan slipped back into recession during the course of the year, and the recovery in the euro area that had begun in the spring of 2013 weakened significantly after the first quarter. The euro area therefore lagged seriously behind the other economies, not only because of a larger exposure to heightened geopolitical risks in neighbouring regions, but also owing to its difficulty in overcoming the effects of the great recession and the sovereign debt crisis.

… in a generally favourable financial market climate

During the year under review, financial markets were greatly influenced by the still highly accommodative – albeit increasingly divergent – monetary policy stance in the advanced countries. That situation continued to exert downward pressure on long-term government

CHART 1 INTERNATIONAL FINANCIAL MARKET DEVELOPMENTS

(daily data)



Source : Thomson Reuters Datastream.

bond yields. The low interest rates and the likelihood that rates would remain low for a long time also gave rise to a persistent search for yield among investors. That had begun in mid-2012 after a number of important measures – the ECB's introduction of outright monetary transactions (OMTs), the establishment of the European Stability Mechanism (ESM) and, later, the agreement on the European single supervisory mechanism (SSM) for credit institutions – eased the tension generated by the sovereign debt crisis in the euro area. Stock markets in the advanced countries therefore began rising again, and that trend was clearly maintained in the year under review. At the same time, premiums on riskier financial assets, such as high-yield government bonds in the peripheral euro area countries or in emerging countries, subsided in 2014 to their lowest levels since the crisis.

However, there were several periods of financial turbulence during the year, a reminder that the markets could still react nervously to heightened geopolitical tensions and ultimately minor changes to growth forecasts. But these phases were short-lived, and the contagion effects were generally limited. Overall, the losses were also fairly soon made good.

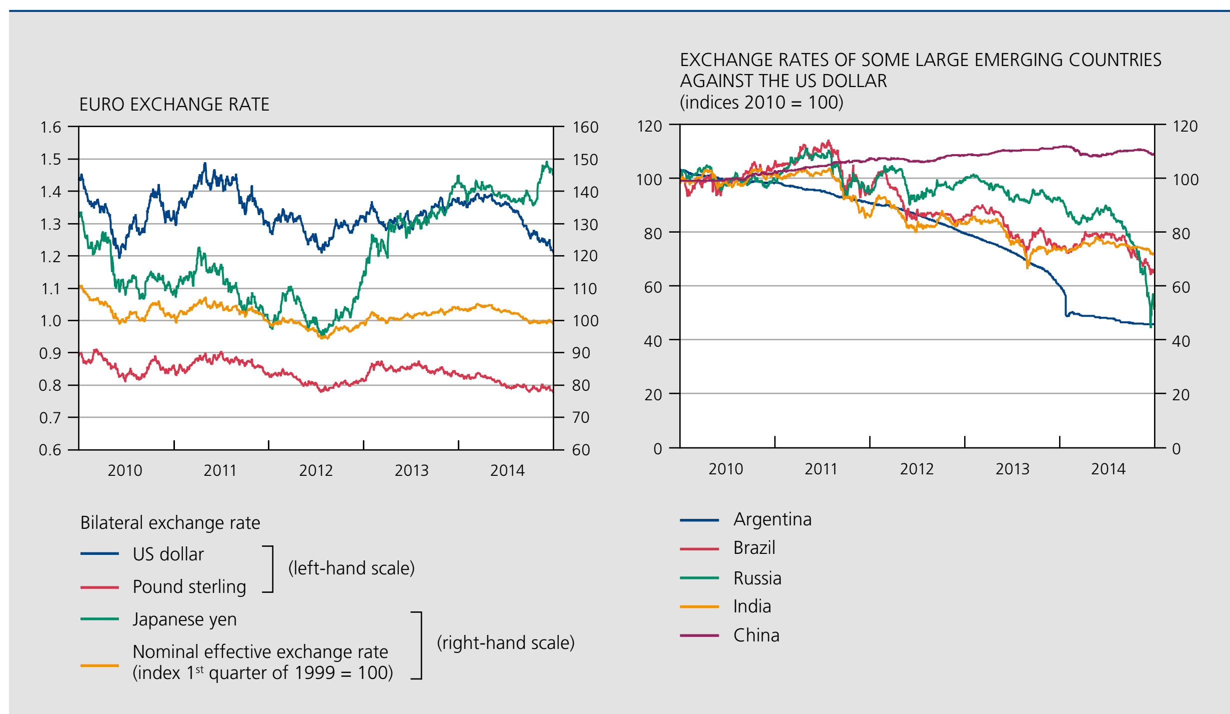
At the end of 2013 and at the beginning of the year under review, investors reassessed the situation in the emerging economies, in view of the deteriorating macroeconomic conditions – even though the outlook was improving in the advanced economies – and the imbalances present in some of them. Mounting uncertainty also emerged in China over the slowdown in the manufacturing industry and the worsening financial risks. Spreads between the government bonds of those countries and US Treasury bonds began to widen, and stock markets fell, as did exchange rates. The pressure escalated on 23 January when the central bank of Argentina devalued the peso by more than 10 % against the US dollar. The central banks of the countries affected responded by raising their interest rates or dipping into their exchange reserves. Thanks to that vigorous response, most of the losses on the stock and currency markets were made good by February. The impact on stock markets in the United States, Japan and the euro area was limited, although government bond yields declined as a result of the shift towards these safe-haven investments.

Apart from these temporary effects, for the euro area, the downward trend in sovereign bond yields reflected not only the effect of a further easing of monetary policy but also disappointing economic figures, a fall in long-term inflation expectations, and uncertainty caused by the increased geopolitical tensions. In the United States, too, the yield on ten-year government bonds diminished, though to a lesser degree than in the euro area, partly on account of expectations of a speedier normalisation of monetary policy. In Japan, the yield on government bonds was more or less stable at a very low level, in view of the expectation of a long period of accommodative monetary policy.

Following the market turmoil in January, stock markets resumed their upward trend. It was the American market indices that recorded the biggest rise – the S&P 500 having surged by more than 10 % during 2014 – and reached an all-time high. In Japan, the rise came to around 7 %. Stock markets also rose in the euro area. Over the year as a whole, the Euro STOXX index was up by around 2 %, after having peaked in June.

Towards the end of the second quarter, adverse macroeconomic figures – low inflation, waning confidence and a downturn in economic activity – began to depress the European markets. In addition to these factors, there were escalating geopolitical tensions when, on 29 July, the EU

CHART 2 EXCHANGE RATES
(daily data)



Source: Thomson Reuters Datastream.

announced new economic sanctions against Russia. At the beginning of September, however, most of the losses had been wiped out, notably on account of the expected continuation of the accommodative monetary policy in the euro area.

In October, the markets were again jittery. After disappointing macroeconomic figures had been published, concerns about the weakness of global growth mounted, and stock markets plummeted simultaneously throughout the world, falling by almost 10 %. In the United States and Japan, they soon climbed back, following the emergence of encouraging macroeconomic data in the US and the decision by the Bank of Japan to ease its already very accommodative monetary stance still further. The losses on European stock markets took longer to make good, against the backdrop of mediocre growth rates published for the euro area. In regard to bond yields, it was mainly US Treasury notes that saw a marked fall in yields, partly because investors believed that the monetary tightening in the United States would take place more slowly than initially planned, since the recovery appeared more hesitant than expected at that time, and partly because investors were somewhat dubious about the euro area. Subsequently, the yield began rising again following the emergence of positive economic data for the US.

During the year under review, the peripheral euro area countries also benefited from investors' declining risk aversion and their search for yield. Spreads between government bonds of those countries and the German Bund thus continued to narrow, and reverted to their lowest level since the crisis. It is striking that the periods of increased turbulence on the financial markets had no adverse contagion effects in that respect. It was only in October, during the period of maximum volatility, that the spreads widened in Greece after the Greek government had announced that – by the end of 2014, on expiry of the EU programme – it wanted an early exit from the IMF financial assistance programme which was scheduled to run until March 2016. The exit from the EU programme, originally planned for the end of 2014, was postponed by two months.

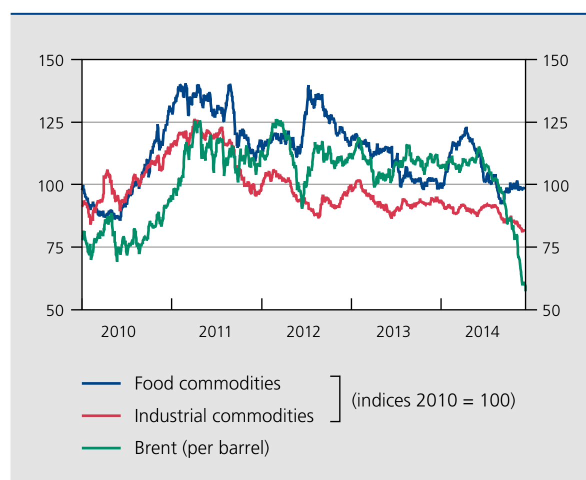
Once the turbulence early in the year had abated, capital flows to the emerging economies revived and were generally steady for the rest of the year under review. In that context, exchange rates in emerging countries such as China and India remained stable overall. In the first part of the year, the euro area also benefited from capital inflows; their effect in bolstering the exchange rate reinforced the impact of growing current account surpluses. From the summer, the euro's appreciation that had begun in mid-2012 went into sharp reverse when the ECB announced new monetary easing measures. Conversely, the euro appreciated considerably against the yen following the Bank of Japan's announcement at the end of October that it was expanding the programme of quantitative and qualitative monetary easing. The value of the rouble began falling steeply against the US dollar, especially in the second half of the year under review, on account of persistent geopolitical tensions in Ukraine and western sanctions against Russia. The pressure on the rouble intensified at the end of the year, owing to a persistent decline in the oil price on the international markets and the announcement of new sanctions by the United States. In Brazil, the depreciation of the real from September reflects the declining investor confidence in the Brazilian economy, further exacerbated by the election result at the end of October.

Weak global demand depresses commodity prices and international trade

Partly as a result of the still rather weak macroeconomic climate and the slump in global demand, commodity prices fell in 2014, and the expansion of world trade slackened pace.

Prices of energy commodities displayed the most striking movement, as the price of Brent crude oil in US dollars plunged by almost 50 % in 2014, despite rising geopolitical tensions. While the production of unconventional oil in North America and the substantial reserve capacity in Saudi Arabia more than made up for the interruptions in provisioning from Libya and Iraq, thus maintaining

CHART 3 **COMMODITY PRICES**
(daily data, US dollars)



Source : Thomson Reuters Datastream.

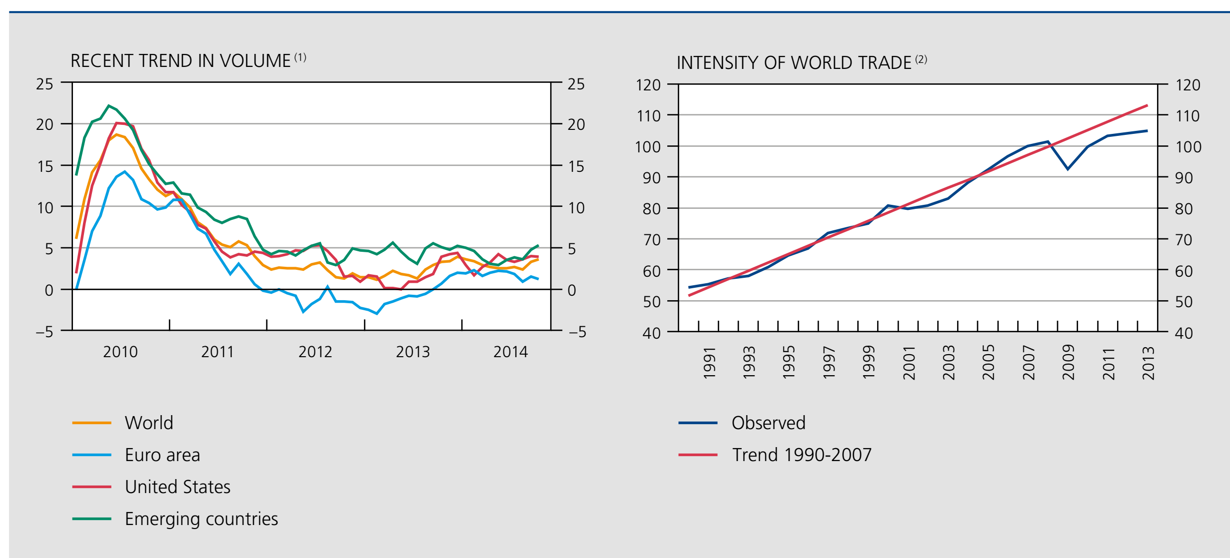
abundant supplies, the level of global demand remained weak. That was particularly true of demand from China and the other emerging economies, which had stepped up their consumption very sharply in the previous decade, but it was also true of Europe. The fall in oil prices on the international markets accelerated after the OPEC meeting on 27 November 2014, when it was decided to leave the production quotas unchanged.

As had already happened in 2013, anaemic world demand also depressed the prices of non-energy commodities. Food commodity prices declined during the year, although they did increase at times on account of bad weather in certain countries and concern caused by the situation in Ukraine, which is a major exporter of cereals. Industrial commodity prices contracted, essentially as a result of the rebalancing of growth in China in favour of less commodity-intensive activities.

After a temporary surge in the second half of 2013 following a lengthy period in the doldrums, the growth of world trade slowed again from 2014, in parallel with slackening economic activity. The decline was most marked in the emerging economies of Asia, and was reflected mainly in a sharp fall in Chinese imports, but the persistently weak demand from the euro area also played a part.

This decline originated both from cyclical factors – notably the marked slowdown in the growth of highly world-trade-intensive demand components, such as business investment, and the weakness of euro area industrial activity that generally involves substantial international trade in goods – and from more structural factors. Thus, in recent decades, some of the drivers of the strong expansion of world trade have become less powerful. The awakening of the emerging countries in the 1990s and 2000s was accompanied by a rapid expansion of world trade as a result of a combination of institutional, technological and organisational developments in production methods. The growing number of countries joining the World Trade Organisation has led to a reduction in regulatory and tariff barriers to trade, while the cost of transport and data exchange has come down considerably. In these circumstances, firms in western countries outsourced a growing proportion of their production to the emerging countries, where labour costs were much lower. These conditions favouring the very rapid expansion of international trade in goods are tending to fade away. For instance, wages in China and Eastern Europe have risen relative to those in the advanced economies over the past ten years. The extension of global production chains also appears to be slowing down. In some cases, those chains are actually tending to shorten again, as experience has shown that local problems can cause serious disruptions in the outsourcing process. The said factors seem to have weakened the elasticity of international trade to economic growth. Thus, according to the data and estimates currently available, it seems that the growth of world trade was hardly any higher than GDP growth in 2012-2014, whereas it had been double that figure in the first half of the 2000s.

CHART 4 INTERNATIONAL TRADE



Sources: CPB, OECD.
(1) Seasonally adjusted three–month moving average of exports and imports by volume; percentage change compared to the previous year.
(2) International trade as a percentage of global GDP, by volume.

TABLE 1 GDP OF THE MAIN ECONOMIES [1]

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

	2012	2013	2014	*p.m. Contribution to global GDP growth [1]* 2014	*p.m. Share of global GDP [1]* 2008	*p.m. Share of global GDP [1]* 2013
Advanced countries	1.2	1.3	1.8	*0.8*	*48.8*	*43.6*
of which:						
United States	2.3	2.2	2.4	*0.4*	*18.0*	*16.5*
Japan	1.5	1.6	0.1	*0.0*	*5.2*	*4.6*
Euro area	–0.7	–0.5	0.8	*0.1*	*14.6*	*12.2*
United Kingdom	0.7	1.7	3.1	*0.1*	*2.7*	*2.3*
Emerging countries	5.1	4.7	4.4	*2.5*	*51.2*	*56.4*
of which:						
Central and Eastern Europe	1.4	2.8	2.7	*0.1*	*3.5*	*3.5*
Russia	3.4	1.3	0.6	*0.0*	*3.8*	*3.4*
Emerging Asia	6.7	6.6	6.5	*1.9*	*23.1*	*28.7*
of which:						
China	7.7	7.8	7.4	*1.2*	*12.0*	*15.8*
Latin America and Caribbean	2.9	2.8	1.2	*0.1*	*8.8*	*8.7*
World	3.1	3.3	3.3	*3.3*	*100.0*	*100.0*
World excluding the euro area	3.6	3.6	3.6	*3.2*	*85.4*	*87.8*
p.m. World trade [2]	*3.0*	*3.4*	*3.1*			

Sources: EC, IMF, OECD.
(1) For regions outside the euro area, GDP is calculated according to the IMF definitions and on the basis of purchasing power parities.
(2) Average of exports and imports of goods and services.

United States [1]

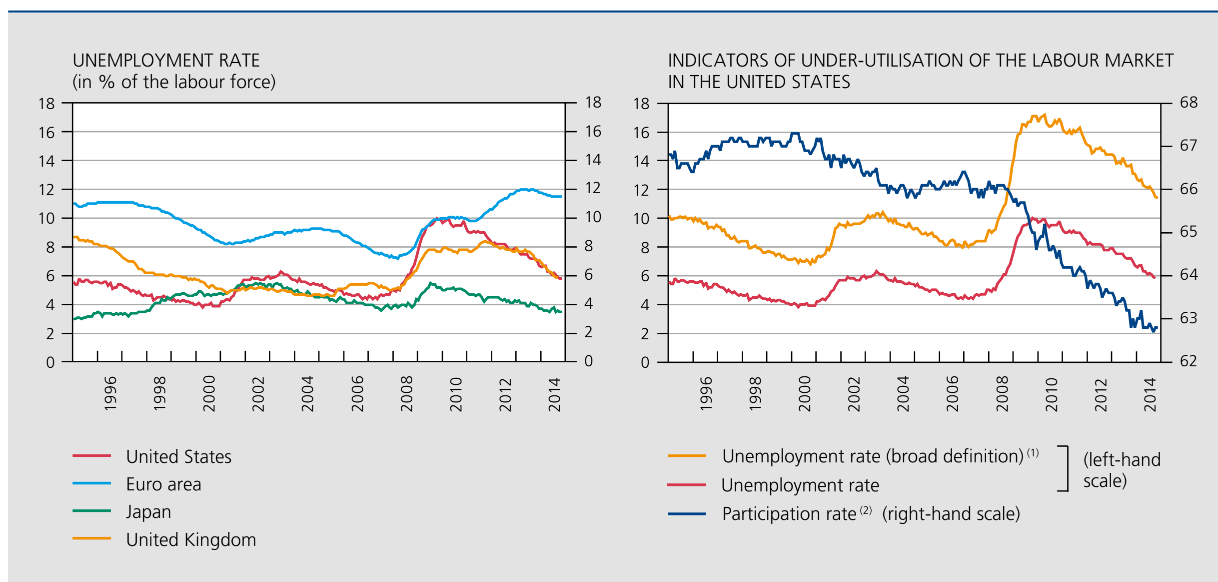
The US economy continued to recover in 2014. Following a slight, temporary fall in GDP in the first quarter, attributable primarily to severe weather, the expansion of economic activity was supported mainly by domestic demand. Private consumption, which grew at the same rate as in the previous year, was stimulated by the expanding job creation and the improvement in households' wealth position resulting from the rise in asset prices and the fact that the deleveraging process begun in the aftermath of the financial crisis was more or less complete. Household debt declined from 96 % of GDP in 2007 to 79 % in 2013. The continuing positive demand outlook, favourable financing conditions and improvements in competitiveness and profitability resulting partly from the fall in energy costs due to the exploitation of shale oil and gas and moderate wage pressure, are all factors that contributed to the faster growth of business investment. Under the policy of restricting public expenditure that had been in force for two years, government consumption spending remained stable in real terms, and public investment declined.

However, fiscal policy was much less restrictive and had a less adverse effect on economic growth than in previous years, even though the structural primary deficit contracted further from 2.3 % of GDP in 2013 to 1.3 % of GDP during the year under review. Thus, following a deterioration of 5.5 percentage points of GDP between 2007 and 2009, at the height of the crisis, the structural primary balance improved by 6.2 percentage points between 2009 and 2013. In the euro area, the movements were on a smaller scale, the decline of 2.3 percentage points of GDP giving way to a 3.8 percentage point improvement since then. The American public debt remained more or less stable at 109.7 % of GDP.

The recovery on the US labour market produced a stronger expansion of employment and a sharp fall in the unemployment rate, down from around 7.4 % in 2013 to

(1) The main macroeconomic variables for the large economies are presented in table 1 in the statistical annex.

CHART 5 LABOUR MARKET INDICATORS IN THE MAIN ECONOMIES



Sources: Labour Statistics, EC, Thomson Reuters Datastream.

(1) The broad definition refers to the U-6 unemployment rate which also includes unemployed persons who have stopped looking for work on account of the economic situation (discouragement), all persons who have actively looked for work in the past year – but not necessarily in the past four weeks – and persons working part-time for economic reasons.

(2) Proportion of employed and unemployed as a ratio of the labour force aged 16 years and over.

below 6 % at the end of 2014. All the same, the labour market still showed clear signs of under-utilisation, as the decline in unemployment is also due to the lower participation in employment among the population of working age. In fact, the participation rate dropped from around 66 % before the crisis to less than 63 % in 2014. That was due partly to structural factors such as the ageing of the labour force or non-availability on account of illness or training, and partly to cyclical factors such as the deteriorating job prospects and the resulting discouragement that deters some sections of the population from presenting themselves on the labour market. Although the gap between the standard unemployment rate and the rate based on a broader definition did narrow during the year under review, it still remained considerable, and is actually bigger than in previous recessions. This unused labour reservoir explains why the upward pressure that wages should exert on prices remained modest in 2014.

In that context, the Federal Open Market Committee (FOMC) of the Federal Reserve adopted an approach to communication intended in particular to avoid any unnecessary financial market volatility by abandoning its threshold-based forward guidance in March 2014 together with the explicit reference to the unemployment rate, which had become of limited informative value. From then on, the FOMC based its forward guidance on broad qualitative information including a vast range of labour market indicators, so as to assess correctly how far the US economy still had to go to achieve full employment.

In addition, the FOMC took the first steps on the road to normalisation of its monetary policy, against a backdrop of stronger growth of economic activity and employment and rising inflation, even though the latter remained below the long-term objective of 2 %. In accordance with the decision of the FOMC in December 2013, the process of tapering purchases of securities was launched in January 2014. Since then, the rate of asset purchases, which originally stood at $ 85 billion per month, was cut by $ 10 billion after each FOMC meeting. At its October 2014 meeting, the FOMC decided to suspend the purchases as of November 2014.

In September 2014, the monetary policy normalisation principles, the first version of which dated from June 2011, were also updated. Those principles clearly state that monetary policy will be tightened by use of the interest rate instrument rather than by actively influencing the size or composition of the central bank balance sheet.

The FOMC will therefore tighten monetary policy by raising the range of the federal funds rate. The overnight money market interest rate will be guided by increasing the interest rate payable since October 2008 on the excess reserves that US depository institutions hold with the

Federal Reserve. Since this rate is currently higher than the overnight money market rate, potentially hampering the smooth transmission of the policy rates to short-term market rates, the FOMC created reverse repos accessible to money market funds as well as to traditional counterparties such as depository institutions and government-sponsored agencies. The interest rate on these reverse repos is an additional floor rate for monetary policy. According to the Federal Reserve, the tests conducted in 2014 on its use as an additional floor rate were conclusive.

In regard to the size of the balance sheet, the monetary policy normalisation principles also stress that there will be no reduction in the balance sheet so long as there is no rise in interest rates. Following these initial increases, there will be a review of whether it is appropriate to restrict or suspend altogether the reinvestment of the amounts reaching maturity.

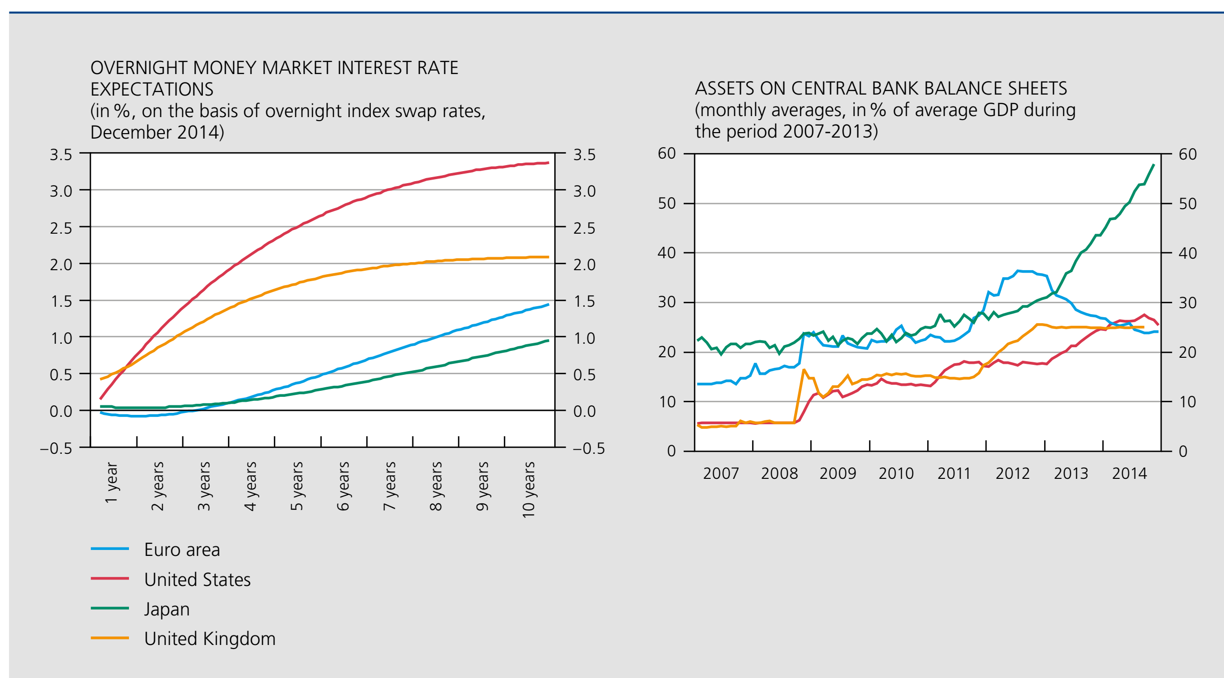
United Kingdom

In 2014, the United Kingdom's real GDP growth came to 3.1 %, outpacing its historical trend and recording the highest growth rate among the advanced economies. The clear revival of consumer confidence coupled with favourable financing conditions bolstered private consumption, while business investment increased to cater for the strengthening of domestic demand, particularly in the services sector. In manufacturing industry, investment lagged behind somewhat on account of the weak exports. As the euro area is the UK's main trading partner, external demand remained subdued, driving the external current account deficit up to 4 % of GDP. The exceptional surge in employment combined with an increase in the labour supply is noteworthy. In general, the unemployment rate continued to fall, subsiding to 6.2 %. Nonetheless, pay rises remained limited since many of the jobs created were in the low-skilled segment. In this situation, the persistent negative growth of real wages restrained the disposable income of households.

The government's medium-term fiscal consolidation programme continued in 2014. However, fiscal revenues were disappointing, particularly as a result of the slower pace of wage increases, the decline in property transactions and the reduction in gas and oil revenues. Nevertheless, the budget deficit fell by 0.4 percentage point to 5.4 % of GDP. Britain's public debt increased to 89 % of GDP.

The rise in consumer prices was down to 1.5 % in 2014, against 2.6 % in the previous year, as a result of the fall in prices of energy and food. Similarly, the low level of inflation in the euro area, the source of a large share of

CHART 6 OVERNIGHT MONEY MARKET INTEREST RATE EXPECTATIONS AND ASSETS ON THE BALANCE SHEET OF THE MAIN CENTRAL BANKS



Sources: Bank of England, Bank of Japan, Federal Reserve, Thomson Reuters Datastream, ECB, own calculations.

British imports, and sterling's appreciation against the euro held prices down in the United Kingdom. Moreover, unit labour costs declined compared to the previous year. In view of the low inflation below the 2% target and the weak upward pressure on prices in the short term, the Bank of England was able to keep its policy interest rate at 0.5 % while leaving the outstanding total of its asset portfolio unchanged at £ 375 billion.

Japan

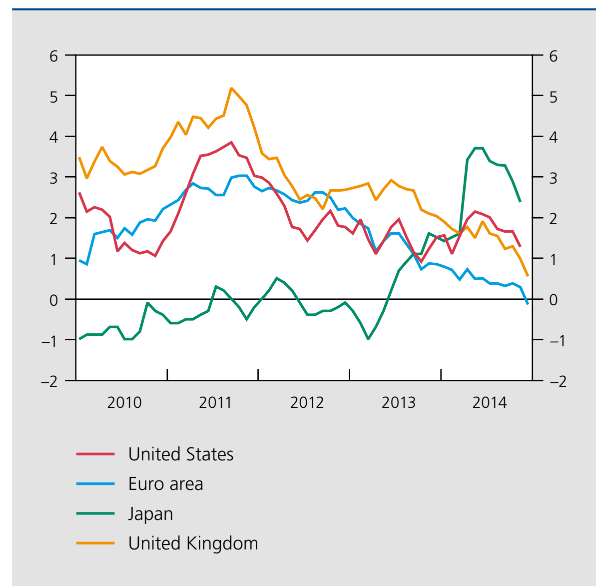
In Japan, the April VAT rate increase from 5% to 8% caused some volatility in real GDP growth at the beginning of the year. A vigorous first quarter boosted by early purchases to avoid this higher rate gave way to a particularly weak second quarter, particularly on the private consumption front. However, that gloom persisted in the third quarter, taking the economy into a technical recession situation, defined as a fall in GDP for two consecutive quarters. In all, the real growth of activity slowed significantly over the year as a whole, down from an average of 1.6 % in 2013 to 0.1 % in 2014. Nonetheless, buttressed by a revival in business confidence and comfortable profit margins due, in particular, to a cut in the corporation tax rate from 38 % to 35 %, non-residential investment supported the expansion of activity. Employment also continued to grow, causing a tightening of the labour market despite the rise in the female participation rate resulting partly from targeted structural reforms. That tightening brought a fall in the unemployment rate, which was down to 3.6 %, while – according to the Tankan survey – firms increasingly reported a labour shortage. For the moment, these developments have not triggered any large increases in nominal wages. Such rises are traditionally seen mainly in variable components of wages, such as overtime pay and bonuses.

For the first time in a long while, Japanese fiscal policy adopted a restrictive stance, partly owing to the first VAT increase. Under its medium-term fiscal consolidation strategy the Japanese government is planning a second increase, but has postponed it from the end of 2015 to 2017 in view of the adverse impact on consumption and activity that it caused in 2014. However, the primary deficit of 7.2 % recorded in 2014 was still remote from the aim of a balanced budget to be achieved by 2020.

Headline and core inflation rose to 2.7 and 1.7% respectively, mainly as a result of the VAT increase. In that connection, while inflation expectations declined in the third quarter and doubts about the economic recovery intensified, the Bank of Japan extended its programme of quantitative and qualitative easing. In so doing, it aimed to demonstrate its determination to achieve the 2% inflation target. On 31 October, it decided to step up the annual expansion of the monetary base, which increased from around 60-70 trillion yen to some 80 trillion Japanese yen. On the assets side of its balance sheet, the outstanding amount of Japanese government bonds will increase further, and their residual maturity will go up from an average of 6-8 years to 7-10 years. Furthermore, the annual rate of purchases of equity funds or property funds will triple. At the same time, the Government Pension Investment Fund – which currently manages 129 trillion yen – announced that it was adjusting its investment strategy in favour of national equities and foreign assets rather than Japanese government bonds. This decision should support the Japanese stock market and weaken the Japanese currency.

CHART 7 INFLATION IN THE MAIN ECONOMIES

(monthly data, changes in the consumer price index compared to the corresponding period of the previous year)



Source: Thomson Reuters Datastream

Emerging economies

In the emerging economies, growth continued to lose momentum in 2014, falling to 4.4 %, compared to 4.7 % in 2013. Geopolitical tensions combined with various types of structural impediments which curbed the increase in productivity were among the reasons for the lower growth. However, the easy financing conditions, export growth and the recovery of domestic demand in some countries contributed to a rebound in the second half of the year, though the aggregate result conceals ever greater divergences between regions and countries.

In China, the stated GDP growth target of about 7.5 % was virtually achieved. In the first quarter, however, the expansion of investment slowed more sharply than expected after the People's Bank of China had taken steps to tighten financial conditions for shadow banking and for unproductive projects. The government and the central bank responded immediately by respectively proposing selective incentives for investment in social housing and social infrastructure, and the provision of specific liquidity for bank loans to SMEs and the agricultural sector. Nonetheless, in the second half of the year under review, growth slackened further owing to the persistence of the correction on the housing market, which put a damper on investment and consumption. At the end of November, the People's Bank of China decided to revise its interest rates downwards for the first time since 2012. Moreover, the recovery in the United States brought a strong rise in Chinese exports, which were the main driver of economic activity in the second half of 2014. In value terms, imports increased more slowly owing to the fall in commodity prices and the anaemic demand from heavy industry, so that the current account surplus expanded from 2 % in 2013 to 2.4 % in 2014.

The consolidated public deficit is estimated at 1.1 % of GDP in 2014, implying a stable debt ratio of around 50 % of GDP. In recent years, the financial situation of Chinese local authorities has given reason for some concern. Those authorities traditionally play a key role in funding infrastructure projects, which had expanded rapidly in the immediate aftermath of the global financial crisis, but they were generally financed off-budget by means of ad hoc vehicles. The local authority debt ratio is estimated at just over 30 % of GDP, compared to around 20 % for the central government. The new budget law promulgated in August is viewed as a major reform designed to remedy this situation. That law, which establishes a framework for greater transparency and accountability, gives local authorities the power to issue their own debt securities, and outlaws the funding of public investment by *ad-hoc* vehicles. It was supplemented by a no-bail-out clause.

Growth slowed most sharply in **Latin America**, where it fell from 2.8 % in 2013 to 1.2 % in 2014. A major commodity producer, the region was hit by the widespread fall in prices and the weakness of demand, particularly that from China. The disappointing situation in Argentina and the structural problems confronting Brazil, particularly as regards infrastructures, also exerted additional downward pressure. At 2.7 %, average growth in **Central and Eastern Europe** was relatively stable compared to the previous year, supported partly by the vigour of domestic demand. The impact on the region of the conflict between Russia and Ukraine – namely the array of import restrictions imposed by Russia in response to western sanctions – and the effect of the economic stagnation in both countries was generally confined to a few small countries. **Emerging Asia** remained the most dynamic region, with growth averaging 6.5 %, despite a temporary dip at the start of the year. In general, activity was underpinned by exports, favourable financial conditions, and the return to a supportive macroeconomic policy stance, once the budgetary scope had been restored in the preceding years and inflation was back under control. Specific factors also played a part, such as the gathering pace of exports by China, which has a central position in the region's production chains, the evident optimism in India following the elections, and the stabilisation of the political situation in Thailand.

Box 1 – The "secular stagnation" concept

Origin

The term "secular stagnation" is not new, since it dates back to the 1930s, the era of the Great Depression. It is attributed to the American economist Alvin Hansen, from Harvard, who used it for the first time in 1938 in a speech about the link between economic progress and declining population growth [1].

(1) Hansen A. H. (1939), "Economic Progress and Declining Population Growth", American Economic Review, vol. XXIX, No. 1, Part I, March.

At the time, Professor Hansen was interested in the changes in the structure of the economy and their effects on the economic cycle. He was particularly concerned about the risks of under–investment and slower real income growth which in his view accompany declining population growth and the decelerating rate at which new territories are opened up, either by establishment of businesses there or by the exploitation of the territory's resources. In fact, he considered that, in the context of the day, the declining population growth was a key factor behind the inability of the economic recovery to generate full employment, suggesting the possibility of a self-perpetuating depression that would maintain unemployment at an abnormally high level. While he doubted the ability of an interest rate cut to stimulate investment, he advocated measures such as encouraging innovation in order to revive private investment and to strengthen public investment, though he acknowledged the latter's limits.

Professor Hansen's worries appeared largely unfounded, as events at that time contradicted the idea of secular stagnation. Immediately after the Second World War, the United States consolidated its global economic dominance in the context of a baby boom, a marked expansion of investment and sustained economic growth. Nonetheless, the fundamental idea that changes in the structure of the economy may prevent a lasting revival in activity following a recession, and lead to persistence of an abnormally high level of unemployment, has not entirely disappeared.

The modern view

It was another Harvard economist, Lawrence Summers, who actually resurrected the expression "secular stagnation" when speaking at an IMF conference at the end of 2013 (1). Since then, in view of the limited, hesitant and patchy recovery in the advanced economies, the idea has attracted great attention and elicited comments from numerous renowned economists (2). While interpretations of the concept differ to some extent, there appears to be a consensus that "secular stagnation" refers to a situation in which the economy is bogged down in zero or feeble growth that prevents it from achieving full employment.

Such a situation arises if, owing to a combination of structural and cyclical factors, the propensity to save increases and/or the propensity to invest declines to the point where the real interest rate which balances saving and investment at the level of full employment – also known as the real equilibrium rate – becomes significantly negative. In those circumstances, the effective real interest rate that can stimulate the economy may prove unattainable, and traditional monetary policy is therefore impotent. It is not actually feasible for the nominal interest rate to fall significantly below zero, given the possibility of replacing book-entry money with paper money which does not attract any remuneration. The emergence of a disinflationary – or even worse, a deflationary – trend reduces the ability of monetary policy to provide impetus in that it counteracts the policy's effects by exerting upward pressure on the effective real interest rate. Thus, an economy where output is below its potential level and under-employment prevails may be condemned to a protracted period of stagnation.

In the extreme case, there could be a situation in which a recession is self-perpetuating. If there is no way of providing a stimulus, a decline in output and a simultaneous rise in unemployment are liable to drive down prices in the economy, causing the real interest rate to rise and triggering a further contraction in activity. That raises the spectre of a recessive vicious circle and a deflationary spiral. It is also conceivable that a protracted recession may damage an economy's labour force and its productivity, thereby reducing its production potential. Such a "hysteresis" effect in turn depresses the real equilibrium interest rate.

Finally, even if it remained possible to stimulate the economy via a real interest rate compatible with full employment, it should be noted that the slightest decline in employment may entail risks for financial stability,

(1) Summers L. (2013), IMF 14th Annual Research Conference In Honor Of Stanley Fisher, International Monetary Fund, November 8.
(2) See for example Teulings C. and Baldwin R. (2014), Secular stagnation: facts, causes and cures, VoxEU.org ebook.

as the effective real interest rate would need to be lowered to stimulate the economy. Yet low interest rates tend to favour inappropriate lending and encourage investors to take risks, as well as having the potential to create bubbles.

Possible solutions

In principle, a decline in the real equilibrium interest rate and/or a disinflationary trend posing the threat of secular stagnation call(s) for three types of strategy. A first option is to acquire the means to reduce the effective real interest rate further, e.g. by using unconventional monetary policy instruments or by raising the central bank's target inflation rate. Although such an approach is necessary, it does have a potential cost in terms of financial stability. An alternative, as advocated by Hansen in his day, might be to encourage investment and consumption at the expense of saving. While there are many ways of doing that, such a strategy could involve expansion of public investment combined with measures to encourage private investment and a policy to reduce inequalities that generally depress the propensity to consume. That approach aims to raise the real equilibrium interest rate. It therefore favours output and employment without damaging financial stability. Finally, measures aimed at boosting the economy's growth potential, such as structural reforms, generally also promote a rise in the real equilibrium interest rate and are therefore equally desirable. However, the best measures to adopt for protecting against secular stagnation depend on the specific characteristics of each economy.

1.2 The economy in the euro area and its Member States

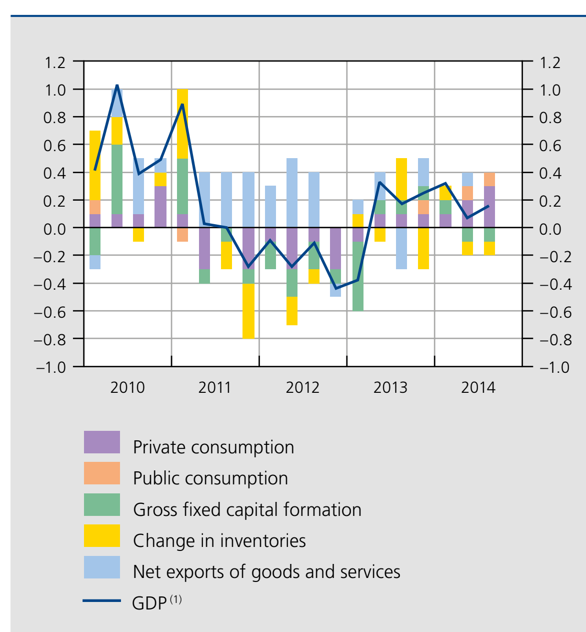
Although the euro area is seeing renewed growth, the economic situation remains fragile

In 2014, the development of activity again revealed an intrinsically fragile economic situation in the euro area. Although growth was slightly positive, it fell short of the expectations aroused by the, albeit modest, recovery that had begun in 2013. On average, the volume growth of GDP came to 0.8 % in 2014, after a 0.5 % contraction in the previous year. However, that outcome was due largely to the temporary revival at the end of 2013 and in the first quarter of 2014 when quarter-on-quarter growth reached 0.3 %. In the second and third quarters, it declined to 0.1 and 0.2 % respectively, destroying hopes of a gradual improvement.

This new slowdown occurred despite the accommodative monetary policy stance, improved financing conditions and a less restrictive fiscal policy. True, it is attributable partly to temporary adverse factors, such as the increased geopolitical risk caused by the crisis in Ukraine, but more fundamentally it also reflects the economy's low potential

CHART 8 QUARTERLY PROFILE OF GDP AND THE MAIN EXPENDITURE CATEGORIES IN THE EURO AREA

(data adjusted for seasonal and calendar effects; contributions to the change in GDP by volume compared to the previous quarter; in percentage points, unless otherwise stated)



Source: EC.
(1) Percentage changes compared to the previous quarter.

growth and hence its lack of ability to overcome the after-effects of the great recession and the sovereign debt crisis. Those after-effects are still evident in the high debt ratios of the private and public sector, the decline in bank lending to businesses and households, and the persistently high level of unemployment and chronic under-utilisation of production factors.

On the whole, economic growth picked up in the peripheral countries during the year under review, though admittedly from a still low level of activity. Thus, real GDP growth exceeded 4 % in Ireland, after having remained more or less stable in 2013. Spain and Portugal managed to convert the previous year's contraction of GDP into positive growth at least equalling the euro area average. Even Greece achieved positive growth again for the first time since the very severe recession that it had suffered. In those countries, the renewed momentum of activity was generally supported both by the further expansion of exports and by a gradual strengthening of domestic demand.

In the so-called core euro area countries, growth was less marked. In Germany, GDP remained more or less unchanged in the second and third quarters of 2014, after a sharp rise at the beginning of the year. In France, growth was once again very modest, while in Italy, Finland and Cyprus it was negative.

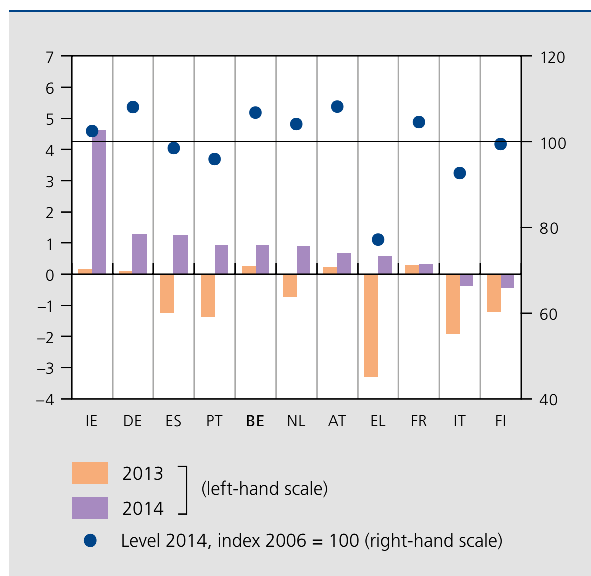
Inflation continues falling to a low level

In parallel with the slackening of activity, inflation continued to fall sharply in the euro area in 2014, thus maintaining the downward trend that had begun at the end of 2011. Inflation declined from 1.3 % in 2013 to an average of 0.4 % in 2014, and even dipped to –0.2 % in December.

This marked deceleration was due mainly to a fall in energy prices and more moderate increases in food prices. In a sluggish economic environment, core inflation – which excludes those two components – also declined, although less sharply, dropping from 1.1 to 0.8 %. The main reasons were that price rises in the services sector continued to ease and prices of non-energy industrial products only rose slightly. The low level maintained by core inflation throughout the year included the effect of the increase in indirect taxes, estimated at around 0.2 %. As in the case of economic activity, the rise in prices was therefore much weaker than expected as the months went by, owing to both imported deflationary pressure and the effects of the sluggish economy in the euro area.

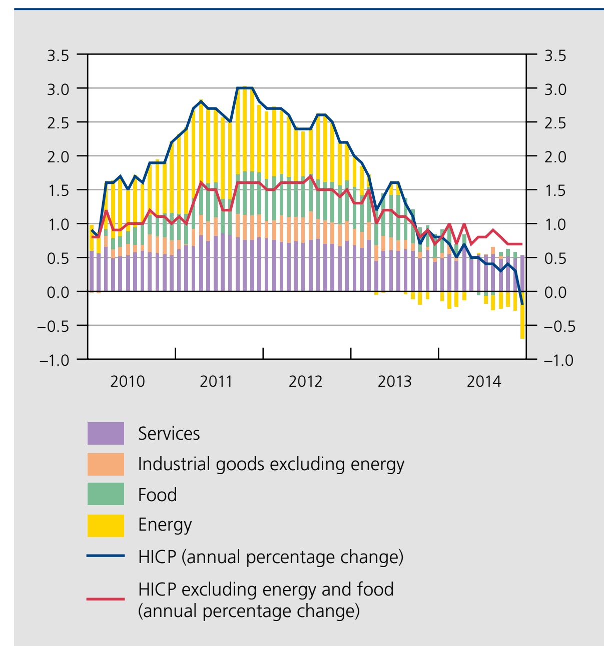
The decline in inflation throughout the euro area was accompanied by a marked reduction in the variations in inflation between Member States. In almost all countries, the rise of the HICP slowed to a greater or lesser degree,

CHART 9 GDP IN A SELECTION OF EURO AREA COUNTRIES
(percentage changes compared to the previous year, unless otherwise stated)



Source: EC.

CHART 10 INFLATION IN THE EURO AREA
(contributions to the annual percentage changes; percentage points, unless otherwise stated)



Source: ECB.

TABLE 2	OVERVIEW OF THE MAIN MACROECONOMIC VARIABLES IN THE EURO AREA (percentage changes compared to the previous year, unless otherwise stated)		
	2012	2013	2014
GDP	–0.7	–0.5	0.8
Final household consumption	–1.3	–0.6	0.7
Final government consumption	–0.2	0.2	0.6
Gross fixed capital formation	–3.2	–2.5	0.6
Change in inventories (1)	–0.7	–0.1	0.1
Net exports of goods and services (1)	1.4	0.4	0.1
Exports	2.5	2.1	3.1
Imports	–1.0	1.2	3.2
Inflation	2.5	1.3	0.4
Unemployment rate (2)	11.3	11.9	11.6
General government fiscal balance (3)	–3.6	–2.9	–2.6
Gross public debt (3)	90.8	93.1	94.5

Source: EC.
(1) Contributions to the change in GDP, percentage points.
(2) Ratio between the number of persons unemployed and the labour force, in %.
(3) In % of GDP.

dropping to between 0 and 1 %. However, consumer prices in Greece fell sharply again by around 1.5 %.

After contracting for two years, domestic demand picks up

The recovery of economic activity apparent in 2014 for the euro area as a whole, though fragile and uncertain, was primarily attributable to domestic demand.

Private consumption, which had fallen in the previous two years in the aftermath of the sovereign debt crisis, began rising again. That growth was in line with the modest improvement in the real disposable incomes of households in a context of falling inflation and a virtually stable savings ratio. Conversely, the obstinately high unemployment rate and necessary household deleveraging continued to depress household spending.

Public consumption continued to recover, though still slowly on account of the narrow budgetary scope in almost all Member States, so that it made only a meagre contribution to annual GDP growth.

Like private consumption, investment also returned to positive growth in 2014 throughout the euro area.

CHART 11 INVESTMENT IN THE EURO AREA
(volume data, in % of GDP)

Source: EC.

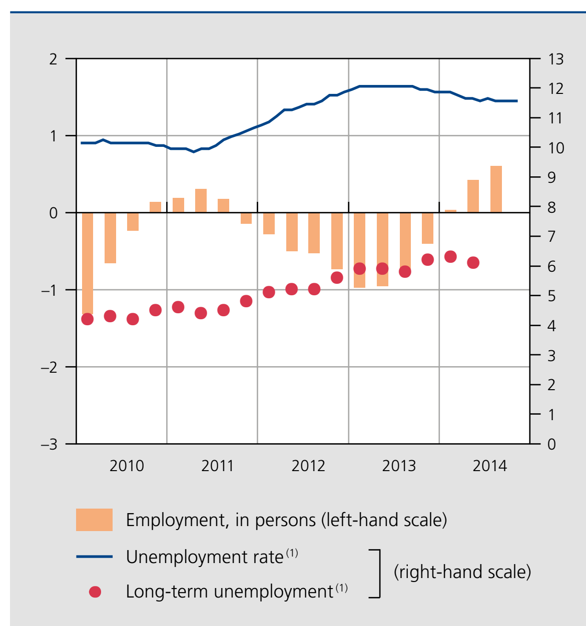
This revival was based on the acquisition of capital goods, while expenditure on construction continued to fall, albeit less steeply than in previous years. In a fragile economic context, the expansion of investment remained hesitant, as it was still curbed by the low level of production capacity utilisation, modest demand, limited bank lending and renewed uncertainty.

Thus, although the renewed momentum in 2014 was a turn for the better, it was nothing like enough to wipe out the negative effect that the economic and financial crisis had produced for the formation of the stock of physical capital in the economy. In relation to GDP, the investment rate for the euro area as a whole was in fact still below the average for the period 2000-2007, both for investment in housing and for all other investment. Some countries, such as Germany, maintained their gross fixed capital formation at the pre-crisis level. Conversely, in other core euro area economies the investment ratio declined. That was the case in the Netherlands, Austria and Finland, while the decline was even steeper in Italy, Spain and the countries subject to an adjustment programme. In most of the countries in this last group, investment was stable or even picked up in 2014 after having fallen for several years.

In a context of gradually expanding foreign markets, the euro area's exports also gathered pace during the year. The reforms implemented in the countries with an adjustment programme helped to restore their competitiveness, which had been seriously impaired. The delayed effect of the earlier appreciation of the euro probably still had some adverse impact in 2014, before the second half of the year brought a sharp decline in the value of the euro against the US dollar and the pound sterling. Nonetheless, the net exports of the euro area as a whole made only a meagre contribution to GDP growth overall as imports also began rising faster.

CHART 12 **LABOUR MARKET IN THE EURO AREA**

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



Sources: EC, ECB.
(1) Ratio between the numbers of unemployed and the labour force, in %.

The reforms aimed at strengthening growth potential need to be consolidated and continued

Along with the strengthening of activity, the labour market situation also improved somewhat in the euro area. While employment had continued to contract sharply in the preceding two years, net job creation was restored from the beginning of 2014, bringing a slight increase in employment, on average, over the year amounting to 0.4 %. The unemployment rate subsided a little during the first half of the year, but still came to 11.6 % of the labour force in 2014, against 11.9 % the year before.

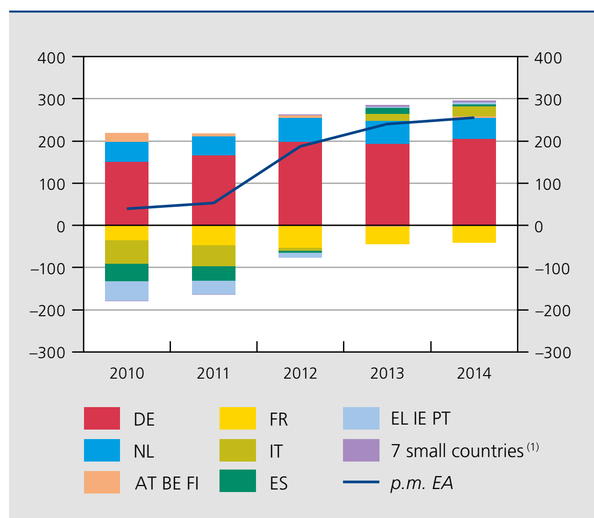
That level is still high, not only compared to the other large global economies but also in relation to the average unemployment rate in the euro area over the past two decades. In that respect, it should be noted that long-term unemployment has risen almost continuously since the financial crisis and therefore represents a growing proportion of total unemployment.

The unemployment rate declined mainly in the peripheral euro area countries, especially in Ireland and Portugal, and to a lesser extent in Spain and Greece. With the exception of Ireland, however, unemployment remained high. Greece and Spain recorded the highest unemployment rates, in the region of 25 % of the labour force. In Greece, this mainly concerned the long-term unemployed.

In the euro area, the persistently anaemic domestic demand, and in particular weak investment, since the financial crisis was accompanied by a growing current account surplus on the balance of payments, amounting to 2.5 % of GDP in the year under review. On the one hand, the peripheral countries which had recorded a large current account deficit before the crisis have greatly reduced that deficit since then or even turned it into a surplus. The reforms which they implemented helped to make them more competitive. Also, the sluggishness of domestic demand and the slump in investment in those countries depressed

CHART 13 BALANCE OF PAYMENTS CURRENT ACCOUNT BALANCE

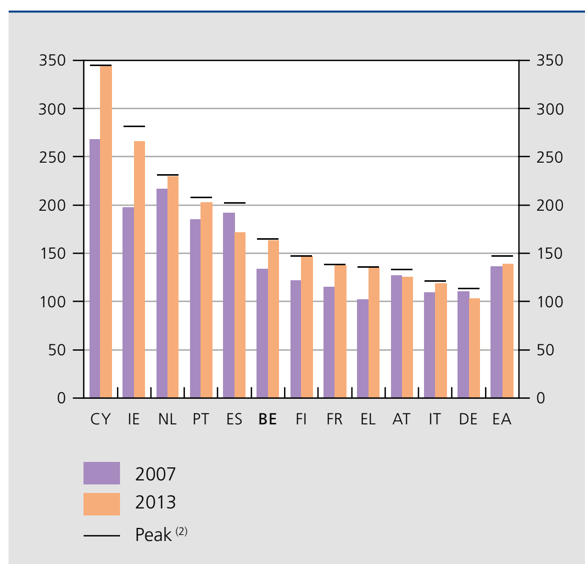
(annual data, in € billion)



Source: EC.
(1) Slovakia, Luxembourg, Slovenia, Latvia, Estonia, Cyprus and Malta.

CHART 14 CONSOLIDATED DEBT OF THE NON–FINANCIAL PRIVATE SECTOR IN THE EURO AREA (1)

(outstanding amount at the end of the year, in % of GDP)



Source: ECB.
(1) The countries are ranked in descending order according to the peak debt of the non-financial private sector.
(2) Peak debt of households and non-financial corporations over the period 2007-2013.

their demand for imports. This last factor also does much to explain why the current account deficit was transformed into a surplus in Italy. Conversely, France is still posting a large current account deficit. On the other hand, in the countries traditionally in surplus, the current account balances have not diminished. For instance, the surplus still came to 7 % of GDP in Germany, and even reached nearly 8 % in the Netherlands. However, in an improving economic climate with domestic demand gradually picking up in the peripheral countries, the rebalancing of current accounts in the euro area slowed slightly during the year under review. Thus, the current account balances grew by less than in previous years in Ireland, Portugal and Italy while they actually deteriorated slightly in Spain and Greece.

The economic reforms in the countries with an adjustment programme are beginning to yield results. However, there are various factors that may hinder the economic recovery. For instance, the total debt of households and non-financial corporations in the euro area as a whole, measured on a consolidated basis – i.e. excluding mutual financial assets and liabilities within the same sector – still amounted to around 139 % of GDP at the end of 2013, slightly below the peak of 146 % of GDP reached in 2009. For comparison, the debt reduction process in the United States was more marked, even though the debt level of the non-financial private sector is still higher there. The debt ratio in the United States declined from 165 % of GDP at the outbreak of the crisis to 147 % at the end of 2013.

In the euro area, despite sometimes substantial adjustments, the debt level is still well above the average in Ireland, Portugal, and the Netherlands, where household mortgage debt far exceeds that in most other Member States. In Cyprus, the debt of the non-financial private sector is now by far the highest in the euro area. In addition, many euro area countries face a large public debt. Although the debt level of the non-financial private sector is relatively low in Greece and Italy, the public debt ratios in those countries are the highest in the euro area. In Cyprus, Ireland and Portugal, the heavy public debt comes on top of the non-financial private sector's debt.

Fiscal consolidation slows in the euro area

After the public sector borrowing requirement in the euro area as a whole had declined sharply between 2010 and 2013, fiscal consolidation slowed down in 2014. Although the budget deficit continued to fall, dropping from 2.9 % of GDP in 2013 to 2.6 %, the improvement was slower than in previous years. Furthermore, it was attributable partly to the more favourable economic climate, since the structural public deficit – namely the net financial balance adjusted for cyclical and temporary factors – declined only very marginally from 1.2 % of GDP in 2013 to 1.1 % in 2014.

TABLE 3 GENERAL GOVERNMENT BUDGET BALANCE AND DEBT IN THE EURO AREA
(in % of GDP)

	General government net financing balance		General government structural balance		Public debt	
	2013	2014	2013	2014	2013	2014
Germany	0.1	0.2	0.6	0.7	76.9	74.5
France	–4.1	–4.4	–3.3	–3.0	92.2	95.5
Italy	–2.8	–3.0	–0.8	–0.9	127.9	132.2
Spain	–6.8	–5.6	–2.3	–2.2	92.1	98.1
Netherlands	–2.3	–2.5	–0.6	–0.5	68.6	69.7
Belgium	**–2.9**	**–3.2 e**	**–2.7**	**–2.8 e**	**104.5**	**106.5 e**
Austria	–1.5	–2.9	–1.3	–1.1	81.2	87.0
Greece	–12.2	–1.6	3.1	2.0	174.9	175.5
Finland	–2.4	–2.9	–0.7	–1.1	56.0	59.8
Ireland	–5.7	–3.7	–4.8	–3.8	123.3	110.5
Portugal	–4.9	–4.9	–1.9	–1.3	128.0	127.7
Slovakia	–2.6	–3.0	–1.4	–2.1	54.6	54.1
Luxembourg	0.6	0.2	2.0	1.1	23.6	23.0
Slovenia	–14.6	–4.4	–1.8	–2.5	70.4	82.2
Latvia	–0.9	–1.1	–1.0	–1.5	38.2	40.3
Estonia	–0.5	–0.4	–1.1	–0.8	10.1	9.9
Cyprus	–4.9	–3.0	–2.1	–0.8	102.2	107.5
Malta	–2.7	–2.5	–2.7	–2.7	69.8	71.0
p.m. Euro area	*–2.9*	*–2.6*	*–1.2*	*–1.1*	*93.1*	*94.5*

Sources: EC, NBB.

Except for Germany and Luxembourg, where the budget was practically balanced, the governments of all euro area Member States had a net borrowing requirement. In some countries the deficit increased in 2014, while it remained stable in Portugal and diminished sharply in Ireland, Spain and Greece, as it did in Slovenia and Cyprus. In this latter country as well as in Ireland and Portugal, this was accompanied by a substantial fall in the structural public deficit. In Greece, where the costs of recapitalising the banks had swollen the budget deficit to 12.2 % of GDP in 2013, the public deficit dropped to 1.6 % of GDP in 2014, as a result of the tax reform and spending cuts.

In all, according to the European Commission's (EC) autumn forecasts, the public deficit was still well above the limit of 3 % of GDP in Spain, Portugal, France, Slovenia and Ireland. Apart from those countries, Cyprus, Greece and Malta were still subject to an excessive deficit procedure (EDP) at the end of the year under review. In November 2014, when the EC assessed the budget plans for 2015, it found that, on the basis of the information available at that time, France had not taken effective action to comply with the Council's recommendations under the EDP for achieving the budget targets for 2014. The EC will determine its position on that at the beginning of March 2015. As regards the other euro area countries, the Ecofin Council ended the procedures against Belgium, the Netherlands, Austria and Slovakia during the year under review.

The public debt of the euro area as a whole continued to grow, reaching 94.5 % of GDP at the end of 2014. However, that increase was smaller than in previous years owing to a primary budget balance that was more or less in equilibrium, and a weakening of the snowball effect caused by interest charges. The increase was more or less universal, affecting most of the euro area countries. The decline in the public debt ratio in Ireland is due mainly to

the liquidation of the Irish Bank Resolution Corporation, initiated in 2013. In contrast, the public debt in Austria increased as a result of the government taking over problem assets of a bank which was being wound up.

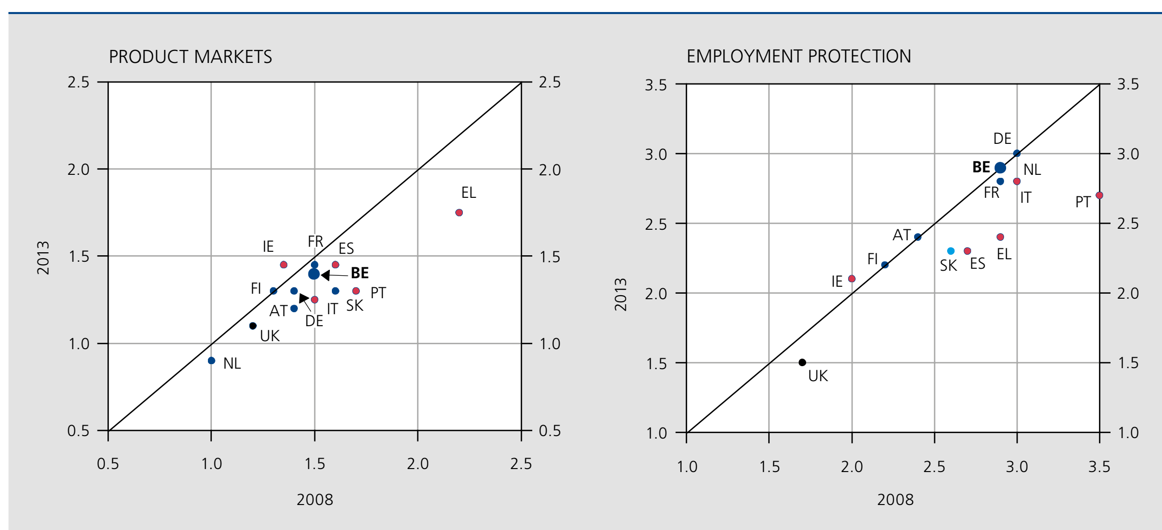
Box 2 – Structural reforms in the euro area

The hesitant and fragile economic situation evident again in the euro area in 2014, against the backdrop of a still highly accommodative monetary policy and a less restrictive fiscal policy, is a clear demonstration of how difficult it is for the euro area to maintain sustainably robust and resilient growth. In parallel with the measures taken since the crisis to consolidate public finances, stabilise the financial sector, reform the pension systems and – in some countries – to restore the seriously impaired competitiveness, it is absolutely essential to make radical improvements to the general operation of the economy. That is all the more urgent for the smooth functioning of the monetary union, because the spillover effects between the Member States are considerable and those countries are no longer able to correct macroeconomic imbalances *ex post* by devaluing their currency.

These lessons have now been well learnt, and European economic governance has been reinforced by the introduction of the macroeconomic imbalance procedure (MIP) under the European Semester and the specific recommendations formulated for the countries, many of them related to structural policies.

From now on, the priority must be to ensure the actual implementation of the reforms in the Member States. In the most vulnerable countries, the pace of reform has in fact been speeded up, particularly under pressure from the financial markets and the Troika, which supervises compliance with the conditions attached to the aid programmes implemented in a number of those countries. Conversely, in the core euro area countries, the pressure for implementing radical reforms has often been lacking.

SYNTHETIC INDICATORS OF MARKET REGULATION IN EUROPE
(scale from 0 to 6, from less restrictive to more restrictive)



Source: OECD.

Structural reforms of the labour and product markets: progress so far

Smoothly functioning labour and product markets permit a more efficient allocation of capital and labour, favouring their use in the most productive firms. If such reallocations operate flexibly, it is possible to limit the degree and duration of the loss of output and jobs in a recession.

The scale of the measures taken since the great recession varies from one country to another. In regard to the product markets, the measures were more radical in the programme countries, namely Greece, Spain and Portugal, but also Slovakia and Italy. They were less significant in the core euro area countries, especially France, Germany and Belgium. The completion of the Single Market in services and its exposure to increased competition is proving to be a particularly complicated and long drawn-out process.

In addition, almost all the euro area countries have stepped up their initiatives to reform the organisation and operation of the labour market. Those initiatives mainly concerned an increase in the financial incentives to work, activation of the unemployed, and the rules with regard to unemployment benefit and early retirement schemes. Conversely, they hardly affected the process of wage-setting. Some Member States simplified the procedures relating to mass and individual redundancies and/or reduced redundancy pay in order to stimulate employment while combating the segmentation of the labour market. Portugal, Spain, Greece and Slovakia undertook ambitious reforms.

Impact of structural reforms

The IMF and the EC recently carried out two simulation exercises to estimate the impact of a series of structural reforms on growth in the regions (IMF) or individual countries (EC) of the euro area. Those simulations assume that all euro area countries implement the reforms simultaneously. They model the structural reforms as changes in a number of structural indicators of the labour market and the product markets, but do not establish any link with the policy measures that may be behind them. Next, they adopt a distance-to-frontier approach to quantify a country's reform potential for each structural indicator in the model on the basis of the difference between the

POTENTIAL IMPACT OF STRUCTURAL REFORM PACKAGES ON POTENTIAL OUTPUT

(deviations in % from the baseline scenario)

	After one year	After five years	After ten years	In the long term [3]
IMF [1]				
Euro area	1.2	4.1		12.3
Core (euro area, excl. periphery)	1.1	3.7		10.6
Periphery (EL, ES, IE, IT, PT)	1.4	4.8		15.4
EC [2]				
Core (BE, DE, FR, NL, AT, FI)		3.2 (DE) – 5.5 (BE)	5.5 (DE) – 10.4 (BE)	8.7 (DE) – 17.9 (BE)
Periphery (EL, ES, IE, IT, PT)		2.4 (PT) – 4.5 (EL)	5.5 (PT) – 9.7 (EL)	10.0 (ES) – 17.6 (EL)

Sources: IMF (2014), "Jobs and growth: Supporting the European recovery", (Chapter 7), and Varga J. and J. in 't Veld (2014) "The potential growth impact of structural reforms in the EU: A benchmarking exercise", European Economy Economic Papers 541, December.

(1) The IMF uses the GIMF model and assumes that a set of reforms concerning the product markets, the labour market, and the tax structure will be phased in during the first five years. These reforms lead to halving of the gap in relation to the best performing OECD country (which varies according to the criteria).

(2) The EU uses the QUEST model and assumes that a set of reforms concerning the product markets, the labour market, and the tax structure, R&D expenditure and the skills structure will be phased in. These reforms lead to halving of the gap in relation to the average of the three best performing EU Member States (which vary according to the criteria).

(3) The long term extends until 2060 for the IMF calculations while it is 20 years for the EC calculations.

score of the country in question and that of the best performing country, regarded as the benchmark. Finally, it is assumed that a country will take a series of measures which, for each indicator considered, will lead to a linear halving of the gap in relation to the benchmark over five years. The estimated impact on potential output is determined *inter alia* by the design of the models used, the structural indicators included and the definition of the benchmark. The results must therefore be interpreted and compared with caution.

Structural reforms have an impact mainly in the medium and long term, but a beneficial influence may still be felt in the short term as a result of the restoration of confidence. Logically, the countries or regions which, on average, have a bigger gap to close in relation to best practices have the most to gain from ambitious structural reforms. As already mentioned, that gap is larger, on average, in the periphery than in the core euro area, although there are wide variations between countries within each group. For instance, in the periphery, Greece still has a long way to go while Ireland has a high degree of flexibility.

According to the EC, if a country implements reforms unilaterally, the impact after 20 years will be around 3 percentage points lower than in the above scenario in the case of small open economies such as the Netherlands, Belgium and Austria. In contrast, for closed economies such as Greece and Portugal, the difference will be negligible. In the joint reform scenario, the positive contagion effects resulting from stronger demand among trading partners therefore appear to outweigh the gains in competitiveness in relation to trading partners in the scenario where only one country conducts reforms.

In the current context of zero nominal interest rates, structural reforms may have a slightly negative impact on growth at first, owing to their influence on the real interest rate, as noted by the EC in a recent publication (1). However, the EC stresses that this is no reason to postpone the reforms since the costs associated with the resulting loss of credibility would probably be much higher. On the contrary, resolute commitment to structural reforms will alleviate uncertainty about the future, which may lead to a reduction in precautionary savings.

(1) EC (2014), *Special issues on the euro area economy*, *Quarterly Report on the Euro Area*, Vol. 13, N° 3.

1.3 Monetary policy of the Eurosystem

Downside risks to price stability

Economic analysis

Whereas optimism prevailed at the beginning of 2014, the Governing Council later faced a steady deterioration in the economic outlook for the euro area. That was particularly marked in the fourth quarter, despite some signs of a stabilisation of activity at the end of the year. In that situation, the expectation was that the absorption of the excess production capacity would be a slow and gradual process.

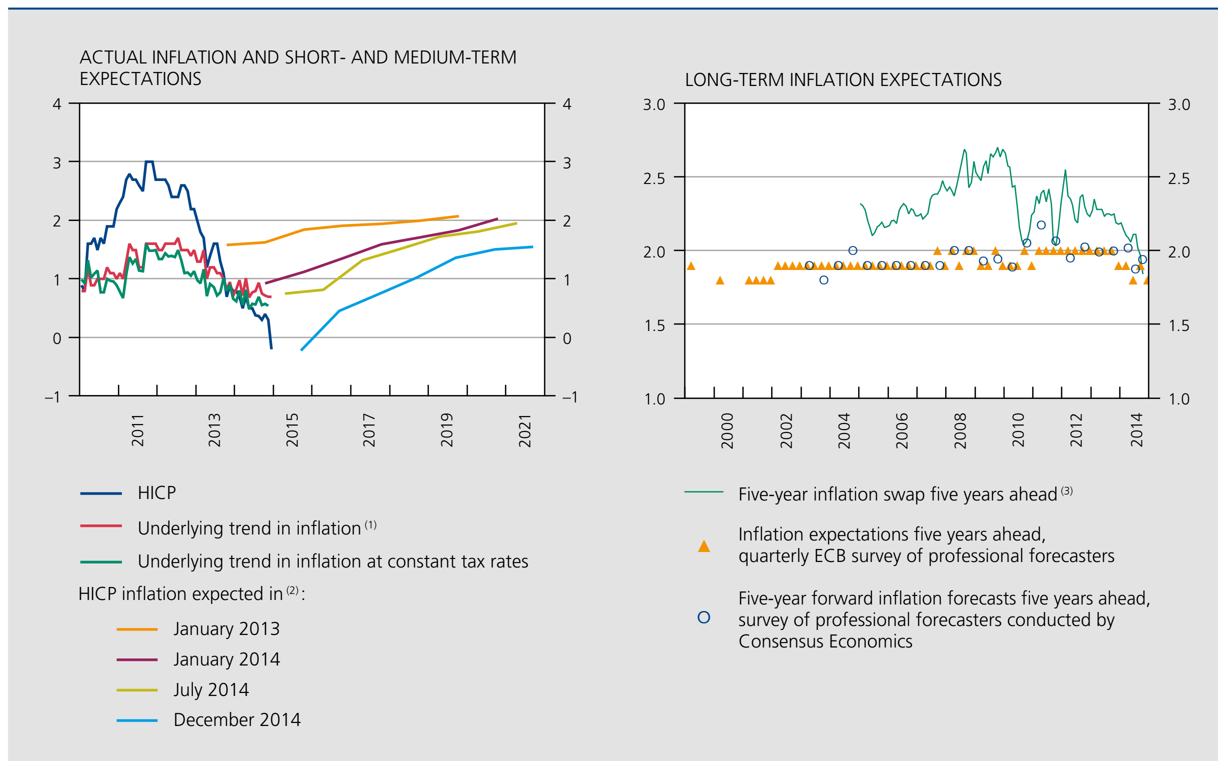
As the months went by, actual inflation proved significantly weaker than expected, as did economic activity, and the corresponding projections were also systematically revised downwards. At the end of the year, inflation fell to particularly low levels, a long way from the Governing Council's medium-term objective of an inflation rate below but close to 2 %.

In addition, throughout the year, the Governing Council considered that these economic prospects were subject to downside risks, relating in particular to geopolitical developments, insufficient structural reforms in the euro area countries, and the still faltering recovery. From April onwards, it also systematically noted risks relating to an excessively long period of low inflation. As explained in the box below, while deflation was still considered an unlikely prospect, a situation in which inflation is too low also implies a whole set of risks and problems.

Short- and medium-term inflation expectations in the private sector confirmed and even reinforced the Governing

CHART 15 INFLATION AND INFLATION EXPECTATIONS IN THE EURO AREA

(year–on–year percentage changes)



Sources: EC, Bloomberg, Thomson Reuters Datastream, ECB.

(1) HICP excluding food and energy.

(2) Measured on the basis of the implicit forward rate for an inflation swap. Since consumer price indexes are published after some delay, inflation swap contracts reflect the inflation expected in the month three months ahead of their due date. For instance, one–year contracts dated December 2014 reflect inflation rates expected in September in subsequent years.

(3) Implicit inflation rate derived from swaps covering the inflation risk in the euro area, for a period of five years beginning five years after the conclusion of the contract.

Council's assessment, as they foresaw only a slow and very gradual return to inflation levels compatible with the definition of price stability. Following a series of surprisingly low inflation figures, expectations were also down sharply over the year as a whole. Long-term expectations based on financial data likewise displayed a downward trend, reaching an all-time low at the end of the year. This led to fears that inflation expectations might become disanchored, a worry which was reinforced by the relatively low level of long-term expectations derived from the survey data. Those data are available less frequently than the financial data, but they do not incorporate risk premiums. Although the decline is very small, it is worrying in that these data are typically stable in the context of a monetary policy geared to price stability.

Box 3 – Why is persistently low inflation a problem ?

The ECB's primary aim is to maintain price stability, defined as inflation below but close to 2 % in the medium term in the euro area. If price trends are stable and predictable, that in fact helps the economy to function better. Conversely, unexpected fluctuations in inflation may lead to sub–optimal macroeconomic results, e.g. owing to distortion of the signal given by individual price–setting, arbitrary redistribution of income and wealth, or the resulting uncertainty surrounding long–term decisions. However, not all fluctuations in inflation are equally harmful, nor do

they all require a monetary policy response: much depends on the type of shock generating such movements. For instance, in the case of a negative demand shock, both inflation and economic activity come under downward pressure. A swift response by monetary policy is then recommended since a monetary stimulus stabilises the two variables. Conversely, in the case of a positive supply shock – which exerts downward pressure on inflation but at the same time supports economic potential – monetary policy faces a dilemma. A more gradual response may then be advisable, at least if inflation expectations remain firmly anchored. If that last condition is not met and if the positive supply shock is not accompanied by an increase in demand, and therefore generates persistent downward pressure on inflation, intervention by monetary policy is required.

Various factors account for the downward trend in inflation in the euro area since the end of 2011. At global level, commodity prices have fallen sharply while the rise in food prices has been modest. Moreover, the resulting downward pressure on import prices was reinforced by the euro's appreciation, which continued until the beginning of May 2014. By supporting consumers' purchasing power, these external supply factors have a favourable influence on the economy of the euro area. In addition, a rebalancing process is taking place within the euro area, with the peripheral countries endeavouring to restore their competitiveness with the core countries, notably by means of structural reforms. The decline in inflation in the peripheral countries resulting from those reforms at the level of the economy's production potential can be considered necessary and beneficial. Apart from these factors, however, the persistence of low inflation is due essentially to the flagging demand in the euro area, which is depressing economic activity, wages and profits, and hence also prices. Unlike the lower inflation caused by a reduction in import prices, that is not a source of increased purchasing power.

Thus, inflation in the euro area has for a long time been below a level compatible with price stability, and is expected to rise only very slowly towards 2 %, as indicated by the persistent decline in inflation expectations in the short, medium and long term. Nonetheless, the ECB Governing Council considers that there is little risk of deflation (defined as a self–perpetuating fall in prices which threatens to lead to the postponement of purchases) in the euro area. Although the proportion of goods and services in the consumption basket recording a year–on–year decline

SCALE OF PRICE REDUCTIONS IN THE EURO AREA
(monthly data, in %)

Source: EC.

in prices did increase in 2014, it did not exceed the 2009 level. Also, the EC's monthly survey shows that only a very small number of consumers expect consumption prices to fall over the next twelve months.

Even without a general fall in prices, an excessively long period of low inflation causes damage, particularly if it is due to a decline in demand and is accompanied by inflation expectations becoming disanchored. An unexpected fall in inflation increases the real value of outstanding debts, since the real interest rate proves to be higher *ex post* than was expected *ex ante*. When inflation remains persistently below the target, there is therefore a redistribution of wealth from debtors to lenders. The opposite is also true in the event of inflation persistently exceeding the target. However, if inflation is too low, it is liable to have an additional adverse impact on demand, as in principle borrowers – who face a higher real interest rate – have a greater propensity to consume than lenders. If the debt is substantial, as is the case for the euro area, an unexpected decline in inflation may curb the economic recovery because it hampers debt reduction and may exacerbate the fall in demand. In that connection, it should be noted that the peripheral euro area countries are the ones facing the biggest challenge: they have the lowest inflation combined with the heaviest debts.

As already mentioned, the low inflation in the peripheral countries is to some extent an indication of the success of the structural reforms implemented in order to restore competitiveness. However, it is not offset by an increase of more than 2 % in wages and prices in other countries, so that on balance, inflation in the euro area as a whole is still too low. That situation complicates and delays the adjustment process, which requires a relative decline in wages and prices, i.e. only in relation to the rest of the euro area and not necessarily in absolute terms. Thus, with inflation close to 2 % on average in the euro area, a price and wage freeze in the peripheral countries could be enough to achieve a fairly rapid adjustment in relative prices. Conversely, in a low inflation situation, it is necessary to make absolute cuts in wages and prices to achieve that adjustment. For various reasons, workers and businesses display reluctance in that respect [1], thus slowing the adjustment process in the peripheral countries, driving up unemployment and further eroding demand. It is therefore hard for the structural reforms on the labour market and on the product markets to produce their beneficial effects.

Finally, in a low inflation environment, it may be more difficult to pursue a sufficiently accommodative monetary policy, as the nominal interest rate – which corresponds to the sum of the expected inflation rate and the real interest rate – has a floor of around 0 %. Once the policy interest rate has reached that low point, as is currently the case in the euro area, the central bank loses the instrument that in normal times enables it to lower the real interest rate further in the short term. If inflation expectations are firmly anchored, the situation need not be a problem so long as the negative real interest rate thus obtained is sufficiently accommodative. However, this scenario still entails risks. For example, even if the real interest rate is already negative, it may still be too high in relation to the level of the real equilibrium rate [2], e.g. because of an additional, persistent fall in demand. Moreover, inflation expectations that are no longer firmly anchored and exhibit a downward trend will exert upward pressure on the real interest rate and lead to a monetary policy that is unintentionally more restrictive. Traditional monetary policy might then be incapable of restoring economic activity to its potential level. That would aggravate the risk of very weak growth persisting for a prolonged period, a phenomenon known as "secular stagnation" [3], causing lasting damage to growth potential.

Admittedly, a central bank faced with such an environment can still resort to alternative measures. Even if the policy interest rates are at their minimum level, those measures must make it possible to conduct an accommodative policy to restore inflation and inflation expectations to a stable level close to the target, in order to limit the negative effects described here. The measures adopted by the Eurosystem should in fact be viewed in that light.

(1) For studies of *inter alia* the downward rigidities in wages and prices in the euro area, see the work of two Eurosystem working groups, namely the Wage Dynamics Network and the Inflation Persistence Network.

(2) The real equilibrium rate is the rate prevailing when output reaches its potential level. It is also a benchmark for the monetary policy stance: if the real interest rate is higher than the real equilibrium rate, monetary policy is restrictive, whereas if it is lower than that rate, monetary policy is accommodative.

(3) For a general view of the subject, see Box 1.

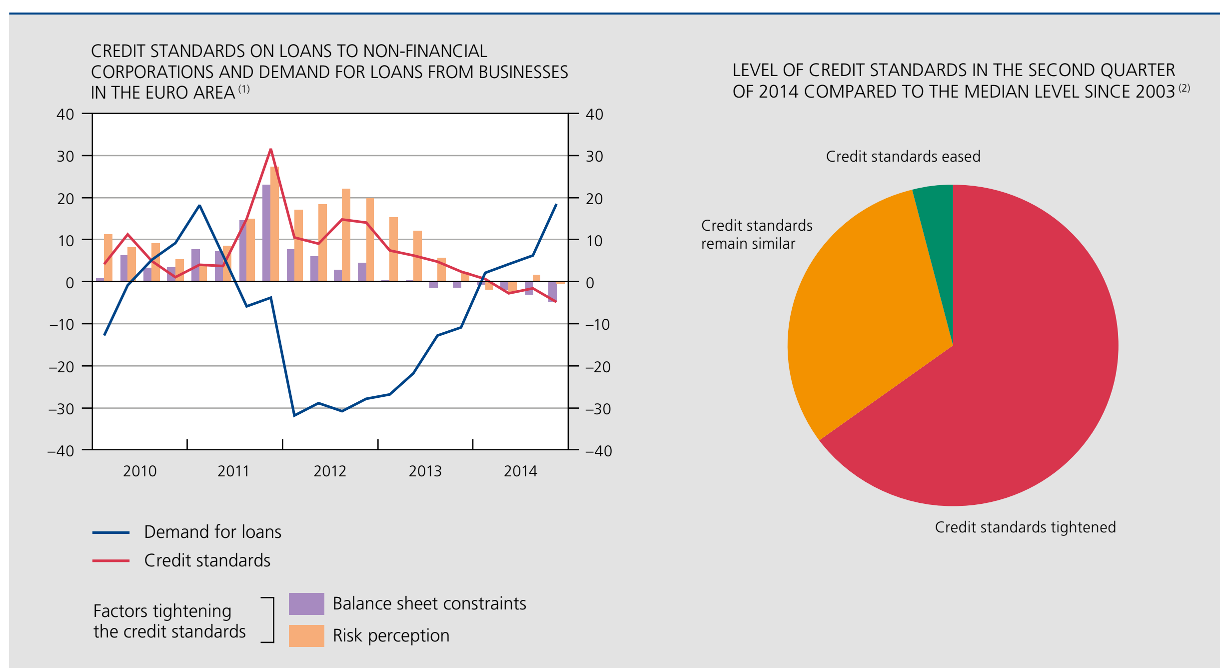
Monetary analysis

The scenario in which inflationary pressure is expected to remain particularly low for a long time was largely borne out by developments in the money supply and in lending.

Bank lending to the private non-financial sector remained sluggish, and was restrained in particular by the weak economic activity and the ongoing balance sheet adjustment. However, during the first quarter there were signs that lending was picking up. Year-on-year growth of lending to businesses thus increased from –3.2 to –1.3 % between February and November, although it remained decidedly negative, while the growth of lending to households was up from 0.2 to 0.7 % between January and November. In line with these developments, the results of the bank lending survey (BLS) indicate a slight easing of credit standards and a rise in demand for both business loans and home loans. Nonetheless, it must be borne in mind that the level of the credit standards remained restrictive in historical terms, especially in the peripheral economies. In a calmer financial environment, it was mainly the reduction in balance sheet constraints that contributed to the easing of standards in 2013 and 2014, while in view of the still uncertain macroeconomic context, risk perception continued to be a source of concern for banks in their lending. The slight increase in the growth of bank lending to the private sector was evident in many countries, but there were still substantial differences in terms of level between the centre and the periphery of the euro area, bearing witness to variations in macroeconomic dynamics and debt levels. At the same time, debit interest rates continued to display wide variations, although they did diminish overall as a result of new measures adopted by the ECB Governing Council. The disparity in bank financing costs between countries is due mainly to divergences in banks' funding conditions and capitalisation, but also to variations in credit risk from one country to another.

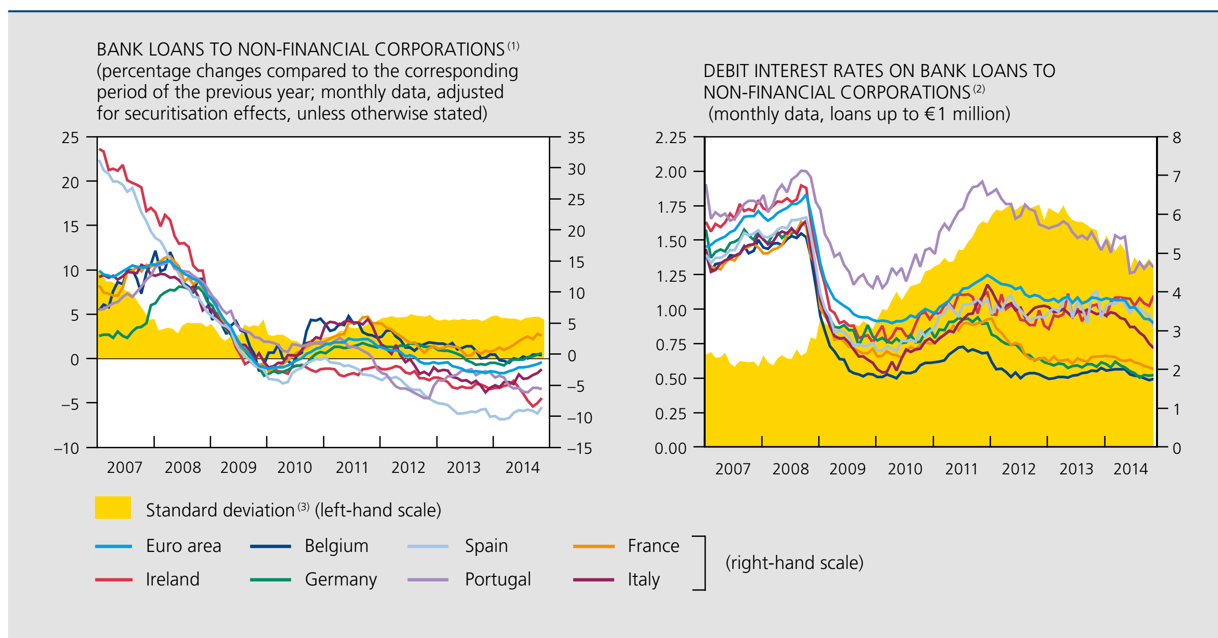
The modest revival in lending to the private sector during the year under review was accompanied by a steady expansion of the money supply. After having declined to a low of 0.8 % in April, the year-on-year growth of the broad monetary aggregate M3 thus gradually gathered pace to reach 3.1 % in November. That growth indicates an increased preference for liquid assets, given the low level of interest rates. In that context, the annual expansion of M3 continued to be supported by its most liquid components, and especially sight deposits, as their opportunity cost is very low in an environment where other risk-free assets offer meagre remuneration.

CHART 16 EUROSYSTEM'S BANK LENDING SURVEY FOR THE EURO AREA
(quarterly data)



Source: ECB.
(1) Net percentages of replies from banks to the Eurosystem's bank lending survey indicating the degree of tightening (+) or easing (–) of credit standards and the movement in demand for loans.
(2) Net percentages of replies from banks.

CHART 17 BANK FINANCING OF NON–FINANCIAL CORPORATIONS IN THE EURO AREA



Sources: ECB, NBB.

(3) All maturities together. The data for Belgium are adjusted for securitisation over the whole period. Those for the other countries are adjusted from February 2010, except for the data for Italy which are not adjusted.

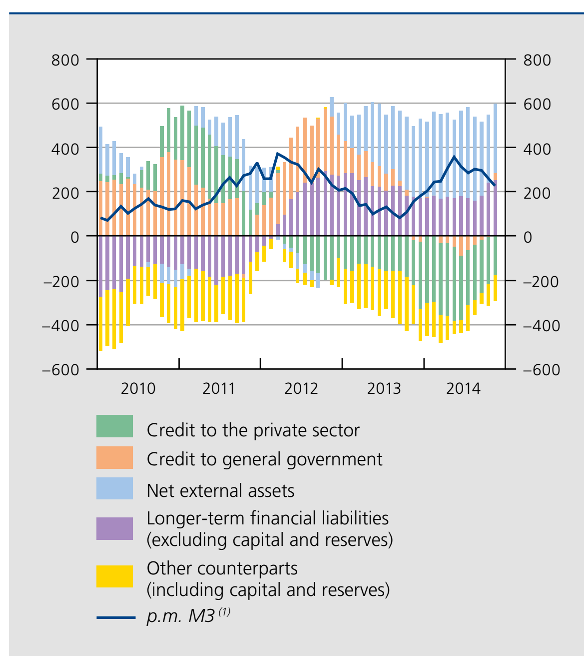
(4) Interest rates offered on new loans for an initial term of less than one year.

(5) Standard deviation for the twelve euro area Member States on 1 January 2002, with the exception of Luxembourg.

In general, the decoupling of M3 growth from the expansion of lending to the private sector persisted, as other factors contributed to the growth of the broad monetary aggregate, headed by the increase in the net external position of the banks and the continuing contraction of their longer-term financial commitments. The first factor reflects the surpluses on the euro area current account and the net inflow of capital into the euro area. Although it has been the main driver of M3 growth since mid-2013, its dominance diminished a little from the summer of 2014 following a slight fall in investors' demand for euro area securities. That reduced preference was probably due to yield considerations relating in particular to the reinforcement of the accommodative monetary stance. The second factor reflects the reduction in the financing needs of banks in the euro area and the tendency towards a funding strategy centred on deposits, as encouraged by the current regulation. It also reflects the particularly flat shape of the yield curve, which is causing savers to keep their liquidity in the form of deposits. Taking account of these factors, the underlying growth rate of the money supply in the broad sense thus remained very low, even though it accelerated slightly.

CHART 18 COUNTERPARTS OF M3

(annual flows, amounts in € billion, seasonally adjusted data)



Source: ECB.

(1) M3 corresponds to the sum of the various counterparts. Since longer–term financial liabilities (excluding capital and reserves) are liabilities of the banking sector, they are shown with a negative sign.

Monetary policy measures adopted in 2014

The developments revealed by economic and monetary analysis – the two pillars forming the basis of the Eurosystem's monetary policy strategy – prompted the Governing Council to adopt a range of new conventional and non-conventional measures during the year under review. Although they were staggered throughout the year, these various measures all form part of the same programme designed to reinforce the accommodative monetary policy stance and give greater support to lending to the real economy in the euro area.

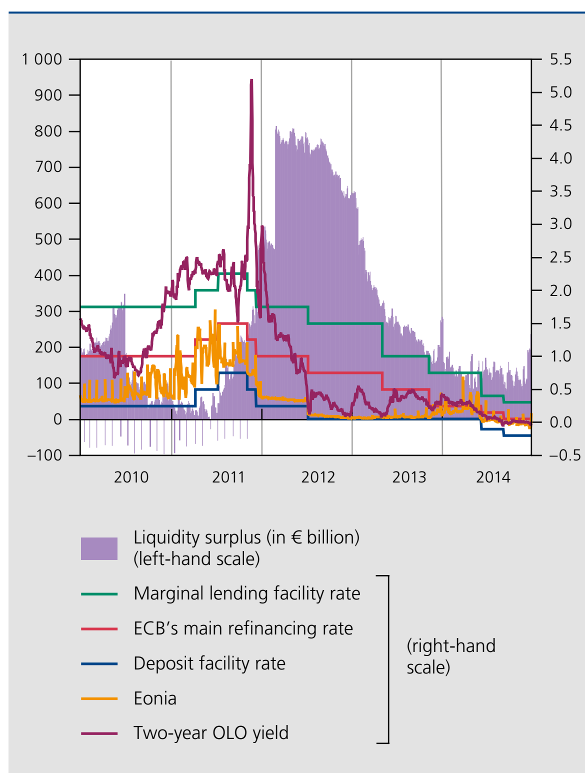
Reduction of key interest rates and maintenance of forward guidance

In view of the persistently languishing economic activity, the steady and unexpected decline in inflation and the weak underlying inflationary pressures in the medium term, the Governing Council cut the key rates on two occasions in 2014.

On 5 June, it was decided to cut the rate on the Eurosystem's main refinancing operations by 10 basis points to 0.15 %, and to reduce the marginal lending facility rate by 35 basis points, to 0.40 %. The deposit facility rate was cut by 10 basis points, thus taking it into negative territory at –0.10 %. To avoid arbitrage, the Governing Council also decided that the current account balance held in excess of the reserve requirement would in future be remunerated at the deposit facility rate and not at a zero rate as had previously been the case. In view of the persistently weak inflation outlook and signs that growth was slowing down in the summer, the Governing Council considered at its meeting on 4 September that its policy interest rates needed to be reduced further. It thus agreed to cut all the rates by a further 10 basis points, bringing the interest rate on the main refinancing operations to 0.05 %, the marginal lending facility rate to 0.30 % and the deposit facility rate to –0.20 %. Following these cuts, it was announced that the interest rates had reached their floor so that there would be no further reductions.

The decline in the main refinancing rate reduced the cost of Eurosystem refinancing for banks in the euro area, while the reduction in the deposit facility rate exerted pressure on money market rates. In a situation of excess liquidity, which has very often prevailed since the fixed-rate tenders with full allotment were introduced on 15 October 2008, the floor policy rate in fact plays a key role in determining the overnight Eonia rate, for which it is a lower bound. However, although the overnight money market rate did fall, it was still significantly above the deposit facility rate and only descended briefly into negative territory. This limited transmission of the movements in the policy rate to the Eonia rate is attributable to a lower level of liquidity surplus and to the reluctance of a segment of the euro area banking system to effect transactions at (too) negative interest rates.

CHART 19 INTEREST RATES, MONEY MARKET RATES AND LIQUIDITY SURPLUS IN THE EURO AREA



Sources: Thomson Reuters Datastream, ECB.

It should be noted that the banks are generally willing to pay a negative interest rate to deposit their liquidity with the Eurosystem because the other options are also expensive or less secure. The alternative of holding paper money, on which the nominal remuneration is zero, thus entails banknote transport and storage costs, while investment in more remunerative assets is not in principle risk free. In this context and owing to the banks' arbitrage strategies, yields on risk-free short-dated assets such as certain sovereign securities also became negative.

Apart from the aim of easing monetary policy, the simultaneous adjustment of the interest rates on the main refinancing operations and the deposit facility are intended to maintain a constant corridor between the two lower key interest rates, and therefore not to discourage

trading on the interbank market. The decision to make a bigger cut in the marginal lending facility rate reflects the desire to narrow the gap between that rate and the central policy rate in order to limit the potential upward volatility of the money market rates. The interest rate on the marginal lending facility is in fact an absolute ceiling for Eonia. This therefore curbed the periodic peaks in the overnight money market rate in the first half of the year under review, which – in a situation of lower liquidity surplus – indicated that the banks want to conserve liquidity at the end of a month or quarter in order to embellish their financial position.

According to the Eurosystem's forward guidance introduced in July 2013, the policy interest rates will remain low for an extended period in view of the assessment of the economic outlook. That forward guidance has been continuously reaffirmed, and has helped to reduce the interest rate expectations and the uncertainty surrounding them.

Towards more active balance sheet management

Since the summer of 2012, following the adoption of the OMTs and with the prospect of a revision of European economic governance, financing conditions in the euro area had already been getting better, particularly for government securities. That improvement continued in early 2013. Spreads on government bonds became steadily narrower, as did the spreads on private sector instruments, confirming the easing of financial fragmentation. At the same time, the liquidity surplus which had diminished considerably in recent years remained at a relatively low level, indicating that the Eurosystem was playing a smaller role in intermediation, that role being increasingly taken over by the interbank market. Despite these favourable developments, recourse to Eurosystem liquidity remained concentrated on the countries which had been at the heart of the sovereign debt crisis. Bank lending conditions – the most relevant for the transmission of monetary policy to the real economy in the euro area – therefore remained very disparate and relatively restrictive in some jurisdictions. That situation, which reflected a persistent disruption of the transmission of the monetary policy signal to the real economy, threatened the recovery of activity and the maintenance of price stability.

In these circumstances, to maintain access to liquidity for all banks in the euro area and thus bolster lending, the Governing Council announced at its meeting on 5 June that it would continue to conduct the Eurosystem refinancing operations in the form of fixed-rate tenders with full allotment for as long as necessary, and at least until December 2016. It agreed that the central policy rate would continue to apply to the main refinancing operations, and that the interest rates on the longer-term refinancing operations would remain equal to the average of the rates on the main refinancing operations conducted during the period of the operation concerned. Given their minor role in a procedure for granting unlimited liquidity at a fixed rate, the operations whose term coincides with a reserve maintenance period – or around one month – were terminated, while the weekly fine-tuning operations to sterilise the provision of liquidity under the Securities Markets Programme (SMP) were suspended. This last decision had only a small, temporary impact on the liquidity surplus, as it was more than offset by a fall in demand for funds via other operations; that confirms the reduced role of the Eurosystem in intermediation.

Targeted longer-term refinancing operations

The Governing Council also took measures to safeguard the effective transmission of the accommodative monetary policy stance to lending conditions. Thus, June also saw the announcement that the Governing Council would conduct a series of targeted longer-term refinancing operations (TLTROs). These offer banks long-term financing – up to four years – in exchange for new lending to businesses and households, with the exception of home loans. The interest rate on these operations was initially set for the entire duration of the loan at 10 basis points above the rate on the main refinancing operations prevailing at the time of the operation. Thus, subject to certain conditions, the TLTROs make it possible to obtain cheap finance up to September 2018, regardless of the movement in the main policy interest rate.

On the occasion of the first two operations in September and December 2014, banks were allowed to request liquidity up to a maximum of 7 % of their total outstanding loans to the private non-financial sector of the euro area as at 30 April 2014. The additional amounts which can then be borrowed each quarter between March 2015 and June 2016 will depend on the banks' lending activities in excess of the benchmarks defined specifically for each bank. The amounts that institutions can request from the Eurosystem must not exceed three times the difference between the net amount of loans granted since 30 April 2014 and the benchmark at the time of the request. The benchmark takes account of the institutions' need for deleveraging and balance sheet adjustments. Banks which have recently scaled down their lending are therefore encouraged above all to slow the pace at which they shrink their loan portfolio. Banks which fail to meet their

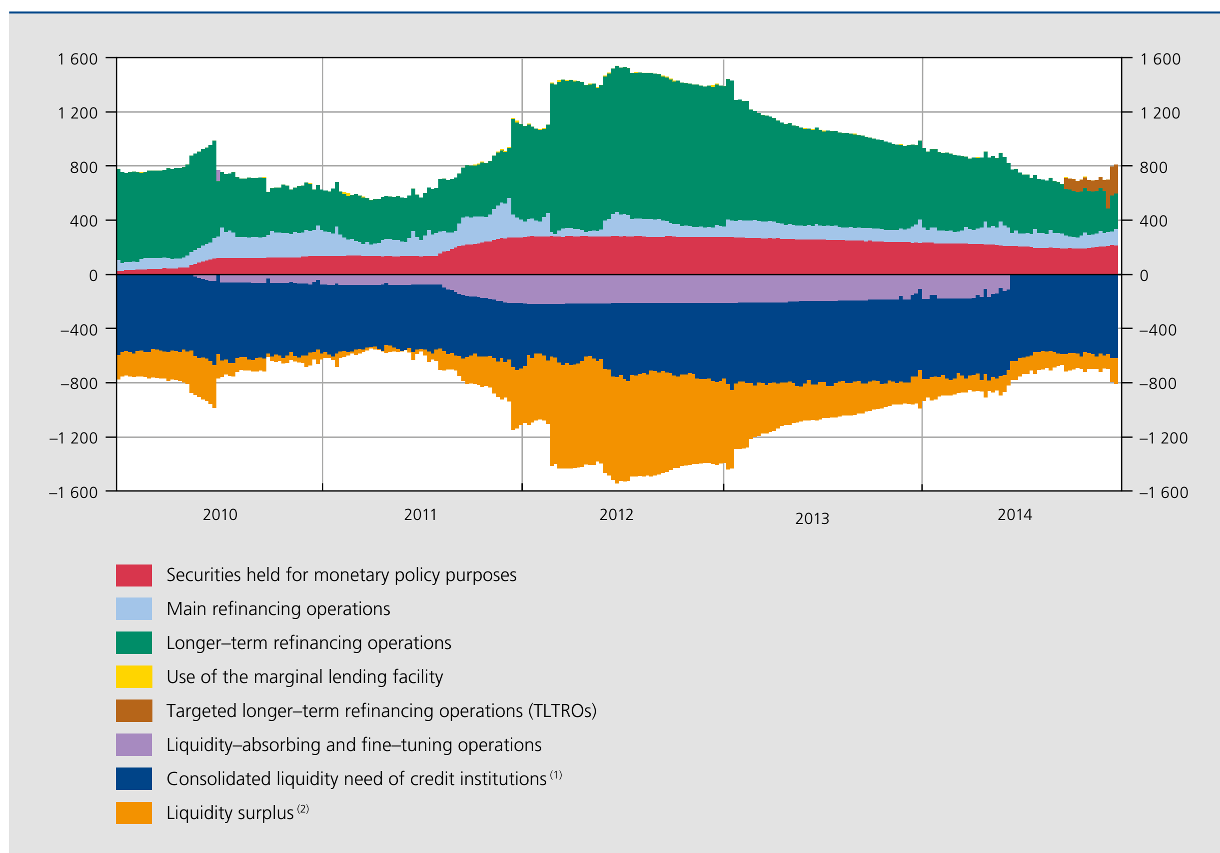
benchmark by 30 April 2016 will be required to repay all their borrowings in full in September 2016.

In contrast to the long-term refinancing operations previously introduced by the Eurosystem, these operations thus comprise an incentive mechanism to encourage the banks to ease their credit standards and stimulate their loan volumes. Since these operations are conducted at a fixed rate, they also implicitly signal the Eurosystem's intentions regarding the policy interest rates and its commitment to maintaining an accommodative policy in the future.

Despite fairly advantageous conditions, the demand for liquidity in the first two operations conducted respectively on 18 September and 11 December was at the lower end of the expected range. While the potential cumulative total came to around € 400 billion, only € 212.4 billion was requested. There are two possible reasons for the relatively weak demand for liquidity in the TLTRO. First, the announcement of securities purchase programmes at the beginning of September (see below) may have dissuaded some banks from borrowing, as the prospect of obtaining liquidity under the Eurosystem securities purchase programme may have convinced credit institutions to reduce their demand for liquidity in the refinancing operations. Also, the signs that the recovery was losing momentum in the second half of the year potentially implied a weaker outlook for demand for loans from the real economy, and hence lower financing needs for the banks.

While € 82.6 billion was lent in September, the December figure was € 129.8 billion. This stronger demand at the time of the second operation can be explained in three ways. First, the publication in October of the results of the comprehensive assessment probably gave banks in the euro area more certainty about their balance sheet capacity to expand their lending. Next, as the three-year longer-term refinancing operations (LTROs) conducted at the end

CHART 20 LIQUIDITY IN THE EUROSYSTEM
(outstanding amounts, weekly data, in € billion)



Source: ECB.
(1) Liquidity need due to "autonomous factors" (such as demand for banknotes) and reserve requirements.
(2) The liquidity surplus is equal to the difference between the outstanding amount of the operations leading to the expansion of liquidity – namely the refinancing operations, purchases of securities for monetary policy purposes, and use of the marginal lending facility – and the sum of the outstanding amount of the liquidity-absorbing operations and the consolidated liquidity need of the banking system. It corresponds to the sum of the amounts placed on the deposit facility and on current accounts in excess of the reserve requirements.

of 2011 and in early 2012 and maturing respectively on 29 January and 26 February 2015 offered an interest rate equal to that on the main refinancing operations, namely 0.05 % and 10 basis points below the TLTRO rate, it was advantageous to wait for the second operation to substitute the targeted refinancing for the three-year financing. Finally, some banks may have needed more time to be operationally ready to request funds under the TLTROs.

In accordance with the reduced intermediation role of the Eurosystem, the TLTRO allotments had a limited impact on liquidity. Overall, taking account of the other lending operations conducted by the Eurosystem during the tendering periods and the repayments under the three-year LTROs, liquidity amounting to around € 47 billion, in net terms, was injected as a result of the first operation, while the second provided a net amount of around € 84 billion.

Private sector asset purchase programmes

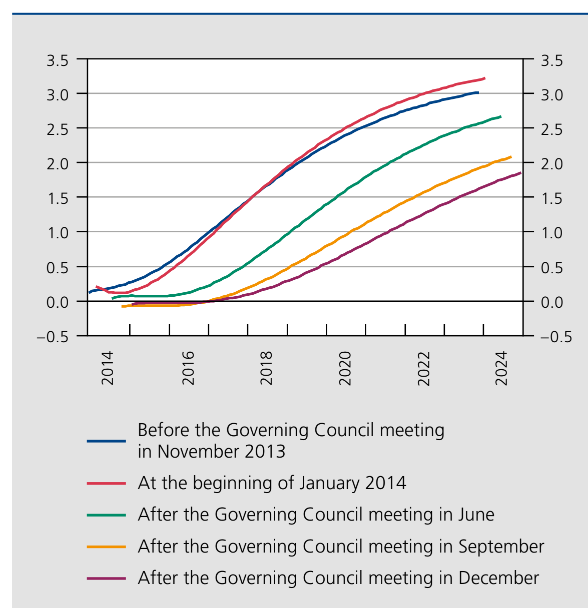
At its meeting on 4 September, the Governing Council considered that it needed to reinforce the measures taken in the spring and ease its monetary policy still further to avert the threats to the recovery and to the anchoring of inflation expectations. It therefore decided to embark on asset purchases, a logical step towards monetary stimulation when interest rates have reached the lower bound. First, after the June announcement that the relevant preparations would be stepped up, it was agreed that the Eurosystem would acquire a large portfolio of simple and transparent asset-backed securities (ABSs), with the underlying assets being claims on the non-financial private sector of the euro area. It was also announced that the Eurosystem would likewise acquire a massive portfolio of euro-denominated covered bonds, issued by banks incorporated in the euro area, under a third covered bond purchase programme (CBPP3). As had already been the case in 2009 and 2011, these securities were targeted because they are key financing instruments for the banks in a number of euro area countries, and because the market is large enough to acquire substantial volumes. Initially, the two programmes were set up for a minimum period of two years with the aim of injecting liquidity into the money market, revitalising the securities markets concerned, stimulating issues and supporting the underlying lending.

The Governing Council said it expected the purchases of securities, in combination with the TLTROs, to have a significant impact on the balance sheet of the Eurosystem. The decision to resort to outright asset purchases in fact gives the Governing Council more direct control over the growth of this balance sheet. The programmes adopted therefore mark a break with the previous situation in which the growth of the monetary base depended mainly on the behaviour of the banks, which determine recourse to euro area liquidity in the context of a full allotment liquidity procedure. Although it did not mention any figures, the Governing Council indicated that the Eurosystem balance sheet was expected to be restored to the size it had been at the beginning of 2012. At that time, just after the two three-year LTROs, the balance sheet exceeded € 3 000 billion, a historically high level and about € 1 000 billion above the September 2014 figure.

All these new measures taken in September show that the Eurosystem is adopting a new approach to strengthen its accommodative monetary stance in an environment where interest rates have reached the lower bound. In such a situation, the monetary policy stance in fact depends on the size and composition of the central bank's balance sheet.

Transactions under the covered bond purchase programme started on 20 October and acquisitions had reached € 29.6 billion by the end of the year. ABS purchases began on 21 November and totalled € 1.7 billion at the end of December. The relatively low volume of ABS purchases can be explained by the fact that there is only a very small market for them.

CHART 21 IMPLICIT EXPECTATIONS REGARDING THE OVERNIGHT INTEREST RATE IN THE EURO AREA (1)



Sources: Bloomberg, NBB.
(1) Measured on the basis of the implicit overnight interest rate derived from interest rates on Eonia swaps with varying maturities.

The Governing Council has constantly and unanimously reaffirmed that, if necessary, it is ready to take new measures to address the risks of an excessively long period of low inflation. In particular, it indicated at its meeting in December 2014 that in early 2015 it would review the degree of monetary easing already attained, as well as the growth of the balance sheet and the outlook for inflation.

The measures adopted in 2014 put downward pressure on nominal interest rates and the exchange rate

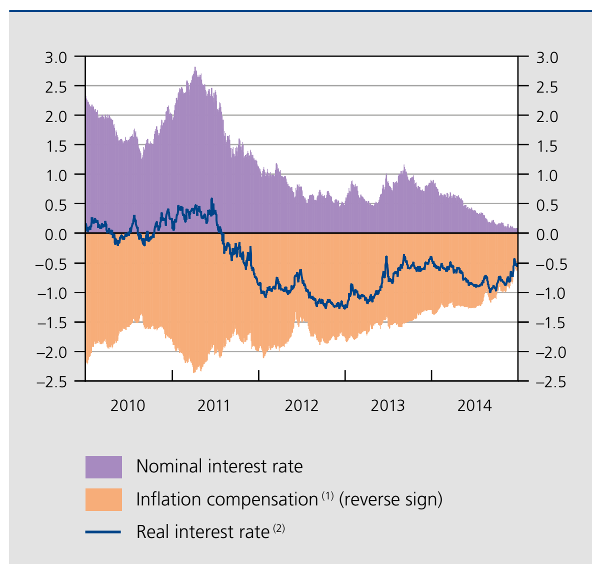
The measures adopted in 2014, together with the statements issued by the Governing Council bearing witness to its determination to take new action if necessary, have certainly not been ineffective.

Combined with the forward guidance, the cuts in the key interest rates led to a lowering of expectations regarding the Eonia rate and hence longer-term money market interest rates. The decision to conduct liquidity-providing operations with a maturity of up to four years and the decision to buy assets also reinforced the flattening of the interest rate term structure by lowering expectations in respect of both interest rates and term premiums. Expectations of a possible upcoming reinforcement of the monetary policy measures adopted during the course of the year under review – and most notably the prospect of a further expansion of the securities purchase programmes – fuelled the downward trend in interest rates. Towards the end of the year, the forward rate curve thus reached a historically low level, taking all maturities together. The Eonia rate was expected to remain negative until early 2017 and was unlikely to exceed the current central policy rate, namely 0.05 %, before September of that year. Yields on sovereign bonds of a number of countries, including Belgium, had become negative for maturities up to two years, and had dipped below 0.85 % for maturities up to ten years. The yield on the German ten-year Bund, the benchmark risk-free asset in the euro area, dropped below 0.60 %. The search for yield in a low interest rate environment had also increased the attraction of more remunerative financial products, causing a further decline in risk premiums.

However, since the decline in nominal interest rates largely offset the fall in inflation expectations, real interest rates rose slightly. For example, the five-year interest rate, relevant for private sector decisions on consumption and investment, edged up to –0.5 % during the closing months of 2014 from a trough of –1 % at the end of September.

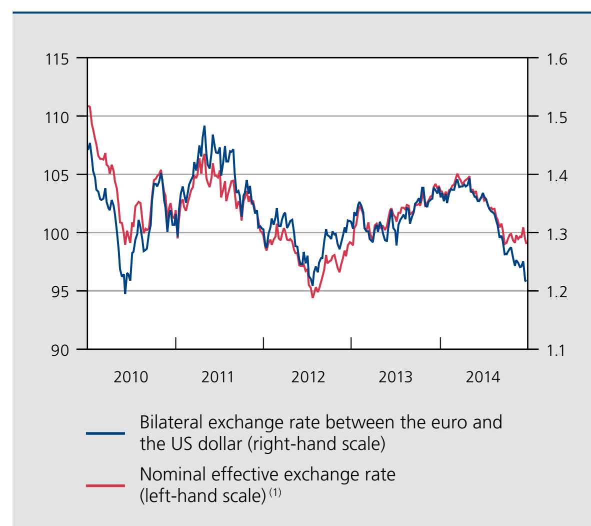
As regards the later – crucial – stage of monetary transmission, the bank interest rates on new loans to the private sector declined after a long period of relative stability. These developments tally with the responses to the BLS concerning the third and fourth quarters of the year. Questioned about the TLTROs, the banks stated that they

CHART 22 REAL INTEREST RATE IN THE EURO AREA
(5-year swap rate; daily data, in %)



Source: ECB.
(1) Measured on the basis of swap contracts covering the inflation risk in the euro area for a 5-year period.
(2) Calculated as the difference between the nominal interest rate and the inflation compensation.

CHART 23 EURO EXCHANGE RATE



Sources: Thomson Reuters Datastream, ECB.
(1) Nominal effective exchange rate against the 19 main trading partners of the euro area.

were notably going to use the liquidity obtained to ease their lending conditions.

On the foreign exchange markets, the euro depreciated sharply against the dollar and in nominal effective terms against the main trading partners of the euro area. Whereas the euro had appreciated by around 10 % against the dollar between June 2012 and April 2014, reflecting the restoration of confidence in the euro area, it thus fell by as much as 13 % between the beginning of May and the end of December. This picture reveals the effects of the decline in interest rates, pushing investors to rebalance their portfolios in favour of assets in foreign currencies offering higher yields. In that context, the euro's depreciation can be considered welcome in that it should help to drive inflation higher in the euro area and bolster exporters' competitiveness.

Expanded asset purchase programme launched at the beginning of 2015

At the beginning of 2015, the Governing Council noted, on the one hand, that inflation dynamics had turned out to be persistently below expectations. While the main factor behind this trend is the sharp and prolonged drop in oil prices, it felt that there was now a greater risk of second-round effects on wage- and price-setting. This assessment was also corroborated by a further drop in inflation expectations. On the other hand, the Governing Council felt that, beyond their effect of shoring up prices on the financial markets, the monetary policy measures adopted between June and September 2014 had not had the desired quantitative impact. It therefore reached the conclusion that the degree of monetary policy easing was not sufficient to address the risks inherent in an excessively prolonged period of low inflation and that a forceful response was needed.

On 22 January 2015, the Governing Council thus decided to launch an expanded asset purchase programme, encompassing the existing programmes for buying up ABSs and covered bonds introduced in 2014, and also including the acquisition of bonds issued by euro area central governments, agencies and European institutions. The new asset purchases will start in March and will amount to a total of € 60 billion per month. They are expected to be continued until September 2016 and in any case until the Governing Council sees a sustained adjustment in the path of inflation that is consistent with its objective. This decision is fully in line with the approach that it has taken since September 2014, which involves more direct control over the size and composition of the Eurosystem balance sheet.

The new purchases will be made on the secondary market, against central bank money. The liquidity obtained in this way will be able to be used by credit institutions to acquire other assets and to lend to the real economy. On top of its direct impact on the interest rates on the bonds acquired, by triggering portfolio reallocations, the asset purchase programme should also have some effect on yields of other assets and help support credit conditions in the entire economy. It also amplifies the signal that the Eurosystem intends to keep its key policy rates low for an extended period of time. And last but not least, the impact on inflationary expectations is reinforced by the explicit reference to the aim of bringing inflation back up to around the 2 % mark.

In addition, the Governing Council has announced that the interest rates applicable to the six remaining TLTROs would be brought down to the rate of the Eurosystem's main refinancing operations (MROs) prevailing at the time when each TLTRO is conducted. This decision to eliminate the 10 basis point spread over the main refinancing operation rate should support the effectiveness of these operations by reflecting the reduction in funding costs for banks that has been observed since the TLTROs were first announced on 5 June 2014.

These two decisions aim to bring about a further and considerable easing of monetary and financial conditions in the euro area. By easing financing conditions, the implementation of the new monetary policy instruments should support consumption and investment in the euro area. The decisions also aim to ensure that inflation expectations remain firmly anchored, in both the medium and long term. It is expected they will help to restore the inflation rate to a level close to 2 %. The box below presents some indications of the potential macroeconomic impact of the recent balance sheet measures on the basis of the effects of the measures adopted between 2008 and 2013.

It must be said that, though monetary policy has an important role, it cannot on its own pave the way back to a sustainable growth path in the euro area. In that connection, the Governing Council has constantly reiterated that, together with monetary policy, the other economic policies must also be activated to help restoring inflation to its target level as quickly as possible.

On the demand side, the Governing Council has insisted that fiscal policy must be coordinated with the macroeconomic situation in the euro area, while complying with the Stability and Growth Pact, as this pact is the anchor point for confidence in public finances, vital for the promotion of private consumption and investment. The

existing rules are flexible enough to deal with the weakness of the recovery and offer some scope for funding structural reforms. On the supply side, as the Governing Council has often repeated, these reforms are essential to improve the operation of product and labour markets and the business environment. They need to encourage investment and economic activity, thus helping monetary policy to produce the maximum effect.

While the Governing Council has given assurances that it would do everything necessary to restore inflation rapidly to around 2 % and thus fulfill its mandate, it has effectively called on all euro area economic policy-makers to shoulder their responsibilities.

Box 4 – Impact of the balance sheet measures adopted between 2008 and 2013 and the role of banking sector capitalisation

The non-conventional measures adopted by the Governing Council in the year under review and at the beginning of 2015, such as the TLTROs and the asset purchases, will have a considerable influence on the size of the Eurosystem balance sheet. The aims of these measures are clear: to facilitate lending to the non-financial private sector and to contribute to the easing of monetary policy. However, it is not easy to assess their specific impact on the economy of the euro area, especially as the euro area has relatively little experience of this type of policy.

Nevertheless, this situation is not entirely new to the Eurosystem, because since the autumn of 2008 various decisions have been approved leading to changes in the size and composition of its balance sheet. Those measures, which aimed to safeguard financial stability and the effective transmission of monetary policy, took various forms, such as the adoption of a procedure for granting unlimited liquidity at a fixed rate, extension of the range of assets accepted as collateral, extension of the maturity of the refinancing operations, and purchases of securities. Among other things, they led to a substantial expansion of the Eurosystem balance sheet amounting to around € 1 800 billion between the end of 2007 and the June 2012 peak. The potential impact on the real economy of the measures taken in 2014 can therefore be estimated according to the impact of the earlier decisions.

An analysis using a structural vector autoregression (SVAR)[1] makes it possible to quantify the dynamic effects of non-conventional monetary policies separately from the effects of conventional policy measures, namely changes in the key interest rates, and to identify their transmission channels. This model was estimated for the euro area and its various constituent countries for the period from January 2008 to December 2013.

For various reasons, the results based on the earlier policy measures must be interpreted with caution in the context of the recent measures. First, the model studies the impact of a general expansion in the size of the Eurosystem balance sheet, without differentiating between the various possible sources. For example, the impact of balance sheet expansion due to purchases of sovereign securities under the SMP cannot be separated from the impact of expansion on the same scale resulting from an extension of the range of collateral accepted or lengthening of the maturity of the refinancing operations. Next, the previous balance sheet measures aimed mainly to ensure the appropriate transmission of monetary policy decisions, whereas the latest measures are intended primarily to ease the policy stance. In addition, between 2008 and 2014, the change in the size of the Eurosystem balance sheet mainly reflected fluctuations in the banks' demand for liquidity, whereas the growth now envisaged will be due more directly to decisions by the central bank concerning the volume of securities that it will purchase. Finally, the model does not include the adoption of the OMTs in the summer of 2012. Although that measure had no impact on the balance sheet as no securities were purchased, its macroeconomic effects may still have been considerable.

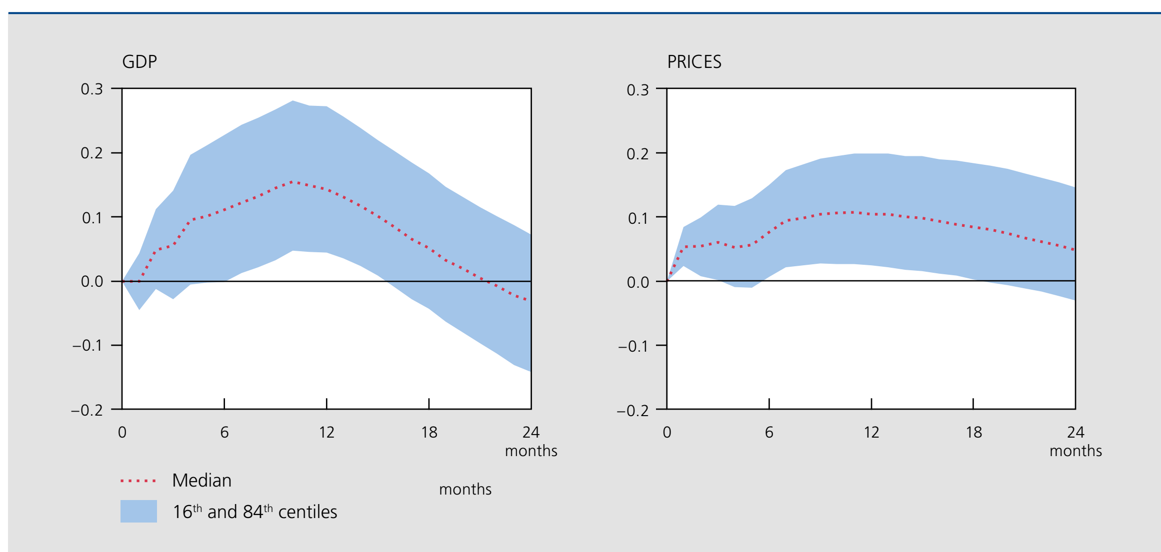
In order to assess the effect on the economy of the expansion of the Eurosystem balance sheet, it is necessary to observe the impulse responses derived from the model. Those responses indicate how the different variables

(1) Boeckx J., M. Dossche and G. Peersman (2014), *Effectiveness and transmission of the ECB's balance sheet policies*, NBB Working Paper 275.

considered change on average over the period in question following an exogenous expansion of the balance sheet due solely to non-conventional policies.

These impulse responses show that non-conventional shocks have a positive effect on economic growth and inflation. More specifically, an unexpected shock of around 2 % of the Eurosystem balance sheet boosts GDP by an estimated 0.15 percentage point and raises prices by up to 0.1 point. It is also evident that this impact is similar in quality to the impact of conventional monetary policies. Finally, the authors show that non-conventional policies seem to act by reducing financial market tension and – via the bank lending channel – by leading to a fall in debit interest rates and growth in the volume of lending.

IMPACT ON GDP AND PRICES OF A POSITIVE SHOCK OF 2 % ON THE EUROSYSTEM BALANCE SHEET
(in %)



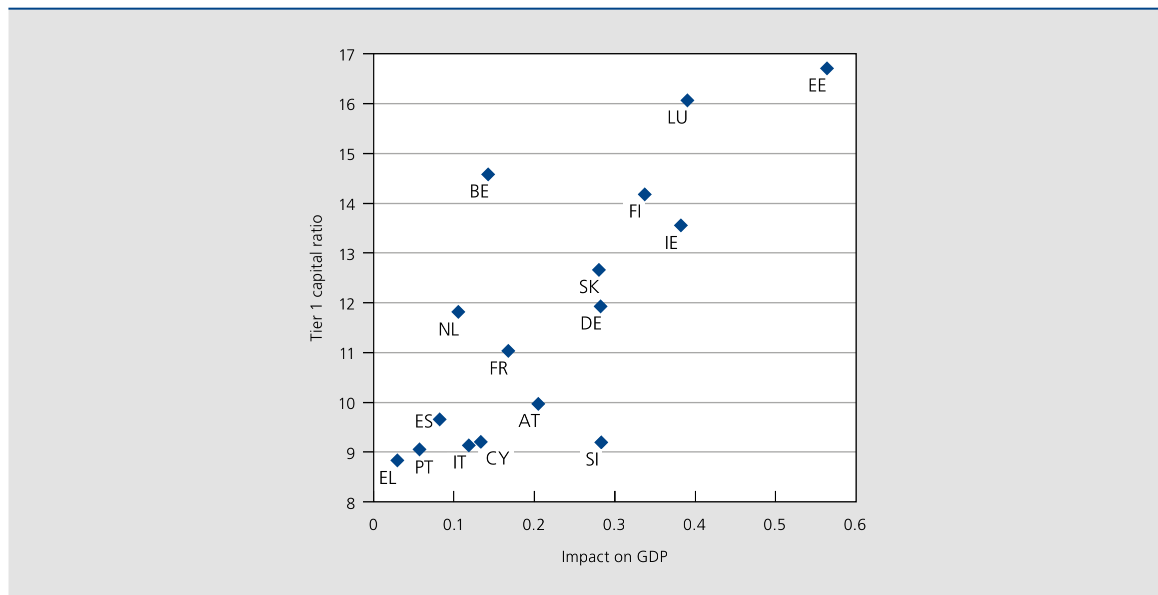
Source : Boeckx J., M. Dossche and G. Peersman (2014).

Although these measures have a clearly positive impact on the GDP of the euro area as a whole, their effect appears to vary from one country to another. In general, the effects of the Eurosystem balance sheet measures are less marked in the countries where, owing to the greater fragility of the banking sector, the transmission of monetary policy via the bank lending channel is less smooth. Less solvent banks appear in fact more risk averse and, when confronted by balance sheet constraints, seem more reluctant to grant loans. There is therefore a strong positive correlation between the maximum impact on a country's GDP of a shock concerning the size of the Eurosystem balance sheet and the average Tier 1 capital ratio of the banking sector in that country.

Since correlation does not necessarily imply causality, these results must be interpreted with caution. However, they are consistent with the movement in bank lending to the non-financial private sector in recent years in the various countries of the euro area. A similar connection is also evident at the level of the debit rates charged by the banks and their capitalisation ratio, which supports the theory that the health of the banking system is crucial to both the volume and the price of lending. The health of the banking system is therefore a vital factor in the transmission of both conventional and non-conventional monetary policy measures, especially as the banking sector plays a major role in the financing of the euro area's economy. The comprehensive assessment of the main banks in the

CORRELATION BETWEEN THE MAXIMUM IMPACT ON GDP OF A EUROSYSTEM BALANCE SHEET SHOCK AND THE TIER 1 CAPITAL RATIO OF THE BANKING SECTOR IN THE EURO AREA COUNTRIES

(in %)



Source: Boeckx J., M. Dossche and G. Peersman (2014).

euro area, conducted jointly by the ECB and the national competent supervisory authorities, thus emerges as a key factor in restoring the efficient transmission of monetary policy, as it identified the institutions with a delicate balance sheet position and encouraged them to reinforce their capital. Against that backdrop, there is reason to hope for a more uniform transmission of the balance sheet measures adopted most recently.