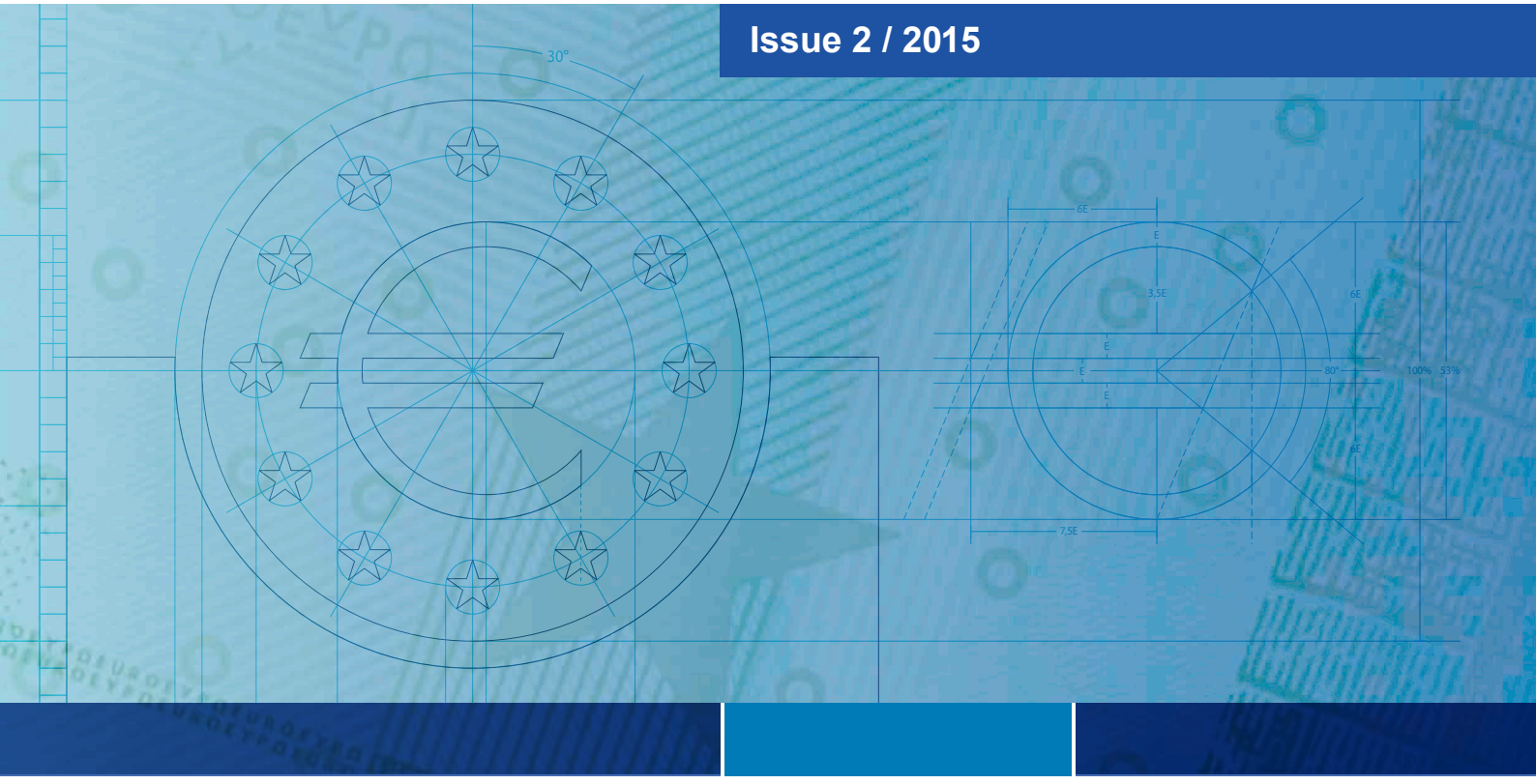
EUROPEAN CENTRAL BANK

EUROSYSTEM

Economic Bulletin



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Postal address
60640 Frankfurt am Main
Germany

Telephone
+49 69 1344 0

Website
www.ecb.europa.eu

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OVERVIEW

With a view to pursuing the ECB's price stability mandate, the Governing Council has taken a number of monetary policy measures to provide a sufficient degree of monetary policy accommodation. Following the monetary policy initiatives taken by the ECB between June and September 2014, which included further interest rate cuts, the introduction of targeted longer-term refinancing operations (TLTROs) and purchases of selected private sector assets (under the asset-backed securities purchase programme (ABSPP) and the third covered bond purchase programme (CBPP3)), the Governing Council decided in January 2015 to expand its asset purchase programme (APP) to encompass, as of March, euro-denominated investment-grade securities issued by euro area governments and agencies and European institutions. The combined monthly purchases of public and private sector securities will amount to €60 billion. They are intended to be carried out until end-September 2016 and will in any case be conducted until the Governing Council sees a sustained adjustment in the path of inflation which is consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term.

The asset purchase programme has already produced a substantial easing of broad financial conditions. In December 2014 and most of January 2015 financial market developments were to a large extent driven by market expectations regarding the announcement of the APP. In this context, euro area bond yields declined across instruments, maturities and issuers and in many cases reached new historical lows. Since the declines in yields on AAA-rated long-term euro area sovereign bonds coincided with increases in equivalent US bond yields, the decoupling of euro area and US government bond yields continued. Yields on lower-rated euro area sovereign bonds also fell, but were more volatile amid uncertainty about Greece's continued access to financial assistance. Spreads on investment-grade corporate bonds continued their decline, while ABS spreads remained broadly stable. Following the APP announcement, euro area bond yields fell further, while stock prices in the euro area increased considerably. The euro's exchange rate has weakened significantly over recent months.

Favourable developments in financial markets have led to lower bank funding costs, which have gradually been passed on to the cost of external finance for the private sector. The ECB's monetary policy measures have resulted in an improvement in bank financing conditions, with yields on unsecured bank bonds declining to historical lows in the fourth quarter of 2014. This improvement has been gradually passed through to bank lending rates for households and non-financial corporations (NFCs), which in the third and fourth quarters of 2014 fell substantially. The reduction in bank funding costs and in bank lending rates in the second half of 2014 can be partly attributed to the TLTROs, which are designed to improve banks' access to longer-term liquidity and stimulate credit growth in the real economy. The TLTROs should also have helped narrow margins on loans to euro area households and NFCs. In order to underpin the effectiveness of the TLTROs in supporting lending to the private sector, the Governing Council decided at its January meeting that the interest rate for the remaining TLTROs would be equal to the rate on the Eurosystem's main refinancing operations, thus removing the 10 basis point spread over the MRO rate that applied to the first two TLTROs. The ECB's monetary policy measures appear to have also promoted a narrowing of the cross-country dispersion of borrowing costs, especially for NFCs, although credit conditions remain heterogeneous across countries. The nominal cost of non-bank external finance for euro area NFCs continued to decrease in the fourth quarter of 2014 and in the first two months of 2015, as a result of a further decline in both the cost of market-based debt and the cost of equity.

Recent data also indicate a firming of money and credit dynamics. Annual growth in the broad monetary aggregate M3 is still supported by its most liquid components, with the narrow monetary aggregate M1 growing robustly. Bank lending to the private sector has continued to recover, confirming the occurrence of a turnaround in loan dynamics at the beginning of 2014. In particular, the decline in loans to NFCs has continued to moderate over recent months, while the growth of loans to households has stabilised at positive levels. Moreover, the January 2015 euro area bank lending survey confirmed the assessment that credit supply constraints were gradually receding and demand for loans was recovering. Overall, recent developments suggest that the ECB's monetary policy measures are contributing to an easing of bank lending conditions and, more generally, to restoring the proper functioning of the monetary policy transmission mechanism.

The substantial additional easing of the ECB's monetary policy stance supports and reinforces the emergence of more favourable developments in euro area economic activity. The economic recovery firmed gradually in the second half of 2014. Real GDP increased by 0.2%, quarter on quarter, in the third quarter of the year, and, according to Eurostat's flash estimate, by 0.3% in the fourth quarter, which was somewhat higher than previously expected. Short-term indicators and survey results point to a further improvement in economic activity at the beginning of 2015. It appears that euro area activity has been supported by the significant fall in oil prices since July 2014. An environment of improving business and consumer sentiment will support the effective transmission of the policy measures to the real economy, contributing to a further improvement in the outlook for economic growth and a reduction in economic slack.

The economic recovery is expected to strengthen and broaden gradually. Growth in activity is expected to increase on account of the recent improvements in business and consumer confidence, the sharp fall in oil prices, the weakening of the effective exchange rate of the euro and the impact of the ECB's recent monetary policy measures. The accommodative monetary policy stance – substantially reinforced by the APP – is expected to support real GDP growth in both the short term and beyond. Furthermore, the progress made in structural reforms and fiscal consolidation should gradually benefit the real economy. Exports should be supported by gains in price competitiveness and the global recovery.

At the same time, several obstacles to a stronger pick-up in activity persist. These include primarily the ongoing balance sheet adjustments in various sectors and the rather slow pace at which structural reforms are being implemented. In addition, diminishing but ongoing uncertainty related to the European sovereign debt crisis and geopolitical factors are dampening growth in the euro area.

The March 2015 ECB staff macroeconomic projections for the euro area,[1] which incorporate the estimated impact of both standard and non-standard monetary policy measures taken by the Governing Council, foresee annual real GDP increasing by 1.5% in 2015, 1.9% in 2016 and 2.1% in 2017. Compared with the December 2014 Eurosystem staff macroeconomic projections, the forecasts for real GDP growth in 2015 and 2016 have been revised upwards, reflecting the favourable impact of lower oil prices, a weaker effective exchange rate of the euro and the impact of the recent monetary policy measures. In the Governing Council's assessment, risks to the outlook for activity remain on the downside, although they have diminished following the Governing Council's latest decisions and the fall in oil prices.

1 See the article entitled "March 2015 ECB staff macroeconomic projections for the euro area", published on the ECB's website on 5 March 2015.

On the basis of current information, inflation is expected to remain very low or negative over the coming months. Oil prices are a major factor behind HICP inflation having turned negative in recent months. According to Eurostat's flash estimate, annual HICP inflation was -0.3% in February 2015 (up from -0.6% in January). At the same time, HICP inflation excluding energy and food continued on a broadly stable path, remaining at 0.6% in February.

Inflation rates are expected to gradually rise later this year. First, as past declines in energy prices will gradually drop out of the annual rate of change and provided oil prices increase over the projection horizon in line with the upward-sloping oil futures curve, the negative impact from energy prices on headline HICP should fade in 2015 and energy prices should increase headline inflation in 2016 and 2017. The expected pick-up in overall inflation is to a large part driven by this turnaround in energy prices. In addition, the increase in overall inflation should follow from the firming economic recovery, which is supported by the recent monetary policy decisions. The firming recovery is expected to result in a significant narrowing of the negative output gap and thus stronger growth of profit margins and compensation per employee. The increase in inflation should also be supported by rising non-energy commodity prices and the lagged effects of the weaker exchange rate of the euro.

The March 2015 ECB staff macroeconomic projections for the euro area foresee annual HICP inflation at 0.0% in 2015, 1.5% in 2016 and 1.8% in 2017. Compared with the December 2014 Eurosystem staff macroeconomic projections, the forecast for inflation in 2015 has been revised down, mainly reflecting the fall in oil prices, while the projection for 2016 has been revised up, partly reflecting the expected impact of the monetary policy measures.

The March 2015 ECB staff macroeconomic projections are conditional on the full implementation of the ECB's monetary policy measures. The Governing Council will continue to closely monitor the risks to the outlook for price developments over the medium term, focusing, in particular, on the pass-through of the monetary policy measures, geopolitical developments, and exchange rate and energy price developments.

The current focus of monetary policy is on implementation of the measures decided by the Governing Council in January 2015. Based on its regular economic and monetary analyses, and in line with its forward guidance, the Governing Council decided at its meeting on 5 March 2015 to keep the ECB interest rates unchanged. It also provided further information on aspects of the implementation of the APP. Purchases of public sector securities in the secondary market under this programme started on 9 March 2015.

I EXTERNAL ENVIRONMENT

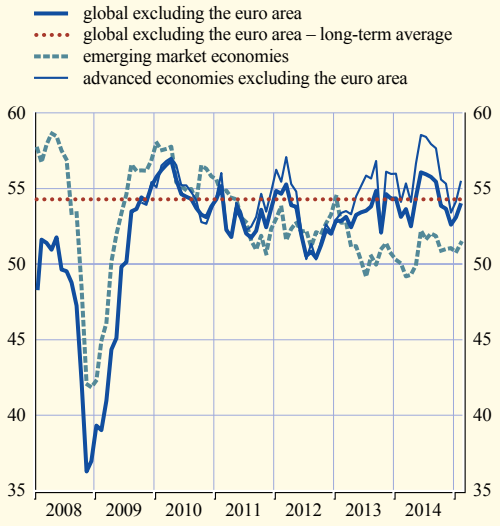
Global growth is recovering gradually, albeit unevenly, across economies. On the one hand, the significant fall in oil prices is expected to boost global activity, supported by a robust outlook for growth in the United States. On the other hand, the deteriorating situation in some emerging market economies is weighing on the outlook for global growth. Global inflation has moderated in recent months. Annual rates of inflation are likely to remain low in the near term in view of the past decline in oil prices and to rise only gradually thereafter as the global recovery continues. Risks to global activity remain on the downside.

The global economy is continuing along a path to gradual recovery. Following the pick-up in global growth in mid-2014, available country data point to a slight softening in global growth outside the euro area towards the end of the year. Latest surveys indicate a stable growth momentum in early 2015. The global composite output Purchasing Managers' Index (PMI) excluding the euro area edged up in February, although divergences across regions remain (see Chart 1).

Lower oil prices are expected to boost global demand. Brent crude oil prices declined sharply in December and January, before rebounding somewhat in February to stand at USD 61 on 4 March 2015, almost half the level of one year ago (see Chart 2). According to the futures curve, markets have priced in a gradual increase in oil prices for the coming years. While part of the decline in oil prices over the past year can be attributed to relatively subdued global demand, it is mainly due to increased supply. Abundant supply from North American shale oil, higher than expected production in Russia, Libya and Iraq, despite geopolitical tensions, combined with the decision of OPEC not to cut production at the November 2014 meeting, have all contributed to a reassessment

Chart 1 Global composite output PMI

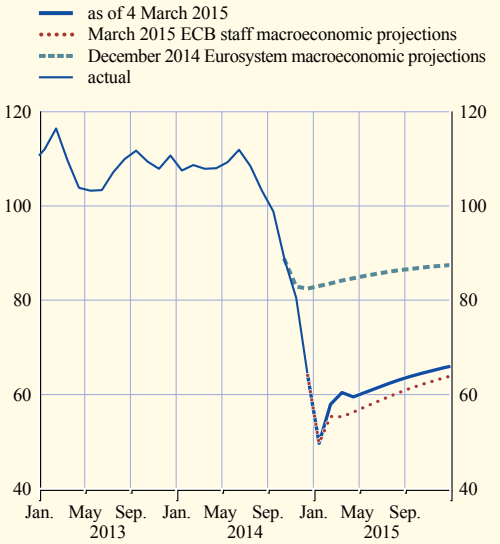
(diffusion index)



Source: Markit.
Notes: The latest observation is for February 2015. The "long-term average" refers to the period from 1999 onwards; "emerging market economies" refers to Brazil, China, India and Russia; "advanced economies" refers to Japan, United States and United Kingdom.

Chart 2 Oil prices – actual and futures

(in USD per barrel)



Sources: Bloomberg and ECB staff calculations.
Note: Monthly data; for the actual oil price the latest observation is for February 2015.

of supply-demand dynamics by market participants and a sharp drop in oil prices. Lower oil prices are expected to benefit net oil-consuming countries, while weighing on prospects for oil exporters. On balance, however, it is likely that they will support global demand, as oil-importing countries, which benefit from the price decline, tend to have a higher propensity to spend than oil-exporting countries.

Robust growth in the United States is also supporting the global outlook. Activity remained strong in the last quarter of 2014, led by personal consumption and residential investment. The labour market also continued to improve, with employment expanding at a vigorous rate. Looking ahead although the appreciation of the US dollar will temper export growth, a sustained upturn in domestic demand is expected, supported by continued accommodative financial conditions and a moderating fiscal drag. Waning household deleveraging, continued improvements in the labour and housing markets, and the boost to real incomes from lower oil prices are expected to support private consumption. Improved confidence, stronger demand and low interest rates are likely to spur business investment, offsetting lower capital expenditure in shale oil industries.

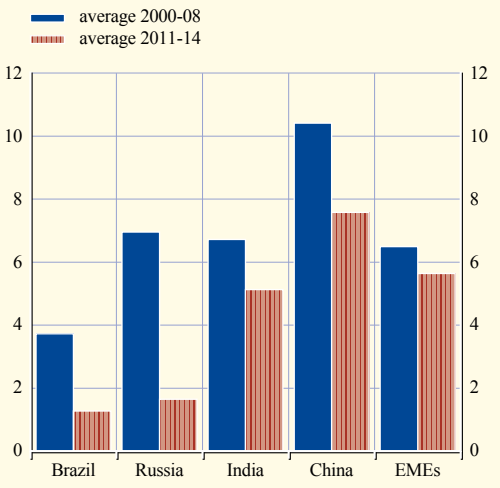
The growth momentum in most other advanced economies outside the euro area has also firmed up. In Japan, after the slump in activity following the VAT hike in April last year, growth resumed in the fourth quarter of 2014. Looking ahead the underlying drivers of growth are expected to strengthen slowly, benefiting from the gains in household real incomes provided by the lower oil price, the boost to export growth from the recent depreciation of the Japanese yen and lower fiscal drag following the government announcement that additional stimulus would take place in the next fiscal year. Despite some softening in the fourth quarter of 2014, the UK economy is also continuing to expand at a relatively robust pace. Looking ahead although continued fiscal consolidation efforts are expected to dampen growth, falling energy prices and accelerating wage growth should support real disposable incomes and private consumption. In addition, the recovery in demand and easing of credit conditions should spur business investment. At the same time the abrupt appreciation of the Swiss franc following the decision in January by the Swiss National Bank to abandon the cap on the Swiss franc/euro exchange rate is expected to have a significant adverse impact on the country's economic outlook, chiefly through lower exports.

Near-term prospects have improved in some emerging market economies, particularly in oil-importing countries. In China, while the housing market slowdown weighed on growth in the fourth quarter of 2014, the decline in oil prices, continued robust consumption, recent monetary easing and modest fiscal stimulus are expected to provide some temporary support for the economy. However, the Chinese political leadership has placed increasing emphasis on tackling financial fragilities and macroeconomic imbalances in a longer-term perspective. As the economy moves towards a more sustainable path, growth is likely to moderate. Lower growth in China will have knock-on effects on those Asian economies with which it has close economic and financial links, but many countries in emerging Asia should benefit in the short term from the boost from lower oil prices to real disposable incomes. In particular, confidence remains high in India amid signs that the growth momentum is improving. As an oil-importing country, it will benefit from the lower oil prices, which help to contain both inflation and the current account deficit, while allowing the government to cut fuel subsidies and support fiscal consolidation. Central and eastern European countries are also expected to benefit from strengthening domestic demand, as improved labour market dynamics and the recent decline in oil prices are expected to support household consumption.

Elsewhere, the outlook is for weaker activity. In Latin America, medium-term prospects appear to be weaker than previously expected following a period of disappointing growth outturns, as growth has been dampened by supply-side bottlenecks and high domestic imbalances in some key economies (see Chart 3). Lower oil prices are also weighing on the prospects of oil exporters. In particular, in Russia, the recent turmoil in financial markets is expected to push the economy into recession in 2015. The sharp depreciation of the rouble and monetary tightening will mean a sizeable increase in financing costs, potentially exacerbating funding problems for firms already facing sanctions that restrict their access to external financial markets. It is expected that household consumption will be affected by high inflation, which weighs on real disposable incomes. With business confidence depressed and uncertainty remaining high, investment is expected to fall. In the medium term, lower energy prices will potentially undermine investment in the exploration of oil and gas deposits. These developments are anticipated to have a negative impact on euro area foreign demand.

Chart 3 Real GDP growth in emerging market economies

(percentage changes)



Source: IMF World Economic Outlook database.
Note: "EMEs" refers to emerging market and developing economies as defined by the IMF.

Global trade lost some momentum towards the end of 2014 and is expected to recover only gradually. The volume of world merchandise imports increased by 1.3% on a three-month-on-three-month basis in December. Having declined in previous months, the global PMI new export order index recovered in December 2014 and stabilised in January 2015, suggesting more resilience in global trade at the turn of the year. Looking further ahead world trade is expected to strengthen at a very moderate pace. In recent years cyclical weakness in business investment, which typically has a high import content, has restrained the pace of global trade. At the same time, structural factors have affected global trade, as firms have reduced the complexity and length of their supply chains, which means that the expansion of global value chains is no longer supporting global trade growth to the same degree as in the past. As a result, although global trade is expected to pick up as cyclical weakness unwinds and global investment recovers, it is unlikely to expand at the same pace as in the 1990s and 2000s, when large emerging market economies were integrating into the global economy, greatly expanding global trading opportunities.

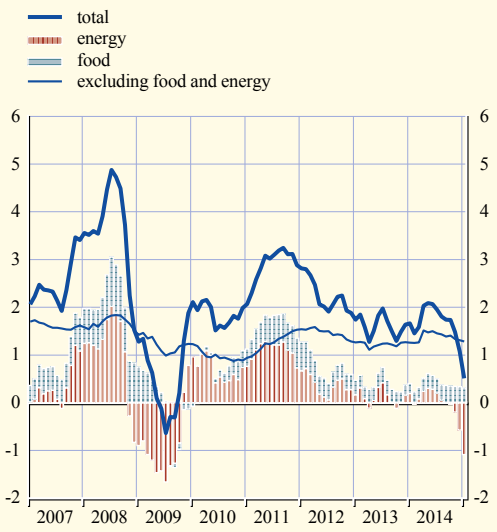
Overall, the global recovery is expected to pick up gradually. According to the March 2015 ECB staff macroeconomic projections, world real GDP growth (excluding the euro area) is expected to rise from 3.6% in 2014 to around 4% in 2016 and 2017.[1] Euro area foreign demand is expected to increase from 2.8% in 2014 to 5.1% by 2017. Compared with the December 2014 projections, expectations for global growth and foreign demand have hardly been revised. This outlook reflects the expectation that the boost to global demand from the fall in oil prices will be broadly outweighed by less favourable prospects in some emerging market economies.

1 See the "March 2015 ECB staff macroeconomic projections for the euro area", available at http://www.ecb.europa.eu/pub/pdf/other/ecbstaffprojections 2015.en.pdf

Risks to the outlook for global activity remain tilted to the downside. While the impact of lower oil prices on the global outlook for growth might be stronger than that embedded in the March 2015 ECB staff macroeconomic projections, in the United States, markets continue to expect the pace of interest rate increases to be slower than envisaged in the latest FOMC projections. As discussed in Box 1, inflationary pressures in the United States are expected to remain limited. However, there is uncertainty regarding the degree of slack in the economy and the extent to which higher demand will lead to higher wage and inflation pressures. A faster normalisation of monetary policies than currently expected by markets could trigger a reversal of risk sentiment. In China, high credit growth and leverage pose risks to financial stability. Geopolitical risks also continue to weigh on the outlook, and a scenario in which tensions between Russia and Ukraine re-escalate would have adverse implications for global growth.

Chart 4 Inflation in the OECD area

(year-on-year percentage changes and contributions in percentage points)



Sources: OECD and ECB calculations.
Notes: The latest observation is for January 2015. The calculation of the contributions is based on ECB staff calculations.

Global inflation has fallen in recent months, driven mostly by declining energy prices. Annual consumer price inflation in OECD countries decreased to 0.5% in January 2015. At the same time annual inflation excluding food and energy has remained more stable (see Chart 4). Outside the OECD countries, inflation in China has also moderated in recent months, as broad disinflationary pressures persist. However, in other large emerging market economies, inflation has increased where currency depreciation has led to higher import prices or a lack of credibility in domestic monetary policy has been reflected in continued high inflation expectations.

Global inflation is expected to remain low in the short term and to rise only gradually thereafter. Ongoing weakness in commodity prices is expected to contribute to low global inflation in the short term. Thereafter the projected pick-up in world economic activity is expected to diminish spare capacity. In addition, the oil price futures curve implies some recovery over the coming years, as do futures prices for non-oil commodities.

2 FINANCIAL DEVELOPMENTS

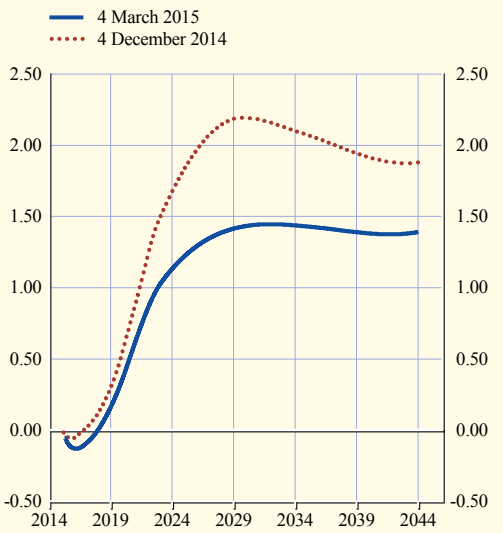
In December 2014 and most of January 2015 financial developments were driven largely by market expectations about the expanded asset purchase programme (APP) which was announced after the meeting of the ECB Governing Council on 22 January 2015. Before the APP announcement, euro area bond yields declined across instruments, maturities and issuers and reached new historic lows in many cases. Yields on AAA-rated long-term euro area government bonds declined while equivalent US bond yields increased, so that the spread between the two widened further. Yields on lower-rated euro area government bonds also declined but they displayed greater volatility, linked to the uncertainty surrounding Greece's continued access to financial assistance. Following the announcement of the APP and in February and March, euro area government bond yields continued to decline. Furthermore, stock prices in the euro area increased significantly. The euro weakened substantially.

The EONIA decreased between early December 2014 and early March 2015 amid higher levels of excess liquidity. It averaged -0.04% over that period, about 3 basis points lower than the average for the previous three months. Box 2 looks at liquidity conditions and monetary policy operations in greater detail.

The announcement of the APP – and the expectations preceding it – resulted in EONIA forward rates declining significantly. From early December 2014 to early March 2015 the EONIA forward curve thus became more inverted, bottoming out at a level of -0.15% for the first eight months of 2016, which is close to the current deposit facility rate of -0.20% (see Chart 5). These developments are consistent with market participants expecting a significant but gradual increase in excess liquidity as a result of the APP announcement. In comparison with early December 2014, in early March 2015 the point at which markets expected the EONIA to return to positive levels moved back by 7 months, from July 2017 to February 2018. A broadly similar development was recorded for the future path of the three-month EURIBOR.

Chart 5 EONIA forward rates

(percentages per annum)

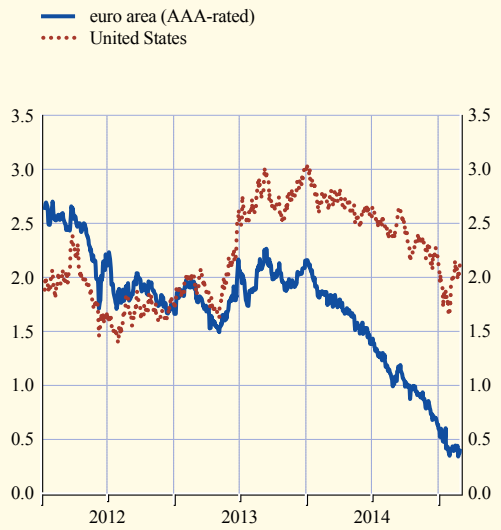


Sources: Thomson Reuters and ECB calculations.

Yields on AAA-rated euro area government bonds also declined owing to expectations relating to the APP announcement (see Chart 6). However, being directly affected by the APP – and also benefiting from reductions in liquidity risk premia – yields on longer-term AAA-rated government bonds declined slightly more strongly than EONIA swap rates. As a result, yields on 10- and 30-year AAA-rated government bonds declined between early December and early March by about 50 basis points, standing at 0.4% and 1.1% respectively on 4 March. Yields on shorter-term bonds, such as AAA-rated two-year government bonds, also declined, moving into negative territory in some countries.

Chart 6 Ten-year government bond yields

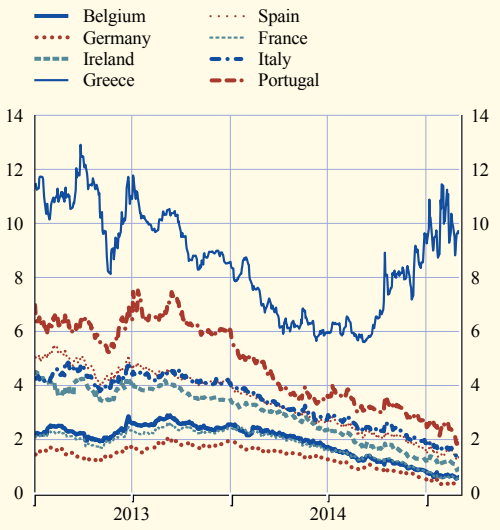
(percentages per annum)



Sources: EuroMTS, ECB and Bloomberg.
Note: The euro area bond yield is based on the ECB's data on AAA-rated bonds, which currently include bonds from Austria, Finland, Germany and the Netherlands.

Chart 7 Ten-year government bond yields in selected euro area countries

(percentages per annum)



Source: Thomson Reuters.

Yields on lower-rated euro area government bonds (except Greek bonds) also declined, but displayed greater volatility. From early December 2014 to early March 2015, declines in yields tended to be stronger for lower-rated government bonds than for higher-rated ones, partially reflecting an increased "search for yield" in response to low – and falling – yields. Although the increased uncertainty surrounding Greece's continued access to finance exerted some upward pressure on the yields of lower-rated euro area government bonds (see Chart 7), the new agreement reached in the Eurogroup in late February 2015 generally helped to contain this upward pressure. In particular, the spreads between the yields of ten-year Greek and German government bonds increased by around 250 basis points between early December 2014 and early March 2015, while the equivalent spreads between German government bonds and those of other euro area countries either remained stable or declined.

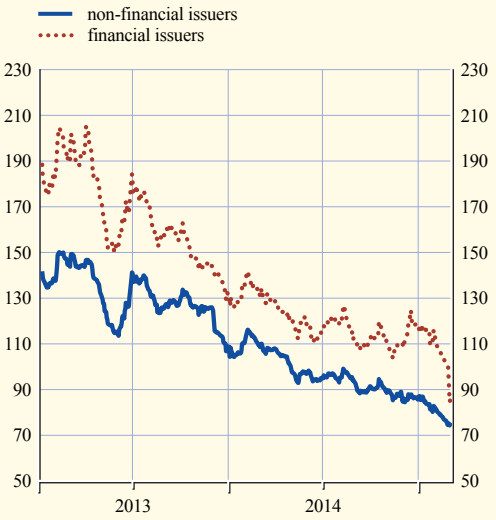
Uncertainty in the euro area government bond market increased somewhat, as indicated by a slight rise in option-implied volatility. This may reflect uncertainty surrounding Greece's continued access to finance, as well as some uncertainty regarding the specific details of the APP's implementation.

The decoupling of euro area and US government bond yields continued. The spread between US and euro area AAA-rated bond yields increased between early December 2014 and early March 2015, standing at around 180 basis points at the beginning of March. This spread started to increase in mid-2013 and since then the decoupling trend has continued, with the spread recently reaching the widest point on record since the data series began in September 2004. This divergence in yields is consistent with the growing market perception that the two economies are in different cyclical positions and with market expectations about future monetary policy in the two areas.

Spreads on investment-grade corporate bonds continued to decline. Corporate bond spreads – for both financial and non-financial issuers – declined further over the past few months (see Chart 8) and thus remained low, close to the levels observed prior to the onset of the financial crisis. This was probably fuelled by expectations that the APP would result in portfolio-rebalancing effects and, in connection with that, an increased search for yield. Moreover, the APP can be expected to further reduce the cost of finance and increase corporate revenue, thereby reducing the perceived probability of default on corporate bonds. Spreads for financial issuers declined more than spreads for non-financial issuers, possibly reflecting market sentiment on progress made with the ongoing re-capitalisation of financial institutions in the euro area (see also Section 5 on money and credit). Spreads on asset-backed securities remained broadly stable.

Chart 8 Option-adjusted spreads of euro-denominated corporate bonds in the euro area

(basis points)

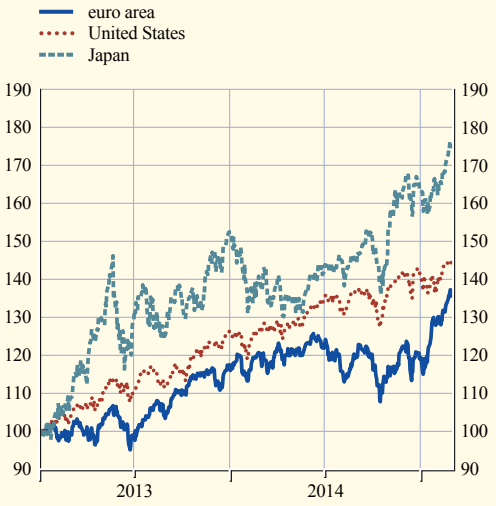


Sources: iBoxx and ECB.

Stock prices in the euro area increased significantly. From early December 2014 to early March 2015 they increased by around 13.0%, thereby outperforming stock markets in both the United States and Japan (see Chart 9). Most of the gains in the euro area were recorded immediately after the announcement of the APP (which led to a decline in the expected future cost of financing, and thus had a positive effect on the discounted value of expected future corporate earnings). In late February the fact that the Eurogroup agreed to extend Greece's financial assistance programme also helped to increase the appetite for risk. However, the price-to-book value ratios of euro area stocks remain below the levels observed prior to the financial crisis, suggesting that investors continue to have somewhat subdued expectations regarding future corporate earnings and/or that they still require a relatively high level of compensation for the risk of investing in equity. This is particularly true of financial shares, the prices of which remain well below the peaks observed prior to the financial crisis. Stock market uncertainty, as measured by implied volatility, increased marginally in both the euro area and the United States over the review period.

Chart 9 Stock price indices

(1 January 2013 = 100)



Sources: Thomson Reuters and ECB calculations.
Notes: The indices used are the Dow Jones EURO STOXX broad index for the euro area, the Standard & Poor's 500 index for the United States and the Nikkei 225 index for Japan. Latest observation 4 March 2015.

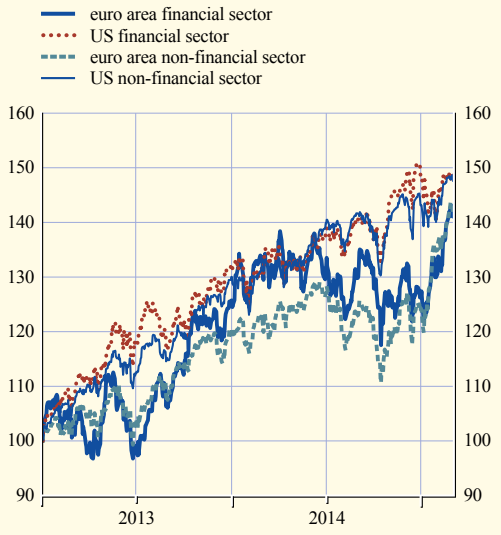
Stock price increases were stronger in the non-financial sector than in the financial sector. The prices of financial shares rose by

around 10% from early December to early March, while those of non-financial shares increased by slightly more than 14%. The relative weakness of the financial sector was concentrated in the period before the APP announcement, while prices in the two sectors moved broadly in parallel thereafter (see Chart 10).

The effective exchange rate of the euro weakened further over the past few months. The weakening of the euro, which had begun back in May 2014, continued, notably in the run-up to the Governing Council's January 2015 meeting, reflecting market expectations of impending monetary policy decisions. Overall, in early March the effective exchange rate of the euro stood around 10% below the level recorded one year earlier. Box 3 reviews recent movements in the effective exchange rate of the euro. Regarding bilateral exchange rate developments, the euro declined by around 10% against the US dollar between December 2014 and early March 2015. The euro also fell considerably against the Swiss franc following the Swiss National Bank's discontinuation of its minimum exchange rate target of 1.20 Swiss francs per euro in mid-January. The Danish krone

Chart 10 Sectoral stock price indices

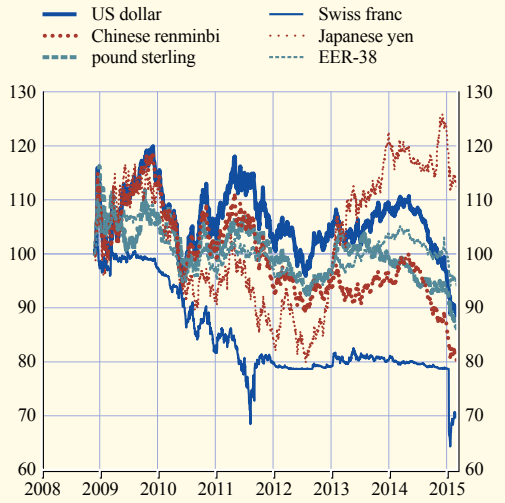
(1 January 2013 = 100)



Source: Thomson Reuters.
Note: Based on Datastream market indices.

Chart 11 Exchange rate of the euro against selected currencies

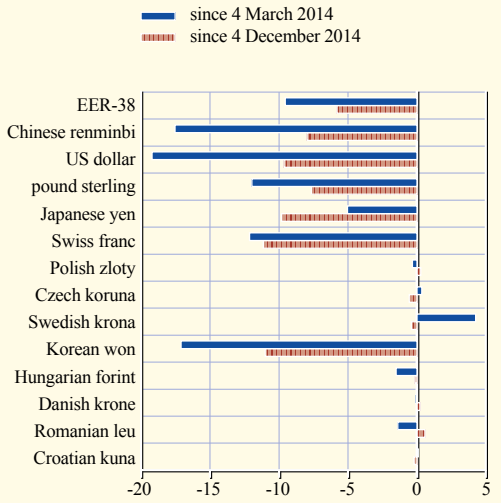
(1 December 2008 = 100)



Source: ECB.
Notes: Latest observation is from 4 March 2015. EER-38 is the nominal effective exchange rate of the euro against the currencies of 38 of the euro area's most important trading partners.

Chart 12 Changes in the exchange rate of the euro against selected currencies

(percentages)



Source: ECB.
Note: Percentage changes up to 4 March 2015. EER-38 is the nominal effective exchange rate of the euro against the currencies of 38 of the euro area's most important trading partners.

continued to trade close to its central rate within ERM II during this period, while Danmarks Nationalbank intervened in foreign exchange markets, and reduced the interest rate on certificates of deposit five times. Moreover, on 30 January the issuance of Danish government bonds was suspended until further notice. At the same time, the euro appreciated significantly against the Russian rouble.

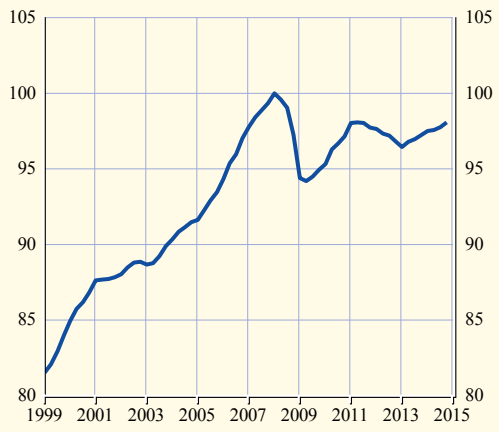
3 ECONOMIC ACTIVITY

The euro area economic recovery has shown a gradual firming since mid-2014 and labour markets have improved. Moreover, a number of factors have recently further supported euro area activity. Lower oil prices are bolstering real disposable income, thus supporting private consumption. The recent depreciation of the euro exchange rate has facilitated exports. The recently announced expanded asset purchase programme (APP) should further contribute to easing financing conditions and enhancing access to credit. Looking forward, economic activity is, therefore, expected to continue to strengthen during the course of 2015 and beyond, driven by both domestic and external demand, although unemployment is expected to remain high. Against this background, the March 2015 ECB staff macroeconomic projections for the euro area foresee a stronger growth outlook compared with the December 2014 Eurosystem staff macroeconomic projections.

Domestic demand strengthened in the second half of 2014. Real GDP increased by 0.3%, quarter on quarter, in the fourth quarter, after 0.2% in the third quarter of 2014. As a consequence, following seven consecutive quarterly increases, real GDP in the euro area returned, in the fourth quarter of 2014, to the level seen in the first quarter of 2011, albeit almost 2% short of its level just before the start of the crisis in 2008 (see Chart 13). Moreover, the strength of the recovery remains uneven across euro area countries. Although no breakdown was available at the time of this Economic Bulletin's cut-off date, economic indicators and country data suggest that domestic demand continued to contribute positively to growth in the fourth quarter of 2014. It also appears that net exports made a positive contribution, as exports are benefiting from the depreciation of the euro.

Chart 13 Euro area real GDP

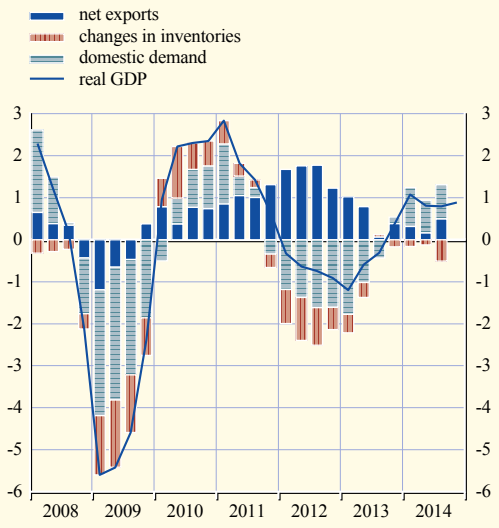
(index Q1 2008=100)



Sources: Eurostat and ECB calculations.

Chart 14 Euro area real GDP growth and its composition

(year-on-year percentage changes and year-on-year percentage point contributions)

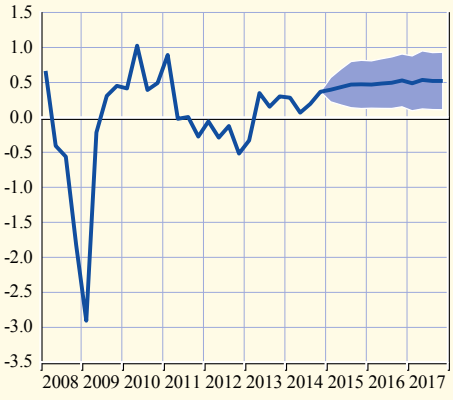


Sources: Eurostat and ECB calculations.
Note: Data up to the third quarter of 2014 are neither seasonally nor working day-adjusted. GDP growth for the fourth quarter of 2014 is estimated using the flash estimate, which is seasonally and working day-adjusted.

The basis for the ongoing economic recovery has strengthened visibly over recent months. First, the sharp fall in oil prices, which is largely supply-driven, contributes to a substantial increase in real disposable income. Second, domestic demand will further benefit from the accommodative monetary policy stance, leading to ongoing improvements in financial conditions, as well as from the easing of credit supply conditions. Third, euro area activity is expected to be increasingly supported by the gradual strengthening of external demand and the depreciation of the euro. In addition, factors such as weak global demand and the private and public balance sheet adjustments, which had contributed to the recent prolonged years of very weak real GDP growth, are gradually reversing and exerting a more positive influence on economic activity in the euro area. Against this background, both consumer and business confidence are now at levels which are significantly above those observed at the end of 2012.

Chart 15 Euro area real GDP (including projections)

(quarter-on-quarter percentage changes)



Sources: Eurostat and the article entitled "March 2015 ECB staff macroeconomic projections for the euro area", published on the ECB's website on 5 March 2015.
Notes: Working day-adjusted data. The ranges shown around the central projections are based on the differences between actual outcomes and previous projections carried out over a number of years. The width of the ranges is twice the average absolute value of these differences. The method used for calculating the ranges, involving a correction for exceptional events, is explained in the *New procedure for constructing Eurosystem and ECB staff projection ranges*, ECB, December 2009.

These positive developments are also reflected in the March 2015 ECB staff macroeconomic projections for the euro area.[1] The economic recovery in the euro area is projected to strengthen gradually over the next three years. Positive contributions to growth are expected from domestic and foreign demand. The ECB's recent monetary policy measures should support activity significantly in the near and medium term through a variety of channels. According to the March 2015 ECB staff macroeconomic projections for the euro area, annual real GDP in the euro area is expected to increase by 1.5% in 2015, 1.9% in 2016 and 2.1% in 2017 (see Chart 15).

Consumption growth gained momentum in the latter part of 2014. Private consumption growth in 2014 benefited significantly from rising growth in real disposable income, reflecting stronger wage and non-wage income, less need for fiscal consolidation as well as falling energy prices. Following quarterly growth of 0.5% in the third quarter of 2014, short-term indicators point to a further relatively robust increase in the final quarter of the year. For instance, both retail trade and car registrations increased in the fourth quarter at rates higher than in the previous quarter.

Looking forward, growth in private consumption expenditure is expected to remain a key driver of the pick-up in activity. Private consumption should continue to benefit from the favourable impact of rising wage growth on the back of increasing employment. In addition, the positive impact of the fall in energy prices on real disposable income will continue to support private consumption. However, parts of the gains from lower oil prices will be used for savings initially, as indicated by the expected increase in the households' savings ratio (see Box 4). Survey data point to continued resilient developments in consumer spending. For instance, the European Commission's indicator for euro area consumer confidence, which provides a reasonably good steer on trend

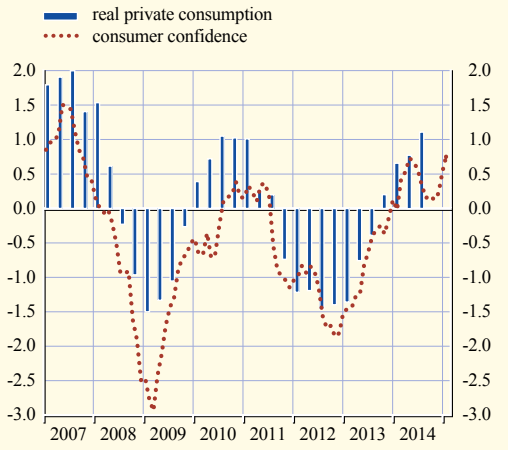
1 See the article entitled "March 2015 ECB staff macroeconomic projections for the euro area", published on the ECB's website on 5 March 2015.

developments in private consumption, improved markedly in January and February 2015, reaching pre-crises levels (see Chart 16).

Investment spending remained subdued in the second half of 2014. Gross fixed capital formation in the euro area declined in the third quarter of 2014, on the back of a decline in construction investment, while non-construction investment remained stable. In the fourth quarter of 2014, total investment is likely to have increased modestly in quarterly terms, reflecting a growing production of capital goods, a marginal increase in capacity utilisation and a pick-up in confidence levels in the capital goods sector. Turning to construction investment, higher construction output, compared with the third quarter, and improving, but still below-average, confidence indicators suggest weak positive growth in the fourth quarter.

Chart 16 Euro area private consumption and consumer confidence

(year-on-year percentage changes; mean-adjusted)



Sources: Eurostat, European Commission and ECB calculations.

Business investment growth is expected to gain momentum in 2015. The Economic Sentiment Indicator (ESI) improved in both January and February to stand above the level of the previous quarter, thus signalling a possible acceleration in investment momentum. Broadly in line with past recoveries following financial crises, the current pick-up in investment has been subdued, hampered by persisting factors, such as impaired balance sheets, in many parts of the corporate sector and the rather gradual unwinding uncertainty stemming from the crisis. In the third quarter of 2014 investment remained almost 17% below its peak in the first quarter of 2008, which led to a sharp decline in the investment-to-GDP ratio (Chart 17). Looking ahead, the recovery of business investment is expected to gain momentum, benefiting from the strengthening in external and overall domestic demand, the need to modernise the capital stock after several years of subdued investment, the very favourable financing conditions, the weaker euro exchange rate and the gradual strengthening in profit mark-ups.

Chart 17 Euro area investment-to-GDP ratio

(percentages)

Sources: Eurostat and ECB calculations.

As for construction investment, a moderate recovery is expected from 2015 onwards, supported by very low mortgage rates in most countries, easing financing conditions, stronger household loans and increasing growth in disposable income. Also the lower need for housing market adjustments in some countries will support residential investment over time.

Net exports are expected to make a modest positive contribution to GDP growth, as exports are being supported by global demand and a weakening of the exchange rate of the euro. Euro area exports of goods and services rose by 1.3%, quarter on quarter, in the third quarter of 2014. In the fourth quarter of 2014, exports to the United States, China and other Asian economies continued to strengthen, while exports to European countries outside of the euro area and to Latin America were subdued. Euro area exports are expected to continue to grow in 2015 and beyond, supported by a gradual strengthening of global demand and the depreciation of the effective exchange rate of the euro. Euro area imports are expected to continue to grow in early 2015 and to further strengthen over the medium term in line with the recovery in domestic demand. As a result, net exports are expected to contribute only modestly to real GDP growth over the projection horizon.

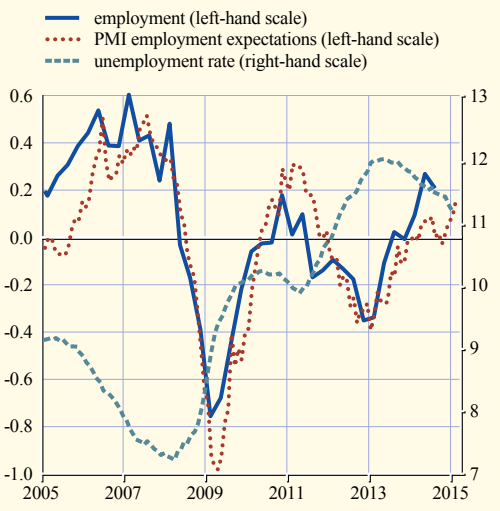
Some factors continue to hinder a stronger pick-up in overall activity. The ongoing balance sheet adjustments in various sectors will continue to exert downward pressure on domestic demand. In this respect, a persisting need for adjustments in housing markets, as also reflected in the continuing fall in house prices in several countries, is dampening residential construction in those euro area countries. In addition, lingering, albeit diminishing, uncertainty surrounding the European sovereign debt crisis and geopolitical factors will continue to weigh on the recovery. The extended period of weak growth experienced by the euro area in recent years has been associated with the correction of macroeconomic imbalances in a number of countries. In this context, Box 5 examines the outcome of the 2015 review under the Macroeconomic Imbalance Procedure.

Risks to the outlook for activity are on the downside, but have diminished following recent monetary policy decisions and the fall in oil prices. Downside risks to the outlook for economic activity include a further increase in geopolitical tensions and renewed sovereign debt market tensions in the euro area. These downside risks are only partly offset by the upside risks relating to a stronger than expected impact of structural reforms and of the EU investment plans on activity.

The euro area labour market situation is gradually improving. Headcount employment (see Chart 18) grew by 0.2%, quarter on quarter, in the third quarter of 2014 (the latest period for which data are available), thus marking the third consecutive quarter of growth. These increases reflect ongoing growth in the services sectors (particularly market-related) and more recent signs of a stabilisation in industry and construction. In the construction sector, the modest headcount growth observed in the third quarter reflects the first positive quarter-on-quarter increase in employment seen since the third quarter of 2007. At the country level, besides positive developments in the German labour market, employment growth was, to a large extent, driven by improvements in countries

Chart 18 Euro area employment, PMI employment expectations and unemployment

(quarter-on-quarter growth; index; percentage of labour force)



Sources: Eurostat, Markit and ECB calculations.
Note: The PMI is expressed as deviations from 50 divided by 10.

with currently high unemployment rates, such as Spain, Portugal and Greece. Total hours worked also increased, quarter on quarter, in the third quarter of 2014, by 0.4%, again somewhat faster than the increases seen in previous quarters, following the rebound from the latest euro area recession. Although survey results are still at low levels, they nevertheless indicate a continuing improvement in employment at the turn of the year. Forward-looking indicators also point to some further improvements in labour market conditions.

Unemployment continues to gradually recede from elevated levels. The euro area unemployment rate stood at 11.2% in January 2015, already 0.6 percentage point lower compared with one year earlier, but still 1.3 percentage points above its lowest trough in April 2011 and 4.0 percentage points above its pre-crisis trough. However, ongoing declines in unemployment rates are now visible across all groups (youth, adult, male and female) and across most euro area economies, although substantial differences remain.

Looking ahead, euro area labour markets are expected to improve further over the short and medium term. While the recent rebound in employment growth has already been stronger than would have been anticipated on the basis of historical relationships, stronger employment growth is expected over the coming quarters, on the back of a strengthening recovery, thus reflecting the positive impact of structural reforms in countries adversely hit by the crisis. As a consequence, the euro area unemployment rate is expected to decline further as the recovery broadens.

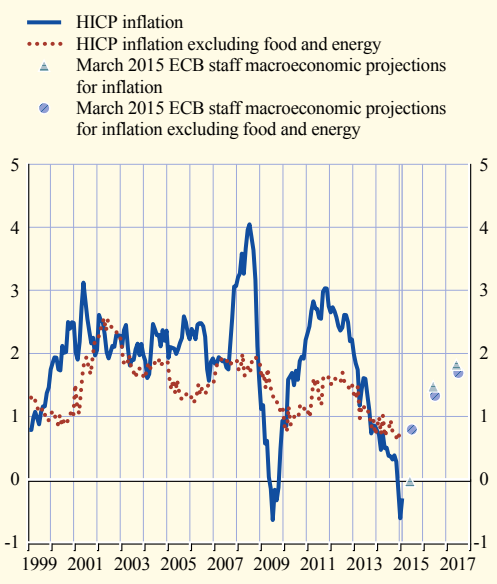
4 PRICES AND COSTS

Global and domestic factors have accounted for the protracted fall in HICP inflation since late 2011, with the recent sharp fall in oil prices having been the main driver behind inflation turning negative in recent months. On the basis of prevailing oil futures prices annual HICP inflation is expected to remain at negative or very low levels over the coming months. The March 2015 ECB staff macroeconomic projections for the euro area expect inflation to average at 0.0% in 2015, but to rise significantly to 1.5% in 2016 and further to 1.8% in 2017. HICP inflation excluding energy and food is expected to rise from 0.8% in 2015 to 1.3% in 2016 and 1.7% in 2017. The recent monetary policy measures are expected to contribute to the increase in inflation over the projection horizon and to underpin the anchoring of inflation expectations. The risks to the outlook for price developments over the medium term will be closely monitored, with a particular focus on the pass-through of the monetary policy measures and geopolitical developments, as well as exchange rate and energy price developments.

Inflation outcomes in recent months have been significantly lower than envisaged in the December 2014 Eurosystem staff macroeconomic projections for the euro area. According to Eurostat's flash estimate, annual HICP inflation stood at -0.3% in February 2015, after -0.6% in January and -0.2% in December 2014 (see Chart 19). The lower than expected outcomes have been due mainly to lower contributions from energy prices, as oil prices have declined sharply since the mid-November cut-off date for the December 2014 projection exercise, which took into account oil futures prices at the time (see Chart 2).

Chart 19 Euro area HICP inflation and HICP inflation excluding food and energy

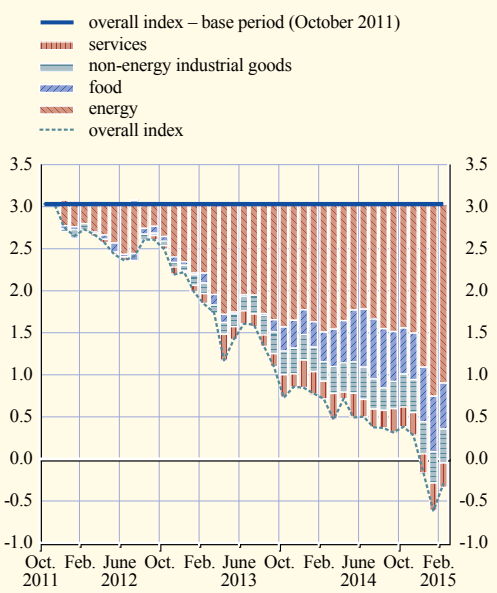
(annual percentage changes)



Sources: Eurostat and ECB staff calculations.
Notes: The latest observations for HICP inflation and HICP inflation excluding food and energy are for February 2015 (flash estimates). The projections data refer to the annual averages for 2015, 2016 and 2017, as in the article entitled "March 2015 ECB staff macroeconomic projections for the euro area", published on the ECB's website on 5 March 2015.

Chart 20 Developments in HICP inflation since October 2011

(annual percentage changes; percentage point contributions)



Sources: Eurostat and ECB calculations.
Notes: The latest observations are for February 2015 (flash estimates). The chart shows the percentage point contribution of the components to the decline in headline inflation since the last peak in HICP inflation in October 2011.

HICP inflation excluding energy and food has continued on a broadly stable path. The low level of underlying inflation can be attributed to a combination of factors, including the lagged effects of the strong appreciation of the euro until May 2014, the process of relative price adjustment in certain euro area countries and the persistent weakness in consumer demand and pricing power. In addition, lower oil and other commodity prices have also exerted downward pressure on HICP inflation excluding energy and food as lower input costs have been passed through the price chain.[1]

The direct effects of the decline in oil prices have dominated recent inflation developments (see Chart 20). The recent decline in oil prices is likely to have largely been passed through to pre-tax prices for liquid fuels. Other typical direct effects, for example via electricity and gas prices, have also contributed to the recent negative inflation outcomes.

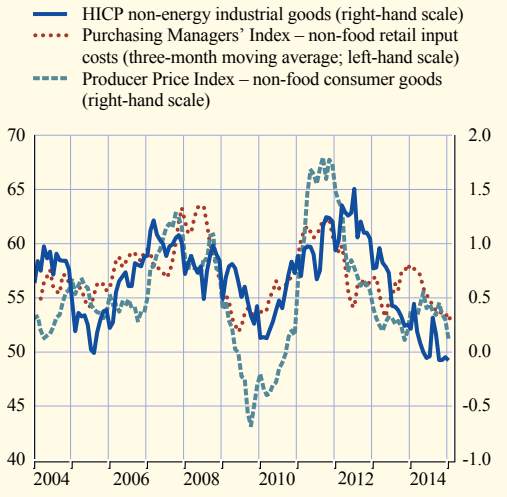
Food prices have also continued to come under downward pressure. In recent months annual inflation rates for unprocessed food prices have edged further into negative territory, while processed food price inflation has moderated further. These developments partly reflect the indirect effects of the declines in agricultural and other commodity prices through the production and price chain.

The lagged impact of the appreciation of the euro until May 2014 and the decline in international commodity prices is still weighing on prices for non-energy industrial goods. It should be noted that many of these items, such as computers and electrical appliances, tend either to be imported or have a relatively high import content. In addition, the lower international oil prices may be exerting downward pressure on prices for non-energy industrial goods, as energy is a major cost factor in the production of such items. In addition to more cyclical factors, there may be more structural influences on the inflation dynamics of these goods at work. Box 6 discusses the potential inflation-dampening effects of e-commerce.

Pipeline pressures for non-energy industrial goods items remain subdued. Producer price inflation for consumer goods, which tends to lead non-energy industrial goods price inflation by around six to twelve months, remained at a low level in January 2015. In addition, survey data on input prices in the non-food retail sector continued to fall in January 2015 (see Chart 21). On the one hand, at the earlier stages of the price chain, the annual rate of change in import prices for intermediate goods has been positive for the second consecutive month as a result of the depreciation of the euro. On the other hand, producer prices for intermediate goods, as well as prices in euro for crude oil and other commodities, remain at subdued levels.

Chart 21 Pipeline pressures at the later stages of the price chain for non-energy industrial goods

(annual percentage changes)



Sources: Eurostat, Markit and ECB calculations.
Note: The latest observations are for January 2015.

1 For a more detailed discussion on indirect effects, see the box entitled "Indirect effects of oil price developments on euro area inflation", *Monthly Bulletin*, ECB, December 2014.

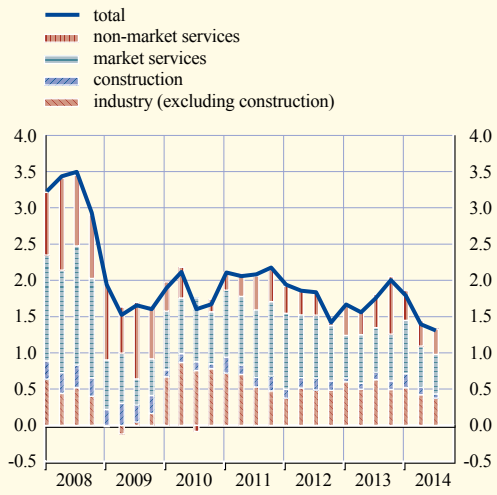
Muted labour cost developments have contained services price pressures. As labour costs tend to constitute a relatively large share of overall costs in the services sector, subdued wage growth has contributed to services price inflation remaining at low but broadly stable levels (see Chart 22). The weakness in wage growth and services price inflation can be attributed to a number of factors. It may to a large extent reflect the high amount of economic and labour market slack in the euro area. Moreover, the indirect effects of lower oil prices have also recently contributed to a decline in the prices of transportation services, such as aviation, where fuels are a major cost factor. In addition, it may indicate higher wage and price flexibility in some euro area countries as a result of structural reforms in labour and product markets in recent years (see Chart 23).

The possibility of second-round effects from lower oil prices needs to be monitored. On the one hand, greater wage flexibility would imply that any downward adjustment may now be more pronounced. On the other hand, a significant scaling-back of automatic wage indexation may imply that any downward adjustment in wage growth is less pronounced than may have previously been the case. In addition, nominal wage rigidities still prevail in many countries, making it more difficult to cut wages in absolute terms.

Survey-based measures of long-term inflation expectations suggest that inflation will gradually return to levels close to 2% (see Chart 24). Following the recent fall in oil prices, survey-based inflation expectations at shorter maturities have declined substantially. However, the decline in long-term survey-based inflation expectations has been much less pronounced than that in market-based expectations. In general, inflation expectations seem to have declined on account of low inflation outcomes, amid declining oil and other commodity prices, as well as weak growth.

Chart 22 Compensation per employee by sector in the euro area

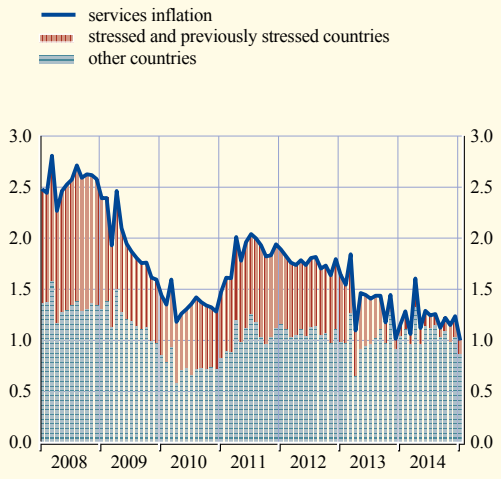
(annual percentage changes; percentage point contributions)



Sources: Eurostat and ECB calculations.
Notes: Data refer to the Euro 18. "Non-market services" covers activities by general government and private non-profit institutions in fields such as general public services, education or health. "Market services" is defined as the remaining difference to total services. The latest observation is for the third quarter of 2014.

Chart 23 Services price inflation in the euro area

(annual percentage changes; percentage point contributions)



Sources: Eurostat and ECB calculations.
Note: The latest observations are for January 2015.

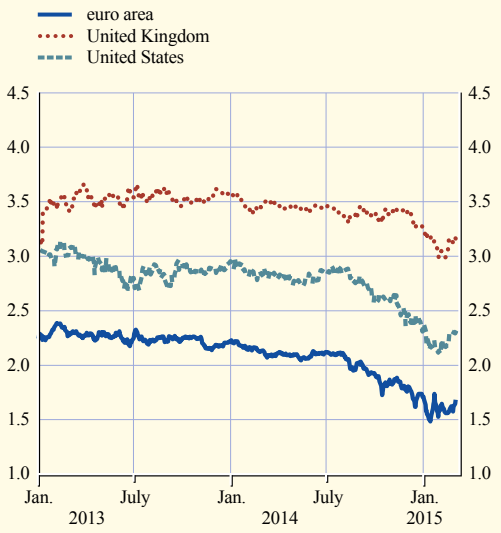
Chart 24 Survey-based measures of inflation expectations

(annual percentage changes)

Sources: Eurostat, Thomson Reuters, Consensus Economics, ECB Survey of Professional Forecasters and ECB calculations.
Note: Consensus Economics forecast data were published in February 2015 for 2015 and 2016, and in October 2014 for the remaining forecast horizon.

Chart 25 Five-year, five-year forward inflation swap rates

(annual percentage changes)



Source: Thomson Reuters.
Notes: Inflation swap rates for the United Kingdom are linked to the UK retail price index. The latest observations are for 3 March 2015.

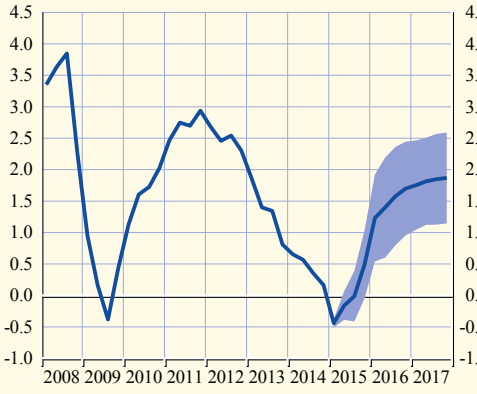
Market-based measures of inflation expectations have fallen further than survey-based measures. The relatively low level of market-based inflation expectations partly reflects the influence of negative inflation risk premia. A negative inflation risk premium means that inflation swap rates and break-even inflation rates are lower than the future level of inflation actually expected by market participants. Such a situation can arise if market participants expect a scenario of lower inflation to be more likely than a scenario of higher inflation. As a result, market participants have a greater preference for holding nominal bonds as opposed to inflation-linked assets, as the real return on nominal bonds would be relatively favourable in such a scenario. The declines in long-term market-based inflation expectations over recent months have also been observed in the United States and the United Kingdom (see Chart 25), and most likely reflect a global rise in negative inflation risk premia.

Looking ahead, HICP inflation is projected to average 0.0% in 2015, but to rise significantly in 2016 and further in 2017. On the basis of the information available in mid-February, the March 2015 ECB staff macroeconomic projections for the euro area expect headline HICP inflation to increase from -0.4% in the first quarter of 2015 to 1.9% in the final quarter of 2017, and to average 0.0% in 2015, 1.5% in 2016 and 1.8% in 2017 (see Chart 26). The projected pick-up in overall HICP inflation reflects an expected turnaround in energy prices, as indicated by the upward-sloping curve in oil futures, the impact of the weaker effective exchange rate of the euro and a significant strengthening in domestic cost pressures as the economy recovers and the negative output gap rapidly narrows.

Improving labour markets and the decline in slack in the economy imply greater domestic price pressures over the projection horizon. Ongoing employment growth and declines in the unemployment rate are projected to sustain a gradual increase in the growth of compensation per employee, with the ongoing cost competitiveness adjustment processes in some euro area countries hampering a stronger pick-up. While growth in compensation per employee is picking up, the resulting cyclical pick-up in productivity implies a flat profile for unit labour cost growth over the next two years. In 2017 the increase in growth in compensation per employee is projected to slightly exceed that of productivity, given that in certain countries wages are expected to catch up on account of the ongoing economic recovery following years of wage restraint. Following a decline in 2015, profit margins are expected to rise over the remaining projection horizon as productivity picks up significantly and economic activity strengthens.

Chart 26 Euro area HICP inflation (including projections)

(annual percentage changes)



Sources: Eurostat and the article entitled "March 2015 ECB staff macroeconomic projections for the euro area", published on the ECB's website on 5 March 2015.
Notes: The ranges shown around the central projections are based on the differences between actual outcomes and previous projections carried out over a number of years. The width of the ranges is twice the average absolute value of these differences. The method used for calculating the ranges, involving a correction for exceptional events, is explained in the *New procedure for constructing Eurosystem and ECB staff projection ranges*, ECB, December 2009.

Non-standard monetary policy measures are expected to contribute to the increase in inflation over the projection horizon via both domestic and external price pressures. The favourable impact of the recent non-standard monetary policy measures on real GDP growth and the resulting faster closing of the output gap are expected to benefit growth in both profit margins and wages. The downward impact of these measures on the exchange rate of the euro implies additional external price pressures via the exchange rate channel. Moreover, favourable effects on confidence levels stemming from these measures should help to stabilise inflation expectations.

The Governing Council of the ECB announced that it will closely monitor the risks to the outlook for price developments over the medium term. Particular attention will be paid to the pass-through of the monetary policy measures and geopolitical developments, as well as exchange rate and energy price developments.

5 MONEY AND CREDIT

Annual growth in broad money (M3) recovered further, but remains at subdued levels. Meanwhile, annual loan growth picked up, confirming a turnaround in loan dynamics at the beginning of 2014 – credit supply constraints are abating gradually and the demand for loans is improving. Overall, recent developments suggest that the ECB's monetary policy measures are helping to restore the proper functioning of the monetary policy transmission mechanism and easing bank lending conditions.

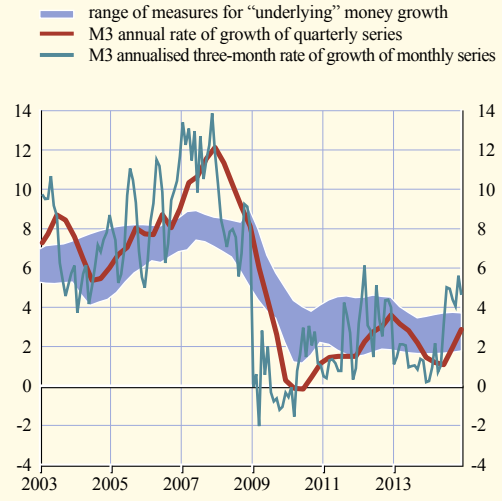
In an environment of very low interest rates, money and loan dynamics improved further. Compared with the third quarter of 2014, monetary indicators point to some positive developments. These are also noticeable both in the supply of and demand for bank credit. However, the growth of loans to euro area non-financial corporations (NFCs) is still weak by historical standards and fragmentation in bank lending rates remains pervasive throughout the euro area.

Recent data indicate a pick-up in underlying growth in M3, but it still remains at subdued levels. The annual growth rate of M3 increased to 2.9% in the fourth quarter of 2014 and to 4.1% in January 2015, up from 2.0% in the third quarter and a trough of 0.8% in April 2014 (see Chart 27). Annual growth in M3 continues to be supported by its most liquid components, with the narrow monetary aggregate M1 growing robustly at an annual rate of 6.7% in the fourth quarter of last year and at 9.0% in January 2015 (compared with 5.7% in the third quarter).

Money-holders focus on overnight deposits. The very low interest rate environment is still providing incentives for money-holders to invest in overnight deposits within M3. M1 benefited from the elevated growth of overnight deposits held by both households and NFCs (see Chart 28). The money-holding sector's preference for the most liquid assets, in particular overnight deposits,

Chart 27 M3 and underlying M3

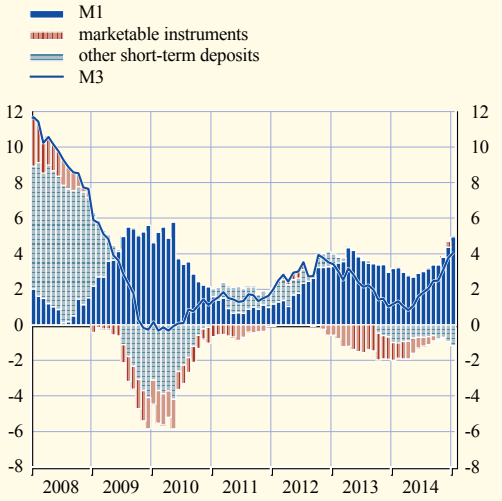
(annual percentage changes)



Source: ECB and ECB calculations.
Notes: The range of measures of underlying money growth includes a univariate and a multivariate filter of money growth, a measure based on a dynamic factor model for a large set of monetary variables, a measure of cyclically-adjusted M3 growth based on a Bayesian vector autoregression model and an exclusion measure (estimate of M3 deposits of households).

Chart 28 M3 and its components

(contributions in terms of the M3 annual percentage change; adjusted for seasonal and calendar effects)



Source: ECB.

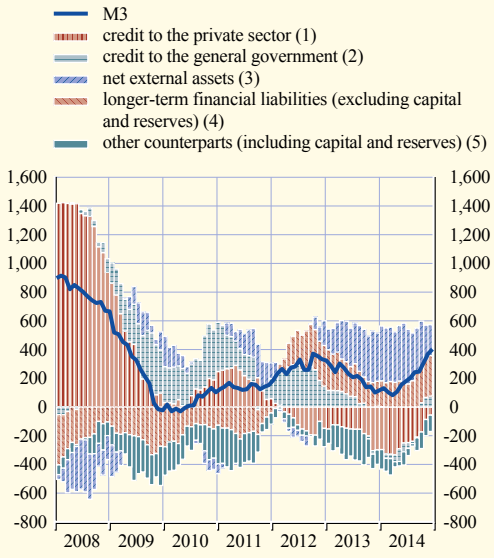
points to a continued build-up of cash buffers. The low (and declining) levels of remuneration for less liquid monetary assets contributed to the ongoing contraction of short-term deposits other than overnight deposits. Furthermore, the growth rate of marketable instruments (i.e. M3 minus M2), which have a relatively small weight in M3, was less negative and reached positive territory at the end of the fourth quarter of 2014. In particular, holdings of short-term debt securities issued by monetary financial institutions (MFIs) remained on a downward path until the fourth quarter of 2014, but the annual growth rate became positive around the turn of the year.

External transactions continue to support broad money growth. An assessment of the counterparts of M3 (see Chart 29) shows that its dynamics were mainly driven by net external assets and by shifts away from longer-term financial liabilities, while the turnaround in loan dynamics was also a positive factor. Relative to its peak in mid-2014, the contribution from the MFI sector's net external asset position moderated significantly in the fourth quarter of 2014 but remains positive, supported by the sizeable surplus in the current account. This moderation may reflect market expectations of lower future returns on euro area assets, particularly among international investors. Support also came from a further decline in the annual rate of change in MFI longer-term financial liabilities (excluding capital and reserves) held by the money-holding sector, which stood at -4.8% in the fourth quarter of 2014 and -5.7% in January 2015, compared with -3.4% in the third quarter.

Banks expanded their balance sheets in the fourth quarter of 2014 – for the first time since mid-2012 (see Chart 30). From end-2011 to April 2014 deleveraging by banks implied a reduction in their total assets of around 6%. This deleveraging process led MFIs to decrease their

Chart 29 Counterparts of M3

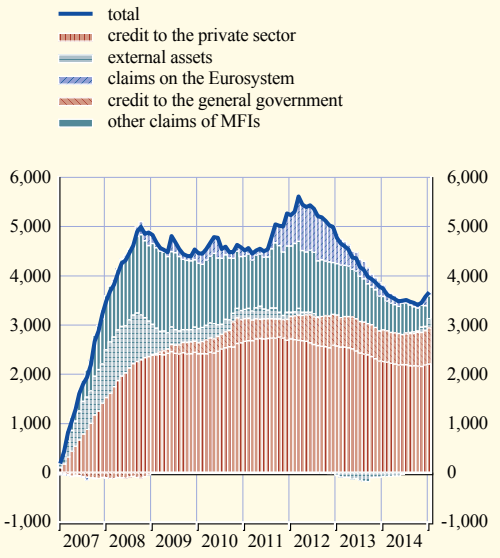
(annual flows; EUR billions; adjusted for seasonal and calendar effects)



Source: ECB.
Notes: M3 is shown for reference only (M3 = 1+2+3–4+5). Longer-term financial liabilities (excluding capital and reserves) are shown with an inverted sign, since they are liabilities of the MFI sector.

Chart 30 Main assets of euro area MFIs

(EUR billions; cumulative flows starting in 2007; adjusted for seasonal effects)

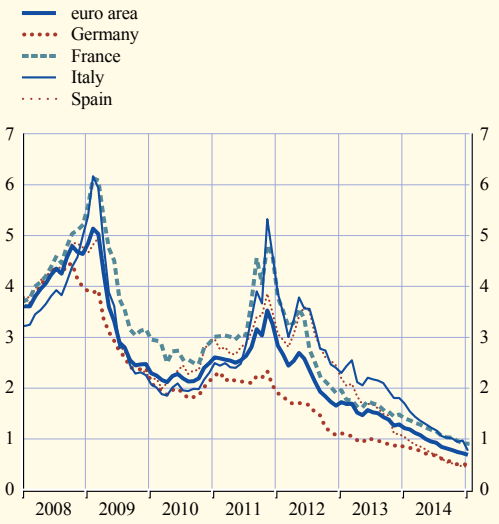


Source: ECB.
Notes: MFI reporting sector excluding the Eurosystem. Total refers to MFI main assets, i.e. some asset categories are not included.

lending activities vis-à-vis the private sector. It comes in response to a period of strong bank balance sheet expansion: between 2005 and 2012, total assets of monetary financial institutions rose significantly, reaching a peak of €33.7 trillion (i.e. 3.55 times euro area GDP), which represents an increase of more than 60 percentage points of GDP.

Chart 31 Banks' composite cost of debt financing

(composite cost of deposit and non-secured market debt funding; annual percentages)



Sources: ECB, Merrill Lynch Global Index and ECB calculations.
Notes: Average of deposit rates on new business and cost of market debt funding weighted with their corresponding outstanding amounts.

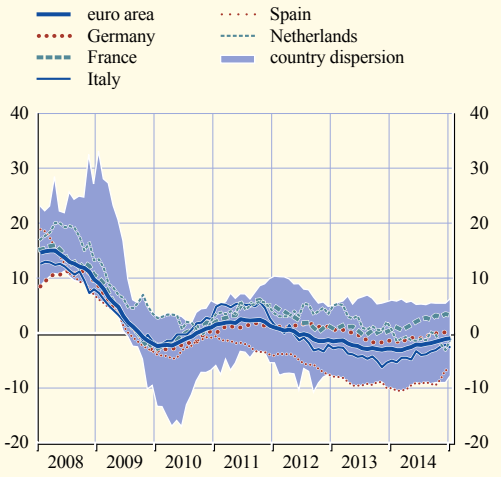
Adjustment processes remained a feature of the banking sector during the fourth quarter of 2014. As shown by the results of the ECB's comprehensive assessment of euro area banks (these were released in October 2014), banks have made substantial efforts to strengthen their balance sheets. Banks have improved their capital ratios partly through higher equity issuance, but also through deleveraging and tighter lending conditions (stricter credit standards, higher spreads on loans). This emphasis on balance sheet adjustments and the marked recent progress in bank capital ratios have helped set the conditions for a sustained improvement in the bank lending channel of monetary policy. Nevertheless, bank profitability remains weak, which may limit banks' ability to extend lending should demand pick up more markedly and weaken the pass-through of lower bank funding costs to bank lending rates.

Banks' funding costs continued to improve in the fourth quarter of 2014. The reduction in bank funding costs is related to the credit easing package (targeted longer-term refinancing operations (TLTROs), the third covered bond purchase programme (CBPP3) and the asset-backed securities purchase programme (ABSPP)). Favourable bank financing conditions are reflected in the yields on unsecured bank bonds, which declined to historically low levels during the fourth quarter of 2014 (see Chart 31), falling to an average of 0.69% in January 2015. Banks' deposit costs decreased further, but there is, as yet, no sign of a general movement into negative territory because of the ECB's negative deposit facility rate. Overall, the composite cost of bank funding keeps on declining against the backdrop of net redemptions of MFI longer-term financial liabilities. Subdued debt issuance activity may reflect supply-side developments as banks consolidated their balance sheets and benefited from the ECB's TLTROs. Furthermore, the January 2015 euro area bank lending survey (see survey at: www.ecb.europa.eu/stats/money/surveys/lend/html/index.en.html) showed that banks' access to funding improved for all main market instruments. New issuance of debt securities benefited the most here, while banks reported a marginal net tightening of their access to long-term deposits and other retail funding instruments.

Recent data confirm a turnaround in loan dynamics during the first quarter of 2015. The contraction in bank lending to the private sector moderated further. Adjusted for sales and securitisation, the annual growth of MFI credit to the private sector continued its recovery in the fourth quarter of last year (standing at -0.3%, compared with -0.9% in the third quarter)

Chart 32 MFI loans to NFCs in selected euro area countries

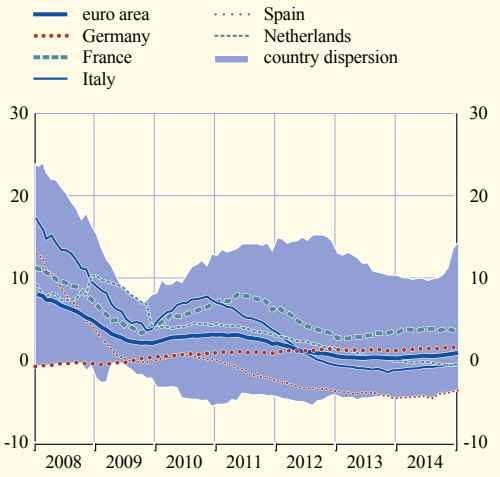
(annual percentage changes)



Source: ECB.
Notes: Adjusted for loan sales and securitisation. The country dispersion is calculated as a minimum/maximum over a fixed sample of 12 euro area countries. Flows adjusted for loan sales and securitisation as of January 2009.

Chart 33 MFI loans to households in selected euro area countries

(annual percentage changes)

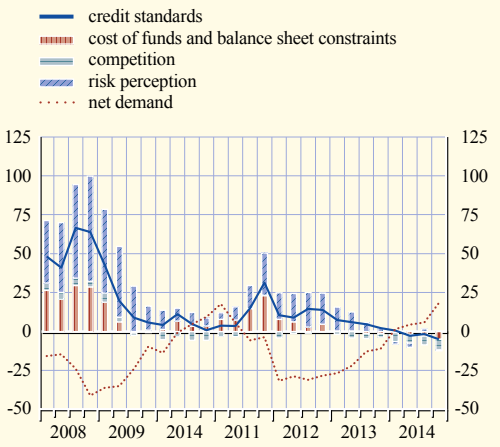


Notes: Adjusted for loan sales and securitisation. The country dispersion is calculated as a minimum/maximum over a fixed sample of 12 euro area countries. Flows adjusted for loan sales and securitisation as of January 2009.

and in January (0.5%). In particular, the decline in loans to NFCs has continued to moderate (see Chart 32), while the growth of loans to households has stabilised at positive levels (see Chart 33). These developments have been supported by the significant decreases in bank lending rates which have been observed in some parts of the euro area since summer 2014, as well as by signs of an improvement in both the supply of and demand for bank loans. Although the subdued economic climate and historically tight lending conditions still weigh on loan provision, recent editions of the euro area bank lending survey confirm the assessment of gradually receding credit supply tensions and point to rising demand for loans. Indeed, the January 2015 bank lending survey shows that increased competition between banks contributed to an easing of credit conditions in the fourth quarter of 2014, which coincided with a pick-up in firms' loan demand (see Chart 34).

Chart 34 Factors contributing to a tightening of credit standards for loans to NFCs and net demand

(average net percentages per category)

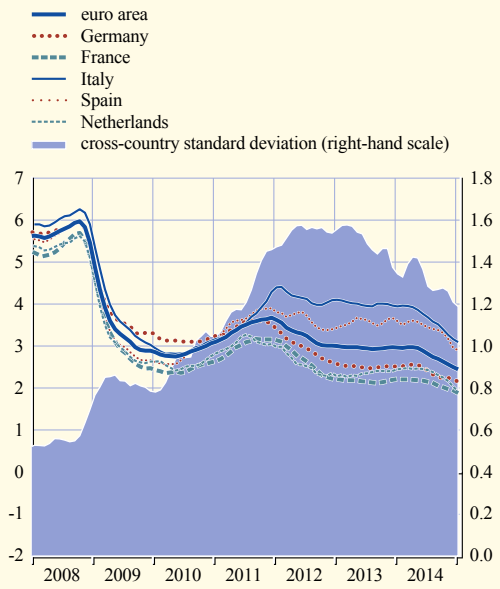


Source: ECB.
Notes: Risk perception as an unweighted average of "expected economic activity" and "housing market prospects"; competition as an unweighted average of "competition from other banks" and "competition from non-banks".

Lower bank funding costs are gradually being passed on to bank lending rates. Since the second half of 2012, banks in all euro area countries have been experiencing a progressive reduction in the cost of debt funding. This positive development is related to the ECB's standard and non-standard measures

Chart 35 Composite indicator of the cost of borrowing for NFCs

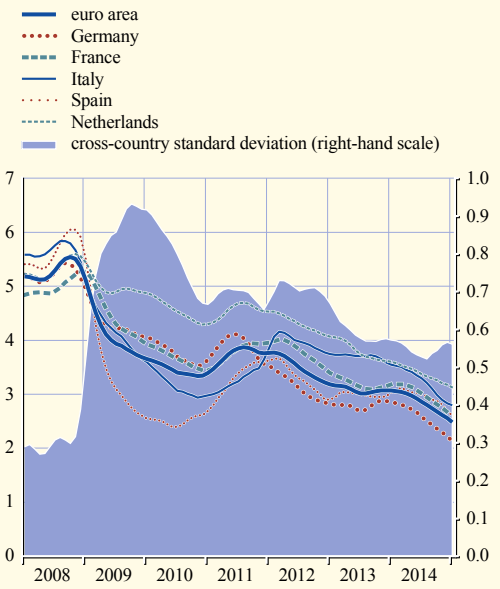
(percentages per annum; three-month moving averages)



Sources: ECB.
Notes: The indicator for the total cost of bank borrowing is calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes. The cross-country standard deviation is calculated over a fixed sample of 12 euro area countries.

Chart 36 Composite indicator of the cost of borrowing for households for house purchase

(percentages per annum; three-month moving averages)



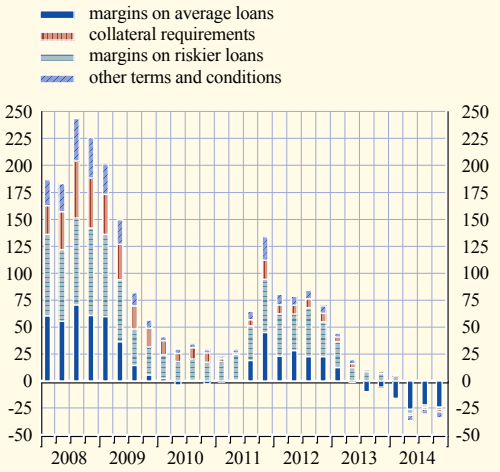
Sources: ECB.
Notes: The indicator for the total cost of bank borrowing is calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes. The cross-country standard deviation is calculated over a fixed sample of 12 euro area countries.

aimed at a more accommodative monetary policy. Although the improvement in banks' funding costs has only slowly been passed on to borrowers in the form of lower bank lending rates, there was significant progress on this front in the second half of 2014 as the composite costs of borrowing for households and non-financial corporations in all euro area countries declined by around 40 basis points (see Charts 35 and 36).

The overall growth in external financing of non-financial corporations in the euro area strengthened somewhat by the end of 2014. Securities issuance data for December 2014 confirm previous data indicating that euro area NFCs' issuance of debt and equity securities is recovering from a weak third quarter. The recovery in external financing was further supported by less negative flows in terms of bank loans. The nominal cost of non-bank external financing for euro area NFCs

Chart 37 Changes in terms and conditions on loans or credit lines to enterprises

(net percentages of banks reporting a contribution to tightening terms and conditions)



Source: ECB.
Note: Other conditions and terms as an unweighted average of "non-interest rate charges", "size of the loan or credit line", "loan covenants" and "maturity".

declined further in the first two months of 2015 owing to the contraction in the cost of market-based debt and the cost of equity, which, in turn, can be mainly attributed to the expanded asset purchase programme (see Section 2).

Divergences in lending rates across countries have started to narrow. The credit easing package adopted in June 2014 appears to have promoted a narrowing of the cross-country dispersion of borrowing costs. Those euro area countries presently displaying weakness in loans to NFCs have experienced particularly strong decreases in bank lending rates for such loans. The January 2015 bank lending survey also shows a further easing of terms and conditions for new loans to NFCs, notably in the form of another narrowing of margins on average loans (see Chart 37). Furthermore, despite some very encouraging developments in credit supply conditions for the euro area as a whole, credit standards remain heterogeneous across countries and sectors.

6 FISCAL DEVELOPMENTS

Fiscal consolidation is expected to continue. Additional structural adjustment will, however, be needed to set the debt ratio firmly on a downward path. Moreover, to strengthen confidence in the European fiscal framework, it is important that the Stability and Growth Pact is fully and consistently implemented. In particular, there is a risk of the debt rule being side-lined.

The aggregate fiscal deficit for the euro area is expected to continue to decline. The March 2015 ECB staff macroeconomic projections for the euro area foresee a steady fall in the aggregate general government deficit ratio, from 2.6% of GDP in 2014 to 1.5% of GDP in 2017 (see Table 1). In 2014 fiscal consolidation was mainly due to the cyclical improvement in the euro area economy, reflecting in particular higher revenues from indirect taxes as a result of stronger private consumption. Looking ahead, the cyclical improvement is expected to continue, which will help to reduce the fiscal deficit ratio further. The fiscal outlook has improved slightly over the December 2014 projections, also on account of lower interest rate payments.

The aggregate general government debt ratio is projected to have peaked in 2014. According to the March 2015 projections, the euro area debt ratio is projected to have increased to 91.7% of GDP in 2014, on account of an adverse interest-growth differential and the debt-increasing impact of the deficit-debt adjustment, which was largely related to financial sector support measures. As of 2015, the euro area debt ratio is expected to decline, falling to 87.9% of GDP by the end of 2017. The decline, which is somewhat stronger than projected in December, is mainly on the back of improving primary balances, strengthening economic growth and low interest rates.

The fiscal stance is expected to be broadly neutral. Following a number of years of substantial fiscal tightening, structural fiscal adjustment was modest in 2014 and, looking ahead, only limited further progress is projected up to 2017. Additional consolidation will be needed in the coming years to set the debt ratio firmly on a downward path. In particular, some euro area countries will have to adopt additional structural measures to ensure compliance with the Stability and Growth Pact (SGP). In its communication in November 2014, the European Commission assessed that the draft budgetary plans of seven countries posed a risk of non-compliance with the SGP. On 27 February, for Belgium, France and Italy, the Commission published detailed follow-up assessments regarding the implementation of the SGP (for an assessment, see Box 7).

Table 1 Fiscal developments in the euro area

(percentages of GDP)

	2012	2013	2014	2015	2016	2017
a. Total revenue	45.8	46.5	46.6	46.5	46.2	46.0
b. Total expenditure	49.4	49.3	49.2	48.7	48.1	47.5
of which:						
c. Interest expenditure	3.0	2.8	2.7	2.5	2.4	2.3
d. Primary expenditure (b - c)	46.4	46.6	46.5	46.2	45.7	45.2
Budget balance (a - b)	-3.6	-2.9	-2.6	-2.3	-1.9	-1.5
Primary budget balance (a - d)	-0.6	-0.1	0.1	0.3	0.5	0.7
Cyclically adjusted budget balance	-3.4	-2.2	-1.9	-1.8	-1.8	-1.7
Structural balance	-3.1	-2.2	-1.9	-1.8	-1.7	-1.7
Gross debt	88.7	90.6	91.7	91.4	89.8	87.9
Memo item: real GDP (percentage changes)	-0.7	-0.4	0.9	1.5	1.9	2.1

Sources: Eurostat and March 2015 ECB staff macroeconomic projections for the euro area.
Notes: The data refer to the aggregate general government sector of the euro area, including Lithuania (also for the period before 2015). The data are in line with the data reported in the article entitled "March 2015 ECB staff macroeconomic projections for the euro area", published on the ECB's website on 5 March 2015. Owing to rounding, figures may not add up.

BOXES

Box 1

ASSESSING US INFLATION DEVELOPMENTS USING THE PHILLIPS CURVE

The recent decline in inflation has been a broadly based phenomenon across major advanced economies, despite differences in the cyclical positions. In the United States, notwithstanding the ongoing robust recovery in economic activity, inflation has been low over the past two years. Headline inflation and inflation excluding food and energy have averaged 1.4% and 1.5% respectively since 2012, implying that prices have not been very responsive to the increasingly robust recovery in the labour market and in economic growth more generally. This box reassesses the empirical relationship between inflation and labour market slack – commonly described as the Phillips curve – and discusses the role of other major drivers of the US inflation outlook.

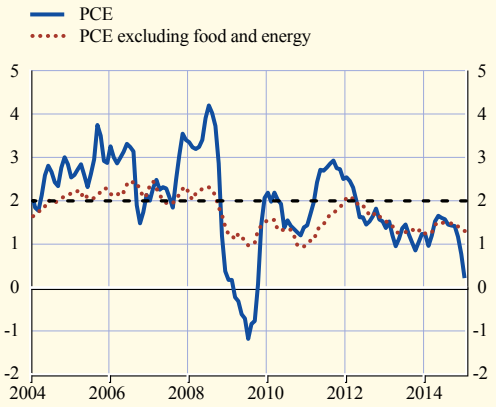
Annual inflation in the United States, measured by the personal consumption expenditure (PCE) deflator, averaged 1.9% over the past decade, broadly in line with the Federal Open Market Committee's (FOMC) longer-run inflation target. However, it exhibited substantial fluctuation around this average value, partly driven by movements in food and energy prices, which led inflation to rise above 4% on an annual basis in mid-2008, followed by a decline into negative territory in early 2009, as oil prices plummeted in response to the global economic crisis (see Chart A). PCE inflation excluding food and energy has generally remained more stable over the past decade, declining only moderately during the latest recession.

The traditional Phillips curve suggests an inverse relationship between inflation and the degree of slack, or spare capacity, in the economy. In order to capture the role of expectations, survey measures of inflation expectations or lagged values of inflation (capturing the so-called adaptive expectations or inflation persistence) are also often included. In augmented Phillips curves, the relationship is expanded with additional variables, such as exchange rates, and commodity or import prices, to capture open-economy aspects and the supply side of the economy.[1]

Since judging the extent of underlying slack in an economy is subject to a significant degree of uncertainty, it is common to employ a variety of indicators.[2]

Chart A US inflation developments

(annual percentage changes)



Sources: Bureau of Labor Statistics and Bureau of Economic Analysis.
Note: The dashed horizontal line is the FOMC's longer-run inflation target.

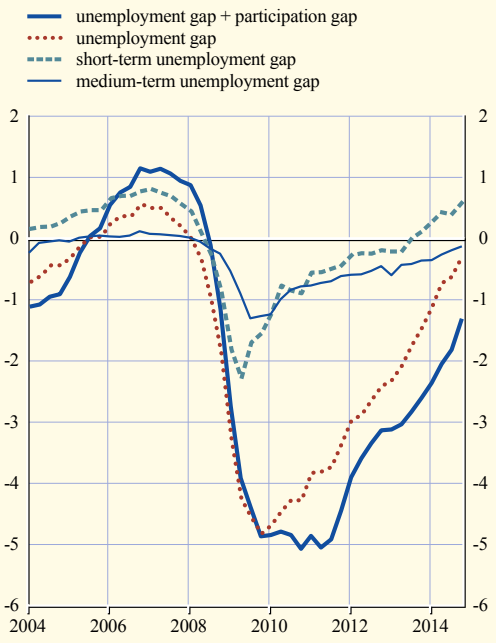
1 Productivity variables are also sometimes included in the Phillips curve. See the triangle model by Gordon, R., "The Phillips Curve is Alive and Well: Inflation and the NAIRU during the Slow Recovery", *NBER Working Paper Series,* No 19390, 2013.

2 At the current juncture, there is a large degree of uncertainty about the extent of slack in the US labour market, in part reflecting a substantial decline in the labour force participation rate, whereby the role of cyclical versus structural factors is strongly debated. See also Box 1 entitled "Is the unemployment rate a sound gauge of labour market developments in the United States?", *Monthly Bulletin*, ECB, April 2014.

Chart B shows four such measures: (i) the unemployment gap, defined as the difference between the non-accelerating inflation rate of unemployment (NAIRU) and the unemployment rate; (ii) the short-term unemployment gap, defined as the difference between the long-term average of the unemployment rate with a duration of up to 26 weeks and the actual data of this series; (iii) the medium-term unemployment gap, i.e. the difference between the long-term average of the unemployment rate with a duration of between 27 and 51 weeks, and the actual data of this series; and (iv) the combined unemployment and participation gap, where the latter is defined as the gap between the structural and actual labour force participation rates.[3] While the short-term unemployment gap suggests that labour market slack had already been eliminated by the third quarter of 2013, the standard and medium-term unemployment gaps point to slack broadly closing by the end of 2014. By contrast, the combined participation rate and unemployment gap indicates the existence of sizeable slack in the US labour market at the end of 2014.

Chart B Measures of labour market slack

(percentages)



Sources: Bureau of Labor Statistics, Congressional Budget Office and ECB calculations.
Note: The NAIRU and potential labour force participation rates are based on annual estimates by the Congressional Budget Office, interpolated by ECB staff.

Phillips curves are commonly used to analyse and explain inflation developments in the United States. While some commentators were surprised that inflation did not decline more during the recent downturn given the severity and length of the latest US recession (commonly referred to as the "missing deflation puzzle"),[4] the estimated Phillips curve models with the four alternative measures of labour market slack, lagged inflation and import prices are able to capture the inflation dynamics since 2008 rather well. Chart C depicts model forecasts for PCE inflation, conditioned on the actual data for labour market slack and import prices. During the US downturn, the forecasts stood above actual inflation rates, mainly owing to rising import and oil prices up to the summer of 2008, which pushed up the inflation forecast. By contrast, from the end of 2009 inflation evolved broadly in line with, although close to the lower end of, the model forecast range.[5] The fact that inflation did not decline more during the downturn is probably related to the persistence of inflation and rising import prices, which both offset the

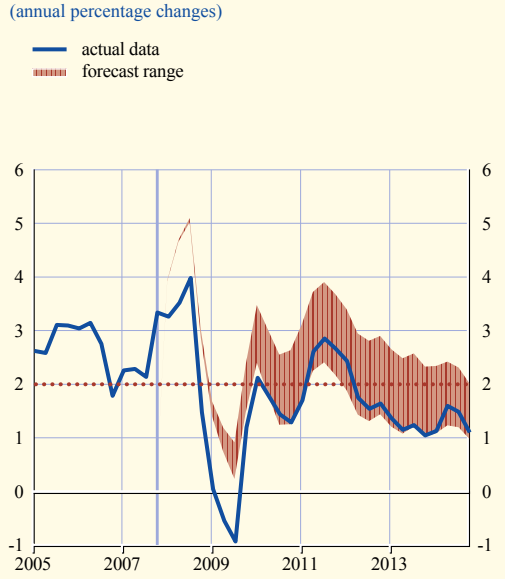
3 Actual developments in labour force participation rates are caused by longer-term (structural) factors, primarily demographic changes, as well as cyclical changes, for example related to discouraged workers that temporarily leave the work force in the face of weak economic prospects. For more details, see "Slack in the labor market in 2014", Congressional Budget Office, 2 September 2014.

4 See, for example, Ball, L. and Mazumder, S., "Inflation Dynamics and the Great Recession", *Brookings Papers on Economic Activity*, Spring 2011.

5 This could be due to the fact that labour market slack may have been larger during the current economic recovery than indicated by some of the various slack measures employed. For example, Janet Yellen, Chair of the Federal Reserve Board, noted that *"the decline in the unemployment rate [...] somewhat overstates the improvement in overall labor market conditions"*, see Yellen, J., "Labor Market Dynamics and Monetary Policy", Speech at the Federal Reserve Bank of Kansas City Economic Symposium, Jackson Hole, Wyoming, 22 August 2014.

Chart C Out-of-sample forecasts for PCE inflation

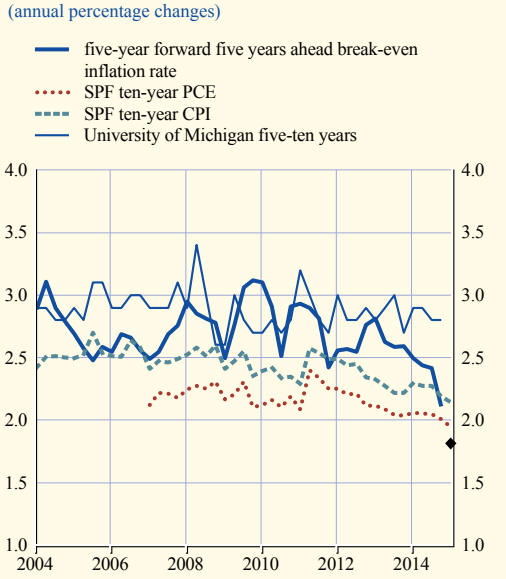
(annual percentage changes)



Sources: Bureau of Economic Analysis and ECB staff calculations.
Note: Dynamic out-of-sample forecasts are for the first quarter of 2008 to the fourth quarter of 2014, with the forecast range derived from four different Phillips curve models augmented with import prices and either the unemployment gap, the short-term gap, the medium-term gap or the combined unemployment and participation gap as slack measures.

Chart D Long-term measures of inflation expectations

(annual percentage changes)



Sources: Federal Reserve Board, University of Michigan, Survey of Professional Forecasters and Bloomberg.
Notes: The break-even inflation rate relates to CPI inflation; the SPF inflation expectations are for PCE or CPI inflation ten years ahead; and the University of Michigan expectations are not related to a specific price index. Market-based inflation expectations data for the first quarter of 2015 are based on an average of daily data up to 25 February 2015.

sharp increase in labour market slack. The increase in central bank credibility, which has resulted in more anchored inflation expectations over time, and the presence of downward nominal wage rigidities have also been put forward in the literature to explain why inflation may have been less responsive to economic slack than in the past.

Looking forward, US inflationary pressures are likely to increase only gradually, as the upward pressure from the ongoing recovery in economic activity is expected to be partially counterbalanced in the near term by oil price and exchange rate developments. Amid the strengthening of economic growth in the United States (see Section 1), the labour market recovery has recently consistently gathered pace. It is anticipated that this will feed gradually into higher price and wage pressures over time. However, other drivers of inflation are expected to act as offsetting forces. First, the sharp decline in oil prices since last summer is expected to lead to a significant decline in headline inflation in the short term, with annual inflation rates turning negative in the first half of 2015. This effect is compounded by the recent appreciation of the US dollar, which is exerting downward pressure on import prices. Both of these effects, however, are expected to fade in the medium term. In the long term inflation expectations should provide an anchor for inflation. While market-based measures of five-year inflation expectations five years ahead have declined substantially since mid-2014 (see Chart D), this could partly be due to a decline in inflation risk premia. Meanwhile, survey measures of long-term inflation expectations have remained more stable and are consistent with a gradual return of inflation to the longer-run goal of the Federal Reserve System.

Box 2

LIQUIDITY CONDITIONS AND MONETARY POLICY OPERATIONS IN THE PERIOD FROM 12 NOVEMBER 2014 TO 27 JANUARY 2015

This box describes the ECB's monetary policy operations during the reserve maintenance periods ending on 9 December 2014 and 27 January 2015, i.e. the eleventh and twelfth maintenance periods of 2014. During the period under review, the interest rates on the main refinancing operations (MROs), the marginal lending facility and the deposit facility all remained unchanged at 0.05%, 0.30% and -0.20% respectively.[1] On 11 December 2014, the second targeted longer-term refinancing operation (TLTRO) was conducted, with €129.8 billion being alloted, compared with €82.6 billion for the first operation.[2, 3] In addition to the new covered bond purchase programme (CBPP3), the first purchases under the new asset-backed securities purchase programme (ABSPP) took place at the end of November 2014.

Liquidity needs

In the period under review, the aggregate daily liquidity needs of the banking system, defined as the sum of autonomous factors and reserve requirements, increased by €26 billion in comparison with the previous review period, that from 13 August to 11 November 2014, to average €605.7 billion. This increase was due to higher autonomous factors, which stood at an average level of €499.4 billion.

The increase in autonomous factors resulted from the combined effects of several components. Where liquidity-absorbing factors are concerned, banknotes in circulation increased by, on average, €24 billion. Developments followed the usual end-of-year pattern, with an increase of €41 billion between 12 November 2014 and 2 January 2015 preceding a decline until the end of the twelfth maintenance period. In addition, government deposits continued to decrease over the last maintenance period under review, to an average of €66 billion, compared with €72 billion in the previous maintenance period that ended in December 2014. Indeed, national treasuries increasingly tried to invest their excess liquidity in the market, which explains the lower volume of government deposits held with the Eurosystem to some extent.

Where liquidity-providing factors are concerned, net assets denominated in euro decreased by, on average, €7 billion to €526 billion. This reflected, among other things, an increase in foreign official institutions' euro denominated deposits with the Eurosystem, and reversed the trend observed in the preceding review period, when some foreign official institutions tried to reduce their cash holdings with the Eurosystem in order to avoid the application of a negative interest rate.

1 MROs continued to be conducted as fixed rate tender procedures with full allotment. The same procedure remained in use for the three-month longer-term refinancing operations (LTROs). The interest rate in each LTRO was fixed at the average of the rates on the MROs over the respective LTRO's lifetime.

2 With respect to the first TLTRO, see the box entitled "Liquidity conditions and monetary policy operations in the period from 13 August to 11 November 2014", *Monthly Bulletin*, ECB, December 2014 (available at: https://www.ecb.europa.eu/pub/pdf/mobu/mb201412en.pdf).

3 In the first two TLTROs conducted in September and December 2014, counterparties were entitled to an initial borrowing allowance equal to 7% of the total amount of their loans to the euro area non-financial private sector as at 30 April 2014, excluding loans to households for house purchase. All TLTROs are conducted as fixed rate tender procedures with full allotment, and the rate is fixed over the life of the operation. For the first two operations, the rate was set at the MRO rate prevailing at the time of the take-up, plus a fixed spread of 10 basis points.

The volatility of autonomous factors increased considerably during the period under review, reversing the decline observed in the previous period. This increase was due primarily to more volatile net assets denominated in euro, as well as to the demand for banknotes, which reflected the end-of-year pattern. Although the volatility of government deposits remained high, it was in line with that observed since the rate cut of September 2014.

The average absolute error of weekly forecasts of autonomous factors increased considerably in the period under review, from €4.8 billion to €8.7 billion, mainly on account of forecasting errors with respect to government deposits. It remains difficult to anticipate investment activities of treasuries against the background of increasingly negative short-term money market rates and volatile excess liquidity.

Liquidity provision

The average amount of liquidity provided through open market operations increased by €61 billion, to €759 billion, in the period under review, on account of both the increase (of €44 billion) in the take-up in tender operations and the increase (of €17.4 billion) in outright portfolios.

Liquidity provided through the tender operations increased to average €546.5 billion, compared with €502.7 billion in the previous period. Overall, the decline resulting from early repayments of the three-year LTROs, in a total amount €111.7 billion, was more than offset by the €129.8 billion allotted in the second TLTRO, as well as by increases of €11 billion and €17.6 billion in the average take-up of the MROs and the three-month LTROs respectively. Given that the maturity of the two three-year LTROs was approaching, the pace of early repayments had accelerated. In particular, some counterparties repaid €39.8 billion on 17 December 2014, to participate into the second TLTRO, which was allotted on the same day.

In addition, the liquidity provided through outright portfolios increased by, on average, €17.4 billion on the back of the implementation of the CBPP3 and the ABSPP. These purchases (€37.2 billion and €2.3 billion respectively at the end of the period under review) largely offset the decline that resulted from the maturity of some bonds in the Securities Markets Programme portfolio, and in the two previous covered bond purchase programmes.

Looking slightly beyond the period under review, the maturity of the first three-year LTRO on 29 January 2015 did not trigger any significant drop in excess liquidity, which remained above €150 billion. Indeed, the repaid amount was partially offset by a higher take-up in both the three-month LTRO and the MRO, and coincided with a temporary decrease in the autonomous factors.

Excess liquidity

Excess liquidity rose by €35.1 billion to average €153 billion over the period under review, with significant differences between the two maintenance periods. In the eleventh maintenance period, excess liquidity decreased slightly to a level of, on average, €105.1 billion, the lowest average level recorded since the settlement of the first three-year LTRO at the end of 2011. In the twelfth maintenance period, by contrast, excess liquidity increased considerably to average €176 billion, notably reflecting the allotment of the second TLTRO and the end-of-year effects.

Excess liquidity fluctuated significantly, especially during the twelfth maintenance period, which was also the first maintenance period with an extended length of 49 days.[4] From a low of €70.9 billion on 24 November 2014, excess liquidity rose to €261.2 billion on 31 December 2014, before declining to €126.5 billion on 27 January 2015, owing to higher autonomous factors and the relative decline in open market operations.

EUROSYSTEM – liquidity situation

	12. November 2014 to 27. January 2015		13. August to 11. November	Twelfth maintenance period		Eleventh maintenance period	
Liabilities – liquidity needs (averages, EUR billions)							
Autonomous liquidity factors	**1,597.1**	**(+35.7)**	**1,561.4**	**1603.6**	**(+17.9)**	**1,585.7**	**(+8.5)**
Banknotes in circulation	996.2	(+23.9)	972.3	1,005.5	(+25.7)	979.8	(+6.2)
Government deposits	68.3	(-5.5)	73.8	66.3	(-5.3)	71.6	(-4.5)
Other autonomous factors	532.6	(+17.3)	515.3	531.7	(-2.5)	534.3	(+6.7)
Monetary policy instruments							
Current accounts	217.8	(+21.4)	196.3	236.3	(+50.8)	185.4	(-2.8)
Minimum reserve requirements	106.3	(+0.9)	105.4	106.2	(-0.2)	106.5	(+0.7)
Deposit facility	41.9	(+14.7)	27.1	50.2	(+23.0)	27.3	(-3.7)
Liquidity-absorbing fine-tuning operations	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)
Assets - liquidity supply (averages, EUR billions)							
Autonomous liquidity factors	**1,098.0**	**(+10.5)**	**1,087.5**	**1,098.6**	**(+1.7)**	**1,096.9**	**(+1.4)**
Net foreign assets	572.0	(+17.4)	554.6	576.4	(+12.2)	564.3	(+2.3)
Net assets denominated in euro	526.0	(-7.0)	532.9	522.2	(-10.4)	532.6	(-0.8)
Monetary policy instruments							
Open market operations	758.6	(+61.2)	697.4	791.3	(+89.8)	701.5	(+0.4)
Tender operations provided	546.5	(+43.8)	502.7	573.4	(+73.9)	499.5	(-8.2)
MROs	113.3	(+11.0)	102.3	119.0	(+15.7)	103.3	(+8.1)
Special-term refinancing operations	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)
Three-month LTROs	43.4	(+17.6)	25.8	49.0	(+15.5)	33.5	(+7.3)
Three-year LTROs	236.4	(-93.7)	330.1	211.5	(-68.5)	280.0	(-23.6)
Targeted LTROs	153.4	(+108.9)	44.5	193.9	(+111.3)	82.6	(+0.0)
Outright portfolios	212.1	(+17.4)	194.7	217.9	(+15.9)	202.0	(+8.6)
First covered bond purchase programme	29.0	(-2.9)	31.9	28.8	(-0.7)	29.5	(-1.4)
Second covered bond purchase programme	12.8	(-0.8)	13.6	12.8	(-0.1)	12.9	(-0.4)
Third covered bond purchase programme	25.0	(+23.9)	1.1	30.5	(+15.2)	15.3	(+12.5)
Securities Markets Programme	144.1	(-4.0)	148.1	144.1	(+0.1)	144.0	(-2.3)
Asset-backed securities purchase programme	1.2	(+1.2)	0.0	1.7	(+1.5)	0.2	(+0.2)
Marginal lending facility	0.4	(+0.2)	0.2	0.5	(+0.3)	0.2	(-0.0)
Other liquidity-based information (averages, EUR billions)							
Aggregate liquidity needs	605.7	(+26.1)	579.6	611.6	(+16.1)	595.4	(+7.7)
Autonomous factors	499.4	(+25.3)	474.1	505.3	(+16.3)	489.0	(+7.0)
Excess liquidity	153.0	(+35.1)	117.8	179.8	(+73.7)	106.0	(-7.2)
Repayment of three-year LTROs [1)]	111.7	(+36.5)	75.2	88.9	(+66.1)	22.8	(-0.7)
Interest rate developments (percentages)							
MROs	0.05	(-0.03)	0.08	0.05	(+0.00)	0.05	(+0.00)
Marginal lending facility	0.30	(-0.03)	0.33	0.30	(+0.00)	0.30	(+0.00)
Deposit facility	-0.20	(-0.03)	-0.17	-0.20	(+0.00)	-0.20	(+0.00)
EONIA average	-0.031	(-0.033)	0.002	-0.047	(-0.044)	-0.003	(+0.000)

Source: ECB
Note: Since all figures in the table are rounded, in some cases the figure indicated as the change relative to to the previous period does not represent the difference between the rounded figures provided for these periods (differing by €0.1 billion).
1) For the repayments of the three-year LTROs the sum in EUR billions is used instead of the average.

4 A new reserve maintenance period calendar was implemented to align it to the new frequency of six weeks for Governing Council meetings.

Given the higher level of excess liquidity, daily current account holdings increased considerably, by €21 billion, on average, to €218 billion, as compared with the previous period. The use of the deposit facility also increased further, from an average of €27.1 to €41.9 billion. In the period under review, relative recourse to the deposit facility increased to 27% of excess reserves[5], compared with an average of 23% during the previous review period. The increasing use of the deposit facility could signal a stronger interest by several counterparties for holding excess liquidity at the deposit facility for operational and regulatory purposes.

Interest rate developments

The EONIA averaged -0.3 basis point and -4.7 basis points in the eleventh and twelfth maintenance period respectively. The decrease in the EONIA resulted from a slightly stronger pass-through of the September 2014 interest rate cut to short-term rates, which could partly relate to generally more ample liquidity conditions and a better acceptance of the possibility of passing the negative deposit facility rate on to the deposit base. However, overnight rates remained well above the deposit facility rate of -20 basis points.

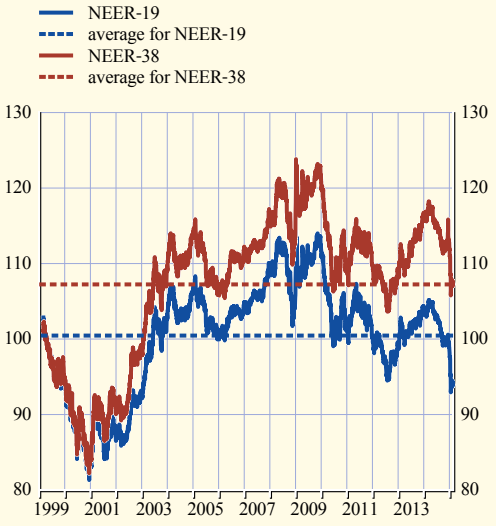
5 Average current account holdings in excess of minimum reserve requirements.

Box 3

RECENT MOVEMENTS IN THE EFFECTIVE EXCHANGE RATE OF THE EURO

The nominal effective exchange rate (NEER) constitutes a useful aggregate measure of the exchange rate fluctuations that affect economies through their trade links, as it combines the various bilateral rates vis-à-vis individual trading partners into a single indicator. For the euro area the two most relevant NEERs are calculated with respect to a narrow and a broad set of trading partners, comprising 19 (the NEER-19) and 38 (the NEER-38) countries respectively.[1]

Chart A Nominal effective exchange rate of the euro (NEER-19 and NEER-38)



Source: ECB.
Notes: The latest observation is for 20 February 2015. "Average" refers to the average since 1 January 1999.

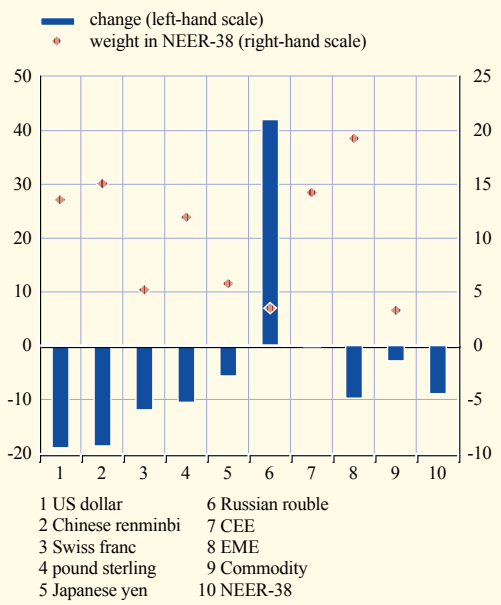
The NEER of the euro has experienced large swings since the outbreak of the global financial crisis. From a longer-term perspective, such large movements are not unusual and had also been observed before the crisis (see Chart A). The euro temporarily fell to a low in summer 2012 in the context of the euro area sovereign debt crisis. As confidence returned, following the ECB's announcement of Outright Monetary Transactions, it rebounded and strengthened continuously until May 2014. Changes in market expectations regarding the ECB's future monetary policy stance relative to that of other major central banks then initiated a period of weakening of the euro, during which the different NEERs, as well as many bilateral euro exchange rates, fell to levels close to (NEER-38) or below (NEER-19) their longer-term averages.

From its post-crisis peak in early May 2014 to its low on 23 January 2015 the broad-based NEER weakened by around 10%, although it has stabilised in recent weeks with the return of capital inflows following the ECB's announcement of its expanded asset purchase programme after the 22 January 2015 Governing Council meeting (see the "Financial developments" section). However, the overall decline since May of last year masks a divergence in the evolution of the different bilateral exchange rates. Decomposing this change into individual contributions (see Charts B and C) shows that while most major currencies contributed to this downward movement, the intensity, persistence and timing of the bilateral patterns differed considerably.

1 The weights, which combine information on both imports and exports, reflect the importance of different countries in euro area trade in manufactured goods (see also Schmitz, M. et al., "Revisiting the effective exchange rates of the euro", *Occasional Paper Series*, No 134, ECB, Frankfurt am Main, June 2012).

Chart B Evolution of selected euro exchange rates and weights in the NEER-38

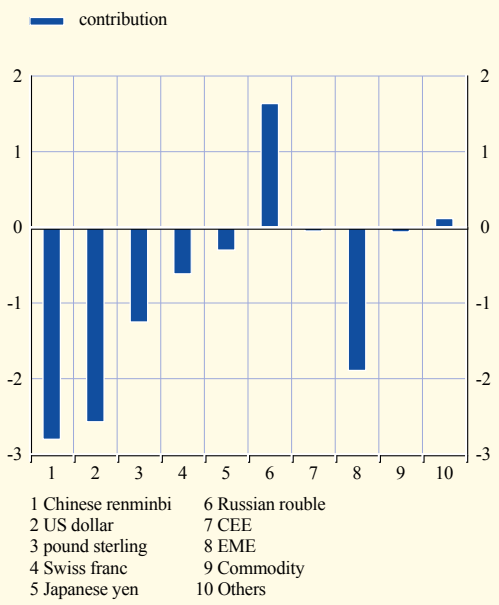
(percentage changes; percentages)



Sources: ECB and ECB calculations.
Notes: "CEE" comprises the Bulgarian lev, the Czech koruna, the Croatian kuna, the Hungarian forint, the Polish zloty and the Romanian leu; "Commodity" comprises the Australian dollar, the Canadian dollar, the Norwegian krone and the New Zealand dollar; "EME" comprises the Hong Kong dollar, the Singapore dollar, the Korean won, the Indonesian rupiah, the Indian rupee, the Malaysian ringgit, the Philippine peso, the Taiwan dollar, the Thai baht, the Argentine peso, the Brazilian real, the Mexican peso, the South African rand and the Turkish lira. The chart covers the period from 6 May 2014 to 20 February 2015.

Chart C Contribution by currency to the change in the NEER-38

(percentage points)



Sources: ECB and ECB calculations.
Notes: "CEE" comprises the Bulgarian lev, the Czech koruna, the Croatian kuna, the Hungarian forint, the Polish zloty and the Romanian leu; "Commodity" comprises the Australian dollar, the Canadian dollar, the Norwegian krone and the New Zealand dollar; "EME" comprises the Hong Kong dollar, the Singapore dollar, the Korean won, the Indonesian rupiah, the Indian rupee, the Malaysian ringgit, the Philippine peso, the Taiwan dollar, the Thai baht, the Argentine peso, the Brazilian real, the Mexican peso, the South African rand and the Turkish lira. "Others" comprises the Danish krone, the Swedish krona, the Algerian dinar, the Chilean peso, the Icelandic krona, the Israeli shekel, the Moroccan dirham and the Venezuelan bolivar. The chart covers the period from 6 May 2014 to 20 February 2015.

Looking at developments in bilateral exchange rates from May 2014 to late February 2015, half the fall in the NEER-38 was accounted for jointly by the US dollar and the Chinese renminbi. The dollar was supported by expectations of further diverging monetary policies in the euro area and the United States, market uncertainty in an environment of declining commodity prices and heightened geopolitical tensions (see Chart C). The dollar gained about 20% vis-à-vis the euro, as did the Chinese renminbi, which accounted for another quarter of the overall depreciation. In contrast to the steady weakening of the euro against these two currencies, the depreciation against the Swiss franc occurred abruptly, after the announcement by the Swiss National Bank on 15 January 2015 that it would discontinue its minimum exchange rate target of 1.20 Swiss francs per euro. The 20% depreciation of the euro vis-à-vis the Swiss currency, which has a weight of around 5% in the NEER-38, made up about one-tenth of the decline in the NEER-38. At the end of the review period the euro also traded lower against the Japanese yen, which was supported by declining risk appetite. The euro depreciated by around 10% against the pound sterling and the currencies of a number of emerging market economies.

The weakening of the broad-based NEER was mitigated by the euro's strengthening by around 40% vis-à-vis the Russian rouble, which came under marked pressure in the context of the tensions in Ukraine. The euro also strengthened against the Swedish krona over the review period, reflecting among other things the recent easing of monetary policy by Sveriges Riksbank (see the "Financial developments" section). The Danish krone, which participates in ERM II, was subject to appreciation pressures vis-à-vis the euro during this period. However, it continued to trade very close to its central rate within ERM II, as Danmarks Nationalbank purchased foreign exchange in the market and lowered interest rates on repeated occasions. The euro also remained relatively stable against the currencies of commodity exporting countries, which came under downward pressure as a result of declining oil prices, as well as against currencies of central and eastern European EU countries.

Box 4

FACTORS BEHIND RECENT HOUSEHOLD SAVING PATTERNS IN THE EURO AREA

The saving-to-income ratio is an important indicator of households' behaviour that has an impact on the dynamics of real private consumption and, more generally, the pace of economic growth. In principle, households' consumption/saving decisions are influenced by a variety of factors. For example, in periods of high uncertainty, households typically increase the share of their disposable income that they save on precautionary grounds. The effects on consumption of adverse but temporary shocks to disposable income, by contrast, are usually mitigated by a decrease in the saving ratio (a mechanism referred to as inter-temporal consumption smoothing).

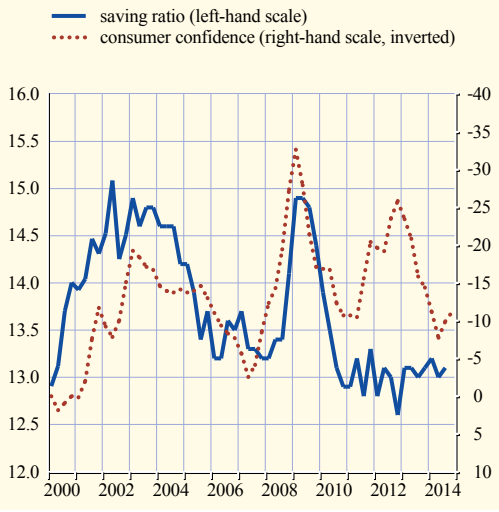
The euro area household saving ratio has stabilised at relatively low levels in recent years, in comparison with the historical average. This stabilisation was due to a number of factors, which have broadly offset one another.

Analysing households' saving behaviour in the euro area from a historical perspective, a number of specific periods can be distinguished, each characterised by a different degree of influence of key driving factors. Before the economic and financial crisis, the saving ratio fluctuated between 13% and 15%. It remained broadly stable in the two years prior to the crisis (see Chart A).

In the first phase of the recession and its aftermath, i.e. in the period from 2008 to 2010, the household saving ratio surged temporarily, driven primarily by faltering consumer confidence, before declining again. The rather high uncertainty prevailing at the time caused the saving ratio to rise to 14.9% in the first quarter of 2009, mainly on account of precautionary

Chart A Euro area household saving ratio and consumer confidence

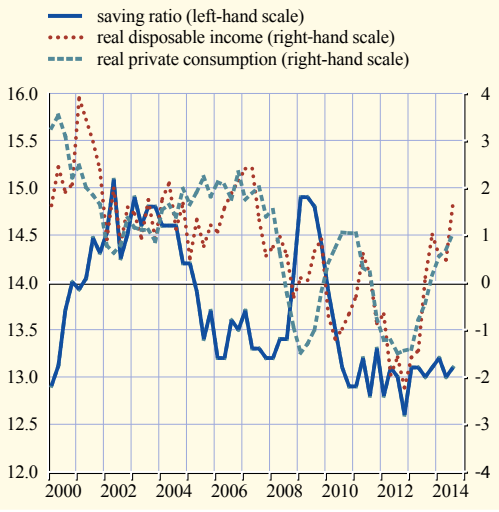
(percentages of disposable income, percentage balances)



Sources: Eurostat and EU Commission, DG-ECFIN.

Chart B Euro area household saving ratio, real disposable income and private consumption

(percentages of disposable income; year-on-year growth rate)



Sources: Eurostat and ECB calculations.

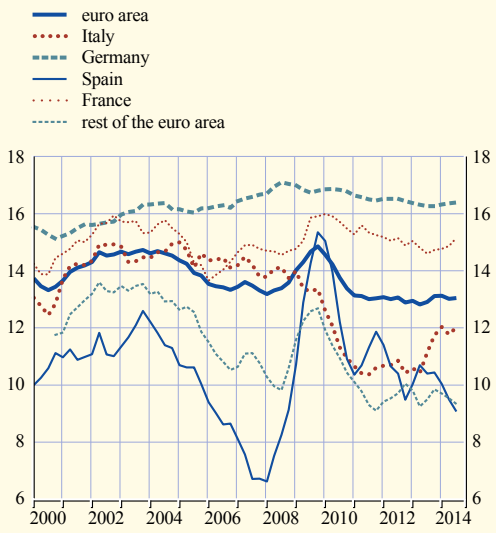
motives. This surge may also have been triggered by the expansionary fiscal policies prevailing at the time, which allowed households to use the increase in real disposable income to raise their propensity to save (a mechanism referred to as a Ricardian effect). However, alongside improving consumer confidence during the recovery phase in 2010, the saving ratio declined again.

Since 2011 the saving ratio has remained broadly stable at relatively low levels, reflecting compensatory effects of various factors that influence households' decisions. On the one hand, downward pressure on the saving ratio has emanated from weak developments in real disposable income (via consumption smoothing behaviour – see Chart B), from the relatively low interest rates (which discourage savings) and from high unemployment (which led to forced dissaving in some countries). On the other hand, upward pressure on the saving ratio has been generated mainly by increased uncertainty (via a strengthening of precautionary motives to save) and by elevated household deleveraging pressures in several countries. All in all, given the opposing effects of these factors, the household saving ratio remained relatively stable, at around 13%, a low level by historical standards.

Viewed across countries, saving patterns have been very heterogeneous in recent years. The hump-shaped pattern of the euro area saving ratio in the first phase of the recession, i.e. in the period from 2008 to 2010, was largely driven by developments in Spain and, to some extent, also by those in France and the smaller euro area economies (see Chart C).[1] The sharp increase of household savings in Spain mirrored an acceleration of household real disposable income growth in 2009 (see Chart D), which was driven, at least partly, by supportive fiscal measures

Chart C Household saving ratios in the large euro area countries

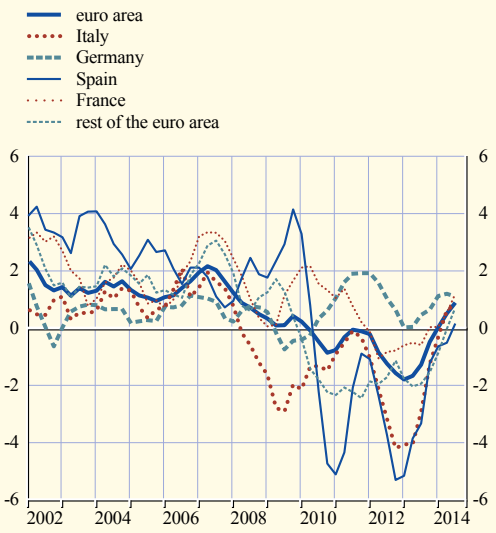
(gross savings as a percentage of the four-quarter moving sum of gross disposable income)



Sources: Eurostat and ECB calculations.
Note: The figures for the rest of the euro area refer to the differences (in levels) between the euro area aggregate and the sums total for the four largest countries, as quarterly sectoral accounts data are not available for all euro area countries.

Chart D Household real disposable income growth in the large euro area countries

(average annual percentage changes)



Sources: Eurostat and ECB calculations.
Note: The figures for the rest of the euro area refer to the differences (in levels) between the euro area aggregate and the sums total for the four largest countries, as quarterly sectoral accounts data are not available for all euro area countries.

1 In this box, "smaller euro area economies" refers to all euro area economies excluding Germany, Spain, France and Italy.

in that period. While households' real disposable income continued to increase in France in the first phase of the recession and, on average, also in the smaller euro area economies in 2009, it declined in Italy throughout the period from 2008 until 2013. The overall stable household saving pattern at the euro area level since 2011 reflects broadly stable saving ratios in Germany, France and, on average, in the smaller euro area economies. In Spain, by contrast, the saving ratio continued to decline, while that in Italy has – after stabilisation – increased since the middle of 2013, reflecting a recovery of households' real disposable income.

Looking ahead, the relatively sharp drop in oil prices observed since the summer of 2014 should support a temporary rebound of the saving ratio. This can be expected as historical regularities suggest that an increase in real disposable income driven by permanently lower energy prices is initially largely saved. After a few quarters, however, the saving ratio is likely to return to its initial level. At the same time, this will be mirrored by a further increase in consumption, as households start to spend more of the increase in their real disposable income.

The expected hump-shaped response of the saving ratio may be linked to the uncertainty surrounding energy-related increases in real disposable income. Even if sustained, increases in real income owing to decreases in energy prices are generally surrounded by more uncertainty than increases in real income from other sources. A precautionary savings motive could, for instance, explain the hump-shaped response of the saving ratio since households tend to first save part of the windfall gains and wait to see whether the increase in real income is sustained. Overall, irrespective of the underlying mechanism, available evidence suggests that sustainably lower oil prices should temporarily support the household saving ratio, while the income gains translate progressively into higher consumption.

Box 5

THE 2015 MACROECONOMIC IMBALANCE PROCEDURE

The macroeconomic imbalance procedure (MIP), introduced in November 2011, is a cornerstone of the EU's strengthened governance framework, which aims to prevent the emergence of harmful macroeconomic imbalances and to correct them when they are excessive. The MIP covers all EU Member States, with the exception of those subject to a macroeconomic adjustment programme. Following a first screening on the basis of a set of indicators, the Commission conducts in-depth reviews for a selected group of countries to assess the severity of the imbalances signalled by the indicators. If it concludes that imbalances are indeed present, the Member State concerned receives policy recommendations from the EU Council based on the recommendation of the Commission (preventive arm). By contrast, if imbalances are found to be excessive the excessive imbalance procedure should be initiated on a recommendation from the Commission.[1] Under this corrective arm, the country concerned has to submit a corrective action plan outlining policy measures to address the excessive imbalances, which must be endorsed by the Council. In case of repeated failure to present an adequate plan or in case of non-compliance with an approved plan, the Council may impose financial sanctions on the euro area country in question.

Outcome of the 2015 in-depth review

The outcome of the 2015 in-depth review shows that the European Commission has identified five countries with excessive imbalances: Bulgaria, France, Croatia, Italy and Portugal. The Commission decided to step up the procedure for Germany (from level 2 to 3), France (from level 4 to 5) and significantly for Bulgaria (from level 2 to 5), and to de-escalate the procedure for Slovenia (from level 5 to 4). Italy and Croatia have been in the same category since 2014. This year, Romania (level 2) and Portugal (level 5) have entered the procedure, following the end of their macroeconomic adjustment programmes. It is the first year that the Commission has formally introduced the classification of imbalances in six levels, although these were already implicitly used in the 2014 exercise (see Table A).

Table A Macroeconomic imbalance procedure categories

1		2		3		4		5		6	
2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015
DK	DK	BE	BE	HU	HU	IE	IE	HR	HR		
LU	LU	BG	NL		DE	ES	ES	IT	FR		
MT	MT	DE	SE			FR	SI	SI	IT		
AT	AT	NL	RO						PT		
LT	LT	SE	UK						BG		
LV	LV	UK	FI								
EE	EE	FI									
PO	PO										
CZ	CZ										
SK	SK										

Source: European Commission.
Legend: 1 = No imbalances; 2 = Imbalances which require monitoring and policy action; 3 = Imbalances which require monitoring and decisive policy action; 4 = Imbalances which require specific monitoring and decisive policy action; 5 = Excessive imbalances which require specific monitoring and decisive policy action; 6 = Excessive imbalances which require decisive policy action and the activation of the excessive imbalance procedure. Colour code: Red for countries with an escalation of the procedure, green for countries with a stepping-down and blue for the countries which entered the procedure in 2015.

1 Recital 22 of EU Regulation No 1176/2011 on the prevention and correction of macroeconomic imbalances.

Despite having identified excessive imbalances in five countries, the Commission is currently not proposing to activate the excessive imbalance procedure (EIP). The Commission has thus decided not to make full use of all available steps under the MIP, i.e. the corrective arm of the procedure. In the cases of Croatia and France, however, the Commission did announce that it was considering opening an EIP in May 2015 should the respective governments not have committed to implementing decisive structural reforms by then.

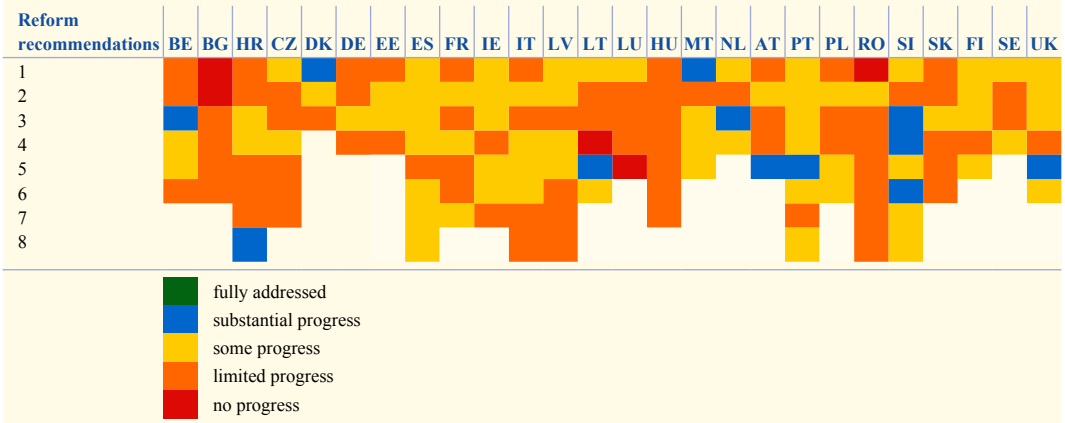
Reflections on the 2015 in-depth review conclusions

The outcome of the 2015 in-depth review shows that the imbalances are becoming increasingly severe in a number of countries. This outcome is concerning because one of the key reasons for introducing the MIP was to help prevent the emergence of harmful imbalances and foster the unwinding of already existing imbalances. However, every year the number of countries with excessive imbalances is growing (from zero in 2012 to five in 2015), whereas the EIP has been never invoked by the Commission. This raises questions about the application of the procedure and the effectiveness of its preventive arm.

Insufficient implementation of country-specific reform recommendations

The Commission gives an important weight to policy commitments in assessing the degree of severity of imbalances. While credible commitments are a necessary step for reforms to happen, assessing the degree of imbalances should be mainly based on effective policy action. Past experiences have shown that policy announcements very often have not been implemented, as confirmed by the Commission's assessment of the implementation of country-specific recommendations (CSRs), which raises concerns about the progress made (see Table B).

Table B European Commission assessment of the implementation of the 2014 country-specific recommendations



Source: European Commission.
Notes: The following categories are used to assess progress in implementing the 2014 CSRs: No progress: The Member State has neither announced nor adopted any measures to address the CSRs. This category also applies if a Member State has commissioned a study group to evaluate possible measures. Limited progress: The Member State has announced some measures to address the CSRs, but these measures appear insufficient and/or their adoption/implementation is at risk. Some progress: The Member State has announced or adopted measures to address the CSRs. These measures are promising, but not all of them have been implemented yet and implementation is not certain in all cases. Substantial progress: The Member State has adopted measures, most of which have been implemented. These measures go a long way towards addressing the CSRs. Fully addressed: The Member State has adopted and implemented measures that address the CSRs appropriately.

Focusing on the euro area countries, the Commission concludes that none of them has fully addressed any of the 2014 recommendations. While in some countries the reform effort has been stepped up, in the majority of the countries progress has been rather limited (see Table B) and not commensurate with the remaining vulnerabilities. In particular, among the countries which were expected to take "decisive policy action" during the 2014 MIP (i.e. the countries in categories 4 and 5 of Table A), Spain, Ireland and Italy made "some" progress on the majority of the CSRs, while France made "limited" progress on the majority of the CSRs. This assessment appears to be in contrast with the (repeated) call for "decisive policy action" made by the Commission and points to a weakness of the preventive arm of the MIP. Given the need to reduce vulnerabilities and boost sustainable growth in the above countries and in the rest of the euro area, the lack of progress calls for a major stepping-up of the reform effort.

It is important to make full and effective use of the instruments of the MIP, including its corrective arm, in order to reduce the potential risks to the smooth functioning of EMU.

Box 6

EFFECTS OF E-COMMERCE ON INFLATION

It has been argued that the growth in e-commerce contributes to lower prices and thereby also to lower inflation. The available empirical evidence so far suggests that the inflation-dampening effect from the growth in e-commerce is limited. However, this finding is surrounded by considerable uncertainty owing to limitations in the data.

The potential impact of e-commerce on prices and inflation

The term "e-commerce" typically refers to the purchase or sale of goods or services carried out by means of an electronic network, such as the internet. Internet-based transactions have become more widespread in both retail and business-to-business markets.

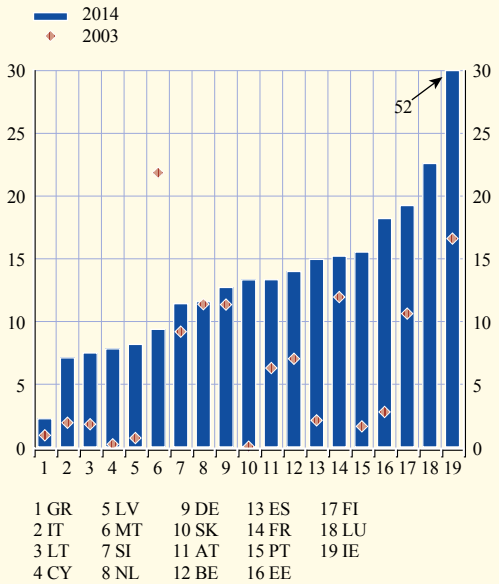
There are two key ways in which the growth in e-commerce may bring down prices. First, compared to the standard brick-and-mortar-based distribution channels, e-commerce provides scope for cost savings in the wholesale and retail markets, which both traditional and online retailers can pass on to their customers. Second, e-commerce can be effective in lowering prices as a result of increased competition among suppliers, as customers can conveniently search the internet for better bargains and thus force both traditional and online suppliers to keep their prices low. The latter effect may reduce profit margins. It is worth noting that in both cases, the lowering of prices can even take effect when the market share of e-commerce is still relatively low.

The potential effect of the growth in e-commerce on inflation would only be sustained until the spread of e-commerce has stabilised throughout the markets, which could take a prolonged period of time. Online-based transactions are a new technology to which markets must gradually adjust. During this process, price pressures may moderate, but the impact can be expected to lessen once a new equilibrium is established.[1]

The use of e-commerce in the euro area

Over the past ten years, the share of electronic sales to consumers and businesses in total turnover has increased in most euro

Chart A Electronic sales by enterprises as a percentage of total turnover



Sources: Eurostat and the European Commission.
Notes: All enterprises excluding financial sector companies (with ten or more persons employed). Business-to-business and business-to-consumer sales are included. The first observation refers to 2004 for DE, EE and LT; to 2005 for CY, LV and SK; to 2006 for SI; to 2007 for NL; and to 2008 for MT and FR. The latest observation refers to 2012 for BE and 2013 for SI. Data for LU are available for 2012 only.

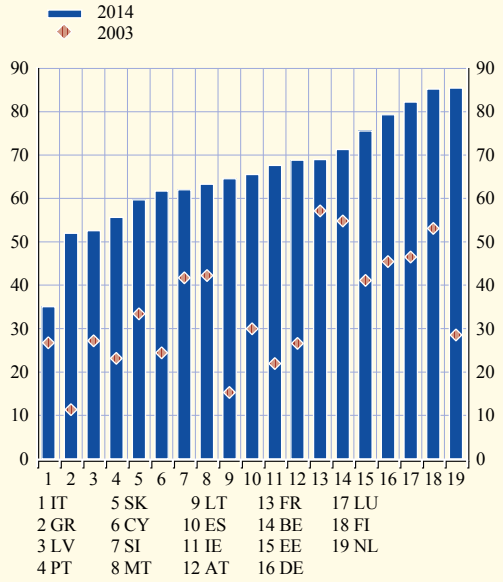
1 Meijers, H., "Diffusion of the internet and low inflation in the information economy", *Information Economics and Policy*, Vol. 18, 2006, pp. 1-23.

area countries, but it still varies significantly across them (see Chart A).[2] Companies in the small and open economies of Ireland, Luxembourg, Slovakia and Finland posted the highest share of electronic sales in 2014, followed by companies in Germany, France, Belgium and Spain. The share of electronic sales in 2014 was still comparatively low in Greece, Cyprus, Italy and Malta, as well as in Latvia and Lithuania, with values below 10%. A particularly notable increase in electronic sales, from low starting levels in 2003, took place in the latest countries to have joined the euro area (Cyprus, Slovakia, Estonia, Lithuania and Latvia), which have seen a significant expansion in high-speed internet coverage, as well as in Spain and Portugal.

The lower presence of e-commerce in some countries may be partly explained by a considerably larger share of small and medium-sized firms, which generally tend to sell less online than larger companies. Furthermore, also in terms of internet access, some countries are lagging behind other euro area countries in terms of "very fast" internet access.

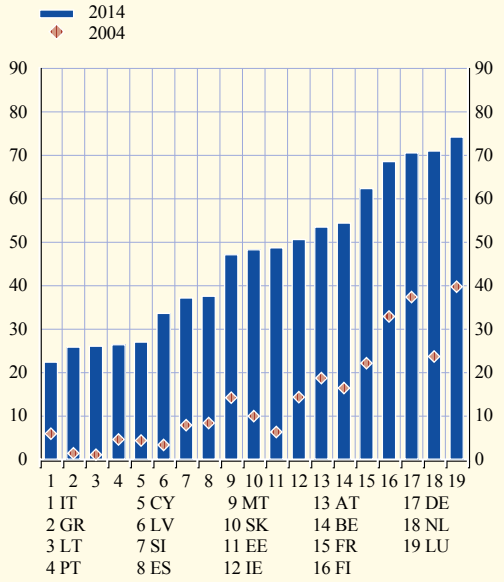
The share of individuals using the internet to obtain information on goods and services or make purchases online has increased considerably over the past ten years (see Charts B and C). In all euro area countries except Italy, the percentage of people seeking information online exceeded 50% by 2014. By that time, also the share of individuals actually buying goods and services online had at least doubled in most euro area countries compared to 2003.

Chart B Percentage of individuals looking for information about goods and services online



Sources: Eurostat and the European Commission.
Notes: Individuals aged 16-74. The first observation refers to 2004 for CY, SI, SK, EE and LV; to 2005 for BE, IT and MT; and to 2006 for FR.

Chart C Percentage of individuals ordering goods and services online



Sources: Eurostat and the European Commission.
Notes: Individuals aged 16-74. The first observation refers to 2005 for BE, IT and MT; and to 2006 for FR.

2 Public data on e-commerce are still scarce. One data source is Eurostat's annual survey on ICT usage in enterprises and in households since 2002, which includes questions on e-commerce and supports the European Commission's Digital Agenda for Europe, launched in 2010.

Evidence of the impact of e-commerce on inflation

There are a number of caveats when examining the impact of e-commerce on consumer price inflation. One of these is related to the inclusion of online price developments in the HICP. Statistical institutes in the EU increasingly include online prices when calculating consumer price indices. For some items, such as prices for hotel and other accommodation services as well as airfares, the collection and use of prices available on the internet instead of or in addition to those from traditional travel agencies or sales points is already well established. At the same time, the inclusion of prices for manufactured goods is more diverse across statistical institutes, also reflecting different consumption habits.[3] Eurostat, together with national statistical institutes, is currently working on a better, more complete and harmonised way to capture online price developments in the compilation of the HICP.

When a statistical institute incorporates more online traded goods and services in the HICP, it has an impact on HICP inflation to the extent that the prices of such products and services change at different rates to the prices of offline-traded goods and services. If prices change at similar rates in both trade channels, the incorporation of online traded products would not impact HICP inflation noticeably. Increasing quantities bought via the internet and price level differences between online and offline shops are reflected in adjustments to the expenditure shares of the respective HICP sub-items.

Available evidence on the existence of a measurement error in the consumer price indices due to the incomplete incorporation of online sales is scarce and inconclusive. Lünnemann and Wintr (2006)[4] analyse a large set of micro price data and find changes in prices of products traded online to be, on average, smaller than the corresponding price changes reported in the consumer price index data – this would point to a possible measurement error in HICP inflation. By contrast, a more recent study by Gorodnichenko, Sheremirov and Talavera (2014)[5] finds that prices are, on average, adjusted in online shops by about the same amount as in offline shops. Thus, the measurement error in a price index by excluding online sales should be small.

Evidence of actual effects of e-commerce on consumer price changes is also scarce but points to a small effect on inflation. An older study by Yi and Choi (2005)[6] finds that an annual increase by 1 percentage point in the share of people using the internet decreases the annual inflation rate in the range of 0.04-0.1 percentage point. This outcome is broadly in line with more recent results published by Lorenzani and Varga (2014)[7] who estimate the impact of online purchases of goods and services when examining the degree of price competition. In this context, they project the share of online purchases of goods and services in the retail sector observed in the year 2010 further up to 2015, and estimate that such a development could, overall, lower price increases in the retail sector in the EU27 as a whole by 0.1 percentage point each year between 2011 and 2015. A considerable level of uncertainty surrounds such estimates, inter alia, owing to the limited data sample available and previously mentioned caveats in compiling consumer price

3 For more information on inflation measurement issues, see Box 2 entitled "Implications of developments in the retail trade structure for inflation measurement", *Structural Issues Report,* September 2011, ECB.
4 Lünnemann, P., Wintr, L., "Are internet prices sticky?", *Working Paper Series,* No 645, ECB, June 2006.
5 Gorodnichenko, Y., Sheremirov, V., Talavera, O., "Price setting in online markets: does it click?" *NBER Working Papers,* No 20819, August 2014.
6 Yi, M.H., Choi, C., "The effect of the internet on inflation: Panel data evidence", *Journal of Policy Modeling,* Vol. 27, 2005, pp. 885-889.
7 Lorenzani, D., Varga, J., "The Economic Impact of Digital Structural Reforms", *European Commission Economic Papers*, No 529 September 2014.

index. More conclusive evidence is available for the United States in the context of "The Billion Prices Project" by the MIT and its regularly updated price statistics on offline and online price developments.[8] These data suggest neither marked nor systematic differences between price indices or price inflation for online and traditionally-traded goods in the United States.

8 See "The Billion Prices Project" webpage at http://bpp.mit.edu/usa/

Box 7

FOLLOW-UP TO THE REVIEW OF DRAFT BUDGETARY PLANS FOR 2015

This box summarises the follow-up to the review of draft budgetary plans for 2015, focusing on the seven countries whose 2015 draft budgets were identified by the European Commission in November 2014 as being at risk of non-compliance with the Stability and Growth Pact (SGP).[1] The countries concerned are Belgium, Italy, Malta and Austria under the Pact's preventive arm and France, Spain and Portugal under its corrective arm. At the Eurogroup meeting on 8 December 2014 the governments of these countries committed to adopt the measures that were needed to ensure compliance with the SGP. The Commission also announced that it would revisit its position regarding compliance with obligations under the SGP for Belgium, France and Italy, in early 2015, in the light of the finalisation of budget laws and the expected clarification of structural reform programmes announced by the countries' governments. Subsequently, on 13 January 2015, the Commission issued a communication entitled "Making the best use of the flexibility within the existing rules of the Stability and Growth Pact", which clarified and partially extended the flexibility of the SGP as regards cyclical conditions, structural reforms and public investment.[2] On 25 February the Commission announced its decisions on Belgium, France and Italy and on 27 February it released its assessment, which was endorsed by the Council on 10 March, on the basis of the 2015 winter forecast.

With the exception of Belgium, none of the countries that were considered to be at risk of non-compliance with the SGP has implemented sufficient measures to allow the consolidation gap identified by the Eurogroup last December to be closed. Looking at countries under the corrective arm, France was asked to take additional measures amounting to 0.5% of GDP to bring the 2015 improvement in the structural balance in line with the effort required by the June 2013 recommendation under the excessive deficit procedure (EDP). However, the Commission's 2015 winter forecast points to no improvement on the 0.3% of GDP effort known at the time of the Eurogroup meeting.[3] Meanwhile, in Spain and Portugal, which received recommendations to take steps to improve their headline deficits in order to comply with their 2015 EDP targets, projected deficits for 2015 have declined marginally but remain above target levels, while structural efforts are also falling short of requirements. As regards countries under the preventive arm, the 0.2 percentage point improvement in the structural balance that is expected in Italy in 2015 remains below the 0.4% of GDP that was recommended by the Eurogroup and is a reflection of reduced interest payments. By contrast, Belgium's structural effort is expected to increase by 0.2 percentage point, as committed to in the Eurogroup. In both Italy and Belgium, there continues to be significant deviation from the structural effort that is required under the debt rule. Austria's structural effort has declined compared with what was expected in December, further increasing the risks of a significant deviation from the requirements of the preventive arm, which, if confirmed ex post, could trigger procedural steps in spring 2016. Finally, in Malta, the risk of non-compliance with the requirements under

1 See also the box entitled "The review of draft budgetary plans for 2015", *Monthly Bulletin*, ECB, December 2014.
2 See also the box entitled "Flexibility within the Stability and Growth Pact", *Economic Bulletin*, Issue 1, ECB, February 2015.
3 The Commission assessed the original draft budgetary plan submitted on 15 October as implying an improvement in the structural balance of only 0.1% of GDP. On 21 November the government announced additional measures worth 0.2% of GDP. These measures, which were fully taken into account by the Eurogoup in its statement of 8 December, were approved by the French Parliament on 18 December 2014 in the context of the adoption of the 2015 budget.

the SGP's preventive arm, to which Malta will become subject if the Council decides that it corrected its excessive deficit by the deadline of 2014 and abrogates the corresponding EDP, has receded thanks to measures adopted in the final budget for 2015.

On 27 February the Commission released the results of its assessment regarding the implementation of the SGP in Belgium, France and Italy. In reports prepared under Article 126(3) of the Treaty on the Functioning of the European Union, the Commission examined the breach of the deficit criterion in Belgium and the breach of the debt criterion in Belgium and Italy. The Commission decided against opening an EDP for these countries on the basis of a number of relevant mitigating factors: in the cases of Belgium and Italy (i) the countries' compliance with the structural effort requirements under the preventive arm of the SGP (which in the case of Italy have now been reduced following the Commission's communication on flexibility within the SGP); (ii) the unfavourable economic conditions (i.e. weak growth and low inflation), which make compliance with the debt rule more difficult; and (iii) the expected implementation of the ambitious growth-enhancing structural reform plans presented by the authorities. Those assessments did not, however, take account of shortfalls in fiscal consolidation in the period 2014-15 relative to the Council's recommendations of June 2014 as an aggravating factor.

In the case of France, the Commission had to assess whether effective action had been taken in response to the Council's recommendation that the excessive deficit be corrected by 2015. Such action, combined with unexpected adverse macroeconomic events with major unfavourable consequences for government finances, would as a rule allow the deadline for correcting the excessive deficit to be extended by one year. In contrast, if a euro area country is assessed as not having taken effective action, the EDP foresees a stepping-up of the procedure by addressing a notice to the respective country[4] and applying financial sanctions in the form of a fine of 0.2% of GDP. The Commission may, on the grounds of exceptional economic circumstances or following a reasoned request by the Member State concerned, recommend that the Council reduce the amount of the fine or cancel it. Looking at the period 2013-14[5], the Commission reported that "the available evidence does not allow to conclude that no effective action was taken" and proposed extending the deadline for correction of the excessive deficit by two years (i.e. until 2017). The Council followed this recommendation on 10 March. The recommended adjustment path is back-loaded, requiring France to deliver rising structural adjustment efforts over the EDP period: 0.5% of GDP in 2015 (i.e. the level of the minimum requirement under the corrective arm and thus less than 0.8% of GDP required until now), 0.8% of GDP in 2016 and 0.9% in 2017. On the basis of current excessive deficit procedures, in 2017 France will be the only euro area country subject to an EDP. Finally, despite a risk of non-compliance with the deadlines recommended by the Council for the correction of their excessive deficits, the Commission did not address an early warning in the form of an autonomous recommendation to Spain or Portugal – in contrast to last year, when such recommendations were addressed to France and Slovenia in similar situations.

4 Under Article 126(9) of the Treaty on the Functioning of the European Union.

5 For this period, the assessment excludes the final year of the EDP period, for which the Commission identified risks of non-compliance with the SGP. It contrasts with the situation in 2013, when the EDP deadline was extended because effective action was only found to exist when the final year of the EDP period was included.

The EU's governance framework has been strengthened by the entry into force, in 2011 and 2013, of new regulations known as the "six-pack" and the "two-pack" respectively. Major improvements have thus been made to the framework as a result of the significant lessons learnt from the recent crisis. Of particular importance in this regard are the introduction of the debt rule in the corrective arm, the establishment of the significant deviation procedure in the preventive arm (which should help to ensure that countries make sufficient progress towards medium-term budgetary objectives), changes to the decision-making process to increase automaticity in the application of rules and sanctions, and the option to request revised draft budgetary plans and issue "autonomous recommendations" where EDP targets are at risk.

It is important that the tools in the strengthened governance framework are effectively applied in a manner which is consistent over time and across countries. It is key that they are indeed used as intended to ensure sustainable fiscal positions in euro area countries. Only this will allow the SGP to act as an anchor for confidence. To this end, the likelihood of applying the significant deviation procedure under the preventive arm has declined as adjustment requirements have been reduced over time for countries facing difficult macroeconomic environments. The excessive imbalance procedure has not yet been activated either, despite excessive imbalances being detected.[6] Last but not least, the debt rule is at risk of being side-lined if it is de facto subordinated to the weakened preventive arm, which following the Commission's communication on flexibility pays little attention to debt sustainability concerns. In the end, full and consistent implementation is key for confidence in the European fiscal framework.

6 For more details, see the box entitled "The 2015 macroeconomic imbalance procedure", *Economic Bulletin*, Issue 2, ECB, March 2015.

ARTICLES

PROGRESS WITH STRUCTURAL REFORMS ACROSS THE EURO AREA AND THEIR POSSIBLE IMPACTS

Structural reforms have the potential to substantially boost productivity and employment and to reinvigorate growth in the euro area, while also improving the ability of countries to rapidly adjust to shocks, reallocate resources and restructure their economies. This article illustrates the effects of structural reforms on key macroeconomic variables, describes the recent progress of product and labour market reforms, and suggests that further structural reforms could be a powerful tool to restore growth and competitiveness in the euro area. There are signs that reforms undertaken since the start of the crisis have already had a positive impact; wages and prices appear to be more flexible and have helped the adjustment process, while export performance also seems to have improved in countries which have adopted reforms. Even though some euro area countries have made significant progress, indicators show that there is still ample room for further reforms across the euro area. This is necessary to support long-term sustainable growth, to increase the adjustment capacities of the euro area countries and to support the smooth functioning of the Monetary Union.

1 MACROECONOMIC IMPACTS OF STRUCTURAL REFORMS

Structural reforms can lead to higher sustainable employment, investment and growth as well as provide the flexibility needed for a smooth-functioning Monetary Union. Reforms to boost competition and enhance wage and price flexibility help to increase competitiveness and productivity. This is particularly important for individual euro area countries where price competitiveness gains come from changes in wages and prices, thereby increasing the importance of flexibility. Flexibility in labour and product markets also helps to provide the necessary adjustment capacity and market signals for euro area economies to restructure, reallocate and grow. Hence, structural reforms help to achieve a more efficient allocation of resources, which boosts the longer-run growth potential of economies and creates new jobs via various transmission channels.[1]

1.1 TRANSMISSION CHANNELS OF STRUCTURAL REFORMS

Labour and product market reforms have different theoretical effects on wages, prices, and employment. Labour market reforms, to the extent that they reduce the wage mark-up or the reservation wage, should have a wage-moderating effect, which is reflected in improved competitiveness and/or higher profit margins for firms and an increased demand for labour, which can lead to higher employment and, all other things being equal, lower structural unemployment. The latter would also be helped by higher wage differentiation across different types of worker (according to age, skill, etc.), which would contribute to reducing structural mismatch in the labour market. Real wages could also subsequently exceed initial levels as a result of higher demand for labour and potential productivity increases.[2] Product market reforms that facilitate the entry of firms and increase competition reduce the price mark-up. This also helps to increase real wages, thereby stimulating higher aggregate demand, and thus results in higher output and employment. To the extent that product market reforms also increase productivity, real wages may increase further, while the effect on employment depends on the relative importance of income and price

1 See, for example, Bayoumi, T., Laxton, D. and Pesenti, P., "Benefits and spillovers of greater competition in Europe: a macroeconomic assessment", *Working Paper Series*, No 341, ECB, April 2004; Coenen, G., McAdam, P. and Straub, R., "Tax reform and labour-market performance in the euro area: a simulation-based analysis using the euro area-wide model", *Working Paper Series*, No 747, ECB, April 2007; see also Gomes, S., Jacquinot, P., Mohr, M. and Pisani, M., "Structural Reforms and Macroeconomic Performance in the Euro Area Countries: A Model-Based Assessment", *International Finance*, Vol. 16(1), Wiley Blackwell, 2013, pp. 23-44.

2 See, for example, Lusinyan, L. and Muir, D., "Assessing the Macroeconomic Impact of Structural Reforms: The Case of Italy", *Working Paper Series*, No 13/22, IMF, January 2013.

effects.[3] The overwhelming majority of studies support the view that labour and product market reforms have a positive effect on employment. Concerning real wages, results are less uniform; while product market reforms are generally associated with higher real wages, the effects of labour market and other structural reforms depend on the specific nature of the reform.[4]

Product market and labour market reforms are likely to raise investment. This occurs via two main channels. First, because the initial wage-moderating effect of labour market reforms is reflected in a higher profit margin, firms have additional funds to invest and a higher return to capital. Employment increases, not only as a result of higher investment but also as a result of wage moderation. Consequently, consumption tends to rise in the long run, providing additional incentives for investment owing to expected higher (future) demand. Second, product market reforms that facilitate entry and competition tend to reduce price mark-ups and thereby increase both real wages and demand, thus stimulating investment.[5] Evidence shows that labour and product market reforms have positive effects on investment. These findings are underpinned by simulating the results of structural reforms in the euro area using the EAGLE model (see Box 1). According to the model estimates, the output increase would largely be a result of higher investment.

3 Empirical evidence suggests that permanent productivity increases lead to a fall in employment. See Gali, J., "Technology, Employment, and the Business Cycle: Do Technology Shocks Explain Aggregate Fluctuations?", *American Economic Review*, Vol. 89, No 1, American Economic Association, March 1999, pp. 249-271.

4 For instance, lowering tax wedges in the euro area could boost not only hours worked but also real wages. See, for example, Coenen et al., op. cit. This positive impact is not observed in the case of conventional labour market reforms such as reductions in the minimum wage, lower unemployment benefits or a move from industry to firm-level wage bargaining. See also Krebs, T. and Scheffel, M., "Macroeconomic evaluation of labour market reform in Germany", *Working Paper Series*, No 13/42, IMF, February 2013.

5 A third channel is the direct impact of reforms on productivity, which could boost investment as the return to capital increases. See Griffith, R., Harrison, R. and Simpson, H., "Product Market Reform and Innovation in the EU", *The Scandinavian Journal of Economics*, No 112, April 2010, pp. 389–415. It should be noted that increased competition lowers profit margins, which may reduce investment by the incumbent firms in the sector. This effect tends to be dominated by the investment-increasing effects. See Alesina, A., Ardagna, S., Nicoletti, G. and Schiantarelli, F., "Regulation and Investment", *Journal of the European Economic Association*, Vol. 3, Issue 4, June 2005, pp. 791-825.

Box 1

MACROECONOMIC EFFECTS OF STRUCTURAL REFORMS: AN EAGLE-BASED ASSESSMENT

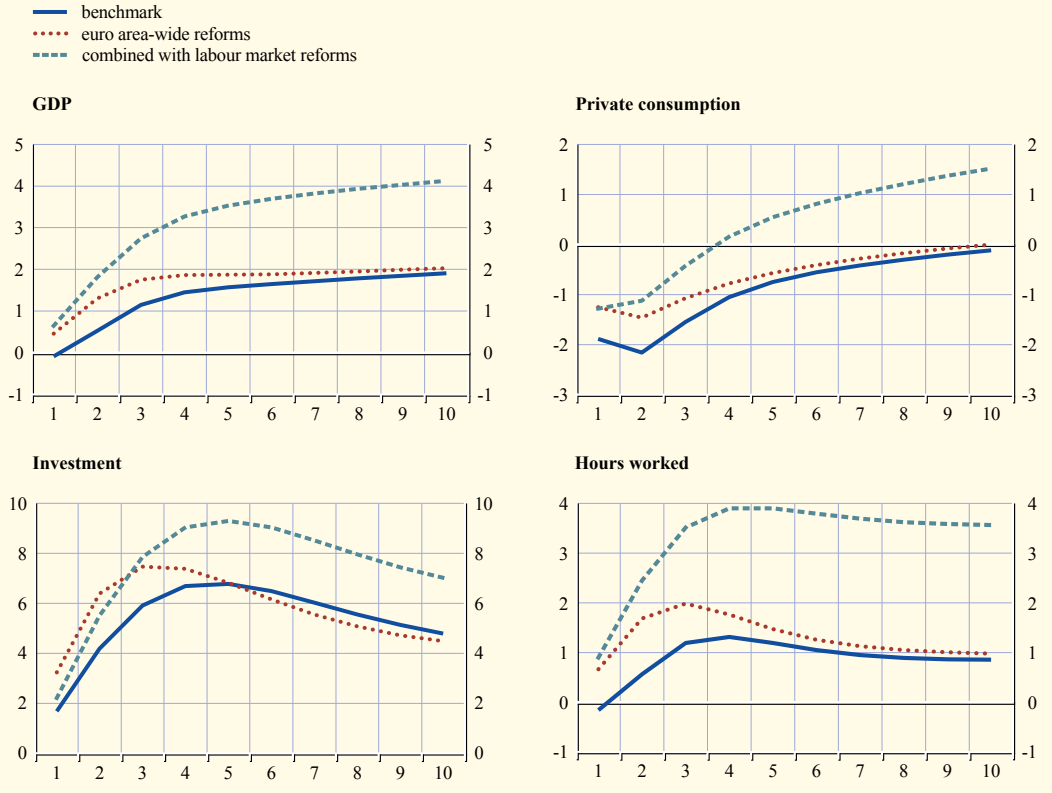
A quantitative assessment of the macroeconomic effects of structural reforms is an integral part of the overall policy analysis. To this end, formal model-based simulations are widely employed. In this Box, the Euro Area and Global Economy (EAGLE)[1] model is used to analyse the macroeconomic effects of structural reforms. In the EAGLE model households supply labour services and set their wages in monopolistically competitive markets by charging a mark-up over their marginal rate of substitution between hours worked and consumption. Similarly, firms set prices on their differentiated goods by charging a mark-up over their marginal cost of production. The wage and output price mark-ups reflect the level of monopolistic powers in the economy

1 EAGLE is a large-scale calibrated multi-country micro-founded model. Explicit micro-foundations enable the identification of structural parameters and the proper analysis of the impact of structural changes, while the general equilibrium framework allows the effects of the behaviour of households and firms to be appropriately taken into account. In its benchmark version, the EAGLE comprises four regions: the United States, rest of the world (ROW) and two euro area regions, that is, a specific euro area country and the rest of the euro area. The euro area regions are subject to a common monetary policy which reacts to a weighted average of the regional inflation rate and output. In terms of its theoretical foundation, EAGLE is similar to the New Area-Wide Model (see Gomes, S., Jacquinot, P. and Pisani, M., "The EAGLE. A model for policy analysis of macroeconomic interdependence in the euro area", *Economic Modelling*, Vol. 29(5), Elsevier, 2012, pp.1686-714).

and result in sub-optimal levels of labour utilization and production. Thus, in the context of this modelling framework, the implications of competition-enhancing reforms can be investigated by analysing the effects of a reduction in mark-ups. Overall, the simulations suggest that structural reforms can significantly increase GDP growth, even in the short term.

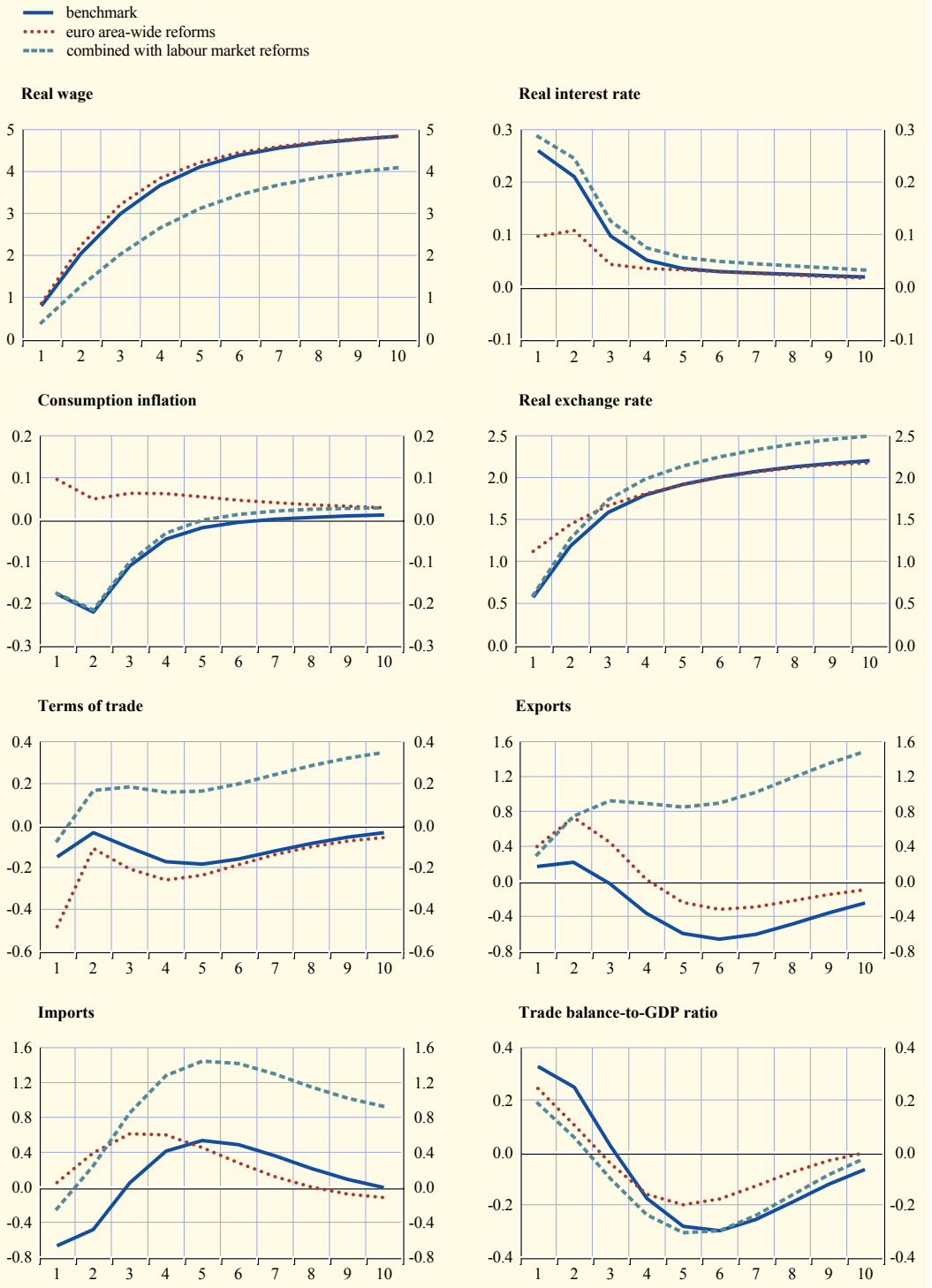
Structural reforms can be implemented in a variety of ways, which may have diverse macroeconomic impacts. For illustrative purposes, in what follows, three alternative service sector reform scenarios are considered:[2] (1) unilateral policy implementation in one large euro area country ("*benchmark*"); (2) coordinated policy implementation ("*euro area-wide reforms*"); and (3) unilateral policy implementation in the large euro area country of service sector reform combined with labour market reform ("*combined with labour market reforms*"). In the simulations below the reforms are implemented via a hypothetical permanent reduction in the non-tradable sector price mark-up and the economy-wide wage mark-up by 10 percentage points and 7.5 percentage points respectively, gradually over two years. The specific size of the shocks ensures that both types of reform have roughly the same long-term impact on GDP. The simulation results are displayed in the chart below.

Simulated impact of structural measures on reforming euro area country under alternative scenarios, selected macroeconomic variables



2 See also Gomes, S., Jacquinot, P., Mohr, M. and Pisani, M., "Structural Reforms and Macroeconomic Performance in the Euro Area Countries: A Model-Based Assessment", *International Finance*, Vol. 16(1), Wiley Blackwell, 2013, pp. 23-44.

Simulated impact of structural measures on reforming euro area country under alternative scenarios, selected macroeconomic variables (cont'd)



Source: ECB simulations.
Note: The chart depicts percentage deviations from the baseline over a ten-year horizon (but percentage point deviations for consumption inflation, real interest rate and trade balance-to-GDP ratio).

The unilateral implementation of service sector reform may lead to transitional economic costs for some components of GDP, such as consumption, while investment rises in the short run. For the *benchmark case*, service sector reform leads to a delayed pick-up in domestic output and substantial downward pressure on inflation in the short run. Following the positive permanent supply-side shock, households anticipate reductions in prices of services, leading to lower domestic inflation and a higher domestic real interest rate. As a result, consumption drops in the short run. By contrast, in anticipation of higher future production levels over the longer term, firms boost investment demand and gradually accumulate capital. This increases their labour demand, pushing up real wages. Overall, the external trade balance initially rises as domestic demand decreases. In the medium run, it stays below its equilibrium level, as aggregate demand increases. The country's real exchange rate depreciates over time to absorb the increased supply.

Coordinated policy implementation, through positive cross-border spillover effects and stronger adjustment in the nominal exchange rate of the euro, means that the benefits of the reforms are felt more quickly. *Euro area-wide reforms* support domestic output as the entire euro area now grows at the same pace. This extra gain in economic activity is mainly driven by trade (exports are growing much faster), eliminates the downward pressure on inflation and results in a more favourable domestic real interest rate evolution. As a consequence, the decrease in domestic consumption is also smaller compared to the benchmark scenario. In the short term, this reduction in consumption combined with the expansion of exports results in an initial trade surplus, although this is smaller compared to the benchmark case as reforms are now implemented at the euro area level. When reforms gradually kick in and euro area aggregate demand increases, the trade balance moves below its equilibrium level and leads to stronger real exchange rate depreciation. In the long run, the cross-border spillover effects are estimated to be positive, albeit quite limited. Consequently, the long-term effect on the domestic economy when reforms are simultaneously implemented in all euro area countries is similar to the benchmark case.

The implementation of service sector reform jointly with labour market reform allows faster and more balanced economic expansion. When service sector reform is *combined with labour market reform* the rise in economic activity is significantly accelerated, while downward pressure on inflation remains strong. Labour market reform pushes down wages by increasing labour supply. The higher domestic real interest rate weakens domestic demand during the initial stages, but output rises in the first year. At the same time, competition in the labour market boosts labour supply and lowers real wages, which motivates firms in both non-tradable and tradable sectors to increase labour demand. As a result, employment rises, contributing positively to domestic demand over the medium run. Driven by strong competitiveness gains and large positive spillover effects from the country under reform to the rest of the euro area, domestic exports rise substantially. In comparison to the benchmark case, the terms of trade deteriorate, reflecting lower prices of tradable goods. Import demand increases in line with higher domestic income. Consequently, improvement in the trade balance in the short run is weaker than in the benchmark case. The long-term impact on the economy is significantly stronger. The most noticeable exception is real wages, which increase by less than in the benchmark case. The GDP response is twice as large as in the benchmark case, driven by labour market reform, which contributes to a proportionately greater response in consumption, employment and foreign trade flows.

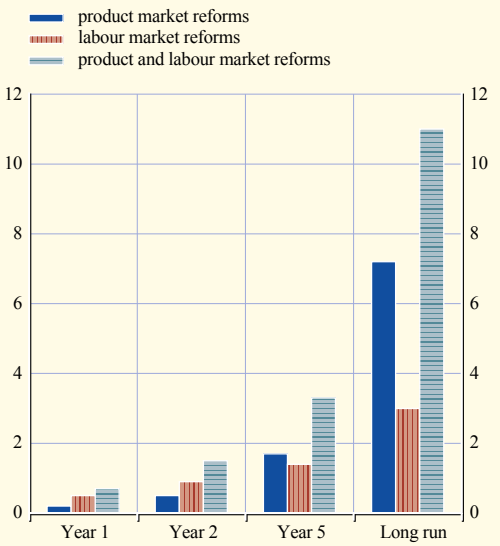
1.2 IMPLEMENTATION DESIGN ASPECTS OF STRUCTURAL REFORMS

If reforms are properly targeted and implemented, the short-term benefits can significantly outweigh any potential short-term costs, while longer-term impacts are positive. Labour market and service sector reforms may have transitional costs, as they can potentially induce a temporary decline in some components of GDP, such as consumption. For instance, measures which increase product market competition may lead to the exit of incumbent firms, which could temporarily lead to lower private consumption, lower output and higher unemployment in the affected sector. However, as new firms enter the market and the industry as a whole becomes more efficient, firms tend to increase investment and employment and production expands beyond initial levels. Similarly, making it easier to hire and lay off workers could temporarily lead to lower employment in the period immediately after the reform. However, it also enables firms to restructure faster, boosting competitiveness and increasing investment and, ultimately, employment.[6] Also, expectations of higher future incomes, along with rapid positive financial market reactions to reforms, can bring forward the expected positive growth effects on GDP to the short run and significantly outweigh any transitional costs.

Coordinated labour and product market reforms usually have greater macroeconomic effects than stand-alone reforms (see Box 1). To reap the benefits of such coordination, product and labour market reforms should complement rather than substitute each other. Several authors point to the fact that packaging reforms together induces faster short-run adjustments and minimizes or even eliminates short-run costs relative to implementing individual reforms. The impacts reported by Anderson et al. are an illustrative example of the general results from the literature. Chart 1 shows the simulated impacts of possible reforms in all euro area countries over both the short and the long run mainly via reducing mark-ups and increasing labour market productivity. For each of the euro area countries, the simulations model the impact of closing roughly 50% of the gap with the Organisation for Economic Co-operation and Development's (OECD) frontier cases in labour and product market policies. Chart 1 shows that reforms could substantially boost growth in the long run, the impact being stronger when product market reforms are implemented jointly with labour market reforms (rather than separately). In addition, the positive impacts of reforms on GDP can already be observed in the first year.

Chart 1 Simulated euro area GDP effect of a euro area-wide structural reform package

(percentage deviation from the baseline)



Source: Anderson et al.

6 See Hobza, A. and Mourre, G., "Quantifying the potential macroeconomic effects of the Europe 2020 Strategy: stylised scenarios", *European Economy - Economic Papers*, No 424, DG ECFIN, European Commission, 2010, which shows the positive dynamics for the EU, and Anderson, D., Barkbu, B., Lusinyan, L. and Muir, D., "Assessing the Gains from Structural Reforms for Jobs and Growth", *Jobs and Growth: Supporting the European Recovery*, IMF, 2013, which shows the positive short-run GDP dynamics for the euro area.

The sequencing of reforms is important. Starting with product market deregulation can raise employment and real wages and thereby complement subsequent labour market reforms.[7] Some authors show that implementing reforms faster produces better short-run and long-run outcomes than gradual implementation, as frontloading reforms can lead to a quicker adjustment of wages and prices and a more rapid rebound in growth and job creation.[8]

The initial degree of market regulation seems to influence the effectiveness of reforms. The more regulated the market initially, the higher the positive impact of reforms will be in the long run. Some authors report that reforms in the non-traded (service) sector yield the largest gains because the degree of competition in this sector is relatively low.[9]

There is no consensus on the impact of the state of the business cycle on reform success. Several papers show that in times of weak demand some labour market reforms may be less beneficial or may even have negative effects, while other studies demonstrate that the position in the business cycle has no bearing on the success of reforms.[10]

The strength of confidence channels, which support the positive effects of structural reforms, crucially depends on the credibility of the reforms. If reforms lack credibility, their impact will not be as large in comparison to a situation in which economic agents have full confidence in the announced reform package from the outset. Anderson et al. demonstrate that if the credibility of the reform package is only gradually built up, its impact on growth will be smaller in the shorter term. Accordingly, the positive effects of reforms can be more pronounced, manifest themselves more rapidly and last longer if they are credible.

Structural reforms can also be undertaken when monetary policy is constrained by the zero lower bound (ZLB). Based on the theoretical literature, the real interest rate usually increases when structural reforms are implemented owing to the downward impact of reforms on price levels. This may cause private consumption to fall over the short run, because forward-looking consumers readjust their consumption and saving patterns.[11] According to those models, the response of the real interest rate tends to be more significant when the ZLB is binding, reinforcing this channel. However, other studies have found that the implications of the ZLB can be overcome via strongly operating confidence effects and the investment channel, particularly if supported by an immediate positive response by stock markets in anticipation of the future benefits of reforms.[12] It is important to note that monetary policy also has non-conventional measures at its disposal to provide further monetary accommodation even if the ZLB for interest rates is binding.

7 See, for example, Blanchard, O. and Giavazzi, F., "Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets", *Quarterly Journal of Economics*, Vol. 118, No 3, August 2003, pp. 879-907.

8 For a discussion of this, see Blanchard, O.J., Froot, K.A. and Sachs, J.D. (eds.), *The Transition in Eastern Europe*, University of Chicago Press, 1994.

9 See, for example, Everaert, A. and Schule, W., "Structural Reforms in the Euro Area: Economic Impact and Role of Synchronization across Markets and Countries", *Working Paper Series*, No 06/137, IMF, 2006.

10 See, for example, Tompson, W., *The Political Economy of Reform: Lessons from Pensions, Product Market and Labour Markets in Ten OECD Countries*, OECD Publishing, 2009.

11 For a discussion of this, see Eggertsson, G., Ferrero, A. and Raffo, A., "Can Structural Reforms Help Europe?", *Journal of Monetary Economics*, Vol. 61, Elsevier, January 2014, pp. 2-22.

12 See Fernández-Villaverde, J., "Discussion of 'Can Structural Reforms Help Europe?' by Gauti Eggertsson, Andrea Ferrero and Andrea Raffo", *Journal of Monetary Economics*, Elsevier, 2013, or Vogel, L., "Structural reforms at the zero bound?", *European Economy - Economic Papers*, No 537, DG ECFIN, European Commission, November 2014, for the most recent findings.

2 STRUCTURAL REFORMS IN THE EURO AREA DURING THE CRISIS

Euro area countries adopted a wide spectrum of structural measures in response to the economic crisis and the financial market turmoil. Reform efforts were mainly concentrated in countries under stress (see Box 2) facing strong macroeconomic imbalances and vulnerabilities. Areas covered by the measures ranged from labour, product and financial markets to trade and fiscal policy, with the aim of making economies more flexible and resilient and ultimately increasing sustainable growth and restoring employment creation.

Box 2

IMPACTS OF STRUCTURAL REFORMS IN STRESSED EURO AREA COUNTRIES

Since the financial crisis, stressed euro area countries have implemented a number of structural reforms with initial results suggesting substantial gains in terms of output. The aim of this Box is to shed some light on the possible quantitative impact of structural reforms on key macroeconomic variables in a selected group of stressed euro area countries.[1]

A number of structural reforms were implemented in Greece. The IMF[2] estimates that policies which close roughly half the gap in product and labour markets with the rest of the euro area – which seems to be what Greece achieved during the crisis according to changes in the OECD's product market regulation (PMR) and employment protection legislation (EPL) indicators – could raise real GDP by about 4% after five years and by 10% in the long run. A study by the Foundation for Economic and Industrial Research,[3] which also uses the Global Integrated Monetary and Fiscal (GIMF) model, suggests similarly significant effects on output, employment, productivity and competitiveness in the long run.

A wide range of structural reforms support recovery in Ireland. The Irish Government Economic and Evaluation Service (IGEES),[4] for example, estimates that a range of reforms in the areas of tax policy, access to finance, competition policy, wage competitiveness, labour market activation and human capital could result in a permanent increase of 1.3% in the level of GDP by 2020 relative to the baseline forecast. Additionally, 26,000 jobs relative to the baseline could be added.

In Italy, further reforms are crucial to enhancing the output potential. Several studies[5] on the possible impacts of potential structural reforms are available. In the case of significant labour and product market reforms, which would align Italy with "best practices", GDP could increase by more than 10% in the long run. Implementing both reforms simultaneously could yield even higher gains in GDP.

1 The total impact has not been fully captured yet by the data or respective models. Another caveat, which is particularly relevant for stressed countries, is that it is difficult to differentiate between fiscal measures and purely structural measures, because they are implemented simultaneously in many cases. With these caveats in mind, preliminary evidence suggests that substantial gains in terms of output can be attributed to structural reforms.
2 IMF Country Report No 13/155, June 2013.
3 Foundation for Economic & Industrial Research, "Assessing the Macroeconomic Impact of Structural Reforms in Greece", 2014.
4 "Quantification of the Economic Impacts of Selected Structural Reforms in Ireland", *IGEES Working Paper*, July 2014.
5 For a summary of studies on the impacts of structural reforms on the Italian economy, see "OECD Economic Surveys: Italy 2013", OECD Publishing, 2013.

In Portugal, the 2009-13 reforms have already raised the levels of productivity and potential GDP. According to OECD estimates,[6] the reforms will have resulted in a 3.5% increase in these variables by 2020. Further analysis by the OECD suggests that were Portugal to move to best practice among OECD countries in various areas of product market regulation, this would yield an additional increase in the level of GDP of 5.5% by 2020.[7]

In Spain, the main benefits seem to have derived from the 2012 labour market reform. A study by the OECD,[8] for example, shows that up until the second quarter of 2013 50% of the observed drop in unit labour costs and at least 25,000 new permanent contracts per month mainly in the small firms segment can be attributed to this reform. The 2012 labour market reform crucially included a move toward firm-level bargaining and changes to dismissal legislation. In this context, a separate analysis by the Banco de España[9] indicates that the residuals from a regression of wages on prices, unemployment, and productivity have been declining since 2008. This suggests that the labour market reforms implemented over this period are also potentially reflected in wage moderation beyond what is caused by productivity, price and business cycle developments.

Significant gains for stressed euro area countries have also been made in the area of product market reforms. The European Commission estimates that the EU's Services Directive and the business environment reforms implemented up until mid-2013 have boosted labour productivity in the sectors affected by the Directive by around 4.3%, 5.7%, 7% and almost 9% in Portugal, Spain, Italy and Greece, respectively.[10]

6 "Portugal: Reforming the State to promote growth", *Better Policies Series*, OECD Publishing, May 2013.
7 "Portugal: Deepening structural reform to support growth and competitiveness", *Better Policies Series*, OECD Publishing, July 2014.
8 "The 2012 Labour Market Reform in Spain: A Preliminary Assessment", OECD Publishing, June 2014.
9 Izquierdo, M., Lacuesta, A. and Puente, S., "The 2012 labour reform: an initial analysis of some of its effects on the labour market", *Economic Bulletin*, Banco de España, September 2013.
10 "Market Reforms at Work in Italy, Spain, Portugal and Greece", *European Economy*, 5/2014, DG ECFIN, European Commission; in addition, Varga, J., Werner, R. and in 't Veld, J., in "Growth Effects of Structural Reforms in Southern Europe: The case of Greece, Italy, Spain and Portugal", *European Economy - Economic Papers*, No 511, DG ECFIN, European Commission, December 2013, identify education and tax reforms as the most promising areas for structural policy intervention and confirm that structural reforms yield significant economic gains in the medium and long run.

A number of countries have introduced labour market reforms to increase labour market flexibility and boost employment. Labour market flexibility has been increased by reducing severance payments, streamlining the administrative procedures for the termination of open-ended contracts, facilitating alternative employment dispute resolutions and introducing a faster dedicated judiciary track. At the same time, in those countries where the degree of labour market segmentation was particularly high and therefore detrimental to productivity, reductions in excessive employment protection for permanent workers have often been combined with stricter criteria for the use of temporary contracts. A number of countries have taken measures to reduce the tax wedge and to revise wage-setting mechanisms towards giving more prominence to firm-level bargaining relative to economy-wide collective agreements.

Pension market reforms to build more sustainable pension systems and to increase labour supply have also been implemented. Major reforms in pensions increased statutory retirement ages, while pension benefits were reduced in order to improve the sustainability of pension systems while also increasing labour supply and thereby raising potential output.[13]

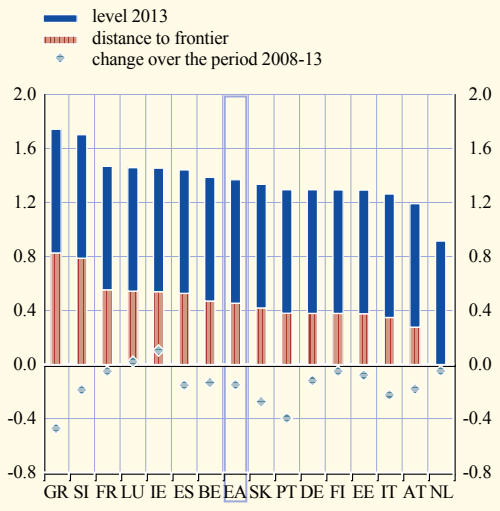
13 See the article entitled "The impact of the economic crisis on euro area labour markets", *Monthly Bulletin*, ECB, October 2014. See also "Euro area labour markets and the crisis", *Occasional Paper Series*, No 138, ECB, October 2012, which shows that pension market reforms led to an increase in employment and participation.

Progress with product market reforms has also been notable. Measures have been adopted in some euro area countries to reduce the administrative burden involved in setting up a new business, to improve firms' access to finance and to improve competition in sheltered sectors. Regulations regarding market entry have been revised in the energy, professional services and transport sectors in many countries. A number of product market reforms have also been initiated in the context of strengthening the EU Single Market.

The pace of reform implementation has slowed down recently, despite emerging evidence highlighting the beneficial effects of significant reforms implemented since 2008. The product market regulation (PMR) and employment protection legislation (EPL) indicators calculated by the OECD show that reform implementation was significant, particularly in the stressed countries, between 2008 and 2013. Evidence on the impact of structural reforms implemented up to 2013 suggests that measures have started to deliver along various dimensions, ranging from productivity increases, export performance, and possibly increased responsiveness of inflation to economic activity (see Boxes 2 and 3). However, the pace of reform has recently slowed.

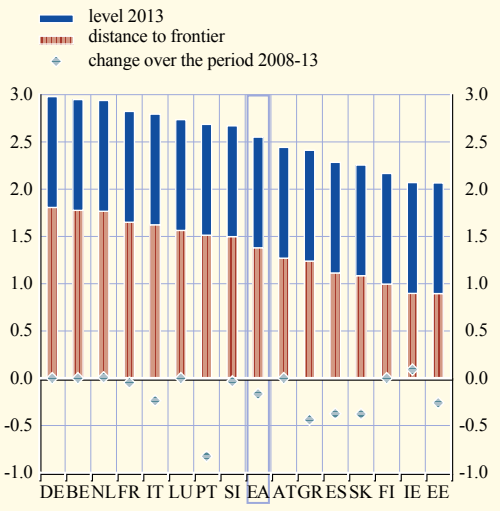
Ample space for potential reforms in the euro area remains, although there is substantial heterogeneity across countries. The PMR and EPL indicators both reveal substantial cross-country heterogeneity in the euro area and confirm that the distance to the frontier of the most flexible OECD country is still substantial (see Charts 2 and 3). Although the PMR and EPL indicators do not capture all the factors which may affect regulation, they provide a reasonable indication of rigidities that can be compared across countries.

Chart 2 Product market regulation



Source: OECD.
Notes: Countries ordered by rank in 2013. Synthetic indicators of the strictness of the regulation of product markets (e.g. state control, barriers to entrepreneurship, trade and investment, etc.). A higher value means stricter regulation. The frontier is the best performer in the OECD, namely, the Netherlands. The euro area average consists of countries which are members of the OECD and for which values are available.

Chart 3 Employment protection legislation



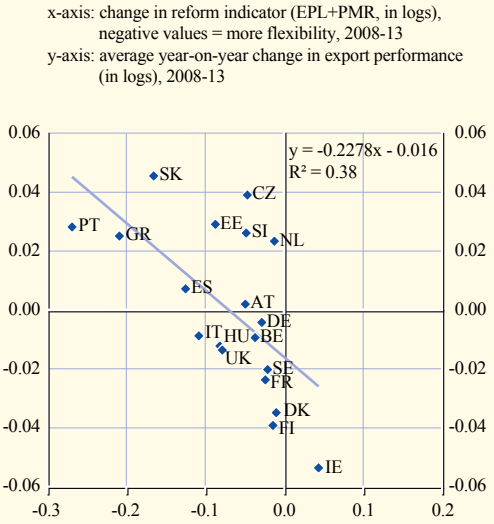
Source: OECD.
Notes: Countries ordered by rank in 2013. Synthetic indicators of the strictness of the regulation of labour markets (e.g. notice periods, severance payments, use of temporary contracts). A higher value means stricter regulation. The frontier is the best performer in the OECD, namely, the United States. The euro area average consists of countries which are members of the OECD and for which values are available.

Box 3

EARLY EVIDENCE OF STRUCTURAL REFORMS AT WORK IN THE EURO AREA

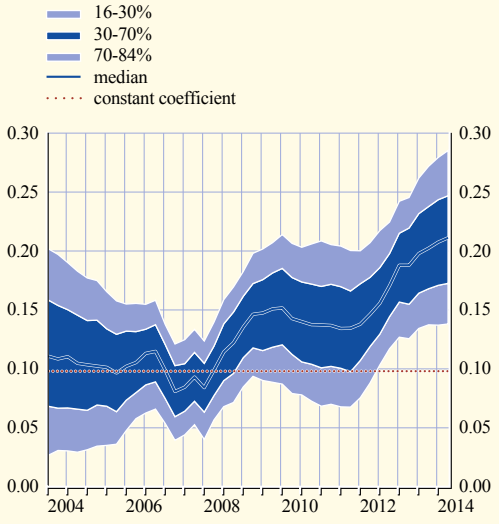
Euro area countries which have implemented structural reforms appear to have improved their export performance. Based on data for the period from 2008 to 2013, those countries tend to show better "underlying" export performance compared to countries which implemented fewer reforms over this period.[1] This is well reflected in the strong positive correlation between underlying export performance and structural reforms, where the latter are measured by the change in the OECD's employment protection legislation and product market regulation indicators (see Chart A). The measure of export performance is based on Gaulier et al.[2] and excludes the change in export market share growth which is due to specialisation in fast-growing geographical areas or sectors. It thus captures the underlying export performance driven by price and non-price competitiveness developments, the main channels through which structural reforms affect exports. Model-based simulations for product and labour market reforms – illustrated as gradual decreases in price and wage mark-ups – in a small euro area country using the EAGLE model support the empirical findings from Chart A (see Box 1).[3]

Chart A Structural reforms and export performance



Sources: OECD, Gaulier et al. (2015) and ECB calculations.
Note: Slope parameter is significant at the 5% level.

Chart B Time-varying estimates of the Phillips curve slope[1)]



Sources: Eurostat and ECB calculations.
1) The Phillips curve relates de-meaned annualised quarterly growth rates of the HICP excluding energy and food (seasonally adjusted) to its first two lags and the first lag of the output gap. The coefficients and the log of the error variances evolve as random walks without drift and are estimated using Bayesian methods. The slope is the coefficient of the output gap."Constant coefficient" refers to the estimates of a constant coefficient model based on the 1996-2014 sample.

1 Two main caveats to this analysis are noteworthy. First, the analysis is only available for exports of goods. While this limits the scope of the exercise, there is no reason to believe that structural reforms affect goods and services exports in a substantially different way. Second, the measurement of export performance is based on the intensive margin of trade only.
2 Gaulier, G., Santoni, G., Taglioni, D. and Zignago, S., "In the wake of the global crisis: evidence from a new quarterly database of export competitiveness," *Policy Research Working Paper Series*, No 6733, The World Bank, 2013.
3 See the *Monthly Bulletin* article entitled "Country adjustment in the euro area: where do we stand?", ECB, May 2013.

Structural reforms might also have affected inflation dynamics in the euro area. Such an impact can occur through increased flexibility of prices and wages, which can render inflation more responsive to economic activity. This is consistent with empirical results which show an increase in the estimated slope of the Phillips curve for the euro area in recent years (see Chart B). An analysis of wage developments also indicates an increasing responsiveness of wages to unemployment as the crisis becomes more protracted, possibly suggesting that labour market reforms are starting to make wages more flexible in some euro area countries.[4,5]

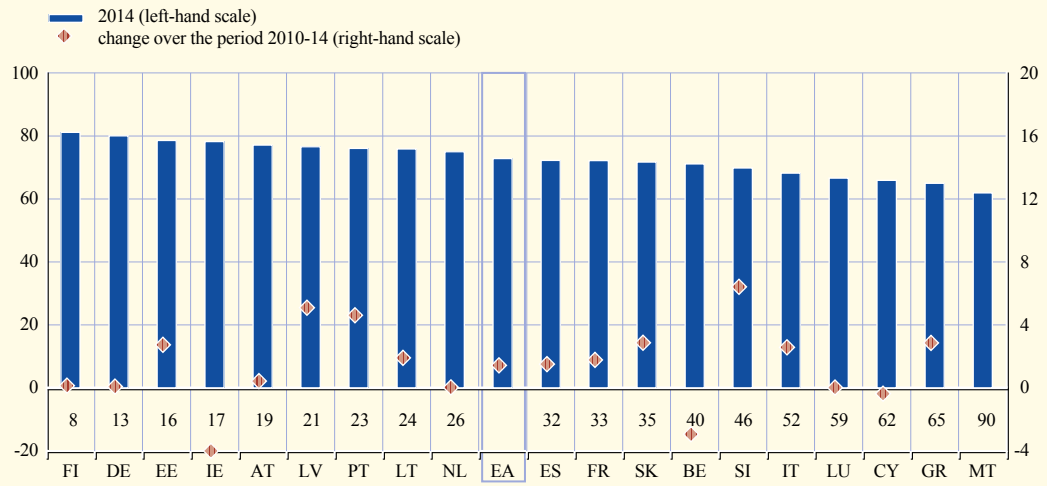
4 Nominal wage rigidities seem to have declined as the crisis has become more protracted, perhaps indicating that recent labour market reforms are putting downward pressure on wages (see "Comparisons and contrasts of the impact of the crisis on euro area labour markets", *Occasional Paper Series*, No 159, ECB, February 2015).
5 Several caveats are associated with the estimation of a reduced-form Phillips curve. Since there is no agreed upon functional form of the Phillips curve, results might be sensitive to the chosen specification and estimation method.

3 FURTHER REFORM NEEDS IN THE EURO AREA

Structural reforms should be a matter of priority for euro area countries. Further reforms would not only benefit the countries implementing them, but would also support the euro area recovery and strengthen the monetary policy transmission mechanism.

Reforms which directly address bottlenecks and barriers to entry to increase the ease of doing business are of key importance. Chart 4 shows that in a majority of euro area countries the business environment remains unfriendly and could be substantially improved. Indeed, several euro area countries remain far from the frontier and well below the top ranking countries in the world, with only one euro area country among the top ten. Reducing costs associated with starting a business and decreasing regulatory barriers to firm entry would significantly improve the business environment.

Chart 4 World Bank's ease of doing business index: distance to frontier



Source: World Bank.
Notes: Countries ordered by distance to frontier in 2014. The 2014 score measures the gap between a particular economy's performance and best practice. Zero represents the lowest performance and 100 represents the frontier (measured by the highest ranking country). No value for Malta prior to 2013 is available. EA reflects the simple average across the euro area countries. Values on the x-axis reflect the respective country's position in the overall 2014 ease of doing business index.

Further reforms are necessary in labour markets. Reforms are needed which allow workers to redeploy quickly to new sectors and job opportunities and which reduce unemployment duration and structural unemployment. This requires policies which enable firm-level agreements that allow wages to better reflect local labour market conditions and productivity developments, allow greater wage differentiation across workers and between sectors, reduce employment adjustment rigidities and labour market dualities and enhance labour mobility within and across euro area countries, thereby helping to reduce structural mismatch. The latter will also be helped by building up the skills of the workforce through effective active labour market programmes for the unemployed and enabling more vocationally relevant qualifications to be gained through training and education.

More reform in product markets would increase the potential for growth in the euro area and help speed up the reallocation of resources and employment to more productive sectors. Continued product market reforms, including the liberalisation of the professions, are essential to reducing excessive administrative burdens and providing the necessary market signals for the successful reallocation and restructuring of the euro area economy. One of the sectors in which EU-wide initiatives are already underway is the services sector. However, there is still significant room for further reforms to boost competition and productivity.[14]

4 CONCLUSION

Structural reforms have the potential to reinvigorate growth in the euro area in both the short and longer run. With the appropriate design, as well as credible and careful implementation, reforms can minimise or eliminate possible negative short-term dynamics for some components of GDP and maximise longer-run positive impacts. The credibility of reforms and their implementation plays a crucial role by strengthening confidence channels and bringing forward the positive impacts of reforms via higher anticipated incomes and positive responses in the financial markets.

More reforms are needed at the country level to reinforce and stimulate the Monetary Union's growth potential. Although significant progress has been made in recent years, there is still considerable scope and urgent need for more structural reforms across the euro area. Countries with comparatively more rigidities will benefit the most from structural reforms. While reforms remain first and foremost in the interest of the individual euro area country concerned, they also facilitate the smooth functioning of the Monetary Union as a whole by making the euro area more flexible and resilient in response to macroeconomic shocks and also facilitating the restructuring of economies.

14 See, for example, Monteagudo, J., Rukowski, A. and Lorenzani, D., "The economic impact of the Services Directive: A first assessment following implementation", *European Economy - Economic Papers*, No 456, DG ECFIN, European Commission, June 2012, or Fernández-Corugedo, E. and Pérez-Ruiz, E., "The EU Services Directive: Gains from Further Liberalization", *Working Paper Series*, No 14/113, IMF, 2014.

WHO HOLDS WHAT? NEW INFORMATION ON SECURITIES HOLDINGS

The financial crisis of 2008-09 highlighted the need for granular information on holdings of individual securities. This article introduces new statistics – securities holdings statistics – which have been collected by the European System of Central Banks since the beginning of 2014 and significantly help to close the information gap on securities holdings both within the euro area and between the euro area and the rest of the world. In particular, since the data are collected on a security-by-security basis, they provide a vast range of new breakdowns. This article describes the scope, content and coverage of the new statistics. In addition, it illustrates the value added of these new data on the basis of a few specific examples and outlines the future potential uses of the data.

1 INTRODUCTION

When Lehman Brothers collapsed in September 2008, policy-makers, including central banks, had very limited information about who was exposed to the securities at stake. In particular, most of the then available official statistics only provided aggregated information, thereby making it difficult to identify exposures of market participants or sectors to a particular issuer or to capture the extent of contagion that such an event could trigger.[1]

This and similar experiences, where a lack of detailed data hindered swift policy action, pointed to the need for highly granular information on securities holdings and accelerated the preparatory work of the European System of Central Banks (ESCB) on the development of new statistics to help fill this information gap.[2] This work resulted in two legal texts[3] that provide a sound legal basis for the collection of a comprehensive dataset on securities holdings for the euro area. The actual data collection of the new securities holdings statistics (SHS) started in early 2014, with the first data referring to holdings at the end of December 2013.

The rest of this article is organised as follows. Section 2 introduces SHS data collection, including scope, content and coverage. Section 3 illustrates the possible use of SHS data by means of examples. Finally, Section 4 concludes.

2 THE MAIN FEATURES OF SECURITIES HOLDINGS STATISTICS

SHS data have been collected quarterly since the fourth quarter of 2013 and cover the two main types of security: debt securities and equity securities (including investment fund shares). The main feature of these data is that holding information is collected on the level of each individual security, i.e. security by security.

1 See Harford, T., "Let's have some real-time economics", *Financial Times*, 7 March 2014.
2 See Sola, P. and Strobbe F., "Addressing data gaps revealed by the financial crisis: European Central Bank statistics on holdings of securities", Irving Fisher Committee on Central Bank Statistics, *IFC Bulletin*, No. 34: Proceedings of the IFC Conference on "Initiatives to address data gaps revealed by the financial crisis", Bank for International Settlements, Basel, August 2010.
3 Regulation of the European Central Bank of 17 October 2012 concerning statistics on holdings of securities (ECB/2012/24) and Guideline of the European Central Bank of 22 March 2013 concerning statistics on holdings of securities (ECB/2013/7).

2.1 DATA COLLECTION

The collection of data on securities holdings on a security-by-security basis has gained considerable ground in recent years given its advantages.[4] Before the introduction of security-by-security data collection, reporting agents were required to aggregate data according to breakdowns defined by the statistical authority before reporting them (the "aggregate method"). This method requires, on the one hand, reporting agents to understand statistical codes and to use them to aggregate the data. On the other hand, statistical compilers have to ensure that each reporting agent implements the aggregation and applies the statistical standards in the same (harmonised) way. Additionally, whenever changes are necessary, all reporting agents have to adapt their systems accordingly.

In security-by-security data collection, the aggregation step is eliminated on the side of the reporting agents. The agents only have to report a few essential items, such as the International Securities Identification Number (ISIN), which is widely used in the financial markets, and the corresponding monetary amounts (positions and/or transactions). The statistical compiler then uses the ISIN and reference data on securities to calculate the necessary aggregates centrally. This in turn ensures a harmonised treatment of the data of each reporting agent and thus allows the compiler to manage data quality accurately. Moreover, the availability of highly granular data enables the calculation of a wide range of breakdowns even retrospectively (whenever necessary), without placing an additional burden on reporting institutions. While the costs borne by reporting agents are reduced, the costs to the statistical authority increase due to the granular data collection, extensive data manipulation and reference data maintenance. Nevertheless, the numerous benefits more than outweigh the costs. In particular, recent advances in IT solutions, infrastructure and related communication channels have made such wide-scale data collection considerably easier.

2.2 SCOPE

The SHS project contains two data modules (the SHS Sector and the SHS Group), which differ on account of the granularity of the information on the holder's side (see Chart 1). The SHS Sector module provides aggregate information on the holdings of institutional sectors resident in individual countries, while the SHS Group module currently contains information on the individual holdings of the 25 largest banking groups with head offices in the euro area (i.e. holder-by-holder information).

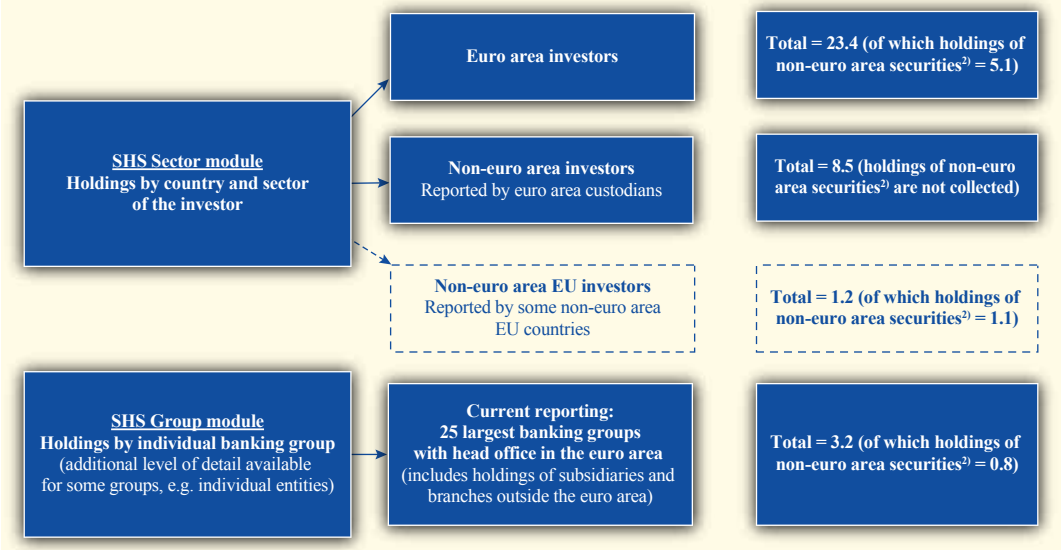
Furthermore, the SHS Sector module encompasses two main distinct sets of data: (i) holdings of securities by investors resident in the euro area, such as households in Germany or monetary financial institutions (MFIs)[5] in France, and (ii) non-resident investors' holdings of euro area securities that are deposited with a euro area custodian, such as US investors' holdings

4 In the United States, for instance, the collection of Treasury International Capital (TIC) data on foreign holdings of US securities and US holdings of foreign securities relies on this method. For more information on the TIC data set, see http://www.treasury.gov/resource-center/data-chart-center/tic/Pages/index.aspx. Several other statistical series published by the ECB, such as balance of payments or investment fund statistics, also rely on this method. The SHS database is, however, the only example of an integrated international database covering security-by-security data on holdings of securities (i.e. covering data collected from many countries).

5 For the purposes of this article, the MFI sector comprises deposit-taking corporations and money market funds, excluding central banks, unless indicated otherwise.

Chart 1 Overview of the two SHS modules

(EUR trillion, market values)



Sources: ECB (SHS Sector and SHS Group) and ECB calculations.
1) SHS Sector third-party holdings by non-financial investors and holdings of securities without ISINs are excluded.
2) Non-euro area securities refer to securities issued by non-euro area residents.

of German securities deposited in Luxembourg. In addition, most non-euro area EU countries (namely Bulgaria, the Czech Republic, Denmark, Hungary, Poland and Romania) also collect SHS Sector data.

The magnitudes of the collected holdings are rather substantial, particularly of those in the SHS Sector module. Total holdings by euro area investors amounted to some €23.4 trillion at the end of June 2014,[6] covering holdings of both securities issued by euro area residents (around €18.3 trillion) and those issued by non-euro area residents (around €5.1 trillion). The holdings by non-euro area investors reported by euro area custodians are of a significantly smaller magnitude – around €8.5 trillion – and only refer to holdings of securities issued by euro area residents. Data reported by non-euro area EU countries cover holdings of around €1.2 trillion; the rest of this article, however, focuses on the data from euro area countries.[7]

The SHS Group module includes significantly smaller amounts. It covers holdings of around €3.2 trillion reported by a limited sample of large banking groups with their head offices in the euro area (the 25 largest banking groups at the end of the second quarter of 2014). The SHS Group module comprises the holdings of securities by the whole group, including by the group's subsidiaries and branches resident outside the euro area. Holdings of securities issued

6 The figures presented in this article refer to the end of June 2014, unless stated otherwise.
7 There is a certain overlap between both types of data. The part of the holdings of the euro area securities reported by EU countries not belonging to the euro area can also be found in the data collected from the euro area custodians, although with a limited sector breakdown in the latter.

by both euro area residents (€2.4 trillion) and non-euro area residents (€0.8 trillion) are covered in this module.

It is worth noting that, in many cases, SHS data help to fill long-standing statistical gaps – even on an aggregated basis – with information not previously available from any other data source. For instance, the SHS Sector module also contains data that refer to holdings by non-financial sectors in other euro area countries reported by euro area custodians (e.g. holdings by German households deposited with, and thus also reported by, custodians in Luxembourg). These holdings amount to some €0.4 trillion.

2.3 CONTENT

The collection of holdings data on a highly granular, security-by-security level provides the possibility to link SHS data with other databases, notably those with reference data on individual securities, typically using an ISIN as the matching element. In the case of SHS data, an integral part of the data compilation is the link to information from the Centralised Securities Database (CSDB)[8], jointly operated by the ESCB, which is a multi-purpose platform currently containing reference information (such as price, issuer name and outstanding amount) on over six million outstanding debt securities, equities and investment fund shares.

As a result, SHS data enriched by CSDB information contain a high number of attributes, which can be freely combined to derive various breakdowns and/or aggregations on both the issuer and holder sides (see Table 1 for some of the main attributes). For instance, the SHS Sector module can be used to obtain information on the market value of holdings by the French MFI sector of debt securities maturing in three years and issued by a specific non-financial institution.

Table 1 Selected attributes from the SHS dataset enriched by CSDB information

SHS data collection		CSDB reference data	
Holder data **Who is the holder?**	**Holding value** **How much is it worth?**	**Security data** **What is held?**	**Issuer data** **Who is the issuer?**
SHS Sector module[1)] – Sector – Country	Market value Nominal value Notional flows[3)] Accrued income	Security identifier (ISIN) Instrument type Price Maturity date Market capitalisation	Issuer name/code Issuer sector Issuer country NACE classification
SHS Group module[2)] – Individual banking groups		Outstanding amount Currency Eligibility for Eurosystem operations	

1) Information about holders is only available on an aggregate (by institutional sector and/or country) level, i.e. not by individual holder. The main holding sectors available are (i) deposit-taking corporations, (ii) money market funds, (iii) investment funds, (iv) financial vehicle corporations, (v) insurance corporations, (vi) pension funds, (vii) other financial corporations, (viii) general government, (ix) non-financial corporations, (x) households and (xi) non-profit institutions serving households. For holdings by non-euro area investors, the sector breakdown is restricted to (i) general government and central banks and (ii) other investors.
2) Information available by individual (group) holder.
3) Notional flows refer to estimated values of transactions (i.e. they reflect changes in positions adjusted for price and exchange rate variation, as well as for other changes in volume due to reclassifications, adjustments, etc.).

8 For more information, see the publication entitled "The Centralised Securities Database in brief" on the ECB's website.

2.4 COVERAGE

SHS data are regularly checked against comparable data sources in order to ensure sufficient quality and coverage. In particular, they are compared with other ECB statistics, such as the integrated euro area financial and non-financial accounts (EAA), MFI balance sheet statistics, insurance corporation and pension fund statistics, investment fund statistics and securities issues statistics, as well as with consolidated banking data. Such comparison exercises and subsequent investigations provide valuable insights into the reasons for possible discrepancies, including possible conceptual and measurement differences.

Box 1 describes in detail the various aspects that can be the source of differences between SHS data and other available statistics on securities holdings. In particular, it highlights that the SHS Sector data on holdings by euro area investors are of a higher quality and coverage (as well as being more detailed) than those on holdings by non-euro area investors reported by euro area custodians. The main reason for this is that the former are often collected through direct reporting by the actual holders, whereas the latter only rely on indirect reporting by euro area custodians, presumably covering only part of the total holdings by non-euro area residents.

Box 1

DIFFERENCES BETWEEN SHS DATA AND OTHER SECURITIES STATISTICS

A number of features of SHS data have to be taken into account when reconciling the main aggregates derived from these data with other available (aggregate) statistics on securities holdings. SHS data collection focuses on securities about which detailed information can be provided in a highly standardised manner, i.e. debt securities, investment fund shares and listed shares (unlisted shares are not covered). Furthermore, holdings of securities without ISINs are only collected in some countries and have not, at the time of writing, been incorporated in the regular SHS aggregates (reported data amount to almost €1 trillion, mainly issued by investment funds).

More importantly, one of the main aspects that influence the coverage and quality of SHS data is the collection method, i.e. whether the data are collected through direct reporting by the actual investors or indirectly through custodians that hold (for safekeeping) the securities on behalf of the actual investors. The indirect, custodian method allows the collection of data from a relatively low number of specialised reporting agents. The main disadvantage is that securities held by a custodian that is not subject to SHS reporting[1] are not covered. Moreover, a custodian may not know the final investor and thus the data are likely to suffer from "custodial bias" (especially if the custodian's customers are institutions transacting on behalf of a third party/customer), affecting the geographical and sector breakdown on the investor side.

The custodian method is typically used if the investor is located outside the respective jurisdiction or if the costs to collect the data directly from the investors are too high (e.g. for holdings by households or by small non-financial corporations). In the case of SHS,

1 Custodians not resident in the euro area, for instance, given that the ECB's regulations can only be applied to residents of the euro area.

custodial reporting is used to collect information on holdings by non-euro area investors of euro area securities (e.g. US holdings of euro area government debt) and on holdings by non-financial sectors in the euro area (e.g. holdings by German households).

Another conceptual difference is caused by the treatment of derogations. While the least relevant reporting agents are subject to derogations in almost all official statistics, the final aggregates usually account for the effect of the derogations by estimating them. However, this is currently not the case for SHS data as, owing to the focus on security-by-security data, all SHS aggregates are built in such a way that they can be disaggregated up to the individual holding.

Other differences may exist, including valuation and measurement differences, depending on the selected benchmark data. For instance, while the SHS holdings are available in both market and nominal values, the other data sources may rely on a combination of different valuation methods applied to different sub-sets of the overall holdings.

The SHS Sector module covers around 83% of the total outstanding amount of securities issued by euro area residents (see Table 2). Put differently, the holding sector and country are known for around €27 trillion of the amount outstanding of €32 trillion obtained from the ECB's EAA data, which measure both the holdings and outstanding issuance by all euro area sectors at an aggregated level and thus provide a comprehensive benchmark for the SHS Sector data (see also Box 2). The coverage of debt securities (92%) is found to be higher than that of shares (73%).

A more detailed comparison can be carried out with the EAA data on holdings by each sector in the euro area (see Table 3). Overall, the SHS Sector data cover around 83% of the aggregates in the EAA data, but there are differences across the holding sectors. For instance, SHS coverage tends to reach nearly 90% for the MFI sector and for other financial intermediaries and auxiliaries, which in most cases are subject to direct reporting. By contrast, coverage lies below 80% for euro area non-financial investors, which are generally not subject to direct reporting.

SHS coverage of holdings by non-euro area investors reported by euro area custodians is also relatively high, around 81%, compared with liabilities from the EAA data, which amount to some €10.6 trillion. Coverage is high for debt securities and quoted shares but rather low for investment funds shares. In addition to the caveats of indirect reporting by custodians (see Box 1 for more details), the quality of SHS data on holdings by non-euro area investors is still improving, given that the collection of these data has only recently started in the euro area.[9]

Table 2 SHS Sector holdings of securities issued by euro area residents at the end of the second quarter of 2014

(EUR trillion, market values)

	Debt securities	Shares	Total
Amount outstanding of securities issued in the euro area (EAA)	17.7 (100%)	14.5 (100%)	32.2 (100%)
Of which covered by SHS Sector holdings	16.2 (92%)	10.7 (73%)	26.9 (83%)
Held by euro area investors	*10.6*	*7.7*	*18.3*
Held by non-euro area investors	*5.6*	*2.9*	*8.5*

Sources: ECB (SHS Sector and EAA) and ECB calculations.

9 SHS Sector holdings by domestic investors have been collected by the ESCB on a voluntary and "best-effort" basis since early 2009. Moreover, even prior to 2009, some euro area countries had national collection systems for securities holdings by domestic investors in place.

Table 3 Securities holdings by euro area sectors at the end of the second quarter of 2014

(EUR billion, market values)

	SHS Sector	EAA	SHS coverage (in percentages)
Euro area financial sectors	**18,316**	**21,700**	**84**
Monetary financial institutions	6,152	6,914	89
Other financial intermediaries and auxiliaries	7,488	8,705	86
Insurance corporations and pension funds	4,676	6,081	77
Euro area non-financial sectors	**5,036**	**6,408**	**79**
Non-financial corporations	1,434	1,955	73
General government	746	982	76
Households	2,856	3,471	82
Total	**23,352**	**28,108**	**83**

Sources: ECB (SHS Sector and EAA) and ECB calculations.

3 SOME EXAMPLES OF HOW SECURITIES HOLDINGS STATISTICS DATA CAN BE USED

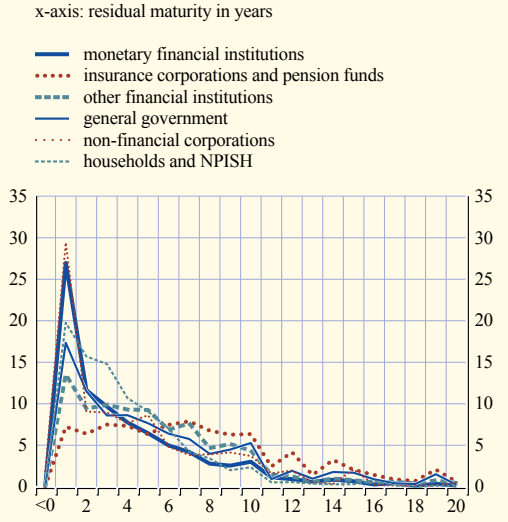
Given the richness of SHS data, it is not feasible to present a comprehensive overview of their possible uses. Nevertheless, the following case studies at least attempt to give a flavour of potential uses, such as for monetary policy, financial stability and financial integration. Box 2 also explains the benefit that the new SHS data may bring to other statistics, using the example of the future use of the SHS Sector data to enhance the EAA.

3.1 CASE STUDY 1: ANALYSES OF INVESTMENT PATTERNS BY EURO AREA SECTOR

SHS data can be used to investigate the differences in investment patterns by euro area sector by analysing, for example, the residual maturity profile of sectors' holdings of debt securities (see Chart 2). The data highlight the greater share of holdings of short-term securities in the portfolios of non-financial sectors (i.e. households, non-financial corporations and general government). Conversely, holdings by insurance corporations and pension funds include the lowest share of securities with a short maturity. The profile of holdings by MFIs may reflect the different functions of that sector (e.g. investment in short-term money market funds and commercial paper on the one hand, and, on the other, market-making with a need for holdings of a broad maturity spectrum and the underwriting of securities issuances as a part of investment banking, which can lead to the warehousing of long-term debt).

Chart 2 Maturity profile of holdings of debt securities by euro area sector

(percentage of total holdings at the end of the second quarter of 2014)



Sources: ECB (SHS Sector) and ECB calculations.
Notes: Negative residual maturity represents holdings of securities past their scheduled maturity date following the bankruptcy of the issuer. NPISH stands for non-profit institutions serving households.

Knowing the exact maturity profile of securities holdings can prove useful when, inter alia, analysing the balance sheet channel of the monetary transmission mechanism, monitoring vulnerabilities related to the liquidity positions on the side of the issuers and measuring mismatches in the maturity of assets and liabilities. Moreover, changes in the holdings of various sectors are relevant in the context of assessing non-standard monetary policy measures like securities purchasing programmes. In particular, such information helps to assess the respective announcement and balance sheet effects and to gauge potential crowding-out effects. If needed, more granular data are also available, both on the investor side (a country-sector breakdown) and on the issuer side (up to the level of the individual issuer/security).

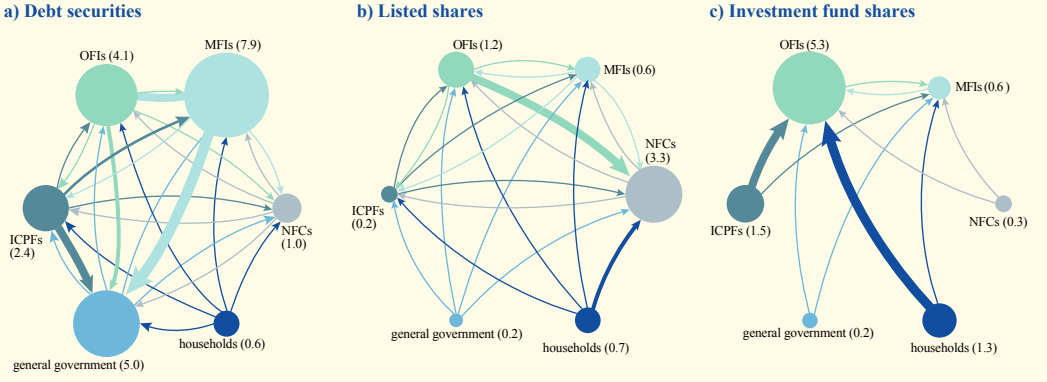
3.2 CASE STUDY 2: INTERCONNECTEDNESS OF THE MAIN EURO AREA SECTORS

One of the benefits of SHS data is that they provide information on securities holdings by main euro area sector, with the same sector on the issuer side. As this information was not previously available from other data sources for all euro area sectors, SHS data can be especially useful from the perspective of financial system stability in the euro area. In particular, the new information allows a better assessment of the interconnectedness of sectors, the level of systemic risk and the strength of possible contagion channels (both direct and indirect) in the system.

Direct exposures owing to securities issued by one euro area sector being held by another sector differ significantly, according to the type of security. The notable feature of the euro area debt market (see Chart 3, panel a) is that all three financial sectors are significantly exposed to a sovereign credit risk, with the largest chunk of government debt securities held by the MFI sector. By contrast, the euro area market for investment fund shares is dominated by the investment of households and insurance corporations, as well as pension funds, in shares issued by other financial institutions (see Chart 3, panel c). In turn, other financial institutions tend to invest heavily in listed shares issued by non-financial corporations (see Chart 3, panel b). However, it is also the case that

Chart 3 Interconnectedness of euro area sectors at the end of the second quarter of 2014

(EUR trillion)



Sources: ECB (SHS Sector) and ECB calculations.
Notes: Each node represents one euro area sector (NFCs = non-financial corporations, MFIs = monetary financial institutions, OFIs = other financial institutions, ICPFs = insurance corporations and pension funds, and households = households and non-profit institutions serving households). The arrows show the holdings by the corresponding sector of securities issued by another euro area sector, their thickness being proportional to the value of these holdings. The size of the nodes is proportional to the sum of (i) the market value of holdings by the respective sector of securities issued by euro area residents and (ii) the value of securities issued by the respective sector and held by euro area investors. This sum is also reported in brackets (EUR trillion).

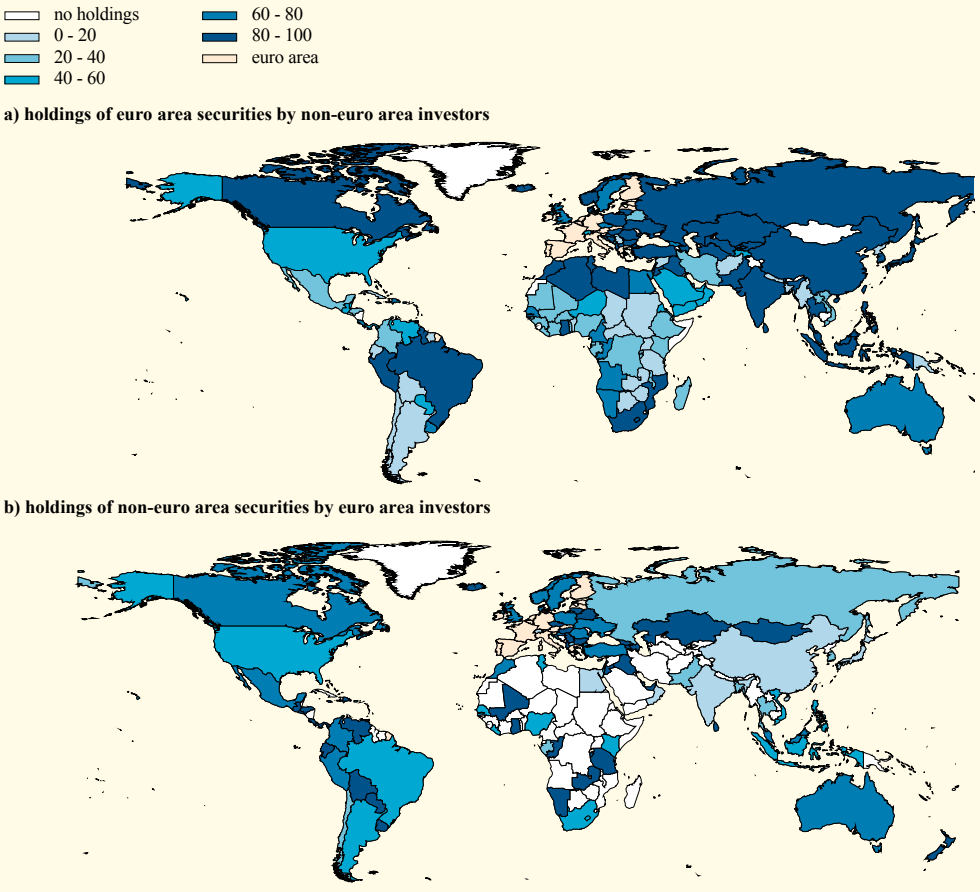
other financial institutions partially channel the initial investment in investment fund shares from other sectors (e.g. from households) to government debt securities. In fact, the share of government debt holdings in total holdings by investment funds is around 47%.

3.3 CASE STUDY 3: CROSS-BORDER SECURITIES HOLDINGS BY EURO AREA AND NON-EURO AREA INVESTORS

Besides the detailed information on intra-euro area holdings, SHS data contain useful information on securities holdings between the euro area and the rest of the world. In this way, they contribute to a better understanding of the degree and nature of financial integration worldwide.[10]

Chart 4 Share of debt securities in total securities holdings by each country/region at the end of the second quarter of 2014

(percentages)



Sources: ECB (SHS Sector) and ECB calculations.
Notes: Owing to confidentiality restrictions, the data of a few countries are not shown (selected countries with holdings of less than €1billion or countries with a very small geographical area) and some countries were aggregated into regions. In panel a), the six aggregated regions comprise the following countries: (i) China, Macau and Japan; (ii) Albania, Croatia and Macedonia; (iii) Turkmenistan, Kazakhstan and Uzbekistan; (iv) Saudi Arabia, Oman, Qatar, the United Arab Emirates and Yemen; (v) Libya, Tunisia and Algeria; and (vi) Angola, Namibia and Congo. In panel b), the only aggregated region consists of Costa Rica, Ecuador, Panama and Venezuela.

10 The use of SHS data for the development of financial integration indicators is also illustrated in Fache Rousová, L. and Rodríguez Caloca, A., "The use of Securities Holdings Statistics (SHS) for designing new euro area financial integration indicators", *Irving Fisher Committee on Central-Bank Statistics: Proceedings of the Seventh IFC Conference*, Basel, September 2014.

Chart 4 shows the difference between holdings of euro area securities by non-euro area investors (see Chart 4, panel a) and holdings of non-euro area securities by euro area investors (see Chart 4, panel b). First of all, when only distinguishing between countries shown in white (i.e. no holdings) and those shown in varying shades of blue (positive holdings), the chart shows that investment in the euro area is a worldwide phenomenon, as nearly every country in the world holds some euro area securities (see Chart 4, panel a). This is not the case for euro area investment in securities issued by the rest of the world (see Chart 4, panel b). In particular, some African countries do not seem to receive any securities investment from the euro area.

Second, the chart highlights that non-euro area investors from most countries, particularly the Asian ones, invest substantially more in euro area debt securities than in euro area shares (the shade of blue reflects the ratio of debt securities in total investment, i.e. the darker the colour, the more investment in debt securities as opposed to equities). A similar pattern is not found for euro area investment abroad, since the ratio of debt securities in total investment is much more balanced.

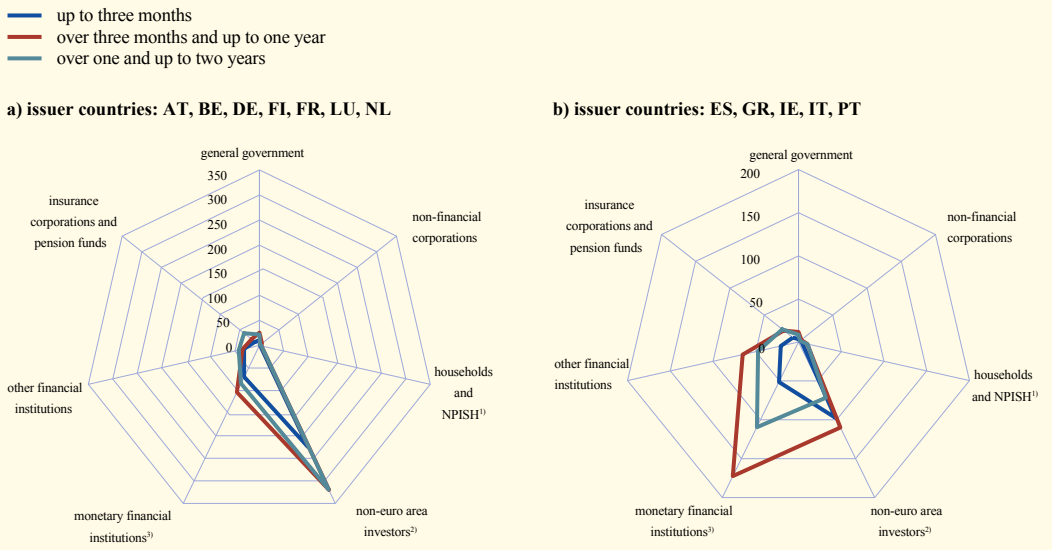
3.4 CASE STUDY 4: HOLDINGS OF DEBT SECURITIES ISSUED BY EURO AREA GOVERNMENTS

The granularity of SHS data may be used to analyse data on holdings of selected classes of security, such as those issued by a specific sector. In particular, the monitoring of holdings of debt securities issued by euro area governments serves a number of purposes, including financial stability analysis and the assessment of access to markets by sovereigns.

Chart 5 shows the differences in the profile of investors in government debt due in two years, issued by two groups of euro area countries: (i) those that did not experience market tensions during the euro area sovereign debt crisis and (ii) those that experienced tensions or even lost market

Chart 5 Preferences of investor sectors regarding holdings of euro area government debt securities due in two years, by residual maturity

(holdings in EUR billions, market value at the end of the second quarter of 2014)



Source: ECB calculations.
1) NPISH stands for non-profit institutions serving households.
2) Holdings by non-euro area investors are calculated as a residual (difference between amount outstanding and holdings by euro area sectors).
3) The MFI sector comprises deposit-taking corporations and money market funds and excludes central banks.

access. The share of holdings by non-euro area investors is significantly larger for securities issued by the former group of countries, while the latter group relies much more on funds from the euro area MFI sector. This is particularly striking for debt securities with maturities of over three months.

SHS Sector data also indicate that a disproportionally large share of government debt issued by the countries that experienced market tensions is held by the domestic MFI sector.[11] For instance, in the case of government debt due in two years, the domestic MFI sector holds around 48% of the total amount outstanding, compared with around 34% thereof in the other group of countries. This highlights the strong interdependence between these sovereigns and their domestic banking sectors.

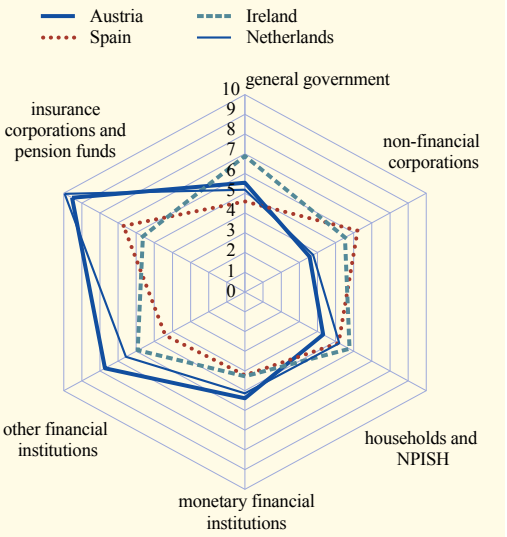
3.5 CASE STUDY 5: THE EFFECT OF INTEREST RATE CHANGES ON THE MARKET VALUE OF GOVERNMENT DEBT HOLDINGS

The aim of this case study is to calculate the (accounting) effect of interest rate changes on the market value of the portfolio of actual bond holdings. Quantifying this effect is relevant both from the monetary policy standpoint, particularly as an element of the balance sheet channel of the monetary transmission mechanism (see, for instance, Bernanke and Gertler, 1995, and Constâncio, 2014),[12] and from the financial stability perspective, as a measure of the vulnerability of the market value of holdings to interest rate risk.

To calculate the effect, information on the modified duration of each security is needed.[13] As it is not directly available in SHS data, it has to be taken from another source, such as the iBoxx database. Subsequently, this information is matched to the SHS holdings using ISINs as identifiers. Given the scarcity of the data on modified duration, this study focuses on a portfolio of government debt securities issued by selected euro area countries (Spain, Ireland, Austria and the Netherlands) and held by euro area sectors.

Chart 6 Percentage change in market value of selected euro area government debt securities after a 100-basis point decline in the reference interest rate, by euro area holder sector

(percentages, second quarter of 2014)



Sources: iBoxx and ECB calculations.
Notes: NPISH stands for non-profit institutions serving households. The chart reflects the weighted modified duration of the portfolio of specific government debt securities held by different euro area institutional sectors.

11 See Fache Rousová, L. and Rodríguez Caloca, A., op. cit.
12 See, for instance, Bernanke, B. and Gertler, M., "Inside the Black Box: The Credit Channel of Monetary Policy Transmission", *Journal of Economic Perspectives*, American Economic Association, Vol. 9(4), pp. 27-48, Fall, 1995 and Constâncio, V., "A new phase of the ECB's monetary policy", *ECB workshop on non-standard monetary policy measures*, Frankfurt am Main, October 2014.
13 Modified duration measures the percentage change in the bond price in response to a 100-basis point change in the reference interest rate (i.e. the semi-elasticity of a bond price to the interest rate). In particular, it allows a comparison of the properties of bonds with different maturities and with or without coupons.

The calculations imply that, for holdings by euro area financial investors, the weighted modified duration of securities issued by Spain and Ireland (both affected by the sovereign debt crisis) is lower than for securities issued by Austria and the Netherlands. More precisely, the results presented in Chart 6 mean that, following a decrease of 1 percentage point (100 basis points) in the reference interest rate,[14] the market value of the holdings of Irish government debt by euro area other financial institutions would increase by approximately 6%. By the same token, the corresponding increase in the market value of holdings of Austrian government debt would be somewhat higher, at around 8%.

14 More precisely, given that the holdings cover securities with different maturities, the scenario considered is a parallel shift in the yield curve.

Box 2

USE OF SHS FOR THE ENHANCEMENT OF THE INTEGRATED EURO AREA FINANCIAL AND NON-FINANCIAL ACCOUNTS BY INSTITUTIONAL SECTOR

The integrated euro area financial and non-financial accounts (EAA), published quarterly by the ECB since June 2007[1], provide a comprehensive overview of the economic and financial transactions by all institutional sectors in the euro area. Sectoral balance sheets, including aggregate information on the holdings of securities and the total amounts outstanding of securities issued, are also available from the accounts. When available with sufficient counterparty detail, the financial accounts provide the links between the holders of financial assets and the issuers of those assets. Thus, the new statistical data on the holdings of securities are a valuable source of information that will be used to enhance the EAA.

In the financial accounts, "who-to-whom" data refer to financial transactions and/or positions for which both the creditor and debtor sectors can be simultaneously identified and presented in a fully consistent manner, i.e. without double-counting or gaps. A schematic overview of a who-to-whom presentation can be found in the table below. The table shows the financial claims that the sectors in the rows have against the sectors in the columns. Thus, for loans, the cell corresponding to the third row and the second column (marked with an "X") would show lending in the form of loans from the financial sector to the non-financial corporations sector. Who-to-whom data serve a multiplicity of purposes, such as risk analysis from a macro-prudential

A who-to-whom presentation of the financial accounts for a financial instrument

		Debtor sector				
		Households	Non-financial corporations	Financial corporations	Government	Rest of the world
Creditor sector	Households					
	Non-financial corporations					
	Financial corporations		X			
	Government					
	Rest of the world					

1 For the EAA publication, see, for example, the Report section of the ECB's Statistical Data Warehouse, which also includes who-to-whom tables for deposits and loans (http://sdw.ecb.europa.eu/reports.do?node=1000002340).

perspective, a more refined analysis of the monetary transmission mechanism (e.g. by focusing on the sources of funding for a specific sector) and the estimation of interest flows between sectors.

The compilation of the financial accounts on a who-to-whom basis requires primary sources containing information on the institutional sector of the counterparty, which are often difficult to obtain for all sectors of the economy. A full who-to-whom presentation of the EAA has been compiled and published since October 2010 for loans and deposits, as their limited tradability makes it easier to obtain counterparty information from primary data sources.

An extension of the who-to-whom coverage to all marketable instruments, namely debt securities, quoted shares and investment fund shares, will now be possible thanks to the detailed information contained in the SHS.[2] As a result, a much larger proportion of all assets and liabilities of the main sectors in the EAA will become available on a who-to-whom basis. In turn, this extension of the EAA will also help users of the SHS who wish to interpret aggregate figures within a comprehensive framework, by encompassing all forms of indebtedness together with the underlying financial and non-financial flows. These enhancements represent a significant improvement in the availability of statistics for monetary policy purposes. It is envisaged that the **first publication of the EAA with extended who-to-whom coverage will take place in early 2016**.

2 See also Lavrador, I., Peronaci, R. and Silva, N., "Security-by-security data on holdings of securities: the importance for national and euro area accounts", Irving Fisher Committee on Central Bank Statistics, *IFC Bulletin*, No. 36: Proceedings of the Sixth IFC Conference on "Statistical issues and activities in a changing environment", Bank for International Settlements, Basel, August 2012.

4 CONCLUSIONS

This article has introduced the new quarterly security-by-security data on securities holdings. This new data collection significantly helps to close previously existing data gaps on holdings of securities and thus substantially improves the information available for policy decision-making in the euro area.

The granularity and comprehensiveness of the data mean they can be used for a wide range of purposes, including in the monetary policy and financial stability areas, as well as in market and financial integration analyses. Both the regular monitoring of market conditions and ad hoc studies on various topics are expected to benefit from the availability of these data from now on.

Selected aggregates derived from the SHS data will also be made available for public use in the ECB's Statistical Data Warehouse.[15] They will include holdings by euro area investors of securities issued by EU countries and other main issuing countries.

Although the new SHS data are already a significant improvement on the information available on securities holdings, further enhancements are envisaged. For instance, the implementation of the recent ECB regulation on insurance statistics (ECB/2014/50) will lead to improvements in SHS data quality regarding holdings by the insurance corporations sector, as more data will be reported by the insurance corporations themselves rather than collected through custodians. Furthermore, given the new supervisory function assumed by the ECB, further extensions of SHS are under consideration.

15 The Statistical Data Warehouse can be accessed at http://sdw.ecb.europa.eu

STATISTICS

CONTENTS

FURTHER INFORMATION

ECB statistics can be accessed and downloaded from the Statistical Data Warehouse (SDW):	http://sdw.ecb.europa.eu/
Data from the statistics section of the Economic Bulletin are available from the SDW:	http://sdw.ecb.europa.eu/reports.do?node= 1000004813
A comprehensive Statistics Bulletin can be found in the SDW:	http://sdw.ecb.europa.eu/reports.do?node=1000004045
Methodological definitions can be found in the General Notes to the Statistics Bulletin:	http://sdw.ecb.europa.eu/reports.do?node=10000023
Details on calculations can be found in the Technical Notes to the Statistics Bulletin:	http://sdw.ecb.europa.eu/reports.do?node=10000022

CONVENTIONS USED IN THE TABLES

- data do not exist/data are not applicable
. data are not yet available
... nil or negligible
(p) provisional
s.a. seasonally adjusted
n.s.a. non-seasonally adjusted

I EXTERNAL ENVIRONMENT

1.1 Main trading partners, GDP and CPI

	GDP [1] (period-on-period percentage changes)						CPI (annual percentage changes)						
	G20	United States	United Kingdom	Japan	China	Memo item: euro area	OECD countries		United States	United Kingdom (HICP)	Japan	China	Memo item: euro area [2] (HICP)
							Total	excluding food and energy					
	1	2	3	4	5	6	7	8	9	10	11	12	13
2012	3.0	2.3	0.7	1.7	7.8	-0.7	2.3	1.8	2.1	2.8	0.0	2.7	2.5
2013	3.2	2.2	1.7	1.6	7.7	-0.5	1.6	1.6	1.5	2.6	0.4	2.6	1.4
2014	.	2.4	2.6	0.0	7.4	.	1.7	1.8	1.6	1.5	2.7	2.0	0.4
2014 Q1	0.7	-0.5	0.6	1.3	1.5	0.3	1.6	1.6	1.4	1.8	1.5	2.3	0.7
Q2	0.8	1.1	0.8	-1.7	2.0	0.1	2.1	1.9	2.1	1.7	3.6	2.2	0.6
Q3	0.9	1.2	0.7	-0.6	1.9	0.2	1.8	1.9	1.8	1.5	3.3	2.0	0.4
Q4	.	0.5	0.5	0.6	1.5	0.3	1.4	1.8	1.2	0.9	2.5	1.5	0.2
2014 Sep.	-	-	-	-	-	-	1.7	1.8	1.7	1.3	3.2	1.6	0.3
Oct.	-	-	-	-	-	-	1.7	1.8	1.7	1.3	2.9	1.6	0.4
Nov.	-	-	-	-	-	-	1.5	1.8	1.3	0.9	2.4	1.4	0.3
Dec.	-	-	-	-	-	-	1.1	1.8	0.8	0.5	2.4	1.5	-0.2
2015 Jan.	-	-	-	-	-	-	0.5	1.7	-0.1	0.3	2.4	0.8	-0.6
Feb. [3]	-	-	-	-	-	-	.	.	.	.	.	.	-0.3

1.2 Main trading partners, Purchasing Managers' Index and world trade

	Purchasing Managers' Surveys (diffusion indices; s.a.)									Merchandise imports [4]		
	Composite Purchasing Managers' Index						Global Purchasing Managers' Index [5]					
	Global [5]	United States	United Kingdom	Japan	China	Memo item: euro area	Manufacturing	Services	New export orders	Global	Advanced economies	Emerging market economies
	1	2	3	4	5	6	7	8	9	10	11	12
2012	52.6	54.4	52.0	49.9	50.9	47.2	50.2	51.9	48.5	3.9	2.4	4.8
2013	53.4	54.8	56.8	52.6	51.5	49.7	52.3	52.7	50.7	3.6	-0.1	5.7
2014	54.3	57.3	57.9	50.9	51.1	52.7	53.4	54.1	51.5	.	.	.
2014 Q1	53.7	55.3	58.1	53.0	49.9	53.1	53.8	53.7	51.0	0.0	0.3	-0.2
Q2	54.3	58.3	58.6	48.5	50.7	53.4	53.2	54.7	51.1	-0.3	0.9	-0.9
Q3	55.7	59.8	58.5	51.3	52.2	52.8	54.1	56.2	52.0	2.5	0.8	3.4
Q4	53.4	55.6	56.3	50.9	51.4	51.5	52.8	53.6	50.8	.	.	.
2014 Sep.	55.5	59.0	57.4	52.8	52.3	52.0	53.8	56.0	52.3	2.5	0.8	3.4
Oct.	53.8	57.2	55.8	49.5	51.7	52.1	53.4	54.0	51.0	3.3	1.1	4.5
Nov.	53.7	56.1	57.6	51.2	51.1	51.1	52.6	54.0	50.2	2.5	1.5	3.1
Dec.	52.6	53.5	55.3	51.9	51.4	51.4	52.3	52.7	51.2	.	.	.
2015 Jan.	53.1	54.4	56.7	51.7	51.0	52.6	53.1	53.1	51.0	.	.	.
Feb.	54.0	56.8	56.7	50.0	51.8	53.3	53.6	54.1	50.7	.	.	.

Sources: Eurostat (Table 1.1, col. 3,6,10,13); BIS (Table 1.1, col. 2,4,9,11,12); OECD (Table 1.1, col. 1,5,7,8); Markit (Table 1.2, col. 1-9); CPB Netherlands Bureau for Economic Policy Analysis and ECB calculations (Table 1.2, col. 10-12)

1) Quarterly data seasonally adjusted; annual data unadjusted. Euro area data refer to the Euro 19.
2) Data refer to the changing composition of the euro area.
3) Estimate based on provisional national data, which usually cover around 95% of the euro area, as well as on early information on energy prices.
4) Global and advanced economies exclude the euro area. Annual and quarterly data are period-on-period percentages; monthly data are 3-month-on-3-month percentages. All data are seasonally adjusted.
5) Excluding the euro area.

2 FINANCIAL DEVELOPMENTS

2.1 Money market interest rates

(percentages per annum; period averages)

	Euro area [1]					United States	Japan
	Overnight deposits (EONIA)	1-month deposits (EURIBOR)	3-month deposits (EURIBOR)	6-month deposits (EURIBOR)	12-month deposits (EURIBOR)	3-month deposits (LIBOR)	3-month deposits (LIBOR)
	1	2	3	4	5	6	7
2012	0.23	0.33	0.57	0.83	1.11	0.43	0.19
2013	0.09	0.13	0.22	0.34	0.54	0.27	0.15
2014	0.09	0.13	0.21	0.31	0.48	0.23	0.13
2014 Q1	0.18	0.23	0.30	0.40	0.56	0.24	0.14
Q2	0.19	0.22	0.30	0.39	0.57	0.23	0.13
Q3	0.02	0.07	0.16	0.27	0.44	0.23	0.13
Q4	-0.02	0.01	0.08	0.18	0.33	0.24	0.11
2014 Sep.	0.01	0.02	0.10	0.20	0.36	0.23	0.12
Oct.	0.00	0.01	0.08	0.18	0.34	0.23	0.11
Nov.	-0.01	0.01	0.08	0.18	0.33	0.23	0.11
Dec.	-0.03	0.02	0.08	0.18	0.33	0.24	0.11
2015 Jan.	-0.05	0.01	0.06	0.15	0.30	0.25	0.10
Feb.	-0.04	0.00	0.05	0.13	0.26	0.26	0.10

2.2 Yield curves

(End of period; rates in percentages per annum; spreads in percentage points)

	Spot rates					Spreads			Instantaneous forward rates			
	Euro area [1],[2]					Euro area [1],[2]	United States	United Kingdom	Euro area [1],[2]			
	3 months	1 year	2 years	5 years	10 years	10 years - 1 year	10 years - 1 year	10 years - 1 year	1 year	2 years	5 years	10 years
	1	2	3	4	5	6	7	8	9	10	11	12
2012	0.06	-0.04	-0.01	0.58	1.72	1.76	1.61	1.48	-0.09	0.17	1.84	3.50
2013	0.08	0.09	0.25	1.07	2.24	2.15	2.91	2.66	0.18	0.67	2.53	3.88
2014	-0.02	-0.09	-0.12	0.07	0.65	0.74	1.95	1.45	-0.15	-0.11	0.58	1.77
2014 Q1	0.16	0.11	0.17	0.76	1.82	1.71	2.60	2.29	0.11	0.40	1.94	3.50
Q2	0.05	-0.01	0.02	0.47	1.44	1.45	2.43	2.16	-0.04	0.16	1.46	3.09
Q3	-0.03	-0.09	-0.10	0.24	1.06	1.15	2.39	1.88	-0.14	-0.02	1.03	2.53
Q4	-0.02	-0.09	-0.12	0.07	0.65	0.74	1.95	1.45	-0.15	-0.11	0.58	1.77
2014 Sep.	-0.03	-0.09	-0.10	0.24	1.06	1.15	2.39	1.88	-0.14	-0.02	1.03	2.53
Oct.	-0.02	-0.08	-0.08	0.22	0.96	1.05	2.24	1.82	-0.12	-0.01	0.93	2.33
Nov.	-0.02	-0.06	-0.07	0.17	0.80	0.86	2.06	1.54	-0.10	-0.02	0.74	2.01
Dec.	-0.02	-0.09	-0.12	0.07	0.65	0.74	1.95	1.45	-0.15	-0.11	0.58	1.77
2015 Jan.	-0.15	-0.18	-0.14	-0.02	0.39	0.58	1.50	1.04	-0.13	-0.10	0.34	1.15
Feb.	-0.21	-0.25	-0.20	-0.08	0.37	0.62	1.80	1.45	-0.16	-0.17	0.31	1.19

2.3 Stock market indices

(index levels in points; period averages)

	Dow Jones EURO STOXX indices												United States	Japan
	Benchmark		Main industry indices											
	Broad index	50	Basic materials	Consumer services	Consumer goods	Oil and gas	Financials	Industrials	Technology	Utilities	Telecoms	Health care	Standard & Poor's 500	Nikkei 225
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2012	239.7	2,411.9	503.7	151.9	385.7	307.2	122.1	330.2	219.2	235.9	268.5	523.3	1,379.4	9,102.6
2013	281.9	2,794.0	586.3	195.0	468.2	312.8	151.5	402.7	274.1	230.6	253.4	629.4	1,643.8	13,577.9
2014	318.7	3,145.3	644.3	216.6	510.6	335.5	180.0	452.9	310.8	279.2	306.7	668.1	1,931.4	15,460.4
2014 Q1	315.9	3,090.8	639.0	218.7	500.1	323.4	182.2	461.0	306.3	262.3	293.9	640.7	1,834.9	14,958.9
Q2	326.5	3,214.0	657.3	219.5	524.2	360.3	184.5	471.9	305.3	284.9	311.9	656.5	1,900.4	14,655.0
Q3	319.4	3,173.1	645.9	213.8	509.8	351.1	178.9	446.0	315.3	288.7	304.0	686.1	1,975.9	15,553.1
Q4	313.0	3,102.5	634.9	214.7	508.5	307.0	174.5	433.4	316.0	280.4	316.7	688.0	2,009.3	16,660.1
2014 Sep.	324.0	3,233.4	650.4	215.3	508.7	350.0	184.5	447.9	324.5	292.6	306.1	725.0	1,993.2	15,948.5
Oct.	304.2	3,029.6	612.5	202.4	481.0	315.8	173.4	416.4	301.8	276.6	294.6	695.0	1,937.3	15,394.1
Nov.	315.7	3,126.1	643.8	217.8	514.8	316.4	174.3	439.7	317.6	280.2	322.7	680.4	2,044.6	17,179.0
Dec.	320.1	3,159.8	651.0	225.2	532.6	288.5	176.0	446.1	330.1	284.7	335.3	687.6	2,054.3	17,541.7
2015 Jan.	327.4	3,207.3	671.1	237.8	564.9	285.0	173.3	464.2	339.0	278.3	343.8	724.2	2,028.2	17,274.4
Feb.	353.2	3,453.8	731.3	254.2	624.8	314.0	185.5	498.7	361.1	286.9	376.8	768.6	2,082.2	18,053.2

Source: ECB.

1) Data refer to the changing composition of the euro area, see the General Notes.

2) ECB calculations based on underlying data provided by EuroMTS and ratings provided by Fitch Ratings.

2.4 MFI interest rates on loans to and deposits from households (new business) [1), 2)]

(Percentages per annum; period average, unless otherwise indicated)

	Deposits				Revolving loans and overdrafts	Extended credit card credit	Loans for consumption			Loans to sole proprietors and unincorporated partnerships	Loans for house purchase					
	Overnight	Redeemable at notice of up to 3 months	With an agreed maturity of:				By initial period of rate fixation		APRC [3)]		By initial period of rate fixation				APRC [3)]	Composite cost-of-borrowing indicator
			Up to 2 years	Over 2 years			Floating rate and up to 1 year	Over 1 year			Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 and up to 10 years	Over 10 years		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2014 Feb.	0.28	1.10	1.61	1.93	7.66	17.04	5.85	6.78	7.21	3.30	2.79	2.95	3.09	3.27	3.29	3.05
Mar.	0.28	1.07	1.56	1.86	7.66	17.05	5.81	6.67	7.08	3.32	2.78	2.90	3.03	3.23	3.23	3.01
Apr.	0.27	1.06	1.54	1.83	7.61	17.22	5.58	6.60	6.98	3.21	2.72	2.91	3.00	3.24	3.22	2.99
May	0.27	1.05	1.40	1.72	7.55	17.23	5.62	6.73	7.09	3.33	2.71	2.87	2.96	3.14	3.16	2.93
June	0.27	1.04	1.32	1.74	7.58	17.19	5.45	6.61	6.94	3.20	2.66	2.85	2.89	3.09	3.13	2.87
July	0.24	1.01	1.30	1.75	7.43	17.04	5.55	6.54	6.91	3.09	2.63	2.75	2.81	2.99	3.05	2.79
Aug.	0.24	0.93	1.21	1.66	7.43	17.00	5.55	6.52	6.87	3.09	2.56	2.74	2.73	2.87	2.98	2.75
Sep.	0.23	0.92	1.19	1.70	7.32	17.05	5.37	6.49	6.84	2.92	2.50	2.69	2.63	2.83	2.89	2.68
Oct.	0.22	0.91	1.10	1.65	7.15	16.94	5.42	6.43	6.84	2.92	2.43	2.63	2.56	2.79	2.82	2.61
Nov.	0.21	0.89	1.02	1.66	7.12	17.10	5.59	6.48	6.83	2.96	2.43	2.53	2.52	2.73	2.79	2.55
Dec.	0.22	0.86	0.96	1.59	7.06	17.00	5.07	6.14	6.45	2.73	2.43	2.52	2.53	2.69	2.77	2.50
2015 Jan. [p)]	0.21	0.84	1.01	1.95	7.12	17.03	5.26	6.30	6.63	2.77	2.30	2.53	2.43	2.42	2.70	2.39

2.5 MFI interest rates on loans to and deposits from non-financial corporations (new business) [1), 4)]

(Percentages per annum; period average, unless otherwise indicated)

	Deposits			Revolving loans and overdrafts	Other loans by size and initial period of rate fixation									Composite cost-of-borrowing indicator
					up to EUR 0.25 million			over EUR 0.25 and up to 1 million			over EUR 1 million			
	Overnight	With an agreed maturity of:			Floating rate and up to 3 months	Over 3 months and up to 1 year	Over 1 year	Floating rate and up to 3 months	Over 3 months and up to 1 year	Over 1 year	Floating rate and up to 3 months	Over 3 months and up to 1 year	Over 1 year	
		Up to 2 years	Over 2 years											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2014 Feb.	0.33	0.66	1.75	3.99	4.52	4.59	3.89	2.82	3.59	3.23	2.08	2.78	2.94	2.96
Mar.	0.35	0.68	1.58	3.95	4.58	4.49	3.90	2.78	3.44	3.17	2.17	2.74	2.96	2.99
Apr.	0.34	0.72	1.60	3.99	4.57	4.48	3.80	2.81	3.52	3.15	2.20	2.55	2.88	2.98
May	0.34	0.64	1.38	3.92	4.50	4.51	3.86	2.81	3.45	3.09	2.06	2.40	2.80	2.91
June	0.31	0.59	1.52	3.88	4.29	4.37	3.78	2.68	3.26	3.05	1.94	2.74	2.68	2.79
July	0.28	0.59	1.49	3.76	4.32	4.31	3.63	2.65	3.29	2.93	1.90	2.42	2.69	2.76
Aug.	0.28	0.49	1.63	3.71	4.18	4.28	3.55	2.56	3.20	2.83	1.74	2.43	2.56	2.68
Sep.	0.26	0.51	1.53	3.69	3.98	4.04	3.53	2.46	3.02	2.75	1.80	2.38	2.41	2.65
Oct.	0.25	0.50	1.43	3.61	3.98	3.94	3.54	2.44	2.92	2.69	1.74	2.26	2.49	2.58
Nov.	0.25	0.44	1.20	3.54	3.76	3.87	3.42	2.38	2.84	2.61	1.73	2.18	2.25	2.49
Dec.	0.24	0.43	1.28	3.44	3.67	3.74	3.27	2.35	2.78	2.46	1.74	2.18	2.09	2.43
2015 Jan. [p)]	0.23	0.44	1.28	3.40	3.72	3.79	2.95	2.31	2.81	2.04	1.65	2.03	2.13	2.41

2.6 Debt securities issued by euro area residents, by sector of the issuer and initial maturity

(EUR billions; transactions during the month and end-of-period outstanding amounts; nominal values)

	Outstanding amounts							Gross issues [5)]						
	Total	MFIs (including Eurosystem)	Non-MFI corporations			General government		Total	MFIs (including Eurosystem)	Non-MFI corporations			General government	
			Financial corporations other than MFIs	FVCs [6)]	Non-financial corporations	Central government	Other general government			Financial corporations other than MFIs	FVCs [6)]	Non-financial corporations	Central government	Other general government
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Short-term													
2012	1,412	573	142	.	75	558	65	702	490	37	.	52	103	21
2013	1,233	468	117	.	67	528	53	507	314	30	.	44	99	21
2014	1,244	475	123	.	58	537	50	401	211	33	.	39	93	25
2014 July	1,365	511	157	.	75	578	44	402	181	55	.	40	105	21
Aug.	1,361	522	144	.	74	574	46	325	161	31	.	27	91	16
Sep.	1,336	504	136	.	70	577	49	331	153	27	.	31	95	25
Oct.	1,306	496	133	.	73	563	41	330	139	28	.	37	102	25
Nov.	1,290	490	129	.	69	557	45	292	127	30	.	28	87	20
Dec.	1,244	475	123	.	58	537	50	320	168	24	.	28	66	34
	Long-term													
2012	15,178	4,824	3,140	.	841	5,747	626	256	99	45	.	16	84	12
2013	15,115	4,416	3,093	.	920	6,059	627	223	71	39	.	16	89	9
2014	15,149	4,034	3,202	.	996	6,274	643	218	65	43	.	16	85	10
2014 July	15,161	4,186	3,127	.	966	6,241	641	207	52	37	.	19	86	13
Aug.	15,110	4,157	3,109	.	969	6,229	644	76	30	11	.	3	28	5
Sep.	15,157	4,164	3,126	.	980	6,235	652	218	59	43	.	13	90	13
Oct.	15,124	4,077	3,162	.	980	6,255	650	209	45	40	.	15	101	8
Nov.	15,157	4,059	3,163	.	985	6,302	649	197	59	44	.	14	73	6
Dec.	15,149	4,034	3,202	.	996	6,274	643	129	41	37	.	11	29	10

Source: ECB.

1) Data refer to the changing composition of the euro area.
2) Including non-profit institutions serving households.
3) Annual percentage rate of charge (APRC).
4) In accordance with the ESA 2010, in December 2014 holding companies of non-financial groups were reclassified from the non-financial corporations sector to the financial corporations sector.
5) For the purpose of comparison, annual data refer to the average monthly figure over the year.
6) Financial vehicle corporations (FVCs).

2.7 Growth rates and outstanding amounts of debt securities and listed shares

(EUR billions; percentage changes)

	Debt securities							Listed shares			
	Total	MFIs (including Eurosystem)	Non-MFI corporations			General government		Total	MFIs	Financial corporations other than MFIs	Non-financial corporations
			Financial corporations other than MFIs	FVCs [1]	Non-financial corporations	Central government	Other general government				
	1	2	3	4	5	6	7	8	9	10	11
	Oustanding amount										
2012	16,590.3	5,397.4	3,281.7	.	915.5	6,305.1	690.5	4,593.9	404.6	617.9	3,571.5
2013	16,347.4	4,883.3	3,210.5	.	986.7	6,587.1	679.8	5,634.8	569.0	751.0	4,314.8
2014	16,393.7	4,509.5	3,324.9	.	1,054.6	6,811.5	693.2	5,945.1	590.9	787.6	4,566.6
2014 July	16,525.7	4,696.9	3,283.6	.	1,041.3	6,818.6	685.3	5,864.6	626.8	775.7	4,462.1
Aug.	16,470.6	4,679.3	3,253.2	.	1,043.9	6,803.3	691.0	5,914.5	637.3	788.9	4,488.3
Sep.	16,492.2	4,667.4	3,262.7	.	1,050.1	6,811.6	700.4	5,928.8	650.7	788.4	4,489.7
Oct.	16,429.9	4,572.3	3,295.9	.	1,052.6	6,818.5	690.7	5,761.0	611.5	763.1	4,386.4
Nov.	16,447.3	4,548.4	3,292.4	.	1,054.0	6,858.5	693.9	6,038.0	628.3	796.6	4,613.1
Dec.	16,393.7	4,509.5	3,324.9	.	1,054.6	6,811.5	693.2	5,945.1	590.9	787.6	4,566.6
	Growth rate										
2012	1.3	-1.8	-0.1	.	14.5	2.5	6.1	0.9	4.9	2.0	0.4
2013	-1.3	-8.9	-2.5	.	8.1	4.5	-1.1	0.9	7.2	0.2	0.3
2014	-0.5	-8.6	2.2	.	5.5	3.1	1.2	1.6	7.6	1.6	0.8
2014 July	0.0	-7.1	0.5	.	7.9	3.9	1.5	1.4	6.9	2.1	0.5
Aug.	-0.3	-7.1	-0.2	.	7.4	3.6	1.4	1.4	6.9	2.1	0.6
Sep.	-0.3	-6.9	-0.2	.	5.8	3.3	3.1	1.5	6.9	1.9	0.7
Oct.	-0.6	-8.2	1.0	.	5.1	3.3	1.7	1.6	6.9	1.6	0.9
Nov.	-0.9	-8.5	0.9	.	4.6	2.9	1.4	1.6	7.1	1.7	0.8
Dec.	-0.5	-8.6	2.2	.	5.5	3.1	1.2	1.6	7.6	1.6	0.8

2.8 Effective exchange rates [2]

(period averages; index: 1999 Q1=100)

	EER-19						EER-38	
	Nominal	Real CPI	Real PPI	Real GDP deflator	Real ULCM [3]	Real ULCT	Nominal	Real CPI
	1	2	3	4	5	6	7	8
2012	97.9	95.8	93.1	89.6	99.1	92.0	107.2	93.2
2013	101.7	99.2	96.6	92.6	102.5	94.6	112.2	96.5
2014	102.3	98.9	96.5	.	.	.	114.8	97.0
2014 Q1	103.9	101.0	98.0	95.1	103.5	97.8	116.7	99.3
Q2	103.9	100.5	98.0	94.7	102.9	97.8	116.2	98.2
Q3	101.7	98.2	95.9	92.2	100.2	95.4	113.8	96.0
Q4	99.6	96.1	94.1	.	.	.	112.6	94.4
2014 Sep.	100.5	97.0	94.8	-	-	-	112.5	94.8
Oct.	99.6	96.1	94.1	-	-	-	112.0	94.2
Nov.	99.6	96.1	94.2	-	-	-	112.3	94.3
Dec.	99.7	96.0	94.2	-	-	-	113.4	94.9
2015 Jan.	95.9	92.2	91.1	-	-	-	109.3	91.1
Feb.	94.0	90.2	89.4	-	-	-	107.4	89.3
	Percentage change versus previous month							
2015 Feb.	-2.0	-2.1	-1.8	-	-	-	-1.8	-2.0
	Percentage change versus previous year							
2015 Feb.	-9.2	-10.4	-8.5	-	-	-	-7.8	-9.9

Source: ECB.

1) Financial vehicle corporations (FVCs).

2) For a definition of the trading partner groups and other information see the General Notes to the Statistics Bulletin.

3) ULCM-deflated series are available only for the EER-19 trading partner group.

2.9 Bilateral exchange rates

(period averages; units of national currency per euro)

	Chinese renminbi	Croatian kuna	Czech koruna	Danish krone	Hungarian forint	Japanese yen	Polish zloty	Pound sterling	Romanian leu	Swedish krona	Swiss franc	US Dollar
	1	2	3	4	5	6	7	8	9	10	11	12
2012	8.105	7.522	25.149	7.444	289.249	102.492	4.185	0.811	4.4593	8.704	1.205	1.285
2013	8.165	7.579	25.980	7.458	296.873	129.663	4.197	0.849	4.4190	8.652	1.231	1.328
2014	8.186	7.634	27.536	7.455	308.706	140.306	4.184	0.806	4.4437	9.099	1.215	1.329
2014 Q1	8.358	7.650	27.442	7.462	307.932	140.798	4.184	0.828	4.5023	8.857	1.224	1.370
Q2	8.544	7.599	27.446	7.463	305.914	140.001	4.167	0.815	4.4256	9.052	1.219	1.371
Q3	8.173	7.623	27.619	7.452	312.242	137.749	4.175	0.794	4.4146	9.205	1.212	1.326
Q4	7.682	7.665	27.630	7.442	308.527	142.754	4.211	0.789	4.4336	9.272	1.205	1.250
2014 Sep.	7.921	7.624	27.599	7.445	313.197	138.390	4.190	0.791	4.4095	9.193	1.208	1.290
Oct.	7.763	7.657	27.588	7.445	307.846	136.845	4.207	0.789	4.4153	9.180	1.208	1.267
Nov.	7.641	7.670	27.667	7.442	306.888	145.029	4.212	0.791	4.4288	9.238	1.203	1.247
Dec.	7.633	7.668	27.640	7.440	310.833	147.059	4.215	0.788	4.4583	9.404	1.203	1.233
2015 Jan.	7.227	7.688	27.895	7.441	316.500	137.470	4.278	0.767	4.4874	9.417	1.094	1.162
Feb.	7.096	7.711	27.608	7.450	306.884	134.686	4.176	0.741	4.4334	9.490	1.062	1.135
	Percentage change versus previous month											
2015 Feb.	-1.8	0.3	-1.0	0.1	-3.0	-2.0	-2.4	-3.4	-1.2	0.8	-2.9	-2.3
	Percentage change versus previous year											
2015 Feb.	-14.6	0.7	0.6	-0.2	-1.1	-3.3	0.0	-10.3	-1.3	7.0	-13.1	-16.9

2.10 Euro area balance of payments, financial account

(EUR billions, unless otherwise indicated; outstanding amounts at end of period; transactions during period)

	Total [1]			Direct investment		Portfolio investment		Net financial derivatives	Other investment		Reserve assets	Memo: Gross external debt
	Assets	Liabilities	Net	Assets	Liabilities	Assets	Liabilities		Assets	Liabilities		
	1	2	3	4	5	6	7	8	9	10	11	12
	Outstanding amounts (international investment position)											
2013 Q4	17,765.8	19,107.1	-1,341.3	7,229.4	5,550.2	5,659.0	9,051.8	-64.8	4,400.0	4,503.5	542.1	11,313.1
2014 Q1	18,191.9	19,456.3	-1,264.4	7,344.9	5,502.6	5,747.5	9,304.4	-49.4	4,578.4	4,649.4	570.6	11,535.4
Q2	18,708.6	19,747.6	-1,039.0	7,465.3	5,522.1	6,037.4	9,609.6	-43.5	4,666.5	4,615.9	583.1	11,638.9
Q3	19,457.8	20,391.7	-933.9	7,643.0	5,603.7	6,407.6	9,967.0	-77.1	4,887.3	4,820.9	597.0	11,959.0
	Outstanding amounts as a percentage of GDP											
2014 Q3	194.0	203.3	-9.3	76.2	55.9	63.9	99.4	-0.8	48.7	48.1	6.0	119.2
	Transactions											
2014 Q1	327.3	266.7	60.6	12.3	-8.7	72.7	125.3	5.5	234.2	150.1	2.5	-
Q2	212.5	132.8	79.7	-14.9	-13.8	157.1	200.2	16.1	53.7	-53.7	0.4	-
Q3	182.0	113.3	68.6	56.1	28.4	114.6	38.1	16.1	-3.5	46.8	-1.3	-
Q4	9.2	-129.7	138.9	-2.8	-23.8	96.9	-37.5	5.6	-93.4	-68.4	2.9	-
2014 July	89.0	70.5	18.5	16.7	7.3	20.4	6.2	3.2	49.3	57.0	-0.7	-
Aug.	33.0	34.0	-0.9	11.3	13.8	27.4	24.4	3.5	-10.4	-4.2	1.2	-
Sep.	59.9	8.9	51.0	28.1	7.4	66.7	7.5	9.5	-42.4	-6.0	-1.9	-
Oct.	-0.2	-36.3	36.0	10.0	9.1	16.3	-31.1	0.7	-28.2	-14.3	1.0	-
Nov.	147.9	68.4	79.5	17.0	-11.5	45.9	34.5	3.4	80.8	45.4	0.8	-
Dec.	-138.5	-161.8	23.3	-29.8	-21.4	34.7	-40.9	1.6	-146.0	-99.5	1.1	-
	12-month cumulated transactions											
2014 Dec.	730.9	383.1	347.8	50.8	-17.8	441.3	326.2	43.4	190.9	74.8	4.5	-
	12-month cumulated transactions as a percentage of GDP											
2014 Dec.	7.3	3.8	3.5	0.5	-0.2	4.4	3.3	0.4	1.9	0.7	0.0	-

Source: ECB.

1) Net financial derivatives are included in total assets.

3 ECONOMIC ACTIVITY

3.1 GDP and expenditure components [1)]

(quarterly data seasonally adjusted; annual data unadjusted)

	GDP											
	Total	Domestic demand								External balance		
		Total	Private consumption	Government consumption	Gross fixed capital formation				Changes in inventories	Total	Exports	Imports
						Total construction	Total machinery	Intellectual property products				
	1	2	3	4	5	6	7	8	9	10	11	12
	Current prices (EUR billions)											
2011	9,799.5	9,661.0	5,512.0	2,052.0	2,029.8	1,066.0	604.5	350.1	67.1	138.5	4,098.1	3,959.6
2012	9,857.7	9,596.5	5,542.3	2,065.3	1,988.1	1,039.8	581.4	357.4	0.7	261.2	4,279.9	4,018.7
2013	9,939.4	9,598.5	5,566.7	2,096.0	1,948.6	1,009.2	569.3	359.7	-12.8	340.8	4,355.3	4,014.5
2013 Q4	2,502.8	2,411.3	1,398.3	525.7	492.9	254.5	145.6	90.4	-5.6	91.4	1,102.2	1,010.8
2014 Q1	2,518.1	2,424.4	1,403.1	529.2	494.9	255.8	144.5	91.2	-2.9	93.7	1,102.9	1,009.2
Q2	2,523.9	2,427.8	1,409.5	530.6	491.7	251.2	145.3	91.8	-4.1	96.1	1,116.3	1,020.2
Q3	2,530.8	2,433.3	1,417.0	535.4	491.8	251.0	145.3	92.2	-10.8	97.5	1,131.1	1,033.6
	as a percentage of GDP											
2011	100.0	98.6	56.2	20.9	20.7	10.9	6.2	3.6	0.7	1.4	-	-
2012	100.0	97.4	56.2	21.0	20.2	10.6	5.9	3.6	0.0	2.7	-	-
2013	100.0	96.6	56.0	21.1	19.6	10.2	5.7	3.6	-0.1	3.5	-	-
	Chain-linked volumes (prices for the previous year)											
	quarter-on-quarter percentage changes											
2014 Q1	0.3	0.1	0.2	0.1	0.3	0.5	-0.2	0.6	-	-	0.4	0.0
Q2	0.1	0.0	0.3	0.3	-0.6	-1.7	0.6	0.2	-	-	1.4	1.3
Q3	0.2	0.2	0.5	0.3	-0.3	-0.6	-0.3	0.2	-	-	1.3	1.4
Q4	0.3	.	.	.	.	.	.	.	-	-	.	.
	contributions to quarter-on-quarter percentage changes in GDP; percentage points											
2014 Q1	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	-	-
Q2	0.1	0.0	0.2	0.1	-0.1	-0.2	0.0	0.0	-0.1	0.1	-	-
Q3	0.2	0.1	0.3	0.1	-0.1	-0.1	0.0	0.0	-0.1	0.0	-	-
Q4	0.3	.	.	.	.	.	.	.	.	.	-	-

3.2 Value added by economic activity [1)]

(quarterly data seasonally adjusted; annual data unadjusted)

	Gross value added (basic prices)											Taxes less subsidies on products
	Total	Agriculture, forestry and fishing	Manufacturing energy and utilities	Const-ruction	Trade, transport, accommodation and food services	Information and commu-nication	Finance and insurance	Real estate	Professional, business and support services	Public admi-nistration, education, health and social work	Arts, enter-tainment and other services	
	1	2	3	4	5	6	7	8	9	10	11	12
	Current prices (EUR billions)											
2011	8,809.7	147.8	1,719.5	486.7	1,672.6	407.8	435.3	1,009.4	919.9	1,699.2	311.4	989.8
2012	8,863.7	152.2	1,726.7	474.0	1,681.4	410.7	439.7	1,014.9	928.5	1,718.2	317.3	994.0
2013	8,930.7	155.7	1,736.3	465.0	1,689.0	401.9	439.1	1,032.1	941.8	1,748.5	321.3	1,008.6
2013 Q4	2,248.4	38.6	438.1	117.2	424.8	100.6	110.3	259.9	237.7	440.1	81.0	254.3
2014 Q1	2,262.5	38.5	438.2	118.3	427.0	100.6	113.0	262.0	238.9	444.3	81.4	255.8
Q2	2,264.7	37.9	439.7	116.3	427.6	100.3	114.1	263.3	240.0	444.0	81.4	259.1
Q3	2,271.7	36.7	440.2	116.1	430.0	100.0	113.8	264.0	241.9	446.8	82.2	258.8
	as a percentage of value added											
2011	100.0	1.7	19.5	5.5	19.0	4.6	4.9	11.5	10.4	19.3	3.5	-
2012	100.0	1.7	19.5	5.4	19.0	4.6	5.0	11.4	10.5	19.4	3.6	-
2013	100.0	1.7	19.5	5.2	18.9	4.5	4.9	11.5	10.5	19.6	3.6	-
	Chain-linked volumes (prices for the previous year)											
	quarter-on-quarter percentage changes											
2013 Q4	0.3	1.6	0.5	0.2	0.3	0.0	-0.1	0.3	-0.1	0.3	-0.3	0.2
2014 Q1	0.4	2.0	-0.1	0.7	0.7	-0.8	0.8	0.2	0.5	0.4	0.4	0.0
Q2	0.0	-0.6	0.2	-1.7	0.1	-0.3	-0.7	0.2	0.2	0.1	-0.4	1.0
Q3	0.2	0.7	0.1	-0.6	0.5	0.2	0.1	0.3	0.4	0.1	0.5	-0.4
	contributions to quarter-on-quarter percentage changes in value added; percentage points											
2013 Q4	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	-
2014 Q1	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	-
Q2	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Q3	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-

Sources: Eurostat and ECB calculations.

1) Data refer to the Euro 19, with the exception of columns 6 to 8 of table 3.1, where they refer to the Euro 18.

3.3 Short-term business statistics

	Industrial production [1]						Construction production [1]	ECB indicator on industrial new orders [1]	Retail sales				New passenger car registrations
	Total (excluding construction)		Main Industrial Groupings						Total	Food, beverages, tobacco	Non-food	Fuel	
		Manufacturing	Intermediate goods	Capital goods	Consumer goods	Energy							
% of total in 2010	100.0	86.0	33.6	29.2	22.5	14.7	100.0	100.0	100.0	39.3	51.5	9.1	100.0
	1	2	3	4	5	6	7	8	9	10	11	12	13
	annual percentage changes												
2012	-2.5	-2.7	-4.5	-1.1	-2.5	-0.4	-5.0	-3.8	-1.6	-1.3	-1.5	-5.0	-11.0
2013	-0.7	-0.7	-1.0	-0.6	-0.4	-0.8	-2.8	-0.1	-0.8	-1.0	-0.6	-1.0	-4.4
2014	0.6	1.6	1.1	1.5	2.5	-5.4	2.2	3.2	1.3	0.3	2.4	0.3	3.7
2014 Q1	1.2	3.1	3.1	4.0	2.5	-9.3	6.7	4.3	0.9	-0.5	2.3	0.8	5.1
Q2	0.9	1.7	1.4	0.9	3.5	-5.2	3.8	3.9	1.4	1.1	2.0	-0.4	3.9
Q3	0.5	1.1	0.4	1.4	1.8	-3.5	-0.3	2.2	0.8	-0.3	2.0	-0.6	4.1
Q4	-0.1	0.5	-0.6	0.0	2.3	-3.1	-0.7	2.5	2.1	0.7	3.3	1.4	1.6
2014 Aug.	-0.6	0.0	0.1	-2.2	2.4	-3.0	1.5	0.9	1.5	-0.5	3.6	-0.3	4.1
Sep.	0.1	0.7	-0.6	1.5	0.9	-3.2	-2.4	1.2	0.4	0.7	0.3	0.4	2.5
Oct.	0.6	1.1	-0.7	1.4	3.1	-2.3	0.3	3.9	1.5	0.1	2.5	1.0	4.4
Nov.	-0.8	0.1	-1.0	-1.2	3.0	-5.5	0.5	1.5	1.5	-0.3	3.2	0.2	0.4
Dec.	-0.2	0.2	-0.2	-0.3	0.6	-1.7	-3.5	2.3	3.1	2.0	3.9	2.8	0.0
2015 Jan.	.	.	.	.	.	.	.	.	3.7	2.2	5.0	6.1	11.0
	month-on-month percentage changes (s.a.)												
2014 Aug.	-1.2	-1.4	-1.1	-3.3	0.2	1.1	0.6	-2.1	0.7	0.2	1.0	0.9	-0.1
Sep.	0.5	0.5	-0.3	2.2	-0.9	0.3	-1.3	1.3	-0.9	0.4	-1.7	-0.2	-1.3
Oct.	0.3	0.5	0.2	0.0	1.5	-1.1	1.0	0.9	0.6	-0.2	0.9	0.5	3.0
Nov.	0.1	0.2	0.1	-0.3	0.7	-0.8	-0.5	-1.2	0.6	0.2	1.2	0.4	-2.5
Dec.	0.0	0.0	1.1	0.2	-1.6	0.9	-0.8	2.5	0.4	0.2	0.2	1.9	5.4
2015 Jan.	.	.	.	.	.	.	.	.	1.1	1.0	1.2	3.2	2.6

3.4 Employment [1]

(quarterly data seasonally adjusted; annual data unadjusted)

		By employment status		By economic activity									
	Total	Employees	Self-employed	Agriculture, forestry and fishing	Manufacturing, energy and utilities	Construction	Trade, transport, accommodation and food services	Information and communication	Finance and insurance	Real estate	Professional, business and support services	Public administration, education, health and social work	Arts, entertainment and other services
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Persons employed												
	as a percentage of total persons employed												
2011	100.0	85.0	15.0	3.5	15.4	6.7	24.9	2.7	2.7	1.0	12.5	23.7	6.9
2012	100.0	85.0	15.0	3.4	15.4	6.4	24.9	2.7	2.7	1.0	12.7	23.8	7.0
2013	100.0	85.0	15.0	3.4	15.3	6.2	24.9	2.7	2.7	1.0	12.8	24.0	7.0
	annual percentage changes												
2011	0.1	0.2	-0.1	-2.2	0.0	-3.6	0.5	1.2	-0.7	0.6	2.5	0.0	0.0
2012	-0.5	-0.5	-0.3	-1.4	-0.7	-4.5	-0.5	0.8	-0.4	-0.1	0.5	-0.1	0.6
2013	-0.8	-0.7	-1.1	-1.4	-1.3	-4.4	-0.7	0.1	-1.1	-1.1	0.3	-0.2	-0.1
2013 Q4	-0.4	-0.3	-0.8	0.4	-1.0	-3.1	-0.2	-0.1	-0.9	-0.4	0.7	0.1	-1.1
2014 Q1	0.0	0.2	-0.6	0.8	-0.7	-2.6	0.2	0.3	-0.9	0.7	1.0	0.5	0.1
Q2	0.4	0.7	-1.1	-0.5	0.2	-2.3	0.8	0.6	-1.2	0.3	1.9	0.5	0.4
Q3	0.6	0.9	-1.0	-0.7	0.3	-1.7	1.2	1.1	-1.1	0.0	1.8	0.4	1.0
	Hours worked												
	as a percentage of total hours worked												
2011	100.0	80.1	19.9	4.4	15.8	7.6	25.9	2.7	2.7	1.0	12.3	21.3	6.2
2012	100.0	80.0	20.0	4.4	15.7	7.2	25.8	2.8	2.8	1.0	12.4	21.6	6.3
2013	100.0	80.1	19.9	4.4	15.7	6.9	25.8	2.8	2.8	1.0	12.5	21.7	6.3
	annual percentage changes												
2011	0.3	0.4	-0.3	-2.2	0.8	-3.6	0.4	1.3	-0.2	0.4	2.6	0.3	0.1
2012	-1.6	-1.6	-1.3	-2.5	-2.0	-6.4	-1.9	0.4	-0.8	-1.1	-0.3	-0.5	-0.3
2013	-1.2	-1.2	-1.2	-0.8	-1.3	-5.1	-1.2	0.1	-1.5	-2.2	-0.4	-0.5	-0.6
2013 Q4	-0.3	-0.3	-0.4	1.6	-0.2	-3.1	-0.4	0.7	-0.8	-1.7	0.3	-0.1	-1.1
2014 Q1	0.6	0.7	0.2	2.0	0.9	-1.3	0.6	0.6	-0.4	0.5	0.9	1.0	0.4
Q2	0.3	0.6	-1.3	0.0	0.2	-2.5	0.5	0.7	-1.6	-0.3	1.3	0.6	-0.2
Q3	0.5	0.9	-1.0	0.1	0.6	-2.1	1.1	1.1	-1.3	-0.7	1.4	0.3	0.4
	Hours worked per person employed												
	annual percentage changes												
2011	0.1	0.2	-0.3	-0.1	0.8	0.0	-0.1	0.1	0.5	-0.3	0.1	0.3	0.0
2012	-1.1	-1.1	-1.0	-1.1	-1.3	-2.0	-1.4	-0.4	-0.5	-1.1	-0.8	-0.3	-0.9
2013	-0.4	-0.5	-0.1	0.7	0.1	-0.8	-0.6	0.0	-0.3	-1.1	-0.6	-0.3	-0.5
2013 Q4	0.1	0.0	0.4	1.3	0.8	0.0	-0.1	0.8	0.1	-1.4	-0.4	-0.2	0.0
2014 Q1	0.6	0.6	0.8	1.1	1.6	1.4	0.4	0.3	0.5	-0.3	-0.1	0.5	0.3
Q2	-0.2	-0.1	-0.2	0.5	0.1	-0.3	-0.2	0.1	-0.3	-0.6	-0.5	0.1	-0.6
Q3	-0.1	0.0	0.0	0.8	0.3	-0.4	-0.1	0.0	-0.2	-0.7	-0.4	-0.1	-0.5

Sources: Eurostat, ECB calculations, ECB experimental statistics (Table 3.3, col. 8) and European Automobile Manufacturers Association (Table 3.3, col. 13).
1) Data refer to the Euro 19. Data for employment are based on the ESA 2010.

3.5 Labour force, unemployment and job vacancies

(seasonally adjusted, unless otherwise indicated)

	Labour force, millions [1]	Under-employ-ment, % of labour force [1]	Unemployment											Job vacancy rate [2]
			Total		Long-term unemployment % of labour force [1]	By age				By gender				
						Adult		Youth		Male		Female		
			Millions	% of labour force		Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	% of total posts
% of total in 2013			100.0			81.3		18.7		53.6		46.4		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2012	159.689	3.9	18.177	11.4	5.3	14.617	10.1	3.560	23.6	9.752	11.2	8.425	11.5	1.6
2013	159.668	4.3	19.206	12.0	5.9	15.612	10.7	3.593	24.3	10.292	11.9	8.914	12.1	1.5
2014	.	.	18.572	11.6	.	15.157	10.4	3.415	23.7	9.871	11.4	8.701	11.8	.
2014 Q1	159.224	4.4	18.844	11.8	6.3	15.345	10.5	3.498	24.1	10.091	11.7	8.753	11.9	1.7
Q2	159.538	4.4	18.594	11.6	6.0	15.179	10.4	3.414	23.7	9.904	11.5	8.690	11.8	1.6
Q3	159.973	4.2	18.509	11.5	5.8	15.118	10.3	3.390	23.6	9.782	11.3	8.727	11.8	1.6
Q4	.	.	18.342	11.4	.	14.986	10.2	3.356	23.3	9.708	11.2	8.634	11.6	.
2014 Aug.	-	-	18.468	11.5	-	15.082	10.3	3.385	23.6	9.741	11.3	8.727	11.8	-
Sep.	-	-	18.455	11.5	-	15.078	10.3	3.377	23.4	9.770	11.3	8.684	11.7	-
Oct.	-	-	18.419	11.5	-	15.049	10.3	3.370	23.4	9.767	11.3	8.652	11.7	-
Nov.	-	-	18.408	11.4	-	15.025	10.3	3.383	23.4	9.733	11.2	8.675	11.7	-
Dec.	-	-	18.199	11.3	-	14.883	10.2	3.316	23.1	9.623	11.1	8.576	11.6	-
2015 Jan.	-	-	18.059	11.2	-	14.778	10.1	3.281	22.9	9.567	11.1	8.492	11.4	-

3.6 Opinion surveys

(seasonally adjusted)

	European Commission Business and Consumer Surveys (percentage balances, unless otherwise indicated)								Purchasing Managers' Surveys (diffusion indices)			
	Economic sentiment indicator (long-term average = 100)	Manufacturing industry		Consumer confidence indicator	Construction confidence indicator	Retail trade confid-ence indicator	Service industries		Purchasing Managers' Index (PMI) for manu-facturing	Manufact-uring output	Business activity for services	Composite output
		Industrial confidence indicator	Capacity utilisation (%)				Services confidence indicator	Capacity utilisation (%)				
	1	2	3	4	5	6	7	8	9	10	11	12
1999-13	100.2	-6.1	80.7	-12.7	-13.9	-8.8	6.5	-	51.0	52.4	52.9	52.7
2012	90.5	-11.7	78.5	-22.1	-27.7	-15.1	-6.8	86.6	46.2	46.3	47.6	47.2
2013	93.6	-9.3	78.3	-18.6	-29.4	-12.4	-6.1	86.9	49.6	50.6	49.3	49.7
2014	101.3	-4.2	79.9	-10.0	-28.0	-3.9	3.8	87.4	51.8	53.3	52.5	52.7
2014 Q1	101.5	-3.5	79.8	-11.2	-28.6	-3.0	3.4	87.2	53.4	55.9	52.1	53.1
Q2	102.2	-3.6	79.7	-7.7	-30.3	-2.2	3.9	87.3	52.4	54.5	53.1	53.4
Q3	100.8	-4.8	80.0	-9.9	-27.8	-4.6	3.3	87.6	50.9	51.6	53.2	52.8
Q4	100.7	-4.8	80.3	-11.2	-25.2	-5.8	4.8	87.7	50.4	51.2	51.7	51.5
2014 Sep.	99.9	-5.5	-	-11.4	-27.4	-7.2	3.2	-	50.3	51.0	52.4	52.0
Oct.	100.7	-5.0	80.0	-11.1	-24.4	-6.3	4.4	87.8	50.6	51.5	52.3	52.1
Nov.	100.7	-4.3	-	-11.6	-26.1	-5.9	4.4	-	50.1	51.2	51.1	51.1
Dec.	100.6	-5.2	-	-10.9	-25.2	-5.2	5.6	-	50.6	50.9	51.6	51.4
2015 Jan.	101.4	-4.8	80.7	-8.5	-26.5	-3.6	4.8	87.5	51.0	52.1	52.7	52.6
Feb.	102.1	-4.7	-	-6.7	-26.5	-2.1	4.5	-	51.0	52.1	53.7	53.3

Sources: Eurostat, ECB calculations, European Commission (Directorate-General for Economic and Financial Affairs) (Table 3.6, col. 1-8), Markit (Table 3.6, col. 9-12).

1) Not seasonally adjusted. Data refer to the Euro 19.
2) The job vacancy rate is equal to the number of job vacancies divided by the sum of the number of occupied posts and the number of job vacancies, expressed as a percentage.

3.7 Summary accounts for households and non-financial corporations

(current prices, unless otherwise indicated; not seasonally adjusted)

	Households							Non-financial corporations					
	Saving ratio (gross) [1]	Debt ratio	Real gross disposable income	Financial investment	Non-financial investment (gross)	Net worth [2]	Housing wealth	Profit share [3]	Saving ratio (net)	Debt ratio [4]	Financial investment	Non-financial investment (gross)	Financing
	Percentage of gross disposable income (adjusted)		Annual percentage changes					Percentage of net value added		Percentage of GDP	Annual percentage changes		
	1	2	3	4	5	6	7	8	9	10	11	12	13
2011	13.0	97.8	-0.1	1.9	1.7	1.8	1.1	33.4	3.5	.	3.2	9.9	2.0
2012	12.9	97.4	-1.6	1.8	-3.7	0.3	-2.2	31.2	1.5	133.5	1.0	-4.8	0.8
2013	13.1	96.1	-0.5	1.3	-3.9	0.0	-2.3	30.6	2.3	130.2	1.5	-3.1	0.7
2013 Q4	13.1	96.1	1.0	1.3	-4.4	0.4	-2.3	30.6	2.3	130.2	1.5	-0.1	0.7
2014 Q1	13.1	95.5	0.5	1.4	3.3	1.9	-1.0	31.0	2.4	129.4	1.7	2.1	0.8
Q2	13.0	95.5	0.4	1.5	0.0	2.9	-0.1	31.0	2.2	130.3	2.0	-0.5	1.0
Q3	13.1	94.9	1.6	1.5	0.3	2.7	0.3	31.3	2.3	129.6	1.7	-0.9	0.9

3.8 Euro area balance of payments, current and capital accounts

(EUR billions; seasonally adjusted unless otherwise indicated; transactions)

	Current account											Capital account [5]	
	Total			Goods		Services		Primary income		Secondary income			
	Credit	Debit	Net	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit
	1	2	3	4	5	6	7	8	9	10	11	12	13
2014 Q1	817.6	758.6	59.0	476.7	424.1	168.9	144.3	150.4	132.3	21.6	57.9	9.3	3.4
Q2	829.0	771.1	57.8	484.8	426.7	170.7	150.9	152.1	132.6	21.4	61.0	7.5	3.4
Q3	829.0	762.9	66.1	488.5	424.0	170.7	154.0	147.3	132.3	22.5	52.6	6.5	2.4
Q4	828.2	771.0	57.3	494.2	427.5	176.2	158.5	134.8	125.0	23.1	60.0	11.4	4.9
2014 July	274.1	256.6	17.5	161.8	142.2	57.7	52.2	47.4	43.2	7.2	19.0	2.6	0.9
Aug.	265.9	248.1	17.8	154.5	134.9	55.9	50.5	47.9	44.7	7.5	17.9	2.3	0.8
Sep.	289.1	258.3	30.8	172.2	146.9	57.1	51.3	52.0	44.4	7.8	15.6	1.7	0.8
Oct.	277.7	258.1	19.6	164.0	145.7	58.7	52.8	47.2	41.9	7.8	17.7	2.8	1.1
Nov.	272.8	253.0	19.9	161.0	140.8	59.3	51.4	44.7	39.7	7.8	21.1	3.4	1.2
Dec.	277.7	259.9	17.8	169.2	141.0	58.2	54.3	42.9	43.3	7.5	21.2	5.2	2.6
	12-month cumulated transactions												
2014 Dec.	3,303.8	3,063.6	240.2	1,944.1	1,702.3	686.4	607.8	584.7	522.1	88.6	231.5	34.7	14.1
	12-month cumulated transactions as a percentage of GDP												
2014 Dec.	32.9	30.5	2.4	19.4	17.0	6.8	6.1	5.8	5.2	0.9	2.3	0.3	0.1

3.9 Euro area external trade in goods [6], values and volumes by product group [7]

(seasonally adjusted, unless otherwise indicated)

	Total (n.s.a.)		Exports (f.o.b.)					Imports (c.i.f.)					
			Total				Memo item:	Total				Memo items:	
	Exports	Imports		Intermediate goods	Capital goods	Consumption goods	Manufacturing		Intermediate goods	Capital goods	Consumption goods	Manufacturing	Oil
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Values (EUR billions; annual percentage changes for columns 1 and 2)												
2014 Q1	1.3	0.2	479.8	235.1	95.5	136.9	389.9	437.7	272.4	60.8	96.4	277.9	79.3
Q2	0.8	0.3	480.4	234.3	96.3	137.6	395.2	437.4	270.4	60.6	98.6	281.0	77.3
Q3	3.0	0.4	484.3	235.5	96.5	138.6	396.7	437.3	268.5	60.9	100.1	285.6	74.4
Q4	4.3	-0.5	494.8	.	.	.	406.0	429.8	.	.	.	287.6	.
2014 July	2.9	1.0	160.7	78.2	32.1	46.5	131.4	147.6	91.3	20.5	33.4	96.3	25.6
Aug.	-3.1	-4.3	158.4	77.6	30.6	44.9	129.6	142.8	87.4	19.5	33.0	91.8	24.4
Sep.	8.6	4.2	165.2	79.6	33.8	47.1	135.7	146.9	89.8	20.9	33.7	97.4	24.4
Oct.	4.1	-0.2	165.0	79.4	33.7	47.7	134.5	144.9	87.8	20.6	33.8	96.3	23.9
Nov.	0.9	-2.2	165.8	77.9	33.4	48.1	136.1	144.2	86.3	20.2	33.5	95.2	22.4
Dec.	8.1	1.0	164.0	.	.	.	135.4	140.7	.	.	.	96.2	.
	Volume indices (2000 = 100; annual percentage changes for columns 1 and 2)												
2014 Q1	1.6	2.6	114.8	113.3	114.6	117.0	114.2	100.7	101.1	98.1	99.6	101.8	94.7
Q2	0.8	2.4	114.8	113.2	114.3	117.5	115.6	101.7	101.8	98.4	102.4	103.5	93.2
Q3	1.2	2.0	114.4	112.6	114.1	116.2	114.5	101.2	101.1	98.7	101.9	103.6	91.1
Q4	.	.	.	.	.	.	.	.	.	.	.	.	.
2014 July	1.2	2.3	114.3	112.5	114.3	117.3	114.2	102.9	102.6	103.3	102.5	106.2	91.2
Aug.	-4.5	-2.7	112.4	111.2	108.5	113.6	112.3	99.3	99.1	94.1	100.6	99.8	90.1
Sep.	6.5	6.0	116.7	114.0	119.5	117.6	117.0	101.5	101.7	98.6	102.5	104.9	92.0
Oct.	2.3	0.8	116.5	113.7	118.9	119.4	115.6	100.4	100.6	96.1	101.3	102.5	95.4
Nov.	-0.6	-1.1	117.2	111.8	117.1	120.9	116.5	101.3	100.8	96.8	99.7	101.8	96.5
Dec.	.	.	.	.	.	.	.	.	.	.	.	.	.

Sources: ECB and Eurostat.

1) Based on four-quarter cumulated sums of both saving and gross disposable income (adjusted for the change in the net equity of households in pension fund reserves).
2) Financial assets (net of financial liabilities) and non-financial assets. Non-financial assets consist mainly of housing wealth (residential structures and land). They also include non-financial assets of unincorporated enterprises classified within the household sector.
3) The profit share uses net entrepreneurial income, which is broadly equivalent to current profits in business accounting.
4) Based on the outstanding amount of loans, debt securities, trade credits and pension scheme liabilities.
5) The capital account is not seasonally adjusted.
6) Differences between ECB's b.o.p. goods (Table 3.8) and Eurostat's trade in goods (Table 3.9) are mainly due to different definitions.
7) Product groups as classified in the Broad Economic Categories.

4 PRICES AND COSTS

4.1 Harmonised Index of Consumer Prices [1]

(annual percentage changes, unless otherwise indicated)

	Total					Total (s.a.; percentage change vis-à-vis previous period)						Memo item: Administered prices	
	Index: 2005 = 100	Total	Total excluding food and energy	Goods	Services	Total	Processed food	Unprocessed food	Non-energy industrial goods	Energy (n.s.a.)	Services	Total HICP excluding administered prices	Administered prices
% of total in 2015	100.0	100.0	69.7	56.5	43.5	100.0	12.2	7.5	26.3	10.6	43.5	87.1	12.9
	1	2	3	4	5	6	7	8	9	10	11	12	13
2012	115.6	2.5	1.5	3.0	1.8	-	-	-	-	-	-	2.3	3.8
2013	117.2	1.4	1.1	1.3	1.4	-	-	-	-	-	-	1.2	2.1
2014	117.7	0.4	0.8	-0.2	1.2	-	-	-	-	-	-	0.2	1.9
2014 Q1	117.2	0.7	0.8	0.3	1.2	0.2	0.4	0.0	0.0	0.0	0.3	0.5	2.0
Q2	118.2	0.6	0.8	0.0	1.3	0.0	0.1	-1.0	-0.1	-0.3	0.3	0.3	2.2
Q3	117.7	0.4	0.8	-0.3	1.2	0.2	0.1	0.2	0.1	-0.4	0.4	0.2	1.6
Q4	117.8	0.2	0.7	-0.6	1.2	-0.2	0.0	0.5	-0.1	-3.0	0.2	-0.1	1.7
2014 Sep.	118.1	0.3	0.8	-0.3	1.1	0.0	0.1	0.5	0.0	0.1	0.0	0.1	1.5
Oct.	118.0	0.4	0.7	-0.2	1.2	-0.1	0.0	0.1	-0.1	-0.9	0.0	0.2	1.7
Nov.	117.8	0.3	0.7	-0.4	1.2	-0.1	-0.1	0.1	0.0	-1.4	0.1	0.1	1.7
Dec.	117.7	-0.2	0.7	-1.2	1.2	-0.3	0.1	-0.4	0.0	-3.3	0.0	-0.4	1.6
2015 Jan.	115.8	-0.6	0.6	-1.8	1.0	-0.4	0.0	0.0	0.0	-3.2	-0.1	-0.9	1.2
Feb. [2]	116.5	-0.3	0.6	.	1.1	.	.	.	.	1.6	.	.	.

	Goods						Services					
	Food (including alcoholic beverages and tobacco)			Industrial goods			Housing		Transport	Communi-cation	Recreation and personal	Miscella-neous
	Total	Processed food	Unpro-cessed food	Total	Non-energy industrial goods	Energy		Rents				
% of total in 2015	19.7	12.2	7.5	36.9	26.3	10.6	10.7	6.4	7.3	3.1	14.8	7.5
	14	15	16	17	18	19	20	21	22	23	24	25
2012	3.1	3.1	3.0	3.0	1.2	7.6	1.8	1.5	2.9	-3.2	2.2	2.0
2013	2.7	2.2	3.5	0.6	0.6	0.6	1.7	1.5	2.4	-4.2	2.2	0.7
2014	0.5	1.2	-0.8	-0.5	0.1	-1.9	1.7	1.4	1.7	-2.8	1.5	1.3
2014 Q1	1.4	1.8	0.7	-0.3	0.3	-1.9	1.8	1.4	1.6	-2.7	1.3	1.2
Q2	0.2	1.5	-1.8	-0.1	0.0	-0.4	1.8	1.4	1.8	-2.8	1.6	1.3
Q3	-0.1	1.0	-2.0	-0.4	0.1	-1.8	1.7	1.3	1.7	-3.1	1.5	1.3
Q4	0.3	0.7	-0.3	-1.1	-0.1	-3.6	1.6	1.4	1.6	-2.6	1.4	1.4
2014 Sep.	0.3	1.0	-0.9	-0.6	0.2	-2.3	1.6	1.4	1.5	-3.3	1.5	1.3
Oct.	0.5	0.8	0.0	-0.6	-0.1	-2.0	1.6	1.4	1.5	-2.6	1.5	1.4
Nov.	0.5	0.6	0.2	-0.8	-0.1	-2.6	1.6	1.4	1.4	-2.5	1.3	1.4
Dec.	0.0	0.5	-1.0	-1.8	0.0	-6.3	1.5	1.4	1.9	-2.6	1.4	1.4
2015 Jan.	-0.1	0.4	-0.8	-2.8	-0.1	-9.3	1.4	1.4	1.4	-2.1	1.2	1.0
Feb. [2]	0.5	0.5	0.5	.	-0.2	-7.9	.	.	.	.	.	.

4.2 Industry, construction and property prices

(annual percentage changes, unless otherwise indicated)

	Industrial producer prices excluding construction										Const-ruction [3]	Residential property prices [3],[4]	Experimental indicator of commercial property prices [3],[4]
	Total (index: 2010 = 100)	Total		Industry excluding construction and energy						Energy			
			Manu-facturing	Total	Intermediate goods	Capital goods	Consumer goods						
							Total	Food, beverages and tobacco	Non-food				
% of total in 2010	100.0	100.0	78.0	72.1	29.3	20.0	22.7	13.8	8.9	27.9			
	1	2	3	4	5	6	7	8	9	10	11	12	13
2012	108.7	2.8	2.0	1.4	0.7	1.0	2.5	3.6	0.9	6.6	1.7	-1.7	0.4
2013	108.5	-0.2	-0.1	0.4	-0.6	0.6	1.7	2.7	0.3	-1.6	0.6	-2.0	-1.3
2014	107.0	-1.4	-0.8	-0.2	-1.1	0.4	0.4	-0.8	0.4	-4.4	.	.	.
2014 Q1	107.7	-1.5	-1.0	-0.4	-1.8	0.3	0.9	-0.4	0.3	-4.1	0.2	-0.6	.
Q2	107.2	-1.0	-0.3	-0.1	-1.2	0.3	0.9	-0.3	0.5	-3.1	0.2	0.1	.
Q3	106.9	-1.4	-0.5	0.0	-0.6	0.5	0.2	-1.0	0.4	-4.5	0.4	0.5	.
Q4	106.1	-1.8	-1.5	-0.2	-0.7	0.6	-0.3	-1.6	0.4	-5.8	.	.	.
2014 Aug.	106.7	-1.4	-0.6	-0.1	-0.6	0.4	0.3	-1.0	0.4	-5.0	-	-	-
Sep.	106.9	-1.4	-0.7	0.0	-0.5	0.6	-0.1	-1.4	0.3	-4.6	-	-	-
Oct.	106.6	-1.3	-0.8	-0.1	-0.4	0.6	-0.3	-1.5	0.4	-4.1	-	-	-
Nov.	106.3	-1.5	-1.2	-0.1	-0.5	0.6	-0.3	-1.5	0.3	-4.9	-	-	-
Dec.	105.3	-2.6	-2.4	-0.4	-1.0	0.6	-0.4	-1.7	0.3	-8.3	-	-	-
2015 Jan.	104.3	-3.4	-3.4	-0.7	-1.6	0.7	-0.9	-1.8	0.1	-10.2	-	-	-

Sources: Eurostat, ECB calculations, and ECB calculations based on IPD data and national sources (Table 4.2, col. 13).

1) Data refer to the changing composition of the euro area.
2) Estimate based on provisional national data, which usually cover around 95% of the euro area, as well as on early information on energy prices.
3) Data refer to the Euro 19.
4) Experimental data based on non-harmonised sources (see http://www.ecb.europa.eu/stats/intro/html/experiment.en.html for further details).

4.3 Commodity prices and GDP deflators

(annual percentage changes, unless otherwise indicated)

	GDP deflators [1]								Oil prices (EUR per barrel)	Non-energy commodity prices (EUR)					
			Domestic demand				Exports [2]	Imports [2]		Import-weighted [3]			Use-weighted [3]		
	Total (s.a.; index: 2010 = 100)	Total	Total	Private consumption	Government consumption	Gross fixed capital formation				Total	Food	Non-food	Total	Food	Non-food
% of total										100.0	35.0	65.0	100.0	45.0	55.0
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2012	102.4	1.3	1.6	1.9	0.8	1.4	1.9	2.5	86.6	-4.9	0.7	-7.6	-1.2	6.5	-6.9
2013	103.8	1.3	0.9	1.1	1.3	0.4	-0.3	-1.3	81.7	-7.6	-12.0	-5.3	-6.9	-8.2	-5.8
2014	.	.	.	.	.	.	.	.	74.5	-6.4	-0.7	-9.1	-3.0	1.3	-6.6
2014 Q1	104.4	1.0	0.8	0.7	0.7	0.2	-1.0	-1.6	78.6	-12.3	-7.2	-14.7	-10.2	-5.2	-14.1
Q2	104.5	0.8	0.7	0.8	0.5	0.3	-0.8	-1.0	79.9	-5.8	-0.4	-8.6	-3.4	1.1	-7.4
Q3	104.7	0.8	0.7	0.6	0.9	0.4	-0.6	-0.9	78.0	-4.3	-1.1	-5.8	-1.0	0.4	-2.1
Q4	.	.	.	.	.	.	.	.	61.5	-2.4	6.7	-6.6	3.2	9.6	-2.0
2014 Sep.	-	-	-	-	-	-	-	-	76.4	-4.3	0.0	-6.4	-0.5	1.4	-2.0
Oct.	-	-	-	-	-	-	-	-	69.5	-2.3	4.4	-5.5	1.4	4.8	-1.4
Nov.	-	-	-	-	-	-	-	-	64.1	-2.6	6.6	-6.9	3.4	9.8	-1.9
Dec.	-	-	-	-	-	-	-	-	51.3	-2.2	9.0	-7.5	5.0	14.2	-2.6
2015 Jan.	-	-	-	-	-	-	-	-	42.8	1.7	14.3	-4.3	7.8	17.2	0.0
Feb.	-	-	-	-	-	-	-	-	52.0	.	.	-2.1	.	.	2.2

4.4 Price-related opinion surveys

(seasonally adjusted)

	European Commission Business and Consumer Surveys (percentage balances)					Purchasing Managers' Surveys (diffusion indices)			
	Selling price expectations (for next three months)				Consumer price trends over past 12 months	Input prices		Prices charged	
	Manufacturing	Retail trade	Services	Construction		Manufacturing	Services	Manufacturing	Services
	1	2	3	4	5	6	7	8	9
1999-13	4.8	-	-	-1.8	34.0	57.7	56.7	-	49.9
2012	2.7	8.1	1.9	-12.4	38.6	52.7	55.1	49.9	47.9
2013	-0.4	2.0	-1.7	-17.1	29.8	48.5	53.8	49.4	47.8
2014	-0.8	-0.9	0.8	-17.7	14.3	49.6	53.5	49.7	48.2
2014 Q1	0.5	1.9	0.2	-18.0	22.8	49.8	53.8	50.2	48.7
Q2	-0.9	-0.5	0.1	-20.0	14.9	48.7	53.9	50.0	48.7
Q3	-0.7	-1.3	0.2	-17.0	11.7	51.2	53.7	49.8	48.4
Q4	-2.1	-3.8	2.6	-15.6	7.9	48.7	52.6	49.0	47.1
2014 Sep.	-1.9	-4.2	-0.6	-16.9	7.1	49.2	52.8	48.9	48.4
Oct.	0.4	-5.6	1.6	-16.8	8.5	49.0	53.1	49.0	46.4
Nov.	-1.5	-3.0	3.3	-14.9	8.9	49.0	52.7	48.8	47.1
Dec.	-5.1	-2.9	2.8	-15.2	6.4	48.1	52.0	49.1	47.7
2015 Jan.	-5.9	-3.1	-0.8	-17.0	-0.1	42.0	50.9	48.1	46.5
Feb.	-5.5	0.5	1.6	-18.0	-3.4	44.7	52.4	48.6	47.6

Sources: European Commission (Directorate-General for Economic and Financial Affairs) and Thomson Reuters (Table 4.3, col. 9).

1) Data refer to the Euro 19.

2) Deflators for exports and imports refer to goods and services and include cross-border trade within the euro area.

3) Import-weighted: weighted according to 2004-06 average import structure; use-weighted: weighted according to 2004-06 average domestic demand structure.

4.5 Unit labour costs, compensation per labour input and labour productivity [1)]

(annual percentage changes, unless otherwise indicated; quarterly data seasonally adjusted; annual data unadjusted)

	Total (index: 2010 =100)	Total	By economic activity									
			Agriculture, forestry and fishing	Manufacturing, energy and utilities	Construction	Trade, transport, accommodation and food services	Information and communication	Finance and insurance	Real estate	Professional, business and support services	Public administration, education, health and social work	Arts, entertainment and other services
	1	2	3	4	5	6	7	8	9	10	11	12
	Unit labour costs											
2011	100.6	0.6	0.4	-0.1	2.2	0.0	-1.4	0.3	0.9	3.1	0.6	1.1
2012	102.5	1.9	3.4	2.1	2.7	2.6	0.2	-0.4	2.0	3.5	0.5	2.4
2013	103.9	1.4	-2.4	2.1	0.4	1.5	1.9	2.5	-2.5	1.1	1.6	2.3
2013 Q4	104.2	1.2	-4.0	0.3	-0.1	0.8	1.8	3.3	-2.6	0.6	2.7	2.0
2014 Q1	104.5	0.8	-3.8	1.0	-0.5	0.3	3.8	0.5	0.3	1.2	0.9	0.8
Q2	104.8	1.0	-3.2	1.7	0.1	0.4	3.6	0.6	0.2	2.2	0.8	1.6
Q3	105.2	1.1	-2.7	1.5	0.7	0.6	3.7	0.5	0.5	2.4	0.9	1.4
	Compensation per employee											
2011	102.1	2.1	3.5	2.9	3.1	1.7	2.4	2.2	2.0	2.9	1.3	1.4
2012	103.8	1.7	1.7	2.2	2.5	1.7	1.9	1.0	1.9	2.4	0.9	2.3
2013	105.6	1.7	1.2	2.7	1.5	1.5	1.1	2.4	-0.5	0.9	1.8	1.7
2013 Q4	106.4	2.0	-0.1	2.5	2.0	1.3	1.1	2.8	-1.2	0.8	2.8	2.5
2014 Q1	106.9	1.8	-0.1	2.7	3.3	1.8	2.7	1.1	0.6	1.6	1.5	1.5
Q2	107.0	1.4	0.7	2.1	1.9	1.2	1.8	2.0	0.9	1.3	1.3	1.2
Q3	107.4	1.3	1.7	1.9	1.1	1.0	1.8	1.7	1.6	1.7	1.3	0.7
	Labour productivity per person employed											
2011	101.5	1.5	3.0	3.0	0.8	1.7	3.8	1.9	1.2	-0.2	0.7	0.3
2012	101.3	-0.2	-1.6	0.2	-0.2	-0.9	1.7	1.4	-0.1	-1.1	0.4	-0.2
2013	101.6	0.3	3.7	0.6	1.1	-0.1	-0.8	-0.1	2.0	-0.1	0.2	-0.6
2013 Q4	102.1	0.8	4.1	2.1	2.1	0.6	-0.6	-0.5	1.4	0.2	0.1	0.4
2014 Q1	102.3	1.0	3.9	1.7	3.8	1.4	-1.1	0.5	0.2	0.4	0.5	0.7
Q2	102.1	0.4	4.1	0.4	1.8	0.8	-1.7	1.4	0.7	-0.8	0.4	-0.4
Q3	102.0	0.2	4.5	0.4	0.4	0.4	-1.9	1.1	1.0	-0.7	0.4	-0.7
	Compensation per hour worked											
2011	101.8	1.8	2.5	1.9	3.3	1.6	2.2	1.6	2.3	2.7	1.1	1.4
2012	104.7	2.8	3.6	3.7	4.8	3.4	2.4	1.5	2.1	3.1	1.2	3.3
2013	107.0	2.2	1.4	2.5	2.6	2.1	1.1	2.8	0.8	1.8	2.1	2.1
2013 Q4	107.7	2.0	-0.5	1.6	2.0	1.6	0.6	2.8	0.7	1.2	3.0	2.4
2014 Q1	108.0	1.2	-0.6	1.0	1.9	1.5	2.2	0.7	0.9	1.7	1.0	1.0
Q2	108.4	1.5	1.6	1.9	2.2	1.4	1.9	2.4	2.1	1.4	1.1	1.5
Q3	108.7	1.3	2.2	1.5	1.3	1.1	1.5	1.9	1.6	1.5	1.3	1.0
	Hourly labour productivity											
2011	101.4	1.4	3.1	2.2	0.8	1.8	3.8	1.4	1.4	-0.3	0.4	0.3
2012	102.3	0.9	-0.6	1.5	1.8	0.5	2.2	1.9	1.0	-0.3	0.7	0.7
2013	103.0	0.7	3.0	0.6	1.9	0.5	-0.8	0.2	3.1	0.5	0.5	-0.1
2013 Q4	103.3	0.7	2.8	1.3	2.1	0.7	-1.4	-0.6	2.8	0.6	0.3	0.4
2014 Q1	103.4	0.4	2.7	0.1	2.4	1.1	-1.4	0.0	0.5	0.5	0.0	0.4
Q2	103.6	0.6	3.5	0.4	2.1	1.0	-1.7	1.7	1.3	-0.3	0.3	0.2
Q3	103.4	0.3	3.6	0.1	0.8	0.5	-2.0	1.4	1.7	-0.3	0.5	-0.2

4.6 Labour cost indices

(annual percentage changes, unless otherwise indicated)

	Total (index: 2008 = 100)	Total	By component		For selected economic activities		Memo item: Indicator of negotiated wages [2)]
			Wages and salaries	Employers' social contributions	Business economy	Mainly non-business economy	
% of total in 2008	100.0	100.0	75.2	24.8	32.4	58.6	
	1	2	3	4	5	6	7
2012	108.9	2.0	2.0	2.0	2.4	1.2	2.2
2013	110.3	1.3	1.5	0.8	1.2	1.6	1.8
2014	.	.	.	.	.	.	1.8
2014 Q1	103.7	0.7	1.1	-0.6	0.7	0.5	1.9
Q2	115.7	1.4	1.4	1.3	1.6	1.1	1.8
Q3	108.6	1.3	1.4	1.2	1.2	1.5	1.7
Q4	.	.	.	.	.	.	1.7

Sources: Eurostat and ECB calculations.

1) Data refer to the Euro 19.

2) Experimental data based on non-harmonised sources (see http://www.ecb.europa.eu/stats/intro/html/experiment.en.html for further details).

5 MONEY AND CREDIT

5.1 Monetary aggregates [1)]

(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period; transactions during period)

	M3											
	M2							M3-M2				
	M1			M2-M1								
	Currency in circulation	Overnight deposits		Deposits with an agreed maturity of up to 2 years	Deposits redeemable at notice of up to 3 months			Repos	Money market fund shares	Debt securities with a maturity of up to 2 years		
	1	2	3	4	5	6	7	8	9	10	11	12
	Outstanding amounts											
2012	863.4	4,244.0	5,107.5	1,803.3	2,081.5	3,884.8	8,992.3	125.0	483.1	180.6	788.7	9,780.9
2013	908.8	4,482.6	5,391.4	1,691.2	2,123.2	3,814.4	9,205.8	120.0	417.7	86.5	624.3	9,830.0
2014	967.3	4,948.5	5,915.9	1,602.0	2,129.7	3,731.7	9,647.6	122.2	430.4	130.0	682.6	10,330.2
2014 Q1	924.8	4,563.3	5,488.0	1,667.7	2,125.3	3,793.1	9,281.1	117.1	403.2	84.8	605.1	9,886.2
Q2	931.5	4,627.3	5,558.9	1,671.1	2,131.2	3,802.3	9,361.2	129.7	396.9	75.8	602.4	9,963.6
Q3	948.2	4,745.2	5,693.4	1,647.5	2,136.6	3,784.1	9,477.5	122.4	419.1	68.8	610.4	10,087.8
Q4	967.3	4,948.5	5,915.9	1,602.0	2,129.7	3,731.7	9,647.6	122.2	430.4	130.0	682.6	10,330.2
2014 Aug.	943.3	4,713.3	5,656.6	1,658.2	2,134.2	3,792.3	9,448.9	128.5	404.1	74.1	606.7	10,055.6
Sep.	948.2	4,745.2	5,693.4	1,647.5	2,136.6	3,784.1	9,477.5	122.4	419.1	68.8	610.4	10,087.8
Oct.	949.5	4,794.0	5,743.5	1,625.7	2,132.5	3,758.2	9,501.7	130.3	432.4	67.0	629.7	10,131.4
Nov.	956.5	4,858.0	5,814.5	1,619.3	2,138.4	3,757.7	9,572.2	128.2	434.6	71.6	634.4	10,206.7
Dec.	967.3	4,948.5	5,915.9	1,602.0	2,129.7	3,731.7	9,647.6	122.2	430.4	130.0	682.6	10,330.2
2015 Jan. [p]	984.8	5,057.5	6,042.3	1,579.2	2,121.7	3,700.9	9,743.3	120.5	438.6	136.1	695.1	10,438.4
	Transactions											
2012	20.0	289.5	309.5	-36.0	114.9	78.9	388.5	-16.9	-20.2	-18.5	-55.7	332.8
2013	45.3	245.8	291.1	-111.1	43.9	-67.2	223.9	-12.0	-48.8	-62.8	-123.6	100.3
2014	58.0	370.0	427.9	-96.0	3.7	-92.4	335.6	0.8	7.2	26.2	34.2	369.7
2014 Q1	15.4	73.4	88.8	-26.2	1.7	-24.5	64.3	-3.0	-6.9	-1.3	-11.2	53.1
Q2	6.7	61.7	68.5	2.3	5.8	8.1	76.6	12.4	-6.0	-5.8	0.5	77.1
Q3	16.7	109.1	125.7	-27.1	5.1	-22.0	103.8	-8.1	8.9	2.8	3.5	107.3
Q4	19.1	125.8	144.9	-45.0	-9.0	-54.0	90.9	-0.5	11.3	30.5	41.3	132.2
2014 Aug.	7.0	42.0	48.9	-12.0	2.4	-9.6	39.3	-0.2	-4.8	4.0	-1.0	38.3
Sep.	4.9	25.4	30.3	-12.4	2.3	-10.1	20.2	-6.6	1.5	4.3	-0.8	19.4
Oct.	1.3	48.3	49.6	-21.3	-4.5	-25.8	23.8	7.9	13.4	-2.0	19.3	43.0
Nov.	7.0	64.2	71.3	-6.2	5.9	-0.4	70.9	-2.1	2.3	4.4	4.6	75.5
Dec.	10.8	13.3	24.1	-17.4	-10.3	-27.8	-3.7	-6.4	-4.4	28.1	17.4	13.7
2015 Jan. [p]	16.4	83.8	100.1	-33.7	-7.4	-41.1	59.0	-2.4	6.6	10.0	14.2	73.2
	Growth rates											
2012	2.4	7.3	6.4	-1.9	5.9	2.1	4.5	-11.6	-3.9	-9.9	-6.6	3.5
2013	5.2	5.8	5.7	-6.2	2.1	-1.7	2.5	-9.5	-10.4	-37.8	-16.2	1.0
2014	6.4	8.2	7.9	-5.7	0.2	-2.4	3.6	0.6	1.6	37.5	5.5	3.8
2014 Q1	6.5	5.5	5.6	-6.5	1.1	-2.4	2.2	-9.9	-10.3	-27.6	-13.5	1.0
Q2	5.6	5.4	5.4	-4.6	0.5	-1.8	2.4	5.1	-8.2	-25.8	-8.8	1.6
Q3	6.0	6.2	6.2	-3.9	0.3	-1.5	3.0	9.7	-2.0	-25.4	-4.4	2.5
Q4	6.4	8.2	7.9	-5.7	0.2	-2.4	3.6	0.6	1.6	37.5	5.5	3.8
2014 Aug.	5.8	5.9	5.8	-4.2	0.4	-1.7	2.7	5.8	-5.3	-25.7	-6.7	2.0
Sep.	6.0	6.2	6.2	-3.9	0.3	-1.5	3.0	9.7	-2.0	-25.4	-4.4	2.5
Oct.	5.6	6.3	6.2	-4.9	0.2	-2.1	2.7	9.9	1.0	-21.8	-1.1	2.5
Nov.	5.9	7.1	6.9	-4.5	0.4	-1.8	3.3	6.8	2.6	-16.1	0.2	3.1
Dec.	6.4	8.2	7.9	-5.7	0.2	-2.4	3.6	0.6	1.6	37.5	5.5	3.8
2015 Jan. [p]	7.7	9.2	9.0	-6.8	-0.1	-3.1	4.0	-3.9	0.1	44.3	4.6	4.1

Source: ECB.

1) Data refer to the changing composition of the euro area.

5.2 Deposits in M3 [1]

(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period; transactions during period)

	Non-financial corporations [2]					Households [3]					Financial corporations other than MFIs and ICPFs [2]	Insurance corporations and pension funds	Other general government [4]
	Total	Overnight	With an agreed maturity of up to 2 years	Redeemable at notice of up to 3 months	Repos	Total	Overnight	With an agreed maturity of up to 2 years	Redeemable at notice of up to 3 months	Repos			
	1	2	3	4	5	6	7	8	9	10	11	12	13
	Outstanding amounts												
2012	1,618.7	1,112.8	406.9	88.1	10.8	5,308.6	2,360.4	977.3	1,960.3	10.5	811.2	209.1	306.3
2013	1,710.6	1,198.6	400.8	94.7	16.5	5,414.0	2,542.6	875.7	1,991.2	4.5	801.0	192.8	298.6
2014	1,817.6	1,332.9	368.7	96.5	19.5	5,558.7	2,754.8	810.9	1,990.1	2.8	881.3	217.9	326.9
2014 Q1	1,732.1	1,223.8	398.2	95.2	15.0	5,442.6	2,583.8	864.5	1,988.6	5.7	779.8	205.7	313.3
Q2	1,751.9	1,244.6	394.7	97.3	15.3	5,481.4	2,623.1	859.8	1,994.0	4.5	801.1	210.3	314.6
Q3	1,789.5	1,283.8	391.1	99.2	15.4	5,531.9	2,686.9	845.1	1,995.1	4.9	794.8	208.4	327.1
Q4	1,817.6	1,332.9	368.7	96.5	19.5	5,558.7	2,754.8	810.9	1,990.1	2.8	881.3	217.9	326.9
2014 Aug.	1,778.9	1,270.2	394.8	98.5	15.4	5,513.4	2,664.4	850.0	1,994.2	4.9	800.9	216.7	324.2
Sep.	1,789.5	1,283.8	391.1	99.2	15.4	5,531.9	2,686.9	845.1	1,995.1	4.9	794.8	208.4	327.1
Oct.	1,790.5	1,297.4	379.3	100.3	13.5	5,531.9	2,700.0	836.4	1,990.8	4.7	827.4	211.0	321.7
Nov.	1,816.1	1,320.0	382.1	100.9	13.1	5,552.5	2,730.6	827.2	1,990.1	4.8	839.4	211.3	324.5
Dec.	1,817.6	1,332.9	368.7	96.5	19.5	5,558.7	2,754.8	810.9	1,990.1	2.8	881.3	217.9	326.9
2015 Jan. [p]	1,854.3	1,379.5	366.8	96.6	11.4	5,567.6	2,787.7	795.4	1,980.1	4.4	884.3	227.5	345.2
	Transactions												
2012	72.2	99.4	-33.2	10.0	-4.0	222.8	99.4	35.6	100.2	-12.5	16.5	15.0	25.0
2013	97.9	90.4	-6.0	7.7	5.8	108.7	183.7	-100.1	31.1	-6.0	-17.4	-14.2	-8.5
2014	68.6	90.3	-25.5	1.2	2.5	142.3	210.5	-65.4	-1.2	-1.7	44.5	5.5	17.6
2014 Q1	17.2	21.6	-3.3	0.4	-1.5	25.5	39.1	-11.8	-2.9	1.1	-22.2	12.3	13.1
Q2	14.8	18.7	-4.3	0.3	0.2	41.4	40.4	-4.9	7.1	-1.2	20.5	4.6	0.9
Q3	29.6	33.6	-5.7	1.9	-0.2	47.3	61.9	-16.0	1.0	0.4	-8.3	-2.3	12.6
Q4	7.0	16.4	-12.1	-1.4	4.0	27.9	69.1	-32.8	-6.4	-2.0	54.4	-9.0	-9.0
2014 Aug.	12.7	12.9	-2.1	0.3	1.6	17.5	21.7	-5.7	1.6	-0.1	-5.0	1.1	5.9
Sep.	6.4	10.8	-4.8	0.7	-0.3	16.6	21.5	-5.7	0.9	0.0	-8.9	-8.5	3.1
Oct.	0.9	13.4	-11.6	1.0	-1.9	-0.1	13.1	-8.6	-4.3	-0.2	32.4	2.6	-5.5
Nov.	25.8	22.9	2.8	0.5	-0.4	20.9	30.7	-9.2	-0.7	0.1	12.4	0.3	2.4
Dec.	-19.7	-19.9	-3.3	-2.8	6.3	7.1	25.3	-14.9	-1.4	-1.9	9.6	-11.9	-6.0
2015 Jan. [p]	24.1	36.3	-3.9	0.0	-8.3	-3.6	25.0	-20.9	-9.3	1.6	-6.6	8.8	17.6
	Growth rates												
2012	4.7	9.8	-7.5	13.2	-25.2	4.4	4.4	3.8	5.4	-54.2	2.1	7.8	9.1
2013	6.1	8.1	-1.5	8.8	54.6	2.0	7.8	-10.3	1.6	-57.0	-2.2	-6.9	-2.8
2014	4.0	7.5	-6.3	1.2	14.5	2.6	8.3	-7.5	-0.1	-37.2	5.4	3.0	5.9
2014 Q1	5.7	8.0	-1.3	5.6	24.0	1.6	7.2	-10.0	0.6	-31.0	-5.7	-4.3	2.3
Q2	6.2	8.3	-0.6	4.9	40.5	2.0	7.3	-8.1	0.3	-30.3	-4.4	1.7	-0.3
Q3	6.0	8.6	-2.1	3.4	47.4	2.2	7.3	-7.0	0.1	-20.8	-0.9	2.3	3.3
Q4	4.0	7.5	-6.3	1.2	14.5	2.6	8.3	-7.5	-0.1	-37.2	5.4	3.0	5.9
2014 Aug.	6.0	8.4	-1.4	3.4	33.2	2.0	7.0	-7.4	0.2	-23.3	-3.2	5.5	2.6
Sep.	6.0	8.6	-2.1	3.4	47.4	2.2	7.3	-7.0	0.1	-20.8	-0.9	2.3	3.3
Oct.	4.9	8.5	-5.5	2.8	12.0	2.1	6.9	-6.8	0.1	-18.5	0.4	3.4	2.2
Nov.	5.2	8.8	-5.3	3.3	17.4	2.4	7.5	-7.1	0.2	-14.7	3.5	4.0	1.1
Dec.	4.0	7.5	-6.3	1.2	14.5	2.6	8.3	-7.5	-0.1	-37.2	5.4	3.0	5.9
2015 Jan. [p]	4.7	9.8	-8.0	1.5	-34.7	2.5	8.6	-9.2	-0.2	-8.7	6.1	0.2	9.2

Source: ECB.

1) Data refer to the changing composition of the euro area.

2) In accordance with the ESA 2010, in December 2014 holding companies of non-financial groups were reclassified from the non-financial corporations sector to the financial corporations sector. These entities are included in MFI balance sheet statistics with financial corporations other than MFIs and insurance corporations and pension funds (ICPFs).

3) Including non-profit institutions serving households.

4) Refers to the general government sector excluding central government.

5.3 Credit to euro area residents [1)]

(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period; transactions during period)

	Credit to general government			Credit to other euro area residents								
	Total	Loans	Debt securities	Total	Loans						Debt securities	Equity and non-money market fund investment fund shares
					Total		To non-financial corporations [3)]	To households [4)]	To financial corporations other than MFIs and ICPFs [3)]	To insurance corporations and pension funds		
						Adjusted for loan sales and securitisation [2)]						
	1	2	3	4	5	6	7	8	9	10	11	12
	Outstanding amounts											
2012	3,410.8	1,169.3	2,241.5	13,069.5	10,860.0	-	4,544.6	5,242.3	984.3	89.0	1,435.9	773.6
2013	3,407.5	1,096.3	2,311.2	12,709.4	10,546.4	-	4,354.1	5,221.4	872.6	98.3	1,363.9	799.1
2014	3,602.2	1,129.9	2,472.3	12,582.1	10,515.6	-	4,284.2	5,200.0	903.3	128.1	1,291.3	775.2
2014 Q1	3,454.0	1,113.0	2,341.0	12,661.6	10,531.2	-	4,337.6	5,232.2	860.6	100.7	1,329.9	800.5
Q2	3,447.9	1,101.7	2,346.2	12,588.1	10,464.7	-	4,306.3	5,191.0	868.5	99.0	1,317.3	806.1
Q3	3,508.9	1,102.3	2,406.7	12,561.6	10,444.7	-	4,288.1	5,194.6	858.7	103.3	1,307.0	809.8
Q4	3,602.2	1,129.9	2,472.3	12,582.1	10,515.6	-	4,284.2	5,200.0	903.3	128.1	1,291.3	775.2
2014 Aug.	3,500.5	1,105.4	2,395.0	12,560.7	10,435.0	-	4,290.6	5,191.5	855.1	97.8	1,314.4	811.3
Sep.	3,508.9	1,102.3	2,406.7	12,561.6	10,444.7	-	4,288.1	5,194.6	858.7	103.3	1,307.0	809.8
Oct.	3,523.4	1,097.3	2,426.2	12,543.8	10,431.5	-	4,277.4	5,197.3	853.9	102.9	1,301.0	811.3
Nov.	3,538.3	1,108.8	2,429.4	12,533.4	10,431.0	-	4,271.4	5,194.8	857.5	107.4	1,291.8	810.5
Dec.	3,602.2	1,129.9	2,472.3	12,582.1	10,515.6	-	4,284.2	5,200.0	903.3	128.1	1,291.3	775.2
2015 Jan. [p)]	3,648.6	1,149.8	2,498.8	12,654.8	10,584.7	-	4,299.6	5,222.6	923.7	138.9	1,294.2	775.9
	Transactions											
2012	185.0	-4.0	189.0	-100.6	-69.1	-13.4	-107.6	26.0	14.5	-2.0	-69.9	38.5
2013	-24.4	-73.6	49.2	-304.5	-247.4	-221.2	-132.8	-3.5	-120.7	9.6	-71.7	14.6
2014	66.3	16.1	50.2	-87.1	-51.4	17.7	-59.4	-14.7	11.2	11.6	-71.2	35.5
2014 Q1	13.0	15.2	-2.2	-40.3	-16.2	-13.4	-25.9	7.1	0.1	2.5	-26.8	2.7
Q2	-27.6	-10.3	-17.3	-50.1	-47.4	9.2	-18.7	-35.4	8.5	-1.7	-12.4	9.7
Q3	41.1	-1.4	42.5	-19.0	-10.6	-10.9	-18.6	8.2	-4.4	4.2	-14.1	5.7
Q4	39.7	12.6	27.1	22.3	22.8	32.9	3.8	5.4	7.0	6.6	-17.9	17.4
2014 Aug.	20.5	-1.4	21.9	-10.5	-3.0	-2.4	-3.5	3.2	1.6	-4.3	-7.3	-0.2
Sep.	5.5	-3.5	9.0	-5.0	7.4	7.8	-3.7	3.8	1.9	5.5	-10.0	-2.5
Oct.	18.7	-6.3	25.0	-6.1	-3.7	-1.5	-2.5	4.2	-5.0	-0.4	-7.0	4.6
Nov.	4.6	11.2	-6.6	-13.8	2.6	10.0	-4.0	-1.3	3.4	4.5	-10.7	-5.7
Dec.	16.4	7.7	8.7	42.1	23.9	24.5	10.3	2.5	8.6	2.5	-0.2	18.4
2015 Jan. [p)]	33.0	13.8	19.3	16.2	22.9	24.4	-4.2	4.3	12.3	10.5	3.5	-10.2
	Growth rates											
2012	5.8	-0.3	9.5	-0.8	-0.6	-0.1	-2.3	0.5	1.5	-2.2	-4.6	5.2
2013	-0.7	-6.3	2.2	-2.3	-2.3	-2.0	-2.9	-0.1	-12.2	10.8	-5.0	1.9
2014	1.9	1.5	2.1	-0.7	-0.5	0.2	-1.4	-0.3	1.1	11.8	-5.2	4.4
2014 Q1	-0.9	-3.1	0.2	-2.5	-2.2	-2.0	-3.1	-0.1	-10.8	9.0	-6.7	1.0
Q2	-2.5	-1.5	-3.0	-2.2	-1.8	-1.1	-2.3	-0.6	-5.9	4.8	-7.5	0.5
Q3	-0.5	-0.7	-0.4	-1.9	-1.2	-0.6	-2.0	-0.5	-2.6	8.5	-8.6	1.7
Q4	1.9	1.5	2.1	-0.7	-0.5	0.2	-1.4	-0.3	1.1	11.8	-5.2	4.4
2014 Aug.	-1.2	-0.7	-1.4	-1.9	-1.5	-0.9	-2.2	-0.5	-3.8	0.3	-7.9	2.6
Sep.	-0.5	-0.7	-0.4	-1.9	-1.2	-0.6	-2.0	-0.5	-2.6	8.5	-8.6	1.7
Oct.	-0.2	-1.4	0.4	-1.6	-1.1	-0.5	-1.9	-0.4	-2.4	5.8	-7.9	2.5
Nov.	0.8	0.6	0.9	-1.4	-0.9	-0.2	-1.7	-0.4	-1.0	8.0	-7.2	2.5
Dec.	1.9	1.5	2.1	-0.7	-0.5	0.2	-1.4	-0.3	1.1	11.8	-5.2	4.4
2015 Jan. [p)]	2.1	1.6	2.4	-0.5	-0.1	0.5	-1.2	-0.2	3.0	19.4	-5.0	3.2

Source: ECB.

1) Data refer to the changing composition of the euro area.

2) Adjusted for the derecognition of loans on the MFI balance sheet on account of their sale or securitisation.

3) In accordance with the ESA 2010, in December 2014 holding companies of non-financial groups were reclassified from the non-financial corporations sector to the financial corporations sector. These entities are included in MFI balance sheet statistics with financial corporations other than MFIs and insurance corporations and pension funds (ICPFs).

4) Including non-profit institutions serving households.

5.4 MFI loans to euro area non-financial corporations and households [1)]

(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period; transactions during period)

	Non-financial corporations [2)]					Households [3)]				
	Total		Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total		Loans for consumption	Loans for house purchase	Other loans
		Adjusted for loan sales and securitisation [4)]					Adjusted for loan sales and securitisation [4)]			
	1	2	3	4	5	6	7	8	9	10
	Outstanding amounts									
2012	4,544.6	-	1,127.9	795.6	2,621.0	5,242.3	-	602.0	3,823.6	816.7
2013	4,354.1	-	1,065.6	740.8	2,547.8	5,221.4	-	573.5	3,851.5	796.4
2014	4,284.2	-	1,082.7	725.8	2,475.7	5,200.0	-	562.2	3,860.2	777.6
2014 Q1	4,337.6	-	1,056.9	732.8	2,548.0	5,232.2	-	572.3	3,864.2	795.7
Q2	4,306.3	-	1,058.1	734.1	2,514.1	5,191.0	-	570.3	3,832.2	788.5
Q3	4,288.1	-	1,056.5	726.1	2,505.4	5,194.6	-	567.1	3,843.7	783.8
Q4	4,284.2	-	1,082.7	725.8	2,475.7	5,200.0	-	562.2	3,860.2	777.6
2014 Aug.	4,290.6	-	1,049.4	730.1	2,511.0	5,191.5	-	566.8	3,840.7	784.0
Sep.	4,288.1	-	1,056.5	726.1	2,505.4	5,194.6	-	567.1	3,843.7	783.8
Oct.	4,277.4	-	1,053.1	723.9	2,500.5	5,197.3	-	568.8	3,847.9	780.6
Nov.	4,271.4	-	1,040.1	734.1	2,497.1	5,194.8	-	566.8	3,848.2	779.8
Dec.	4,284.2	-	1,082.7	725.8	2,475.7	5,200.0	-	562.2	3,860.2	777.6
2015 Jan. [p]	4,299.6	-	1,086.8	736.5	2,476.2	5,222.6	-	566.2	3,876.4	780.0
	Transactions									
2012	-107.6	-60.3	6.2	-51.4	-62.3	26.0	34.7	-17.7	48.8	-5.1
2013	-132.8	-127.5	-44.5	-44.5	-43.7	-3.5	14.3	-18.1	27.6	-13.1
2014	-59.4	-46.5	-13.1	0.9	-47.3	-14.7	41.0	-5.4	-3.1	-6.3
2014 Q1	-25.9	-24.8	-6.6	-6.3	-13.0	7.1	8.5	0.0	7.4	-0.3
Q2	-18.7	-7.6	3.3	6.0	-28.1	-35.4	9.3	-2.0	-33.1	-0.3
Q3	-18.6	-20.1	-3.1	-7.0	-8.5	8.2	9.6	1.2	13.1	-6.1
Q4	3.8	6.0	-6.7	8.2	2.3	5.4	13.7	-4.6	9.5	0.4
2014 Aug.	-3.5	-3.1	-2.0	-1.1	-0.3	3.2	3.3	-1.2	1.6	2.8
Sep.	-3.7	-4.0	6.2	-3.9	-6.0	3.8	4.3	1.7	5.2	-3.0
Oct.	-2.5	-1.8	-1.8	-0.9	0.2	4.2	5.6	1.9	3.9	-1.6
Nov.	-4.0	-2.7	-12.6	10.7	-2.1	-1.3	4.7	-1.5	0.0	0.2
Dec.	10.3	10.5	7.6	-1.6	4.2	2.5	3.4	-4.9	5.6	1.9
2015 Jan. [p]	-4.2	-3.6	-4.4	4.7	-4.5	4.3	5.1	-0.1	4.0	0.4
	Growth rates									
2012	-2.3	-1.3	0.5	-6.0	-2.3	0.5	0.7	-2.8	1.3	-0.6
2013	-2.9	-2.8	-4.0	-5.6	-1.7	-0.1	0.3	-3.0	0.7	-1.6
2014	-1.4	-1.1	-1.2	0.1	-1.9	-0.3	0.8	-0.9	-0.1	-0.8
2014 Q1	-3.1	-3.1	-5.0	-5.0	-1.6	-0.1	0.4	-1.9	0.5	-1.5
Q2	-2.3	-2.1	-2.7	-3.3	-1.9	-0.6	0.5	-1.4	-0.4	-1.0
Q3	-2.0	-1.8	-1.4	-3.4	-1.9	-0.5	0.5	-1.1	-0.2	-1.7
Q4	-1.4	-1.1	-1.2	0.1	-1.9	-0.3	0.8	-0.9	-0.1	-0.8
2014 Aug.	-2.2	-2.0	-2.2	-3.6	-1.7	-0.5	0.5	-1.6	-0.1	-1.3
Sep.	-2.0	-1.8	-1.4	-3.4	-1.9	-0.5	0.5	-1.1	-0.2	-1.7
Oct.	-1.9	-1.6	-1.0	-3.4	-1.7	-0.4	0.6	0.1	-0.2	-1.7
Nov.	-1.7	-1.4	-1.5	-1.8	-1.7	-0.4	0.7	0.1	-0.3	-1.3
Dec.	-1.4	-1.1	-1.2	0.1	-1.9	-0.3	0.8	-0.9	-0.1	-0.8
2015 Jan. [p]	-1.2	-0.9	-1.0	1.1	-2.0	-0.2	0.9	-0.9	0.0	-0.6

Source: ECB.

1) Data refer to the changing composition of the euro area.

2) In accordance with the ESA 2010, in December 2014 holding companies of non-financial groups were reclassified from the non-financial corporations sector to the financial corporations sector. These entities are included in MFI balance sheet statistics with financial corporations other than MFIs and insurance corporations and pension funds (ICPFs).

3) Including non-profit institutions serving households.

4) Adjusted for the derecognition of loans on the MFI balance sheet on account of their sale or securitisation.

5.5 Counterparts to M3 other than credit to euro area residents [1)]

(EUR billions and annual growth rates; seasonally adjusted; outstanding amounts and growth rates at end of period; transactions during period)

	MFI liabilities						MFI assets			
	Central government holdings [2)]	Longer-term financial liabilities vis-à-vis other euro area residents					Net external assets	Other		
		Total	Deposits with an agreed maturity of over 2 years	Deposits redeemable at notice of over 3 months	Debt securities with a maturity of over 2 years	Capital and reserves		Total		
									Repos with central counter-parties [3)]	Reverse repos to central counter-parties [3)]
	1	2	3	4	5	6	7	8	9	10
	Outstanding amounts									
2012	305.4	7,570.1	2,395.9	106.0	2,680.8	2,387.4	1,029.8	146.4	260.8	201.2
2013	260.2	7,305.0	2,373.3	91.5	2,506.3	2,333.9	1,153.9	124.5	183.8	122.1
2014	263.4	7,182.1	2,252.4	92.0	2,375.1	2,462.7	1,406.7	184.7	184.5	139.8
2014 Q1	260.9	7,343.1	2,355.5	91.1	2,472.5	2,423.9	1,256.1	118.5	177.0	116.7
Q2	270.3	7,295.1	2,301.8	90.1	2,455.1	2,448.2	1,357.6	135.3	171.3	119.0
Q3	249.7	7,332.2	2,278.6	92.4	2,457.0	2,504.1	1,419.5	179.8	163.6	121.7
Q4	263.4	7,182.1	2,252.4	92.0	2,375.1	2,462.7	1,406.7	184.7	184.5	139.8
2014 Aug.	266.2	7,317.9	2,289.8	91.9	2,448.4	2,487.8	1,416.5	162.1	172.0	116.9
Sep.	249.7	7,332.2	2,278.6	92.4	2,457.0	2,504.1	1,419.5	179.8	163.6	121.7
Oct.	254.3	7,270.2	2,264.8	91.8	2,420.2	2,493.4	1,418.0	170.6	183.1	121.1
Nov.	256.4	7,262.5	2,258.4	91.0	2,404.7	2,508.5	1,466.6	187.3	184.4	130.8
Dec.	263.4	7,182.1	2,252.4	92.0	2,375.1	2,462.7	1,406.7	184.7	184.5	139.8
2015 Jan. [p)]	305.0	7,290.3	2,237.9	92.7	2,403.0	2,556.8	1,507.8	222.4	202.9	131.3
	Transactions									
2012	-4.9	-115.3	-156.3	-10.2	-106.4	157.6	99.4	28.8	9.4	41.5
2013	-46.0	-88.8	-18.6	-14.3	-137.6	81.6	359.2	-64.7	32.2	43.9
2014	-3.3	-169.4	-120.5	1.8	-154.2	103.5	230.7	-12.9	0.7	17.7
2014 Q1	0.1	1.4	-11.7	-0.4	-33.1	46.6	88.0	-6.1	-6.7	-5.4
Q2	9.4	-65.1	-54.7	-1.0	-15.8	6.5	83.4	15.7	-5.8	2.3
Q3	-20.9	-3.1	-28.3	2.3	-28.5	51.5	27.8	33.4	-7.7	2.6
Q4	8.0	-102.6	-25.8	1.0	-76.7	-1.0	31.5	-55.9	20.9	18.1
2014 Aug.	-6.1	1.5	-4.5	1.1	-5.5	10.4	-0.9	24.7	2.2	-4.1
Sep.	-16.9	-2.1	-13.7	0.6	-12.4	23.4	-6.8	6.8	-8.4	4.7
Oct.	2.3	-32.4	-12.4	-0.6	-29.6	10.2	13.9	-13.5	19.5	-0.5
Nov.	2.1	-19.6	-6.4	-0.8	-13.6	1.3	47.8	19.4	1.3	9.6
Dec.	3.6	-50.7	-7.0	2.4	-33.5	-12.5	-30.1	-61.8	0.1	9.0
2015 Jan. [p)]	39.4	-26.5	-19.5	-0.3	-12.5	5.8	5.8	31.1	18.4	-8.5
	Growth rates									
2012	-1.5	-1.5	-6.1	-8.8	-3.8	7.0	-	-	2.5	26.1
2013	-15.1	-1.2	-0.8	-13.5	-5.1	3.5	-	-	10.3	23.5
2014	-1.3	-2.3	-5.1	2.0	-6.1	4.3	-	-	0.4	14.5
2014 Q1	-12.1	-1.0	-1.7	-9.6	-4.6	3.9	-	-	-12.9	-0.9
Q2	-9.0	-1.6	-3.9	-6.8	-3.2	2.6	-	-	-23.8	-4.5
Q3	-11.5	-1.1	-4.7	-1.2	-2.7	4.2	-	-	-17.5	-3.2
Q4	-1.3	-2.3	-5.1	2.0	-6.1	4.3	-	-	0.4	14.5
2014 Aug.	-6.0	-1.1	-4.2	-2.9	-2.3	3.2	-	-	-11.4	-0.9
Sep.	-11.5	-1.1	-4.7	-1.2	-2.7	4.2	-	-	-17.5	-3.2
Oct.	-4.6	-1.7	-5.4	-0.9	-4.4	4.7	-	-	-3.1	2.1
Nov.	-1.7	-1.9	-5.5	-1.1	-4.8	4.8	-	-	-4.4	-6.6
Dec.	-1.3	-2.3	-5.1	2.0	-6.1	4.3	-	-	0.4	14.5
2015 Jan. [p)]	23.4	-2.6	-5.7	2.4	-5.9	3.8	-	-	22.1	26.4

Source: ECB.

1) Data refer to the changing composition of the euro area.

2) Comprises central government holdings of deposits with the MFI sector and of securities issued by the MFI sector.

3) Not adjusted for seasonal effects.

6 FISCAL DEVELOPMENTS

6.1 Deficit/surplus, revenue and expenditure [1)2)]

(as a percentage of GDP; flows during one-year period)

	Deficit (-)/ surplus (+)	Revenue						Expenditure						
		Total	Current revenue				Capital revenue	Total	Current expenditure					Capital expenditure
				Direct taxes	Indirect taxes	Net social contributions				Compensation of employees	Intermediate consumption	Interest	Social payments [3)]	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2010	-5.8	44.3	44.0	11.4	12.6	15.1	0.2	50.1	44.9	10.7	5.4	2.7	23.4	5.2
2011	-3.8	44.8	44.5	11.7	12.8	15.1	0.2	48.6	44.3	10.4	5.3	3.0	23.1	4.3
2012	-3.3	45.7	45.5	12.2	13.0	15.3	0.2	49.1	44.6	10.3	5.3	3.0	23.4	4.5
2013	-2.5	46.4	46.1	12.5	13.1	15.5	0.3	48.9	44.9	10.4	5.3	2.8	23.8	4.1
2014 Q2	-2.6	46.6	46.1	12.5	13.0	15.5	0.5	49.2	45.4	10.3	5.3	2.7	23.0	3.8
Q3	-2.5	46.6	46.1	12.5	13.1	15.5	0.4	49.1	45.3	10.3	5.3	2.7	23.1	3.7

6.2 Government debt-to-GDP ratio [1)]

(as a percentage of GDP; outstanding amounts at end of period)

	Total	Financial instrument			Holder			Original maturity		Residual maturity			Currency	
		Currency and deposits	Loans	Debt securities	Resident creditors		Non-resident creditors	Up to 1 year	Over 1 year	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Euro or participating currencies	Other currencies
						MFIs								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2010	83.6	2.4	15.5	65.6	40.5	23.9	43.1	12.7	70.9	20.7	28.6	34.3	82.3	1.3
2011	85.5	2.4	15.5	67.5	42.4	24.1	43.1	12.2	73.2	20.3	29.6	35.5	83.7	1.8
2012	88.7	2.5	17.4	68.8	45.1	26.0	43.6	11.5	77.3	19.5	31.4	37.8	86.6	2.2
2013	90.7	2.5	16.9	71.3	45.7	26.0	45.0	10.4	80.3	19.3	32.0	39.4	88.7	2.0
2014 Q2	92.7	2.6	16.6	73.5	.	.	.	.	.	.	.	.	.	.
Q3	92.1	2.6	16.5	73.0	.	.	.	.	.	.	.	.	.	.

6.3 Annual change in the government debt-to-GDP ratio and underlying factors [1)]

(as a percentage of GDP; flows during one-year period)

	Change in debt-to-GDP ratio [4)]	Primary deficit (+)/ surplus (-)	Deficit-debt adjustment [5)]								Interest-growth differential	Memo item: Borrowing requirement
			Total	Transactions in main financial assets					Revaluation effects and other changes in volume	Other		
				Total	Currency and deposits	Loans	Debt securities	Equity and investment fund shares				
	1	2	3	4	5	6	7	8	9	10	11	12
2010	5.3	3.4	1.3	1.7	0.0	0.5	0.9	0.2	-0.1	-0.3	0.6	7.5
2011	1.9	1.1	0.0	-0.3	0.2	-0.2	-0.2	-0.1	0.2	0.1	0.8	3.9
2012	3.3	0.6	0.1	1.2	0.3	0.4	-0.1	0.5	-1.3	0.3	2.5	5.1
2013	2.0	0.1	-0.2	-0.5	-0.4	-0.4	-0.1	0.4	-0.1	0.4	2.1	2.8
2014 Q2	1.0	-0.1	-0.3	-0.1	0.0	0.0	-0.2	0.1	0.1	-0.2	1.3	2.5
Q3	1.0	-0.2	-0.1	-0.1	0.0	0.0	-0.2	0.2	-0.2	0.2	1.2	2.7

Sources: ECB for annual data; Eurostat for quarterly data.

1) Quarterly ratios (as a percentage of GDP) calculated using a four-quarter cumulated sum for flow data and GDP, and at the end-of-quarter value for outstanding amounts.
2) EU budget transactions are included and consolidated in annual data.
3) Current transfers to non-profit institutions serving households are included in annual data.
4) Calculated as the difference between the government debt-to-GDP ratios in the last and an earlier period, i.e. the previous year for annual data and the same quarter a year earlier for quarterly data.
5) Quarterly data include intergovernmental lending within the context of the financial crisis.

6.4 Government debt securities [1]

(debt service as a percentage of GDP; average residual maturity in years; average nominal yields in percentages per annum)

	Debt service due within 1 year [2]					Average residual maturity [3]	Average nominal yields [4]						
	Total	Principal [5]		Interest			Outstanding amounts					Transactions	
			Maturities of up to 3 months		Maturities of up to 3 months		Total	Floating rate	Zero coupon	Fixed rate	Maturities of up to 1 year	Issuance	Redemption
	1	2	3	4	5	6	7	8	9	10	11	12	13
2013	16.5	14.4	5.0	2.1	0.5	6.3	3.5	1.7	1.3	3.7	2.8	1.3	1.8
2014	16.2	14.1	5.2	2.1	0.5	6.4	3.1	1.4	0.4	3.5	2.8	0.8	1.6
2014 Q2	16.9	14.7	5.5	2.1	0.5	6.4	3.3	1.6	0.6	3.6	2.8	1.1	1.6
Q3	17.6	15.5	5.8	2.1	0.5	6.4	3.2	1.5	0.5	3.5	2.8	0.9	1.6
2014 Aug.	17.9	15.8	6.1	2.1	0.5	6.3	3.2	1.5	0.5	3.6	2.8	1.0	1.7
Sep.	17.6	15.5	5.8	2.1	0.5	6.3	3.2	1.5	0.5	3.5	2.8	0.9	1.6
Oct.	17.3	15.2	5.7	2.1	0.5	6.4	3.1	1.5	0.4	3.5	2.8	0.9	1.7
Nov.	16.3	14.2	5.0	2.1	0.5	6.4	3.1	1.5	0.4	3.5	2.8	0.8	1.7
Dec.	16.2	14.1	5.2	2.1	0.5	6.4	3.1	1.4	0.4	3.5	2.8	0.8	1.6
2015 Jan.	15.7	13.7	5.1	2.0	0.5	6.5	3.0	1.4	0.4	3.5	2.8	0.8	1.7

6.5 Fiscal developments in euro area countries [6]

(as a percentage of GDP; flows during one-year period and outstanding amounts at end of period)

	Belgium	Germany	Estonia	Ireland	Greece	Spain	France	Italy	Cyprus
	1	2	3	4	5	6	7	8	9
	Government deficit (-)/surplus (+)								
2010	-4.0	-4.1	0.2	-32.4	-11.1	-9.4	-6.8	-4.2	-4.8
2011	-3.9	-0.9	1.0	-12.6	-10.1	-9.4	-5.1	-3.5	-5.8
2012	-4.1	0.1	-0.3	-8.0	-8.6	-10.3	-4.9	-3.0	-5.8
2013	-2.9	0.1	-0.5	-5.7	-12.2	-6.8	-4.1	-2.8	-4.9
2014 Q2	-3.2	0.5	-0.3	-5.3	-2.9	-6.3	-4.2	-3.0	-4.1
Q3	-3.0	0.7	-0.2	-4.7	-2.2	-5.8	-4.4	-3.1	-2.3
	Government debt								
2010	99.6	80.3	6.5	87.4	146.0	60.1	81.5	115.3	56.5
2011	102.1	77.6	6.0	111.1	171.3	69.2	85.0	116.4	66.0
2012	104.0	79.0	9.7	121.7	156.9	84.4	89.2	122.2	79.5
2013	104.5	76.9	10.1	123.3	174.9	92.1	92.2	127.9	102.2
2014 Q2	108.8	75.3	10.5	117.0	177.5	96.4	95.2	133.8	109.8
Q3	108.2	74.8	10.5	114.8	176.0	96.8	95.3	131.8	104.7

	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Austria	Portugal	Slovenia	Slovakia	Finland
	10	11	12	13	14	15	16	17	18	19
	Government deficit (-)/surplus (+)									
2010	-8.2	-6.9	-0.6	-3.3	-5.0	-4.5	-11.2	-5.7	-7.5	-2.6
2011	-3.4	-9.0	0.3	-2.6	-4.3	-2.6	-7.4	-6.2	-4.1	-1.0
2012	-0.8	-3.2	0.1	-3.7	-4.0	-2.3	-5.5	-3.7	-4.2	-2.1
2013	-0.9	-2.6	0.6	-2.7	-2.3	-1.5	-4.9	-14.6	-2.6	-2.4
2014 Q2	0.1	-1.1	0.5	-3.3	-3.0	-1.5	-4.8	-12.7	-2.8	-2.7
Q3	0.0	-0.6	0.7	-2.5	-2.7	-1.5	-4.3	-13.0	-3.1	-2.7
	Government debt									
2010	46.8	36.3	19.6	67.6	59.0	82.4	96.2	37.9	41.1	47.1
2011	42.7	37.3	18.5	69.8	61.3	82.1	111.1	46.2	43.5	48.5
2012	40.9	39.9	21.4	67.9	66.5	81.7	124.8	53.4	52.1	53.0
2013	38.2	39.0	23.6	69.8	68.6	81.2	128.0	70.4	54.6	56.0
2014 Q2	41.0	38.7	23.2	74.6	69.6	82.3	129.5	78.3	55.6	58.9
Q3	40.4	38.3	22.9	71.9	69.0	80.7	131.4	78.1	55.4	58.1

Sources: ECB for government debt securities; Eurostat for government deficit/surplus and government debt.

1) Data on government debt securities are recorded at face value and not consolidated within the general government sector.
2) Flows of principal and interest during the debt service period.
3) Residual maturity at the end of the period.
4) Outstanding amounts at the end of the period; transactions as 12-month average.
5) Principal amounts do not cover short-term securities issued and redeemed within the next 12 months.
6) Quarterly ratios (as a percentage of GDP) calculated using a four-quarter cumulated sum for flow data and GDP, and at the end-of-quarter value for outstanding amounts.