

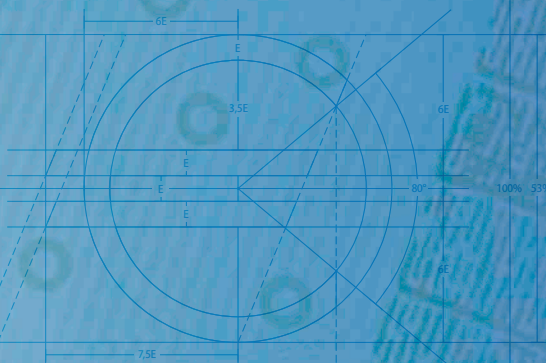


EUROPEAN CENTRAL BANK

EUROSYSTEM

# Economic Bulletin

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# Economic and monetary developments

## Overview

**At its monetary policy meeting on 3 December 2015, the Governing Council re-examined the degree of monetary policy accommodation: the analysis confirmed the need for further monetary stimulus in order to secure a return of inflation rates towards levels that are below, but close to, 2%.** The December 2015 Eurosystem staff macroeconomic projections indicated continued downside risks to the inflation outlook and slightly weaker inflation dynamics than previously expected. This followed downward revisions in earlier projection exercises. The Governing Council noted that the persistence of low inflation rates reflected sizeable economic slack weighing on domestic price pressures and headwinds from the external environment, and that the staff projections already incorporated the favourable financial market developments following the October monetary policy meeting. The main economic developments prevailing at the time of the Governing Council's December meeting are summarised in the following paragraphs, followed by further detail on the decisions taken at the meeting.

## Economic assessment at the time of the Governing Council meeting of 3 December 2015

### **Global economic activity remains on a gradual and uneven recovery path.**

The outlook for advanced economies is supported by low oil prices, still favourable financing conditions, improving labour markets, growing confidence and the receding headwinds of private sector deleveraging and fiscal consolidation. By contrast, growth prospects in emerging market economies continue to be restrained by structural impediments and macroeconomic imbalances. In some countries, this is amplified by a tightening in global financial conditions and the fall in commodity prices. Global inflationary pressures are expected to remain contained following the decline in oil prices and the still abundant global spare capacity.

### **In the run-up to the December Governing Council meeting, euro area financial market conditions were affected by expectations of further monetary policy easing.**

These expectations led to significant declines in sovereign bond yields across euro area countries. Equity markets in the euro area strengthened significantly. The euro depreciated, in part reflecting market expectations of monetary policy action.

### **The economic recovery in the euro area is increasingly supported by domestic demand.**

Real GDP increased by 0.3%, quarter on quarter, in the third quarter of 2015, following a rise of 0.4% in the previous quarter, on account of a continued

positive contribution from consumption alongside more muted developments in investment and exports. The most recent survey indicators point to ongoing real GDP growth in the final quarter of 2015.

**Looking ahead, the economic recovery is expected to proceed, although risks remain on the downside.** Domestic demand should be further supported by the ECB's monetary policy measures and their favourable impact on financial conditions, as well as by the earlier progress made with fiscal consolidation and structural reforms. Moreover, low oil prices should provide support for households' real disposable income and corporate profitability and, therefore, private consumption and investment. In addition, government expenditure is likely to increase in some parts of the euro area, reflecting measures in support of refugees. However, the economic recovery in the euro area continues to be dampened by subdued growth prospects in emerging markets and moderate global trade, the necessary balance sheet adjustments in a number of sectors and the sluggish pace of implementation of structural reforms. The risks to the euro area growth outlook remain on the downside and relate in particular to the heightened uncertainties regarding developments in the global economy as well as to broader geopolitical risks. These risks have the potential to weigh on global growth and foreign demand for euro area exports and on confidence more widely.

**The December 2015 Eurosystem staff macroeconomic projections for the euro area foresee annual real GDP increasing by 1.5% in 2015, 1.7% in 2016 and 1.9% in 2017.** Compared with the September 2015 ECB staff macroeconomic projections, the prospects for real GDP growth are broadly unchanged.

**HICP inflation has increased somewhat, but remains low.** According to Eurostat's flash estimate, euro area annual HICP inflation was 0.1% in November 2015, unchanged from October but lower than expected. HICP inflation excluding food and energy declined to 0.9% in November after having increased to 1.1% in October.

**Annual HICP inflation rates are expected to rise in the period ahead.** They are expected to increase at the turn of the year, mainly on account of base effects associated with the fall in oil prices in late 2014. During 2016 and 2017, inflation rates are foreseen to pick up further, supported by the ECB's previous monetary policy measures – and supplemented by those announced in December 2015 – the expected economic recovery, and the pass-through of past declines in the euro exchange rate. The Governing Council will closely monitor the evolution of inflation rates over the period ahead.

**The December 2015 Eurosystem staff macroeconomic projections for the euro area foresee annual HICP inflation at 0.1% in 2015, 1.0% in 2016 and 1.6% in 2017.** In comparison with the September 2015 ECB staff macroeconomic projections, the outlook for HICP inflation has been revised down slightly.

**The ECB's past monetary policy measures have contributed to improvements in money and credit indicators, and the transmission of monetary policy more generally.** Broad money growth remains solid and loan growth is recovering, albeit gradually. Banks' funding costs have stabilised close to their historical lows, and banks have gradually been passing on declines in these costs in the form

of reduced lending rates. More favourable lending conditions have continued to support a recovery in loan growth, while cross-country heterogeneity in bank lending rates has declined further.

## Monetary policy decisions and communication

**At its December meeting, the Governing Council conducted a thorough assessment of the strength and persistence of the factors that are currently slowing the return of inflation to levels below, but close to, 2% in the medium term.** The analysis confirmed the need for further monetary stimulus in order to secure a return of inflation rates to these levels.

**As a result, the Governing Council took the following decisions in the pursuit of its price stability objective.**

- First, as regards the key ECB interest rates, the Governing Council decided to lower the interest rate on the deposit facility by 10 basis points to -0.30%. The interest rate on the main refinancing operations and the rate on the marginal lending facility will remain unchanged at their levels of 0.05% and 0.30% respectively.
- Second, as regards non-standard monetary policy measures, the Governing Council decided to extend the asset purchase programme (APP). The monthly purchases of €60 billion under the APP are now intended to run until the end of March 2017, or beyond, if necessary, and in any case until the Governing Council sees a sustained adjustment in the path of inflation consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term.
- Third, the Governing Council decided to reinvest the principal payments on the securities purchased under the APP as they mature, for as long as necessary. This will contribute both to favourable liquidity conditions and to an appropriate monetary policy stance.
- Fourth, the Governing Council decided to include, in the public sector purchase programme, euro-denominated marketable debt instruments issued by regional and local governments located in the euro area in the list of assets that are eligible for regular purchases by the respective national central banks.
- Fifth, the Governing Council decided to continue conducting the main refinancing operations and three-month longer-term refinancing operations as fixed rate tender procedures with full allotment for as long as necessary, and at least until the end of the last reserve maintenance period of 2017.

**The decisions were taken in order to secure a return of inflation rates towards levels that are below, but close to, 2% and thereby to anchor medium-term inflation expectations.** The new measures will ensure accommodative financial conditions and further strengthen the substantial easing impact of the measures

taken since June 2014, which have had significant positive effects on financing conditions, credit and the real economy. The decisions also reinforce the momentum of the euro area's economic recovery and strengthen its resilience against recent global economic shocks.

**The Governing Council will closely monitor the evolution in the outlook for price stability and, if warranted, is willing and able to act by using all the instruments available within its mandate in order to maintain an appropriate degree of monetary accommodation.** In particular, the Governing Council recalls that the APP provides sufficient flexibility in terms of adjusting its size, composition and duration.

## 1 External environment

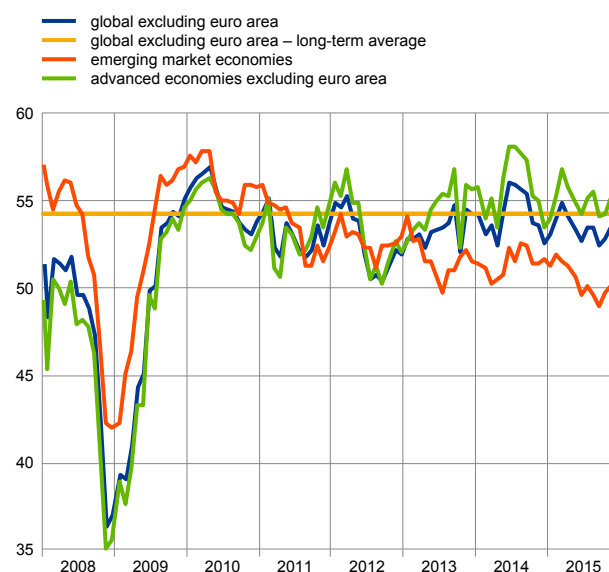
*Global activity remains on a gradual and uneven recovery path. Low oil prices, still favourable financing conditions, improving labour markets, growing confidence, and the receding headwinds of private sector deleveraging and fiscal consolidation support the outlook for advanced economies. By contrast, in emerging market economies (EMEs) growth prospects continue to be restrained by structural impediments and macroeconomic imbalances. In some EMEs, this is amplified by tightening global financial conditions and the correction in commodity prices. Inflationary pressures are expected to remain contained following the decline in oil prices and continued abundant global spare capacity.*

### Global economic activity and trade

**Global activity has remained on an uneven recovery path.** Over the course of the year momentum in most major advanced economies outside the euro area – particularly in the United States and the United Kingdom – has firmed overall. By contrast, growth in EMEs has remained overall weak, displaying persistent divergences across regions, partly linked to the different impact of the correction in commodity prices on commodity-exporting and commodity-importing countries. While economic activity in emerging Asia – including China and India – and in central and eastern Europe has remained rather robust, the Commonwealth of Independent States region was in deep recession in the first half of the year. At the epicentre of the downturn lies Russia, which has been suffering from low oil prices, external financing constraints and weak business confidence. Growth in Latin America also turned negative in the course of 2015, reflecting not only deteriorating terms of trade in view of falling commodity prices, but also domestic imbalances, supply-side bottlenecks and political uncertainty, particularly in Brazil.

**Chart 1**  
Global composite output PMI

(diffusion index)



Sources: Markit and ECB calculations.

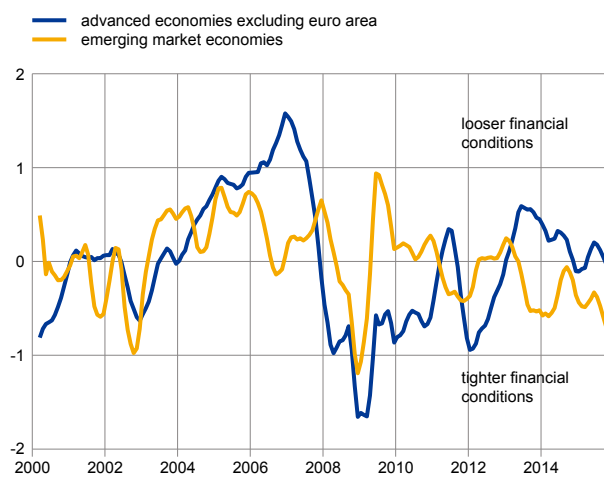
Note: The latest observation is for November 2015.

**Global activity indicators and available country data point to continued moderate world growth towards the end of this year.** The global composite output PMI (excluding the euro area) increased further in November, although it remained below its long-term average, pointing to a sustained momentum in global activity. On average, in the fourth quarter the index continues to be broadly in line with the level recorded in the previous quarter, suggesting that global growth conditions remain relatively unchanged. The significant discrepancy between advanced and emerging economies in terms of the evolution of their PMIs also underlines the divergent global growth picture (see Chart 1). The OECD's composite leading indicators also continue to indicate stable growth momentum for the OECD area and China, while a loss of growth momentum is foreseen for Russia.



**Chart 2**  
Financial conditions indices

(standard deviation, zero mean; monthly data)



Sources: Haver Analytics and ECB staff calculations.  
Notes: The latest observation is for October 2015. Emerging market economies is an aggregate of China, Russia, Brazil, India and Turkey. Advanced economies include the United States, United Kingdom and Japan.

**Monetary policies remain highly accommodative in advanced economies, supporting favourable financial conditions, while they have continued to tighten in most EMEs.**

Market expectations of a US rate hike in December increased in November. External financial conditions in most EMEs have tightened, as suggested by somewhat higher bond yields, accompanied by corrections in equity prices, a reduction in portfolio inflows and renewed downward pressure on the exchange rates of a number of countries (see Chart 2). Currency depreciation raises the value of foreign currency debt, thereby increasing balance sheet and funding strains in these countries. At the same time, monetary policy has been easing in India and China. Over the summer policy uncertainty in China increased sharply amid stock market turbulence and the adjustment of the exchange rate regime. This also contributed to a temporary spike in global financial volatility.

**Looking ahead global activity is expected to remain on a gradual and uneven recovery path, driven by ongoing resilient growth prospects in most advanced economies.** Low oil prices, still favourable financing conditions, improving labour markets, growing confidence, and the receding headwinds of private sector deleveraging and fiscal consolidation should support the outlook for advanced economies.

**Economic activity in the United States softened in the third quarter, following a strong upturn in the previous quarter.** Buoyant household spending continued to drive the recovery, supported by gains in jobs, nominal wages and real disposable income amid lower oil prices and inflation, as well as by favourable credit conditions and improved household balance sheets. However, lower oil prices are taking away some momentum from private investment in shale oil structures, and net exports could act as a drag on activity on the back of the appreciation of the US dollar.

**Economic activity in the United Kingdom also slowed somewhat in the third quarter, following buoyant growth momentum in the second quarter.** Growth is largely consumption driven, as low energy prices and wage growth continue to support real disposable income, while fiscal consolidation efforts are expected to dampen growth. At the same time, easing credit conditions are supporting business investment.

**In Japan, economic activity is struggling to gain momentum, although an upward revision to growth in the third quarter implies that the economy has avoided a technical recession.** Growth is expected to remain moderate towards the end of the year, led by a continued improvement in private consumption amid higher real incomes stemming from wage increases and lower oil prices, and by exports that should benefit from rising foreign demand and the depreciation in the yen.



**By contrast, the outlook in EMEs is more diverse and continues to be subdued by historical standards.** While strengthening demand in advanced economies should support economic activity in EMEs, structural impediments and macroeconomic imbalances continue to hold back growth prospects. At the same time, some economies are adjusting to lower commodity prices and tighter external financing conditions ahead of the normalisation of US monetary policy, while political uncertainty remains high in others.

**The process of rebalancing the Chinese economy has implied a gradual slowdown, as lower investment has not been fully offset by stronger consumer spending.** Growth remained rather resilient in the third quarter, and low oil prices and robust consumption are expected to provide support to the economy in the near term. Recent reductions in policy rates, modest fiscal stimulus from the central government and efforts to loosen constraints on local government finances should also have a positive impact on demand going forward. However, in the medium term the increasing emphasis on tackling financial fragilities and macroeconomic imbalances could slow the pace of expansion. In India, although growth moderated in the second quarter, accommodative monetary policy, a pick-up in investment – on account of business-friendly reforms – as well as robust private consumption, have buoyed confidence and boosted growth prospects.

**Real economic activity in central and eastern Europe is projected to remain robust, albeit uneven across countries.** Strong investment growth supported by European Union structural funds and dynamic private consumption benefiting from higher real disposable income are expected to remain the main drivers of growth in the region.

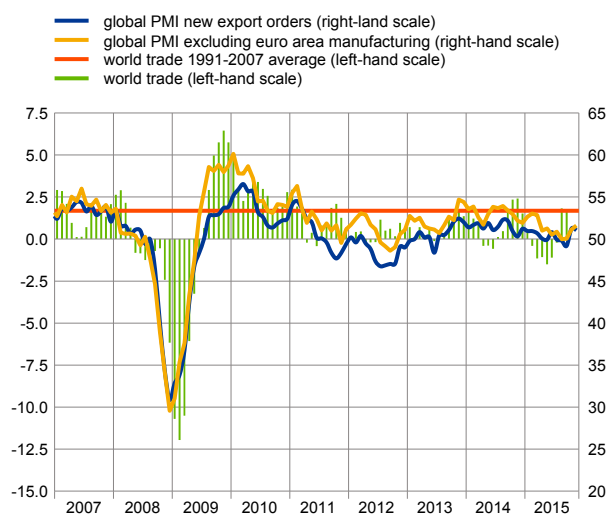
**By contrast, commodity-exporting EMEs continued to face the consequences of the end of the commodities cycle, mainly via a deterioration in the terms of trade.** In Russia, funding costs remain elevated, uncertainty is high and business confidence weak. At the same time, lower oil revenues are restraining public expenditure. In Brazil, the economic downturn has intensified sharply, as political uncertainty, deteriorating terms of trade, and tightening monetary and financing conditions all weigh on economic activity.

**Global trade was exceptionally weak in the first half of 2015.** Data for the first half of 2015 has been revised sharply downwards and now shows a contraction in world trade, a development that has not been seen since the first half of 2009. Pronounced declines in some major EMEs and data volatility in some advanced economies, in particular the United Kingdom, have driven the global aggregate downwards. Imports collapsed by close to 25% in Russia in the first half of the year, while they declined by around 9% in Brazil in the second quarter. In both economies, the plunge in imports can be attributed partly to falling domestic demand and the sharp depreciation in the exchange rate, but the respective magnitudes were much larger than past relationships would have suggested. Imports in China and India have also been surprisingly weak.

**Available trade data and surveys suggest that growth in global trade has reached a turning point and has re-entered positive territory.** Recent data for

**Chart 3**  
World trade in goods

(left-hand scale: three-month-on-three-month percentage changes; right-hand scale: diffusion index)



Sources: Markit, CPB and ECB calculations.  
Note: The latest observation refers to November 2015 for PMIs and to September 2015 for world trade.

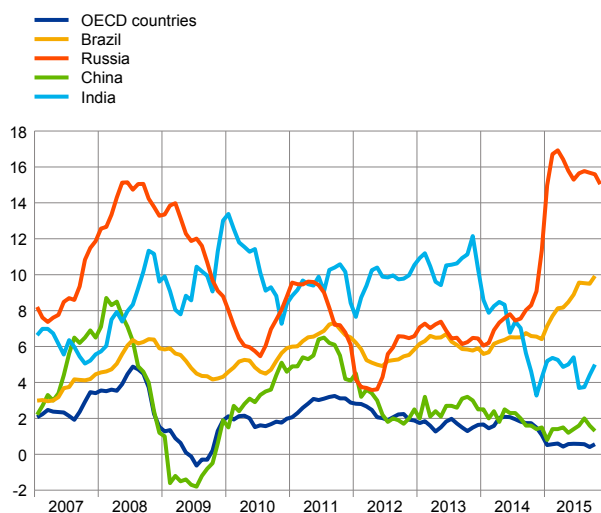
China, Japan and the United Kingdom suggest that there has been a strong rebound in imports, which recorded positive growth in the third quarter. In Brazil, trade is still declining, but the pace of decline has moderated, therefore contributing to the overall increase in global trade in the third quarter. The pick-up in global trade momentum is further underscored by the rise in global merchandise trade and the return of the global PMI for new export orders to expansionary territory in October and November (see Chart 3). Looking further ahead world trade is expected to strengthen only very gradually in line with the recovery in global activity, failing to regain the dynamism observed before the financial crisis. Overall, relative to global GDP, the profiles for global imports and euro area foreign demand are forecast to be rather flat over the projection horizon. After a modest recovery during 2015 and 2016, global imports are projected to grow in line with global GDP. Thus, the trade elasticity will be significantly below that recorded before the financial crisis.

**Overall, the outlook for global growth remains one of gradual and uneven recovery.** According to the December 2015 Eurosystem staff macroeconomic projections, for which the cut-off date for the financial and commodity price assumptions was 12 November, world real GDP growth excluding the euro area is projected to accelerate gradually from 3.1% in 2015 to 3.6% in 2016 and 3.9% in 2017. Euro area foreign demand is expected to expand from -0.1% in 2015 to 2.7% in 2016 and 3.8% in 2017. Compared with the ECB staff macroeconomic September 2015 projections, this constitutes a downward revision to world growth, mostly reflecting the weaker than expected outlook across emerging economies. Revisions to euro area foreign demand are more significant, mainly owing to data revisions in the first half of 2015.

**Risks to the outlook for global activity remain tilted to the downside, in particular for EMEs.** Key downside risks relate to a stronger slowdown in the emerging markets, including China. Tightening financial conditions, heightened political uncertainty and falling commodity prices may exacerbate existing macroeconomic imbalances, denting confidence and slowing growth more than expected. Geopolitical risks also continue to weigh on the outlook, and increased tensions, notably in the Middle East, could have adverse implications for global growth. The unwinding of US monetary accommodation in an environment of divergent global policies constitutes another downside risk. On the upside, oil price declines are judged to reflect on balance mostly positive supply news. Accordingly, this should be positive overall for global growth, in the sense that the gains in activity in oil-importing countries are expected to more than offset the losses in oil-exporting countries.

**Chart 4**  
Consumer price inflation

(year-on-year percentage changes)



Sources: National sources and OECD.

Note: The latest observation refers to November 2015 for Russia and to October 2015 for the remainder of the countries.

## Global price developments

**Global inflation has remained very low, reflecting the fall in oil prices.** Annual consumer price inflation in the OECD area increased in October to 0.6% from 0.4% the previous month, owing to a moderate pick-up in food prices and a less negative contribution from energy prices (see Chart 4). Energy prices continued to fall for the thirteenth consecutive month in October by 11.6% year on year, while food price inflation picked up to 1.5%. Excluding food and energy, OECD annual inflation remained unchanged at 1.8% in October. Among major non-OECD economies, headline inflation remained at very high levels in Brazil and Russia, although it had declined in Russia, while it fell in China to 1.3%.

**After stabilising in September and October, oil prices have declined further since early November.**

Global oil production remains high and the global oil market continues to be oversupplied, despite global oil demand reaching a five-year high in the third quarter of 2015. OPEC members continue to produce near record-high levels, and non-OPEC output also remains elevated, since lower US shale oil production was offset by record levels of production in Russia. OECD oil inventories increased further and were at a near record level at the end of the third quarter of 2015, which added downward pressure on the oil price. Non-oil commodity prices have eased somewhat since the end of October on the back of lower metal prices.

**Global inflation is expected to rise looking forward.** The past fall in the oil and other commodity prices continues to dampen inflationary pressures in the short term. Later on the negative contribution from the energy component should diminish, as the effects of past oil price declines begin to fade. In addition, an upward sloping oil futures curve implies that global headline inflation will also rise gradually. However, slowly closing output gaps in advanced economies and widening ones in several EMEs still point to abundant spare capacity at the global level, which is expected to continue to weigh on global underlying inflation over the medium term.

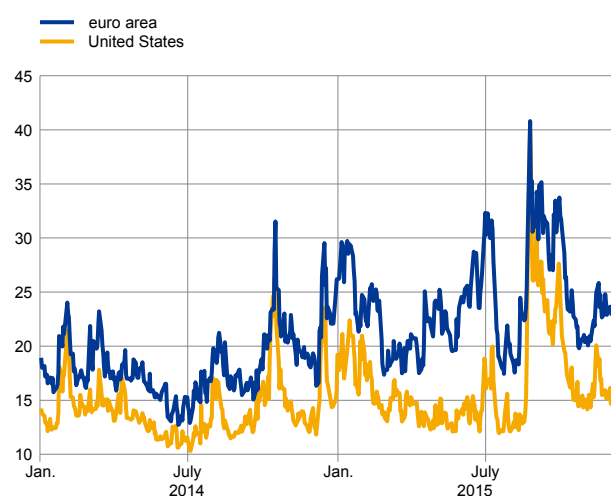
## 2 Financial developments

*Euro area financial market conditions gradually improved between early September and early December following a period of strong volatility linked to developments in China. The improvement was supported by market expectations of more monetary policy stimulus in the euro area, which gained further traction after the Governing Council's meeting in October. Those expectations*

*of further monetary policy easing led to significant declines in sovereign bond yields across euro area countries, with the GDP-weighted average of ten-year euro area bond yields decreasing by more than 40 basis points to stand at 1.02% in early December. Equity markets in the euro area and the United States strengthened significantly, offsetting a large percentage of the declines observed over the summer. The euro depreciated markedly between early September and early December, reflecting market expectations of monetary policy divergence between the euro area and the United States.*

**Chart 5**  
Implied equity market volatility

(percentages per annum)

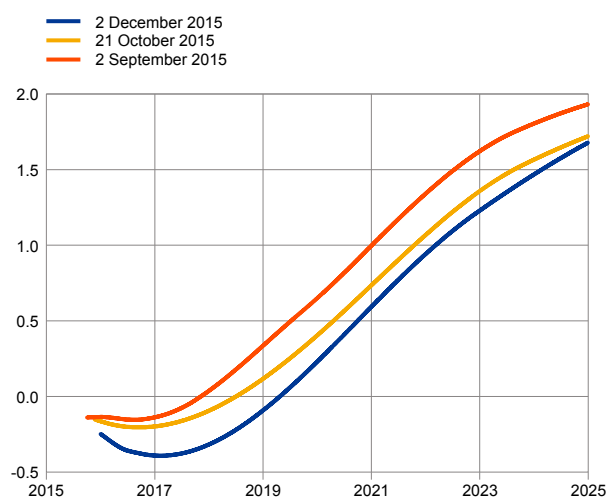


Source: Bloomberg.

Notes: For the euro area, the VSTOXX index is used, measuring implied volatility in options on the EURO STOXX 50 equity price index. For the United States, the VIX index is used, measuring implied volatility in options on the S&P 500 equity price index. The latest observation is for 2 December 2015.

**Chart 6**  
EONIA forward rates

(percentages per annum)



Sources: Thomson Reuters and ECB calculations.

**Euro area financial market conditions gradually improved between early September and early December, amid market expectations of monetary policy divergence between the euro area and the United States.** The heightened uncertainty observed

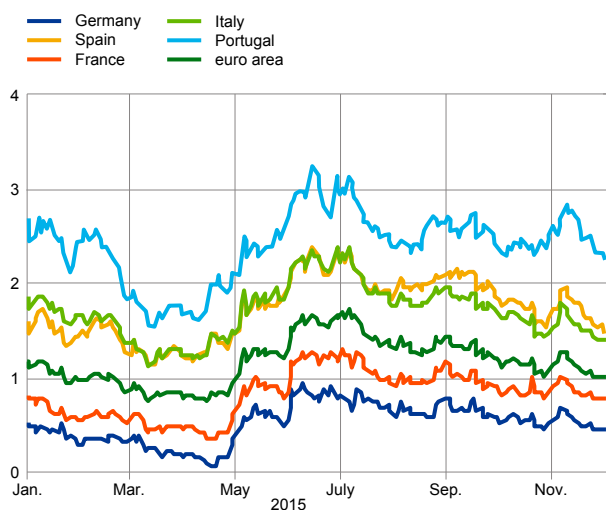
in August, which was linked to concerns regarding developments in China, receded over the review period. This led to a gradual improvement in financial market conditions, with measures of equity market volatility – an indicator of financial market uncertainty – declining markedly following the elevated levels observed at the end of August (see Chart 5). The overall improvement in euro area financial market conditions gained further traction as market expectations of more monetary easing in the euro area increased after the Governing Council's meeting in October.

**The EONIA forward curve declined across all maturities, with the short end falling significantly below the rate on the deposit facility.** Between early September and the Governing Council's meeting on 22 October the EONIA forward curve flattened, as longer-term forward rates declined by up to 25 basis points while the short end remained close to the -0.20% deposit facility rate (see Chart 6). Thereafter, market expectations of a future reduction in the deposit facility rate increased. This led to a significant decrease in the near-term EONIA forward rates.

**Chart 7**

**Ten-year sovereign bond yields in selected euro area countries**

(percentages per annum)



Sources: Thomson Reuters and ECB calculations.  
Notes: The item "euro area" denotes the GDP-weighted average of ten-year sovereign bond yields. The latest observation is for 2 December 2015.

**The EONIA declined overall between early September and early December, amid gradual increases in excess liquidity.**

After gradually decreasing in September, from around -0.12% to around -0.14%, the EONIA stabilised between early October and early December, averaging -0.14%. Those developments came against the backdrop of gradual increases in excess liquidity, which were largely the result of purchases under the ECB's expanded asset purchase programme. Box 1 presents more detailed information on euro area liquidity conditions and monetary policy operations.

**Sovereign bond yields declined across the euro area on expectations of further monetary policy easing by the ECB.**

Overall, the GDP-weighted average of ten-year euro area sovereign bond yields decreased by more than 40 basis points between early September and early December, standing at 1.02% on 2 December. This was only marginally higher than the all-time low observed before the re-pricing of sovereign bonds in April (see Chart 7). Stronger declines were

observed in lower-rated euro area countries, leading to a further tightening of sovereign yield spreads relative to Germany.

**The financing conditions of euro area firms – both financial and non-financial – improved, with corporate bond yields declining.**

Corporate bond yields increased in September, but then performed strongly in the remainder of the review period, with financial and non-financial corporate bond yields recording overall declines of around 20 basis points (see Chart 8).

**Chart 8**

**Corporate bond yields in the euro area**

(percentages per annum)



Sources: iBoxx and ECB.  
Note: The latest observation is for 2 December 2015.

**Chart 9**

**Euro area and US equity price indices**

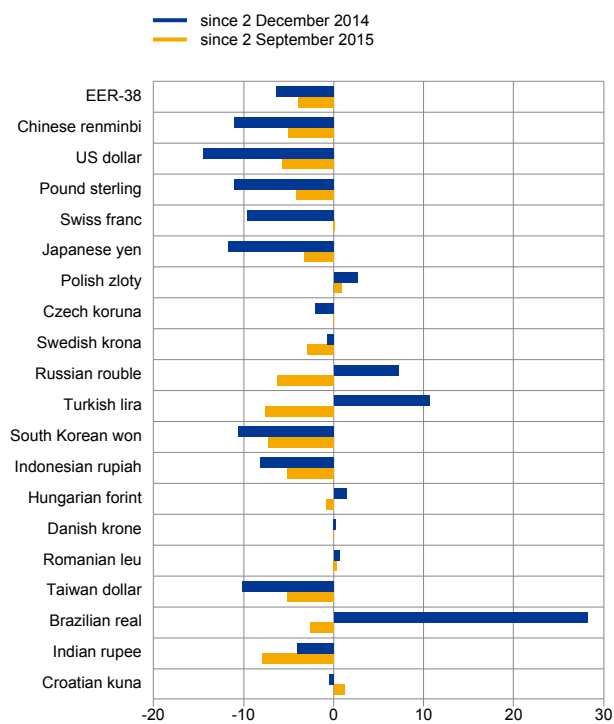
(1 January 2014 = 100)



Source: Thomson Reuters.  
Note: The latest observation is for 2 December 2015.

**Chart 10****Changes in the exchange rate of the euro against selected currencies**

(percentages)



Source: ECB.

Notes: Percentage changes relative to 2 December 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.

**Euro area equity markets strengthened significantly over the review period, offsetting a large percentage of the declines observed over the summer.**

Euro area equity prices, as measured by the broad EURO STOXX index, increased by 9% over the review period as a result of receding concerns regarding emerging markets and expectations of further monetary policy easing by the ECB (see Chart 9). Meanwhile, equity prices in the United States, as measured by the S&P 500 index, increased by around 7%.

**The euro weakened by 4.0% in trade-weighted terms between early September and early December**

(see Chart 10). The depreciation of the euro occurred after the Governing Council's October meeting, reflecting market expectations regarding future monetary policy decisions. In bilateral terms, the euro depreciated by 5.7% against the US dollar. It also weakened against the Chinese renminbi, the pound sterling, the Japanese yen and the Swedish krona, as well as the currencies of many emerging market economies – particularly the Russian rouble, which recovered somewhat following its earlier sharp depreciation – and the currencies of commodity-exporting countries. Meanwhile, the euro remained broadly stable against the currencies of central and eastern European countries. The Danish krone continued to trade close to its central rate within ERM II.



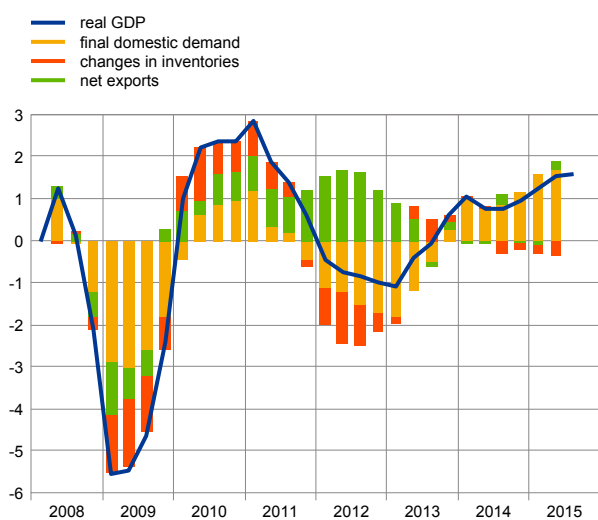
### 3 Economic activity

The economic recovery in the euro area has continued to firm gradually and is increasingly supported by domestic demand. Euro area real GDP grew by 0.3%, quarter on quarter, in the third quarter of 2015, extending the period of successive increases in activity to two and a half years. The latest short-term indicators signal ongoing moderate growth in GDP in the near term, and the recovery in economic

activity is expected to continue, with a number of tailwinds supporting domestic demand. The effect of the ECB's accommodative monetary policy measures continues to be transmitted to the real economy by the further easing of credit conditions, which will encourage more business investment. The low level of oil prices, which has increased households' purchasing power and firms' profitability, is boosting private consumption and stimulating investment. However, the economic recovery in the euro area continues to be dampened by subdued growth prospects in emerging markets and moderate global trade. With these offsetting factors, the December 2015 Eurosystem staff macroeconomic projections for the euro area remain broadly unchanged from the September 2015 ECB staff macroeconomic projections.

**Chart 11**  
Euro area real GDP and its composition

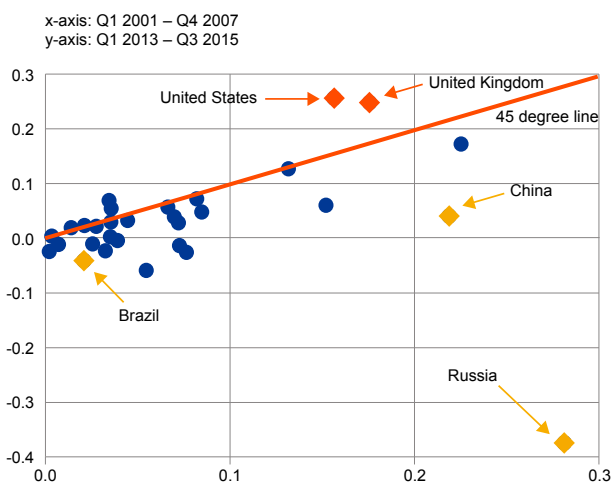
(annual percentage changes; percentage point contributions)



Source: Eurostat.

**Chart 12**  
Country contributions to euro area goods exports

(average annual percentage point contributions)



Sources: Eurostat and ECB calculations.

Notes: Latest data: Q3 2015 refers to the full quarter, except in the cases of the United Kingdom and other non-euro area EU countries. The blue dots refer to extra-euro area exports to main trading partners.

**Euro area real GDP continued to grow in the third quarter of 2015, at a slightly slower quarter-on-quarter rate than in the second quarter.** According to Eurostat's flash estimate, real GDP grew by 0.3%, quarter on quarter, in the third quarter of 2015, down from 0.4% in the second quarter. In annual terms, this was the highest rate observed since the second quarter of 2011 (see Chart 11). Short-term indicators, as well as information at the country level, point to continued positive quarterly contributions from domestic demand, notably private consumption. Growth was held back by some weakness in construction investment and net exports, with the latter reflecting a slight weakening of the external environment.

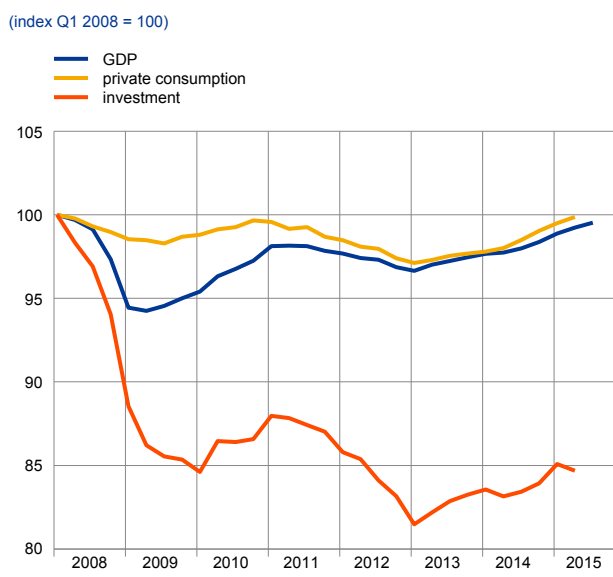
**Emerging market economies have been contributing less to export growth in the current recovery than before the crisis.** Since 2013, domestic demand in advanced economies such as the United States and the United Kingdom has been relatively strong and, combined with exchange rate developments since the middle of 2014, has led to increasing contributions from these countries' economies to euro area export growth (see Chart 12). At the same time, large emerging market economies such as China and



Russia, which were important contributors to euro area export growth before the crisis, have slowed and have made only very small – or negative – contributions to export growth during the recovery.

**Looking ahead, euro area exports should increase on the back of a gradual recovery in foreign demand.** Weak growth momentum in many emerging market economies is likely to continue to generate headwinds to euro area exports, while the

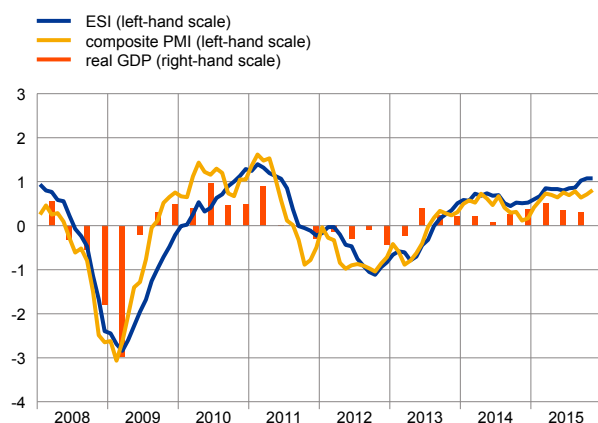
**Chart 13**  
Euro area real GDP, private consumption and investment



Source: Eurostat.

**Chart 14**  
Euro area real GDP, composite PMI and ESI

(left-hand scale: diffusion index and percentage balances; right-hand scale: quarterly growth rates)



Sources: Markit, DG-ECFIN and Eurostat.  
 Note: The PMI and ESI are normalised.

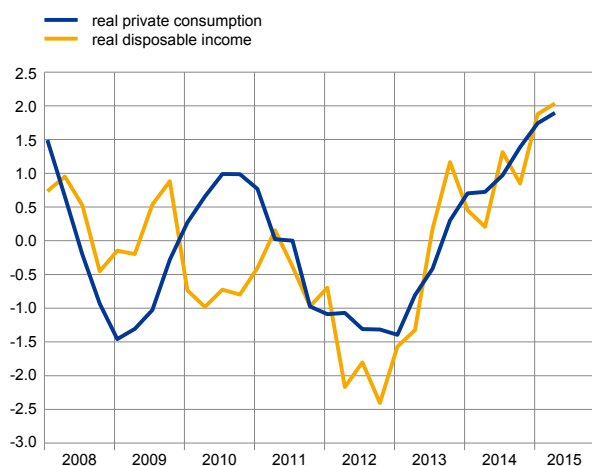
firming of growth in advanced economies will remain supportive. Monthly trade in goods data for August and September confirm the picture of weakening export growth in the third quarter of 2015, with negative contributions to annual euro area exports from Brazil, China and Russia. At the same time, exports to advanced economies seem to have remained buoyant. In addition, survey indicators point to a slight pick-up in export activity in the near term, as global merchandise trade increased in the third quarter of 2015 after two quarters of negative growth. With global activity and trade resuming a gradual path to recovery, and combined with the euro's depreciation, euro area export growth is expected to pick up.

**After two and a half years of successive increases in activity, the level of real GDP is now close to that observed in the first quarter of 2008.** The ongoing recovery is continuing to be supported by domestic demand, and in particular private consumption, which has been the main driver of the recovery (see Chart 13). Investment remains around 15% below its pre-crisis peak of the first quarter of 2008.

**Short-term indicators point to a continuation of the economic recovery at a pace similar to that in the third quarter.** Survey data, which are available up to November, signal ongoing moderate growth in the near term. Both the European Commission's Economic Sentiment Indicator (ESI) and the composite output Purchasing Managers' Index (PMI) improved slightly between September and November (see Chart 14). In November both indicators stood above their respective long-term average levels. Other monthly data available up to the third quarter, such as industrial production (excluding construction), came out weak and the ECB indicators of industrial new orders declined in September, which is likely linked to the weakening of euro area exports in the third quarter.

**Chart 15****Euro area private consumption and real disposable income**

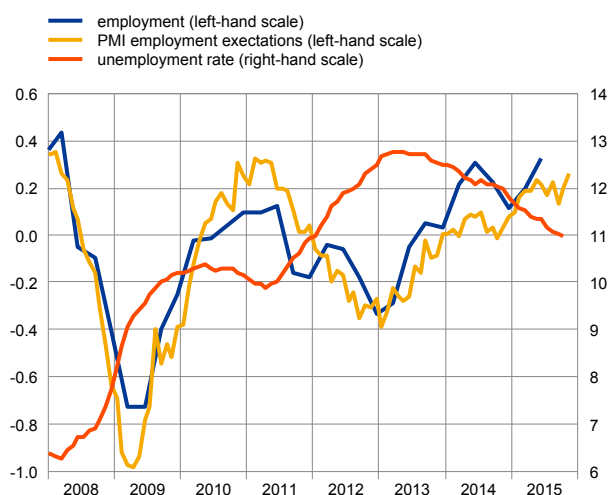
(annual growth rate)



Source: Eurostat.

**Chart 16****Euro area employment, PMI employment expectations and unemployment**

(left-hand scale: quarterly growth rates, index; right-hand scale: percentage of labour force)



Source: Eurostat.

**Private consumption is the key driver of the recovery and is benefiting from improvements in euro area labour markets.**

Favourable developments in households' real disposable income have been supporting private consumption since the beginning of the recovery in early 2013 (see Chart 15). While households in many countries are still in the process of adjusting their balance sheets and deleveraging, such adjustments seem to be less of a constraint on private consumption than before. Retail sales and new passenger car registrations have continued to improve in September (up by 0.6% compared with the second quarter) and the level of consumer confidence, which rose in November, points to continued steady growth in private consumption in the period ahead. Since the middle of 2014, real disposable income has been boosted by the decline in oil prices, although most of the strengthening of households' purchasing power reflects strong gains in labour income following the gradual improvements in euro area labour markets. By the second quarter of 2015, employment had increased by over two million since the beginning of the recovery<sup>1</sup> and, in September, the unemployment rate stood at 10.8% – its lowest level since the beginning of 2012. More timely indicators such as surveys point to continued improvements in euro area labour markets in the near term (see Chart 16).

**Despite these positive developments, the euro area unemployment rate remains high and, with the current pace of decline, it will take a long time to return to pre-crisis levels.**

Moreover, while the euro area unemployment rate has declined substantially since mid-2013, wider measures of labour market slack – those taking into account sectors of the population that are involuntarily working part-time or that have withdrawn from the labour market – remain high. With roughly seven million people (5% of the labour force) currently involuntarily working part-time owing to a lack of full-time work and more than six

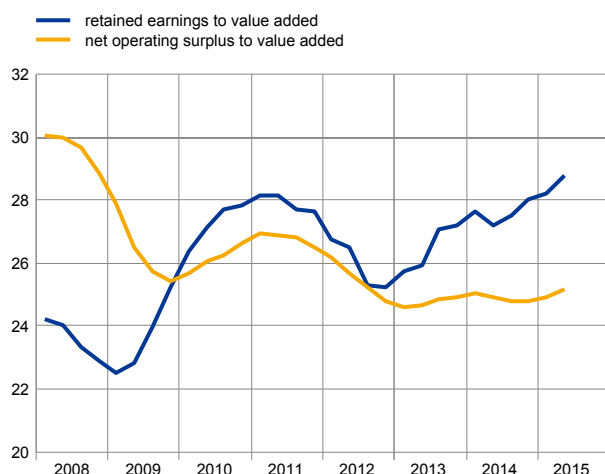
million discouraged workers (those who have given up looking for work and have withdrawn from the labour market), the euro area labour market remains notably weaker than suggested by the unemployment rate.

**Investment growth has been less of a driver in the ongoing recovery.** While business investment has been on an upward path since the first quarter of 2013,

<sup>1</sup> For a review of developments in euro area employment, see the article entitled "What lies behind the recent rebound in euro area employment" in this issue of the Economic Bulletin.

**Chart 17**  
**Net operating surplus and retained earnings**  
**of euro area non-financial corporations**

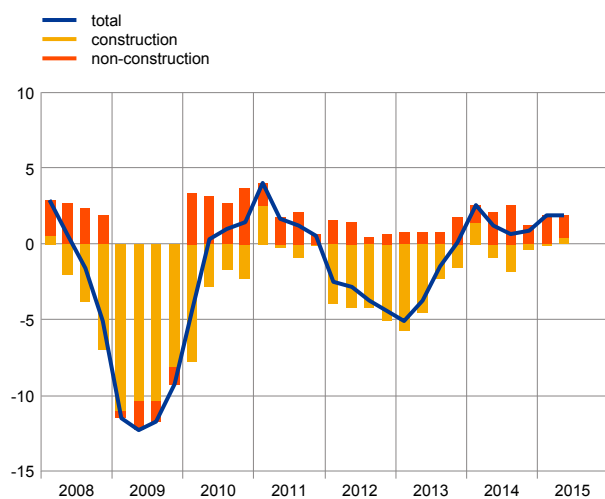
(percentage of value added)



Source: Eurostat.

**Chart 18**  
**Euro area total investment growth**

(annual growth rate; percentage point contributions)



Source: Eurostat.

it was weak in the second quarter of 2015 and most likely also in the third quarter. However, there have been some encouraging signs, such as gradually improving credit supply conditions, a less constraining demand situation and the recovery in firms' profits. Retained earnings and net operating surplus point to continued improvements in the profitability of firms (see Chart 17), which, in an environment of very accommodative monetary policy, will continue to support business investment as credit conditions continue to ease and demand strengthens.

**Economic indicators signal a gradual strengthening of business investment in the period ahead.**

With continued growth in industrial production of capital goods (at 0.3%, quarter on quarter, in the third quarter) and confidence indicators for the capital goods sector above their long-term average levels, demand conditions are improving, albeit from low levels. The increase in capacity utilisation and the need to modernise the capital stock after several years of subdued investment will support capital spending. While demand conditions are gradually improving, they still remain the main constraint on business investment and, combined with policy uncertainty and other structural impediments, are currently holding back firms' investment spending (see Box 2 on the results from an ECB survey of large firms active in the euro area). As profits increase, financing conditions ease further and confidence continues to improve, business investment will gradually recover.

**Construction investment, which has been a drag on total investment growth since the crisis, is expected to recover gradually.**

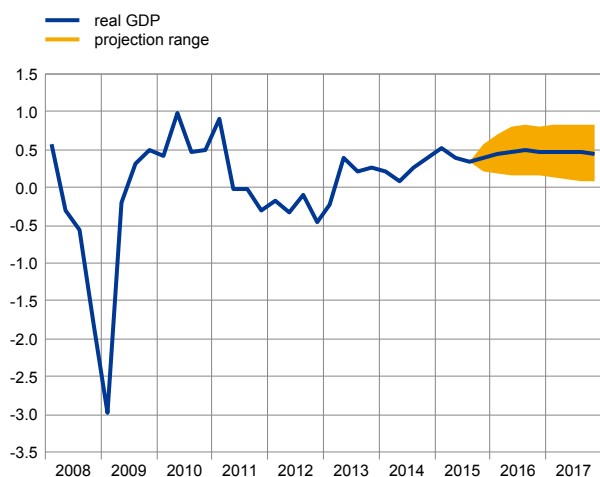
Following the large correction in many housing markets across the euro area after the crisis, construction investment remains subdued (see Chart 18). In the second quarter, construction investment slowed further, remaining far below pre-crisis levels, and is likely to continue to be subdued

in the near term, as construction production grew only modestly in September (by 0.1%, quarter on quarter). However, very benign financing conditions and low mortgage rates, together with growth in households' disposable income, should bolster demand for residential property in the period ahead. Indeed, signs of a strengthening of the housing market and an increase in applications for building permits in some countries confirm this picture.

**Chart 19**

**Euro area real GDP (including projections)**

(quarterly growth rates)



Sources: Eurostat and the article entitled "December 2015 Eurosystem staff macroeconomic projections for the euro area", published on the ECB's website on 3 December 2015.

**The economic recovery in the euro area is projected to strengthen over the next two years, with a number of tailwinds supporting the domestic demand-led recovery.<sup>2</sup>** The effect of the ECB's

accommodative monetary policy measures continues to be transmitted to the real economy, as visible in the further easing of credit conditions, the recent turnaround in credit volumes and the depreciation of the effective exchange rate of the euro. Private consumption and investment is supported by low oil prices, which has increased households' purchasing power and firms' profitability. In addition, fiscal easing is expected to lead to additional government consumption and transfers to households. Domestic demand is expected to strengthen further, as the deleveraging needs of households and firms gradually diminish and labour markets continue to improve. At the same time, the economic recovery in the euro area continues to be dampened by subdued growth prospects in emerging markets and moderate global

trade, the necessary balance sheet adjustments in a number of sectors and the sluggish pace of implementation of structural reforms. With these offsetting factors, the December 2015 Eurosystem staff macroeconomic projections for the euro area foresee annual real GDP increasing by 1.5% in 2015, 1.7% in 2016 and 1.9% in 2017 (see Chart 19). This is broadly unchanged from the September 2015 ECB staff macroeconomic projections.

**Risks surrounding the euro area growth outlook remain on the downside.**

The downside risks relate, in particular, to the heightened uncertainties regarding developments in the global economy and to broader geopolitical risks. These risks have the potential to weigh on global growth and foreign demand for euro area exports and on confidence more widely.

<sup>2</sup> See the article entitled "December 2015 Eurosystem staff macroeconomic projections for the euro area", published on the ECB's website on 3 December 2015.

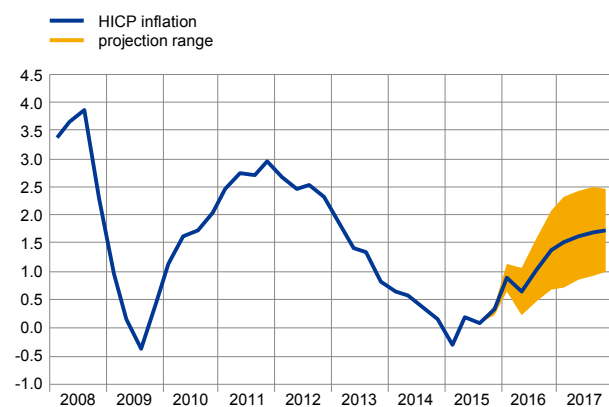
## 4 Prices and costs

HICP inflation has returned to slightly positive rates over the past two months. On the basis of the information available and current oil futures prices, annual HICP inflation rates are expected to rise significantly at the turn of the year, mainly on account of base effects associated with the fall in oil prices in late 2014. Inflation rates are foreseen to pick up further during 2016 and 2017, supported by the ECB's monetary policy measures, the expected economic recovery, and the pass-through of past declines in the euro exchange rate. The December 2015 Eurosystem staff macroeconomic projections for the euro area foresee annual HICP inflation

at 0.1% in 2015, 1.0% in 2016 and 1.6% in 2017. By comparison with the September 2015 ECB staff macroeconomic projections, the outlook for HICP inflation has been revised downwards slightly.

**Chart 20**  
Euro area HICP inflation (including projections)

(annual percentage changes)

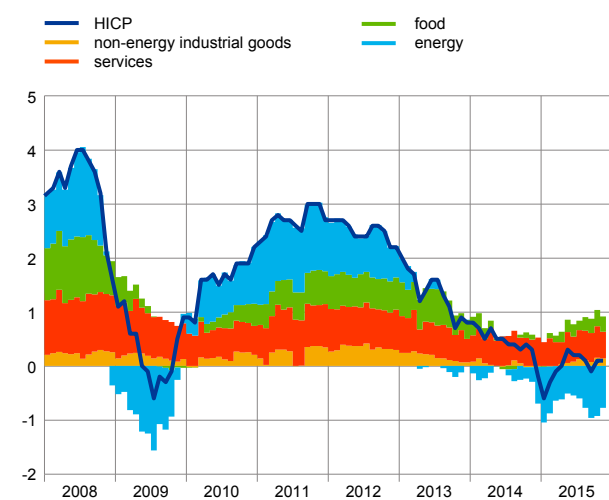


Sources: Eurostat and the article entitled "December 2015 Eurosystem staff macroeconomic projections for the euro area", published on the ECB's website on 3 December 2015.

Note: The latest observation is for the third quarter of 2015.

**Chart 21**  
Contribution of components to euro area headline HICP inflation

(annual percentage changes; percentage point contributions)



Sources: Eurostat and ECB calculations.

Note: The latest observations are for November 2015 (flash estimates).

### Headline HICP inflation has been very low or negative throughout the year, reflecting the slump in oil prices in late 2014.

The pattern of oil price developments made HICP inflation dip twice into negative territory – in early 2015 and again in the autumn of this year. Over the past two months, it has returned to slightly positive rates. According to Eurostat's flash estimate, annual HICP inflation was 0.1% in November, unchanged from October, and up from -0.1% in September (see Chart 20).

### Energy price developments dampened inflation.

The renewed decrease in oil prices since June resulted in a continuing decline in the annual rate of change of energy prices. The contribution of energy to the HICP has been strongly negative throughout 2015 (see Chart 21). However, in October and November, the strong month-on-month declines from 12 months earlier dropped out from the annual rate calculation and implied upward base effects, which more than compensated for a further decline in energy prices. Unless oil prices fall significantly further, base effects will most likely also lead to a further substantial increase in energy inflation over the coming months (see Box 3).

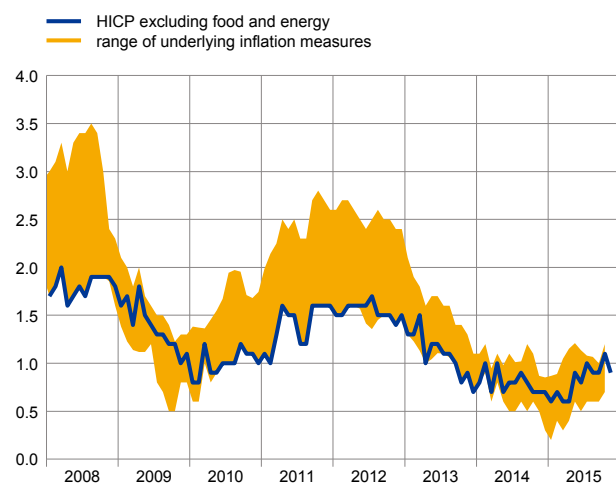
### Food price inflation has been on an upward trend since early 2015.

More recently, the main driver of the pick-up has been unprocessed food price inflation, with an observed increase of 4.0 percentage points between January and October. The steep incline up to October possibly reflects the impact of the unusually hot weather during the summer on vegetable and fruit prices. In November, unprocessed food price inflation declined

## Chart 22

### Measures of underlying inflation

(annual percentage changes)



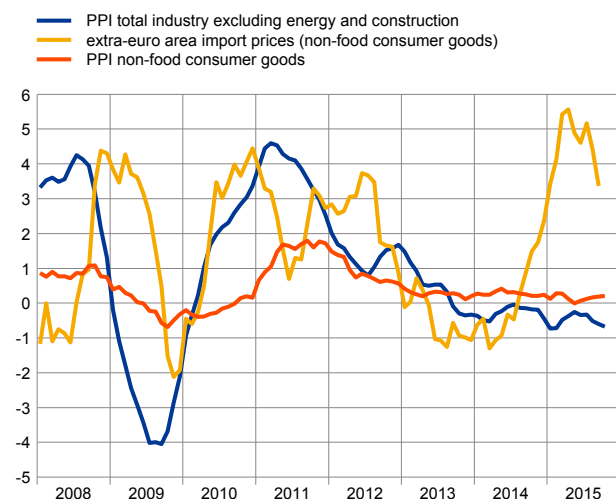
Sources: Eurostat and ECB calculations.

Notes: In the range of underlying measures, the following have been considered: HICP excluding energy; HICP excluding unprocessed food and energy; HICP excluding food and energy; trimmed mean (10%); trimmed mean (30%); the median of the HICP; and the measure based on the dynamic factor model. The latest observations are for November 2015 for HICP excluding food and energy (flash estimate) and October 2015 for all other indicators.

## Chart 23

### Producer prices and import prices

(annual percentage changes)



Sources: Eurostat and ECB calculations.

Note: The latest observations are for October 2015 (PPI) and September 2015 (import prices).

slightly, but remained high. Processed food inflation, by contrast, remained broadly stable – dampened by falling prices for dairy products.

### Underlying inflation has stabilised after its earlier pick-up from the trough reached in early 2015.

HICP inflation excluding food and energy was 0.9% in November, after having oscillated without a clear trend around that level since August 2015. Other measures of underlying inflation<sup>1</sup> have remained relatively stable during the past few months (see Chart 22). When assessing the latest data for HICP inflation excluding food and energy, it should be borne in mind that the annual rates of change of services and non-energy industrial goods prices can also be subject to high volatility from one month to the next, due, for instance, to travel-related items or clothing and footwear, the prices of which can be very volatile. More fundamentally, the recent developments in underlying inflation reflect the upward effects of the lower euro exchange rate compared to early this year and some strengthening in domestic demand. However, some weakening in these upward dynamics could be attributed to the indirect effects of further recent declines in oil prices.

### Import prices remain the main source of upward pipeline pressures.

Import price inflation for non-food consumer goods continues to post solid annual growth rates since the start of the year, although the increase in the annual rate of change of import prices declined slightly recently, reflecting some downward pressure from the appreciation of the euro between May and the end of October 2015 (see Chart 23). On the domestic side, indicators of pipeline pressures for non-energy consumer goods still point to weak dynamics along the price chain. The annual rate of change of domestic producer prices for non-food consumer goods industries has been hovering around levels just above zero throughout the year. The annual rate of change of total producer prices excluding energy and construction has also recently weakened, mainly reflecting the decline in producer prices for intermediate goods to its lowest

level since March 2014. Survey data for input and output prices up to November point to a continuation of subdued domestic price pressures at the producer level. Looking forward, the depreciation of the euro could start to exert upward pressure on import, and ultimately, producer prices from November onwards.

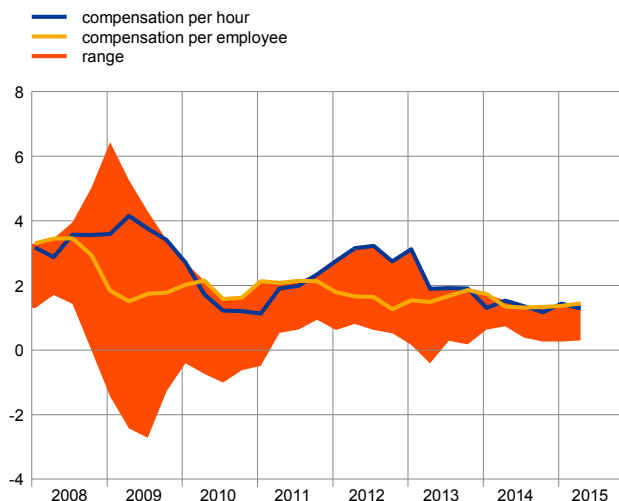
<sup>1</sup> A broad set of indicators of underlying inflation was presented in Box 4 entitled “Has underlying inflation reached a turning point?”, *Economic Bulletin*, Issue 5, ECB, July 2015.



## Chart 24

### Nominal wages and other measures of domestically-generated cost pressures

(annual percentage changes)



Sources: Eurostat and ECB calculations.

Notes: The latest observations are for the second quarter of 2015. The range includes nominal compensation per hour; nominal compensation per employee; unit labour costs; the GDP deflator and the services PPI.

## Chart 25

### Market-based measures of inflation expectations

(annual percentage changes)

- one-year rate one year ahead
- one-year rate two years ahead
- one-year rate four years ahead
- one-year rate nine years ahead
- five-year rate five years ahead



Sources: Thomson Reuters and ECB calculations.

Note: The latest observation is for 2 December 2015.

## Wage growth has remained subdued (see Chart 24).

The recovery in wage growth has been weak in recent quarters, which may still reflect the significant degree of economic and labour market slack and the fact that the real purchasing power of wages is higher in the face of lower inflation (see Boxes 4 and 5). By contrast with labour costs, profit margins contributed to the strengthening of domestic cost pressures in the first half of 2015. This may have been facilitated by the moderate wage costs as well as by terms of trade improvements related to weak import price developments. Overall, the growth in the GDP deflator, a broad indicator of domestically-generated inflationary pressures, strengthened in the second quarter of 2015.

## Market-based measures of long-term inflation expectations have increased since October, while survey-based measures remained broadly stable.

A decline in market-based measures of inflation expectations was observed over the summer, with the five-year inflation-linked swap rate five years ahead declining to 1.56% at the end of September (see Chart 25). Since the beginning of October, market-based measures of inflation expectations have increased significantly, also in response to market expectations of further monetary easing in the euro area. The five-year inflation-linked swap rate five years ahead increased by about 25 basis points from the end of September and stood at around 1.8% in early December. Survey-based measures of long-term inflation expectations from mid-October, such as those observed in the ECB Survey of Professional Forecasters and the Consensus Economics Forecast, have remained broadly stable in recent months.

## Looking forward, HICP inflation for the euro area is projected to continue to rise further (see Chart 20).

On the basis of the information available in mid-November, the December 2015 Eurosystem staff macroeconomic projections for the euro area expect HICP inflation to average at 0.1% in 2015, and to rise to 1.0% in 2016 and 1.6% in 2017.<sup>2</sup> Developments in HICP energy inflation are expected to play a major

role in shaping the profile of HICP inflation over the projection horizon (see Box 3). Strong upward base effects at the turn of the year as well as in the second half of 2016, together with the assumed increases in oil prices (in line with futures prices)

<sup>2</sup> See the article entitled "December 2015 Eurosystem staff macroeconomic projections for the euro area", published on the ECB's website on 3 December 2015.



up to 2017, are projected to lead to a substantial rise in HICP energy inflation from the currently negative rates. The rise in inflation is also supported by a gradual recovery in underlying inflation, reflecting further improvements in labour market conditions and corporations' pricing power as the economic recovery gains momentum. Moreover, the protracted exchange rate pass-through to consumer prices should also contribute to higher inflation. By comparison with the September 2015 ECB staff macroeconomic projections for the euro area, the outlook for HICP inflation has been revised downwards slightly.

## 5 Money and credit

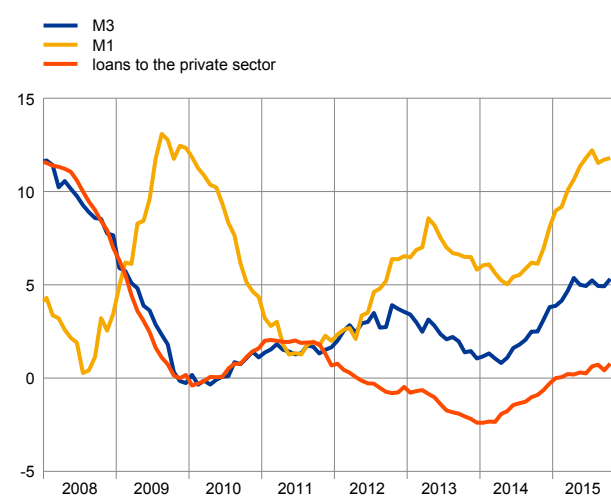
Money growth remains robust, while loan growth is recovering only gradually. Low interest rates, the effects of the ECB's targeted longer-term refinancing operations (TLTROs) and the expanded asset purchase programme (APP) have contributed to improvements in money and credit indicators and the transmission of monetary policy more generally. Banks' funding costs have steadied at close to their historical lows, after declining for a number of years. Banks have gradually been passing on

decreases in those costs in the form of reduced lending rates. Favourable lending conditions have continued to support a recovery in loan growth, while cross-country heterogeneity in bank lending rates has declined further. The total annual flow of external financing to non-financial corporations (NFCs) is estimated to have stabilised in the third quarter of 2015.

**Chart 26**

### M3, M1 and loans to the private sector

(annual percentage changes; adjusted for seasonal and calendar effects)



Source: ECB.

Notes: The latest observation is for October 2015.

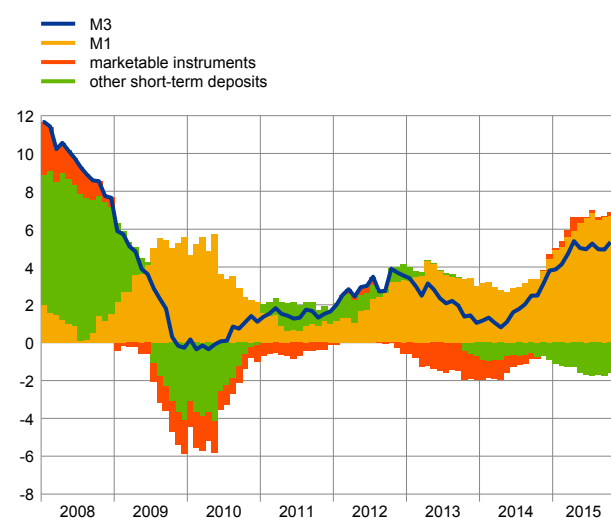
### The latest monetary data confirm the robust dynamics of money growth.

The annual growth rate of M3 stood at 5.3% in October 2015, compared with 5.0% in the third quarter (see Chart 26). M3 growth continued to be driven by the narrow monetary aggregate M1, with the annual growth rate of M1 remaining strong at 11.8% in October, unchanged from the third quarter. Recent developments in narrow money are consistent with the prospect of a continued recovery in economic activity.

**Chart 27**

### M3 and its components

(annual percentage changes; contributions in percentage points; adjusted for seasonal and calendar effects)



Source: ECB.

Note: The latest observation is for October 2015.

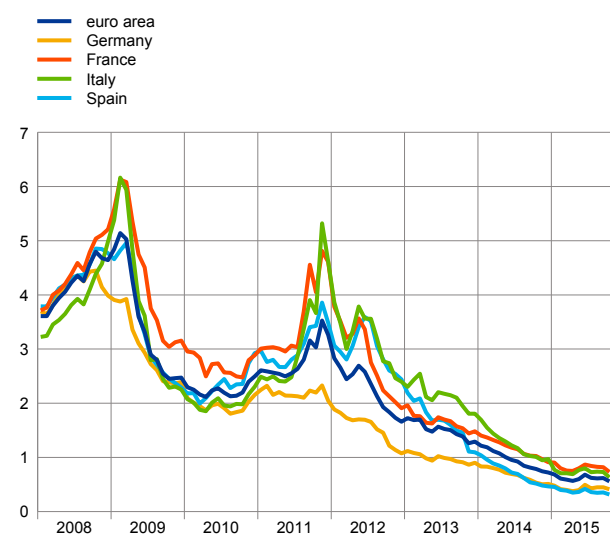
### Money-holders are focusing on overnight deposits.

M1 made a sizeable contribution to M3 growth in October, as it did throughout the third quarter (see Chart 27). The very low interest rate environment is providing incentives to invest in overnight deposits within M3. This development also reflects inflows relating to the sale of public sector bonds, covered bonds and asset-backed securities by the money-holding sector in the context of the APP. In contrast, short-term deposits other than overnight deposits (i.e. M2 minus M1) have continued to contract and remain a drag on M3 growth. In addition, the contribution made to annual M3 growth by marketable instruments (i.e. M3 minus M2) was small but positive in October. Both of these developments are consistent with the low levels of remuneration that are being observed for less liquid monetary assets. The developments in marketable instruments reflect the recovery that has been seen in holdings of money market fund shares/units since mid-2014, which has coincided with improvements in their returns relative to other short-term assets with similar characteristics.

**Domestic sources of money creation continue to be the main driver of broad money growth.** This is partly explained by the ECB's non-standard monetary policy measures. From a counterpart perspective, M3 dynamics appear to be driven mainly by shifts away from longer-term financial liabilities and an increase in the contribution made by MFI credit, both of which are linked to the ECB's monetary policy measures. The annual rate of change of MFIs' longer-term financial liabilities (excluding capital and reserves) remained strongly negative at -6.7% in October, broadly unchanged from the third quarter. The contraction in MFIs' longer-term financial liabilities is due, in part, to the attractiveness of the TLTROs as an alternative to longer-term market-based bank funding, combined with the asset purchases conducted under the APP. Credit to general government increased again in October owing to the Eurosystem's continued purchases under the public sector purchase programme (PSPP) (and also given the fact that the Eurosystem itself counts as a euro area MFI). A significant percentage of those assets were purchased from other MFIs by the Eurosystem. This was a departure from the pattern observed up to September, when non-residents were the main sellers to the Eurosystem. Moreover, the contribution made by credit to the private sector, which has been the main drag on money growth in recent years, increased again in October. The (annual) contribution made by the MFI sector's net external asset position to M3 growth continued to be negative, with capital outflows – also those related to the PSPP – offsetting the sizeable surplus in the euro area current account.

**Chart 28**  
Banks' composite cost of debt financing

(composite cost of deposit and unsecured market-based debt financing; percentages per annum)



Sources: ECB, Merrill Lynch Global Index and ECB calculations.  
Notes: The composite cost of deposits is calculated as an average of new business rates on overnight deposits, deposits with an agreed maturity and deposits redeemable at notice, weighted by their corresponding outstanding amounts. The latest observation is for October 2015.

**Banks' funding costs remain close to their historical lows.** The composite cost of bank debt financing has been declining for a number of years (see Chart 28) against the backdrop of net redemption of MFIs' longer-term financial liabilities. The ECB's credit easing package and the APP have made a significant contribution to the reduction of banks' funding costs. After the repricing episode of May 2015, banks' funding costs stabilised at low levels during the third quarter. In the context of the October 2015 euro area bank lending survey, banks reported that access to funding via all major market instruments had improved in the third quarter except for retail deposits, as there was a marginal deterioration in retail deposit funding. However, so far there are no strong signs that banks' deposit costs are moving into negative territory as a result of the ECB's negative deposit facility rate.

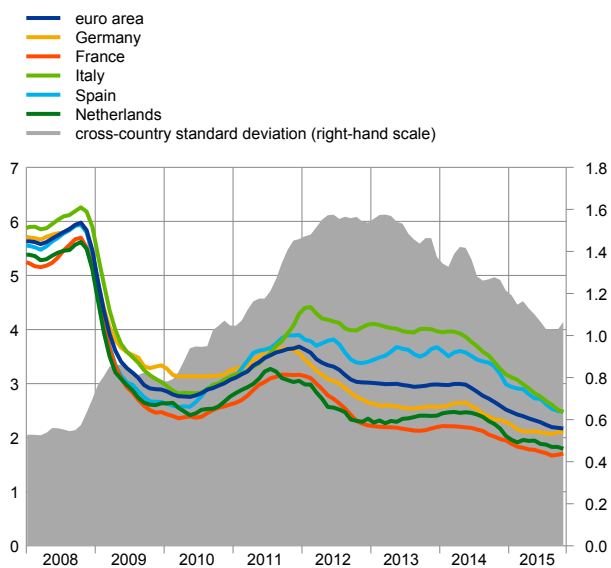
**Bank lending rates stabilised at low levels in the third quarter.** NFCs and households have seen significant declines in the nominal cost of bank loans since mid-2014. Since the ECB's credit easing package was announced in June 2014, banks have been passing

on declines in their funding costs in the form of reduced lending rates. Consequently, the composite borrowing costs of euro area NFCs and households have declined by 79 and 65 basis points respectively (see Charts 29 and 30). Recent data for September and October suggest that bank lending rates have stabilised at low levels.

**Chart 29**

Composite indicator of the cost of borrowing for NFCs

(percentages per annum; three-month moving averages)

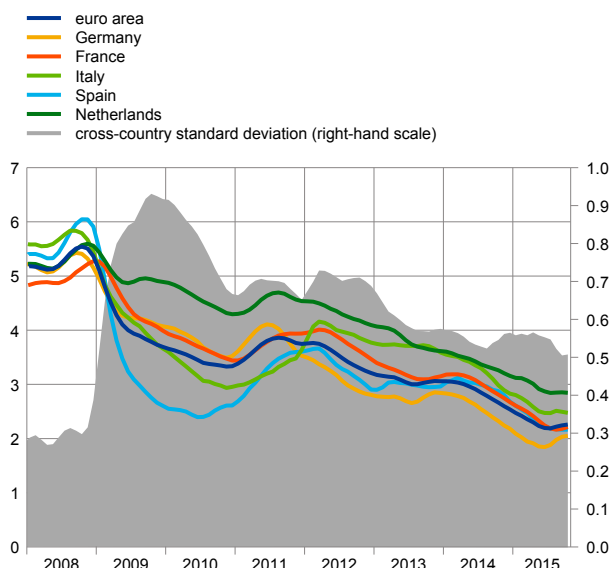


Source: ECB.  
Notes: The indicator for the total cost of bank borrowing is calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes. The cross-country standard deviation is calculated using a fixed sample of 12 euro area countries. The latest observation is for October 2015.

**Chart 30**

Composite indicator of the cost of household borrowing for house purchase

(percentages per annum; three-month moving averages)



Source: 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 using a fixed sample of 12 euro area countries. The latest observation is for October 2015.

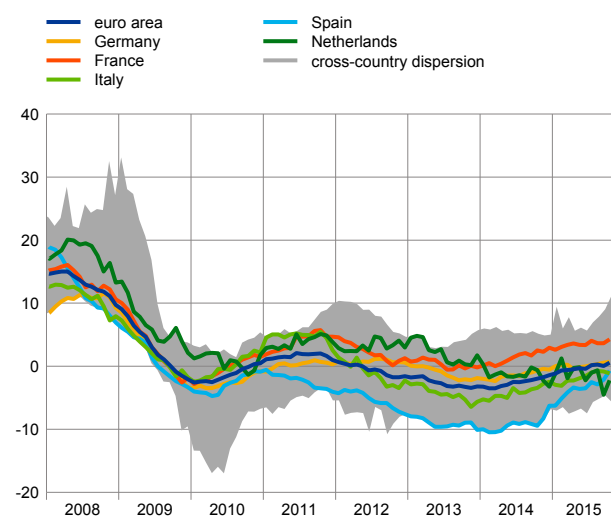
**Cross-country heterogeneity in bank lending rates has declined further, but is still above the pre-crisis level.** In this respect, the APP and the credit easing package adopted by the ECB have contributed to a significant decline in the cross-

country dispersion of borrowing costs. Vulnerable euro area countries have seen particularly strong reductions in bank lending rates. However, despite some encouraging improvements in credit supply conditions for the euro area as a whole, credit standards continue to vary across both countries and sectors.

**Chart 31**

MFI loans to NFCs in selected euro area countries

(annual percentage changes)



Source: ECB.  
Notes: Adjusted for loan sales and securitisation. The cross-country dispersion is calculated on the basis of minimum and maximum values using a fixed sample of 12 euro area countries. The latest observation is for October 2015.

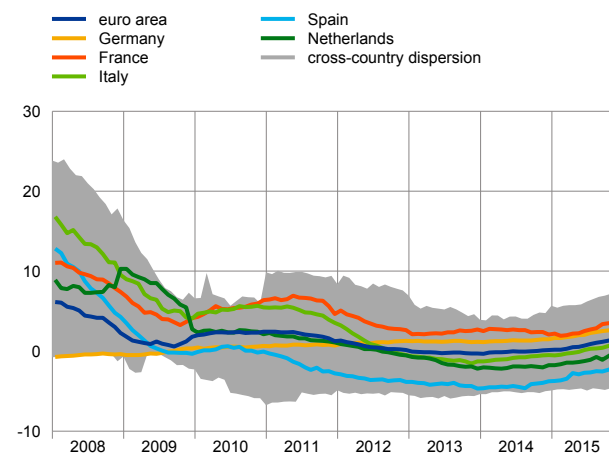
**The growth of loans to the private sector is gradually recovering, but remains weak.**

The annual growth rate of MFI loans to the private sector increased further in the third quarter and October (see Chart 26), with gradual improvements in credit dynamics being observed for both firms and households. The annual growth rate of loans to NFCs (adjusted for sales and securitisation) has been gradually recovering since the beginning of 2015 and reached 0.6% in October (see Chart 31). Similarly, the annual growth rate of loans to households (adjusted for sales and securitisation) improved in the third quarter and October (see Chart 32). As noted above, these trends have been supported by the significant reductions

## Chart 32

### MFI loans to households in selected euro area countries

(annual percentage changes)



Source: ECB.

Notes: Adjusted for loan sales and securitisation. The cross-country dispersion is calculated on the basis of minimum and maximum values using a fixed sample of 12 euro area countries. The latest observation is for October 2015.

seen in bank lending rates across the euro area since summer 2014, as well as by improvements in both the supply of and demand for bank loans. Despite these positive developments, subdued economic growth, the consolidation of bank balance sheets and relatively tight lending conditions are still weighing on loan supply in some parts of the euro area.

**The total annual flow of external financing to NFCs is estimated to have stabilised in the third quarter, after strengthening further in the first half of the year.** In the third quarter NFCs' external financing stood at levels similar to those observed in the first half of 2012 – or in 2004, before the period of strong credit growth began. The recovery in NFCs' external financing witnessed since early 2014 has been supported by the strengthening of economic activity, further declines in the cost of bank lending, the easing of bank lending conditions and the fact that the cost of market-based debt remains very low. At the same time, the third quarter saw NFCs' cash holdings increase further to

stand at historically high levels, linked to a possible further strengthening of retained earnings, low opportunity costs and bouts of financial market uncertainty.

**Monthly data show that NFCs' net issuance of debt securities moderated again in August and September, after a temporary recovery in July.** This development was probably driven by the recent increases in the cost of market-based debt financing, and potentially also by any further strengthening of retained earnings (which would reduce NFCs' need for external financing). This recent moderation in debt securities issuance followed the strong issuance by NFCs and their conduits that was observed in the first quarter of the year after the launch of the PSPP. NFCs' net issuance of quoted shares also moderated significantly in August and September, following the robustness of the previous months.

**The total nominal cost of external financing for NFCs is estimated to have declined in October and November, after increasing in the third quarter.** That decline was mainly attributable to the recovery observed in stock prices, which reduced the cost of equity financing, and to the moderation in the cost of debt financing, albeit to a lesser extent. In October and November the cost of NFCs' equity and market-based debt financing stood, on average, around 20 and 55 basis points higher respectively than the levels observed in February, when they reached their historical lows.

## 6 Fiscal developments

*The euro area budget balance is projected to improve only slightly, owing to favourable cyclical developments and low interest payments. At the same time, fiscal policy is expected to become expansionary in 2016 and be broadly neutral in 2017, mainly on account of tax cuts legislated in a number of countries in support of growth and employment, and the impact of the inflow of refugees in some countries. Looking ahead, additional consolidation efforts will be needed in many countries to set their high public debt ratio firmly on a downward path.*

**The average euro area fiscal deficit is expected to improve only slightly over the next two years.** Based on the December 2015 Eurosystem staff macroeconomic projections for the euro area, the general government deficit ratio for the euro area is expected to decline from 2.0% of GDP in 2015 to 1.8% of GDP in 2017 (see Table 1). By the end of the projection horizon, almost all euro area countries are likely to record budget deficits below the 3% of GDP reference value. Compared with the September 2015 projections, the outlook for the headline deficit is broadly unchanged over the next two years, despite a slightly more expansionary fiscal position as of 2016.

**Table 1**  
Fiscal developments in the euro area

(percentages of GDP)

	2012	2013	2014	2015	2016	2017
a. Total revenue	46.1	46.6	46.8	46.5	46.1	45.8
b. Total expenditure	49.7	49.6	49.4	48.5	48.1	47.7
<i>of which:</i>						
c. Interest expenditure	3.0	2.8	2.7	2.4	2.3	2.2
d. Primary expenditure (b - c)	46.7	46.8	46.7	46.1	45.8	45.5
Budget balance (a - b)	-3.7	-3.0	-2.6	-2.0	-2.0	-1.8
Primary budget balance (a - d)	-0.6	-0.2	0.1	0.4	0.3	0.3
Cyclically adjusted budget balance	-3.5	-2.3	-1.9	-1.7	-1.9	-1.9
Structural balance	-3.2	-2.2	-1.8	-1.7	-1.9	-1.9
Gross debt	89.3	91.1	92.1	91.1	90.1	88.9
Memo item: real GDP (percentage changes)	-0.8	-0.2	0.9	1.5	1.7	1.9

Sources: Eurostat and December 2015 Eurosystem staff macroeconomic projections.

Notes: The data refer to the aggregate general government sector of the euro area, including Lithuania (including the period before 2015). Owing to rounding, figures may not add up.

**The expected deficit reduction is mainly driven by favourable cyclical developments and lower interest costs.** In a few countries, the unwinding of one-off factors in 2015, inter alia related to financial sector support, will also contribute to the budgetary improvement. These deficit-reducing factors are partly offset by fiscal stimulus packages, including significant tax cuts in 2016, which have been legislated in a number of countries in support of economic growth and employment. For example, in the Netherlands the government envisages a stimulus package, which includes lower direct taxes on households. In Italy, the government will abolish the property tax on owner-occupied dwellings as of 2016 and will reduce the corporate income tax rate and temporarily lower social security contributions – measures partly compensated for by lower government consumption. In Spain, significant cuts to both personal and corporate income taxes are being introduced in 2015-16. Cuts in direct taxes payable by households are also planned in Austria as of 2016, following

the adoption of a tax reform which also foresees increases in VAT. Also in Belgium, the government is adopting cuts in personal income taxation and social contributions as of 2016, which, however, will be more than offset by consolidation measures consisting of spending cuts and a hike in indirect taxes. In Ireland, the expansionary fiscal measures included in the draft 2016 budget are expected to decrease the deficit reduction in the context of a strong macroeconomic environment.

**The refugee inflow is expected to affect the fiscal position in a few countries.**

The immediate budgetary costs of the refugee inflow are expected to be noticeable in those countries most affected, while in other euro area countries through which the refugees are passing on the way to their final destination the impact is likely to be small. The fiscal costs mainly result from cash transfers to the refugees and government consumption spending, including higher wage costs and housing costs. Estimates of the potential costs involved have been published for some countries in the context of the draft budgetary plans for 2016, but are prone to high uncertainty. For 2016 they range from 0.35% of GDP in Austria, to 0.2% in Italy and Germany, and 0.1% in Belgium and Slovenia.<sup>1</sup>

**The improvement in the structural balance is expected to come to a halt.** In the euro area, the fiscal stance – as measured by the change in the cyclically adjusted balance net of support to the financial sector – is expected to loosen in 2016 before becoming broadly neutral in 2017. Based on the December 2015 Eurosystem projections, the euro area structural deficit will increase by 0.2 percentage point to 1.9% of GDP in 2016, as a result of cuts in taxes and social security contributions in several countries and the expenditures related to the refugee inflow, and remain at this level in 2017. This also points to a loosening in 2016 compared with the September 2015 projections, when the fiscal stance was projected to be broadly neutral.

**Euro area average government debt is on a declining path, while its level remains elevated.** The euro area debt-to-GDP ratio is projected to gradually decline from its peak of 92.1% of GDP in 2014 to reach 88.9% of GDP by the end of 2017. The projected reduction in government debt, which is slightly higher than that projected in the September 2015 round, is supported by favourable developments in the interest rate-growth differential and primary surpluses. In addition, negative deficit-debt adjustments, inter alia reflecting privatisation receipts and the use of cash reserves, will also contribute to the better debt outlook. In a few countries, however, the debt level is likely to increase further over the projection horizon. As debt levels remain high in many euro area countries, further consolidation efforts are needed to set the debt ratio firmly on a downward path. Containing risks to debt sustainability is all the more important in view of the substantial long-term challenges resulting from an ageing population and rising costs for health and long-term care.

**The projected shortfall from structural efforts is expected to widen the gap with respect to the requirements of the Stability and Growth Pact (SGP).**

While governments need to carefully calibrate their fiscal policy stance to strike an appropriate balance between reducing high debt levels and not impairing the

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<sup>1</sup> See also the box entitled “The impact of the influx of refugees on the euro area economy” in the “December 2015 Eurosystem staff macroeconomic projections for the euro area”.



recovery, compliance with the requirements of the SGP needs to be ensured. However, the 2016 draft budgetary plans released on 18 November point to insufficient structural adjustment in many euro area countries. It is essential that the early warning and corrective instruments introduced in the reinforced fiscal framework are implemented fully and consistently (see Box 7). In particular, those countries with high debt levels should achieve progress towards their medium-term budgetary objectives.

**Fiscal discipline should be supplemented by growth-enhancing structural reforms.** Far-reaching structural labour and product market reforms are called for to improve the potential growth outlook of euro area economies and contribute to the reduction of debt levels. In addition, in many euro area countries there is a need to improve the growth friendliness of the tax system. For example, reducing the labour tax wedge can have positive growth and employment effects, especially in the short run. However, this cannot fully replace structural labour market reforms. The call to reduce the tax burden on labour income and to reform the labour market has been a regular feature of the European Commission's country-specific recommendations, but progress has been rather limited so far.

## Box 1

# Liquidity conditions and monetary policy operations in the period from 22 July to 27 October 2015

**This box describes the ECB's monetary policy operations during the fifth and sixth reserve maintenance periods of 2015, which ran from 22 July to 8 September 2015 and from 9 September to 27 October 2015 respectively.**

During this period, the interest rates on the main refinancing operations (MROs), the marginal lending facility and the deposit facility remained unchanged at 0.05%, 0.30% and -0.20% respectively.<sup>1</sup> On 30 September 2015, the fifth targeted longer-term refinancing operation (TLTRO) was settled for an amount of €15.5 billion, compared with €73.8 billion in the previous operation in June. This brought the total amount allotted in the first five TLTROs to €399.6 billion.<sup>2</sup> In addition, the Eurosystem continued buying public sector securities, covered bonds and asset-backed securities as part of its expanded asset purchase programme (APP), with a targeted rate of €60 billion per month.<sup>3</sup>

### Liquidity needs

**In the period under review, the average daily liquidity needs of the banking system, defined as the sum of autonomous factors and reserve requirements, stood at €646.5 billion, an increase of €38.4 billion compared with the previous review period (i.e. the third and fourth maintenance periods of the year).**

That was due mainly to an increase in average autonomous factors, which rose by €36.7 billion to stand at €533.5 billion (see the table).

**The increase in average autonomous factors was mainly a result of decreases in average liquidity-supplying factors – both net foreign assets and net assets denominated in euro.** Net foreign assets averaged €623.2 billion, €26.5 billion less than in the previous review period. The appreciation of the euro against the US dollar in the period under review led to a devaluation of net foreign assets. In addition, net assets denominated in euro averaged €519.3 billion, down €24.8 billion from the previous review period. Net assets denominated in euro declined on account of the devaluation of financial assets held by the Eurosystem for purposes other than

<sup>1</sup> 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 relevant LTRO's lifetime. TLTROs continued to be conducted as fixed-rate tender procedures with an interest rate equal to the MRO rate.

<sup>2</sup> For information on the amounts allotted in TLTROs, see similar boxes in previous issues of the Bulletin or the ECB's website: [www.ecb.europa.eu/mopo/implement/omo/html/index.en.html](http://www.ecb.europa.eu/mopo/implement/omo/html/index.en.html).

<sup>3</sup> Detailed information on the expanded APP is available on the ECB's website: [www.ecb.europa.eu/mopo/implement/omt/html/index.en.html](http://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html).

## Table

### Eurosystem liquidity situation

	22 July to 27 October 2015	22 April to 21 July 2015		Sixth maintenance period		Fifth maintenance period	
<b>Liabilities – liquidity needs (averages; EUR billions)</b>							
<b>Autonomous liquidity factors</b>	<b>1,675.7</b>	<b>(-14.6)</b>	<b>1,690.3</b>	<b>1,692.8</b>	<b>(+34.2)</b>	<b>1,658.6</b>	<b>(-37.6)</b>
Banknotes in circulation	1,053.9	(+19.4)	1,034.5	1,052.4	(-2.9)	1,055.3	(+12.6)
Government deposits	79.3	(-6.3)	85.6	95.2	(+31.8)	63.4	(-32.9)
Other autonomous factors	542.5	(-27.7)	570.2	545.2	(+5.4)	539.8	(-17.3)
<b>Monetary policy instruments</b>							
Current accounts	446.9	(+107.5)	339.4	465.3	(+36.9)	428.4	(+47.0)
Minimum reserve requirements	113.0	(+0.9)	111.2	113.2	(+0.5)	112.7	(+0.5)
Deposit facility	150.4	(+49.1)	101.3	152.8	(+4.7)	148.0	(+45.0)
Liquidity-absorbing fine-tuning operations	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)
<b>Assets – liquidity supply (averages; EUR billions)</b>							
<b>Autonomous liquidity factors</b>	<b>1,142.5</b>	<b>(-51.3)</b>	<b>1,193.8</b>	<b>1,135.7</b>	<b>(-13.6)</b>	<b>1,149.3</b>	<b>(-33.9)</b>
Net foreign assets	623.2	(-26.5)	649.8	619.1	(-8.3)	627.4	(-15.5)
Net assets denominated in euro	519.3	(-24.8)	544.1	516.7	(-5.2)	521.9	(-18.4)
<b>Monetary policy instruments</b>							
Open market operations	1,130.4	(+193.2)	937.2	1,175.5	(+90.2)	1,085.3	(+87.8)
Tender operations	533.4	(+20.2)	513.2	532.3	(-2.2)	534.5	(+8.8)
MROs	71.3	(-18.4)	89.7	70.2	(-2.2)	72.4	(-10.1)
Special-term refinancing operations	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)
Three-month LTROs	73.6	(-16.9)	90.5	69.2	(-8.9)	78.1	(-5.7)
Three-year LTROs	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)
Targeted LTROs	388.5	(+55.5)	333.0	393.0	(+8.9)	384.1	(+24.6)
Outright portfolios	597.0	(+173.0)	424.0	643.2	(+92.4)	550.8	(+79.0)
First covered bond purchase programme	22.2	(-2.2)	24.4	21.9	(-0.6)	22.5	(-0.8)
Second covered bond purchase programme	10.5	(-0.6)	11.1	10.4	(-0.3)	10.7	(-0.1)
Third covered bond purchase programme	114.9	(+27.8)	87.1	122.3	(+14.8)	107.6	(+12.4)
Securities Markets Programme	128.5	(-8.2)	136.6	127.1	(-2.7)	129.8	(-4.8)
Asset-backed securities purchase programme	11.9	(+4.4)	7.5	13.2	(+2.5)	10.7	(+1.9)
Public sector purchase programme	308.9	(+151.6)	157.4	348.3	(+78.6)	269.6	(+70.5)
Marginal lending facility	0.4	(+0.2)	0.2	0.1	(-0.5)	0.6	(+0.3)
<b>Other liquidity-based information (averages; EUR billions)</b>							
Aggregate liquidity needs	646.5	(+38.4)	608.0	670.7	(+48.5)	622.2	(-3.4)
Autonomous factors <sup>1)</sup>	533.5	(+36.7)	496.8	557.5	(+48.0)	509.5	(-3.8)
Excess liquidity	483.9	(+154.7)	329.2	504.8	(+41.6)	463.1	(+91.3)
<b>Interest rate developments (percentages)</b>							
MROs	0.05	(+0.00)	0.05	0.05	(+0.00)	0.05	(+0.00)
Marginal lending facility	0.30	(+0.00)	0.30	0.30	(+0.00)	0.30	(+0.00)
Deposit facility	-0.20	(+0.00)	-0.20	-0.20	(+0.00)	-0.20	(+0.00)
EONIA average	-0.130	(-0.022)	-0.107	-0.139	(-0.018)	-0.121	(-0.002)

Source: ECB.

Notes: Since all figures in the table are rounded, in some cases the figure indicated as the change relative to the previous period does not represent the difference between the rounded figures provided for these periods (differing by €0.1 billion).

1) Includes "items in course of settlement".

monetary policy, together with an increase in the liabilities held by foreign institutions with the national central banks. Previously, those foreign institutions had significantly reduced their cash holdings with the Eurosystem to avoid negative interest rates, but the review period saw them increase their holdings again, possibly owing to a decline in the number of attractive alternatives in the market.

**Liquidity-absorbing factors decreased in the period under review on account of a decline in other autonomous factors that was only partially offset by the usual seasonal increase in banknotes in circulation during the summer.** Other autonomous factors averaged €542.5 billion, down €27.7 billion from the previous review period, mainly reflecting a reduction in revaluation accounts. In addition,

average government deposits also contributed to the decline in liquidity needs, falling €6.3 billion to stand at €79.3 billion. That decline in government deposits represented a continuation of the overall downward trend observed since September 2014 (when the ECB's deposit facility rate was cut to -0.20%), partially offsetting the increase seen in the previous review period, when treasuries looking to place cash in the market had few alternatives. The decline in the period under review was related to a reduction in the rates of interest that some treasuries were prepared to accept when placing their excess liquidity in the market. On the other hand, banknotes in circulation rose over the summer, following the usual seasonal pattern, partially offsetting the decline in other liquidity-absorbing factors. Banknotes in circulation averaged €1,053.9 billion in the period under review, €19.4 billion higher than the average in the previous review period.

**The volatility of autonomous factors remained elevated during the period under review.** That volatility primarily reflected strong fluctuations in government deposits and the quarterly revaluation of net foreign assets and net assets denominated in euro. Such volatility was, however, weaker than in the previous review period, while the level of autonomous factors remained on an upward trend.

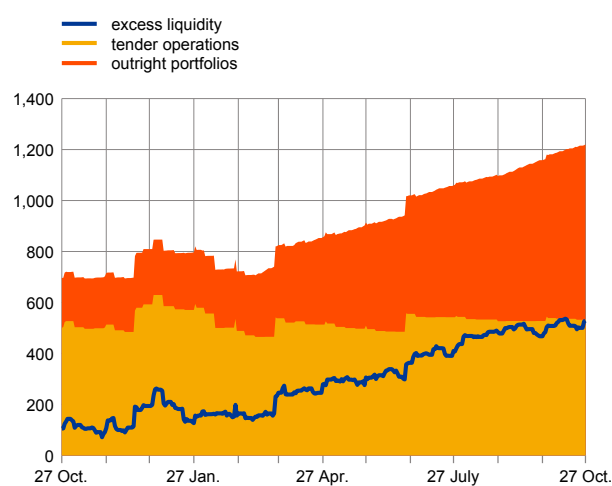
**The average absolute error in weekly forecasts of autonomous factors remained unchanged at €6.4 billion in the period under review and was due mainly to forecasting errors for government deposits.** Although forecasting errors for government deposits declined slightly, they were still the main source of error, as it remained difficult to anticipate the investment activities of treasuries in the presence of increasingly negative short-term money market rates and high levels of excess liquidity.

## Liquidity provided through monetary policy instruments

### Chart

Evolution of monetary policy instruments and excess liquidity

(EUR billions)



Source: ECB.

**The average amount of liquidity provided through open market operations – i.e. tender operations and outright asset purchases – increased by €193.2 billion to stand at €1,130.4 billion (see the chart).** Outright purchases accounted for 90% of that increase and stemmed mainly from the public sector purchase programme.

**Average liquidity provided through tender operations increased by €20.2 billion to stand at €533.4 billion, driven by the TLTROs.** Average liquidity provided by the MROs and the three-month LTROs decreased by €18.4 billion and €16.9 billion respectively, but that reduction was more than offset by the average liquidity provided by the TLTROs, which increased by €55.5 billion to stand at €388.5 billion. The fifth maintenance period was the main contributor to that increase, as the operation allotted in June had a significantly higher take-up than the operation allotted in September.

**Average liquidity provided through outright portfolios increased by €173.0 billion to stand at €597.0 billion, mainly on account of the public sector purchase programme.** The average liquidity provided by the public sector purchase programme, the third covered bond purchase programme and the asset-backed securities purchase programme rose by €151.6 billion, €27.8 billion and €4.4 billion respectively, more than offsetting the redemption of bonds held under the Securities Markets Programme and the previous two covered bond purchase programmes.

## Excess liquidity

**As a consequence of the developments detailed above, average excess liquidity rose by a further €154.7 billion to stand at €483.9 billion in the period under review (see the chart).** Most of that increase was recorded in the fifth maintenance period, when average excess liquidity rose by €91.3 billion on account of autonomous factors remaining virtually unchanged. In the sixth maintenance period, average excess liquidity rose less strongly, increasing by €41.6 billion. The relative weakness of that increase was driven mainly by the rise in autonomous factors, which partially absorbed the increase in the APP – further evidence that the volatility of autonomous factors is affecting developments in excess liquidity.

**That rise in excess liquidity was mostly reflected in higher average current account holdings, which increased by €107.5 billion to stand at €446.9 billion in the period under review.** That increase was fairly evenly distributed between the two maintenance periods, with average holdings rising by €47.0 billion and €36.9 billion in the fifth and sixth maintenance periods respectively. Average recourse to the deposit facility also increased, albeit to a lesser extent, rising by €49.1 billion to stand at €150.4 billion.

## Interest rate developments

**As in the previous review period, money market rates decreased further owing to the continued increase in excess liquidity and market participants' growing acceptance of trading at negative rates.** In the unsecured market, the EONIA averaged -0.130%, down from an average of -0.107% in the previous review period. The decline was most pronounced in the sixth maintenance period, when the EONIA averaged -0.139%, down 0.018 percentage point from the previous maintenance period. Secured overnight rates fell to levels close to the deposit facility rate. Indeed, rates on certain specific securities used as collateral<sup>4</sup> even fell below the deposit facility rate. Average overnight repo rates in the GC Pooling market<sup>5</sup> declined to -0.187% and -0.184% for the standard and extended collateral baskets respectively, down 0.007 and 0.014 percentage point compared with the previous review period.

<sup>4</sup> See, for example, the "RepoFunds Rate": [www.repofundsrate.com](http://www.repofundsrate.com).

<sup>5</sup> The GC Pooling market allows repurchase agreements to be traded on the Eurex platform against standardised baskets of collateral.

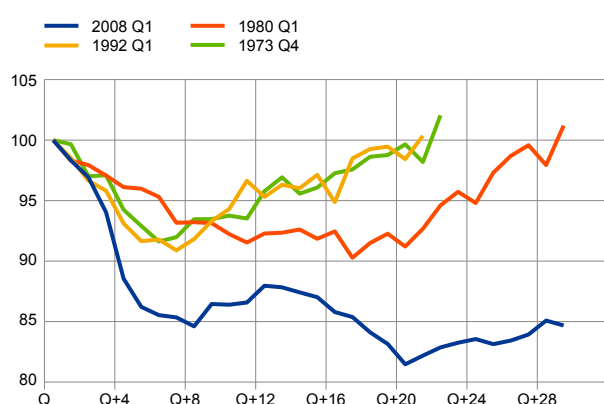
## Box 2

# What is behind the low investment in the euro area? Responses from a survey of large euro area firms

**Chart A**

Euro area investment in times of recovery

(index: pre-crisis peak=100)



Sources: Eurostat and ECB calculations.

Note: Q refers to the pre-crisis peak levels in the respective time periods. The subsequent quarters reported on the x-axis show the number of quarters it took, historically, to regain pre-crisis peak levels, providing a comparison with the recent crisis.

**Table A**

Summary statistics from an ad hoc investment survey

	Respondents		Share of total economy
Employment (thousands)	3,770		2.5%
Investment (EUR millions)	35,145		3.0%
Sectoral decomposition	Number	Share in survey	Share of value added
Industry excluding construction	31	42%	28%
Construction <sup>1)</sup>	13	18%	23%
Services	30	41%	49%
of which:			
Business-to-business	11	15%	22%
Business-to-consumer	19	26%	27%

Sources: Investment survey, Eurostat and ECB calculations.

Notes: Number of employees and investment budgets for 2014 are self-reported by respondents. Share of value added pertains to the non-financial business economy and excludes the finance sector, public sector and agriculture. Industry excluding construction includes food processors and agricultural producers.

1) Construction includes real estate.

**Despite an ongoing economic recovery in the euro area, investment remains low in comparison with pre-crisis levels and its growth has been very weak in comparison with historical precedents (see Chart A).**

To some extent, the slow recovery in euro area investment reflects the protracted nature of the crisis, whereby output is yet to rebound to its pre-crisis level. However, the lengthy recovery also reflects other factors which have, to varying degrees and during different periods, contributed to constraining euro area investment. These factors relate to access to borrowing, wider business concerns reflecting demand conditions, the growth outlook, and broader firm-level constraints, all of which reduce the incentive to invest. This box summarises the results of a one-off ad hoc survey of leading euro area businesses regarding the state of, and constraints on, investment in the euro area.

**Table A summarises the breakdown and representativeness of the 74 responses received.<sup>1</sup>**

31 respondents belong to the broad industrial sector (including three producers and processors of agricultural products), 13 are active in construction and related activities, and 30 are active in the services sector (including retail trade and transport activities, business services and consumer services). Comparing their size with national accounts data suggests that, taken together, these 74 firms account for around 2.5% of total employment and 3% of total private sector non-housing investment expenditure in 2014.

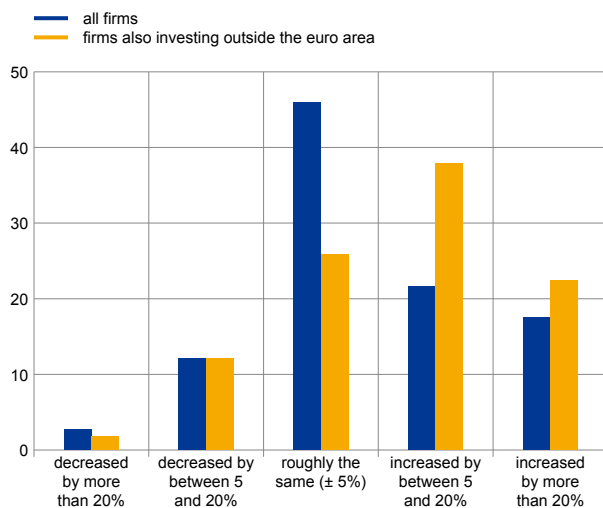
**According to these respondents, on balance, investment budgets increased between 2014 and 2015 (see Chart B).** Nevertheless, amid modest ongoing growth across the euro area,

<sup>1</sup> The investment survey was a paper-based survey, e-mailed directly to the CFOs of a sample of large euro area companies. A mixture of closed and open questions sought responses to questions on: 2015 investment plans and strategy; current and future investment plans; and insights into existing constraints and policy measures which could help support/encourage further euro area investment in the longer term.

## Chart B

### Investment plans of large corporates in 2015 compared with 2014

(percentage of firms reporting)



Sources: Investment survey and ECB calculations.

## Table B

### Breakdown of investment expenditure by category

(percentage of firms reporting)

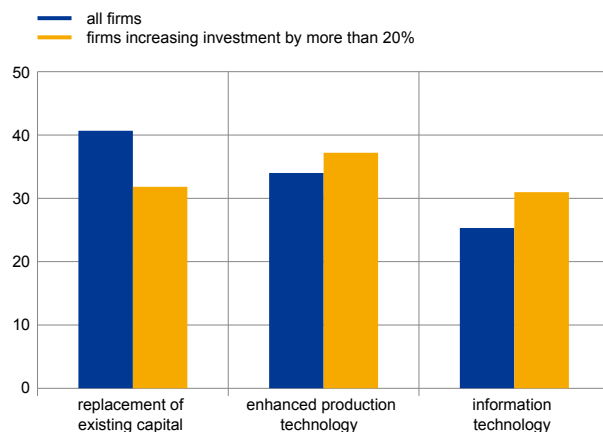
	<30%	30%-60%	>60%
Capital expenditure	10%	19%	71%
Research and development	72%	22%	7%
Other (e.g. intangibles)	84%	12%	4%

Sources: Investment survey and ECB calculations.  
Note: Rows may not add up to 100% due to rounding.

## Chart C

### Breakdown of capital expenditure by form of investment

(average percentage share of expenditure of firms reporting)



Sources: Investment survey and ECB calculations.

close to half of the respondents surveyed left their investment budgets broadly unchanged. Among the subset of total respondents also investing outside the euro area (more than two thirds), rates of investment – notably by large multinational firms operating in the manufacturing and construction sectors – were also typically higher outside the euro area (see yellow bars in Chart B). Asked about the main destinations for non-euro area investment, these respondents typically cited emerging market economies as principal destinations, as well as non-EU advanced economies, suggesting ongoing concerns regarding potential returns in the euro area and the EU more widely.

**By far the largest share of investment budgets was dedicated to capital expenditure, with a much smaller share devoted to either research and development (R&D) or investment in intangibles (see Table B).** When asked about the breakdown of investment expenditure, 71% of firms surveyed reported spending over 60% of their investment budgets on capital expenditure, compared with just 7% of firms investing mainly in R&D or intangibles. Typically, those firms investing heavily in R&D tended to be developing new technology for improving production capacities, reacting to strong environmental or regulatory frameworks, or protecting intellectual property rights.

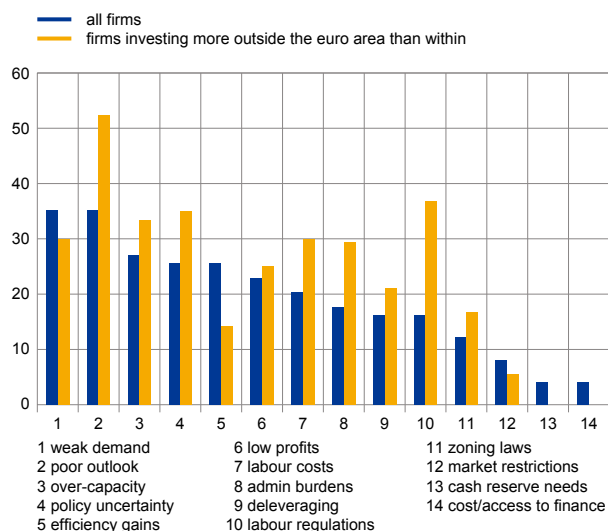
**Within capital expenditure, investment generally focused on replacement, rather than enhanced technologies (see Chart C).** Chart C shows that around 41% of total capital expenditure was reported as devoted to replacement of existing capital stocks, rather than investment in new or advanced technologies. Among those firms investing strongly (see the yellow bars of Chart C, which depict firms whose investment increased by at least 20% year-on-year in 2015), the proportion of capital expenditure dedicated to “enhanced technologies” and IT equipment was typically somewhat stronger. However, in many cases, increased spending on enhanced technologies reflected rather the pursuit of cost reduction and stronger productivity growth, as opposed to enhanced product development or customisation of output.

**Financial constraints related to costs of, or access to, funding were seldom seen as important**



**Chart D**  
**Constraints on euro area investment**

(percentage of firms reporting)



Sources: Investment survey and ECB calculations.

**constraints (see Chart D).**<sup>2</sup> Overall, demand factors in terms of weak current demand and weak growth prospects were consistently cited as the main constraints on euro area investment at the present time. Uncertainty surrounding structural and fiscal policies in some euro area Member States was also reported as a significant brake on investment. Respondents stressed also structural rigidities and regulatory constraints including high labour costs, employment regulations, “red tape”, zoning laws<sup>3</sup> and product market rigidities as factors limiting investment in the euro area at the present time. Among the firms investing more outside the euro area than within, labour market regulations, labour costs and “red tape” were frequently cited as the strongest constraints together with weak growth prospects and policy uncertainty.

**Asked about the policy changes needed to encourage further investment in the euro area, respondents principally cited reforms focusing**

**on national labour and product markets and greater fiscal harmonisation.**

Respondents suggested that policies aimed at enhancing employment flexibility and reducing the risks (and costs) associated with hiring on a permanent basis are increasingly required in an environment of greater demand volatility. Three of the eight most commonly-cited recommendations related to labour market reforms in terms of enhanced employment flexibility, lower labour costs and heavier emphasis on upskilling. High labour costs were highlighted as detrimental to euro area competitiveness, with several respondents arguing for changes that would reduce either social charges or redundancy costs so as to help restore euro area competitiveness and thus encourage stronger investment. Reforms of product markets, so as to increase competition within the EU and enable firms to benefit from increasing economies of scale and scope, thus raising the potential returns from investment, were also frequently suggested. Several respondents highlighted the need to ensure that extra-EU competitors are subject to the same rules as firms based within the EU, so as not to disadvantage EU providers and producers. Simplification of fiscal systems and harmonisation of tax rules were also advocated as a means of helping productive firms grow faster so as to benefit from newly-enlarged market places, which would further increase investment.

<sup>2</sup> While smaller firms have long cited greater difficulties in accessing funding as a constraint on investment, the latest Survey on the access to finance of enterprises (SAFE) suggests that these limitations have eased notably over the course of 2015. See *Survey on the access to finance of enterprises in the euro area – April to September 2015*, ECB, Frankfurt am Main, December 2015, available at <http://www.ecb.europa.eu>

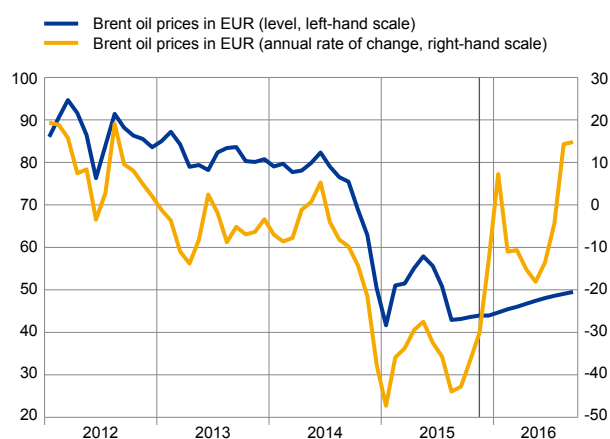
<sup>3</sup> Typically, planning regulations limiting the number, size or scope of businesses operating in a particular area.

## Box 3

# The role of base effects in the projected path of HICP inflation

**Chart A**  
Oil prices: actual and futures

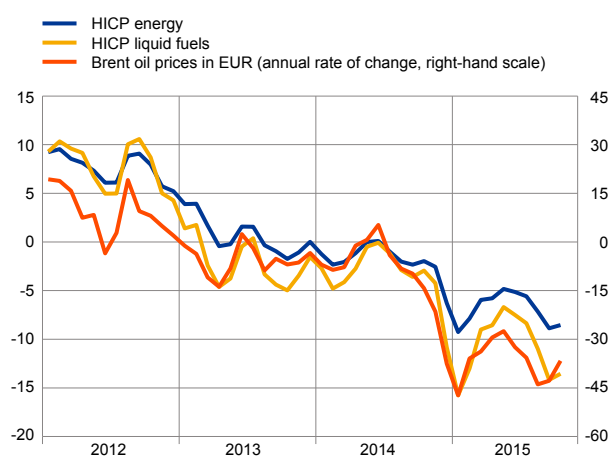
(annual percentage changes and EUR/barrel)



Sources: Bloomberg and ECB calculations.  
Note: The vertical line separates actual data from futures and refers to 12 November 2015, the cut-off date for the assumptions of the "December 2015 Eurosystem staff macroeconomic projections for the euro area".

**Chart B**  
Oil prices and energy inflation

(annual percentage changes, monthly data)



Sources: Bloomberg, Eurostat and ECB calculations.

**Base effects will have a strong impact on the projected path for headline HICP inflation in the short term.** The December 2015 Eurosystem staff macroeconomic projections for the euro area imply a significant increase in HICP inflation at the turn of the year followed by a temporary moderation until the middle of 2016.<sup>1</sup> This profile essentially reflects the impact of base effects on the annual rate of change in energy prices, which is the most volatile component of HICP inflation.

**Oil prices have shown strong swings since the middle of 2014 which will be reflected in the annual rate of change assuming a smooth path of oil prices in the period ahead.** Oil prices fell from mid-2014 to January 2015 and, after a temporary rebound between February and May 2015, have again been on a downward path since June 2015 (see Chart A). Looking ahead, the curve of oil futures prices is relatively smooth with a moderate upward slope.<sup>2</sup> This implies that, if oil prices follow the envisaged path of the futures, the expected profile of annual rates of energy inflation will mainly reflect past swings in oil prices. The pattern of the annual growth rate in oil (and energy) prices is thus driven by base effects, i.e. "atypical" month-on-month movements in the energy price index 12 months earlier. In the absence of strong movements in taxes and refining and distribution margins, developments in the price of crude oil expressed in euro translate relatively completely into corresponding developments in consumer fuel prices (which account for the largest part of consumer energy prices) and thus into overall energy prices (see Chart B).

**Quantifying base effects implies some uncertainty.** There is no single way of quantifying the impact of an "atypical" month-on-month price change that occurred

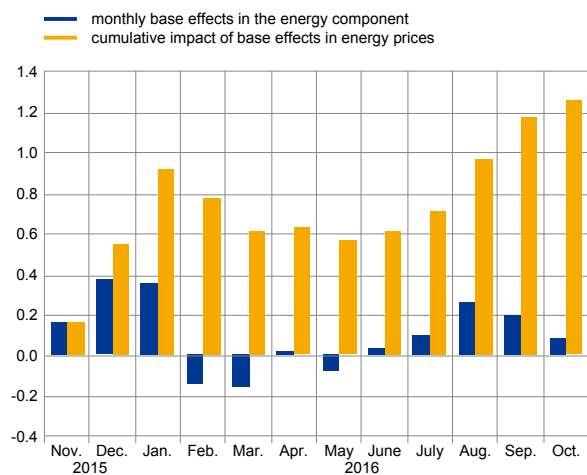
<sup>1</sup> See the article entitled "December 2015 Eurosystem staff macroeconomic projections for the euro area", published on the ECB's website on 3 December 2015.

<sup>2</sup> For the conversion of US dollar oil futures prices into euro, the USD/EUR exchange rate is assumed to remain unchanged at the average level observed in the two weeks ending 12 November 2015 (i.e. the cut-off date for the December 2015 Eurosystem staff macroeconomic projections for the euro area).

## Chart C

### Base effects stemming from energy prices

(percentage point contributions to change in headline HICP inflation)



Source: ECB calculations.

12 months previously on the change to the year-on-year inflation rate. In past analyses reported in the ECB's Bulletin, this impact has been computed for each month by subtracting the actual month-on-month movement from an estimated seasonal effect and a "trend", namely the average month-on-month change observed since the mid-1990s.<sup>3</sup> In the case of energy inflation, where the series does not show stable seasonal effects, this boils down to a simple comparison with the trend (which reflects the impact of the long-term rise in oil prices). The swings in oil prices since autumn 2014 imply large positive base effects at the turn of the year 2015/16 followed by an alternation of negative and positive base effects which will shape the expected energy inflation pattern and thus HICP inflation over the coming 12 months (see Chart C), assuming that oil prices follow the envisaged path of the futures. The cumulative impact from base effects in energy inflation on overall HICP inflation amounts to approximately 1.3 percentage

points from November 2015 until October 2016. The estimate of this impact is somewhat lower when assuming that there is no trend in oil prices (i.e. in the order of 0.9 percentage point over the coming 12 months).<sup>4</sup>

**Overall, the pattern of headline HICP inflation projected over the next 12 months is largely determined by base effects stemming from the energy component.**

These base effects imply a strong increase in inflation until January 2016 and a small temporary decline in the first half of 2016, assuming that oil prices actually follow the path envisaged by the futures.

<sup>3</sup> See, for instance, the box entitled "Base effects from the volatile components of the HICP and their impact on HICP inflation in 2014", *Monthly Bulletin*, ECB, February 2014. The trend amounts to about 0.3 percentage point.

<sup>4</sup> As would also be the case when looking at the usually rather flat curve of futures oil prices.

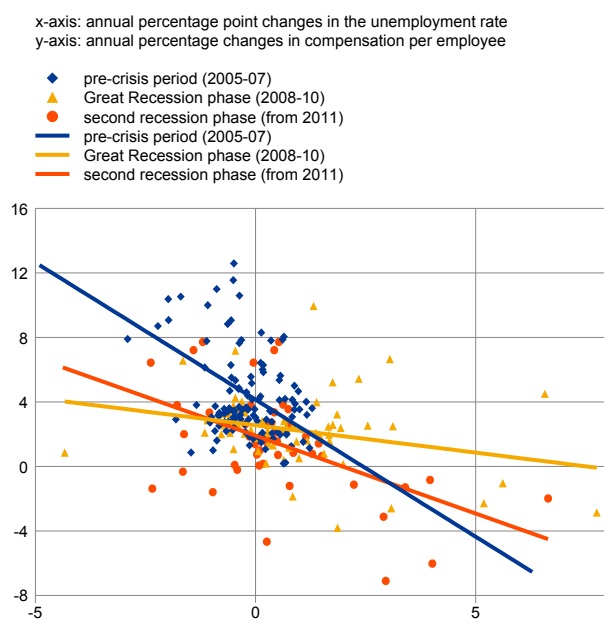
## Box 4

# Downward wage rigidity and the role of structural reforms in the euro area

**This box discusses the role of structural reforms and labour market institutions in wage adjustment in the euro area, with a focus on downward wage rigidity.** In addition to the possibility that the productivity of workers may suffer owing to lower wages, as argued by the efficiency wage theory, downward wage rigidity has other important macroeconomic consequences. Empirical evidence seems to support the view that labour adjustment is slower when wages are rigid and that structural reforms can facilitate the adjustment process.

**The reaction of wages to the unemployment rate in the euro area seems to vary significantly across different time periods.** Chart A shows that in the period

**Chart A**  
Changes in compensation per employee and changes in the unemployment rate in euro area countries



Source: "Comparisons and contrasts of the impact of the crisis on euro area labour markets", Chart 50 (updated), *Occasional Paper Series*, No 159, ECB, Frankfurt am Main, February 2015.

of strong GDP growth before the crisis wages reacted relatively strongly to changes in the unemployment rate. However, in the first phase of the crisis, namely the "Great Recession", this relationship weakened substantially, possibly showing downward wage rigidity. The reaction of wages to unemployment strengthened again during the second phase of the crisis (characterised by the recession which started towards the end of 2011), but was still notably weaker than in the pre-crisis period.

**Different reactions of wages to unemployment at different stages of the business cycle seem to be partly explained by downward wage rigidities that characterise various euro area countries.** Evidence of micro-level wage rigidity is relatively well established and supports the finding that cutting wages is difficult.<sup>1</sup> This is also confirmed by recent results from the third wave of the firm-level survey by the Wage Dynamics Network. At the macro level, Heinz and Rusinova (2011)<sup>2</sup> show that wages seem to be less responsive to unemployment in the presence of a positive unemployment gap. This is confirmed by a recent

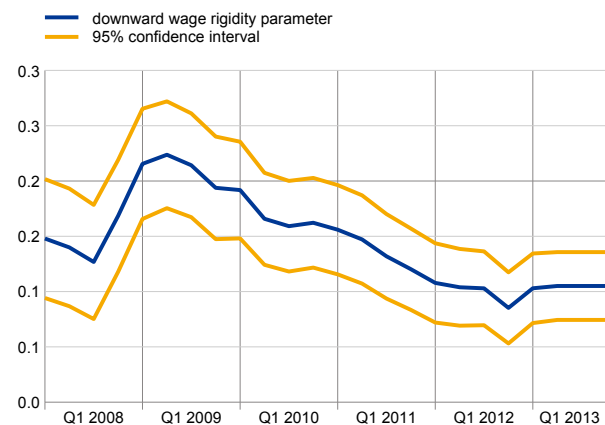
<sup>1</sup> See, for example, Babecký, J., Du Caju, P., Kosma, T., Lawless, M., Messina, J. and Rööm, T., "Downward Nominal and Real Wage Rigidity: Survey Evidence from European Firms", *Scandinavian Journal of Economics*, Wiley Blackwell, Vol. 112(4), pp. 884-910, December 2010. See also Boeri, T. and Jimeno, J.F., "Unemployment in Europe: What does it take to bring it down?", May 2015 (available at <http://economyinfo.com/wp-content/uploads/2015/05/Boeri.pdf>). Available evidence suggests that wage freezes seem to be a lower bound on wage flexibility. For example, the December 2014 edition of the Economic Bulletin of the Banco de España reports that in 2008 5% of wage settlements in Spain were wage freezes, but by 2013 almost one-third of wages were frozen in the private sector.

<sup>2</sup> Heinz, F. F. and Rusinova, D., "How flexible are real wages in EU countries? A panel investigation", *Working Paper Series*, No 1360, ECB, Frankfurt am Main, July 2011.

## Chart B

### Time path of the downward wage rigidity parameter for the euro area

(rolling regressions; percentage points)



Source: Anderton and Bonthuis (2015).

Notes: The parameter indicates the extent to which the response of nominal wage growth to changes in unemployment is dampened during economic downturns (based on panel regressions pooling the data across euro area countries). The more positive the parameter, the weaker the response of wages to unemployment during downturns. The time path of the parameter is derived from rolling regressions.

study by Anderton and Bonthuis (2015)<sup>3</sup>, which shows a lower downward responsiveness of wages to higher unemployment during downturns. Chart B shows the time path of the wage rigidity parameter estimated in Anderton and Bonthuis (2015) which also seems consistent with the information in Chart A, as both suggest evidence of downward wage rigidity which weakened as the crisis became more protracted.

**Labour market institutions seem to play an important role in wage adjustment.** The table provides an overview of the wage bargaining characteristics of euro area labour markets and confirms substantial cross-country heterogeneity in labour market institutions in the euro area countries. Some of them, such as the Baltic States, are usually defined as “flexible”, given their decentralised wage bargaining process and relatively low trade union density. However, many other euro area countries are characterised by a strong trade union presence (e.g. Belgium, Malta and Finland), a high

## Table

### Wage bargaining characteristics in euro area countries in 2014 and developments since 2007

Country	Union density	Coordination of wage bargaining	The dominant level(s) at which wage bargaining takes place	Minimum wage setting
Belgium	55* ↗	5 ↔	5 ↔	3 ↔
Germany	18* ↘	4 ↔	3 ↔	1 ↔
Estonia	7** ↘	1 ↘	1 ↔	3 ↔
Ireland	34* ↗	1 ↘	1 ↘	6* ↔
Greece	22* ↘	2 ↘	2 ↘	8 ↗
Spain	17* ↗	3 ↘	3 ↔	8 ↗
France	8* ↗	2 ↔	3 ↔	8 ↔
Italy	37* ↗	3 ↔	3 ↔	1 ↔
Cyprus	45* ↘	2 ↔	2 ↔	7 ↔
Latvia	13** ↘	1 ↔	1 ↔	8 ↗
Lithuania	9** ↘	1 ↔	1 ↔	5 ↔
Luxembourg	33** ↘	2 ↔	2 ↔	7 ↔
Malta	53** ↘	2 ↔	1 ↔	7 ↔
Netherlands	18* ↘	4 ↔	3 ↔	7 ↔
Austria	27* ↘	4 ↔	3 ↔	2 ↗
Portugal	19** ↘	2 ↔	3 ↔	8* ↔
Slovenia	21* ↘	3 ↘	3 ↘	7 ↔
Slovakia	13* ↘	3 ↗	2 ↔	8 ↗
Finland	69* ↘	5 ↗	4 ↗	2 ↘

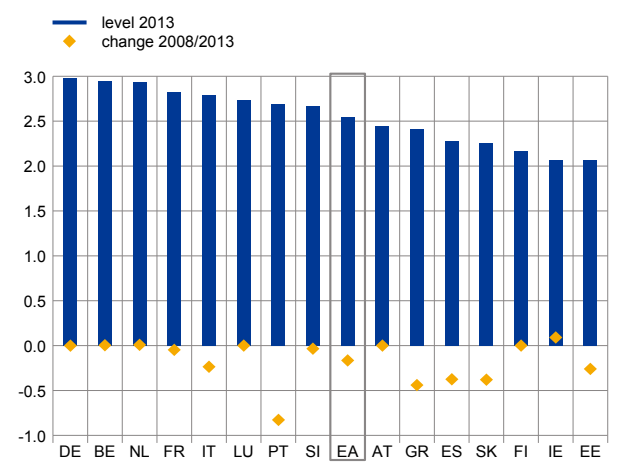
Sources: Jelle Visser, ICTWSS: Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts in 51 countries between 1960 and 2014, version 5.0, Amsterdam Institute for Advanced Labour Studies (AIAS), October 2015; and ECB calculations.

Notes: The data refer to 2014 unless otherwise indicated (data marked \* refer to 2013 and those marked \*\* refer to 2012). For further details, see the codebook at <http://www.uva-aias.net/208>. The arrows show the direction of changes compared with 2007. Union density is net union membership as a proportion of wage and salary earners in employment. Coordination of wage bargaining ranges from 5 = central or cross-industry-level bargaining to 1 = fragmented wage bargaining, mostly at the firm level. The dominant level(s) at which bargaining takes place ranges from 5 = central or cross-industry-level bargaining to 1 = local or firm-level bargaining. Minimum wage setting ranges from 0 = no statutory minimum wage, no sectoral or national agreements to 8 = the minimum wage is set by the government without a fixed rule.

<sup>3</sup> Anderton, R. and Bonthuis, B., “Downward Wage Rigidities in the Euro Area”, *GEP Research Paper Series*, No 15/09, University of Nottingham, July 2015.

## Chart C

### Employment protection legislation



Source: OECD.

Notes: The countries are ordered by their rankings in 2013. Data are based on synthetic indicators of how strictly labour markets are regulated (e.g. notice periods, severance payments and the use of temporary contracts). Although the indicator does not capture all the factors which may affect regulation, it provides a reasonable indication of rigidities that can be compared across countries. A higher value denotes stricter regulation. The euro area average consists of countries which are members of the OECD and for which values are available.

degree of coordination of wage bargaining processes (e.g. Belgium, Germany, the Netherlands, Austria and Finland) and minimum wage setting (e.g. Greece, Spain, France, Latvia, Portugal and Slovakia). Together with economy-wide indexation schemes and strict employment protection legislation (see Chart C), this may result in downward wage rigidities.

**Euro area countries, especially those more affected by the crisis, implemented comprehensive structural reform programmes.** This is confirmed by the changes in employment protection legislation (see Chart C), where labour market reforms were mainly implemented by countries under stress. These reforms included decentralisation of collective wage bargaining with more firm-level bargaining, decreases in automatic wage indexation schemes, fewer collective agreements, increased flexibility of working time arrangements and a reduction in firing and hiring costs (see also Article 1, Box 2).

**Labour market reforms have the potential to increase the responsiveness of wages to economic slack.** Anderton and Bonthuis (2015), for example, find that in the presence of strict employment protection legislation and strong union coverage, wages can be less responsive to unemployment. Therefore, reductions in these indicators during the crisis may also partly explain the decline in downward wage rigidity in Charts A and B.<sup>4</sup> For example, Font et al. (2015)<sup>5</sup> explain that the responsiveness of real wages to unemployment in Spain seems to have increased after the implementation of labour market reforms in 2012-13. They also find that wage pro-cyclicality is lower for long tenured individuals, those with permanent contracts and older workers, who are more protected against wage adjustments in economic downturns. Additionally, Martin and Scarpetta (2012)<sup>6</sup> provide evidence that labour market regulations affect a number of other propagation channels, such as labour reallocation and even productivity (see also Box 5), which can affect wage evolution indirectly.

**Obtaining strong empirical evidence on the effects of some types of reform is challenging, particularly when looking at the evolution of aggregate wage data.** Difficulties arise, for example, in disentangling the impact on wages of reforms from the impact of changes in the composition of employment and fiscal consolidation.

<sup>4</sup> Charts A and B show an apparent decline in the degree of downward wage rigidity as the crisis became more protracted. This could be partly due to the wave of labour market reforms in many euro area countries during the crisis – sometimes associated with looser employment protection legislation, etc. – which may have increased the downward pressure on wages. However, other factors, such as fiscal consolidation, may have played a role.

<sup>5</sup> Font, P., Izquierdo, M. and Puente, S., “Real wage responsiveness to unemployment in Spain: asymmetries along the business cycle”, *IZA Journal of European Labor Studies*, Springer, 4:13, June 2015.

<sup>6</sup> Martin, J.P. and Scarpetta, S., “Setting it Right: Employment Protection, Labour Reallocation and Productivity”, *De Economist*, Springer, Vol. 160(2), pp. 89-116, June 2012.

Therefore, more analysis is needed to fully understand the underlying factors driving wage adjustment in the euro area during the crisis period.<sup>7</sup>

**To enhance the resilience of the economy to shocks, wages must appropriately reflect labour market conditions and productivity developments, which underlines the importance of reforms conducive to greater wage flexibility and differentiation across workers, firms and sectors.** In addition to the factors mentioned above, improved efficiency of active labour market policies, as well as increased labour mobility within and across euro area countries, will also help to reduce skill mismatches and structural unemployment, thereby increasing the responsiveness of wages to unemployment.

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<sup>7</sup> For an in-depth analysis of the channels via which labour and product market reforms affect the economy, see the article entitled “Progress with structural reforms across the euro area and their possible impacts”, *Economic Bulletin*, Issue 2, ECB, Frankfurt am Main, March 2015.



## Box 5

# Wages, productivity and competitiveness: a granular approach

**Firm-level data, which have only been accessible in recent years, have suggested that a simple comparison of average wage and productivity developments may be insufficient for an accurate analysis of country competitiveness.**<sup>1</sup> Indeed, granular data have unveiled the existence of a large degree of firm heterogeneity in terms of labour productivity, not only across sectors but also across firms which operate within the same industry. This implies that, even when average annual wage growth in a country is aligned with average productivity developments, there may be a large number of firms featuring lower productivity growth which would lose competitiveness. It is therefore important to analyse whether wage growth reflects the productivity dynamics of each individual firm.

Using micro-aggregated data, this box shows, first, that there was a substantial misalignment between wage and productivity growth at the firm level during the pre-crisis period in some euro area economies which exacerbated their competitiveness losses and, second, that the magnitude of this misalignment was correlated with some aspects of the design of labour market institutions affecting the formation of wages.

**Wage and productivity dynamics are misaligned across narrowly defined sectors.** Chart A shows the correlation between average annual productivity growth and growth in labour cost per employee in each manufacturing industry in Germany, Spain, France and Italy over the pre-crisis period 2001-07.<sup>2</sup> Chart B provides the same information for the services industries.<sup>3</sup> During the pre-crisis period wage growth in Spain and Italy exceeded productivity growth across almost all manufacturing and services industries (shown above the 45 degree line in the charts), which is consistent with the persistent loss of competitiveness in both countries. In France and, to a lesser extent, in Germany, the picture varies greatly depending on the sector considered. In the manufacturing sector, wage growth was generally in line with or even below productivity growth, whereas that was not the case in a large number of services industries, especially in France.

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<sup>1</sup> Competitiveness in this box is understood in its narrow sense, that is, as unit labour cost or the nominal cost of labour per unit of product.

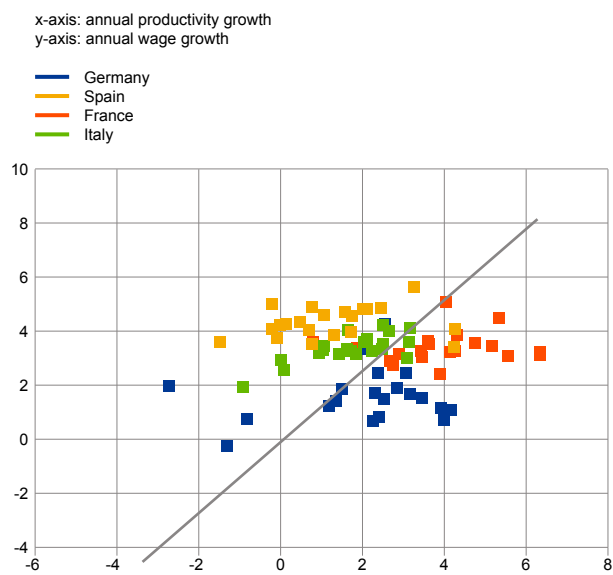
<sup>2</sup> The data used in this box come from the Competitiveness Research Network (CompNet), a network set up by the European System of Central Banks in 2012 to analyse competitiveness developments from a comprehensive and multi-dimensional perspective. One of the main outputs of the network is the construction of a micro-aggregated dataset featuring several competitiveness-related indicators for a large set of EU Member States/sectors and years. For more information, see Lopez-Garcia, P. and di Mauro, F., "Assessing European competitiveness: the new CompNet micro-based database", *Working Paper Series*, No 1764, ECB, Frankfurt am Main, March 2015.

<sup>3</sup> The data cover industries defined at the two-digit level according to the NACE Rev.2 system of sector classification, which corresponds to approximately 20 manufacturing industries and about 30 services industries.

### Chart A

#### Productivity and wage growth in two-digit manufacturing industries in Germany, Spain, France and Italy; 2001-07

(average year-on-year percentage changes)

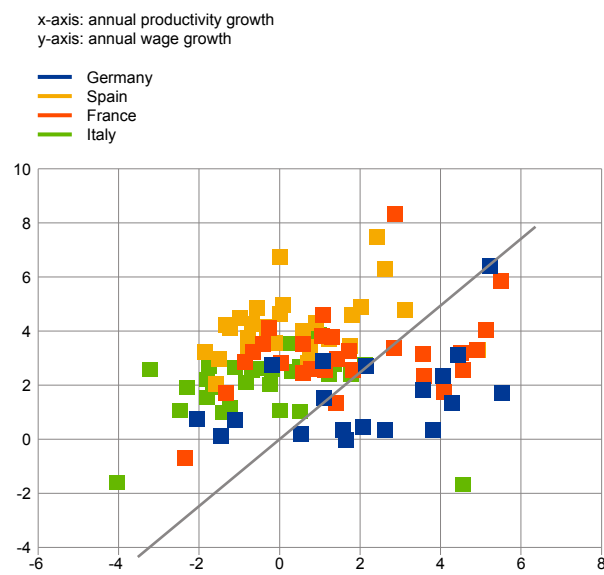


Sources: CompNet data and author's calculations.  
Notes: The wage growth rate at the sector level is computed as the weighted average growth in labour cost per employee for all firms with at least 20 employees operating in the corresponding industry. The same procedure is used for sector productivity growth. The sectors above the 45 degree line are those where wage growth exceeds productivity growth.

### Chart B

#### Productivity and wage growth in two-digit services industries in Germany, Spain, France and Italy; 2001-07

(average year-on-year percentage changes)



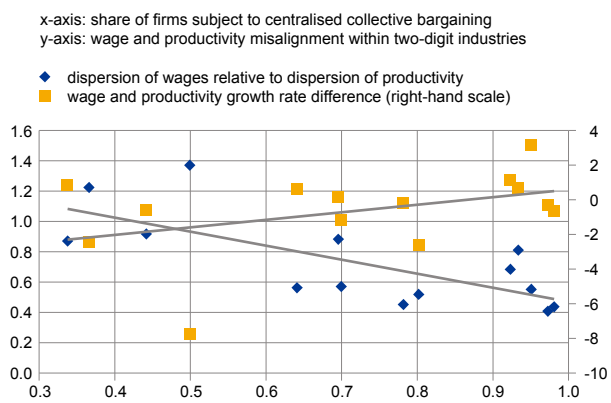
Sources: CompNet data and author's calculations.  
Notes: The wage growth rate at the sector level is computed as the weighted average growth in labour cost per employee for all firms with at least 20 employees operating in the corresponding industry. The same procedure is used for sector productivity growth. The sectors above the 45 degree line are those where wage growth exceeds productivity growth.

**As firms are very heterogeneous even within sectors, wage developments should differ across firms operating in the same sector insofar their productivity dynamics differ.** As Charts A and B suggest, there is a great deal of variation in the relationship between productivity growth and wage growth across sectors, which is often masked by aggregate measures. The use of sector developments to assess the extent of wage and productivity alignment across countries is, therefore, preferable to the use of country averages. What really matters for competitiveness, however, is that wage growth and productivity growth are aligned at the individual firm level. Sector-level evidence may be too aggregated to assess this, given the documented large degree of firm heterogeneity even within narrowly defined sectors. To give a sense of the magnitude of this heterogeneity, according to CompNet data, firms in the top 10% of the productivity distribution of a two-digit manufacturing industry are three to four times more productive than firms in the bottom 10%. This dispersion is even larger in services, with the ratio reaching five times more productive in certain countries. Given this large degree of heterogeneity, it is reasonable to expect different productivity developments and, therefore, different wage dynamics in firms within narrowly defined sectors. However, there is evidence that misalignments occur owing to the presence of rigidities in the labour market resulting from the design of labour market institutions (see also Box 4).

**The design of labour market institutions might prevent firm-level alignment of wage and productivity growth.** One example of such institutions is collective bargaining agreements signed at the sector, regional or national level. In those

## Chart C

### Wage and productivity misalignment and centralised collective bargaining in broad sectors; 2005-07



Sources: CompNet data, 2007 firm survey by the Wage Dynamics Network and author's calculations.

Notes: The dispersion is measured as the difference between the 80th decile and the 20th decile of the distribution of the variable in a given industry. Data are provided by CompNet and refer to firms with at least one employee in four euro area countries for which matching with Wage Dynamics Network data was possible, namely Spain, Italy, Austria and Portugal. Both misalignment measures refer to the period 2005-07. The share of firms subject to centralised bargaining refers to 2007.

agreements, wage growth is set according to the average productivity growth in the region or sector at best, or even according to the productivity growth of the largest (and normally more productive) firms. Firms with lower productivity growth have to comply with those agreements, which normally set the floor for wage increases. As a result, these firms will lose cost competitiveness. In the absence of compensatory measures to improve price and/or non-price competitiveness, this may imply that such firms may need to downsize in order to realign labour productivity with wages. Chart C shows the correlation between two measures of wage and productivity misalignment in a given country and sector and the share of firms subject to centralised collective agreements (at the national, sector or regional level) in the corresponding country and sector. Misalignment is measured, first, as the ratio of wage dispersion to productivity dispersion in the industry and, second, as the difference between the median wage growth rate and the median productivity growth rate. Both indicators refer to firms operating

in narrowly defined manufacturing and services industries.<sup>4</sup> The lower the ratio, the greater the misalignment – because it would imply that wages are similar despite large differences in terms of firm productivity – and the larger the difference between wage and productivity growth rates. Irrespective of the measure of misalignment used, Chart C delivers the same message: in countries or sectors where wages are not set by firms, the misalignment of wage and productivity developments is greater, and so will be the loss of cost competitiveness.

In summary, given the large degree of heterogeneity in the performance of firms within narrowly defined sectors, what really matters for cost competitiveness is not the alignment of average wage and productivity developments, but the consistency of wage and productivity growth at the firm level. This consistency may, however, be hampered by the design of some labour market institutions which do not take sufficient account of firm specificities.

<sup>4</sup> In both cases, misalignment is measured at the two-digit industry level and then aggregated to broader sectors (manufacturing, construction, wholesale and retail trade and other services) using value added weights to enable the data to be merged with Wage Dynamics Network data.

## Box 6

# The creation of competitiveness boards in the context of striving towards a genuine economic union

**On 21 October 2015 the European Commission adopted a communication on strengthening the EU governance framework<sup>1</sup> to follow up on the short-term proposals made in the Five Presidents' Report.<sup>2</sup>** This box focuses on the proposals that specifically relate to strengthening economic union. Economic union aims to ensure that national economic policies, through implementing necessary structural measures, are geared towards increasing the resilience of national economies and supporting the smooth functioning of Economic and Monetary Union (EMU) as a whole.<sup>3</sup> In its communication, the Commission announced improvements to how the European Semester process of policy coordination is applied; it also proposed a Council recommendation for the creation of national competitiveness boards in all euro area member countries.<sup>4</sup>

**The Commission intends to make the manner in which the European Semester is applied more transparent and to reinforce the “euro area dimension” of the process, with a view to promoting policies which ensure the smooth functioning of EMU.** In practice, it seems this will largely be reflected by more weight being given to the euro area recommendation which will be issued by the Council as guidance alongside the Annual Growth Survey for the country-specific recommendations, which are published later in the process. The Commission also announced that it will gradually suggest benchmarks across policy areas to foster the implementation of structural reforms at the national level, supporting convergence towards more resilient economic structures. In addition, it will strive to improve the implementation of the Macroeconomic Imbalance Procedure through greater transparency and appropriately following up any excessive imbalances that are identified. In this respect, the Commission has announced that it will publish a compendium which will explain in detail how the procedure is applied. Finally, the implementation of structural reforms will be promoted through better use of EU structural funds and technical assistance from the Commission services. Changes to the European Semester are already being implemented, starting with the recent publication of the euro area recommendation as suggested by the Commission, the Alert Mechanism Report and the Annual Growth Survey 2016. The proposed Council recommendation for the creation of competitiveness boards will need to be examined by the Council in the coming months, which offers some scope for the Commission proposal to be clarified and strengthened.

<sup>1</sup> European Commission, “On Steps Towards Completing Economic and Monetary Union”, 21 October 2015.

<sup>2</sup> The report, “Completing Europe’s Economic and Monetary Union”, is available at [http://ec.europa.eu/priorities/economic-monetary-union/docs/5-presidents-report\\_en.pdf](http://ec.europa.eu/priorities/economic-monetary-union/docs/5-presidents-report_en.pdf)

<sup>3</sup> With regard to financial, fiscal and political union, see the box entitled “Creation of a European Fiscal Board”, *Economic Bulletin*, Issue 7, ECB, 2015.

<sup>4</sup> Non-euro area EU countries are also encouraged to set up similar bodies.

**The proposed Council recommendation reflects the need for a renewed impetus for reforms, which are vital in a monetary union to strengthen economic resilience and ensure adequate capacity for economic adjustment.** The recent crisis has demonstrated that adverse competitiveness developments and structural rigidities increase countries' vulnerability and limit their ability to adapt to shocks. The EU's economic governance framework, however, has so far not induced sufficient implementation of national structural reforms. It was in this spirit that the Five Presidents' Report called for the establishment of competitiveness boards in all euro area countries, as the Commission is now proposing.

**National competitiveness boards can help improve the national ownership of structural reforms in the area of competitiveness.** To this end, the proposed Council recommendation aims to increase independent policy expertise at the national level and reinforce the policy dialogue between the EU and euro area member countries. For this to be effective, the Commission suggests ensuring that competitiveness boards are functionally independent and equipped with a broad mandate. According to the proposed Council recommendation, competitiveness boards should follow a comprehensive notion of competitiveness, covering cost and price dynamics as well as non-price factors. The latter in particular capture productivity drivers and considerations related to innovation and the attractiveness of the economy to businesses more generally.<sup>5</sup> Competitiveness boards would be tasked with conveying the relevant information to stakeholders involved in the wage-setting processes at the national level, while not interfering in the process itself. As regards their organisational setup, the proposed Council recommendation foresees that they should be independent from the government. Competitiveness boards should carry out their activities on a continuous basis, publishing their analysis and advice in an annual report. The proposed Council recommendation also clarifies that existing national bodies could take on the role of competitiveness board as long as they fulfil the requirements in terms of mandate and organisational setup.

**The proposed Council recommendation foresees that the Commission will coordinate the activities of the competitiveness boards.** Such coordination aims to support euro area-wide objectives; the Commission would consider input from the system of competitiveness boards, in the context of their annual reporting, when deciding on the steps to be taken under the governance framework.

**Some aspects could be reviewed to strengthen further the proposed Council recommendation.** As suggested by the Commission, the national competitiveness boards could indeed facilitate a better understanding of competitiveness developments and produce new impetus for implementing structural reforms, on the condition that they have a broad mandate and are fully independent. The Commission recommendation for the creation of competitiveness boards includes several important safeguards as regards their independence. However, currently it does not explicitly require the competitiveness boards to be able to communicate publicly beyond the publication of an annual report, even though this would be an essential element of their independence and commitment to transparency. It will

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<sup>5</sup> The recommendation remains open as to the range of data to be analysed. Depending on the type of analysis, such data could cover aggregate economy, sectoral or, where needed, firm-level data.

also need to be ensured that national competitiveness boards have full discretion as to which stakeholders they communicate with, at what time and how frequently, so they are able to react to national developments and initiatives proposed by national authorities and thereby have an impact on national debates. The legal basis and experience gained through setting up national fiscal councils serves as an important yardstick in this respect.

**In addition, on the concept of a euro area network of national competitiveness boards the proposed Council recommendation remains somewhat vague.** It will need to be ensured that such a network, as suggested in the Five Presidents' Report, is able to exchange best practices and deliver independent views on steps to be taken in the context of the EU macroeconomic governance framework.

**Overall, competitiveness boards could provide new impetus to the implementation of structural reforms in euro area countries, but the appropriate setup, both at the national and euro area levels, will be essential.** In addition, more far-reaching steps will be crucial to facilitating a genuine economic union. The Commission's proposals are a first step towards further improving the governance framework. However, one should not lose sight of the medium and long-term dimensions of completing EMU. A new process of convergence towards more resilient economic structures should be embarked upon, accompanied by a further sharing of sovereignty over economic and fiscal policies. This should include a gradual move from rules-based coordination towards joint decision-making.

## Box 7

# Review of draft budgetary plans for 2016

**On 17 November 2015 the European Commission released its opinions on the draft budgetary plans for 2016 of euro area countries not under a financial assistance programme.**<sup>1</sup> These opinions entail an assessment of the extent to which governments' plans meet the requirements of the Stability and Growth Pact (SGP) and follow up on the guidance the European Council provided in its country-specific recommendations for fiscal policies under the 2015 European Semester, as adopted by the Economic and Financial Affairs Council on 14 July 2015.<sup>2</sup>

**The Commission's assessment is that only five of the 16 draft budgetary plans are fully compliant with the SGP.** In its opinions the Commission assesses the plans of Germany, Estonia, Luxembourg, the Netherlands and Slovakia (all under the preventive arm) as being "compliant" with the provisions of the SGP, noting however that the Netherlands will depart considerably from its medium-term budgetary objective (MTO) in 2015-16 and Slovakia will make little progress towards reducing its still high structural deficit. The Commission regards seven countries' draft budgets as only "broadly compliant"<sup>3</sup>: Belgium, Ireland, Latvia, Malta, Slovenia and Finland under the preventive arm and France under the excessive deficit procedure (EDP). The budgetary plans of four countries run, in the opinion of the Commission, a "risk of non-compliance" with the SGP. This group includes Spain, which is still subject to an excessive deficit procedure with a deadline in 2016. Under the preventive arm it includes Italy, Austria and Lithuania, which exited their excessive deficit procedures in 2012 (Italy) and 2013 (Lithuania and Austria). The Commission calls on those countries whose plans are not fully compliant to take the necessary measures to ensure that their budgets comply with the provisions of the SGP. Risks of non-compliance with the SGP also exist in Portugal, which did not submit a draft budgetary plan by the mid-October deadline in the absence of a new government after general elections. The Eurogroup called for a codification of how to deal with early or late submissions of draft budgetary plans.

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<sup>1</sup> The draft budgetary plans had been issued by mid-October 2015 in line with Regulation (EU) No 473/2013 (part of the "Two-Pack"). The Spanish draft budgetary plan was sent to the Commission as early as 11 September 2015.

<sup>2</sup> See the box entitled "Country-specific recommendations for fiscal policies under the 2015 European Semester", *Economic Bulletin*, Issue 6, ECB, September 2015.

<sup>3</sup> The Commission opinions on countries assessed as being "broadly compliant" with the SGP do not fully reflect the differing degrees of compliance. In fact, for three countries under the preventive arm – Belgium, Malta and Slovenia (which would be under the preventive arm should the EDP be abrogated in a timely manner by the 2015 deadline) – the Commission forecast indicates clear risks of non-compliance, as the expenditure benchmark points to a significant deviation from the requirements and the structural balance pillar points to a deviation that is just below the significance threshold.



**This review of draft budgetary plans again revealed the increased complexity and lack of transparency of the fiscal surveillance framework, which led the Eurogroup, in its statement of 23 November 2015, to explicitly call upon the Commission to increase the transparency and predictability of the procedure.**

The complexity arises from the co-existence of several rules. Under the preventive arm of the SGP, the “Six-Pack” regulations of 2011 introduced – for well-founded reasons – the “expenditure benchmark” as an additional indicator of the fiscal effort. This indicator was designed to ensure that windfall revenues, which improve the structural balance, are not subsumed as fiscal effort but are entirely used for debt reduction. If the structural balance and the expenditure benchmark indicators send conflicting signals on compliance with the structural effort requirements under the SGP, the Commission conducts an “overall assessment” to conclude which of the two fiscal indicators it considers more appropriate for its concluding assessment. However, the manner in which this overall assessment is conducted is still not fully transparent, making it difficult to gauge whether it is applied in a consistent manner. Furthermore, the “freezing” of the adjustment requirements based on previous Commission forecast vintages can potentially distort the assessment of whether fiscal policies are compliant with the SGP.<sup>4</sup> While this method was introduced to ensure reliable ex-ante guidance for governments in light of the volatility of the output gap and structural balance estimates, it can lead to cross-country inconsistencies and even result in a country that is deviating significantly from its MTO being assessed as being at its MTO and fully compliant with the rules (as was the case with the Netherlands in this round of draft budgetary plans; see table).

**Furthermore, the structural reform and investment clause, as introduced by the Commission in January 2015, can substantially reduce structural effort requirements even for countries not at their MTO and with very high debt ratios.** For example, Italy was granted a reduction in its structural effort requirement for 2016 in the spring of 2015 through the application of the structural reform clause; the draft budgetary plan foresees an application for further leeway in the context of the structural and investment clause.<sup>5</sup> There are thus increasing inconsistencies between the structural effort requirements under the preventive arm and those under the debt rule for several countries, with the Commission forecast indicating significant deviations from the debt rule requirements for Belgium and Italy.<sup>6</sup>

**For countries under the excessive deficit procedure, an asymmetry arises from them being assessed as “broadly compliant” with the SGP if they fall short of their structural effort requirements but are nonetheless expected to meet the headline deficit targets.** In fact, such budgetary plans are risky as, if the country is identified, ex-post, as having missed the annual headline deficit targets as outlined in the Council recommendation, the Commission would have to recommend stepping up the EDP.

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<sup>4</sup> Most importantly, the “freezing” methodology foresees that the requirements for year  $t$  are set based on data from the European Commission’s spring forecast in  $t-1$ . However, the requirements based on the most favourable forecast vintage since  $t-1$  will prevail over the frozen requirements, for example if they indicate that the country has already achieved its MTO.

<sup>5</sup> The Commission has assessed Italy’s draft budgetary plan as being at risk of non-compliance with the SGP as a result of its shortfall in structural effort when compared with the Council’s recommendation from July 2015, and will review Italy’s eligibility for further flexibility under the SGP in the spring of 2016.

<sup>6</sup> See the box entitled “Flexibility within the Stability and Growth Pact”, *Economic Bulletin*, Issue 1, ECB, 2015.

**Table****2016 draft budgetary plans**

Commission opinion on compliance of 2016 draft budgetary plan with SGP	Medium-term budgetary objective (MTO)	Structural balance 2016 (European Commission 2015 autumn forecast)	Actual structural effort 2016 (European Commission 2015 autumn forecast)	2016 structural effort commitment under SGP (in percentage points)
<b>“Compliant”</b>				
Estonia (preventive arm)	0.0	0.2	-0.1	at MTO
Germany (preventive arm)	-0.5	0.7	-0.2	at MTO
Luxembourg (preventive arm)	0.5	0.9	0.2	at MTO
Netherlands (preventive arm)	-0.5	-1.4	-0.3	-0.2
Slovakia (preventive arm)	-0.5	-2.0	0.0	0.25
<b>“Broadly compliant”</b>				
Belgium (preventive arm)	0.75	-2.1	0.4	0.6
Finland (preventive arm)	-0.5	-1.5	0.2	0.5
Latvia (preventive arm)	-1.0	-1.9	0.2	0.3
Malta (preventive arm)	0.0	-1.7	0.4	0.6
France (EDP deadline 2017)	-0.4	-2.4	0.3	0.8
Ireland (EDP deadline 2015)	0.0	-2.1	0.8	0.6
Slovenia (EDP deadline 2015)	0.0	-2.5	0.2	0.6
<b>“Risk of non-compliance”</b>				
Austria (preventive arm)	-0.45	-1.0	-0.4	0.1
Italy (preventive arm)	0.0	-1.5	-0.5	0.1
Lithuania (preventive arm)	-1.0	-1.4	-0.2	0.1
Spain (EDP deadline 2016)	0.0	-2.6	-0.1	1.2
Portugal (EDP deadline 2015) <sup>1)</sup>	-0.5	-2.3	-0.5	0.6

Sources: European Commission and AMECO.

Notes: For countries subject to an EDP, the Commission assesses draft budgetary plans as being “broadly compliant” if the Commission’s forecast projects that the headline deficit targets will be achieved but there is a noticeable shortfall in fiscal effort compared with the recommended value, putting at risk compliance with the EDP recommendation. The Commission assesses countries under an EDP as being “at risk of non-compliance” if the Commission’s forecast for 2016 (subject to ex-post confirmation) could lead to the stepping up of the EDP as neither the recommended fiscal effort nor the recommended headline deficit target are forecast to be achieved. As for countries under the SGP’s preventive arm, the Commission assesses draft budgetary plans as “broadly compliant” if, according to the Commission’s forecast, the plan may result in some deviation from the MTO or the adjustment path towards it, but the shortfall relative to the requirement would not represent a significant deviation from the required adjustment. Deviations from the fiscal targets under the preventive arm are classified as “significant” if they exceed 0.5% of GDP in one year or on average 0.25% of GDP in two consecutive years. At the same time, member countries are assessed as being in compliance with the debt reduction benchmark “where applicable”. In turn, under the preventive arm, the Commission assesses draft budgetary plans as being “at risk of non-compliance with the SGP” if the Commission’s forecast projects a significant deviation from the MTO or the required adjustment path towards the MTO in 2016, and/or non-compliance with the debt reduction benchmark “where applicable”.  
1) Portugal did not submit a draft budgetary plan for 2016.

**The Commission’s opinions overall reflect the expectation that the structural effort in 2016 will likely continue to fall short of commitments under the SGP in many euro area countries.** On the one hand, this stems from a lack of progress towards countries’ MTOs under the preventive arm of the SGP. On the other hand, it relates to insufficient structural efforts under its corrective arm, the excessive deficit procedure. Notably, according to the Commission’s 2015 autumn forecast and measured as change in the structural balance, under the preventive arm countries assessed as not yet being at their MTO are forecast to loosen their fiscal stance, on average, by 0.2% of their GDP, even though the preventive arm would require a tightening of 0.3% of GDP.<sup>7</sup> At the same time, countries subject to an EDP are forecast, on average, to consolidate by 0.2% of GDP while their SGP commitments would require a fiscal effort of 0.9% of GDP. Meanwhile, countries that are assessed by the Commission as being at their MTO at the beginning of 2016 are planning to

<sup>7</sup> For two countries subject to the preventive arm (Belgium and Italy), the requirements under the debt rule are currently the binding constraint. According to the Commission opinions, the gap in terms of compliance with the debt rule in 2016 amounts to 1.5 percentage points of GDP for Belgium and 3.7 percentage points of GDP for Italy, far above their respective structural adjustment requirements in terms of convergence towards the MTO. For both countries, the Commission will reassess the need to open a debt-based EDP in spring 2016.

loosen their fiscal stance slightly in 2016, on average by 0.2 percentage points of GDP. This partly reflects the fact that Germany is using part of the buffers it has built up to deal with the budgetary costs of the ongoing influx of refugees.<sup>8</sup>

**The shortfalls in structural efforts are in line with an aggregate fiscal stance for the euro area that turns slightly expansionary next year.** When netting out the impact of the business cycle and the low interest rate environment, the change in the euro area cyclically adjusted primary balance turns negative, by 0.3% of GDP in 2016, according to the European Commission's 2015 autumn forecast.

**Finally, the Commission stresses that the composition of government expenditure remains insufficiently supportive of growth.** In particular, while the recent moves to reduce the tax burden on labour in a number of euro area countries go in the right direction, the composition of expenditure shows limited progress towards being more growth friendly, with capital expenditure still expected to decline as a share of GDP.

**On 23 November 2015 the Eurogroup called on those member countries whose plans run the risk of non-compliance with the rules of the preventive arm to take, in a timely manner, additional measures to address the risks regarding appropriate convergence towards their MTOs and their respect of the debt rule.** In turn, countries under the corrective arm of the SGP should ensure a timely correction of their excessive deficits and appropriate convergence towards their MTOs thereafter, as well as respecting the debt rule. In this respect, the Eurogroup reaffirmed the importance of structural efforts and adjustment (“bottom-up”) measures in the corrective arm, and recognised that “merely achieving headline targets may not be sufficient to ensure durable corrections of excessive deficits”. In line with this guidance on fiscal policies, Italy, Austria and Lithuania under the SGP's preventive arm, and Spain under its corrective arm, committed to take the measures needed to close the gaps identified by the Commission, thereby ensuring compliance with the SGP. Furthermore, the Eurogroup invited member countries whose draft budgetary plans are broadly compliant with the provisions of the SGP to ensure compliance with these provisions within the national budgetary process, and welcomed their commitment to take any necessary measures.

**The Eurogroup will assess the follow-up to the review of draft budgetary plans and countries' commitments in April 2016.** Notably, it calls on the Commission to increase the transparency and predictability of the review procedure. This is, indeed, required to ensure that the review of draft budgetary plans is an effective early warning mechanism to identify and address fiscal imbalances among euro area countries.

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<sup>8</sup> The Commission forecast expects these costs to be markedly lower than implied by the German draft budgetary plan.

## Articles

# What is behind the recent rebound in euro area employment?

*Euro area headcount employment has increased by over 2.2 million since the post-crisis low in the middle of 2013. This article investigates the sources and characteristics of this rebound, finding that it is heavily concentrated in some of the worst-hit labour markets, to a considerable extent in low productivity sectors. While most of the net employment created over recent quarters has been high-skilled, full-time and waged (as opposed to self-employment), slightly more than half is based on temporary contracts. Part-time work also features strongly in several economies. Women and older workers in particular have benefited from the increase, reflecting longer-term trends in euro area employment developments.*

## 1 Introduction

**After almost five years of virtually uninterrupted employment losses amounting to over 5.5 million people, euro area employment stabilised in the second quarter of 2013 and has since increased by over 2.2 million.**

Although this increase provides a much-needed boost to euro area labour markets, employment remains some 2% below its level before the recent economic crisis.

**This article investigates the sources of the increase in employment seen across the euro area since the post-crisis low in the middle of 2013, focusing in particular on developments in the largest euro area economies.** In the absence of up-to-date data on employment flows,<sup>1</sup> the article examines the features behind the recent rebound in employment levels, in order to provide insights into the changing composition of employment. Section 2 provides an overview of employment developments across the euro area, examining the drivers of the recent increases at the national level. Box 1 compares post-crisis employment developments in the euro area and the United States. Box 2 looks at the impact of recent structural reforms on employment developments in some of the labour markets worst hit by the economic crisis. Section 3 examines the sectoral distribution of the rebound in euro area employment. Section 4 examines the worker and job characteristics of the employment created. Section 5 concludes with policy recommendations.

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<sup>1</sup> The latest EU statistics directive foresees the release of these data by the end of 2017, though some Member States envisage earlier publication on a voluntary basis.

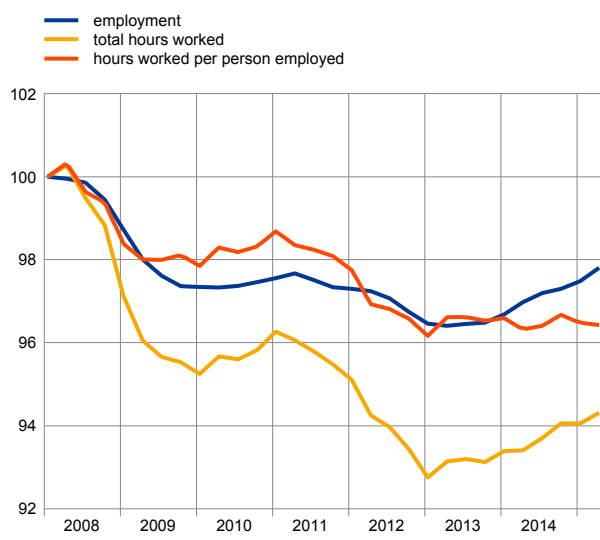
## 2 Recent euro area employment developments

**Over the course of the economic crisis between the second quarter of 2008 and the first quarter of 2013, euro area employment levels fell by almost 4% from their pre-crisis peak (see Chart 1), reflecting a decline of more than**

**Chart 1**

Euro area employment and hours worked since the start of the economic crisis

(index: Q1 2008=100)



Sources: Eurostat and ECB calculations.

**5.5 million in headcount employment.** Total hours worked fell even further, however, and remain around 6% below their pre-crisis peak more than seven years later, reflecting considerable labour shedding and a marked and persistent reduction in hours worked per person. The stronger decline in hours worked in part reflects the changing sectoral composition of employment (see Section 3).

**Since hitting a post-crisis low in the second quarter of 2013, euro area employment has shown continued quarter-on-quarter expansion: by the summer of 2015 an additional 2.2 million people were employed across the euro area.** If the current rates of employment growth (of just under 0.2% quarter on quarter since the start of the rebound) continue, euro area headcount could reach pre-crisis levels by the middle of 2018. Nevertheless, the employment recovery seen in the euro area to date has been considerably more muted than the marked expansion in US headcount (see Box 1).

### Box 1

A tale of two crises: recent developments in euro area and US employment

**The crisis took a heavy toll on employment levels in both the euro area and the United States.** At their worst points, the United States lost almost 8 million jobs (i.e. around 5.5% of the total prior to the recession), while euro area lost around 5.5 million (almost 4%). Chart A shows that the cyclical dynamics of euro area and US employment after the start of the 2008-09 recession (which began one quarter earlier in the United States than in the euro area) were rather different.<sup>2</sup> After a much swifter and stronger decline in the immediate aftermath of the recession, US employment has rebounded strongly since the start of 2011. More than 10 million jobs have been created, thus outstripping pre-crisis employment levels by almost 2%. In the euro area on the other hand, headcount employment remains 2% below pre-crisis levels, following a more protracted crisis period which included the global recession and a second euro area recession between the fourth quarter of 2011 and the first quarter of 2013. This is despite the addition of 2.2 million jobs observed since the employment trough, which was only reached in the middle of 2013.

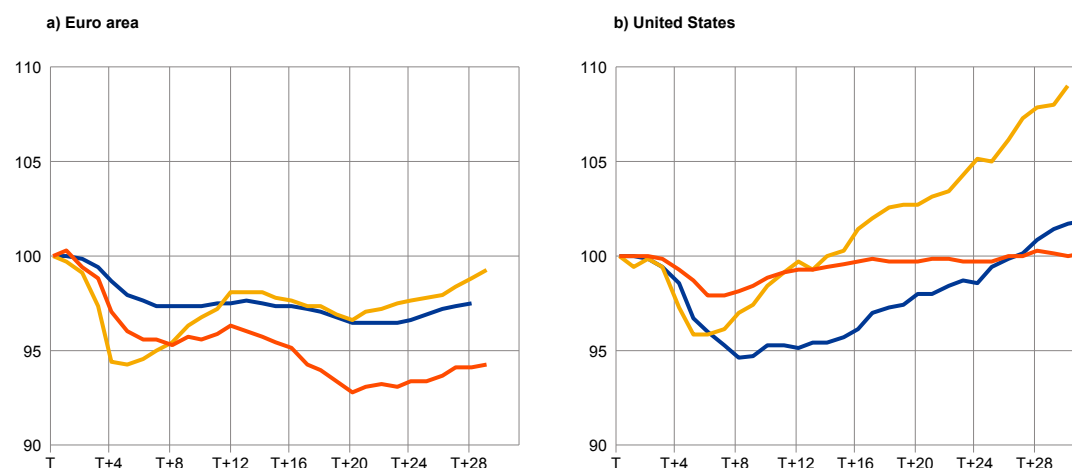
<sup>2</sup> US employment data refer to the total number of jobs held (and thus may include a small proportion of people with more than one job). For the euro area, data refer to total headcount employment.

## Chart A

### Development of employment and average weekly hours since the onset of the global recession in 2008

(pre-crisis peak in GDP=100; quarters since GDP peak (T))

— employment  
— GDP  
— average weekly hours per person employed



Sources: Eurostat, US Bureau of Labor Statistics and ECB staff calculations.

Notes: The euro area pre-crisis peak in GDP was in the first quarter of 2008 and the US peak in the fourth quarter of 2007. For the United States, average weekly hours per person refers to total private industries.

**The stronger labour market reaction seen in the United States is not a reflection of a sharper cyclical downturn.** In fact, real GDP declined more strongly in the euro area as a result of the global economic and financial crisis than in the United States, with output falling by 5.8% peak-to-trough in the euro area, compared with 4.2% in the United States. In part, the more muted headcount adjustment seen in the euro area, particularly over the course of the 2008-09 recession, is likely to reflect the greater emphasis placed on adjustments to average working hours.<sup>3</sup> Chart A shows that average weekly hours per person declined more sharply in the euro area than in the United States following the onset of the 2008-09 recession, and are still far below pre-crisis levels.

**Different labour cost dynamics in the euro area and the United States are likely to have contributed to the different developments in employment (see Chart B).** Euro area labour costs rose strongly in the first part of the crisis on the back of contracting productivity, reflecting stronger labour hoarding than in the United States. Wage growth in the euro area (as measured by the annual growth rate of compensation per employee<sup>4</sup>) has averaged around 1.9% since the onset of the global recession – albeit with some slowing in the rate of growth following the start of the second euro area recession in the fourth quarter of 2011 – compared with 2.3% in the United States. Taken together with the impact of adverse productivity developments as a result of

<sup>3</sup> In both economies, firms responded to the recession by reducing employees' average working hours. However, in the United States this effect was dwarfed by the much greater contribution of job shedding to the reduction in total hours worked, while in the euro area (particularly in the industrial sector) a greater proportion of the reduction in total hours worked was achieved through reductions to the average weekly hours of employees – often as a result of publicly-funded short-time working schemes. See also the box entitled "Labour market developments in the euro area and the United States since the beginning of the global financial crisis", *Monthly Bulletin*, ECB, August 2013.

<sup>4</sup> Profiles are similar regardless of whether persons employed or hours worked are used.

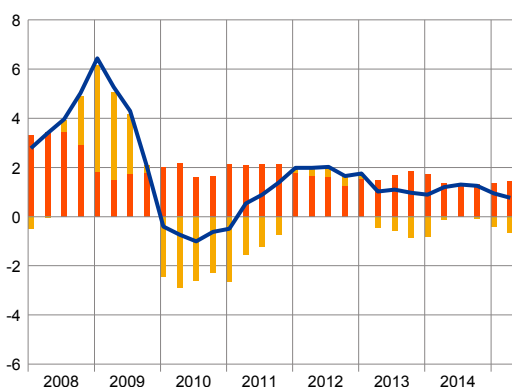
## Chart B

### Development of labour costs, productivity and compensation since the onset of the global recession in 2008

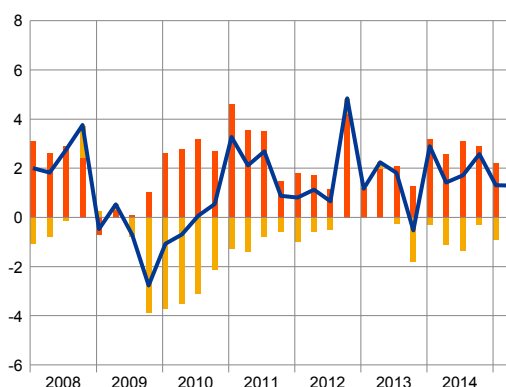
(annual percentage changes; inverted productivity data)

— unit labour costs  
— productivity per person employed  
— compensation per employee

a) Euro area



b) United States



Sources: Eurostat, US Bureau of Labor Statistics and ECB staff calculations.

Notes: The euro area pre-crisis peak in GDP was in the first quarter of 2008 and the US peak in the fourth quarter of 2007. Productivity growth is inverted, since positive productivity growth helps contain unit labour cost growth.

strong labour hoarding (particularly at the beginning of the crisis) however, this helps to explain the stronger overall growth in unit labour costs in the euro area since the onset of the crisis. Unit labour costs have increased on average by around 1.7% year-on-year in the euro area, compared with

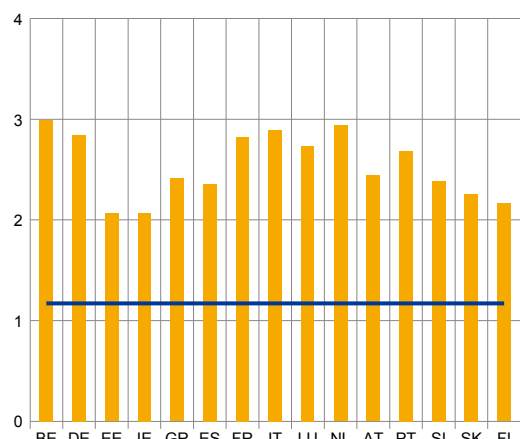
1.3% in the United States. Meanwhile, in the United States, stronger growth in compensation per employee has been offset to a greater extent than in the euro area by stronger productivity developments, which have helped contain growth in unit labour costs.

## Chart C

### Levels of employment protection

(six point scale, 0 = least restrictive, 6 = most restrictive)

— EPL for permanent workers in the United States  
— EPL for permanent workers across euro area countries



Sources: OECD and ECB calculations.

Notes: EPL summary indicators are from the 2013 update to the OECD/IDB Employment Protection Database. Data for Slovenia refer to 2014. Cyprus, Latvia, Lithuania and Malta are not shown, owing to a lack of EPL data. "EPL for permanent workers" refers to the degree of protection afforded to (and dismissal costs for) workers on permanent (open-ended) contracts against individual and collective dismissal. A similar picture emerges when coverage for temporary workers is considered (although the differential is greater still).

**Institutional factors are also likely to explain part of the markedly stronger rebound in employment seen in the United States since the global recession.** In addition to the widely-cited greater reliance on publicly-supported short-time working in the euro area, employment protection legislation (EPL) afforded to US workers is markedly weaker than that given to euro area workers. Using the OECD summary indicators of EPL for the 15 euro area countries for which data are available, Chart C shows that even the euro area countries with the lowest levels of EPL (Estonia, Ireland and Finland) offer considerably more protection to permanent workers than the United States. The EPL metric



of these three euro area countries falls just outside one standard deviation away from a synthetic euro area average, while for the United States it falls three standard deviations away.<sup>5</sup> EPL is likely to dampen the employment response during temporary downturns. However, if it impedes firm-level restructuring in the face of longer-lasting changes in activity or reduces firms' incentives to hire (owing to potentially high costs of adjustment<sup>6</sup>), EPL may prolong the adjustment period, resulting in a slower and lower rebound in aggregate employment.

**In the euro area, the stronger employment protection given to workers and broader reliance on job-saving short-time working schemes helped dampen the loss of employment during the early phase of the crisis.** However, high levels of EPL and the protracted use of short-time working in some euro area economies may have also slowed labour market adjustment in the euro area<sup>7</sup> and further hindered the structural reallocation of labour towards stronger growing firms and sectors in the recovery.<sup>8</sup>

**Overall, the typically more flexible US labour market helped to bring about considerably faster employment adjustment over the crisis and a more rapid rebound in employment growth than that seen in the euro area.** The swifter post-crisis adjustment in the United States appears to reflect the combination of the stronger and faster rebound in economic activity, proportionally smaller adjustments in hours worked per employee, the lower level of employment protection and a stronger contribution of productivity developments as a means of containing labour cost growth. Consequently, US employment is now 2% above its pre-crisis levels, weekly hours per person have started to rebound and labour cost growth remains contained.

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**Two large euro area economies – Germany and Spain – have contributed almost two-thirds to the total increase in euro area headcount since the second quarter of 2013 (see Chart 2 and Table 1), with increases in employment levels of 592,000 and 724,000 people respectively.** This reflects more than large country effects – over the same period, employment levels in France and Italy rose by only 190,000 and 127,000 people respectively, accounting for around 15% of the total euro area increase. The other countries contributed a further 252,000 in total, following strong cyclical rebounds in employment in many of the countries hardest hit by the crisis.

**A notable feature of the recent rebound has been the marked increases in employment in several of the formerly stressed economies, where employment had been particularly hard hit by the crisis.** While, in terms of net job creation, the

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<sup>5</sup> Similar results can also be arrived at using EPL for those employed on temporary contracts, despite considerable cross-country heterogeneity and marked efforts to improve employment flexibility in many euro area countries in recent years.

<sup>6</sup> See Blanchard, O. and Wolfers, J., "The Role of Shocks and Institutions in the Rise of European Unemployment: The Aggregate Evidence", *The Economic Journal*, Vol. 110, No 462, Conference Papers, 2000, pp. C1-C33.

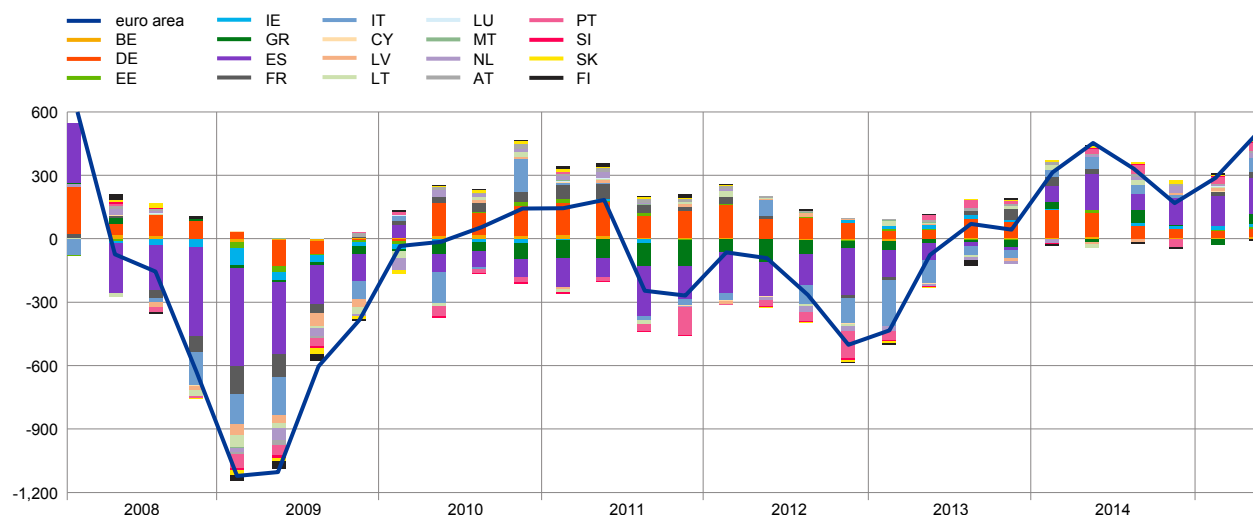
<sup>7</sup> As suggested by Mario Draghi in his speech, "Unemployment in the euro area" at the Federal Reserve Bank of Kansas City Economic Policy Symposium, Jackson Hole, 22 August 2014.

<sup>8</sup> See, for instance, Bartelsman, E.J., Gautier, P.A. and de Wind, J., "Employment Protection, Technology Choice, and Worker Allocation", *De Nederlandsche Bank Working Paper*, No 295, May 2011.

## Chart 2

### Evolution of euro area headcount and country contributions since the start of the economic crisis

(quarter-on-quarter changes in thousands)



Sources: Eurostat and ECB calculations.

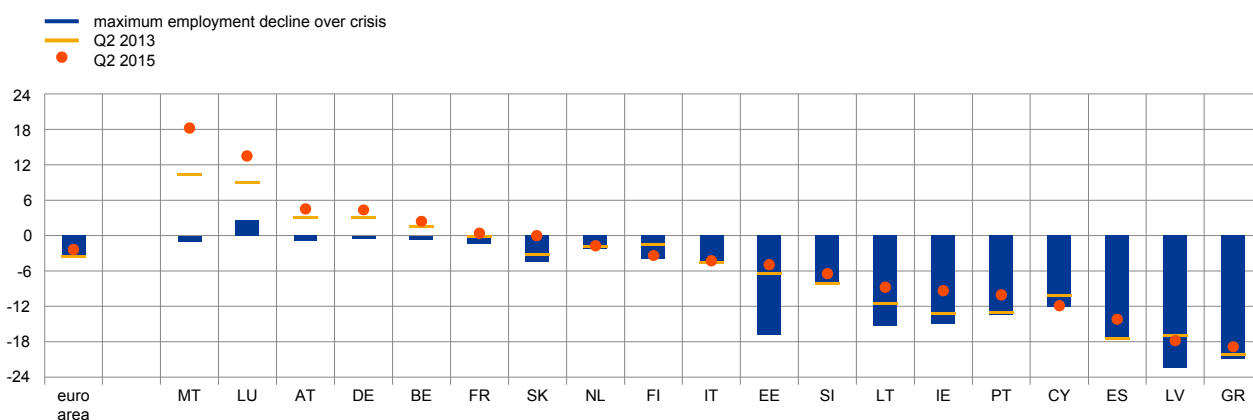
Note: The crisis begins after the euro area peak in GDP.

recent rebound in Spain appears particularly strong (generating just over one-third of the total euro area increase observed between the second quarters of 2013 and 2015),<sup>9</sup> the headcount increase offsets less than one-fifth of the total employment loss incurred over the course of the crisis in that economy (see Chart 3).<sup>10</sup>

## Chart 3

### Deviation of employment from its pre-crisis peak and changes since the second quarter of 2013

(percentage deviation from pre-crisis peak in employment; countries ranked by size of rebound by Q2 2015)



Sources: Eurostat and ECB calculations.

Notes: Pre-crisis peaks are country-specific and lie between the first quarter of 2007 and the second quarter of 2009, to allow for an earlier or lagged impact of crisis. The latest data for Luxembourg refer to the first quarter of 2015.

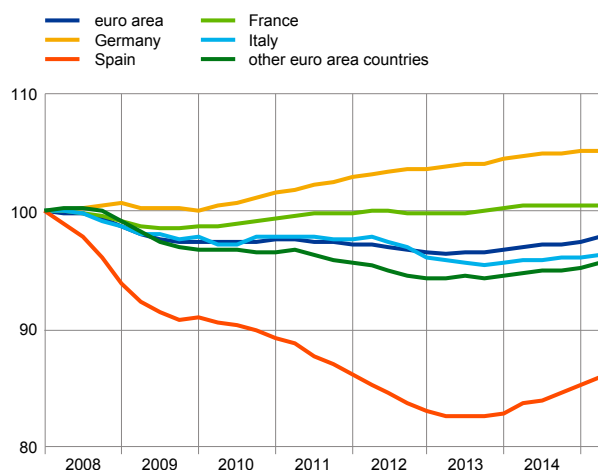
<sup>9</sup> As such, the recent Spanish expansion outstrips even the strong net increase observed in Germany over the same period, despite the considerable difference in size between the German and Spanish labour markets. Germany's labour force and working age population are around double the size of Spain's.

<sup>10</sup> See, for example, the article entitled "The impact of the economic crisis on euro area labour markets", *Monthly Bulletin*, ECB, October 2014.

## Chart 4

### Employment developments in selected euro area countries

(index: Q1 2008=100)



Sources: Eurostat and ECB calculations.

Note: The latest observations are for the second quarter of 2015.

**As well as Spain, the euro area employment rebound has also been boosted by significant headcount increases in Ireland, Greece and Portugal.** Together, these three economies have

contributed around 15% of the growth in euro area headcount seen since the second quarter of 2013. This magnitude is similar to the combined rise generated by the two much larger economies of France and Italy over this period, albeit following very different employment growth profiles over the course of the crisis.

**Chart 4 shows distinct employment profiles for the four largest euro area economies since the start of the crisis.**

Whereas German headcount has increased almost uninterrupted since the onset of the recession in 2008, Spain suffered ongoing job losses until the recent turnaround. Consequently, employment in Germany is now 5% above pre-crisis levels (outpaced only by Luxembourg and Malta), while in Spain it remains 15% below its pre-crisis peak despite the recent strong recovery. In France, headcount has

surpassed pre-crisis levels slightly, in large part supported by considerable increases in public sector employment (see Table 1). In Italy, the crisis has had a significantly more persistent adverse impact on total employment, which has remained largely unchanged, in contrast to both aggregate euro area developments and those in many of the smaller euro area economies.

## Box 2

### Labour market reforms in Ireland, Spain and Portugal

**This box takes stock of the main labour market reforms undertaken in Ireland, Spain and Portugal in the period 2011-14.** In all three countries – and particularly in Spain and Portugal, which had more rigid labour markets than Ireland – the reforms were designed to improve the functioning of labour markets and enhance employability.

**Although it is not yet possible to draw firm conclusions, these reforms may be linked to the recent positive labour market developments observed in these countries, as reflected in the swift reaction of employment and unemployment to GDP growth (see chart).**

Nevertheless, some of the pre-crisis problems in Spain and Portugal still largely persist, for example significant labour market segmentation, evidenced by the larger share of temporary jobs among the employment created. At the same time, the unemployment level remains very high. While the current signs of employment recovery are encouraging, further policy actions are needed in these countries to address the remaining rigidities and inefficiencies.

## Ireland

**The reform effort in Ireland over this period had two main aims: improving the efficiency of the wage-setting system and strengthening active labour market policies.**

**The reform of the collective bargaining system mostly concerned the revision of regulations setting minimum wages and working conditions in some sectors by means of Employment Regulation Orders (EROs) and Registered Employment Agreements (REAs).** The reform streamlined the number of sectoral minimum wages and limited their scope of application. It also increased the adaptability of the agreements to changing economic conditions. These reforms were overtaken by judicial developments in 2011 and 2013, when EROs and REAs were ruled unconstitutional.

**Active labour market policy measures were implemented with a view to improving activation of the unemployed and increasing employability.** The objectives of the measures included better profiling of the unemployed. A single point of contact for all employment and income support matters was created in 2012 and this scheme has since been gradually rolled out.

**Compared with Ireland, the reform efforts of Spain and Portugal encompassed a much larger spectrum of labour policies, which was necessary in order to address significantly greater inefficiencies and rigidities in the labour market.** In Spain and Portugal, labour market reforms were mainly aimed at improving hiring on open-ended contracts, increasing efficiency in the collective bargaining system, increasing working time flexibility, strengthening active labour market policies and reducing distortions in the unemployment benefits system.

## Spain

**Many measures designed to facilitate hiring on open-ended contracts were introduced in Spain.** The definition of fair dismissal for economic reasons was clarified, and collective dismissals were eased by eliminating prior administrative authorisation. Severance payments for those on permanent contracts were also reduced. The maximum duration of fixed-term contracts was reduced and a new type of employment contract with a one-year trial period was introduced. To address segmentation and improve hiring on open-ended contracts, temporary fiscal measures were introduced. In 2014 the government introduced a flat rate of €100 for employers' social security contributions for all new employees on permanent contracts, subject to net job creation. In 2015 a new measure replaced the flat rate, which exempts the first €500 earned from employers' social security contributions.

**Working time flexibility was improved by removing the administrative authorisation needed to reduce working time for technical, economic and organisational reasons.** Measures were also introduced to allow a more irregular distribution of working hours throughout the year.

**The reform of the collective bargaining system removed the favourability clause in higher-level collective agreements.** Firm-level collective agreements were given priority over any sectoral or regional agreements. The reform also widened the applicability of opt-out clauses from a sectoral agreement and discontinued the indefinite survival of collective agreements that had expired but were not renewed (*ultraactividad*).

**In terms of active labour market policies, job search conditionality was strengthened and access to apprenticeship contracts was made easier.** Temporary work agencies were allowed to work as recruitment and placement agencies. Financial assistance to the long-term unemployed was increased and activation enhanced. Employment measures were implemented to facilitate employment on open-ended contracts.

## Portugal

**The strictness of employment protection legislation was reduced by cutting severance payments and relaxing the definition of individual dismissal.** The definition of legal dismissal based on economic reasons and competency was also relaxed. Severance payments were reduced, with accrued rights being protected in order to limit potential negative effects of the reform during the crisis.

**The level of unemployment benefits was reduced, while coverage was increased in order to strengthen social safety nets.**

**Working time flexibility was enhanced by reducing overtime premiums and introducing time accounts agreed between employer and employee.** Working time was increased by eliminating four national holidays and three annual leave days, which were previously accumulated on the basis of a low absence record.

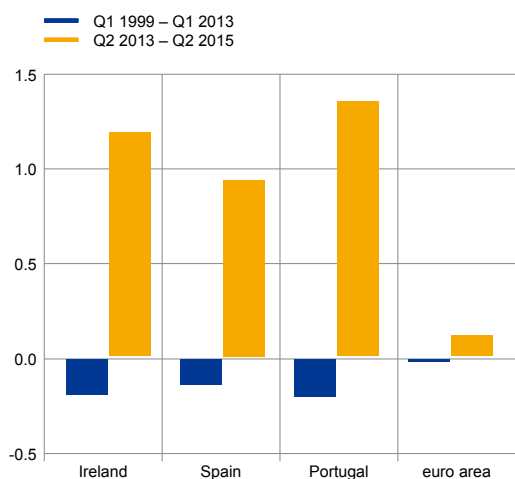
**Wage-setting measures were implemented in 2012 and 2014.** Extensions of collective agreements were limited in 2012 by the introduction of a representativeness criterion that had to be fulfilled for an agreement to be considered for extension. Other measures implemented in 2012 to promote collective bargaining at the firm level include the possibility for sectoral collective agreements to set out the conditions under which deviations from the agreement can occur at the firm level, and the widening of the scope for unions to delegate to works councils the possibility of concluding collective agreements. In 2014 the survival of collective agreements was shortened. The measures concerning extensions of collective agreements were partly reversed in 2014.

**Measures to revamp the role of public employment services and improve the effectiveness of active labour market policies were also implemented.** Training programmes were streamlined, focusing on short-term modules and covering more unemployed people. Hiring incentives were introduced and internship programmes were created to support the employment of young people.

## Chart

Residuals from the relationship between changes in the employment rate and GDP growth before and after the crisis

(residuals)



Sources: Eurostat and ECB calculations.

Note: Based on a static relationship between changes in the employment rate and percentage changes in GDP for the period between the first quarter of 1999 and the second quarter of 2015.

**Overall, these measures show that reform efforts in these three countries were significant, particularly in Spain and Portugal.**

It is likely that the implemented measures are having an impact on the pace of employment creation. The chart shows that the residual of a simple employment rate and GDP regression was largely positive on average between the second quarters of 2013 and 2015. While it is not possible to draw any firm conclusions from this partial analysis, the large positive residual could be linked to some extent to the impact of the reforms. At this point in time, what appears important is that implementation of reforms continues apace. The impact of labour market reforms should be significant in the medium term if further policy measures, in particular those which address segmentation and remaining distortions in wage setting, continue to be implemented in a credible and irreversible manner.

## 3 Sectoral drivers of the employment increase

**By far the largest sectoral contributor to the euro area's overall employment increase since 2013 has been the services sector.** The market services sector alone has added over 1.5 million to total euro area employment (see Table 1). The

**Table 1**

Breakdown of euro area net employment creation by sector and country from the second quarter of 2013 to the second quarter of 2015

(thousands)

	euro area	Germany	Spain	France	Italy	other euro area countries
Net change	2,158.0	592.0	724.0	190.0	127.0	525.0
as a percentage of the euro area increase	100.0	27.4	33.5	8.8	5.9	24.3
Industry excluding construction	68.3	58.0	90.0	-71.6	-39.4	31.3
Construction	-84.3	2.0	49.0	-81.3	-42.0	-12.0
Market services	1,541.6	317.0	458.0	118.6	116.0	532.0
of which:						
Trade and transport	623.8	128.0	302.0	17.1	-50.8	227.5
ICT services	69.0	-13.0	8.0	6.0	12.7	55.3
Finance and insurance	-63.1	-8.0	-11.0	8.3	-10.3	-42.1
Real estate	38.9	7.0	16.0	-4.1	7.7	12.3
Business services	873.0	203.0	143.0	91.3	156.7	279.0
Non-market services	441.9	206.0	102.0	190.2	-5.3	-51.0
Other services	151.9	21.0	35.0	20.1	66.9	8.9

Sources: Eurostat (national accounts data) and ECB calculations.

dominance of market services is also evident at the national level, with the four largest euro area economies all showing strong headcount increases in this sector. Within the market services sector, the expansion has been heavily concentrated in the larger “business services” and “trade and transport” segments, where activity typically expanded somewhat earlier and more strongly than in other segments. Moreover, at the sub-sectoral level, there appear to be further marked differences in the demand drivers of the recent strong employment growth in Spain compared with Germany and, to a lesser extent, France and Italy. Spain’s expansion is concentrated more in the consumer-driven trade and transport segment (a pattern also seen in Estonia, Greece, Latvia, Lithuania and Portugal over the recent rebound), while expansion in the other large economies looks to be tilted towards the business-led, professional, technical and support services sub-sectors. Meanwhile, the finance and insurance sector – which was hit particularly hard over the course of the crisis – continues to act as a drag on euro area employment growth. The majority of countries, including three of the four largest, had lower employment levels in this sector in the second quarter of 2015 than in the second quarter of 2013, despite some small improvements in some countries over recent quarters.

**The non-market services sector and the acyclical other services sector have also made significant contributions to the recent expansion of euro area employment.** Increases in the largely publicly-provided non-market services sector (which includes defence, health and education and other public sector activities) account for around 15% of the total euro area headcount expansion seen since the middle of 2013, and have been particularly large in Germany and France. The change is notably smaller in Spain and even negative in Italy (as well as in Cyprus, Latvia, the Netherlands, Portugal and Finland), reflecting a stronger degree of fiscal consolidation and a reduction in public sector employment in these economies.

**In the industrial sector (excluding construction), the headcount expansion seen over recent quarters marks a notable reversal of the longer-term downsizing seen before the crisis.** At the country level, the rebound reflects a strong resurgence in Spain, while even the more modest increases in Germany more than offset ongoing declines in other euro area economies (including France and Italy, but also Belgium, Latvia and Finland to a marked degree). The Spanish recovery reflects a notable, but likely short-lived, rebound in industrial hiring following heavy downsizing in manufacturing segments over the course of the crisis.

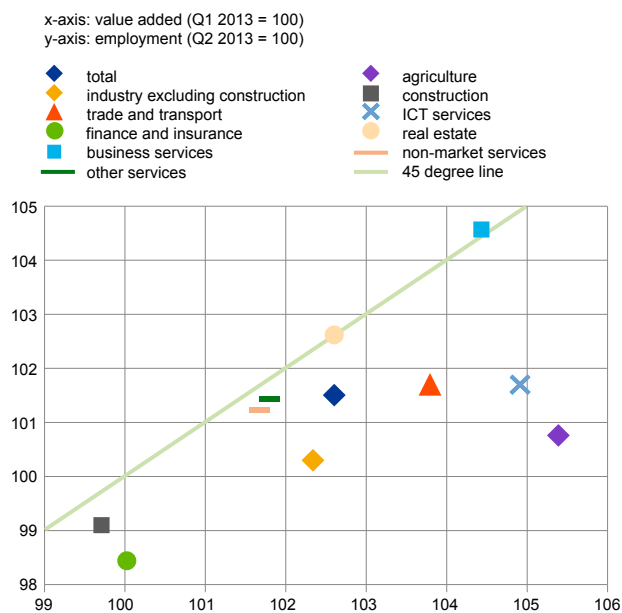
**Ongoing declines in employment in the construction sector at the euro area level obscure significant differences at the country level, partly related to the unwinding of earlier imbalances in the housing sector in some countries.** To some extent, recent developments reflect a correction of markedly different country-level employment dynamics since the onset of the recession in 2008. The sharp expansion in employment in the construction sector seen in Spain over recent months is likely in part to reflect a strong cyclical rebound following five years of virtually uninterrupted job losses. Over the course of the crisis, construction employment in Spain declined by almost two-thirds. To a lesser extent, similar patterns are evident in Estonia, Ireland, Latvia and Lithuania, following smaller overall declines in construction employment in these countries over the course of the crisis. Conversely, in Germany – where until recently construction employment



## Chart 5

### Cumulative growth in euro area value added and employment from the second quarter of 2013 to the second quarter of 2015

(index: value added in Q1 2013=100; employment in Q2 2013=100)



Sources: Eurostat and ECB calculations.

had continued to grow virtually uninterrupted after only a brief contraction in 2008 – a levelling-off means that by the middle of 2015, it was broadly unchanged from its 2013 level. Meanwhile, at the aggregate euro area level, ongoing job losses in construction in some countries (most notably Belgium, France and the Netherlands) have more than offset the recent Spanish employment rebound in this sector, albeit to a declining degree in recent quarters.

### The sectoral composition of the observed employment growth partly reflects the earlier and stronger growth in activity in the sectors which have driven the rebound.

Chart 5 shows the cumulative growth in sectoral activity (as measured by the increase in value added) between the post-crisis trough reached in 2013 and 2015, compared with cumulative employment growth over this period. Observations above 100 on the horizontal axis show sectors in which employment expanded (i.e. all sectors except construction, and finance and insurance, while employment in industry increased only modestly).

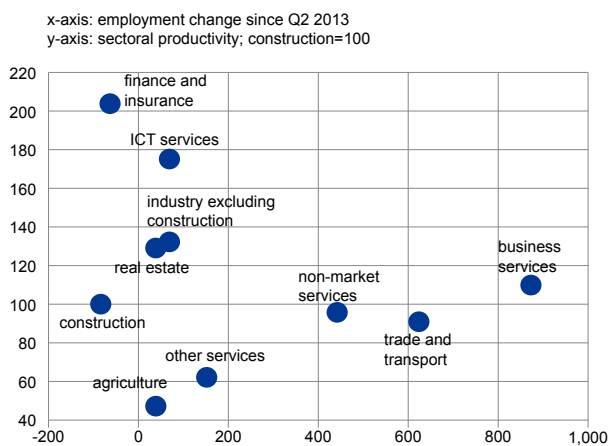
The heavy clustering of observations below the 45 degree line in part reflects an expected positive trend in

productivity growth, but is also likely to reflect the typical cyclical patterns seen in the aftermath of a recession – whereby firms may take some time to adjust their hiring strategies to match higher demand for output – as well as the reversal of earlier protracted periods of labour hoarding.

## Chart 6

### Changes in euro area employment by sector from the second quarter of 2013 to the second quarter of 2015 and relative productivity levels before the crisis

(change in employment in thousands; sectoral productivity index relative to construction)



Sources: Eurostat and ECB calculations.

Note: Productivity levels are averages for each sector between the first quarter of 2000 and the first quarter of 2008, according to data availability.

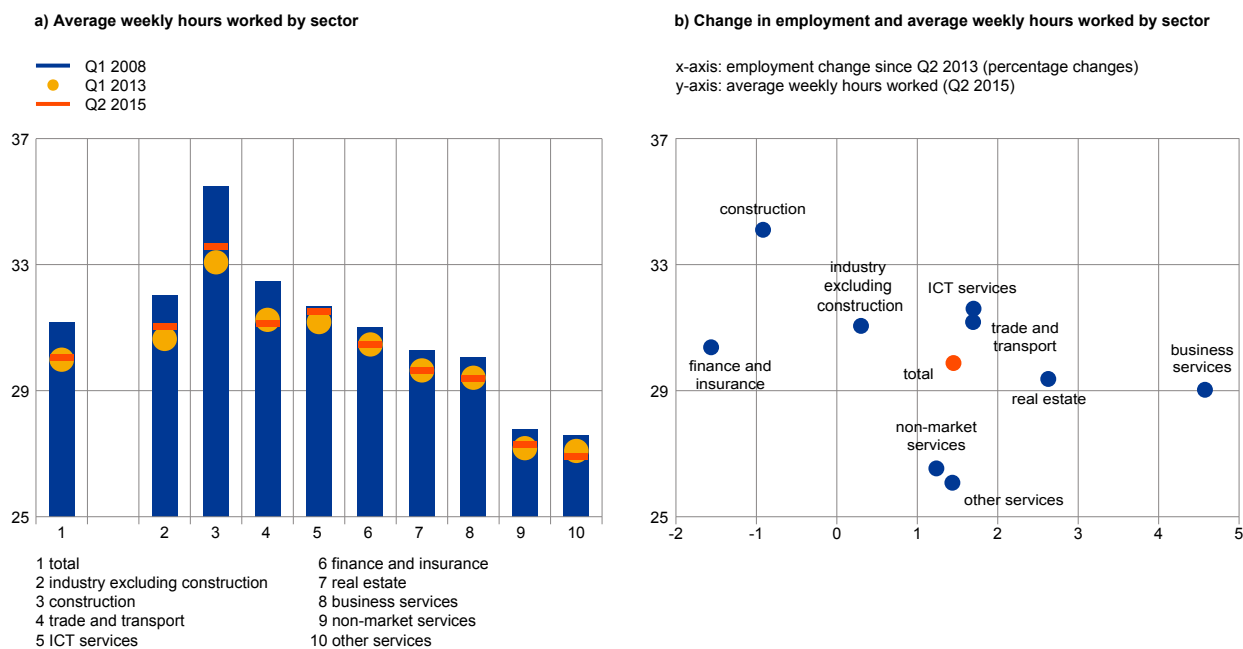
### From a broader perspective, much of the recent employment growth seen across the euro area appears to have been concentrated in sectors with relatively low productivity levels (see Chart 6).

Comparing the expansion in employment by sector since the second quarter of 2013 with average productivity levels before the crisis (in order to abstract from artificially high productivity levels due to significant labour shedding in some sectors), Chart 6 shows that little of the recent increase in euro area employment has been concentrated in higher productivity sectors such as finance and insurance, or information and communication technology (ICT) services. Similar patterns are evident across most euro area economies. This pattern, which in many respects reflects the secular trend of structural change (towards a larger share of employment in services sectors) common to many advanced industrial economies, offers little prospect of a swift turnaround in the euro area's low productivity growth.

## Chart 7

### Variation in euro area average weekly hours worked over the crisis and in the post-crisis period

(average weekly hours per person employed)



Sources: Eurostat and ECB calculations.

Notes: Average weekly hours worked are shown at their pre-crisis peak in the first quarter of 2008 and post-crisis trough in the first quarter of 2013. Data for the agriculture sector are not shown, owing to a low degree of data reliability.

**The significant sectoral changes observed over the course of the crisis also help to explain some of the marked reduction in total hours worked.** As Chart 7 shows, average weekly hours worked by people in employment fell markedly (by around 4%) over the crisis period and have barely recovered since. Reductions were particularly large in the construction sector, as well as in the industry excluding construction and trade and transport sectors, where average weekly hours were typically higher than in other sectors of the economy (see Chart 7, panel a). However, the recent rebound in employment has tended to be strongest in sectors where weekly hours are typically lower than average (see Chart 7, panel b), leading to an ongoing sluggish recovery in total hours worked across the economy (see Chart 1).

## 4 Worker and job characteristics behind the rebound in employment

**The majority of the net employment created across the euro area over the past two years has been concentrated among the higher-skilled, full-time and waged (as opposed to self-employed), with new temporary (i.e. limited duration) contracts slightly outnumbering permanent (i.e. open-ended) contracts – albeit with considerable cross-country heterogeneity (see Charts 8 to 13).** Women and older workers have been the main beneficiaries of the recent

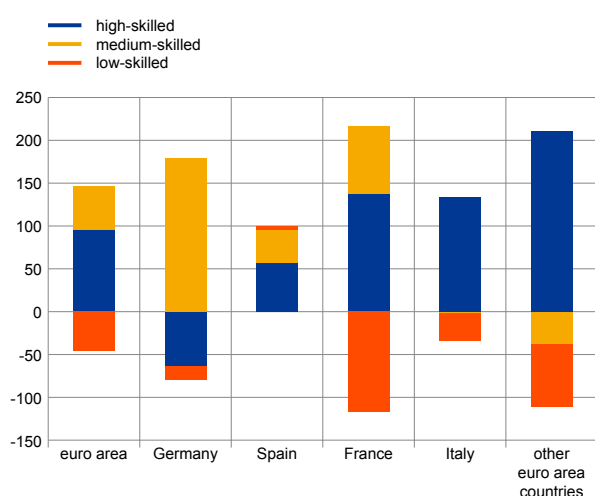
employment increases, in keeping with broader employment trends also seen before the crisis. Recent data from the EU Labour Force Survey suggest that over 2 million new high-skilled positions have been created over the past two years.<sup>11</sup> Full-time employment remains ahead of part-time employment in terms of net employment creation by a ratio of two to one. Temporary contracts are a larger contributor than permanent contracts to employment growth in the euro area (accounting for 52% and 48% of net employment creation respectively since the second quarter of 2013), but there are considerable cross-country differences. As discussed below, while

declining overall at the euro area level, self-employment has become an important engine of job growth in some euro area countries.

**Chart 8**

**Net employment creation between the second quarter of 2013 and the second quarter of 2015 by level of skill**

(percentages of total net employment increase)



Sources: Eurostat and ECB calculations.

Notes: Low, medium and high skill levels relate to the highest educational attainments of workers, where low-skilled refers to basic, if any, school-leaving qualifications; medium-skilled refers to higher secondary school qualifications (typically attained at ages 18-19); and high-skilled refers to tertiary (degree-level) qualifications.

**According to the latest EU Labour Force Survey, much of the net euro area employment created in recent quarters has been concentrated among the higher-skilled and tertiary-educated, with a (further) marked decline among those with few or basic school-leaving qualifications (see Chart 8).**

Increases in employment are strongly concentrated among the higher-skilled, often at the expense of the lower-skilled. This could be explained by a number of factors, not least ongoing structural changes in workplace demands necessitating higher skills as well as likely temporal variations in screening patterns among employers as skill levels increase among those seeking work.<sup>12</sup>

**Germany is an exception to the broader euro area trend, with net employment growth tilted more towards medium-skilled workers.** Recent

employment patterns observed in Germany thus appear

to contradict prevailing notions of a “hollowing out” of middle-skilled jobs.<sup>13</sup> However, they are likely in part to reflect the broader specialisation of the German economy in manufacturing (and thus a typically stronger reliance on intermediate craft and technician-level certification, as opposed to university-level qualifications), as well the greater prevalence of vocational education and training (via the dual system), which can provide an alternative entry route into many professional occupations in Germany.<sup>14</sup>

<sup>11</sup> Computed by applying the change in the shares of high, medium and lower-skilled workers between the second quarters of 2013 to 2015 to national accounts data on changes in employment levels.

<sup>12</sup> See, for example, Modestino, A.S., Shoag, D. and Ballance, J., “Upskilling: Do Employers Demand Greater Skill When Skilled Workers Are Plentiful?”, *Federal Reserve Bank of Boston Working Paper*, No 14-17, 2015.

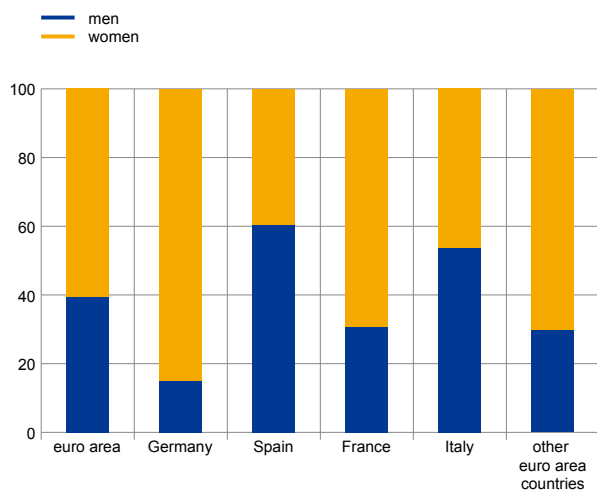
<sup>13</sup> See, for example, Acemoglu, D. and Autor, D., “Skills, Tasks and Technologies: Implications for Employment and Earnings,” *Handbook of Labor Economics*, Vol. 4, Part B, 2014, pp. 1043-1171.

<sup>14</sup> See Prais, S.J., *Productivity, education and skills: an international perspective*, Cambridge University Press, 1995, and Jarvis, V., O’Mahony, M. and Wessels, H., “Product Quality, Productivity and Competitiveness”, *NIESR Occasional Paper Series*, No 55, National Institute of Economic and Social Research, 2002.

**Chart 9**

Net employment creation between the second quarter of 2013 and the second quarter of 2015 by gender

(percentages of total net employment increase)

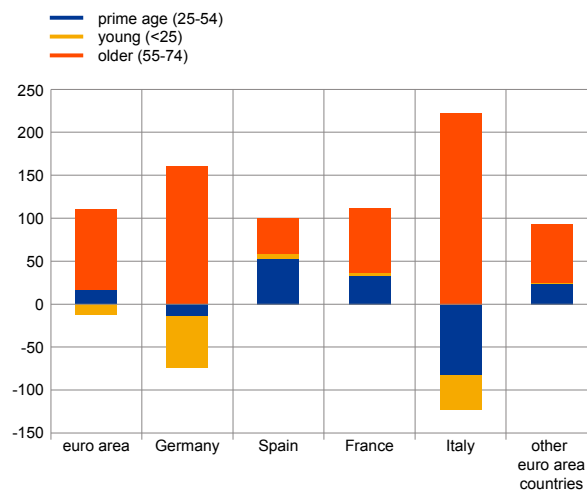


Sources: Eurostat and ECB calculations.

**Chart 10**

Net employment creation between the second quarter of 2013 and the second quarter of 2015 by age

(percentages of total net employment increase)



Sources: Eurostat and ECB calculations.

**The recent growth in employment has been heavily concentrated among women and older workers (see Charts 9 and 10), in part reflecting longer-term trends in employment growth also seen before the crisis.** The recently stronger increase in employment growth among women at the euro area level is broad-based and visible in all countries except Spain and Italy. In large part, this pattern reflects the ongoing secular rise in female participation in the labour market, which did not diminish over the crisis. It also in part reflects the concentration of recent employment growth in sectors which typically have higher proportions of women among headcount totals.

**Significant ongoing increases in the employment of older workers have been noted throughout the crisis.**<sup>15</sup> The trend reflects several underlying factors, not least earlier structural reforms to pension and benefits systems designed to delay retirement ages, as well as changes in the composition of the group of older workers, with rising educational levels increasing the returns from longer working lives. In addition, recent developments may also reflect increased financial needs following losses in household wealth or income as a result of the financial crisis. Moreover, while younger workers were certainly severely hit over the course of the crisis, it is unclear to what extent recent modest declines in euro area employment of under 25-year-olds primarily reflect broader labour demand trends towards increased skill requirements, as outlined above, or secular supply-side trends towards younger cohorts staying in education for longer.<sup>16</sup>

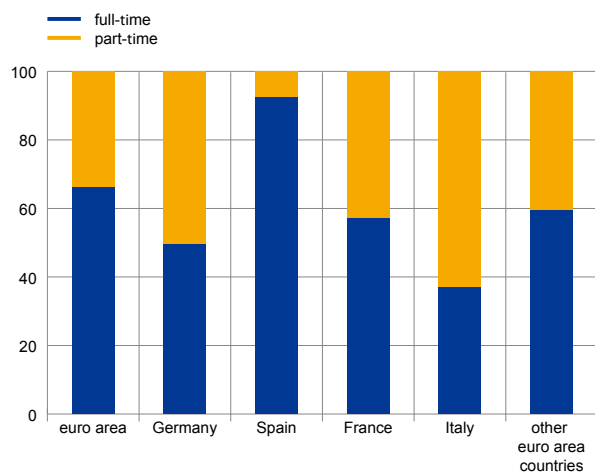
<sup>15</sup> See, for example, the 2012 Structural Issues Report entitled "Euro area labour markets and the crisis", ECB, October 2012 as well as "All in it together? The experience of different labour market groups following the crisis", in *OECD Employment Outlook 2013*, OECD.

<sup>16</sup> One conclusion which cannot be drawn from Chart 9 is that the low employment creation for young people seen over the past two years reflects a rationing of jobs in favour of older workers. Two recent careful microeconomic studies suggest that for many local labour markets, youth employment is often a complement to the additional employment of older workers. See, for instance, the box entitled "The lump of labour fallacy: a reassessment for the euro area" in "Comparisons and contrasts of the impact of the crisis on euro area labour markets", *Occasional Paper Series*, No 159, ECB, February 2015, and Böheim, R., "The effect of early retirement schemes on youth employment" *IZA World of Labor*, 2014: 70.

**Chart 11**

Net employment creation between the second quarter of 2013 and the second quarter of 2015: full and part-time employment

(percentages of total net employment increase)

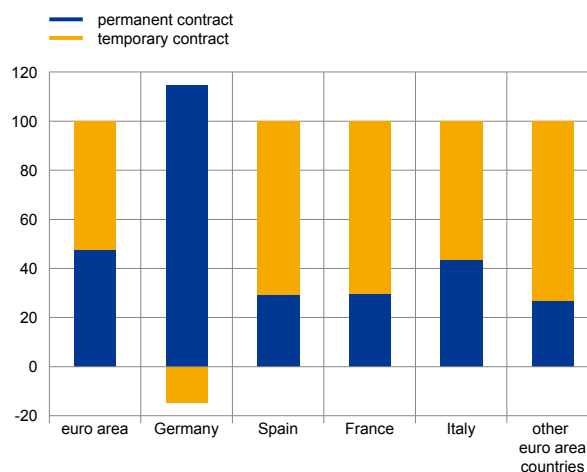


Sources: Eurostat and ECB calculations.

**Chart 12**

Net employment creation between the second quarter of 2013 and the second quarter of 2015 by contract status

(percentages of total net employment increase)



Sources: Eurostat and ECB calculations.

**66% of the recent net euro area employment growth is a result of full-time employment, although cross-country differences are substantial (see Chart 11).** The latest data show that between the second quarters of 2013 and 2015, full-time employment accounted for just under 50% of the total net headcount increase in Germany and 57% in France. In Spain it accounted for almost 93%, reflecting in part the proportionately stronger sectoral concentration of the employment increase in industry and construction. In Italy, around 63% of the (more modest) increase in headcount employment was due to a rise in part-time work. The proportions are notably higher in some countries – in particular Estonia, the Netherlands and Austria – where part-time job creation now contrasts with net declines in full-time jobs.

**Cross-country heterogeneity is particularly evident in the mix of permanent and temporary jobs within the increase in employment.** Chart 12 shows that while roughly equal proportions of the employment created over the period up to the second quarter of 2015 at the euro area level have been on permanent and temporary contracts (48% and 52% respectively), in France and Spain temporary contracts underlie around 70% of the net employment increases.<sup>17</sup> The share of temporary contracts in new employment also exceeds the euro area average in Greece and Italy. Meanwhile in Germany (as well as Ireland, Austria and, to a lesser extent, Latvia and Lithuania), the past two years' employment growth has led to a marked increase in the number of people on permanent contracts, and even a modest decline in the total number of those with temporary contracts.

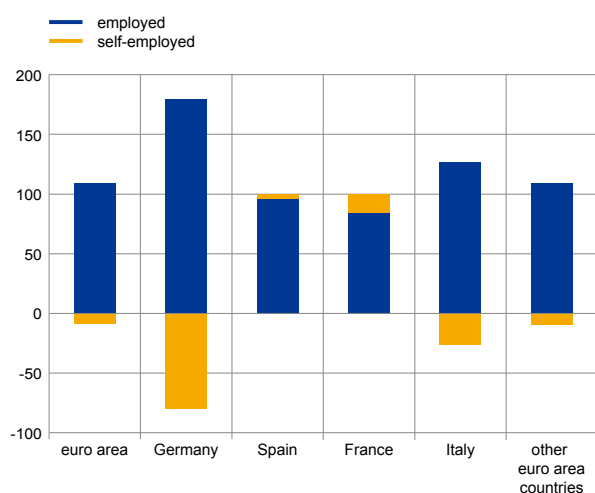
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<sup>17</sup> In Slovakia the proportion is higher still, with all of the net employment growth seen since the middle of 2013 due to temporary contracts. While temporary contracts remain considerably more prevalent in Spain than in many euro area countries – at just under 24% of total employment, compared with around 15% on average for the euro area – their usage remains considerably lower than before the crisis, when they covered around one-third of total employment.

### Chart 13

Net employment creation between the second quarter of 2013 and the second quarter of 2015: employment and self-employment

(percentages of total net employment increase)



Sources: Eurostat and ECB calculations.

**According to the latest EU Labour Force Survey, self-employment has made a modest contribution to the recent employment expansion in some euro area economies, but has declined over the course of the rebound at the euro area level.** While self-employment

has typically been slowly declining across the euro area since the onset of the recession in 2008 (to some extent reversing the modest positive growth seen before the crisis), it has made a positive contribution to the recent employment expansion in France, where job growth by other means has been relatively modest, generating around 15% of the total net employment creation since the second quarter of 2013. This is also the case, to a lesser extent, in Spain. In a number of countries – such as Belgium, Estonia, Ireland, the Netherlands and Slovenia – the proportions are higher, in part reflecting wider structural changes in business organisation (moves to outsourcing, freelancing, etc.), as well as changing labour market trends and demographics.<sup>18</sup> At the euro area level, however, offsetting declines in self-employment elsewhere

(particularly in Germany and, to a lesser extent, Italy) have resulted in an overall decline in self-employment over the course of the employment rebound.

## 5 Concluding remarks

**Following a largely domestically driven rebound in euro area GDP, euro area employment has increased by just over 2.2 million.** While this is not yet enough to make up for the large losses seen over the course of the protracted economic crisis, the gap with pre-crisis levels has halved and employment growth has been broadly spread, including to many of the countries hardest hit by the crisis.

**At the sectoral level, net employment growth has been heavily concentrated in the services sector.** This is particularly the case in the trade and transport, business services and non-market services sectors, where expansion in activity is typically more employment-rich than in other sectors. The sectoral dimension of the expansion also helps to explain the relatively lacklustre increase in total hours worked since the depths of the crisis, given typically lower average weekly hours per person in the sectors where employment growth has been strongest since the recovery.

<sup>18</sup> Similar trends have been noted in the United Kingdom, where self-employment growth has been particularly robust in recent years, a development attributed in part to cyclical factors and in part to demographic trends (older workers wishing to remain in the labour market). See, for instance, Sadomir, T., "Self-employment: what can we learn from recent developments?", *Quarterly Bulletin*, Bank of England, 2015 Q1.

**In terms of worker and job characteristics, most of the net employment growth has been in higher-skilled, full-time and waged employment (as opposed to self-employment), while a slightly larger proportion of the new employment created has been on temporary rather than permanent contracts.** Women and older workers have benefitted to a greater extent than other groups, largely reflecting longer-term trends in employment growth, which were already evident before the crisis.

**The greater prevalence of temporary contracts in Spain (and increasingly in France) underlines the strong dualities which characterise these labour markets.** Some argue that the widespread use of temporary contracts has a negative impact on workers' welfare and deters investment in human capital, thus limiting the possibilities for higher skill acquisition and longer-term productivity growth. Nevertheless, against a backdrop of elevated unemployment rates (which are still in excess of 20% in Spain), temporary contracts provide access to work and may offer entry routes to more permanent employment at a later stage.

**While the increase in euro area headcount employment over the past two years has been considerable, it remains somewhat behind the significant expansion in employment seen in the United States.** In part, this is likely to reflect the more flexible US labour market, which was also responsible for the considerably stronger and faster employment adjustment over the crisis period. The lower increase seen in the euro area (and the more protracted adjustment) is likely to reflect the weaker rebound in economic activity compared with pre-crisis levels than in the United States, the higher degree of employment protection and a weaker contribution of productivity developments as a means of containing unit labour cost growth. This has hampered restructuring and the reallocation of labour to faster-growing sectors and firms. As a result, euro area employment levels remain some way below their pre-crisis peak, while the number of US jobs now surpasses pre-crisis levels.



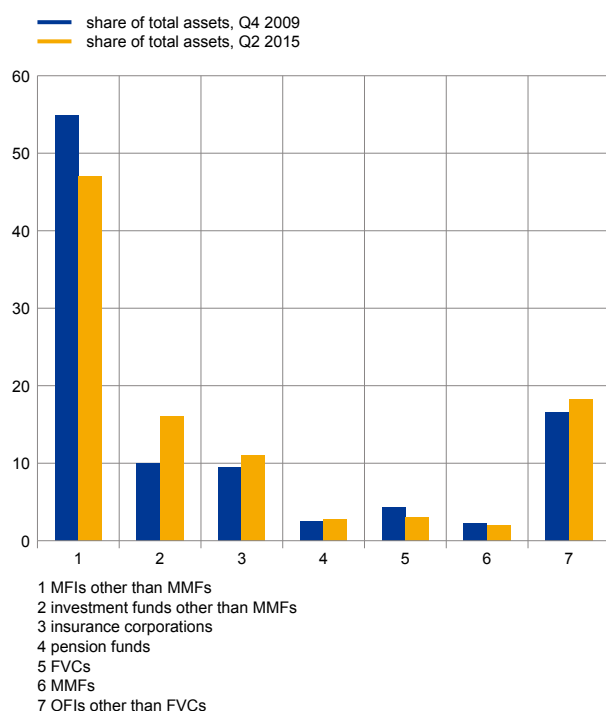
# New features in monetary and financial statistics

The ECB has recently published substantially enhanced monetary and financial statistics. The enhancements were triggered by two main factors. First, as financial innovation has changed the financial landscape in Europe, policy-makers have created additional demands for information. Second, new requirements have arisen from the adoption of the European System of Accounts 2010 (ESA 2010), an update of the statistical standards which constitute the methodological framework for the financial and non-financial sector accounts in Europe. This article gives some insights into the new features and provides examples of the practical relevance of the enhanced statistics.

## 1 Introduction

**Chart 1**  
Euro area financial sectors' share of total assets

(percentages based on outstanding amounts)



Source: ECB.

Since it was established, the ECB has compiled monetary and financial statistics that accurately represent the most recent monetary and financial developments and changes in the financial system.<sup>1</sup>

These statistics are compiled with the aim of acquiring a comprehensive and detailed picture of euro area financial sectors in order to support the ECB's monetary policy and macroprudential functions.

The structure of the financial system is evolving as a result of financial innovation and the arrival of new participants and products, so the definitions and collection of data are updated regularly. Chart 1 shows the change in relative importance of financial sectors in the euro area. While the share of monetary financial institutions (MFIs) has somewhat declined, they still accounted for approximately half of the balance sheet of the euro area financial sector at the end of June 2015. The importance of financial vehicle corporations (FVCs) has also declined, which is related to the lower level of activity in the securitisation market. By contrast, investment funds have gained in relative importance, representing one-sixth of the financial system.

<sup>1</sup> In most cases, the collection of monetary and financial statistics is based on ECB regulations addressed to the financial industry, namely Regulations ECB/2013/33 (statistical requirements for MFI balance sheet items), ECB/2013/34 (MFI interest rates), ECB/2013/38 (investment funds), ECB/2013/39 (post office giro institutions) and ECB/2013/40 (financial vehicle corporations).

**The recent publication of enhanced monetary and financial statistics based on the ESA 2010 was an important milestone in this update process.**

The enhancement of these statistics, and in particular their reporting frameworks, is the result of a process that started in 2012, involving statisticians, policy-makers, analysts and the financial industry. The close involvement of the latter two groups meant that a balance was able to be reached between the benefits of a sound economic analysis for each dataset and the cost of reporting and managing additional information.

**The article is organised according to the different types of monetary and financial statistics.** It deals with MFI balance sheets (Section 2), bank interest rates (Section 3), investment funds (Section 4), financial vehicle corporations (Section 5) and securities issues (Section 6). Section 7 concludes.

## 2 MFI balance sheets

**MFI balance sheet statistics contribute in several ways to supporting financial stability and monetary analysis.** Monthly developments are comprehensively analysed owing to the relationship between monetary growth and inflation over the medium to long term. Since banks represent the most important source of financing for the non-financial private sector (including non-financial corporations and households) in the euro area, MFI balance sheet data provide timely information on potential changes in financing available to the real economy. Balance sheet data collected from banks and other financial institutions (OFIs) are also incorporated into the euro area quarterly financial accounts, which provide an overview of the financing, financial investment and balance sheet situation by institutional sector.

**As of July 2015 the data released on MFI balance sheet statistics have been enhanced by including new breakdowns.** All new breakdowns are reflected in the aggregated balance sheet of the euro area MFI sector.

**The breakdown of balance sheet items by counterpart sector has been extended so that sectors are now consistently distinguished.** These sectors include insurance corporations, pension funds, non-money market fund (MMF) investment funds, central banks, other deposit-taking corporations and other financial institutions. In turn, the shares/units issued by investment funds are identifiable within equity assets. These new breakdowns are fully aligned with the ESA 2010. Further breakdowns comprise the identification of MFI intra-group positions in deposits and loans, loans to general government and FVCs by original maturity, holdings of debt securities issued by general government with an original maturity of up to one year, and financial derivatives and accrued interest on loans and deposits if they are recorded within “remaining assets” and “remaining liabilities”. Table 1 summarises these new breakdowns.

**Table 1**  
New MFI balance sheet items

Frequency	Item	Description	Counterpart sector	
Monthly	Deposits and loans	Breakdown of counterparts by MFI sub-sector	Central bank Other deposit-taking corporations	
		Identification of intra-group positions for other deposit-taking corporations	Other deposit-taking corporations	
	Deposits, repurchase agreements and loans	Identification of non-MMF investment funds	Non-MMF investment funds Other financial institutions	
		Separate identification of insurance corporations and pension funds	Insurance corporations Pension funds	
	Loans to general government and FVCs	Breakdown by original maturity	General government FVCs	
		Up to one year		
		Over one and up to five years Over five years		
	Holdings of government debt securities by original maturity	Identification of government debt securities with an original maturity of up to one year	General government	
	Holdings of non-MMF investment fund shares/units and equities	Separate categories previously included in "shares and other equities"	Non-MMF investment funds MFIs Non-MFIs Non-euro area residents	
	Loans adjusted for sales and securitisation (new method)	Outstanding amounts and financial transactions	General government Non-MMF investment funds Insurance corporations Pension funds Non-financial corporations Households	
Quarterly	Deposits and loans	Sector breakdown of intra-euro area positions vis-à-vis each euro area country	General government Non-MMF investment funds Insurance corporations Pension funds Other financial institutions Non-financial corporations Households	
		Holdings of debt securities	Identification of other financial institutions	Other financial institutions
			Identification of insurance corporations	Insurance corporations
		Holdings of equities	Identification of other financial institutions	Other financial institutions
			Identification of insurance corporations and pension funds	Insurance corporations Pension funds
		Financial derivatives	Identification of positions, if recorded within remaining assets/liabilities	-
	Accrued interest on loans/deposits	Identification of positions, if recorded within remaining assets/liabilities	-	

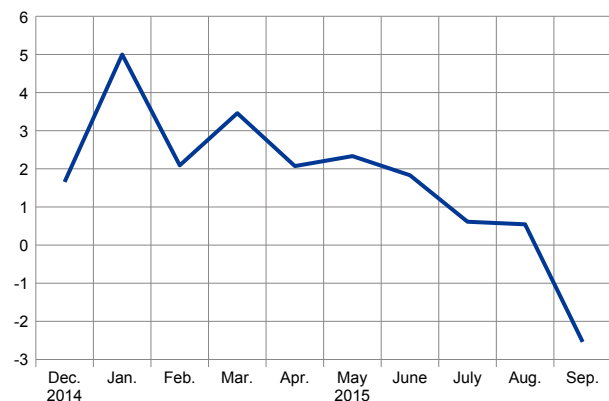
**One prominent feature of the new statistics is that they facilitate a more comprehensive view of lending to the real economy originated by euro area banks.** Specifically, this includes new data on positions and transactions (i.e. loan repayments by borrowers) for loans that have been derecognised from the balance sheets of MFIs owing to sales or securitisation. These data have been used to enhance the loan series adjusted for sales and securitisation, which in turn increases the comparability of growth rates across countries.<sup>2</sup>

<sup>2</sup> See the box entitled "New data on loans to the private sector adjusted for sales and securitisation", *Economic Bulletin*, Issue 7, ECB, November 2015.

**Chart 2**

Net purchases of euro area non-MMF investment fund shares by MFIs excluding the Eurosystem

(financial transactions; EUR billions)

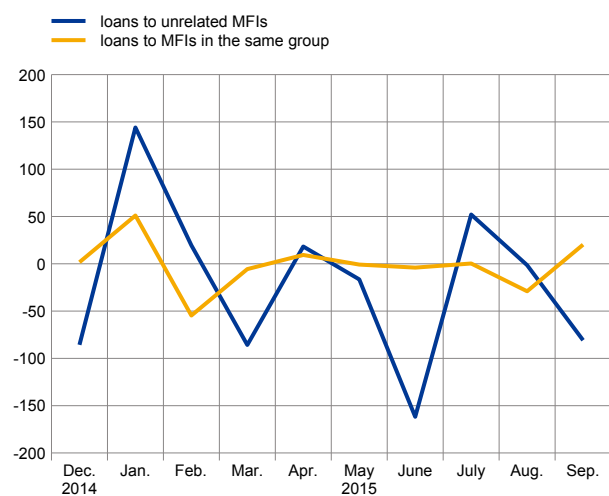


Source: ECB.

**Chart 3**

Loans by euro area MFIs to other euro area MFIs

(financial transactions; EUR billions)



Source: ECB.

**A second prominent feature relates to the identification of investment fund shares (other than MMFs) within MFI assets.**

This means that the extent to which MFIs have diversified their portfolios in fund shares/units can be assessed. Chart 2 shows MFI purchases of resident investment fund shares. From December 2014 to August 2015 MFIs recorded systematic net purchases of investment fund shares, which were performed in the context of very low interest rates. This may indicate that MFIs diversified their portfolios in a search for higher yields and provide evidence of portfolio rebalancing as triggered by the Eurosystem's asset purchase programme (APP). In addition, this breakdown allows the separate monitoring of the deposits of investment funds, which are likely to be considerably affected by the APP.

**A third prominent feature of the new statistics relates to intra-group positions of MFIs.**

From the assets/liabilities of MFIs (excluding the Eurosystem), it is now possible to identify positions in loans/deposits with MFIs belonging to the same corporate group. At the end of 2014 intra-MFI positions represented around half of the total loans/deposits of MFIs vis-à-vis other MFIs. From December 2014 to September 2015 cumulated transactions with MFIs belonging to the same group contributed €12 billion to a decrease in positions, while cumulated transactions with unrelated MFIs contributed €198 billion (see the corresponding monthly transactions in Chart 3). This new breakdown allows intra-group transactions and transactions with unrelated MFIs to be monitored separately; these may exhibit very different dynamics, especially in periods of stress. Consequently, the functioning of interbank markets and the pass-through of Eurosystem liquidity within banking groups can be analysed.

### 3 Bank interest rates

**Bank interest rate statistics provide essential input to monetary analysis.** They provide information on interest rates applied by banks to deposits and loans vis-à-vis households and corporations. In particular, the statistics on new business comprise information on interest rates laid down in new agreements between banks and their customers. They reflect the supply and demand conditions in the deposit and loan markets at the time of the agreement. These statistics enable an assessment of the pass-through of changes in policy rates to the lending and deposit rates faced

by households and corporations. They also help with the identification of possible fragmentation in the bank lending and deposit markets, especially during crisis periods, thus allowing policy-makers to implement targeted measures to improve the functioning of monetary policy transmission. In addition, changes in bank interest rates affect the cost of capital, which influences households' and corporations' investment decisions and their substitution between current and future consumption. Bank interest rates on outstanding amounts complement the data collected under the MFI balance sheet statistics framework and support the analysis of income effects since changes in bank interest rates affect the interest paid or received by households and corporations, which has an impact on their disposable income. Bank interest rate statistics also allow deposit-loan margins to be monitored. Finally, these statistics provide information about the degree of integration of European financial markets, thereby allowing consumers to compare the rates charged and paid by banks across countries.

**The provision as of reference period December 2014 of additional information on renegotiated loans enables an important gap to be closed in the understanding of interest rates applied to new business.<sup>3</sup>** This has been achieved by introducing new indicators referring to the renegotiation of loans to households (broken down by purpose of the loan) and corporations. Together with the existing indicators on new business, these data allow the amount of the gross flow of new loans to households and corporations to be estimated.

**Bank interest rate statistics on outstanding amounts have been enhanced to facilitate better analysis of the impact of policy changes on the interest income of banks and the interest payments of households and corporations.** The new indicators provide detailed information on interest rates on loans, broken

**Table 2**  
New indicators in bank interest rate statistics

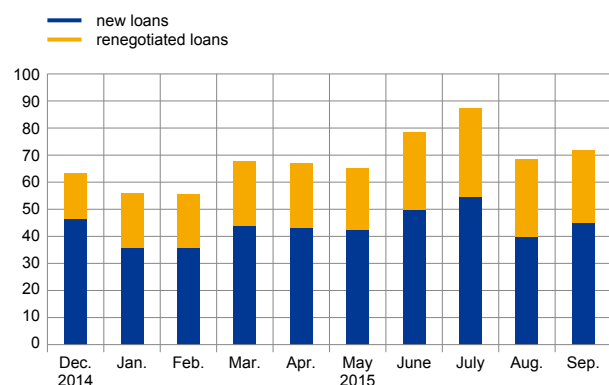
Item	Counterpart sector	Maturity breakdowns
Loans, interest rates on outstanding amounts	<ul style="list-style-type: none"> <li>- Households</li> <li>- Corporations</li> </ul>	With an original maturity of: <ul style="list-style-type: none"> <li>- over one year</li> <li>- over one year and a residual maturity of up to one year</li> <li>- over one year, a residual maturity of over one year and an interest rate reset in the next 12 months</li> <li>- over two years</li> <li>- over two years and a residual maturity of up to two years</li> <li>- over two years, a residual maturity of over two years and an interest rate reset in the next 24 months</li> </ul>
Item	Counterpart sector	Breakdowns by purpose
Renegotiated loans, business volumes and interest rates	<ul style="list-style-type: none"> <li>- Households</li> <li>- Corporations</li> </ul>	<ul style="list-style-type: none"> <li>- Total (corporations)</li> <li>- For consumption (households)</li> <li>- For house purchase (households)</li> <li>- For other purposes (households)</li> </ul>

<sup>3</sup> For the purpose of bank interest rate statistics, "new business" is defined as any new agreement between the customer and the bank. New agreements comprise all financial contracts that specify for the first time the interest rate of the deposit or loan, and all renegotiations of existing deposit and loan contracts, where renegotiation refers to the active involvement of the customer in adjusting the terms and conditions of an existing loan or deposit contract. Thus, for instance, a rise or fall of a variable interest rate in the sense of an automatic adjustment of the interest rate performed by the bank is not a new agreement and would not therefore be recorded in bank interest rate statistics on new business.

**Chart 4**

**New business loans to euro area households for house purchase**

(new business volume; EUR billions)

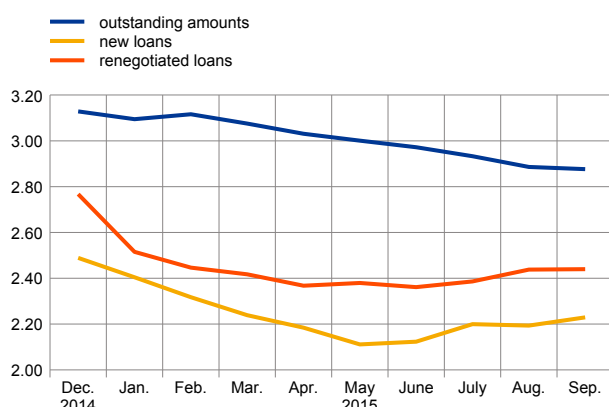


Source: ECB.

**Chart 5**

**Interest rates on outstanding amounts and new business loans to euro area households for house purchase**

(percentages per annum excluding charges)



Source: ECB.

down by original and residual maturity, as well as the next interest rate reset. These data complement the corresponding loan amounts collected under the MFI balance sheet statistics framework, providing information with which to measure the potential impact of monetary policy decisions on households' and firms' future income, as well as on the level of economic activity and inflation.

**Between December 2014 and September 2015 interest rates on new loans were slightly lower than those on renegotiated loans.**

The separate identification of renegotiated loans allows them to be excluded from total new business, which gives an indication of the amount of new loans granted to households and corporations in euro area countries; this can then be used as a proxy for the development of new lending to the real economy. For instance, in the euro area over the period from December 2014 to September 2015, around one-third of new business loans to households for house purchase were actually renegotiations of existing loans (see Chart 4), whereas the remaining two-thirds were true new loans, i.e. new loans granted to households for house purchase. The interest rate on new loans granted to households for house purchase can be derived by applying this approach to the weighted average interest rates on new business. Between December 2014 and September 2015 there were slightly lower interest rates on true new loans than on renegotiations of existing loans (see Chart 5). Interest rates on both new and renegotiated loans in the euro area were significantly lower, on average, than interest rates on outstanding loans for house purchase.

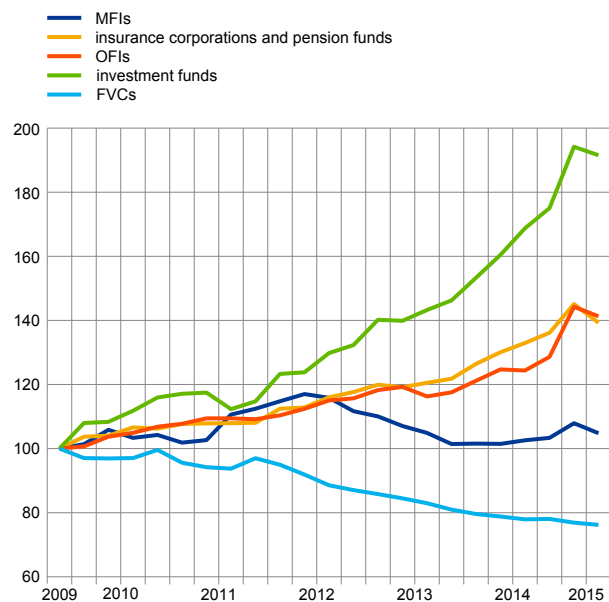
## 4 Investment funds

**The investment fund sector is growing rapidly, and with it its importance for economic analysis.** With a share of approximately 16% in the second quarter of 2015, investment funds make up a significant part of the euro area financial system. The assets of investment funds domiciled in the euro area have almost doubled since 2009, standing at over €10 trillion in early 2015 (see Chart 6). Around one-third of this increase is due to economic transactions, while the remainder can be explained by the large increase in asset prices in recent years. Because of this

**Chart 6**

**Growth of outstanding amounts in euro area financial sectors since the fourth quarter of 2009**

(Q4 2009=100)



Source: ECB and ECB calculations.

increase and the role played by investment funds in the financial intermediation process, it is essential to have accurate and timely data for this sector. When investment funds buy shares and debt securities issued by the real economy they provide financing to firms even in times when banks are distressed. This makes them not only relevant for the ECB's monetary and economic analysis, but also an important factor in the assessment of the financial stability of the euro area.

**The enhanced reporting of data on investment funds takes financial innovation into account.** To keep the statistics on investment funds fit for use, data collected as of 2015 are aligned with the ESA 2010, as described above. Additional breakdowns specific to the investment fund sector have also been introduced. Most importantly, data on funds set up as exchange-traded funds (ETFs) are now collected as a sub-item of all funds. In addition, information on the issues and redemptions of investment fund shares/units is now available for all Member States. A detailed overview of the new breakdowns is shown in Table 3.

**Table 3**

**New breakdown of investment fund balance sheet items**

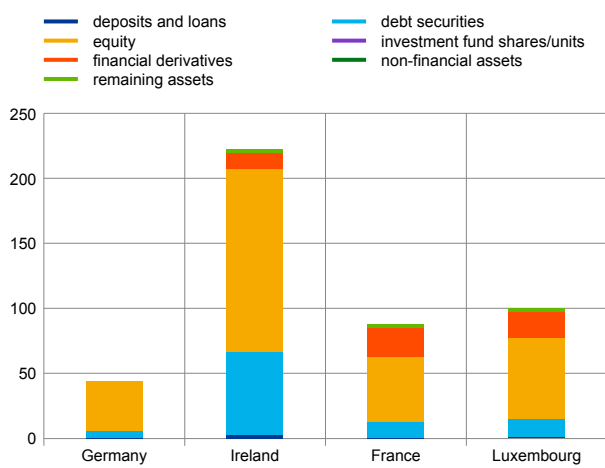
Frequency	Item	Description	Counterpart sector
Monthly	ETFs	Identification of ETFs as a sub-sector of total investment funds	Central bank Other deposit-taking corporations
	Loans to general government and FVCs	Breakdown by original maturity: Up to one year Over one and up to five years Over five years	General government FVCs
	Investment fund shares/units	Sale and redemption of investment fund shares/units	Total economy
Quarterly	Holdings of debt securities	Identification of counterpart sectors	Non-MMF investment funds Other financial institutions Insurance corporations Pension funds
	Holdings of equities	Identification of counterpart sectors  Identification of listed shares	MFIs General government Non-MMF investment funds Other financial institutions Insurance corporations Pension funds Non-financial corporations Households
	Holdings of investment fund shares/units	Identification of securities lent out or sold under repurchase agreements	



**Chart 7**

**ETF total assets by country, broken down by asset class**

(EUR billions; August 2015)



Source: ECB.

**Within the investment fund sector, ETFs have recently been the focus not only of investors, but also regulatory and supervisory authorities.<sup>4</sup>**

This sub-sector has seen rapid growth and brought about financial innovations. It is therefore important that the development of ETFs is monitored in the context of financial stability in the euro area. As the newly collected data show, ETFs currently make up approximately 4.6% of total assets of all investment funds. Although this is a small proportion, the importance of ETFs as a part of the investment fund sector has grown steadily in recent years: the new data allow this development to be monitored. The data also make it possible to assess the structure of ETF balance sheets. Chart 7 illustrates the absolute size and structure of the total assets of ETFs in euro area countries where ETFs have a significant presence.

## 5 Financial vehicle corporations

**FVCs are an important component of the financial system owing to their role in securitisation transactions.** This is despite the fact that they only represent 3% of the euro area financial sector by total assets (see Chart 1). Securitisation typically involves the transfer of illiquid assets (such as loans), or credit risk relating to a portfolio of assets, to an FVC in order to back its issuance of securities.

**While there have been a number of recent initiatives by central banks and other authorities to revive securitisation as a market-based source of bank funding, securitisation activities are still dominated by retained deals.** Before the financial crisis, securitisation was an important funding source for banks via an “originate and distribute” model: banks provided loans, and through securitisation they could pass on the credit risk to investors. However, since the beginning of the financial crisis securitisation has mainly been motivated by banks’ need to create collateral for central bank refinancing operations: rather than the debt securities issued by FVCs being purchased by investors, they have instead been retained by the originating banks. In the second quarter of 2015 the outstanding amount of debt securities issued by euro area FVCs was €1.4 trillion, while euro area banks’ holdings were €0.8 trillion.

**The new data collected as a result of the update of Regulation ECB/2013/40 on financial vehicle corporations have shed more light on activities not directly related to euro area banks, including loans originated by other sectors or non-euro area entities.** This is particularly relevant with respect to shadow banking (bank-like activities which take place outside the regular banking system) and the role that securitisation may play in supporting direct lending to the real economy.

<sup>4</sup> For example, the growing importance of ETFs was discussed by the Financial Stability Board in its publication “Potential financial stability issues arising from recent trends in Exchange-Traded Funds (ETFs)”, 2011.

**Table 4**  
New items introduced in statistics on FVCs

Item	New counterpart sector breakdowns
Deposits and loan claims	<ul style="list-style-type: none"> <li>- Rest of world banks</li> <li>- Rest of world non-banks</li> </ul>
Securitised loans (total)	<ul style="list-style-type: none"> <li>- MFIs</li> <li>- General government</li> <li>- Non-MMF investment funds</li> <li>- Other financial institutions</li> <li>- Insurance corporations and pension funds</li> <li>- Non-financial corporations</li> <li>- Households</li> <li>- Rest of world</li> </ul>
Securitised loans (originated by euro area MFIs)	<ul style="list-style-type: none"> <li>- MFIs</li> <li>- Non-MMF investment funds</li> <li>- Other financial institutions</li> </ul>
Item	New maturity breakdowns
Deposits and loan claims	<ul style="list-style-type: none"> <li>- Up to one year</li> <li>- Over one year</li> </ul>
Loans and deposits received	<ul style="list-style-type: none"> <li>- Up to one year</li> <li>- Over one year</li> </ul>

In addition, the scope of the data collection was expanded to include transactions in which there are transfers of insurance or reinsurance-type risks from the insurance sector to FVCs.<sup>5</sup> Two main features were added to statistics on FVCs, as summarised in Table 4: (i) new counterpart sector breakdowns, in particular for securitised loans transferred to FVCs; and (ii) new maturity breakdowns of deposits held by FVCs, or loans granted directly to or received from FVCs.

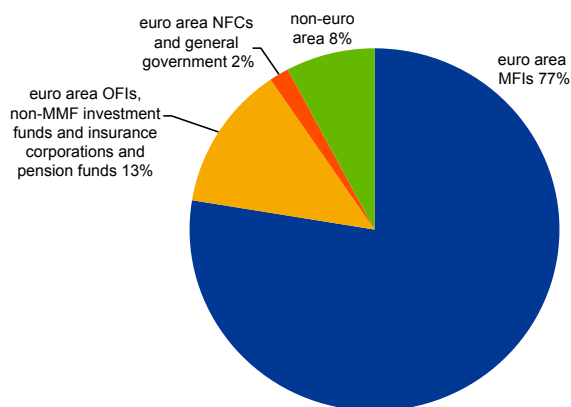
**New counterpart breakdowns of securitised loans provide greater detail on the role of securitisation in supporting non-bank lending to the real economy.**

Previously, borrowing sector breakdowns were only available for loans originated by euro area MFIs. As shown in Chart 8, entities other than euro area MFIs originated 23% (€268 billion) of total securitised loans held by FVCs.

**With regard to securitised loans not originated by euro area MFIs, FVCs held €91 billion and €64 billion of loans to euro area households and non-financial corporations respectively in the second quarter of 2015 (see Chart 9).** While the amount of loans to non-euro area residents originated by euro area MFIs is small, other originators have securitised €72 billion using euro area FVCs. These are mainly located in jurisdictions where FVCs are linked more to international than domestic activities, i.e. Ireland, Luxembourg and the Netherlands. These three countries also make up a significant share of the deposits and loan claims of euro area FVCs on non-euro area banks (€23 billion in the second quarter of 2015) and non-banks (€8 billion).

**Chart 8**  
Loans securitised by euro area FVCs in the second quarter of 2015 broken down by originating sector

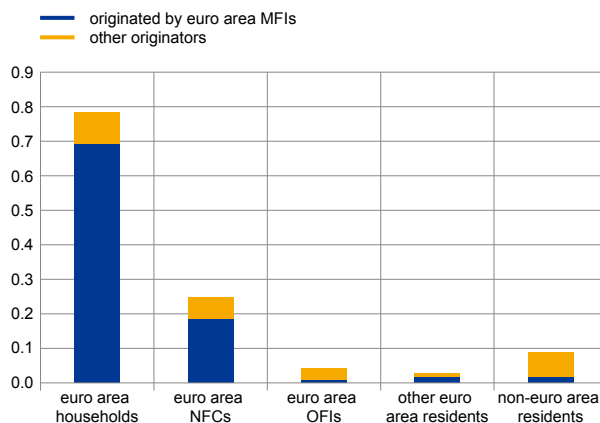
(percentages)



Source: ECB.

**Chart 9**  
Loans securitised by euro area FVCs in the second quarter of 2015 broken down by borrowing sector

(EUR trillions)



Source: ECB.

<sup>5</sup> These volumes are currently small and no separate breakdowns are released with respect to FVCs engaged in insurance-linked securitisation.

**New breakdowns of maturities of deposits held by FVCs and of loans granted directly to or received from FVCs provide information on the liquidity and funding of MFIs.** Approximately half of the deposits and loan claims of FVCs vis-à-vis other counterparties have a maturity of up to one year and are mainly concentrated in deposits with euro area banks. For deposits and loan claims received, around one-third are of short-term maturity.

## 6 Securities issues

**Securities issues statistics provide information on capital inflows to and outflows from the financial markets.** The monthly statistics on securities issues cover data on outstanding amounts, issues, redemptions, and growth rates in debt securities and listed shares. These series are broken down by issuer country and sector, instrument type, original maturity, coupon type, and currency of denomination. Together with MFI balance sheet and bank interest rate data, as well as financial market prices, these data allow substitution between bank-based financing (bank lending channel) and market-based financing (securities issuance) to be analysed.

**The enhanced data on securities issues were first collected in January 2015 with reference to November 2014.** The data collected before January 2015 have been maintained and are used to produce long time series.

**The update introduces several new institutional sectors and rearranges the classification of some institutional units within sectors.**<sup>6,7</sup> Chart 10 shows the impact of these changes on the outstanding amounts of debt securities issued by the main sectors included in the published data. For the new sectors, which are aligned with the ESA 2010, back data are available from December 2012.

**In addition, the update serves to harmonise the reporting of data on zero coupon bonds.** Valuation rules which apply to zero coupon bonds are explicitly included in the legal requirements. These new data are currently subject to an internal quality review as several changes had to be introduced in the reporting and compilation systems. The new series on zero coupon bonds are expected to be published in the course of 2016.

**Furthermore, the new legal requirements include for the first time the provision of data on securities issued by FVCs engaged in securitisation transactions.**

As this is not an official sub-sector under the ESA 2010, the data on securities issued by FVCs are also presented as part of the other financial institutions sector. The new information will include breakdowns by maturity and interest rate type and is expected to be published in 2016.

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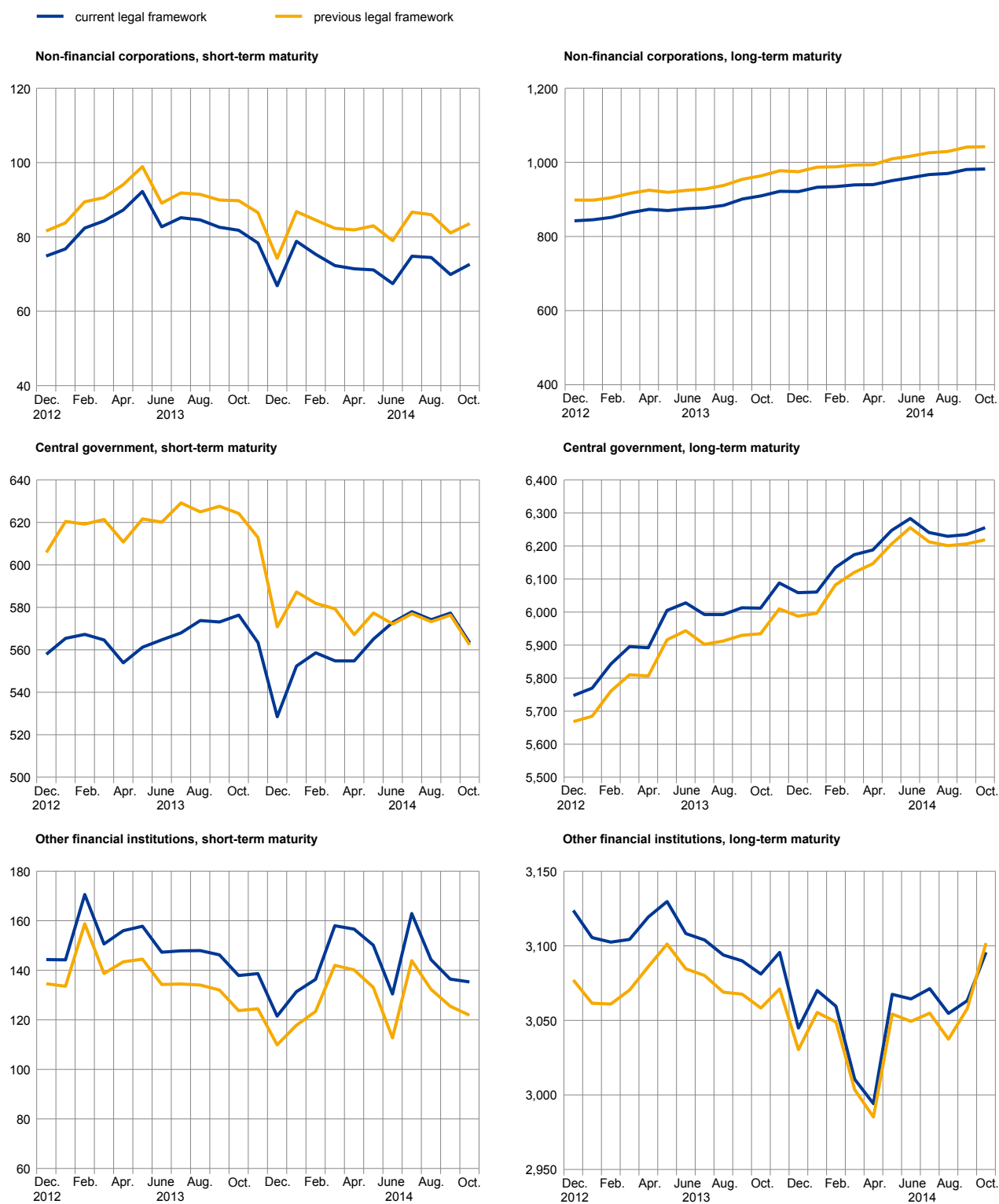
<sup>6</sup> For more detailed information on the changes to securities issues statistics, see the “User guide to the update of securities issues statistics under the amended Guideline ECB/2014/15”, available at [http://www.ecb.europa.eu/stats/pdf/users\\_guide\\_sec\\_issues\\_statistics\\_2014\\_15.pdf](http://www.ecb.europa.eu/stats/pdf/users_guide_sec_issues_statistics_2014_15.pdf)

<sup>7</sup> For details on the update of international standards, see the article entitled “New international standards in statistics – enhancements to methodology and data availability”, *Monthly Bulletin*, ECB, August 2014.

## Chart 10

### Outstanding amounts of debt securities compiled under the previous and current legal framework

(EUR billions)



Source: ECB and ECB calculations.

**In the course of 2015 the ECB has made several enhanced datasets of monetary and financial statistics available.** These include statistics on MFI balance sheet items, bank interest rates, investment funds, FVCs and securities issues.

**More detailed breakdowns by counterpart sector and financial instrument can now be made for MFI balance sheet items.** These breakdowns are aligned with the ESA 2010. They include intra-group positions in deposits and loans, which may prove helpful for analysing episodes of financial stress. Moreover, the adjustment for sales and securitisation of MFI loans to the private sector has been enhanced in order to take into account positions and repayments of derecognised loans.

**Bank interest rate statistics allow volumes and rates of true new lending to be derived.** This is done by separately identifying renegotiated loans to households (broken down by the purpose of the loan) and corporations. Moreover, the new data include interest rates on loans broken down by original and residual maturity as well as the date of the next interest rate reset, thus improving the understanding of the impact of monetary policy decisions on banks' interest income and interest rates paid by households and corporations.

**Several enhancements have been made to investment fund statistics.** Data collected as of 2015 have been aligned with the ESA 2010 framework. In addition, data on funds set up as ETFs are now collected as a sub-item of all funds and data on issues and redemptions of investment fund shares/units are now available for all euro area countries.

**New features have been added to statistics on FVCs.** This enhances the information that is available on securitised loans not originated by euro area banks, short and long-term breakdowns of deposits held by FVCs, and loans granted directly to or received from FVCs.

**Finally, based on the ESA 2010, several new institutional sectors, including FVCs, are now identified in securities issues statistics.** The classification of some institutional units within sectors has also been realigned. New harmonised series on zero coupon bonds are expected to be published in due course.

**Looking ahead, in 2016 the ECB statistical framework will be enriched in two domains.** First, the ECB will start collecting daily statistics on money market transactions on the secured, unsecured, foreign exchange swap and overnight index swap market segments. Those data, to be collected on a transaction-by-transaction basis from the largest euro area MFIs, will provide further information on the transmission mechanism of monetary policy decisions. Second, statistics on euro area insurance corporations will become harmonised through the reuse, to a large extent, of the supervisory reports under Solvency II. This should keep the reporting burden to a minimum. The collection of statistical information on insurance corporations will further strengthen monetary and financial analysis.

# Statistics

## Contents

1 External environment	S 2
2 Financial developments	S 3
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5 Money and credit	S 18
6 Fiscal developments	S 23

## Further information

ECB statistics can be accessed from the Statistical Data Warehouse (SDW):	<a href="http://sdw.ecb.europa.eu/">http://sdw.ecb.europa.eu/</a>
Data from the statistics section of the Economic Bulletin are available from the SDW:	<a href="http://sdw.ecb.europa.eu/reports.do?node=1000004813">http://sdw.ecb.europa.eu/reports.do?node=1000004813</a>
A comprehensive Statistics Bulletin can be found in the SDW:	<a href="http://sdw.ecb.europa.eu/reports.do?node=1000004045">http://sdw.ecb.europa.eu/reports.do?node=1000004045</a>
Methodological definitions can be found in the General Notes to the Statistics Bulletin:	<a href="http://sdw.ecb.europa.eu/reports.do?node=10000023">http://sdw.ecb.europa.eu/reports.do?node=10000023</a>
Details on calculations can be found in the Technical Notes to the Statistics Bulletin:	<a href="http://sdw.ecb.europa.eu/reports.do?node=10000022">http://sdw.ecb.europa.eu/reports.do?node=10000022</a>
Explanations of terms and abbreviations can be found in the ECB's statistics glossary:	<a href="http://www.ecb.europa.eu/home/glossary/html/glossa.en.html">http://www.ecb.europa.eu/home/glossary/html/glossa.en.html</a>

## 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

# 1 External environment

## 1.1 Main trading partners, GDP and CPI

	GDP <sup>1)</sup> (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 <sup>2)</sup> (HICP)
							Total	excluding food and energy					
	1	2	3	4	5	6	7	8	9	10	11	12	13
2012	3.0	2.2	1.2	1.7	7.8	-0.8	2.3	1.8	2.1	2.8	0.0	2.6	2.5
2013	3.1	1.5	2.2	1.6	7.7	-0.3	1.6	1.6	1.5	2.6	0.4	2.6	1.4
2014	3.3	2.4	2.9	-0.1	7.4	0.9	1.7	1.8	1.6	1.5	2.7	2.0	0.4
2014 Q4	0.8	0.5	0.8	0.3	1.7	0.4	1.4	1.8	1.2	0.9	2.5	1.5	0.2
2015 Q1	0.7	0.2	0.4	1.1	1.3	0.5	0.6	1.7	-0.1	0.1	2.3	1.2	-0.3
Q2	0.7	1.0	0.7	-0.2	1.8	0.4	0.5	1.6	0.0	0.0	0.5	1.4	0.2
Q3	.	0.5	0.5	-0.2	1.8	0.3	0.5	1.7	0.1	0.0	0.2	1.7	0.1
2015 June	-	-	-	-	-	-	0.6	1.6	0.1	0.0	0.4	1.4	0.2
July	-	-	-	-	-	-	0.6	1.7	0.2	0.1	0.3	1.6	0.2
Aug.	-	-	-	-	-	-	0.6	1.7	0.2	0.0	0.2	2.0	0.1
Sep.	-	-	-	-	-	-	0.4	1.8	0.0	-0.1	0.0	1.6	-0.1
Oct.	-	-	-	-	-	-	0.6	1.8	0.2	-0.1	0.3	1.3	0.1
Nov. <sup>3)</sup>	-	-	-	-	-	-	.	.	.	.	.	.	0.1

Sources: Eurostat (col. 3, 6, 10, 13); BIS (col. 2, 4, 9, 11, 12); OECD (col. 1, 5, 7, 8).

1) Quarterly data seasonally adjusted; annual data unadjusted.

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

3) The figure for the euro area is an estimate based on provisional national data, which usually cover around 95% of the euro area, as well as on early information on energy prices.

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

	Purchasing Managers' Surveys (diffusion indices; s.a.)							Merchandise imports <sup>1)</sup>				
	Composite Purchasing Managers' Index					Global Purchasing Managers' Index <sup>2)</sup>		New export orders	Global	Advanced economies	Emerging market economies	
	Global <sup>2)</sup>	United States	United Kingdom	Japan	China	Memo item: euro area	Manufacturing					Services
	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	4.0	2.9	4.6
2013	53.3	54.8	56.8	52.6	51.5	49.7	52.3	52.7	50.7	3.0	-0.1	5.0
2014	54.2	57.3	57.9	50.9	51.1	52.7	53.4	54.1	51.5	3.7	3.6	3.7
2014 Q4	53.3	55.6	56.3	50.9	51.4	51.5	52.3	53.6	50.4	1.9	2.2	1.7
2015 Q1	53.9	56.9	57.3	50.4	51.5	53.3	52.8	54.3	50.3	-2.2	1.4	-4.4
Q2	53.4	55.9	57.2	51.3	51.1	53.9	50.9	54.2	49.3	-1.0	-0.9	-1.0
Q3	53.1	55.4	55.0	51.9	49.0	53.9	50.3	54.0	48.7	1.5	1.2	1.8
2015 June	52.7	54.6	57.4	51.5	50.6	54.2	50.5	53.4	50.0	-1.0	-0.9	-1.0
July	53.4	55.7	56.7	51.5	50.2	53.9	50.9	54.2	49.1	-0.1	-1.3	0.8
Aug.	53.5	55.7	55.2	52.9	48.8	54.3	50.0	54.6	48.8	2.1	-0.2	3.7
Sep.	52.4	55.0	53.3	51.2	48.0	53.6	50.1	53.2	48.1	1.5	1.2	1.8
Oct.	53.1	55.0	55.4	52.3	49.9	53.9	51.1	53.6	50.5	.	.	.
Nov.	.	56.1	.	.	.	54.4	51.6	.	50.2	.	.	.

Sources: Markit (col. 1-9); CPB Netherlands Bureau for Economic Policy Analysis and ECB calculations (col. 10-12).

1) 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.

2) Excluding the euro area.



## 2 Financial developments

### 2.1 Money market interest rates

(percentages per annum; period averages)

	Euro area <sup>1)</sup>					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
2015 May	-0.11	-0.05	-0.01	0.06	0.17	0.28	0.10
June	-0.12	-0.06	-0.01	0.05	0.16	0.28	0.10
July	-0.12	-0.07	-0.02	0.05	0.17	0.29	0.10
Aug.	-0.12	-0.09	-0.03	0.04	0.16	0.32	0.09
Sep.	-0.14	-0.11	-0.04	0.04	0.15	0.33	0.08
Oct.	-0.14	-0.12	-0.05	0.02	0.13	0.32	0.08
Nov.	-0.13	-0.14	-0.09	-0.02	0.08	0.37	0.08

Source: ECB.

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

### 2.2 Yield curves

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

	Spot rates					Spreads			Instantaneous forward rates			
	Euro area <sup>1), 2)</sup>					Euro area <sup>1), 2)</sup>	United States	United Kingdom	Euro area <sup>1), 2)</sup>			
	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
2015 May	-0.24	-0.25	-0.23	0.06	0.61	0.85	1.87	1.32	-0.25	-0.14	0.68	1.46
June	-0.27	-0.26	-0.23	0.19	0.95	1.21	2.09	1.52	-0.25	-0.10	1.08	2.09
July	-0.27	-0.29	-0.26	0.08	0.73	1.02	1.87	1.35	-0.29	-0.13	0.76	1.84
Aug.	-0.25	-0.27	-0.22	0.14	0.82	1.09	1.84	1.46	-0.25	-0.07	0.86	1.97
Sep.	-0.36	-0.27	-0.24	0.04	0.70	0.97	1.73	1.24	-0.22	-0.17	0.73	1.76
Oct.	-0.35	-0.33	-0.31	-0.03	0.63	0.96	1.82	1.40	-0.32	-0.25	0.66	1.69
Nov.	-0.41	-0.40	-0.40	-0.13	0.58	0.98	1.73	1.34	-0.41	-0.36	0.58	1.77

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.

### 2.3 Stock market indices

(index levels in points; period averages)

	Dow Jones EURO STOXX indices												United States	Japan
	Benchmark		Main industry indices										Standard & Poor's 500	Nikkei 225
	Broad index	50	Basic materials	Consumer services	Consumer goods	Oil and gas	Financials	Industrials	Technology	Utilities	Telecoms	Health care		
	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
2015 May	373.4	3,617.9	765.0	268.9	662.1	326.5	199.3	522.4	389.5	294.0	389.2	827.6	2,111.9	19,974.2
June	364.0	3,521.8	743.2	265.5	647.4	310.3	194.5	504.7	385.0	283.0	380.7	820.4	2,099.3	20,403.8
July	366.3	3,545.1	744.0	266.0	645.2	302.1	198.0	505.5	378.1	281.3	395.1	864.8	2,094.1	20,372.6
Aug.	356.7	3,444.4	711.9	261.9	615.0	287.7	193.9	504.6	359.9	274.9	390.0	856.9	2,039.9	19,919.1
Sep.	330.9	3,165.5	649.6	250.9	566.4	267.2	178.5	469.7	339.5	250.8	362.6	817.4	1,944.4	17,944.2
Oct.	342.2	3,275.5	658.6	261.3	598.9	290.0	183.4	478.7	360.4	263.5	362.3	823.9	2,024.8	18,374.1
Nov.	358.2	3,439.6	703.0	269.0	640.1	297.3	187.0	507.4	394.1	270.3	385.3	850.1	2,080.6	19,581.8

Source: ECB.

## 2 Financial developments

### 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				Composite cost-of-borrowing indicator	
	Over-night	Redeemable at notice of up to 3 months	With an agreed maturity of:				By initial period of rate fixation	APRC <sup>3)</sup>	By initial period of rate fixation			APRC <sup>3)</sup>				
			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
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
2014 Nov.	0.20	0.92	1.01	1.66	7.18	17.12	5.58	6.66	6.98	2.92	2.41	2.50	2.51	2.72	2.76	2.53
Dec.	0.20	0.89	0.96	1.56	7.14	17.10	5.07	6.21	6.53	2.75	2.41	2.51	2.50	2.67	2.75	2.48
2015 Jan.	0.19	0.86	1.01	1.95	7.18	17.12	5.25	6.42	6.73	2.76	2.31	2.55	2.45	2.44	2.69	2.40
Feb.	0.18	0.85	0.97	1.53	7.13	17.05	5.18	6.47	6.82	2.79	2.08	2.48	2.35	2.49	2.58	2.37
Mar.	0.17	0.83	0.89	1.24	7.13	17.05	5.16	6.17	6.50	2.72	2.10	2.43	2.24	2.40	2.53	2.29
Apr.	0.16	0.79	0.87	1.19	7.03	17.01	4.89	6.13	6.42	2.66	2.01	2.38	2.17	2.36	2.49	2.23
May	0.16	0.82	0.84	1.13	6.98	17.08	5.04	6.29	6.60	2.67	2.05	2.33	2.10	2.30	2.45	2.17
June	0.15	0.78	0.77	1.11	6.97	17.02	4.88	6.15	6.47	2.59	2.02	2.25	2.12	2.31	2.48	2.18
July	0.15	0.74	0.67	1.14	6.83	17.08	5.10	6.20	6.53	2.61	2.05	2.25	2.21	2.36	2.56	2.22
Aug.	0.14	0.67	0.67	1.00	6.83	17.03	5.30	6.28	6.62	2.60	2.12	2.35	2.30	2.33	2.60	2.26
Sep.	0.14	0.67	0.67	1.08	6.85	17.06	5.21	6.18	6.55	2.68	2.07	2.36	2.29	2.39	2.61	2.25
Oct. <sup>(p)</sup>	0.14	0.66	0.65	0.99	6.71	16.97	5.21	6.03	6.43	2.65	2.06	2.32	2.30	2.41	2.58	2.26

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).

### 2.5 MFI interest rates on loans to and deposits from non-financial corporations (new business) 1), 2)

(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
	Over-night	With an agreed maturity of:			up to EUR 0.25 million			over EUR 0.25 and up to 1 million			over EUR 1 million			
		Up to 2 years	Over 2 years		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	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
2014 Nov.	0.24	0.44	1.16	3.57	3.80	3.86	3.42	2.38	2.84	2.63	1.74	2.17	2.27	2.51
Dec.	0.23	0.43	1.25	3.49	3.68	3.75	3.24	2.34	2.78	2.50	1.72	2.16	2.13	2.46
2015 Jan.	0.23	0.44	1.19	3.49	3.78	3.85	3.00	2.31	2.82	2.05	1.66	2.03	2.20	2.46
Feb.	0.21	0.35	1.04	3.43	3.57	3.72	3.14	2.24	2.71	2.39	1.51	1.98	2.15	2.37
Mar.	0.21	0.32	0.97	3.39	3.46	3.65	3.10	2.16	2.65	2.32	1.61	2.12	2.00	2.36
Apr.	0.19	0.30	0.89	3.34	3.46	3.58	2.97	2.18	2.64	2.26	1.61	1.93	2.03	2.33
May	0.18	0.30	0.91	3.28	3.37	3.51	2.97	2.15	2.46	2.23	1.56	1.85	2.04	2.27
June	0.18	0.31	1.09	3.25	3.19	3.48	2.88	2.09	2.32	2.23	1.59	1.91	2.04	2.26
July	0.17	0.32	0.86	3.19	3.27	3.60	2.87	2.07	2.36	2.20	1.50	1.73	2.05	2.19
Aug.	0.17	0.24	0.92	3.16	3.24	3.57	2.91	2.07	2.32	2.22	1.39	1.53	2.03	2.14
Sep.	0.17	0.26	0.98	3.20	3.23	3.52	2.89	2.03	2.25	2.21	1.49	1.88	2.18	2.22
Oct. <sup>(p)</sup>	0.16	0.26	0.80	3.09	3.18	3.42	2.89	2.04	2.27	2.20	1.43	1.69	2.03	2.15

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.

## 2 Financial developments

### 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 <sup>1)</sup>						
	Total	MFIs (including Euro- system)	Non-MFI corporations			General government		Total	MFIs (including Euro- system)	Non-MFI corporations			General government	
			Financial corporations other than MFIs	FVCs	Non- financial corporations	Central govern- ment	Other general govern- ment			Financial corporations other than MFIs	FVCs	Non- financial corporations	Central govern- ment	Other general govern- ment
Short-term														
2012	1,426	581	146	.	75	558	66	703	491	37	.	52	103	21
2013	1,247	477	122	.	67	529	53	508	314	30	.	44	99	21
2014	1,309	544	119	.	59	538	50	409	219	33	.	39	93	25
2015 Apr.	1,408	599	133	.	80	533	62	350	156	39	.	38	82	35
May	1,393	589	133	.	80	532	59	324	138	36	.	36	80	33
June	1,325	559	119	.	75	517	56	296	123	30	.	34	77	32
July	1,327	558	115	.	81	520	54	338	143	34	.	39	91	31
Aug.	1,330	558	119	.	79	515	59	290	132	28	.	22	79	29
Sep.	1,312	545	113	.	75	520	59	341	161	29	.	29	93	30
Long-term														
2012	15,205	4,814	3,166	.	842	5,758	624	255	98	45	.	16	84	12
2013	15,108	4,405	3,086	.	921	6,069	627	222	70	39	.	16	89	9
2014	15,137	4,048	3,168	.	993	6,286	643	221	66	44	.	16	85	10
2015 Apr.	15,293	3,999	3,233	.	1,031	6,389	641	226	70	38	.	21	87	10
May	15,373	3,981	3,256	.	1,034	6,462	640	190	50	44	.	6	85	4
June	15,353	3,937	3,268	.	1,028	6,485	634	207	69	34	.	13	87	5
July	15,312	3,915	3,288	.	1,036	6,437	636	224	79	42	.	10	83	10
Aug.	15,255	3,893	3,246	.	1,035	6,444	637	112	42	19	.	4	44	4
Sep.	15,285	3,865	3,263	.	1,043	6,482	633	256	63	80	.	16	93	4

Source: ECB.

1) For the purpose of comparison, annual data refer to the average monthly figure over the year.

### 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	Non- financial corporations	Central government	Other general government				
Outstanding amount											
2012	16,631.3	5,395.6	3,311.9	.	917.3	6,316.2	690.3	4,598.1	404.7	615.6	3,577.9
2013	16,355.3	4,881.5	3,208.5	.	987.9	6,597.8	679.6	5,646.1	569.1	748.1	4,329.0
2014	16,446.9	4,591.7	3,287.0	.	1,051.6	6,823.7	692.9	5,957.2	591.1	785.8	4,580.3
2015 Apr.	16,700.7	4,598.1	3,366.2	.	1,111.0	6,921.8	703.5	7,001.8	683.9	909.2	5,408.8
May	16,766.0	4,570.0	3,388.8	.	1,113.8	6,994.0	699.5	7,023.0	675.5	902.4	5,445.1
June	16,678.2	4,496.0	3,387.3	.	1,103.1	7,001.4	690.4	6,842.8	664.3	880.5	5,298.0
July	16,639.6	4,473.3	3,403.0	.	1,116.6	6,956.9	689.9	7,113.7	695.0	914.8	5,503.9
Aug.	16,584.2	4,450.5	3,364.7	.	1,113.5	6,959.6	696.0	6,575.9	630.6	849.9	5,095.4
Sep.	16,596.7	4,409.9	3,375.3	.	1,117.6	7,001.9	692.0	6,273.0	582.5	806.4	4,884.0
Growth rate											
2012	1.3	-1.8	-0.3	.	14.4	2.5	6.1	0.9	4.9	2.0	0.4
2013	-1.4	-8.9	-3.4	.	8.0	4.5	-1.1	0.9	7.2	0.0	0.3
2014	-0.6	-7.7	0.4	.	4.9	3.1	1.2	1.5	7.2	1.6	0.8
2015 Apr.	-0.2	-6.7	2.5	.	6.6	2.1	1.9	1.5	6.8	1.1	0.8
May	-0.6	-7.1	0.9	.	5.6	2.1	1.4	1.3	5.8	1.2	0.7
June	-1.0	-7.7	1.3	.	4.3	1.6	-0.8	1.0	4.1	0.6	0.7
July	-1.2	-7.5	0.5	.	4.0	1.5	-0.6	1.1	3.3	0.3	0.9
Aug.	-1.0	-7.2	0.5	.	4.0	1.8	-0.2	1.1	3.3	0.5	0.9
Sep.	-0.5	-7.4	2.5	.	4.4	2.4	-1.8	1.0	3.3	0.5	0.7

Source: ECB.

## 2 Financial developments

### 2.8 Effective exchange rates <sup>1)</sup>

(period averages; index: 1999 Q1=100)

	EER-19						EER-38	
	Nominal	Real CPI	Real PPI	Real GDP deflator	Real ULCM <sup>2)</sup>	Real ULCT	Nominal	Real CPI
	1	2	3	4	5	6	7	8
2012	97.6	95.0	93.3	88.2	100.3	95.8	107.0	92.5
2013	101.2	98.2	96.7	91.4	102.9	98.9	111.9	95.6
2014	101.8	97.9	96.7	91.6	103.3	100.4	114.7	96.1
2014 Q4	99.0	94.9	94.3	89.2	100.5	97.7	112.3	93.5
2015 Q1	93.0	89.2	89.4	84.0	94.0	92.2	106.4	88.3
Q2	91.2	87.5	88.3	82.4	92.1	90.1	104.4	86.3
Q3	92.7	88.7	89.6	.	.	.	107.6	88.6
2015 June	92.3	88.5	89.2	-	-	-	106.0	87.6
July	91.3	87.5	88.3	-	-	-	105.1	86.7
Aug.	93.0	89.0	89.8	-	-	-	108.1	89.1
Sep.	93.8	89.6	90.7	-	-	-	109.6	90.2
Oct.	93.6	89.4	90.3	-	-	-	109.0	89.6
Nov.	91.1	87.0	87.8	-	-	-	106.0	86.9
	<i>Percentage change versus previous month</i>							
2015 Nov.	-2.7	-2.7	-2.8	-	-	-	-2.8	-3.0
	<i>Percentage change versus previous year</i>							
2015 Nov.	-7.9	-8.4	-6.8	-	-	-	-5.3	-6.9

Source: ECB.

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

2) ULCM-deflated series are available only for the EER-18 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 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
2015 Q1	7.023	7.681	27.624	7.450	308.889	134.121	4.193	0.743	4.4516	9.380	1.072	1.126
Q2	6.857	7.574	27.379	7.462	306.100	134.289	4.088	0.721	4.4442	9.300	1.041	1.105
Q3	7.008	7.578	27.075	7.462	312.095	135.863	4.188	0.717	4.4290	9.429	1.072	1.112
2015 June	6.959	7.572	27.307	7.460	311.960	138.740	4.159	0.721	4.4671	9.272	1.045	1.121
July	6.827	7.586	27.094	7.462	311.531	135.681	4.152	0.707	4.4391	9.386	1.049	1.100
Aug.	7.063	7.558	27.041	7.463	311.614	137.124	4.195	0.714	4.4235	9.515	1.078	1.114
Sep.	7.146	7.589	27.089	7.461	313.145	134.851	4.218	0.731	4.4236	9.392	1.091	1.122
Oct.	7.135	7.621	27.105	7.460	311.272	134.839	4.251	0.733	4.4227	9.349	1.088	1.124
Nov.	6.840	7.607	27.039	7.460	312.269	131.597	4.249	0.707	4.4453	9.313	1.083	1.074
	<i>Percentage change versus previous month</i>											
2015 Nov.	-4.1	-0.2	-0.2	0.0	0.3	-2.4	0.0	-3.6	0.5	-0.4	-0.5	-4.4
	<i>Percentage change versus previous year</i>											
2015 Nov.	-10.5	-0.8	-2.3	0.3	1.8	-9.3	0.9	-10.6	0.4	0.8	-9.9	-13.9

Source: ECB.

## 2 Financial developments

### 2.10 Euro area balance of payments, financial account

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

	Total <sup>1)</sup>			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
<i>Outstanding amounts (international investment position)</i>												
2014 Q3	19,133.3	20,292.0	-1,158.8	7,740.1	5,925.7	6,234.5	9,565.8	-54.8	4,616.4	4,800.5	597.0	11,849.1
Q4	19,871.7	20,989.4	-1,117.7	8,249.4	6,410.5	6,467.3	9,823.6	-43.1	4,585.7	4,755.3	612.3	12,038.7
2015 Q1	21,840.3	22,833.9	-993.6	8,952.8	6,623.5	7,225.1	11,054.9	-69.3	5,041.3	5,155.5	690.4	12,995.0
Q2	21,378.9	22,271.8	-892.9	8,804.9	6,673.7	7,102.3	10,627.9	-22.3	4,835.5	4,970.2	658.5	12,649.4
<i>Outstanding amounts as a percentage of GDP</i>												
2015 Q2	208.4	217.1	-8.7	85.8	65.1	69.2	103.6	-0.2	47.1	48.5	6.4	123.3
<i>Transactions</i>												
2014 Q4	82.0	22.0	60.0	67.8	78.7	103.5	12.3	10.0	-102.1	-69.0	2.9	-
2015 Q1	548.9	511.4	37.6	195.7	88.2	137.1	250.7	22.6	187.8	172.5	5.7	-
Q2	33.0	8.7	24.3	84.5	125.0	122.9	-3.3	3.8	-175.7	-112.9	-2.5	-
Q3	10.9	-55.7	66.6	57.9	45.5	-0.2	-109.7	-4.6	-44.8	8.5	2.7	-
2015 Apr.	101.3	157.1	-55.8	17.2	32.1	26.2	1.9	5.1	56.7	123.2	-3.9	-
May	1.6	-19.1	20.7	39.5	45.3	64.4	19.2	2.9	-103.4	-83.6	-1.8	-
June	-69.9	-129.2	59.4	27.9	47.7	32.3	-24.4	-4.3	-129.0	-152.5	3.2	-
July	63.5	12.7	50.8	27.9	-7.9	-3.2	-65.1	10.5	35.3	85.7	-7.0	-
Aug.	-6.4	-10.7	4.3	0.3	-2.8	10.2	-21.4	-8.8	-9.5	13.5	1.4	-
Sep.	-46.2	-57.8	11.5	29.7	56.3	-7.2	-23.3	-6.4	-70.7	-90.8	8.3	-
<i>12-month cumulated transactions</i>												
2015 Sep.	674.9	486.5	188.4	405.9	337.4	363.4	150.0	31.7	-134.9	-0.9	8.8	-
<i>12-month cumulated transactions as a percentage of GDP</i>												
2015 Sep.	6.6	4.7	1.8	4.0	3.3	3.5	1.5	0.3	-1.3	0.0	0.1	-

Source: ECB.

1) Net financial derivatives are included in total assets.

## 3 Economic activity

### 3.1 GDP and expenditure components

(quarterly data seasonally adjusted; annual data unadjusted)

	GDP											
	Total	Domestic demand							External balance <sup>1)</sup>			
		Total	Private consumption	Government consumption	Gross fixed capital formation			Changes in inventories <sup>2)</sup>	Total	Exports <sup>1)</sup>	Imports <sup>1)</sup>	
					Total construction	Total machinery	Intellectual property products					
1	2	3	4	5	6	7	8	9	10	11	12	
<i>Current prices (EUR billions)</i>												
2012	9,849.1	9,581.8	5,540.2	2,066.8	1,984.8	1,033.5	585.0	361.5	-10.0	267.4	4,294.4	4,027.0
2013	9,952.8	9,610.6	5,566.2	2,096.3	1,943.1	1,004.1	571.6	362.3	5.0	342.2	4,369.8	4,027.7
2014	10,126.9	9,738.9	5,643.0	2,130.5	1,976.6	1,007.1	592.5	371.7	-11.1	388.0	4,511.3	4,123.3
2014 Q3	2,537.6	2,439.2	1,413.8	534.9	496.0	251.7	149.3	93.7	-5.5	98.4	1,139.0	1,040.6
Q4	2,552.8	2,446.4	1,422.6	534.9	500.7	253.4	151.9	94.1	-11.8	106.4	1,149.3	1,042.9
2015 Q1	2,575.9	2,462.4	1,424.8	539.5	507.7	256.2	154.9	95.3	-9.7	113.5	1,159.6	1,046.0
Q2	2,593.9	2,473.0	1,437.4	541.4	506.4	253.7	156.0	95.3	-12.1	120.9	1,188.1	1,067.2
<i>as a percentage of GDP</i>												
2014	100.0	96.2	55.7	21.0	19.6	10.0	5.9	3.7	-0.2	3.8	-	-
<i>Chain-linked volumes (prices for the previous year)</i>												
<i>quarter-on-quarter percentage changes</i>												
2014 Q4	0.4	0.4	0.6	0.2	0.6	0.6	0.8	0.2	-	-	0.9	0.9
2015 Q1	0.5	0.7	0.5	0.6	1.4	1.0	2.3	0.8	-	-	1.0	1.5
Q2	0.4	0.0	0.4	0.3	-0.5	-1.1	0.4	-0.2	-	-	1.6	1.0
Q3	0.3	.	.	.	.	.	.	.	-	-	.	.
<i>annual percentage changes</i>												
2012	-0.8	-2.3	-1.2	-0.1	-3.6	-4.4	-4.7	1.9	-	-	2.7	-0.8
2013	-0.3	-0.7	-0.6	0.2	-2.6	-3.6	-1.9	-0.8	-	-	2.1	1.3
2014	0.9	0.9	0.9	0.8	1.2	-0.4	3.9	2.0	-	-	3.9	4.2
2014 Q4	0.9	1.0	1.4	1.0	0.8	-0.4	2.0	2.3	-	-	4.3	4.8
2015 Q1	1.2	1.4	1.7	1.2	1.8	0.0	4.9	2.1	-	-	4.8	5.5
Q2	1.5	1.4	1.9	1.3	1.9	0.5	4.4	1.5	-	-	5.2	5.2
Q3	1.6	.	.	.	.	.	.	.	-	-	.	.
<i>contributions to quarter-on-quarter percentage changes in GDP; percentage points</i>												
2014 Q4	0.4	0.4	0.3	0.0	0.1	0.1	0.0	0.0	-0.1	0.0	-	-
2015 Q1	0.5	0.7	0.3	0.1	0.3	0.1	0.1	0.0	0.0	-0.2	-	-
Q2	0.4	0.0	0.2	0.1	-0.1	-0.1	0.0	0.0	-0.1	0.3	-	-
Q3	0.3	.	.	.	.	.	.	.	.	.	-	-
<i>contributions to annual percentage changes in GDP; percentage points</i>												
2012	-0.8	-2.3	-0.7	0.0	-0.7	-1.9	-1.2	0.3	-0.9	1.5	-	-
2013	-0.3	-0.6	-0.4	0.0	-0.5	-1.5	-0.4	-0.1	0.2	0.4	-	-
2014	0.9	0.8	0.5	0.2	0.2	-0.2	0.9	0.3	-0.1	0.0	-	-
2014 Q4	0.9	1.0	0.8	0.2	0.2	0.0	0.1	0.1	-0.2	-0.1	-	-
2015 Q1	1.2	1.4	1.0	0.2	0.4	0.0	0.3	0.1	-0.2	-0.1	-	-
Q2	1.5	1.3	1.1	0.3	0.4	0.0	0.3	0.1	-0.3	0.2	-	-
Q3	1.6	.	.	.	.	.	.	.	.	.	-	-

Sources: Eurostat and ECB calculations.

1) Exports and imports cover goods and services and include cross-border intra-euro area trade.

2) Including acquisitions less disposals of valuables.

## 3 Economic activity

### 3.2 Value added by economic activity

(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	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
<b>Current prices (EUR billions)</b>												
2012	8,854.7	148.7	1,733.6	466.7	1,674.8	410.7	441.3	1,016.3	929.8	1,719.3	313.4	994.4
2013	8,945.3	152.9	1,737.8	457.3	1,690.3	414.0	443.2	1,035.0	945.1	1,751.1	318.7	1,007.5
2014	9,090.7	146.6	1,761.7	458.2	1,716.5	418.3	455.0	1,055.9	968.1	1,785.4	324.9	1,036.2
2014 Q3	2,278.0	36.3	442.4	114.0	430.1	104.6	114.0	264.5	242.9	447.8	81.5	259.6
Q4	2,290.6	35.3	444.5	114.9	434.5	105.4	113.7	266.1	245.1	449.2	81.9	262.2
2015 Q1	2,316.4	35.9	450.6	116.4	439.7	106.1	115.7	267.4	248.1	453.9	82.5	259.5
Q2	2,328.2	36.3	453.9	115.8	443.1	106.7	115.5	269.2	250.4	454.3	82.9	265.6
<i>as a percentage of value added</i>												
2014	100.0	1.6	19.4	5.0	18.9	4.6	5.0	11.6	10.6	19.6	3.6	-
<b>Chain-linked volumes (prices for the previous year)</b>												
<i>quarter-on-quarter percentage changes</i>												
2014 Q3	0.3	1.2	0.2	-0.6	0.5	0.8	0.2	0.3	0.6	0.1	0.5	0.0
Q4	0.3	-2.0	0.1	0.5	0.6	0.5	0.2	0.3	0.5	0.2	0.2	1.2
2015 Q1	0.6	1.2	0.8	0.8	0.7	0.7	0.6	0.2	1.0	0.1	0.2	-0.1
Q2	0.3	0.0	0.4	-0.5	0.4	0.5	0.3	0.3	0.5	0.3	0.0	0.9
<i>annual percentage changes</i>												
2012	-0.6	-4.2	-0.9	-6.1	-0.2	2.5	-0.3	0.0	-0.6	0.1	-0.7	-2.6
2013	-0.2	3.5	-0.4	-3.2	-1.0	1.4	-1.2	1.2	0.1	0.3	-0.1	-1.2
2014	0.9	3.4	0.5	-0.9	1.3	2.0	-0.4	1.3	1.5	0.6	0.6	0.8
2014 Q3	0.8	4.5	0.6	-2.0	1.1	2.2	-0.5	1.3	1.4	0.5	0.5	0.5
Q4	0.8	0.0	0.2	-1.4	1.4	2.0	0.2	1.2	2.0	0.5	0.7	1.9
2015 Q1	1.2	0.4	0.9	-0.8	1.8	2.7	0.6	1.2	2.4	0.6	0.7	2.0
Q2	1.5	0.4	1.4	0.1	2.3	2.5	1.3	1.1	2.6	0.7	0.9	2.0
<i>contributions to quarter-on-quarter percentage changes in value added; percentage points</i>												
2014 Q3	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	-
Q4	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	-
2015 Q1	0.6	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	-
Q2	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	-
<i>contributions to annual percentage changes in value added; percentage points</i>												
2012	-0.6	-0.1	-0.2	-0.3	0.0	0.1	0.0	0.0	-0.1	0.0	0.0	-
2013	-0.2	0.1	-0.1	-0.2	-0.2	0.1	-0.1	0.1	0.0	0.1	0.0	-
2014	0.9	0.1	0.1	0.0	0.2	0.1	0.0	0.1	0.2	0.1	0.0	-
2014 Q3	0.8	0.1	0.1	-0.1	0.2	0.1	0.0	0.2	0.1	0.1	0.0	-
Q4	0.8	0.0	0.0	-0.1	0.3	0.1	0.0	0.1	0.2	0.1	0.0	-
2015 Q1	1.2	0.0	0.2	0.0	0.3	0.1	0.0	0.1	0.3	0.1	0.0	-
Q2	1.5	0.0	0.3	0.0	0.4	0.1	0.1	0.1	0.3	0.1	0.0	-

Sources: Eurostat and ECB calculations.



## 3 Economic activity

### 3.3 Employment <sup>1)</sup>

(quarterly data seasonally adjusted; annual data unadjusted)

	Total	By employment status		By economic activity									
	1	Employees 2	Self-employed 3	Agriculture, forestry and fishing 4	Manufacturing, energy and utilities 5	Construction 6	Trade, transport, accommodation and food services 7	Information and communication 8	Finance and insurance 9	Real estate 10	Professional, business and support services 11	Public administration, education, health and social work 12	Arts, entertainment and other services 13
<b>Persons employed</b>													
<i>as a percentage of total persons employed</i>													
2012	100.0	84.9	15.1	3.4	15.4	6.4	24.8	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	24.8	2.7	2.7	1.0	12.9	24.0	7.1
2014	100.0	85.1	14.9	3.4	15.2	6.0	24.8	2.7	2.7	1.0	13.0	24.0	7.1
<i>annual percentage changes</i>													
2012	-0.4	-0.5	-0.1	-1.2	-0.7	-4.5	-0.6	1.2	-0.4	0.3	0.8	0.0	0.4
2013	-0.7	-0.6	-0.7	-1.3	-1.4	-4.4	-0.6	0.2	-1.1	-1.0	0.3	0.0	0.4
2014	0.6	0.8	-0.4	0.8	0.0	-1.7	0.8	0.9	-1.1	0.7	2.0	0.7	0.9
2014 Q3	0.8	1.0	-0.6	0.3	0.2	-1.2	1.1	1.2	-0.9	0.7	2.2	0.8	0.9
Q4	0.8	1.1	-0.5	0.5	0.4	-1.5	0.9	0.7	-1.0	1.2	2.5	0.6	2.0
2015 Q1	0.8	1.0	-0.2	-0.2	0.3	0.1	1.2	0.4	-0.7	1.4	2.6	0.5	0.6
Q2	0.9	1.0	0.2	0.3	0.3	1.0	0.8	0.7	0.0	2.1	2.4	0.5	1.1
<b>Hours worked</b>													
<i>as a percentage of total hours worked</i>													
2012	100.0	80.0	20.0	4.4	15.7	7.2	25.8	2.8	2.8	1.0	12.5	21.6	6.3
2013	100.0	80.0	20.0	4.4	15.7	6.8	25.8	2.8	2.8	1.0	12.6	21.7	6.4
2014	100.0	80.2	19.8	4.4	15.6	6.7	25.8	2.9	2.7	1.0	12.7	21.8	6.3
<i>annual percentage changes</i>													
2012	-1.8	-1.8	-1.6	-2.2	-2.3	-7.1	-2.1	0.6	-1.1	-0.8	-0.4	-0.6	-0.6
2013	-1.3	-1.3	-1.3	-1.6	-1.6	-5.6	-1.2	-0.3	-1.5	-1.9	-0.4	-0.5	-0.7
2014	0.6	0.9	-0.5	0.4	0.4	-1.6	0.7	1.0	-1.4	0.1	1.9	0.9	0.3
2014 Q3	0.5	1.0	-1.1	0.0	0.3	-1.8	0.8	1.1	-1.2	-0.3	2.0	0.6	0.2
Q4	1.0	1.3	-0.1	1.4	1.0	-1.0	0.9	1.3	-1.4	1.0	2.7	0.8	1.5
2015 Q1	0.7	0.9	-0.2	1.0	0.5	-0.1	0.7	0.6	-1.0	1.9	2.2	0.3	0.8
Q2	1.0	1.1	0.3	1.1	0.7	1.5	0.5	1.3	-0.1	2.7	2.7	0.5	1.0
<b>Hours worked per person employed</b>													
<i>annual percentage changes</i>													
2012	-1.3	-1.3	-1.4	-1.0	-1.6	-2.7	-1.5	-0.6	-0.7	-1.1	-1.2	-0.5	-1.0
2013	-0.6	-0.7	-0.5	-0.3	-0.2	-1.3	-0.6	-0.5	-0.5	-0.9	-0.7	-0.5	-1.1
2014	0.0	0.1	0.0	-0.4	0.4	0.2	-0.1	0.1	-0.3	-0.6	-0.1	0.2	-0.5
2014 Q3	-0.2	0.0	-0.5	-0.4	0.1	-0.6	-0.2	0.0	-0.3	-1.0	-0.1	-0.1	-0.7
Q4	0.1	0.2	0.5	0.9	0.6	0.5	-0.1	0.6	-0.5	-0.2	0.2	0.2	-0.6
2015 Q1	-0.1	-0.1	0.0	1.3	0.2	-0.2	-0.4	0.3	-0.3	0.4	-0.4	-0.2	0.2
Q2	0.1	0.2	0.1	0.8	0.5	0.6	-0.3	0.5	-0.1	0.6	0.3	0.0	-0.1

Sources: Eurostat and ECB calculations.

1) Data for employment are based on the ESA 2010.

## 3 Economic activity

### 3.4 Labour force, unemployment and job vacancies

(seasonally adjusted, unless otherwise indicated)

	Labour force, millions <sup>1)</sup>	Under-employment, % of labour force <sup>1)</sup>	Unemployment											Job vacancy rate <sup>2)</sup>
			Total		Long-term unemployment, % of labour force <sup>1)</sup>	By age				By gender				
			Millions	% of labour force		Adult		Youth		Male		Female		
						Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
% of total in 2013			100.0		81.3		18.7		53.6		46.4			
2012	159.111	4.0	18.188	11.4	5.2	14.632	10.1	3.556	23.6	9.755	11.3	8.433	11.5	1.6
2013	159.334	4.6	19.232	12.0	5.9	15.638	10.8	3.594	24.3	10.309	11.9	8.923	12.1	1.5
2014	160.308	4.6	18.631	11.6	6.1	15.219	10.4	3.413	23.7	9.928	11.5	8.704	11.8	1.7
2014 Q4	160.956	4.6	18.418	11.5	6.1	15.104	10.3	3.314	23.2	9.785	11.3	8.633	11.6	1.8
2015 Q1	160.089	4.7	17.948	11.2	5.9	14.719	10.1	3.229	22.7	9.513	11.0	8.435	11.4	1.7
Q2	160.446	4.6	17.711	11.0	5.7	14.521	9.9	3.190	22.5	9.418	10.9	8.292	11.2	1.7
Q3	.	.	17.343	10.8	.	14.224	9.7	3.118	22.1	9.237	10.7	8.106	11.0	.
2015 May	-	-	17.696	11.0	-	14.519	9.9	3.177	22.4	9.439	10.9	8.257	11.1	-
June	-	-	17.689	11.0	-	14.503	9.9	3.187	22.5	9.408	10.9	8.281	11.2	-
July	-	-	17.417	10.9	-	14.312	9.8	3.105	22.1	9.274	10.7	8.143	11.0	-
Aug.	-	-	17.358	10.8	-	14.231	9.7	3.127	22.2	9.233	10.7	8.125	11.0	-
Sep.	-	-	17.253	10.8	-	14.130	9.7	3.123	22.2	9.203	10.6	8.050	10.9	-
Oct.	-	-	17.240	10.7	-	14.093	9.6	3.148	22.3	9.240	10.7	8.000	10.8	-

Sources: Eurostat and ECB calculations.

1) Not seasonally adjusted.

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.

### 3.5 Short-term business statistics

	Industrial production					Construction production	ECB indicator on industrial new orders	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
1	2	3	4	5	6	7	8	9	10	11	12	13	
% 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
annual percentage changes													
2012	-2.4	-2.6	-4.4	-1.0	-2.5	-0.1	-5.8	-3.7	-1.6	-1.3	-1.5	-5.0	-11.1
2013	-0.7	-0.7	-1.0	-0.6	-0.4	-0.8	-2.3	-0.1	-0.8	-0.9	-0.6	-0.9	-4.4
2014	0.8	1.7	1.2	1.8	2.6	-5.5	1.7	3.3	1.3	0.3	2.3	0.3	3.8
2014 Q4	0.3	0.9	-0.4	0.8	2.6	-3.2	-0.8	2.9	1.9	0.7	2.8	1.4	1.7
2015 Q1	1.6	1.1	-0.1	1.1	2.4	4.6	-1.5	1.2	2.1	1.0	3.1	2.1	9.0
Q2	1.3	1.6	0.9	2.7	0.8	-1.1	-0.6	5.5	2.2	1.3	3.2	2.5	6.9
Q3	1.9	2.2	1.0	2.5	2.6	0.3	-0.9	2.0	2.8	2.2	3.2	4.1	9.4
2015 May	1.7	2.3	2.1	3.9	0.3	-3.7	0.3	5.2	2.5	1.8	3.3	2.2	6.8
June	1.5	1.8	0.7	2.1	2.3	-0.2	-1.0	7.7	1.9	0.6	3.1	2.7	7.5
July	1.8	1.6	0.0	1.8	2.7	3.8	-0.3	3.2	3.2	2.3	3.6	3.0	9.9
Aug.	2.2	2.7	1.1	4.0	2.8	-1.6	-1.4	3.4	2.2	2.6	2.0	4.1	8.3
Sep.	1.7	2.3	1.8	2.2	2.2	-1.4	1.8	-0.6	2.9	1.6	4.0	5.3	9.8
Oct.	.	.	.	.	.	.	.	.	.	.	.	.	5.8
month-on-month percentage changes (s.a.)													
2015 May	-0.1	0.3	0.3	1.3	-0.5	-2.7	0.2	0.0	0.2	0.3	0.3	-0.5	-1.5
June	-0.3	-0.8	-0.3	-1.5	-0.5	2.9	-0.8	1.8	0.0	-0.4	0.3	0.4	1.6
July	0.7	0.8	-0.4	1.6	1.2	2.0	0.4	-1.5	0.6	0.5	0.6	0.3	2.2
Aug.	-0.4	-0.2	0.3	-1.0	0.1	-3.0	0.5	-1.6	0.0	0.6	-0.5	1.6	-0.9
Sep.	-0.3	-0.5	0.0	-0.3	-1.3	1.2	-0.4	-2.6	-0.1	-0.6	0.1	0.0	0.8
Oct.	.	.	.	.	.	.	.	.	.	.	.	.	-0.9

Sources: Eurostat, ECB calculations, ECB experimental statistics (col. 8) and European Automobile Manufacturers Association (col. 13).

## 3 Economic activity

### 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 confidence indicator	Service industries		Purchasing Managers' Index (PMI) for manufacturing	Manufacturing 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	80.9	-12.7	-13.8	-8.7	6.6	-	51.0	52.4	52.9	52.7
2012	90.5	-11.6	78.9	-21.9	-27.7	-15.0	-6.5	86.5	46.2	46.3	47.6	47.2
2013	93.8	-9.1	78.7	-18.5	-29.2	-12.2	-5.4	87.1	49.6	50.6	49.3	49.7
2014	101.6	-3.9	80.4	-10.0	-27.4	-3.2	4.8	87.6	51.8	53.3	52.5	52.7
2014 Q4	100.9	-4.5	80.8	-11.2	-24.3	-5.1	5.3	87.9	50.4	51.2	51.7	51.5
2015 Q1	102.6	-4.0	81.1	-6.2	-24.9	-1.6	5.6	88.2	51.4	52.6	53.6	53.3
Q2	103.7	-3.2	81.1	-5.1	-24.9	-0.2	7.6	88.3	52.3	53.4	54.1	53.9
Q3	104.6	-3.0	81.3	-6.9	-23.2	2.9	10.5	88.4	52.3	53.6	54.0	53.9
2015 June	103.5	-3.4	-	-5.5	-24.2	-1.3	7.9	-	52.5	53.6	54.4	54.2
July	104.0	-2.9	81.1	-7.0	-23.8	1.1	8.9	88.1	52.4	53.6	54.0	53.9
Aug.	104.1	-3.7	-	-6.7	-22.7	3.5	10.1	-	52.3	53.9	54.4	54.3
Sep.	105.6	-2.3	-	-7.0	-23.2	4.2	12.4	-	52.0	53.4	53.7	53.6
Oct.	106.1	-2.0	81.5	-7.5	-20.7	6.4	12.3	88.7	52.3	53.6	54.1	53.9
Nov.	106.1	-3.2	-	-5.9	-17.8	5.8	12.8	-	52.8	54.0	54.6	54.4

Sources: European Commission (Directorate-General for Economic and Financial Affairs) (col. 1-8) and Markit (col. 9-12).

### 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) <sup>1)</sup>	Debt ratio	Real gross disposable income	Financial investment	Non-financial investment (gross)	Net worth <sup>2)</sup>	Housing wealth	Profit share <sup>3)</sup>	Saving ratio (net)	Debt ratio <sup>4)</sup>	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
2012	12.5	97.8	-1.8	1.7	-5.1	0.6	-2.3	30.6	1.1	133.7	1.5	-6.7	1.2
2013	12.7	96.4	-0.4	1.3	-4.1	0.4	-2.2	32.0	3.0	132.2	2.3	-1.0	1.0
2014	12.7	95.7	0.7	1.9	1.0	2.6	0.8	32.5	3.9	132.9	1.8	3.5	1.0
2014 Q3	12.8	95.5	1.3	1.8	-0.9	2.8	0.4	32.0	3.3	132.1	1.7	3.0	0.8
Q4	12.7	95.7	0.8	1.9	1.0	2.6	0.8	32.5	3.9	133.3	1.8	2.1	1.0
2015 Q1	12.7	95.3	1.9	1.9	-0.3	3.6	1.2	32.6	4.1	135.3	2.7	2.1	1.4
Q2	12.8	95.0	2.0	1.9	-0.2	2.4	1.2	33.2	4.8	134.7	3.2	6.0	1.6

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.

## 3 Economic activity

### 3.8 Euro area balance of payments, current and capital accounts

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

	Current account											Capital account <sup>1)</sup>	
	Total			Goods		Services		Primary income		Secondary income		Credit	Debit
	Credit	Debit	Net	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit		
1	2	3	4	5	6	7	8	9	10	11	12	13	
2014 Q4	864.3	794.4	69.8	508.6	434.1	179.2	164.5	152.2	136.7	24.2	59.1	12.7	6.0
2015 Q1	875.6	794.4	81.1	512.0	436.0	184.2	169.0	153.8	130.0	25.6	59.4	8.7	7.5
Q2	891.1	812.1	79.0	525.0	442.6	186.8	171.0	152.7	138.2	26.7	60.3	9.6	37.2
Q3	875.1	801.6	73.5	511.7	432.1	185.9	173.1	152.0	138.6	25.5	57.8	9.2	4.5
2015 Apr.	298.2	271.1	27.2	174.9	147.7	61.7	57.0	53.1	46.0	8.4	20.3	2.8	1.2
May	297.6	272.6	24.9	174.7	148.1	63.0	56.9	50.4	46.4	9.4	21.2	3.6	1.5
June	295.3	268.4	26.9	175.3	146.8	62.0	57.1	49.1	45.8	8.9	18.7	3.3	34.4
July	295.5	270.1	25.4	173.8	146.0	62.0	58.1	51.4	46.5	8.4	19.4	3.2	1.6
Aug.	288.7	269.9	18.7	166.9	144.9	62.6	58.1	50.0	46.2	9.2	20.8	3.3	1.2
Sep.	291.0	261.6	29.4	171.0	141.2	61.4	56.8	50.7	45.9	7.9	17.7	2.7	1.7
<i>12-month cumulated transactions</i>													
2015 Sep.	3,506.1	3,202.6	303.5	2,057.3	1,744.9	736.1	677.6	610.6	543.4	102.0	236.6	40.2	55.1
<i>12-month cumulated transactions as a percentage of GDP</i>													
2015 Sep.	34.2	31.2	3.0	20.1	17.0	7.2	6.6	6.0	5.3	1.0	2.3	0.4	0.5

1) The capital account is not seasonally adjusted.

### 3.9 Euro area external trade in goods<sup>1)</sup>, values and volumes by product group<sup>2)</sup>

(seasonally adjusted, unless otherwise indicated)

	Total (n.s.a.)		Exports (f.o.b.)					Imports (c.i.f.)					
	Exports	Imports	Total			Memo item: Manu- facturing	Total			Memo items:			
			Intermediate goods	Capital goods	Consumption goods		Intermediate goods	Capital goods	Consumption goods	Manu- facturing	Oil		
1	2	3	4	5	6	7	8	9	10	11	12	13	
<i>Values (EUR billions; annual percentage changes for columns 1 and 2)</i>													
2014 Q4	4.1	0.1	499.2	237.4	103.0	145.7	408.9	437.0	261.6	64.2	104.1	294.7	66.1
2015 Q1	5.6	1.8	509.5	241.5	105.1	149.5	421.9	447.6	259.8	70.1	109.6	315.1	55.4
Q2	8.2	3.9	513.7	242.5	105.3	153.6	428.7	452.2	264.7	69.5	110.5	316.0	59.9
Q3	4.4	0.7	506.7	.	.	.	421.0	445.0	.	.	.	313.5	.
2015 Apr.	9.1	5.1	171.3	81.5	35.3	51.0	143.2	151.2	88.8	23.9	36.3	106.4	19.7
May	2.8	0.0	170.4	80.4	34.4	50.9	141.9	148.8	87.3	22.5	36.6	102.8	20.6
June	12.7	6.5	172.0	80.6	35.6	51.7	143.6	152.1	88.6	23.1	37.6	106.7	19.6
July	7.0	0.7	172.7	79.7	35.2	52.5	143.4	150.1	86.3	23.1	37.6	105.8	18.2
Aug.	5.5	2.8	166.1	77.2	34.2	50.8	137.7	147.1	83.6	22.8	37.6	103.3	16.9
Sep.	0.9	-1.0	167.9	.	.	.	139.9	147.8	.	.	.	104.4	.
<i>Volume indices (2000 = 100; annual percentage changes for columns 1 and 2)</i>													
2014 Q4	2.9	2.3	118.0	113.9	120.6	122.0	117.4	102.7	102.7	100.3	104.1	104.8	97.7
2015 Q1	2.6	5.1	119.1	115.2	120.6	123.3	118.9	106.4	106.5	105.0	106.3	108.6	105.9
Q2	3.0	2.4	117.2	113.6	118.8	121.7	118.1	103.7	103.9	100.6	104.9	106.6	99.4
Q3	.	.	.	.	.	.	.	.	.	.	.	.	.
2015 Mar.	7.3	10.5	119.5	115.9	118.7	124.5	119.7	107.9	108.2	105.9	108.9	110.0	108.8
Apr.	3.5	3.3	117.4	114.5	119.4	122.2	118.5	104.1	104.6	103.6	103.5	107.3	101.4
May	-2.6	-2.3	116.4	112.7	116.8	120.4	117.1	101.9	101.9	98.6	103.7	104.1	99.6
June	8.1	6.1	117.8	113.7	120.2	122.5	118.7	105.0	105.2	99.6	107.4	108.3	97.2
July	3.0	1.8	118.7	113.0	118.9	125.4	118.8	105.8	104.8	103.4	108.1	108.3	96.7
Aug.	2.0	5.2	114.7	110.4	115.1	121.5	113.8	104.5	104.9	98.2	106.0	103.9	100.2

Sources: ECB and Eurostat.

1) 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.

2) Product groups as classified in the Broad Economic Categories.

## 4 Prices and costs

### 4.1 Harmonised Index of Consumer Prices <sup>1)</sup>

(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		Goods	Services	Total	Processed food	Unpro- cessed food	Non-energy industrial goods	Energy (n.s.a.)	Services	Total HICP excluding administered prices	Adminis- tered prices
		Total excluding food and energy											
	1	2	3	4	5	6	7	8	9	10	11	12	13
% 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
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 Q4	117.8	0.2	0.7	-0.6	1.2	-0.2	0.1	0.3	-0.1	-3.0	0.2	-0.1	1.7
2015 Q1	116.8	-0.3	0.7	-1.4	1.1	-0.3	0.2	0.6	0.1	-4.2	0.3	-0.5	1.2
Q2	118.4	0.2	0.8	-0.5	1.1	0.5	0.3	0.7	0.2	2.4	0.4	0.1	0.9
Q3	117.8	0.1	0.9	-0.8	1.2	0.0	0.1	0.5	0.2	-2.5	0.4	0.0	0.8
2015 June	118.5	0.2	0.8	-0.4	1.1	0.0	0.1	-0.1	0.1	-0.1	0.0	0.1	0.9
July	117.7	0.2	1.0	-0.5	1.2	0.0	0.0	-0.6	0.1	-0.7	0.2	0.1	0.9
Aug.	117.7	0.1	0.9	-0.7	1.2	-0.1	0.1	1.2	0.0	-2.2	0.1	0.0	0.9
Sep.	118.0	-0.1	0.9	-1.1	1.2	-0.1	0.0	0.6	0.0	-1.7	0.0	-0.2	0.7
Oct.	118.2	0.1	1.1	-0.8	1.3	0.1	0.0	0.4	0.1	-0.5	0.1	0.0	0.7
Nov. <sup>2)</sup>	118.0	0.1	0.9	.	1.1	0.0	0.1	-0.3	0.0	0.0	0.0	.	.

	Goods						Services					
	Food (including alcoholic beverages and tobacco)			Industrial goods			Housing	Transport	Communi- cation	Recreation and personal	Miscel- laneous	
	Total	Processed food	Unpro- cessed food	Total	Non-energy industrial goods	Energy	Rents					
	14	15	16	17	18	19	20	21	22	23	24	25
% 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
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 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
2015 Q1	0.3	0.5	0.1	-2.3	-0.1	-7.7	1.3	1.3	1.4	-1.9	1.3	1.2
Q2	1.1	0.7	1.8	-1.3	0.2	-5.3	1.2	1.2	1.2	-0.9	1.4	1.2
Q3	1.2	0.6	2.1	-1.8	0.4	-7.2	1.2	1.1	1.4	-0.4	1.6	1.0
2015 June	1.1	0.7	1.9	-1.3	0.3	-5.1	1.2	1.2	1.2	-0.8	1.3	1.1
July	0.9	0.6	1.4	-1.3	0.4	-5.6	1.2	1.1	1.5	-0.7	1.6	1.0
Aug.	1.3	0.6	2.4	-1.8	0.4	-7.2	1.2	1.1	1.2	-0.4	1.7	1.0
Sep.	1.4	0.6	2.7	-2.4	0.3	-8.9	1.3	1.1	1.4	-0.1	1.6	1.1
Oct.	1.6	0.6	3.2	-2.1	0.6	-8.5	1.2	1.1	1.4	-0.1	1.8	1.2
Nov. <sup>2)</sup>	1.5	0.7	2.6	.	0.5	-7.3	.	.	.	.	.	.

Sources: Eurostat and ECB calculations.

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.

## 4 Prices and costs

### 4.2 Industry, construction and property prices

(annual percentage changes, unless otherwise indicated)

	Industrial producer prices excluding construction										Con- struction	Residential property prices <sup>1)</sup>	Experimental indicator of commercial property prices <sup>1)</sup>
	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					
1	2	3	4	5	6	7	8	9	10	11	12	13	
% of total in 2010	100.0	100.0	78.0	72.1	29.3	20.0	22.7	13.8	8.9	27.9			
2012	108.7	2.8	2.0	1.4	0.7	1.0	2.5	3.5	0.9	6.6	1.5	-1.7	-0.1
2013	108.5	-0.2	-0.1	0.4	-0.6	0.6	1.7	2.6	0.3	-1.6	0.3	-2.0	-1.1
2014	106.9	-1.5	-0.9	-0.3	-1.1	0.4	0.1	-0.2	0.3	-4.4	0.3	0.2	1.1
2014 Q4	106.0	-1.9	-1.6	-0.3	-0.7	0.6	-0.6	-1.2	0.2	-5.8	0.2	0.7	2.4
2015 Q1	104.5	-2.9	-2.6	-0.6	-1.5	0.7	-0.7	-1.3	0.2	-8.5	0.3	1.0	2.5
Q2	104.9	-2.1	-1.6	-0.3	-0.7	0.7	-0.8	-1.4	0.1	-6.5	0.4	1.0	3.2
Q3	104.0	-2.6	-2.6	-0.5	-1.1	0.6	-0.6	-1.0	0.2	-8.2	.	.	.
2015 May	104.9	-2.0	-1.5	-0.3	-0.6	0.7	-0.8	-1.3	0.0	-6.2	-	-	-
June	104.9	-2.1	-1.7	-0.3	-0.6	0.7	-0.8	-1.4	0.1	-6.8	-	-	-
July	104.7	-2.1	-2.0	-0.3	-0.7	0.7	-0.8	-1.3	0.1	-6.5	-	-	-
Aug.	103.9	-2.6	-2.7	-0.5	-1.1	0.6	-0.7	-1.2	0.2	-8.2	-	-	-
Sep.	103.5	-3.2	-3.0	-0.6	-1.5	0.6	-0.4	-0.6	0.2	-10.0	-	-	-
Oct.	103.2	-3.1	-2.8	-0.7	-1.9	0.6	-0.1	-0.2	0.2	-9.7	-	-	-

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

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

### 4.3 Commodity prices and GDP deflators

(annual percentage changes, unless otherwise indicated)

	GDP deflators								Oil prices (EUR per barrel)	Non-energy commodity prices (EUR)					
	Total (s.a.; index: 2010 = 100)	Total	Domestic demand				Exports <sup>1)</sup>	Imports <sup>1)</sup>		Import-weighted <sup>2)</sup>					
			Total	Private consump- tion	Govern- ment consump- tion	Gross fixed capital formation				Total	Food	Non-food	Total	Food	Non-food
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
% of total									100.0	35.0	65.0	100.0	45.0	55.0	
2012	102.4	1.3	1.5	1.9	0.8	1.2	1.9	2.5	86.6	-7.2	0.2	-10.5	-3.1	5.8	-9.1
2013	103.7	1.3	1.0	1.1	1.2	0.5	-0.3	-1.3	81.7	-9.0	-13.4	-6.9	-8.3	-10.1	-6.9
2014	104.6	0.9	0.5	0.5	0.8	0.5	-0.7	-1.7	74.5	-8.8	-1.6	-12.1	-4.6	0.7	-8.7
2014 Q4	105.0	0.9	0.3	0.3	0.8	0.6	-0.4	-1.9	61.5	-5.5	6.2	-10.8	1.3	9.3	-4.7
2015 Q1	105.4	1.0	0.0	-0.2	0.7	0.6	-0.2	-2.6	49.0	-0.4	8.7	-4.9	5.6	11.6	0.7
Q2	105.7	1.2	0.4	0.3	0.7	0.9	0.9	-1.1	57.4	-0.5	2.1	-2.0	4.0	5.6	2.6
Q3	.	.	.	.	.	.	.	.	46.1	-6.5	6.5	-13.1	-3.3	5.8	-10.6
2015 June	.	.	.	.	.	.	.	.	56.7	-0.1	3.1	-1.9	3.3	5.9	1.1
July	.	.	.	.	.	.	.	.	51.7	-3.6	11.1	-11.0	0.5	9.8	-7.1
Aug.	.	.	.	.	.	.	.	.	43.0	-8.1	4.4	-14.4	-4.4	5.2	-12.1
Sep.	.	.	.	.	.	.	.	.	43.3	-7.9	3.9	-13.8	-6.0	2.4	-12.6
Oct.	.	.	.	.	.	.	.	.	43.9	-8.3	3.8	-14.6	-6.9	0.8	-13.3
Nov.	.	.	.	.	.	.	.	.	42.8	-8.0	5.8	-15.5	-8.8	-2.2	-14.5

Sources: Eurostat, ECB calculations and Thomson Reuters (col. 9).

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

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

## 4 Prices and costs

### 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	
	Manu- facturing	Retail trade	Services	Construction		Manu- facturing	Services	Manu- facturing	Services
	1	2	3	4	5	6	7	8	9
1999-13	4.8	-	-	-1.8	34.1	57.7	56.7	-	49.9
2012	2.7	8.1	2.1	-12.7	38.6	52.7	55.1	49.9	47.9
2013	-0.3	1.7	-1.2	-17.1	29.9	48.5	53.8	49.4	47.8
2014	-0.8	-1.4	1.2	-17.6	14.4	49.6	53.5	49.7	48.2
2014 Q4	-2.1	-4.4	2.8	-15.7	7.9	48.7	52.6	49.0	47.1
2015 Q1	-5.5	-0.7	1.4	-17.0	-2.4	45.8	52.5	48.8	47.6
Q2	-1.1	3.3	3.0	-15.4	-0.8	54.7	54.4	50.4	49.0
Q3	-1.8	1.1	2.4	-13.0	-0.1	49.5	53.6	49.9	49.9
2015 June	0.0	4.7	4.2	-14.9	0.1	55.7	54.1	51.0	48.9
July	-0.1	0.8	2.1	-14.0	0.9	54.4	54.3	50.4	49.5
Aug.	-2.0	3.0	2.2	-13.0	0.3	49.6	53.1	50.5	49.9
Sep.	-3.3	-0.6	2.9	-12.1	-1.6	44.6	53.5	48.7	50.4
Oct.	-2.3	2.1	4.8	-10.3	-2.3	44.3	54.0	48.6	49.9
Nov.	-0.7	2.3	4.1	-9.3	-0.4	45.6	53.3	49.3	49.7

Sources: European Commission (Directorate-General for Economic and Financial Affairs) and Markit.

### 4.5 Labour cost indices

(annual percentage changes, unless otherwise indicated)

	Total (index: 2012 = 100)	Total	By component		For selected economic activities		Memo item: Indicator of negotiated wages <sup>1)</sup>
			Wages and salaries	Employers' social contributions	Business economy	Mainly non-business economy	
	1	2	3	4	5	6	7
% of total in 2012	100.0	100.0	74.6	25.4	69.3	30.7	
2012	100.0	2.1	2.1	2.1	2.4	1.3	2.2
2013	101.3	1.3	1.4	1.2	1.2	1.7	1.8
2014	102.6	1.4	1.3	1.3	1.3	1.4	1.7
2014 Q4	108.0	1.3	1.1	1.5	1.1	1.5	1.7
2015 Q1	97.5	1.9	2.0	1.4	1.9	1.9	1.4
Q2	108.0	1.6	1.9	0.4	1.6	1.4	1.5
Q3	.	.	.	.	.	.	1.6

Sources: Eurostat and ECB calculations.

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



## 4 Prices and costs

### 4.6 Unit labour costs, compensation per labour input and labour productivity

(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	Manu- facturing, energy and utilities	Con- struction	Trade, transport, accom- modation and food services	Information and commu- nication	Finance and insurance	Real estate	Professional, business and support services	Public ad- ministration, education, health and social work	Arts, enter- tainment and other services
	1	2	3	4	5	6	7	8	9	10	11	12
Unit labour costs												
2012	102.5	1.9	3.2	2.1	4.1	1.3	0.3	0.9	1.4	3.6	0.7	2.9
2013	103.7	1.2	-0.9	1.7	0.3	1.2	-0.5	2.1	-2.2	1.2	1.6	1.6
2014	105.0	1.2	-3.7	1.6	0.7	0.8	1.2	1.2	0.8	2.5	1.3	1.2
2014 Q3	105.2	1.3	-5.0	1.6	1.4	1.2	1.0	1.4	1.2	2.8	1.3	1.2
Q4	105.3	1.3	-0.8	2.3	1.1	0.6	1.4	1.2	1.2	2.3	1.4	1.4
2015 Q1	105.5	0.9	0.3	1.2	1.6	0.5	-0.3	0.1	3.1	2.1	1.3	0.5
Q2	105.6	0.8	1.2	0.8	1.5	0.0	1.0	-0.1	2.3	1.5	1.2	0.9
Compensation per employee												
2012	103.6	1.5	0.1	1.9	2.4	1.7	1.6	1.0	1.1	2.1	0.8	1.8
2013	105.3	1.6	3.9	2.7	1.5	0.9	0.7	1.9	-0.1	1.0	1.8	1.1
2014	106.8	1.4	-1.2	2.2	1.6	1.3	2.3	2.0	1.4	1.9	1.2	1.0
2014 Q3	107.1	1.3	-1.0	1.9	0.6	1.2	2.0	1.9	1.8	2.1	1.1	0.8
Q4	107.5	1.3	-1.3	2.1	1.2	1.1	2.6	2.4	1.2	1.7	1.3	0.1
2015 Q1	108.1	1.4	0.9	1.8	0.6	1.1	2.1	1.4	2.9	2.0	1.4	0.6
Q2	108.2	1.4	1.3	1.9	0.7	1.4	2.8	1.2	1.3	1.7	1.4	0.7
Labour productivity per person employed												
2012	101.1	-0.4	-3.0	-0.2	-1.7	0.4	1.3	0.1	-0.3	-1.5	0.1	-1.1
2013	101.5	0.4	4.8	1.0	1.2	-0.4	1.2	-0.1	2.1	-0.2	0.3	-0.5
2014	101.8	0.3	2.6	0.6	0.9	0.5	1.1	0.7	0.5	-0.5	-0.1	-0.2
2014 Q3	101.8	0.0	4.2	0.4	-0.8	0.0	1.0	0.5	0.7	-0.7	-0.2	-0.4
Q4	102.1	0.1	-0.6	-0.2	0.1	0.5	1.3	1.2	0.0	-0.6	-0.1	-1.3
2015 Q1	102.4	0.4	0.6	0.6	-0.9	0.6	2.3	1.3	-0.2	-0.2	0.1	0.1
Q2	102.5	0.7	0.1	1.2	-0.8	1.4	1.8	1.3	-1.0	0.2	0.3	-0.1
Compensation per hour worked												
2012	104.8	2.9	2.1	3.6	5.3	3.5	2.0	1.5	1.7	3.2	1.3	2.7
2013	107.2	2.2	3.9	2.9	2.9	1.6	1.1	2.5	1.1	2.0	2.2	2.1
2014	108.6	1.4	-0.5	1.8	1.4	1.3	2.0	2.2	1.6	1.8	1.0	1.4
2014 Q3	108.8	1.4	-0.4	1.8	0.7	1.3	1.7	1.9	1.7	1.7	1.2	1.5
Q4	109.0	1.2	-1.2	1.5	0.9	1.0	1.7	2.8	1.3	1.5	1.1	0.7
2015 Q1	109.8	1.4	0.5	1.7	0.5	1.4	1.1	1.9	2.9	2.1	1.6	0.2
Q2	109.9	1.3	0.6	1.6	-0.1	1.5	1.8	1.4	0.3	1.3	1.4	0.9
Hourly labour productivity												
2012	102.4	1.0	-2.0	1.4	1.1	1.9	1.8	0.8	0.8	-0.3	0.6	-0.1
2013	103.4	1.0	5.1	1.2	2.5	0.2	1.7	0.3	3.1	0.6	0.7	0.6
2014	103.7	0.3	3.0	0.1	0.7	0.6	1.0	1.1	1.2	-0.4	-0.3	0.3
2014 Q3	103.7	0.2	4.6	0.3	-0.2	0.2	1.1	0.7	1.7	-0.6	-0.1	0.3
Q4	103.7	-0.1	-1.4	-0.9	-0.4	0.6	0.6	1.7	0.2	-0.8	-0.3	-0.7
2015 Q1	104.2	0.5	-0.7	0.4	-0.7	1.1	2.1	1.7	-0.7	0.2	0.3	-0.1
Q2	104.3	0.6	-0.7	0.7	-1.4	1.7	1.2	1.4	-1.6	-0.1	0.2	0.0

Sources: Eurostat and ECB calculations.

## 5 Money and credit

### 5.1 Monetary aggregates <sup>1)</sup>

(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				Repos			Money market fund shares			Debt securities with a maturity of up to 2 years		
	Currency in circulation	Overnight deposits		Deposits with an agreed maturity of up to 2 years	Deposits redeemable at notice of up to 3 months										
1	2	3	4	5	6	7	8	9	10	11	12				
Outstanding amounts															
2012	864.1	4,233.3	5,097.4	1,798.6	2,099.6	3,898.2	8,995.6	126.0	483.3	181.0	790.4	9,786.0			
2013	909.7	4,476.3	5,386.1	1,683.3	2,142.8	3,826.1	9,212.1	121.4	418.1	86.5	626.0	9,838.1			
2014	968.5	4,952.5	5,921.1	1,598.4	2,149.2	3,747.6	9,668.7	123.9	427.7	104.4	656.0	10,324.7			
2014 Q4	968.5	4,952.5	5,921.1	1,598.4	2,149.2	3,747.6	9,668.7	123.9	427.7	104.4	656.0	10,324.7			
2015 Q1	993.5	5,155.4	6,148.9	1,529.2	2,150.0	3,679.1	9,828.0	125.8	437.5	96.4	659.7	10,487.6			
Q2	1,014.0	5,298.8	6,312.8	1,480.0	2,160.7	3,640.7	9,953.5	90.3	441.1	98.6	629.9	10,583.4			
Q3	1,028.2	5,425.3	6,453.5	1,449.1	2,164.6	3,613.7	10,067.2	98.4	457.6	73.2	629.1	10,696.3			
2015 May	1,006.4	5,258.0	6,264.3	1,489.7	2,156.9	3,646.6	9,911.0	110.1	444.0	94.9	649.1	10,560.0			
June	1,014.0	5,298.8	6,312.8	1,480.0	2,160.7	3,640.7	9,953.5	90.3	441.1	98.6	629.9	10,583.4			
July	1,020.2	5,364.7	6,384.9	1,471.3	2,161.8	3,633.2	10,018.1	105.0	456.2	86.5	647.6	10,665.7			
Aug.	1,025.0	5,383.8	6,408.8	1,460.3	2,164.0	3,624.3	10,033.1	102.4	446.2	80.4	629.0	10,662.1			
Sep.	1,028.2	5,425.3	6,453.5	1,449.1	2,164.6	3,613.7	10,067.2	98.4	457.6	73.2	629.1	10,696.3			
Oct. <sup>(p)</sup>	1,029.9	5,487.6	6,517.5	1,438.1	2,164.4	3,602.5	10,120.0	106.8	473.9	78.2	658.8	10,778.8			
Transactions															
2012	20.4	294.0	314.4	-38.5	115.5	77.0	391.4	-16.9	-20.2	-18.3	-55.4	335.9			
2013	45.6	250.3	295.9	-114.4	45.5	-68.9	227.0	-11.6	-48.7	-63.3	-123.6	103.4			
2014	58.2	379.6	437.8	-91.0	3.6	-87.3	350.5	1.0	10.8	12.5	24.3	374.8			
2014 Q4	20.0	147.3	167.3	-47.4	-5.5	-52.9	114.5	-3.1	10.1	19.1	26.1	140.6			
2015 Q1	23.8	166.9	190.7	-56.7	1.6	-55.2	135.5	0.6	5.6	-9.3	-3.0	132.5			
Q2	20.5	151.6	172.0	-47.8	11.0	-36.7	135.3	-35.2	3.6	3.9	-27.7	107.6			
Q3	14.3	129.0	143.3	-35.4	3.1	-32.3	111.0	8.2	18.7	-18.6	8.3	119.3			
2015 May	4.4	62.4	66.8	-27.8	4.3	-23.5	43.3	-18.4	-6.0	-12.6	-37.0	6.3			
June	7.6	45.5	53.1	-8.8	3.8	-5.0	48.1	-19.7	-3.0	4.8	-17.9	30.2			
July	6.3	61.9	68.2	-13.8	1.2	-12.6	55.6	14.5	15.1	-12.0	17.7	73.3			
Aug.	4.7	24.5	29.2	-9.4	2.3	-7.1	22.1	-2.3	2.2	-2.6	-2.6	19.5			
Sep.	3.2	42.6	45.9	-12.2	-0.4	-12.6	33.3	-4.1	1.3	-4.0	-6.7	26.5			
Oct. <sup>(p)</sup>	1.7	58.1	59.8	-12.4	-0.2	-12.6	47.2	8.2	16.4	5.8	30.4	77.6			
Growth rates															
2012	2.4	7.4	6.5	-2.1	5.9	2.0	4.5	-11.4	-3.9	-9.7	-6.5	3.5			
2013	5.3	5.9	5.8	-6.4	2.2	-1.8	2.5	-9.2	-10.4	-38.0	-16.1	1.0			
2014	6.4	8.5	8.1	-5.4	0.2	-2.3	3.8	0.8	2.6	18.3	3.9	3.8			
2014 Q4	6.4	8.5	8.1	-5.4	0.2	-2.3	3.8	0.8	2.6	18.3	3.9	3.8			
2015 Q1	7.3	10.6	10.1	-7.6	0.1	-3.3	4.6	5.1	5.3	11.3	5.6	4.7			
Q2	8.8	12.4	11.8	-10.7	0.5	-4.4	5.2	-30.9	6.9	23.3	0.5	4.9			
Q3	8.3	12.4	11.7	-11.4	0.5	-4.7	5.2	-23.0	9.0	-1.6	0.7	4.9			
2015 May	8.3	12.0	11.4	-10.2	0.4	-4.2	5.0	-9.5	7.7	14.6	4.7	5.0			
June	8.8	12.4	11.8	-10.7	0.5	-4.4	5.2	-30.9	6.9	23.3	0.5	4.9			
July	8.9	12.9	12.2	-11.4	0.5	-4.7	5.4	-19.2	8.0	17.2	2.7	5.2			
Aug.	8.6	12.1	11.5	-11.3	0.6	-4.6	5.1	-21.1	9.5	7.8	2.4	4.9			
Sep.	8.3	12.4	11.7	-11.4	0.5	-4.7	5.2	-23.0	9.0	-1.6	0.7	4.9			
Oct. <sup>(p)</sup>	8.1	12.5	11.8	-10.9	0.6	-4.3	5.4	-18.8	10.2	8.4	3.4	5.3			

Source: ECB.

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

## 5 Money and credit

### 5.2 Deposits in M3 <sup>1)</sup>

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

	Non-financial corporations <sup>2)</sup>					Households <sup>3)</sup>					Financial corporations other than MFIs and ICPFs <sup>2)</sup>	Insurance corporations and pension funds	Other general government <sup>4)</sup>
	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	1,618.4	1,101.2	404.8	101.9	10.5	5,309.1	2,358.9	976.4	1,962.8	10.9	812.7	210.3	307.0
2013	1,710.5	1,186.7	397.8	109.8	16.2	5,413.6	2,539.7	874.7	1,994.5	4.7	804.8	194.9	300.1
2014	1,814.9	1,318.6	365.7	111.4	19.2	5,557.2	2,751.2	809.5	1,993.5	3.0	896.1	222.7	333.1
2014 Q4	1,814.9	1,318.6	365.7	111.4	19.2	5,557.2	2,751.2	809.5	1,993.5	3.0	896.1	222.7	333.1
2015 Q1	1,848.1	1,381.7	340.2	111.4	14.9	5,598.2	2,839.3	762.8	1,992.3	3.8	948.2	225.7	340.2
Q2	1,858.0	1,410.7	322.7	112.4	12.2	5,647.1	2,910.6	735.0	1,998.7	2.8	955.7	228.1	340.9
Q3	1,900.8	1,451.1	324.2	115.3	10.1	5,695.2	2,987.2	707.3	1,997.6	3.0	967.3	218.0	356.2
2015 May	1,855.1	1,404.5	326.4	112.1	12.2	5,624.4	2,878.5	745.8	1,996.3	3.9	960.0	229.1	346.1
June	1,858.0	1,410.7	322.7	112.4	12.2	5,647.1	2,910.6	735.0	1,998.7	2.8	955.7	228.1	340.9
July	1,889.2	1,438.2	325.1	113.4	12.6	5,664.6	2,942.4	722.4	1,996.7	3.2	968.9	232.1	348.0
Aug.	1,889.1	1,441.8	325.2	114.0	8.2	5,674.5	2,959.9	714.7	1,996.8	3.1	968.1	224.7	354.2
Sep.	1,900.8	1,451.1	324.2	115.3	10.1	5,695.2	2,987.2	707.3	1,997.6	3.0	967.3	218.0	356.2
Oct. <sup>(a)</sup>	1,937.8	1,493.9	316.9	116.9	10.1	5,706.1	3,002.8	705.5	1,994.3	3.5	964.8	222.2	365.9
Transactions													
2012	71.7	99.5	-33.9	10.2	-4.1	222.7	99.7	35.3	100.4	-12.7	18.7	15.2	25.7
2013	98.2	90.1	-6.9	9.1	5.9	107.9	182.4	-100.1	31.9	-6.2	-15.1	-13.3	-7.8
2014	69.3	91.2	-25.6	1.2	2.4	141.1	209.7	-65.8	-1.1	-1.7	53.7	7.5	21.7
2014 Q4	6.8	19.6	-15.3	-1.8	4.4	30.0	68.5	-33.5	-3.1	-1.9	62.1	-5.3	-2.2
2015 Q1	29.3	48.9	-14.9	-0.1	-4.6	38.8	79.2	-41.1	-0.1	0.8	35.3	1.5	7.5
Q2	13.5	31.8	-16.6	1.0	-2.6	50.8	73.2	-28.0	6.6	-1.0	11.7	2.8	0.9
Q3	42.2	40.8	0.3	3.1	-2.1	48.4	77.8	-27.7	-1.9	0.2	11.1	-10.2	13.4
2015 May	6.9	14.4	-7.6	-0.6	0.8	11.5	18.9	-10.8	3.1	0.4	-0.3	0.5	1.9
June	4.8	7.7	-3.2	0.3	0.1	23.6	33.1	-10.8	2.4	-1.1	-1.7	-0.8	-5.1
July	27.3	25.8	0.1	1.1	0.4	16.6	31.2	-13.0	-1.9	0.4	11.0	3.6	5.2
Aug.	2.7	5.6	0.7	0.7	-4.4	11.1	18.4	-7.4	0.2	-0.1	2.3	-7.2	6.2
Sep.	12.2	9.4	-0.5	1.3	2.0	20.7	28.2	-7.3	-0.2	-0.1	-2.2	-6.6	1.9
Oct. <sup>(a)</sup>	34.9	41.2	-7.8	1.6	0.0	10.1	15.0	-2.1	-3.4	0.5	-4.9	4.3	9.4
Growth rates													
2012	4.7	9.8	-7.7	13.6	-26.5	4.4	4.4	3.7	5.4	-53.8	2.3	7.9	9.3
2013	6.1	8.2	-1.7	8.9	56.4	2.0	7.7	-10.3	1.6	-56.7	-1.9	-6.4	-2.5
2014	4.0	7.6	-6.4	1.1	14.4	2.6	8.3	-7.5	-0.1	-36.9	6.3	4.0	7.3
2014 Q4	4.0	7.6	-6.4	1.1	14.4	2.6	8.3	-7.5	-0.1	-36.9	6.3	4.0	7.3
2015 Q1	4.7	9.9	-9.8	0.5	-5.4	2.8	9.7	-11.2	0.0	-31.2	14.7	-0.5	5.2
Q2	4.3	10.6	-13.9	0.9	-23.5	3.0	10.8	-13.9	0.1	-37.8	13.7	-1.1	5.3
Q3	5.1	10.8	-12.3	1.9	-32.3	3.0	11.1	-15.5	0.1	-37.7	14.3	-4.9	5.8
2015 May	4.4	10.8	-13.7	0.7	-23.6	2.9	10.2	-12.7	0.2	-25.1	13.8	1.5	8.4
June	4.3	10.6	-13.9	0.9	-23.5	3.0	10.8	-13.9	0.1	-37.8	13.7	-1.1	5.3
July	5.5	12.1	-14.0	1.0	-10.7	3.1	11.2	-15.0	0.1	-35.4	14.4	-1.9	5.6
Aug.	4.8	11.2	-13.3	1.2	-48.2	2.9	10.9	-15.3	0.1	-36.9	14.5	-5.6	6.1
Sep.	5.1	10.8	-12.3	1.9	-32.3	3.0	11.1	-15.5	0.1	-37.7	14.3	-4.9	5.8
Oct. <sup>(a)</sup>	7.1	12.9	-11.4	2.4	-26.4	3.1	11.0	-14.8	0.0	-26.0	10.9	-3.8	9.7

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 Money and credit

### 5.3 Credit to euro area residents <sup>1)</sup>

(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 <sup>3)</sup>	To households <sup>4)</sup>	To financial corporations other than MFIs and ICPFs <sup>3)</sup>	To insurance corporations and pension funds			
												Adjusted for loan sales and securitisation <sup>2)</sup>
1	2	3	4	5	6	7	8	9	10	11	12	
<b>Outstanding amounts</b>												
2012	3,408.9	1,169.7	2,239.3	13,070.2	10,858.3	11,263.1	4,543.9	5,244.0	981.1	89.3	1,437.9	774.1
2013	3,405.0	1,096.7	2,308.2	12,708.9	10,544.2	10,929.3	4,353.4	5,222.8	869.2	98.7	1,364.8	799.9
2014	3,606.3	1,132.1	2,474.1	12,563.2	10,511.0	10,918.5	4,278.8	5,200.4	903.0	128.9	1,277.6	774.7
2014 Q4	3,606.3	1,132.1	2,474.1	12,563.2	10,511.0	10,918.5	4,278.8	5,200.4	903.0	128.9	1,277.6	774.7
2015 Q1	3,671.9	1,148.5	2,523.5	12,673.8	10,611.7	11,009.0	4,308.0	5,234.0	935.1	134.7	1,274.0	788.1
Q2	3,680.7	1,137.4	2,543.3	12,635.4	10,592.2	10,987.0	4,291.3	5,258.6	906.8	135.5	1,253.8	789.4
Q3	3,816.1	1,127.1	2,689.1	12,651.4	10,563.9	10,962.2	4,275.0	5,276.8	890.9	121.2	1,310.2	777.3
2015 May	3,694.6	1,143.3	2,551.3	12,661.3	10,605.7	11,003.7	4,300.7	5,242.3	921.6	141.1	1,263.6	792.0
June	3,680.7	1,137.4	2,543.3	12,635.4	10,592.2	10,987.0	4,291.3	5,258.6	906.8	135.5	1,253.8	789.4
July	3,729.4	1,132.3	2,597.1	12,711.9	10,606.0	11,005.5	4,297.5	5,261.5	915.4	131.6	1,302.8	803.0
Aug.	3,767.1	1,132.3	2,634.8	12,696.6	10,599.0	11,001.2	4,290.9	5,268.8	910.8	128.6	1,305.9	791.7
Sep.	3,816.1	1,127.1	2,689.1	12,651.4	10,563.9	10,962.2	4,275.0	5,276.8	890.9	121.2	1,310.2	777.3
Oct. <sup>(p)</sup>	3,835.1	1,119.0	2,716.2	12,692.8	10,605.9	11,001.6	4,290.6	5,301.1	890.2	124.0	1,295.3	791.6
<b>Transactions</b>												
2012	184.2	-4.0	188.2	-99.8	-69.8	-54.1	-108.0	25.5	14.5	-1.9	-68.7	38.7
2013	-25.0	-73.5	48.6	-305.7	-247.8	-268.5	-132.8	-3.9	-120.9	9.7	-72.7	14.9
2014	72.7	16.3	56.4	-105.1	-49.4	-31.3	-58.7	-15.2	12.8	11.7	-90.1	34.4
2014 Q4	44.8	10.4	34.4	2.3	19.7	15.2	2.1	7.2	5.1	5.4	-33.9	16.4
2015 Q1	39.8	16.2	23.6	33.4	44.9	31.1	7.6	19.2	12.8	5.3	-4.2	-7.3
Q2	57.9	-10.7	68.6	0.3	8.0	2.0	-1.2	30.7	-22.6	1.0	-15.1	7.3
Q3	112.1	-10.2	122.3	54.8	-8.7	-3.0	-5.7	23.8	-12.4	-14.4	65.1	-1.6
2015 May	11.7	-7.0	18.6	4.8	0.1	1.6	-1.9	7.3	-10.1	4.8	-2.4	7.2
June	11.5	-5.5	17.0	-3.2	0.6	-9.1	-1.0	18.1	-11.0	-5.6	-6.7	3.0
July	30.2	-4.0	34.1	70.3	14.2	21.0	5.3	4.1	8.9	-4.0	47.7	8.4
Aug.	47.0	-0.1	47.1	14.6	3.6	4.2	-1.1	9.1	-1.5	-3.0	11.8	-0.7
Sep.	35.0	-6.1	41.1	-30.2	-26.5	-28.3	-9.9	10.6	-19.7	-7.4	5.6	-9.3
Oct. <sup>(p)</sup>	9.7	-8.2	17.9	23.5	35.9	34.9	16.5	15.0	1.7	2.7	-19.9	7.6
<b>Growth rates</b>												
2012	5.8	-0.3	9.4	-0.7	-0.6	-0.5	-2.3	0.5	1.5	-2.1	-4.5	5.3
2013	-0.7	-6.3	2.2	-2.3	-2.3	-2.4	-2.9	-0.1	-12.3	10.9	-5.1	1.9
2014	2.1	1.5	2.4	-0.8	-0.5	-0.3	-1.3	-0.3	1.3	11.9	-6.6	4.3
2014 Q4	2.1	1.5	2.4	-0.8	-0.5	-0.3	-1.3	-0.3	1.3	11.9	-6.6	4.3
2015 Q1	2.8	1.9	3.2	-0.2	0.1	0.2	-0.6	0.0	2.3	14.1	-4.9	2.9
Q2	5.1	1.6	6.7	0.1	0.6	0.3	-0.2	1.2	-1.0	17.8	-5.4	2.9
Q3	7.2	0.5	10.2	0.7	0.6	0.4	0.1	1.6	-2.1	-1.4	0.9	1.8
2015 May	3.9	0.9	5.3	0.2	0.6	0.3	-0.2	1.0	-1.1	26.7	-4.9	4.0
June	5.1	1.6	6.7	0.1	0.6	0.3	-0.2	1.2	-1.0	17.8	-5.4	2.9
July	5.5	0.8	7.7	0.7	0.9	0.6	0.2	1.3	0.8	10.1	-2.0	3.1
Aug.	6.3	1.0	8.8	1.0	1.0	0.7	0.2	1.4	0.5	12.4	-0.4	3.1
Sep.	7.2	0.5	10.2	0.7	0.6	0.4	0.1	1.6	-2.1	-1.4	0.9	1.8
Oct. <sup>(p)</sup>	6.9	0.2	9.9	0.9	1.0	0.8	0.5	1.7	-1.6	1.7	-0.1	2.3

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 Money and credit

### 5.4 MFI loans to euro area non-financial corporations and households <sup>1)</sup>

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

	Non-financial corporations <sup>2)</sup>					Households <sup>3)</sup>				
	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 <sup>4)</sup>					Adjusted for loan sales and securitisation <sup>4)</sup>			
	1	2	3	4	5	6	7	8	9	10
<b>Outstanding amounts</b>										
2012	4,543.9	4,604.6	1,128.1	795.6	2,620.2	5,244.0	5,579.9	602.1	3,825.1	816.8
2013	4,353.4	4,407.5	1,066.0	740.7	2,546.7	5,222.8	5,546.6	573.7	3,852.7	796.4
2014	4,278.8	4,334.6	1,081.5	724.8	2,472.5	5,200.4	5,545.1	563.4	3,861.0	776.0
2014 Q4	4,278.8	4,334.6	1,081.5	724.8	2,472.5	5,200.4	5,545.1	563.4	3,861.0	776.0
2015 Q1	4,308.0	4,363.8	1,089.9	738.6	2,479.5	5,234.0	5,570.9	567.8	3,890.9	775.3
Q2	4,291.3	4,347.6	1,080.9	743.1	2,467.3	5,258.6	5,589.8	578.7	3,908.9	771.0
Q3	4,275.0	4,333.9	1,058.3	746.2	2,470.6	5,276.8	5,610.5	582.4	3,925.8	768.5
2015 May	4,300.7	4,357.0	1,086.2	742.6	2,471.8	5,242.3	5,578.8	568.5	3,900.5	773.4
June	4,291.3	4,347.6	1,080.9	743.1	2,467.3	5,258.6	5,589.8	578.7	3,908.9	771.0
July	4,297.5	4,355.6	1,082.2	744.2	2,471.2	5,261.5	5,597.3	579.6	3,911.9	770.1
Aug.	4,290.9	4,349.9	1,083.7	743.0	2,464.2	5,268.8	5,605.9	581.6	3,917.2	770.0
Sep.	4,275.0	4,333.9	1,058.3	746.2	2,470.6	5,276.8	5,610.5	582.4	3,925.8	768.5
Oct. <sup>(p)</sup>	4,290.6	4,351.0	1,062.3	756.3	2,472.1	5,301.1	5,628.8	594.7	3,939.1	767.3
<b>Transactions</b>										
2012	-108.0	-74.2	6.1	-51.4	-62.7	25.5	8.0	-17.7	48.3	-5.1
2013	-132.8	-145.0	-44.4	-44.5	-43.9	-3.9	-14.8	-18.1	27.3	-13.1
2014	-58.7	-62.3	-13.7	1.4	-46.4	-15.2	6.2	-3.0	-3.4	-8.9
2014 Q4	2.1	-1.1	-4.9	7.4	-0.4	7.2	3.9	-1.7	10.7	-1.9
2015 Q1	7.6	4.8	-1.1	7.3	1.4	19.2	11.1	2.0	17.4	-0.2
Q2	-1.2	0.0	-3.7	7.0	-4.4	30.7	21.1	9.3	22.5	-1.1
Q3	-5.7	-0.5	-19.2	4.3	9.1	23.8	25.0	5.2	19.1	-0.5
2015 May	-1.9	-0.4	-4.0	3.9	-1.8	7.3	4.6	1.4	6.8	-1.0
June	-1.0	-2.4	-2.2	1.7	-0.5	18.1	8.3	8.2	10.3	-0.4
July	5.3	8.9	0.7	0.5	4.0	4.1	8.8	1.5	3.3	-0.6
Aug.	-1.1	0.0	3.9	-0.1	-4.9	9.1	8.0	2.4	6.4	0.3
Sep.	-9.9	-9.4	-23.8	3.9	10.0	10.6	8.2	1.3	9.5	-0.2
Oct. <sup>(p)</sup>	16.5	19.3	3.2	10.7	2.6	15.0	9.1	3.0	12.9	-0.9
<b>Growth rates</b>										
2012	-2.3	-1.6	0.5	-6.0	-2.3	0.5	0.1	-2.8	1.3	-0.6
2013	-2.9	-3.2	-4.0	-5.6	-1.7	-0.1	-0.3	-3.0	0.7	-1.6
2014	-1.3	-1.4	-1.3	0.2	-1.8	-0.3	0.1	-0.5	-0.1	-1.1
2014 Q4	-1.3	-1.4	-1.3	0.2	-1.8	-0.3	0.1	-0.5	-0.1	-1.1
2015 Q1	-0.6	-0.6	-0.7	2.1	-1.3	0.0	0.3	-0.1	0.1	-0.7
Q2	-0.2	-0.4	-1.2	2.3	-0.5	1.2	0.6	1.8	1.6	-0.8
Q3	0.1	0.1	-2.7	3.6	0.2	1.6	1.1	2.6	1.8	-0.5
2015 May	-0.2	-0.3	0.4	2.4	-1.2	1.0	0.5	0.5	1.4	-0.7
June	-0.2	-0.4	-1.2	2.3	-0.5	1.2	0.6	1.8	1.6	-0.8
July	0.2	0.1	-0.6	2.5	-0.2	1.3	0.8	2.0	1.6	-0.7
Aug.	0.2	0.2	0.0	2.5	-0.4	1.4	1.0	2.7	1.6	-0.5
Sep.	0.1	0.1	-2.7	3.6	0.2	1.6	1.1	2.6	1.8	-0.5
Oct. <sup>(p)</sup>	0.5	0.6	-2.3	5.1	0.4	1.7	1.2	2.8	2.0	-0.5

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 Money and credit

### 5.5 Counterparts to M3 other than credit to euro area residents <sup>1)</sup>

(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 <sup>2)</sup>	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 counterparties <sup>3)</sup>	Reverse repos to central counterparties <sup>3)</sup>
1	2	3	4	5	6	7	8	9	10	
<b>Outstanding amounts</b>										
2012	305.7	7,577.2	2,394.1	105.9	2,681.7	2,395.5	1,019.5	170.3	260.8	201.2
2013	261.7	7,310.9	2,371.1	91.5	2,507.2	2,341.0	1,146.5	150.3	183.8	122.1
2014	264.6	7,184.0	2,250.6	92.0	2,384.4	2,457.0	1,385.8	217.9	184.5	139.8
2014 Q4	264.6	7,184.0	2,250.6	92.0	2,384.4	2,457.0	1,385.8	217.9	184.5	139.8
2015 Q1	283.2	7,312.3	2,258.6	90.4	2,396.4	2,566.8	1,505.4	232.1	234.8	159.1
Q2	265.2	7,160.9	2,222.4	86.5	2,330.8	2,521.2	1,458.8	234.7	224.6	143.7
Q3	287.6	7,094.2	2,224.1	83.5	2,264.5	2,522.1	1,361.8	248.8	213.6	140.8
2015 May	272.4	7,224.2	2,235.3	87.6	2,347.3	2,554.0	1,464.7	236.0	222.9	140.7
June	265.2	7,160.9	2,222.4	86.5	2,330.8	2,521.2	1,458.8	234.7	224.6	143.7
July	253.6	7,152.1	2,229.5	85.6	2,316.5	2,520.4	1,395.1	235.1	202.4	137.4
Aug.	274.5	7,118.3	2,225.1	84.2	2,289.8	2,519.2	1,355.3	235.8	207.0	128.4
Sep.	287.6	7,094.2	2,224.1	83.5	2,264.5	2,522.1	1,361.8	248.8	213.6	140.8
Oct. <sup>(p)</sup>	345.3	7,108.6	2,207.8	82.1	2,256.2	2,562.4	1,395.4	309.4	196.4	144.8
<b>Transactions</b>										
2012	-3.9	-112.9	-156.5	-10.2	-106.8	160.6	92.3	42.5	9.4	41.5
2013	-44.9	-90.0	-19.0	-14.3	-137.5	80.8	362.0	-62.8	32.2	43.9
2014	-5.7	-150.9	-121.0	1.8	-141.3	109.6	240.8	9.8	0.7	17.7
2014 Q4	10.3	-77.5	-27.1	1.0	-60.5	9.1	26.4	-0.2	20.9	18.1
2015 Q1	15.5	-41.6	-29.4	-2.6	-55.0	45.3	0.4	32.8	50.2	19.3
Q2	-18.0	-86.9	-35.6	-3.9	-50.7	3.3	-0.3	-55.2	-10.2	-15.4
Q3	22.0	-36.6	7.1	-3.1	-58.6	17.9	-63.8	1.6	-11.0	-2.9
2015 May	5.4	-19.0	-6.2	-1.3	-21.2	9.7	-1.3	-22.4	13.6	8.6
June	-7.2	-33.1	-13.4	-1.0	-10.3	-8.3	21.9	-40.2	1.6	3.1
July	-11.7	-4.0	10.8	-0.9	-20.3	6.5	-51.8	9.0	-22.2	-6.4
Aug.	20.8	-14.3	-2.7	-1.4	-13.3	3.1	-19.4	-16.2	4.6	-9.0
Sep.	12.8	-18.4	-1.0	-0.7	-25.0	8.3	7.3	8.9	6.6	12.4
Oct. <sup>(p)</sup>	57.6	-33.3	-23.3	-1.3	-18.4	9.8	10.1	58.6	-17.2	4.0
<b>Growth rates</b>										
2012	-1.2	-1.5	-6.1	-8.8	-3.8	7.1	-	-	2.5	26.1
2013	-14.7	-1.2	-0.8	-13.5	-5.1	3.4	-	-	10.3	23.5
2014	-2.2	-2.0	-5.1	2.0	-5.6	4.6	-	-	0.4	14.5
2014 Q4	-2.2	-2.0	-5.1	2.0	-5.6	4.6	-	-	0.4	14.5
2015 Q1	5.5	-2.6	-5.9	-0.3	-6.5	4.6	-	-	32.5	36.3
Q2	-6.0	-2.9	-5.3	-3.6	-7.9	4.3	-	-	31.0	20.7
Q3	11.8	-3.3	-3.7	-9.3	-9.1	3.0	-	-	30.5	15.7
2015 May	-2.7	-2.9	-5.3	-3.8	-8.2	4.7	-	-	51.4	51.4
June	-6.0	-2.9	-5.3	-3.6	-7.9	4.3	-	-	31.0	20.7
July	-12.4	-2.9	-4.4	-5.1	-8.3	3.9	-	-	19.2	13.6
Aug.	-1.4	-3.1	-4.3	-8.0	-8.5	3.6	-	-	20.3	9.8
Sep.	11.8	-3.3	-3.7	-9.3	-9.1	3.0	-	-	30.5	15.7
Oct. <sup>(p)</sup>	29.5	-3.4	-4.2	-10.1	-8.8	3.1	-	-	7.2	19.5

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

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

	Deficit (-)/surplus (+)					Memo item: Primary deficit (-)/surplus (+)
	Total	Central government	State government	Local government	Social security funds	
	1	2	3	4	5	6
2011	-4.2	-3.3	-0.7	-0.2	0.0	-1.2
2012	-3.7	-3.4	-0.3	0.0	0.0	-0.6
2013	-3.0	-2.6	-0.2	0.0	-0.1	-0.2
2014	-2.6	-2.2	-0.2	0.0	-0.1	0.1
2014 Q3	-2.6	.	.	.	.	0.1
Q4	-2.6	.	.	.	.	0.1
2015 Q1	-2.5	.	.	.	.	0.1
Q2	-2.4	.	.	.	.	0.1

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

### 6.2 Revenue and expenditure

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

	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 benefits			
1	2	3	4	5	6	7	8	9	10	11	12	13	
2011	44.9	44.5	11.6	12.6	15.1	0.4	49.1	44.8	10.4	5.3	3.0	22.2	4.3
2012	46.1	45.6	12.2	12.9	15.3	0.4	49.7	45.2	10.4	5.4	3.0	22.6	4.5
2013	46.6	46.1	12.5	12.9	15.5	0.5	49.6	45.5	10.4	5.4	2.8	22.9	4.1
2014	46.8	46.3	12.5	13.1	15.5	0.5	49.4	45.4	10.3	5.3	2.7	23.1	3.9
2014 Q3	46.6	46.2	12.5	13.1	15.5	0.5	49.2	45.3	10.3	5.3	2.7	23.0	3.9
Q4	46.7	46.2	12.4	13.1	15.5	0.5	49.3	45.3	10.3	5.3	2.6	23.1	3.9
2015 Q1	46.6	46.1	12.5	13.1	15.5	0.5	49.1	45.2	10.3	5.3	2.5	23.1	3.9
Q2	46.5	46.1	12.5	13.1	15.4	0.5	48.9	45.1	10.2	5.3	2.5	23.1	3.8

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

### 6.3 Government debt-to-GDP ratio

(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	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2011	86.0	2.9	15.5	67.5	42.9	24.4	43.1	12.2	73.8	20.4	30.0	35.6	84.2	1.8
2012	89.3	3.0	17.4	68.9	45.5	26.2	43.8	11.4	78.0	19.7	31.7	37.9	87.2	2.2
2013	91.1	2.7	17.2	71.2	46.0	26.2	45.1	10.4	80.7	19.4	32.2	39.4	89.1	2.0
2014	92.1	2.7	17.0	72.4	45.3	26.0	46.8	10.1	82.0	19.0	32.1	41.0	90.1	2.0
2014 Q3	92.1	2.6	16.8	72.7	.	.	.	.	.	.	.	.	.	.
Q4	91.9	2.7	17.0	72.2	.	.	.	.	.	.	.	.	.	.
2015 Q1	92.7	2.7	16.8	73.2	.	.	.	.	.	.	.	.	.	.
Q2	92.2	2.7	16.2	73.2	.	.	.	.	.	.	.	.	.	.

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



## 6 Fiscal developments

### 6.4 Annual change in the government debt-to-GDP ratio and underlying factors <sup>1)</sup>

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

	Change in debt-to-GDP ratio <sup>2)</sup>	Primary deficit (+)/surplus (-)	Deficit-debt adjustment								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
2011	2.1	1.2	0.2	-0.4	0.2	-0.2	-0.2	-0.1	0.4	0.2	0.8	3.9
2012	3.4	0.6	0.0	1.0	0.3	0.3	-0.1	0.5	-1.3	0.3	2.7	5.0
2013	1.7	0.2	-0.3	-0.6	-0.5	-0.4	-0.1	0.3	-0.1	0.4	1.9	2.7
2014	1.0	-0.1	0.0	-0.1	0.3	-0.2	-0.3	0.0	0.0	0.1	1.1	2.6
2014 Q3	1.0	-0.1	-0.1	-0.1	0.0	0.1	-0.2	0.1	-0.3	0.3	1.2	2.8
Q4	1.0	-0.1	0.0	-0.1	0.3	-0.1	-0.3	0.0	-0.1	0.2	1.1	2.7
2015 Q1	0.9	-0.1	0.0	0.0	0.3	-0.1	-0.2	0.0	-0.1	0.1	0.9	2.6
Q2	-0.5	-0.1	-0.9	-0.9	-0.3	-0.3	-0.2	-0.2	0.0	0.1	0.5	1.5

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

1) Intergovernmental lending in the context of the financial crisis is consolidated except in quarterly data on the deficit-debt adjustment.

2) Calculated as the difference between the government debt-to-GDP ratios at the end of the reference period and a year earlier.

### 6.5 Government debt securities <sup>1)</sup>

(debt service as a percentage of GDP; flows during debt service period; average nominal yields in percentages per annum)

	Debt service due within 1 year <sup>2)</sup>					Average residual maturity in years <sup>3)</sup>	Average nominal yields <sup>4)</sup>							
	Total	Principal		Interest			Outstanding amounts					Transactions		
		Maturities of up to 3 months	Maturities of up to 3 months	Total	Floating rate		Zero coupon	Fixed rate		Issuance	Redemption			
	Maturities of up to 1 year							Maturities of up to 1 year						
1		2	3	4	5	6	7		8	9	10	11	12	13
2012	16.2	14.1	4.9	2.1	0.5	6.3	3.8	1.7	1.1	4.0	3.1	1.6	2.2	
2013	16.5	14.4	5.0	2.1	0.5	6.3	3.5	1.7	1.3	3.7	2.8	1.2	1.8	
2014	15.9	13.9	5.1	2.0	0.5	6.4	3.1	1.5	0.5	3.5	2.7	0.8	1.6	
2014 Q3	17.3	15.2	5.7	2.1	0.5	6.4	3.2	1.5	0.5	3.5	2.8	0.9	1.6	
Q4	15.9	13.9	5.1	2.0	0.5	6.4	3.1	1.5	0.5	3.5	2.7	0.8	1.6	
2015 Q1	15.4	13.4	4.6	2.0	0.5	6.5	3.1	1.3	0.3	3.5	2.9	0.6	1.7	
Q2	15.4	13.4	4.9	2.0	0.5	6.6	3.0	1.3	0.2	3.4	2.9	0.5	1.5	
2015 May	15.9	13.9	5.0	2.0	0.5	6.6	3.0	1.3	0.2	3.4	2.9	0.5	1.6	
June	15.4	13.4	4.9	2.0	0.5	6.6	3.0	1.3	0.2	3.4	2.9	0.5	1.5	
July	15.3	13.3	4.3	2.0	0.5	6.6	2.9	1.3	0.1	3.4	2.9	0.4	1.6	
Aug.	15.3	13.3	4.4	2.0	0.5	6.6	2.9	1.2	0.1	3.4	2.9	0.4	1.5	
Sep.	15.5	13.5	4.4	2.0	0.5	6.6	2.9	1.2	0.1	3.3	3.0	0.4	1.4	
Oct.	15.9	13.9	4.3	2.0	0.5	6.6	2.8	1.2	0.1	3.3	3.0	0.4	1.4	

Source: ECB.

1) At face value and not consolidated within the general government sector.

2) Excludes future payments on debt securities not yet outstanding and early redemptions.

3) Residual maturity at the end of the period.

4) Outstanding amounts at the end of the period; transactions as 12-month average.

## 6 Fiscal developments

### 6.6 Fiscal developments in euro area countries

(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 (+)										
2011	-4.1	-1.0	1.2	-12.5	-10.2	-9.5	-5.1	-3.5	-5.7	
2012	-4.1	-0.1	-0.3	-8.0	-8.8	-10.4	-4.8	-3.0	-5.8	
2013	-2.9	-0.1	-0.1	-5.7	-12.4	-6.9	-4.1	-2.9	-4.9	
2014	-3.1	0.3	0.7	-3.9	-3.6	-5.9	-3.9	-3.0	-8.9	
2014 Q3	-3.0	0.1	-0.1	-4.6	-2.3	-5.8	-4.0	-2.7	-10.2	
Q4	-3.1	0.3	0.7	-3.9	-3.5	-5.9	-3.9	-3.0	-8.8	
2015 Q1	-3.3	0.4	0.5	-3.6	-4.3	-5.9	-3.9	-3.0	-0.2	
Q2	-3.1	0.6	0.6	-3.0	-4.5	-5.4	-4.1	-2.9	-0.4	
Government debt										
2011	102.2	78.4	5.9	109.3	172.0	69.5	85.2	116.4	65.8	
2012	104.1	79.7	9.5	120.2	159.4	85.4	89.6	123.2	79.3	
2013	105.1	77.4	9.9	120.0	177.0	93.7	92.3	128.8	102.5	
2014	106.7	74.9	10.4	107.5	178.6	99.3	95.6	132.3	108.2	
2014 Q3	108.8	75.4	10.3	112.6	175.8	98.4	95.7	132.3	104.7	
Q4	106.7	74.9	10.4	107.5	177.1	99.3	95.6	132.3	107.5	
2015 Q1	110.9	74.3	10.0	104.7	168.6	99.8	97.5	135.3	106.8	
Q2	109.3	72.5	9.9	102.0	167.8	99.5	97.7	136.0	109.7	
	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Austria	Portugal	Slovenia	Slovakia	Finland
	10	11	12	13	14	15	16	17	18	19
Government deficit (-)/surplus (+)										
2011	-3.4	-8.9	0.5	-2.6	-4.3	-2.6	-7.4	-6.6	-4.1	-1.0
2012	-0.8	-3.1	0.2	-3.6	-3.9	-2.2	-5.7	-4.1	-4.2	-2.1
2013	-0.9	-2.6	0.7	-2.6	-2.4	-1.3	-4.8	-15.0	-2.6	-2.5
2014	-1.5	-0.7	1.4	-2.1	-2.4	-2.7	-7.2	-5.0	-2.8	-3.3
2014 Q3	-1.0	-0.7	1.3	-2.8	-2.8	-1.1	-7.4	-12.8	-2.9	-3.0
Q4	-1.6	-0.7	1.4	-2.1	-2.4	-2.7	-7.2	-5.0	-2.8	-3.3
2015 Q1	-1.8	-0.8	1.0	-2.5	-2.0	-2.2	-7.1	-4.8	-2.8	-3.3
Q2	-1.9	0.3	0.8	-2.2	-1.9	-2.2	-6.4	-4.7	-2.9	-2.8
Government debt										
2011	42.8	37.2	19.2	69.8	61.7	82.2	111.4	46.4	43.3	48.5
2012	41.4	39.8	22.1	67.6	66.4	81.6	126.2	53.7	51.9	52.9
2013	39.1	38.8	23.4	69.6	67.9	80.8	129.0	70.8	54.6	55.6
2014	40.6	40.7	23.0	68.3	68.2	84.2	130.2	80.8	53.5	59.3
2014 Q3	41.2	38.0	23.0	72.1	68.3	80.7	132.3	77.9	55.6	57.9
Q4	40.8	40.7	23.0	68.3	68.2	84.2	130.2	80.8	53.7	59.3
2015 Q1	35.7	38.0	22.3	70.0	69.2	85.0	130.4	81.8	54.2	60.3
Q2	36.0	37.6	21.9	68.9	67.1	86.4	128.7	80.8	54.5	62.4

Source: Eurostat.

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