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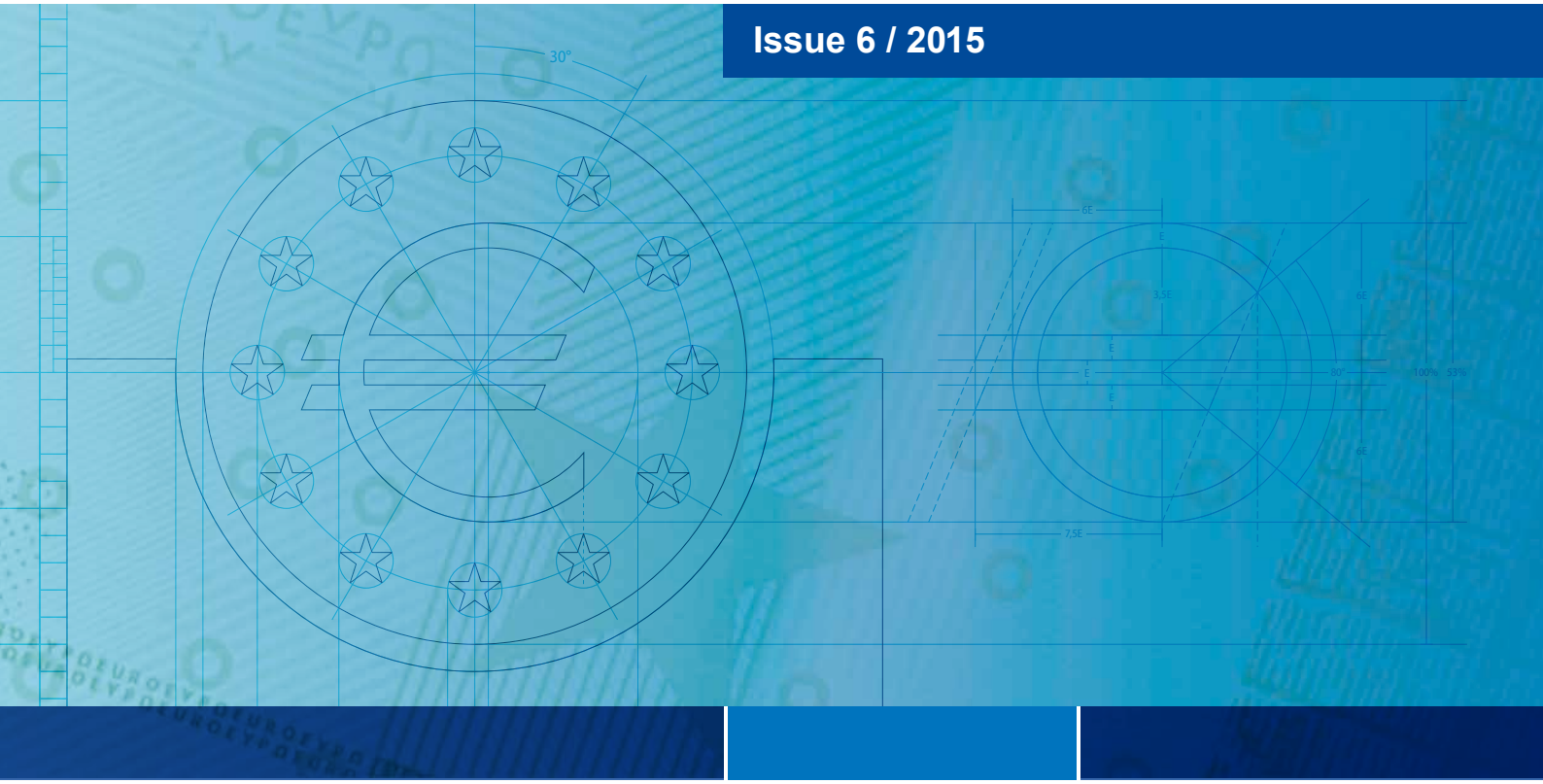

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Overview

A review of recent data, new ECB staff macroeconomic projections and an interim evaluation of recent market fluctuations point to a continued, although somewhat weaker, economic recovery in the euro area and a slower increase in inflation rates compared with earlier expectations. The changed outlook is due to a considerable extent to external developments. While the world economy is gradually expanding, it remains on an uneven path. On the one hand, economic activity in advanced economies is being supported by low oil prices, continued accommodative financing conditions, a slower pace of fiscal consolidation and improving labour markets. On the other hand, the outlook has worsened in emerging market economies amid heightened uncertainty, as structural impediments and macroeconomic imbalances are restraining growth in some countries, while others are adjusting to lower commodity prices and less favourable external financing conditions. In parallel, inflationary pressures have been dampened by falling commodity prices.

Renewed downside risks to the outlook for growth and inflation have also emerged as a result of the recent increase in volatility in financial markets. Two significant episodes of heightened tensions occurred over the summer. The first was associated with developments in Greece in late June and early July and had, overall, a relatively muted impact on financial markets. The second episode took place in the second half of August and was related to developments in China. It had a significant impact on stock and foreign exchange markets as well as on perceptions of risk. Overall, long-term nominal euro area government bond yields declined slightly between early June and early September. Euro area stock prices declined markedly, especially amid losses in the Chinese equity market in the second half of August and the related increase in global uncertainty. In this environment of increased risk aversion and weakness in emerging markets, the effective exchange rate of the euro has recently appreciated significantly.

Euro area real GDP grew in the second quarter of 2015 at a slightly slower pace than in the first quarter. The pace of growth in the second quarter was somewhat slower than expected. The moderation was due to weaker than expected domestic demand and was broad-based across countries. The latest survey indicators suggest that the pace of real GDP growth in the second half of 2015 will be similar to that recorded in the second quarter.

Looking further ahead, the euro area recovery is expected to continue, albeit at a somewhat weaker pace than previously anticipated. This reflects in particular the slowdown in emerging market economies, which is weighing on global growth and thus on demand for euro area exports. 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 progress made with fiscal consolidation and structural reforms. Moreover, lower oil prices should bolster households' real disposable income and corporate profitability, providing additional support for private consumption and investment. At the same time, the necessary balance sheet adjustments in a number of sectors and the sluggish pace of implementation of structural reforms are likely to dampen the pick-up in activity.

The September 2015 ECB staff macroeconomic projections for the euro area[1] foresee annual real GDP increasing by 1.4% in 2015, 1.7% in 2016 and 1.8% in 2017. Compared with the June 2015 Eurosystem staff macroeconomic projections, the outlook for real GDP growth has been revised down, primarily due to lower external demand owing to weaker growth in emerging markets. In the Governing Council's assessment, risks to the outlook for economic activity remain on the downside, reflecting in particular the heightened uncertainties related to the external environment. Notably, current developments in emerging market economies have the potential to further affect global growth adversely via trade and confidence effects.

Following an upward trend earlier this year, HICP inflation in the euro area has recently stabilised at low positive rates. According to Eurostat's flash estimate, annual HICP inflation remained at 0.2% in August for the third consecutive month. While low energy prices have dampened inflation, this has been compensated for by higher increases in food and non-energy industrial goods prices. Recent indicators confirm a gradual strengthening in underlying inflation. HICP excluding food and energy is estimated to have increased from a trough of 0.6% at the beginning of the year to 1.0% in August.

On the basis of the information available, annual HICP inflation rates will remain very low in the near term, mainly reflecting recent developments in energy prices. Towards the end of 2015, however, headline inflation is expected to rise, also 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 expected economic recovery, the pass-through of past declines in the euro exchange rate and the assumption of somewhat higher oil prices in the years ahead as reflected in oil futures markets. However, this increase in annual inflation rates is currently expected to materialise somewhat more slowly than anticipated thus far.

The September 2015 ECB staff macroeconomic projections for the euro area foresee annual HICP inflation at 0.1% in 2015, 1.1% in 2016 and 1.7% in 2017. In comparison with the June 2015 Eurosystem staff macroeconomic projections, the outlook for HICP inflation has been revised down, largely owing to lower oil prices. Taking into account the most recent developments in oil prices and recent exchange rates, there are downside risks to the September staff inflation projections.

The ECB's monetary policy measures continue to be transmitted to lending conditions and remain supportive of broad money and credit dynamics. The targeted longer-term refinancing operations (TLTROs) and the expanded asset purchase programme (APP) have contributed to improvements in money and credit

[1] See the article entitled "September 2015 ECB staff macroeconomic projections for the euro area", published on the ECB's website on 3 September 2015.

indicators. Banks' funding costs stabilised at historical lows in the second quarter of 2015, and favourable lending conditions continued to support a gradual recovery in loan growth. In addition, divergences in bank lending rates across euro area countries have narrowed further. The overall annual flow of external financing to non-financial corporations is estimated to have stabilised in the second quarter of 2015, although the dynamics of loans to non-financial corporations remain subdued. Stronger growth of credit to general government and a continued gradual recovery of credit to the private sector are supporting broad money growth.

The Governing Council judges it premature to conclude on whether recent economic and financial market developments could have a lasting impact on the achievement of a sustainable path of inflation towards its medium-term aim or whether they should be considered to be mainly transitory, and will continue to closely monitor all relevant incoming information. Based on its regular economic and monetary analysis, and in line with its forward guidance, the Governing Council decided at its meeting on 3 September to keep the key ECB interest rates unchanged and confirmed that the asset purchase programme continues to proceed smoothly. Looking ahead, the Governing Council will closely monitor the risks to the outlook for price developments over the medium term, focusing in particular on the pass-through of its monetary policy measures, as well as on global economic, financial, commodity price and exchange rate developments.

The Governing Council emphasises its willingness and ability to act, if warranted, by using all the instruments available within its mandate and, in particular, recalls that the asset purchase programme provides sufficient flexibility in terms of adjusting the size, composition and duration of the programme. In the meantime, the Eurosystem will fully implement its monthly asset purchases of €60 billion, which are intended to run until the end of September 2016, or beyond, if necessary, and, in any case, until the Governing Council sees a sustained adjustment in the path of inflation which is consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term. The Governing Council reiterates the need to firmly implement its monetary policy decisions and to monitor closely all relevant incoming information as concerns their impact on the medium-term outlook for price stability.

1 External environment

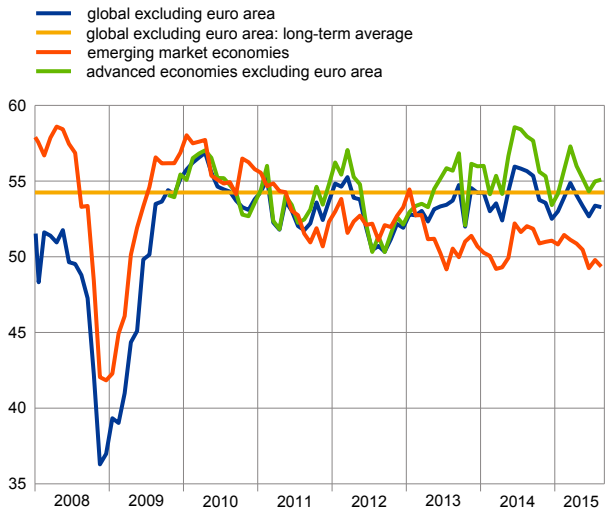
The world economy is gradually expanding, but remains on an uneven path. On the one hand, economic activity in advanced economies is being supported by low oil prices, continued accommodative financing conditions, waning fiscal consolidation and improving labour markets. On the other hand, the outlook has worsened in emerging market economies (EMEs) amid heightened uncertainty, as structural impediments and macroeconomic imbalances are restraining growth in some countries, while others are adjusting to lower commodity prices and tighter external financing conditions. Inflationary pressures are expected to remain restrained following the recent fall in oil prices and the still abundant global spare capacity.

Global economic activity and trade

National accounts data and survey indicators point to modest and uneven growth in global economic activity in the second quarter. Economic activity has been sustained in advanced economies, with growth rebounding in the United States and United Kingdom, although it weakened significantly in Japan following a strong first quarter. The situation in EMEs is mixed. On the one hand, Russia is in a deep recession and survey data point to further weakness in Brazil. On the other hand, growth recovered in China in the second quarter and is expected to have remained resilient in non-euro area central and eastern European countries (CEECs). Surveys suggest that global manufacturing output has been subdued in recent months, but overall activity has been more robust. The global composite output Purchasing Managers' Index (PMI), excluding the euro area, remained broadly unchanged in August compared to the previous month and in line with the average for the second quarter, indicating some resilience in global activity (see Chart 1). Looking further ahead the OECD's composite leading indicators and the Ifo World Economic Climate Index point to the global recovery continuing at a modest pace.

Chart 1
Global composite output PMI

(diffusion index)



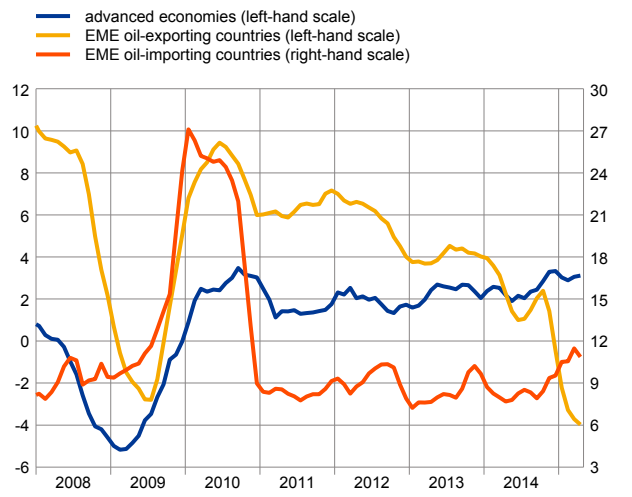
Sources: Markit and ECB calculations.
Notes: The latest observation refers to August 2015. Emerging market economies are Brazil, China, India and Russia. Advanced economies are Japan, the United States and the United Kingdom.

Commodity prices have fallen recently, providing additional near-term impetus to global demand. Having rebounded during the second quarter, Brent crude oil prices have fallen by more than 20% in the third quarter, although, according to the futures curve, markets continue to price in a gradual increase in oil prices for the coming years. The recent fall has mainly reflected supply developments. The oil market continues to be oversupplied, with OPEC producing above its target and shale oil production proving to be more resilient than expected. In addition, the market seems to be slowly pricing in the prospect of increased supply from Iran. However, moderating demand, particularly in EMEs, has also played a role. That is also consistent with factors underlying other commodity price declines –

Chart 2

Retail sales

(year-on-year growth, three-month average)



Sources: National sources, IMF and ECB calculations.
Notes: The latest observation refers to June 2015. Advanced economies include the euro area, Japan, the United States and the United Kingdom. Oil-importing EMEs are China, Indonesia, Korea, Turkey and Mexico. Oil-exporting EMEs are Russia, Brazil, Colombia, Chile and South Africa.

over the past year, for example, metal prices have fallen substantially, which may also have reflected the less buoyant growth in EMEs (see also Box 1). Overall, the fall in oil prices since the middle of last year is expected to benefit demand in oil-importing countries, outweighing the impact on oil-exporting economies. As oil prices have fallen since the peak of 2014, headline inflation in advanced economies has dipped, boosting real disposable incomes. Retail sales growth has risen in advanced economies and oil importing EMEs compared with a year ago, while it dropped sharply in major oil-exporting countries (see Chart 2).

Monetary policies remain accommodative and are contributing to favourable global financial conditions. Markets continue to price in a first interest rate increase in the United States in the next six months. In Japan, policy rates are expected to remain low over the next two years. Disinflationary trends have prompted further easing of monetary policy in China, India and several other (mostly oil-importing) EMEs in recent months, while Russia continued to normalise interest rates after the sharp hike during the financial turmoil of December last year. Among the major EMEs, only Brazil has witnessed an ongoing increase in policy rates, as inflationary pressures remain elevated amid substantial hikes in administered prices, sticky pricing behaviour and further depreciation of the currency. As of 11 August 2015 the People's Bank of China reformed the way it sets the daily fixing of the exchange rate in order to give more room to market forces, which led to a 3% depreciation of the renminbi against the US dollar in the week following that decision. Over the past two months, long-term government bond yields in advanced economies have broadly stabilised after the sharp increase during May and early June. Despite the correction, rates are still close to the low levels observed at the end of 2014 and term premia remain compressed. Bond yields in EMEs have moved broadly in tandem with those of advanced economies. However, aggregate private portfolio inflows to EMEs have weakened somewhat, while further currency depreciation in some countries is likely to have increased the cost of dollar financing. Moreover, the recent losses and volatility in Chinese stock markets are leading to heightened uncertainty. If this persists, it may ultimately translate into a tightening in financial conditions, particularly for vulnerable EMEs.

Looking ahead, global growth is expected to be driven by a sustained recovery in advanced economies. As the headwinds of private sector deleveraging and fiscal consolidation gradually recede, the recovery in advanced economies is expected to gain traction. Low oil prices, continued accommodative financing conditions, improving labour markets and confidence should support an improving outlook. In the United States, growth will be supported by stronger household spending following the boost to real incomes from lower oil prices, supportive financial conditions, continued strengthening of the labour and housing markets, moderating fiscal drag and the fading of household balance-sheet repair. However, the past

appreciation of the effective exchange rate of the US dollar will dampen export growth in the near term, while the decline in oil prices will weigh on energy sector investment. In Japan, growth is expected to resume in the second half of the year, as households benefit from the increase in real incomes provided by the lower oil price, and exports benefit from improving foreign demand and the past depreciation of the Japanese yen. In the United Kingdom, growth is expected to continue to expand at a relatively robust pace. Although fiscal consolidation efforts are expected to dampen growth, low energy prices and accelerating wage growth should support real disposable incomes and private consumption. The recovery in demand and easing credit conditions should also spur business investment.

By contrast, the medium-term outlook for EMEs is mixed amid heightened uncertainty. Growth in several large EMEs has slowed markedly over the past four years and is expected to remain subdued in the medium term. In some countries, potential growth has slowed owing to structural impediments and macroeconomic imbalances. Other EMEs are adjusting to lower commodity prices, heightened political uncertainty and tighter external financing conditions. In China, growth rebounded in the second quarter. Recent reductions in policy rates, modest fiscal stimulus from the central government and efforts to loosen constraints on local government finances are expected to support demand. However, the recent stock market slump has heightened uncertainty about the outlook. Moreover, the Chinese political leadership has placed increasing emphasis on tackling financial fragilities and macroeconomic imbalances, which is likely to slow the pace of expansion in the medium term. CEECs outside the euro area are performing strongly, benefitting from strengthening domestic demand as improved labour market dynamics and the recent decline in oil prices are expected to support household consumption. On the other hand, the outlook for Brazil has deteriorated, as monetary and fiscal tightening are expected to act as a drag on investment and activity. In addition, supply-side bottlenecks and the need to tackle substantial macroeconomic imbalances and high inflation are holding back medium-term growth. Russia is also in the midst of a deep recession. Despite some easing of financing conditions since the turn of the year, funding costs remain elevated. Uncertainty is high and business confidence weak, while lower oil revenue is expected to entail a sharp fall in public expenditure.

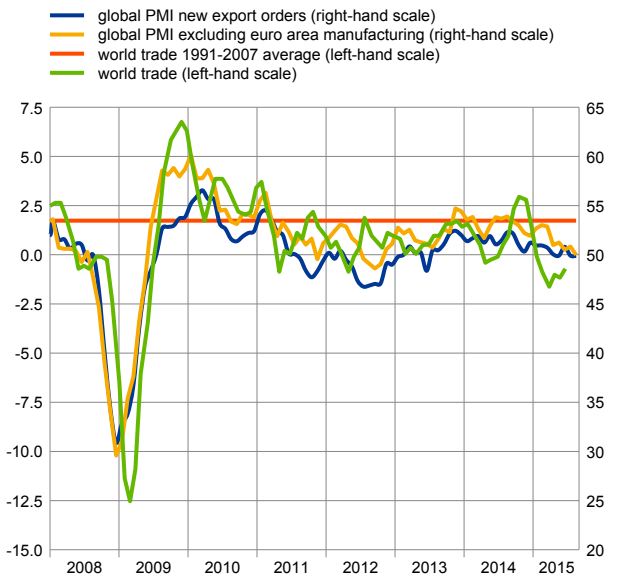
Sharp falls in imports in a few large EMEs have driven a moderation in global trade in the first half of 2015. Global imports (excluding the euro area) based on national accounts data fell by 0.2% in the first quarter, and available data point to continued weakness in the second quarter. Indeed, global merchandise trade data from CPB Netherlands Bureau for Economic Policy Analysis showed a quarter-on-quarter decline in world imports of 0.9% in the second quarter. While imports of advanced economies and CEECs have been resilient during 2015, pronounced declines in a few major EMEs have driven the global aggregate. In the first quarter imports slumped in Russia, driven by falling domestic demand and exchange rate depreciation. Imports in China have also been weak in the first half of the year, again reflecting the moderation in domestic demand. In the near term global trade is expected to recover very gradually. At the same time, survey indicators point to rather moderate global trade growth. In particular, the global PMI for new export orders fell in July (see Chart 3). Looking further ahead, with the subdued outlook for

EME imports expected to persist, world trade is expected to remain moderate and global imports are not expected to grow faster than global GDP.

Chart 3

World trade in goods

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

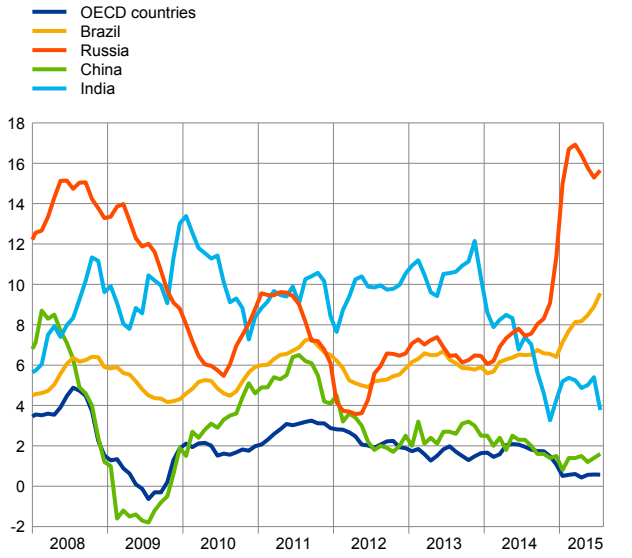


Sources: Markit, CPB and ECB calculations.
Note: The latest observation refers to August 2015 for PMI and June 2015 for world trade.

Chart 4

CPI inflation

(year-on-year percentage changes)



Sources: National sources and OECD.
Note: The latest observation refers to July 2015.

Overall, the global growth outlook continues to suggest a modest and uneven recovery. According to the September 2015 ECB staff macroeconomic projections, for which the cut-off date for the financial and commodity price assumptions was 12 August, world (excluding the euro area) real GDP growth is projected to accelerate gradually from to 3.2% in 2015 to 3.8% in 2016 and 4.0% in 2017. Euro area foreign demand is expected to expand from 1.4% in 2015 to 3.3% in 2016 and 4.1% in 2017. Compared with the June 2015 Broad Macroeconomic Projection Exercise, this constitutes a downward revision to world growth, mostly reflecting the weaker than expected outlook across EMEs. Revisions to euro area foreign demand are more significant, as weak activity in EMEs is now judged to weigh more sharply on imports than previously anticipated.

Risks to the outlook for global trade and activity remain tilted to the downside. Notably, current developments in EMEs have the potential to further affect global growth adversely via trade, financial and confidence effects. Some EMEs are also vulnerable to a shift in global risk sentiment, after a period of risk spread and volatility compression. Geopolitical risks also continue to weigh on the outlook, and increased tensions between Russia and Ukraine could have adverse implications for global growth.

Global price developments

Global inflation remains low following the sharp oil price declines. Annual consumer price inflation in the OECD countries remained unchanged in July, at 0.6%. Excluding food and energy, OECD annual inflation also remained stable, at 1.6% (see Chart 4). Headline inflation remained broadly unchanged at low levels in major advanced economies. Outside the OECD countries, broad disinflationary pressures persist in China and India. However, in Brazil and Russia, inflation has remained high, as currency depreciation has led to higher import prices.

Looking ahead global inflation is expected to rise only gradually. In the short term the recent fall in oil and other commodity prices should dampen inflationary pressures further, but thereafter the negative contribution from the energy component should gradually diminish as the effects of past oil price declines begin to fade. At the same time, the upward slope of the oil futures curve implies some recovery in oil prices, which should increase the contribution of energy prices to headline inflation. However, it is expected that the projected slow pick-up in world economic activity will result in only a gradual reduction in spare capacity, and wage and cost inflationary pressures are expected to remain generally muted.

2 Financial developments

Long-term nominal government bond yields in the euro area declined slightly between early June and early September, following significant increases in previous months. These declines took place in an environment characterised by a weakening growth outlook for the global economy, falling oil prices and declining inflation-linked swap rates. Equity prices also declined amid higher levels of volatility, especially in the aftermath of the currency depreciation and large losses in the equity market in China in August. Uncertainty associated with developments in Greece, which peaked in late June and early July, had a somewhat stronger impact on stock markets than on bond and foreign exchange markets, but overall its financial impact was contained and temporary. The effective exchange rate of the euro appreciated markedly between early June and 2 September 2015.

Two significant episodes of heightened tensions occurred during the review period, the first one being associated with developments in Greece in late June and early July. This episode overall had a relatively muted impact on financial markets. This can be seen, for example, in spreads of ten-year government bond yields in lower-rated euro area countries relative to the corresponding German yield, which widened only marginally during that period and quickly returned to their previous levels. At the peak of the turmoil, spreads vis-à-vis the German ten-year Bund were up by a maximum of 35 basis points in most euro area countries. Implied bond market volatility, like other measures of risk, rose only moderately and temporarily during that period. However, developments in Greece had a somewhat more pronounced impact on equity markets, leading to increases in implied volatility and declining prices. Between 26 June and 7 July the Dow Jones EURO STOXX 50 equity price index fell by more than 8%, with the implied volatility of that index increasing strongly. The euro weakened somewhat against the US dollar during that period.

The second episode of heightened financial market uncertainty started around mid-August and was related to developments in China. This episode, unlike the former, had a significant impact on stock and foreign exchange markets as well as on perceptions of risk. The depreciation of the Chinese renminbi which started on 11 August was followed by a period of sharp declines in Chinese equity prices and strong increases in global uncertainty. These developments, combined with rapidly declining oil prices, were regarded as a sign that the global economic outlook was weakening and weighed on international financial markets and implied volatility. Stock prices in the euro area fell by around 16% from 11 to 24 August, while ten-year AAA-rated euro area government bond yields declined by around 10 basis points over that period. These declines were probably also fuelled by the appreciation of the euro, amid the unwinding of carry trade positions (that are typically closed in periods of heightened uncertainty) in which the euro was used as a funding currency as well as by declining market expectations of an imminent increase in monetary policy rates in the United States. Lower than usual market liquidity – a result also of seasonal factors – may have exacerbated fluctuations in stock and bond markets.

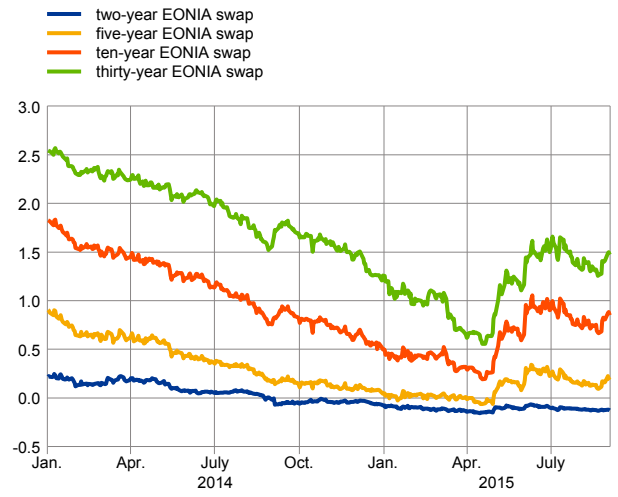
Ten-year AAA-rated euro area government bond yields declined slightly overall between early June and early September, to stand at very low levels. Initially,

the average of ten-year AAA-rated euro area sovereign yields increased further, from 0.93% on 4 June to 1.08% on 10 June, thereby continuing the trend observed since mid-April. It then remained broadly stable until mid-July, possibly reflecting mixed data releases. It later declined, to stand at around 0.90% in early September. Euro area sovereign yield spreads against Germany declined slightly over the review period, amid some volatility during the episodes of heightened uncertainty. Implied bond market volatility remained overall stable, notwithstanding some temporary increases.

Chart 5

EONIA swap rates

(percentages per annum)

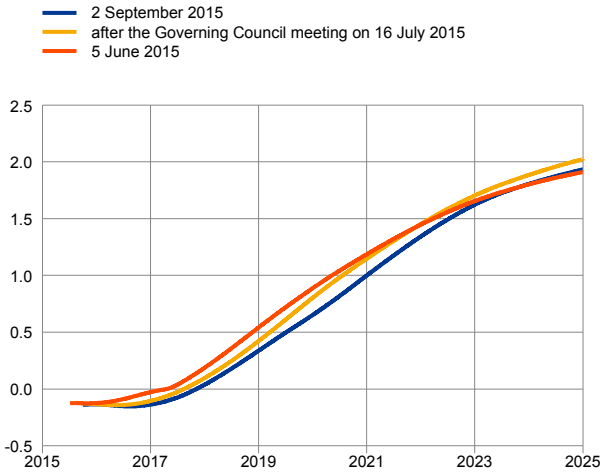


Source: Thomson Reuters.
Note: The latest observation is for 2 September 2015.

Chart 6

EONIA forward curve

(percentages per annum)

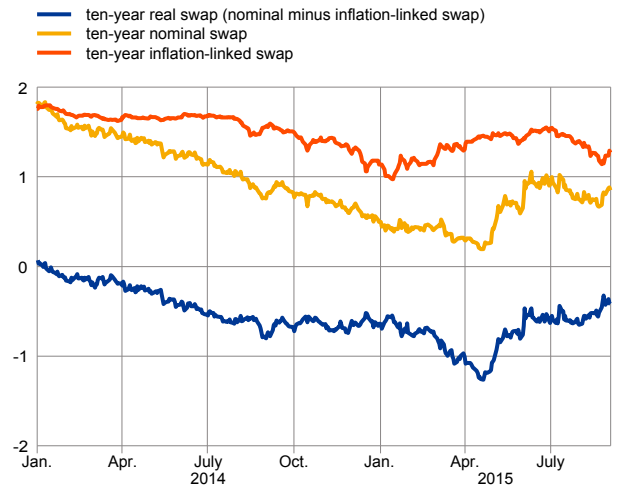


Sources: Thomson Reuters and ECB calculations.

Chart 7

Euro area ten-year real, nominal and inflation-linked swap rates

(percentages per annum)



Sources: Thomson Reuters and ECB calculations.
Notes: The ten-year real swap is derived from the ten-year nominal EONIA swap and the ten-year inflation-linked swap. The latest observation is for 2 September 2015.

EONIA swap rates mirrored the movements in AAA-rated yields. EONIA swaps decreased most in the medium maturity segments while a small increase was recorded for the longest maturities (see Chart 5). In line with developments in bond yields, EONIA forward rates edged downwards up to the eight-year horizon over the review period, with a peak reduction of around 20 basis points at the four-year horizon (see Chart 6).

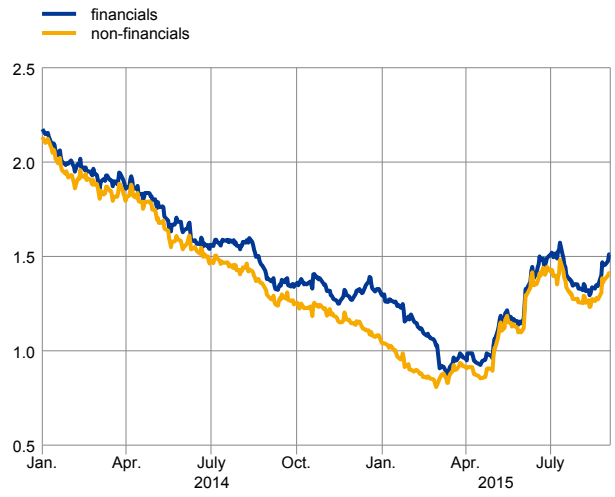
The decline in nominal rates was mirrored in lower inflation-linked swap rates in July and August. An accounting decomposition of ten-year nominal EONIA swap rates into ten-year inflation-linked swap rates and, as a residual, ten-year real rates shows that around two-thirds of the fluctuations in nominal yields in June came from changes in the real rate, with one-third derived from the inflation-linked swap rate (see Chart 7). In July and August, by contrast, the two relative contributions changed significantly, with lower nominal yields being derived entirely from

lower inflation-linked swap rates. (See also Section 4 for additional evidence on developments in inflation expectations.)

Chart 8

Corporate bond yields in the euro area

(percentages per annum)

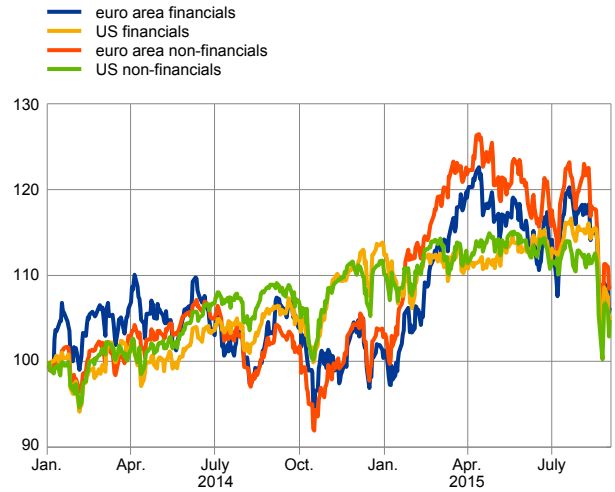


Sources: iBoxx and ECB.
Note: The latest observation is for 2 September 2015.

Chart 9

Financial and non-financial sector stock price indices

(1 January 2014 = 100)



Source: Thomson Reuters.
Notes: Based on DataStream market indices. The latest observation is for 2 September 2015.

Corporate bond yields were resilient in the face of the various financial market tensions, although they increased somewhat over the review period. Overall, corporate bond yields relative to the average of AAA-rated euro area sovereign yields moved in line with developments in the perception of risk. Accordingly, they tended to rise in response to the uncertainty associated with developments in Greece in late June and early July and, after moderating slightly, they then increased again in the second half of August in connection with the increase in global uncertainty (see Chart 8). Corporate bond yields rose by between 5 and 20 basis points from early June to early September, depending on the sector and rating class.

Spreads in asset classes other than public sector securities purchased under the expanded asset purchase programme (APP) – covered bonds and asset-backed securities (ABSs) – behaved in a broadly similar manner. However, while covered bond spreads were broadly unchanged overall over the review period, some increases were observed for discount margins on lower-rated ABSs.

Significant losses were recorded in euro area equity markets in both the financial and the non-financial sectors. Euro area financial and non-financial stock prices recorded overall declines of 8% and 10% respectively between early June and early September (see Chart 9). While losses associated with developments in Greece were recovered by mid-July, equity prices declined markedly following the increase in uncertainty about the global outlook in the second half of August. Unlike in the euro area, US financial and non-financial stock prices were broadly stable between early June and mid-July, evidencing the euro area-specific origin of the turbulences during that period. US stock prices then recorded broadly twice as large losses as for the euro area from mid-July, amid a deteriorating global growth outlook. Implied equity market volatility rose by 8 and 10 percentage points in the euro area and the United States respectively over the review period.

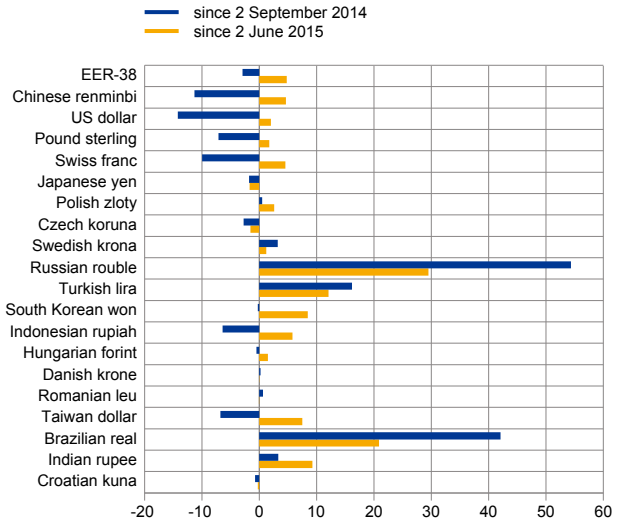
The EONIA stabilised between early June and early September amid gradual increases in excess liquidity. After gradually declining following the announcement of the expanded APP, the EONIA then stabilised, averaging -0.12% between early

June and 2 September amid gradual increases in excess liquidity. Those higher levels of excess liquidity were largely the result of APP purchases and the targeted longer-term refinancing operation allotted in June. Box 2 presents more detailed information on liquidity conditions and monetary policy operations. The three-month EURIBOR fixing, after turning negative for the first time in late April, continued to edge downwards, standing at -0.033% on 2 September. Box 3 provides further insights on the unsecured overnight money market developments since 2008 using TARGET2 transaction data while Box 4 briefly recalls what TARGET balances are and the factors behind their developments.

Chart 10

Changes in the exchange rate of the euro against selected currencies

(percentages)



Source: ECB.
Notes: Percentage changes relative to 2 September 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.

The effective exchange rate of the euro appreciated by 4.8% between early June and 2 September. In bilateral terms, it appreciated by 2.0% against the US dollar (see Chart 10). The euro also appreciated against the pound sterling, the Swiss franc, the Swedish krona and the renminbi. Meanwhile, declining oil prices and depressed economic activity in Russia weighed on the Russian rouble, resulting in the euro appreciating by 30% against that currency. The euro also strengthened against the currencies of several other emerging market economies and commodity-exporting countries. By contrast, it depreciated against the Japanese yen and the Czech koruna. The Danish krone continued to trade close to its central rate within ERM II. Box 5 presents the recent update of the trade weights used for the effective exchange rates of the euro.

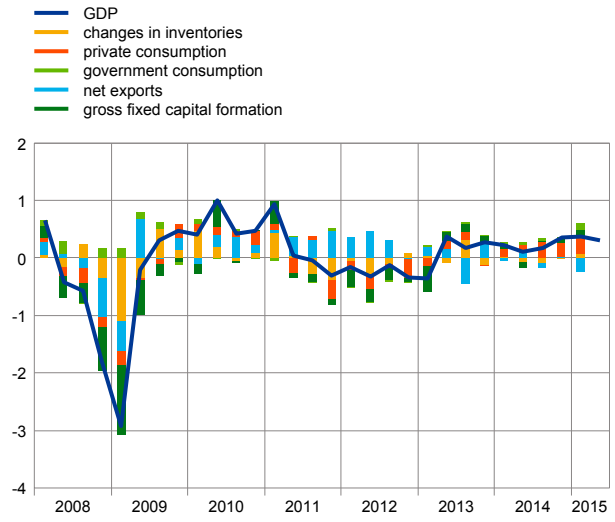
3 Economic activity

The economic recovery in the euro area has continued to gradually firm, although at a slower pace than previously anticipated. Euro area real GDP continued to grow in the second quarter of 2015, albeit at a slightly slower pace than in the first quarter. The latest survey indicators point to a broadly similar pace of real GDP growth in the second half of this year as in the second quarter. Looking further ahead, the recovery of economic activity is expected to continue. The low level of oil prices will bolster real disposable income, thus supporting private consumption and corporate profitability. In addition, the very accommodative monetary policy stance should further contribute to easing overall financing conditions and enhancing access to credit, which will encourage more business investment. At the same time, the growth trend is expected to be slightly weaker than previously anticipated, reflecting in particular the slowdown in emerging economies, weighing on global growth and thus on the demand for euro area exports. Against this background, the September 2015 ECB staff macroeconomic projections for the euro area foresee a somewhat weaker growth outlook compared with the June 2015 Eurosystem staff macroeconomic projections.

Chart 11

Euro area real GDP and its composition

(quarter-on-quarter percentage changes and quarter-on-quarter percentage contributions)



Sources: Eurostat and ECB calculations.
Note: GDP growth in the euro area for the second quarter of 2015 is Eurostat's flash estimate.

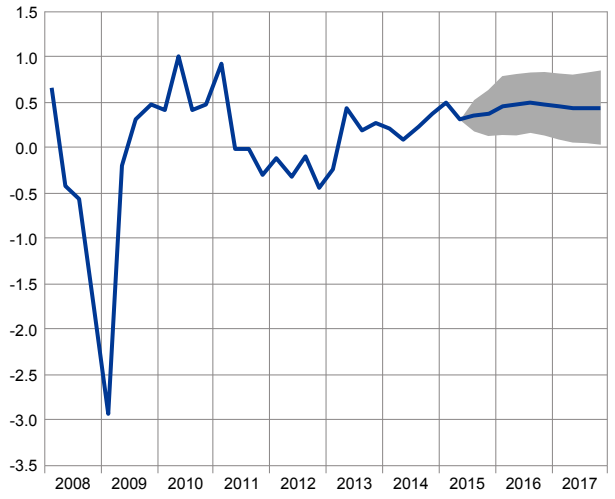
Euro area real GDP continued to grow in the second quarter of 2015, albeit at a slightly slower pace than in the first quarter. According to Eurostat's flash estimate, real GDP rose by 0.3%, quarter on quarter, in the second quarter of 2015, down from 0.4% in the first quarter (see Chart 11). This outturn in growth developments was somewhat lower than expected in the June 2015 Eurosystem staff projections. Although no breakdown was available by the cut-off date for this issue of the Economic Bulletin, available information suggests that private consumption and net trade made positive contributions to growth, with the latter reflecting gains in euro area export market shares on the back of the supportive euro exchange rate. In contrast, investment and changes in inventories are likely to have made a negative contribution to growth in the second quarter.

Indicators for business confidence point to a similar pace of growth in the near term as in the second quarter. Survey data available up to August signal ongoing moderate growth in the near term. For instance, both the European Commission's Economic Sentiment Indicator (ESI) and the composite output Purchasing Managers' Index (PMI) improved slightly between the second quarter of 2015 and the first two months of the third quarter. In addition, both indicators stood in July and August above their respective long-term average levels. While both the ESI and the PMI rose in August, business confidence declined in the capital and intermediate goods sectors, reflecting in part a weaker assessment of export order book levels amid a deterioration in the

Chart 12

Euro area real GDP (including projections)

(quarter-on-quarter percentage changes)

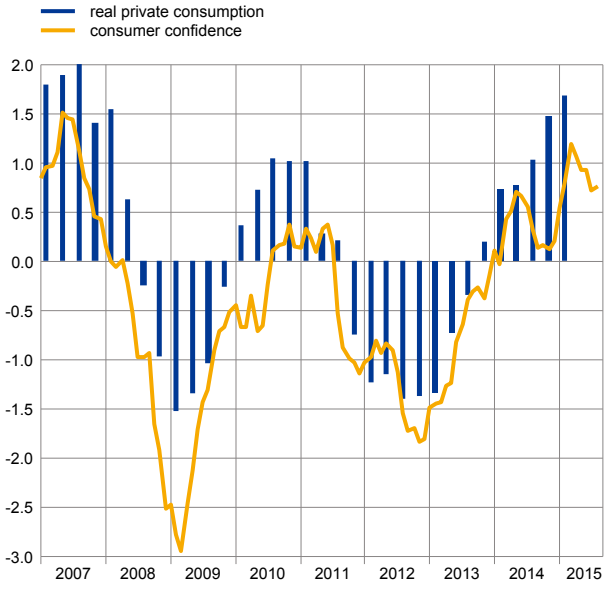


Sources: Eurostat and the article entitled "September 2015 ECB staff macroeconomic projections for the euro area", published on the ECB's website on 3 September 2015.
Notes: Working day-adjusted data. The ranges shown around the central projections are based on the differences between actual outcomes and previous projections carried out over a number of years. The width of the ranges is twice the average absolute value of these differences. The method used for calculating the ranges, involving a correction for exceptional events, is explained in "New procedure for constructing Eurosystem and ECB staff projection ranges", ECB, December 2009.

Chart 13

Euro area private consumption and consumer confidence

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



Sources: Eurostat, European Commission and ECB calculations.

global growth outlook. Whereas slower global trade dampens the euro area growth momentum, the past depreciation of the euro and low interest rates are likely to support business investment, while favourable labour market developments and lower energy prices should encourage private consumption in the near term.

The assessment of a slower economic recovery is reflected in the September 2015 ECB staff macroeconomic projections for the euro area.[1] The economic recovery in the euro area is projected to gradually broaden over the next two years, although being slower than previously anticipated, reflecting in particular the slowdown in emerging market economies. Positive contributions to growth are expected from domestic and, to a lesser extent than before, external demand. The ECB's monetary policy measures should further support activity in the near and medium term, through a variety of channels. Bank lending rates are expected to remain at historical low levels and aggregate demand, notably fixed capital formation, is expected to benefit from the very accommodative monetary policy stance. At the same time, the sluggish pace of implementation of structural reforms and the necessary balance sheet adjustments in a number of sectors are likely to continue to weigh on growth. According to the September 2015 ECB staff macroeconomic projections for the euro area, annual real GDP in the euro area is expected to increase by 1.4% in 2015, 1.7% in 2016 and 1.8% in 2017 (see Chart 12).

Private consumption growth, which has been the main driver of growth for the past year, is likely to have lost some of its momentum recently. For instance, combined retail sales and new passenger car registrations for the euro area grew by 0.3%, quarter on quarter, in the second quarter of 2015, down from 1.3% in the first quarter. While consumption probably slowed in the second quarter, the European Commission's indicator on consumer confidence for the euro area, which provides a reasonably good picture of trend developments in private consumption, stood in August above its long-term average level and points to a continued growth momentum (see Chart 13).

[1] See "September 2015 ECB staff macroeconomic projections for the euro area" (http://www.ecb.europa.eu/pub/pdf/other/ecbstaffprojections201509.en.pdf?373c7ff1a4072123c81757486566b3f2).

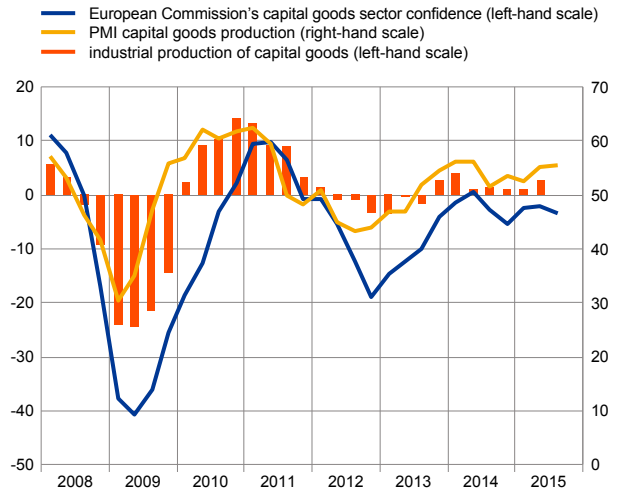
Looking ahead, private consumption growth is expected to remain the key driver of the pick-up in activity. Private consumption should continue to benefit from the favourable impact of the decline in energy prices on real disposable income. Thereafter, wage income is expected to pick up, on the back of steady employment growth and accelerating nominal compensation per employee. Easing financing conditions as well as low financing costs, reinforced by the ECB's non-standard measures, should further support private consumption.

Euro area total investment growth is likely to have contracted in the second quarter of this year. In the first quarter investment was supported by improving demand, benign financing conditions, the mild winter and temporary fiscal incentives in some countries. In the second quarter of 2015 euro area total investment growth is expected to have contracted, as dynamics in industrial production of capital goods decelerated and capacity utilisation in the manufacturing industry was broadly unchanged. With regard to construction investment, construction production growth has slowed and confidence indicators remain at levels associated with contraction, pointing to weak growth in the second quarter.

Chart 14

Euro area capital goods production and investment confidence

(year-on-year percentage changes; net percentage balance; index)



Sources: Eurostat, European Commission and Markit.

The pick-up in business investment may be slightly slower than previously thought, but remains a driver of the recovery. Survey data for the capital goods sector suggest broadly stabilising or slightly weakening confidence and lower production expectations up to August (see Chart 14). The deterioration in the external environment is also weighing on the short-term outlook for investment. Nevertheless, looking ahead, business investment should progressively recover in an environment of very accommodative monetary policy, easing credit supply conditions, stronger profit mark-ups, strengthening demand and replacement needs.

Chart 15

Euro area export market shares

(total euro area exports of goods as a share of total world merchandise exports)

Sources: CPB Netherlands Bureau for Economic Policy Analysis and ECB calculations.

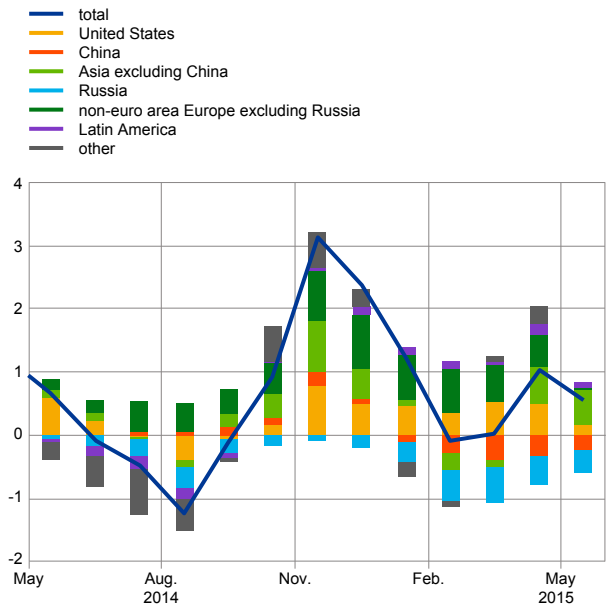
Construction investment is expected to gradually recover in the second half of 2015. Following the end of a protracted adjustment period, construction investment should be supported by very benign financing conditions and growth in household disposable income. The progress in housing market adjustments in some countries as signalled by a turnaround in building permits and house prices will also boost residential investment over time.

Owing to the weaker external environment, expectations for export growth have been scaled down. The growth of euro area exports of goods and services moderated somewhat in the first quarter of 2015. Although global growth slowed down significantly,

Chart 16

Extra-euro area export volumes of goods to major trading partners

(three-month-on-three-month percentage changes; percentage point contributions)

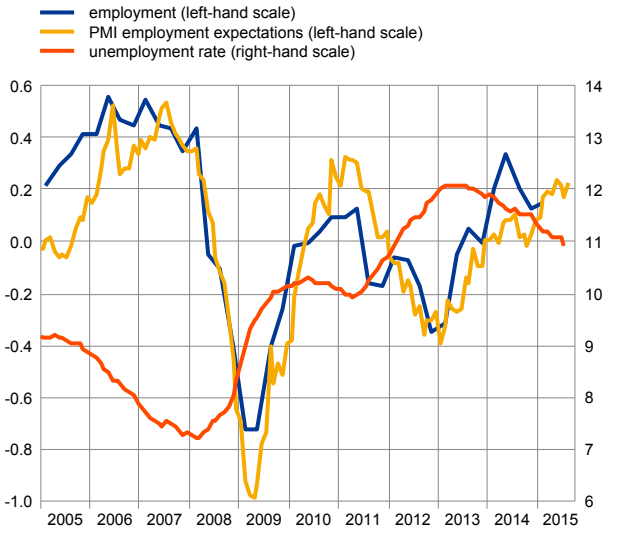


Sources: Eurostat and ECB calculations.
Notes: "Non-euro area Europe" also includes some non-EU countries (e.g. Norway, Switzerland and Turkey).

Chart 17

Euro area employment, PMI employment expectations and unemployment

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



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

trade in goods data for the second quarter of 2015 point to a pick-up in goods export growth, indicating gains in euro area export market shares in the first half of 2015, partly due to the supportive euro exchange rate (see Chart 15). These developments reflect an increase in exports to the United States and Asia (excluding China), while exports to China and Russia remained subdued (see Chart 16).

Looking ahead, however, export growth is projected to fall well short of its pre-crisis pace, reflecting both a moderation in global demand and lower global trade elasticity to growth. Euro area imports are expected to continue to further strengthen over the medium term in line with the recovery in domestic demand. As a result, net exports are expected to make a broadly neutral contribution to real GDP growth over the next two years.

Euro area labour markets are continuing to improve gradually. Headcount employment (see Chart 17) increased moderately, rising by 0.1% quarter on quarter in the first quarter of 2015 (the latest period for which data are available). At the sectoral level, employment growth was led by a rebound in construction employment. At the same time, services sector employment growth registered a further slowdown for the fourth consecutive quarter. Despite the increase in total employment, total hours worked decreased slightly in the first quarter, reflecting a decrease in hours worked per person employed. Survey results indicate that employment continued to improve in the second quarter of 2015. These indicators also point to some further improvements in labour market conditions in both industry and services in the second quarter of 2015 and a slight decline in construction.

Unemployment continues to recede gradually from elevated levels. The euro area unemployment rate declined to 11.1% in the second quarter of 2015, from 11.2% in the first quarter. In July the unemployment rate fell further to 10.9%. The ongoing decline in the unemployment rate is visible across all groups of workers (youth workers, adult workers, males and females) and across most euro area economies; nevertheless, substantial differences remain at the age group and country level.

Looking ahead, euro area labour markets are expected to improve further over the short and medium term. Employment growth is expected to accelerate somewhat over the coming quarters, on the back of the economic recovery.

As a consequence, the euro area unemployment rate is expected to decline further as the recovery broadens.

The risks surrounding the economic outlook for the euro area remain on the downside. They reflect in particular heightened uncertainties related to the external environment. Notably, developments in emerging market economies have the potential to further adversely affect global growth via trade and confidence effects.

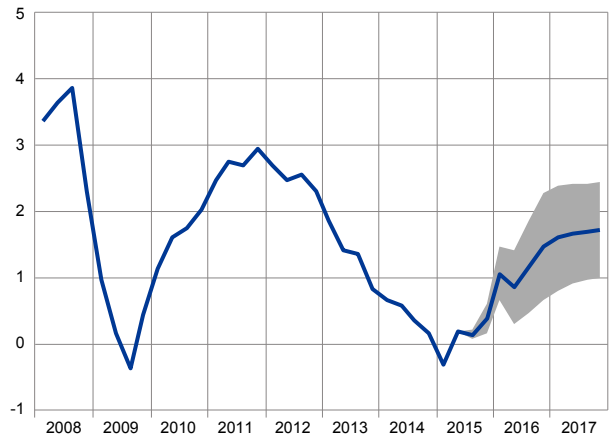
4 Prices and costs

HICP inflation has recently stabilised at low, positive levels. On the basis of the information available and current oil futures prices, annual HICP inflation rates will remain very low in the near term. Annual HICP inflation is expected to rise towards the end of the year, also 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 expected economic recovery, the pass-through of past declines in the euro exchange rate and the assumption of somewhat higher oil prices in the years ahead as currently reflected in oil futures markets. The September 2015 ECB staff macroeconomic projections for the euro area foresee annual HICP inflation at 0.1% in 2015, 1.1% in 2016 and 1.7% in 2017. In comparison with the June 2015 Eurosystem staff macroeconomic projections, the outlook for HICP inflation has been revised down, largely owing to lower oil prices.

Chart 18

Euro area HICP inflation (including projections)

(annual percentage changes)

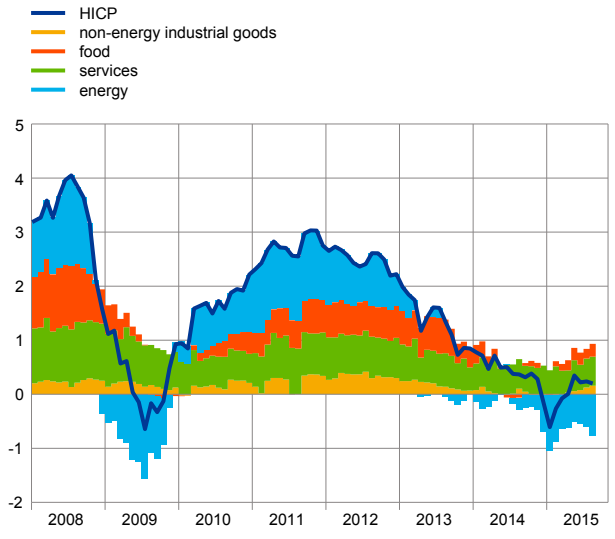


Sources: Eurostat and ECB calculations.
Note: The latest observation is for August 2015 (flash estimate).

Chart 19

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 August 2015 (flash estimates).

HICP inflation has recently stabilised at low, positive rates, following the rebound from the negative rates seen earlier this year (see Chart 18). According to Eurostat's flash estimate, annual HICP inflation was 0.2% in August, unchanged from July and June. This recent stabilisation reflects two sets of offsetting factors (see Chart 19). On the one hand, the renewed decline in oil prices has driven down energy inflation. On the other hand, HICP inflation excluding energy and food has edged up somewhat over the past few months, driven by non-energy industrial goods inflation, while services inflation has remained broadly stable. Furthermore, in August food inflation picked up substantially on the back of a higher contribution from unprocessed food prices, while processed food inflation remained broadly stable, dampened by dairy prices.

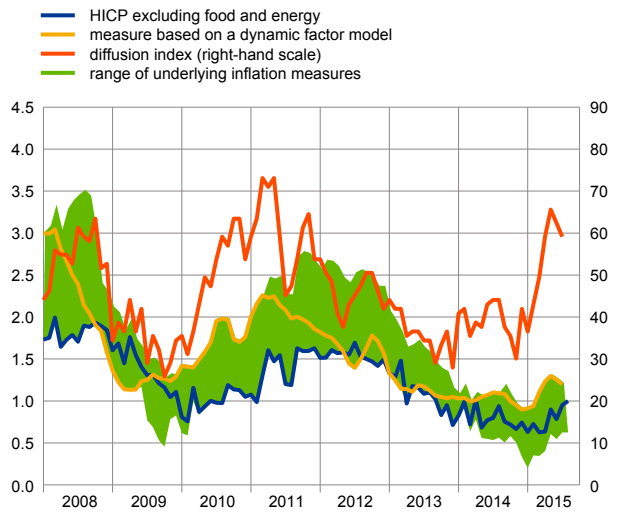
Energy and food price inflation have reinforced the pattern of euro area inflation in recent quarters. Energy price inflation has been negative since July 2014, when oil prices started to decline sharply. After peaking in mid-June 2014, the price of crude oil fell in euro terms by around 50% until January. On the back of rising oil prices following this trough in early 2015, energy price inflation started to pick up during the first half of this year. However, since July oil prices have seen a renewed downward trend, exerting downward pressure on energy price inflation. Similarly, the contribution from food price inflation declined markedly in 2014 and has rebounded somewhat since the start

of this year, supported by significant base effects. Nevertheless, food price inflation remains relatively low by historical standards (see Box 7).

Chart 20

Measures of underlying inflation

(annual percentage changes)

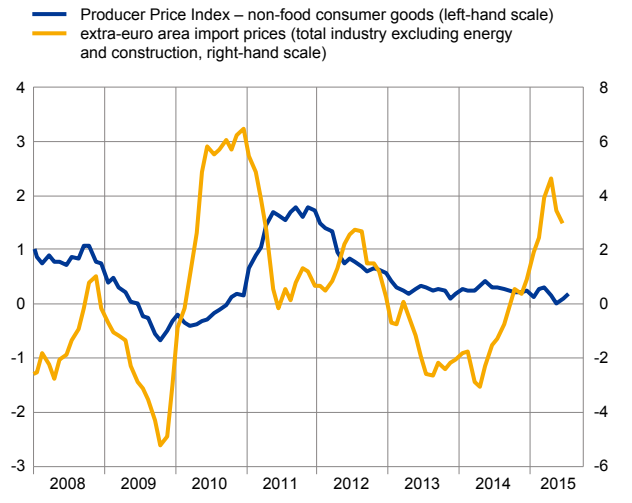


Sources: Eurostat and ECB calculations.
Notes: In the range of underlying measures, the following have been considered: HICP excluding energy; HICP excluding unprocessed food and energy; HICP excluding energy and food; trimmed mean (10%); trimmed mean (30%); the median of the HICP; and the measure based on the dynamic factor model. The diffusion index is calculated as the share of individual HICP items which has seen an increase in the annual rate of change over the past three months. The latest observations are for August 2015 for HICP excluding energy and food (flash estimate) and July 2015 for all other indicators.

Chart 21

Producer prices for non-food consumer goods and extra-euro area import prices

(annual percentage changes)



Sources: Eurostat and ECB calculations.
Note: The latest observations are for July 2015 (Producer Price Index) and June 2015 (import prices).

Recent indicators point to a gradual strengthening in underlying inflation. HICP inflation excluding food and energy (a measure of underlying inflation) remained stable at 1.0% in August. Most other indicators of underlying inflation, looking at the broad set presented in Box 4 of the previous issue of the Economic Bulletin,[1] continued to post higher levels in July 2015 than early this year (see Chart 20). The pass-through of the euro's strong depreciation between May 2014 and April 2015 to non-energy consumer prices and the continued recovery in domestic demand in the euro area should provide the impetus for a further pick-up in underlying inflation. However, it is still premature to conclude that underlying inflation is on an upward trend, as the indirect effects of the declines in oil and non-oil commodity prices and low global inflation could temporarily exert renewed downward pressure. The recent appreciation of the euro could also reduce some of the upward impact of the euro's previous strong depreciation.

The effects of the exchange rate depreciation can increasingly be seen in the rise in goods inflation. Non-energy industrial goods inflation recorded a broad-based rise from -0.1% in February 2015 to 0.6% in August. The upward trend reflects the pass-through of the marked increases in import prices for non-food consumer goods, which are related to the depreciation of the euro and the rise in the consumption of durable goods observed over recent quarters.

The impact of the weaker euro on domestic pipeline pressures should become more evident over the coming quarters. Whereas extra-euro area import prices remained at elevated levels (see Chart 21), the domestic sources of pipeline price pressures remain weak. Indeed, pipeline pressures for food prices point to a modest dynamic along the price chain, while the annual rate of change in producer prices for non-food consumer goods was 0.2% in July, posting a small increase for the second consecutive month. Survey indicators have weakened recently. The Purchasing Managers' Index (PMI) for non-food input prices in the

[1] See the box entitled "Has underlying inflation reached a turning point?", *Economic Bulletin*, Issue 5, ECB, July 2015.

retail sector declined further in August, interrupting the upward movement observed until June. Although the increase in the annual rate of change in producer prices for non-food consumer goods has been subdued, the recent upturn should continue as the pass-through of the strong depreciation of the euro gains further traction.

Domestic price pressures have stabilised for the time being. The GDP deflator, which is indicative of domestic inflationary pressures, increased marginally in the first quarter of 2015, reflecting continued weak labour cost developments and a moderate strengthening in profit margins. Growth in unit labour costs decreased slightly in the first quarter of 2015 as productivity grew at a stronger rate than compensation per employee. Profit growth (measured in terms of gross operating surplus) strengthened somewhat, reflecting the impact of the ongoing improvement in real GDP growth and a pick-up in the rate of growth in profit per unit of output.

The high level of economic slack continues to depress services price inflation. The annual rate of services price inflation has hovered just above 1.0% in recent months. Most of the fluctuations around this level reflect the impact of travel-related items amid ongoing subdued developments in both wage growth and profit margins. The weakness in wage and profit margin growth could be attributed to a number of factors, including the high level of economic and labour market slack and higher wage and price flexibility in some countries following structural reforms in labour and product markets over recent years.

Chart 22

Market-based measures of inflation expectations

(annual percentage changes)

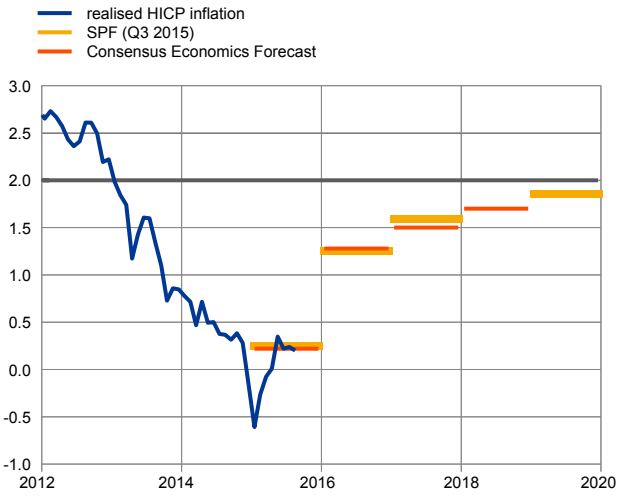
Sources: Thomson Reuters and ECB calculations.
Note: The latest observation is for 2 September 2015.

Market-based measures of inflation expectations have recently declined, following a continuous upward trend since January, while survey-based measures have remained relatively stable. The upward trend in inflation expectations signalled by inflation-linked swaps since early 2015 came to a halt in late June. Overall, long-term forward inflation-linked swap rates rose by about 0.4 percentage point in the first six months of 2015. Between late June and early September, these rates declined amid signs of a moderation in global economic activity and decreasing commodity prices. However, other factors may also have contributed to the fall, such as low levels of market liquidity during the summer months and lower inflation risk premia incorporated in the inflation-linked swap rates. The five-year inflation rate five years ahead declined by 15 basis points between early July and 2 September, reaching 1.7% on this date (see Chart 22). Over the same period, short to medium-term inflation swap rates decreased more markedly than the longer-term rates. Survey-based

Chart 23

Survey-based measures of inflation expectations

(annual percentage changes)



Sources: Eurostat, Reuters, ECB Survey of Professional Forecasters, ECB calculations and Consensus Economics.
Notes: Realised HICP data are included up to August 2015 (flash estimate). SPF data are based on the Q3 2015 survey results. The long-term forecast refers to five years ahead. Consensus Economics forecasts are based on the August 2015 forecasts for 2015 and 2016 and the April 2015 forecasts for 2017 and 2018.

measures of inflation expectation have remained relatively stable so far and continue to suggest that inflation exceptation will return to a level below, but close to, 2% over the medium term (see Chart 23).

Overall, HICP inflation for the euro area is projected to rise from the end of 2015 (see Chart 18). On the basis of the information available in mid-August, the September 2015 ECB staff macroeconomic projections for the euro area forsee HICP inflation at an average of 0.1% in 2015, rising to 1.1% in 2016 and 1.7% in 2017.[2] The initial pick-up is mainly related to base effects due to past falls in oil prices. In 2016 and 2017 headline inflation is envisaged to rise significantly as further reductions in economic and labour market slack gradually push up underlying inflation. Moreover, rising external price pressures in view of the protracted exchange rate pass-through to consumer prices and upward effects from the assumed rise in energy and non-energy commodity prices, combined with strong upward base effects from the recent oil price declines, will contribute to higher inflation. Compared with the June 2015 Eurosystem staff macroeconomic projection exercise, the outlook for HICP inflation has been revised downwards over the whole projection horizon, but only marginally for 2017. The downward revision mainly reflects the direct and indirect effects of the lower oil prices.

Taking into account the most recent developments in oil prices and recent exchange rates, there are downside risks to the September 2015 ECB staff inflation projections. Since the cut-off date for the technical assumptions in the September projections, oil prices have declined, while the effective exchange rate of the euro has strengthened, partly in connection with the financial turmoil in some emerging market economies.

The recovery in house prices is relatively broad-based, although house price growth remains heterogeneous across euro area countries. The ECB's residential property price indicator for the euro area continues to increase at a relatively muted pace, rising by 1.0% (year-on-year) in the first quarter of 2015. House price growth in the euro area as a whole is expected to strengthen further in the period ahead, reflecting improving prospects for households' income and employment, favourable financing conditions and the correction of previous overvaluations of house prices.[3]

2 See the article entitled "September 2015 ECB staff macroeconomic projections for the euro area", published on the ECB's website on 3 September 2015.

3 See the article entitled "The state of the house price cycle in the euro area" in this issue of the Economic Bulletin.

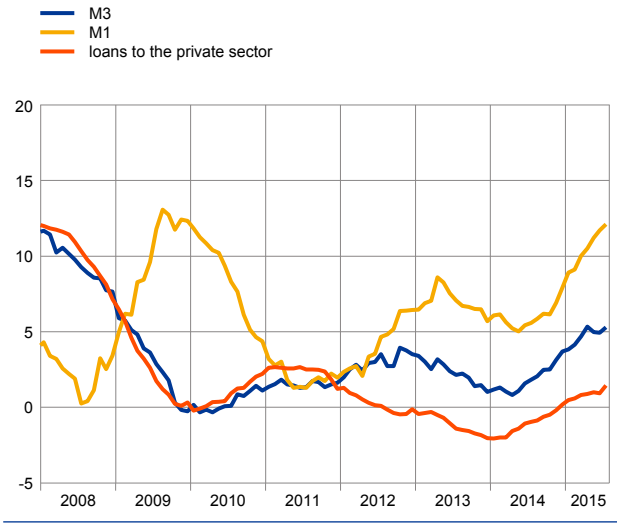
5 Money and credit

In an environment of very low interest rates, money and loan growth have continued to recover. Portfolio substitution and improved credit dynamics are driving broad money growth. In addition, the targeted longer-term refinancing operations (TLTROs) and the expanded asset purchase programme (APP) have contributed to improvements in money and credit indicators. Banks' funding costs stabilised at historical lows in the second quarter of 2015. Favourable lending conditions continued to support a further recovery in loan growth, which is materialising gradually. In addition, divergences in bank lending rates across countries have narrowed further. While bank lending is the main source of external funding for non-financial corporations (NFCs), the overall annual flow of external financing to NFCs is estimated to have stabilised in the second quarter of 2015. Overall, recent developments confirm that the ECB's monetary policy measures are gradually being transmitted to lending conditions and are ultimately supportive of broad money and credit dynamics.

Chart 24

M3, M1 and loans to the private sector

(percentage changes; adjusted for seasonal and calendar effects)

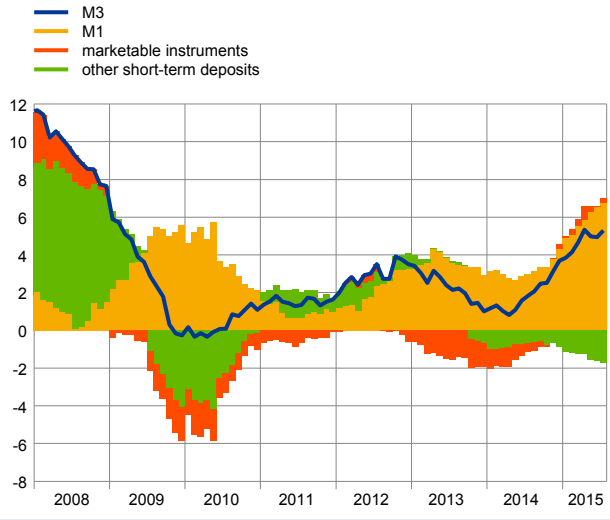


Source: ECB.

Chart 25

M3 and its components

(contribution to M3 annual growth rate; adjusted for seasonal and calendar effects)



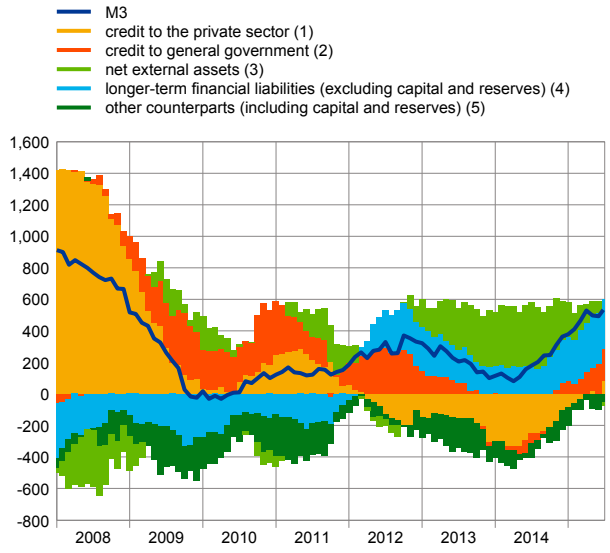
Source: ECB.

The latest monetary data confirm the robustness of money growth dynamics. In July annual M3 growth stood at 5.3%, compared with 5.0% for the second quarter of 2015 (see Chart 24). This increase in M3 growth was mostly driven by the narrow monetary aggregate M1. Annual growth in M1 continued to accelerate in July 2015, reaching an annual rate of 12.1%, compared with 10.9% in the second quarter of 2015. Recent developments in narrow money are consistent with the prospect of a continued recovery in economic activity.

Money-holders are focusing on overnight deposits. M1 made a sizeable contribution to M3 growth in July, as through the second quarter of 2015 (see Chart 25). The environment of very low interest rates is providing incentives for money-holders to invest in overnight deposits within M3. The M1 contribution also reflects inflows related to the sales of public sector bonds, covered bonds and asset-backed securities by the money-holding sector in the context of the expanded asset purchase programme (APP). In the first half of 2015 the low levels of remuneration for less liquid monetary assets contributed to the ongoing contraction of short-term deposits other than overnight deposits, which continued to be a drag on M3 growth. Further support for M3 growth came from marketable instruments (i.e. M3 minus M2), the contribution of which was small, but positive.

Chart 26
Counterparts of M3

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

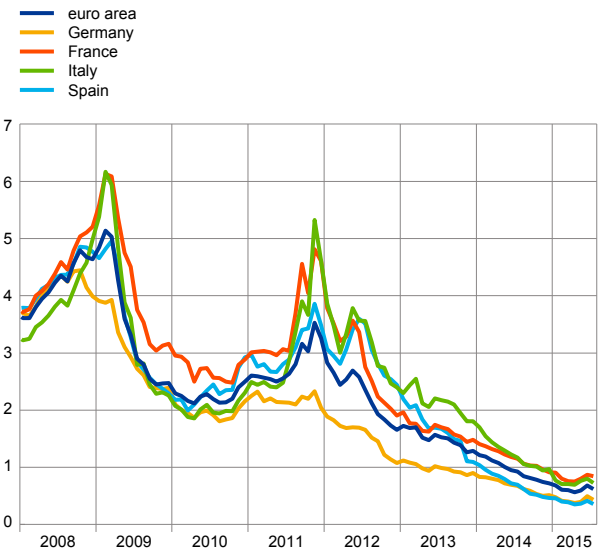


Source: ECB.
Notes: M3 is shown for reference only (M3 = 1+2+3-4+5).

Money creation continued to move towards domestic sources in July, partly linked to the effects of the TLTROs and the APP. Among the counterparts of M3 (see Chart 26), shifts away from longer-term financial liabilities and increased credit to general government have been the main contributors to annual money growth in recent months, while the contribution from credit to the private sector has turned marginally positive. The annual rate of contraction in MFIs' longer-term financial liabilities (excluding capital and reserves) held by the money-holding sector continued to be strong and stood at -6.5% in July 2015, unchanged from the second quarter of 2015. The reductions in MFIs' longer-term financial liabilities are in part triggered by the attractiveness of TLTROs as an alternative to long-term market-based bank funding, as well as by the APP purchases. Credit from MFIs (including the Eurosystem) to general government increased in July, mainly reflecting the increase in the holdings of general government securities by the Eurosystem under its public sector purchase programme (PSPP), while banks continued to reduce their holdings of government securities. The latter offers room for a rebalancing of MFI investments towards private sector assets. At the same time the contribution from the MFI sector's net external asset position, which reflects a sizeable surplus in the euro area current account, moderated further in the second quarter of 2015 and turned negative in July 2015. The large outflows from net external assets in July occurred despite the persistently positive contribution of the current account surplus.

Chart 27
Banks' composite cost of debt financing

(percentages per annum)



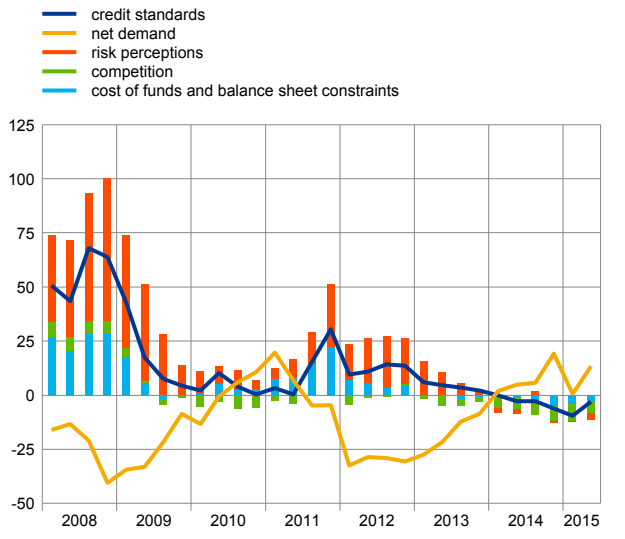
Sources: ECB, Merrill Lynch Global Index and ECB calculations.
Notes: Average of deposit rates on new business (i.e. the composite cost of deposits) and cost of unsecured market debt funding weighted with their corresponding outstanding amounts.

Banks' funding costs edged up in the second quarter of 2015, but remain at low levels. Looking at the last few years, the composite cost of bank funding shows a declining trend (see Chart 27), against the backdrop of net redemptions of MFIs' longer-term financial liabilities. Since its announcement, the expanded APP has significantly contributed to a further reduction in bank funding costs. The recent rise in banks' cost of debt funding was driven by an increase in bank bond yields, while deposit rates remained stable at historically low levels. In this context, the July 2015 euro area bank lending survey showed that banks' access to retail deposit and debt securities funding deteriorated in the second quarter of 2015, while access to the money market and securitisation improved, albeit to a lesser extent than in the previous quarter. There are no signs

Chart 28

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

(average net percentages per category)

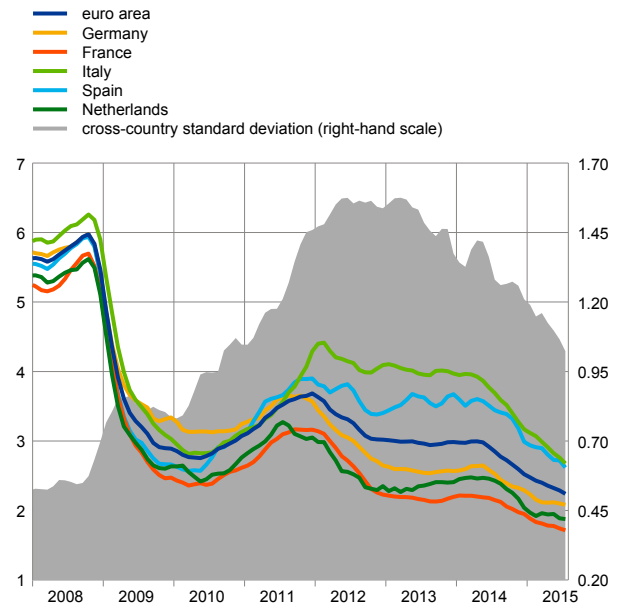


Source: ECB.
Notes: "Cost of funds and balance sheet constraints" are an unweighted average of "cost related to capital position", "access to market financing" and "liquidity position"; "risk perceptions" are an unweighted average of "general economic situation and outlook", "industry or firm-specific situation and outlook/borrower's creditworthiness" and "risk on collateral demanded"; "competition" is an unweighted average of "bank competition", "non-bank competition" and "competition from market financing".

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 over a fixed sample of 12 euro area countries. Latest observation: July 2015.

that banks' deposit costs are moving into negative territory as a result of the ECB's negative deposit facility rate.

Bank lending conditions are supported by favourable developments in credit demand and supply factors. The July 2015 bank lending survey shows that increased competition between banks contributed to an easing of credit standards on loans to both enterprises and households in the second quarter of 2015. This development coincided with an increase in firms' net demand for loans (see Chart 28). Banks also eased their terms and conditions on new loans across all categories in the second quarter, mainly driven by a further narrowing of margins on average loans. Overall, this suggests that the dampening effect of credit supply factors has receded further and that the impact of demand factors on NFC loan growth is turning slightly positive, which in turn will further support the growth of loans to the private sector. In this connection, the July survey indicates that in the second quarter banks used TLTRO funds to substitute for market-based funding and to bolster credit supply.

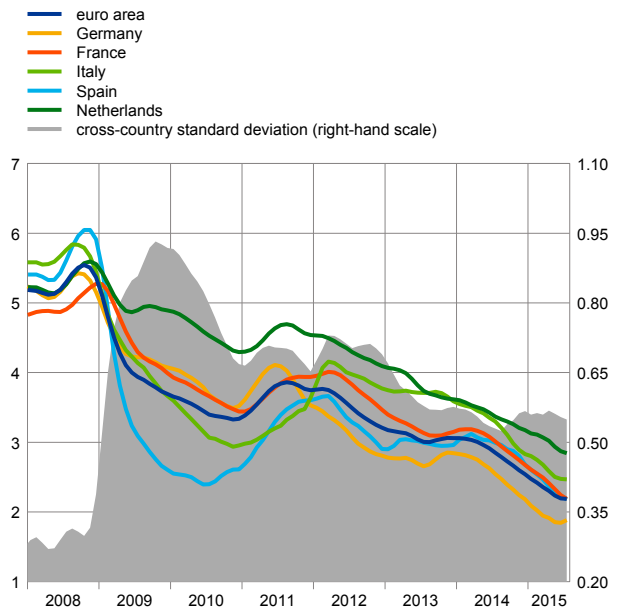
Bank lending rates declined further in the second quarter, notably due to the ECB's non-standard measures. Significant declines in the nominal cost of bank borrowing for NFCs and households have been recorded. In particular, since the third quarter of 2014, when the ECB stepped up its efforts in the context of further monetary policy accommodation, banks have progressively passed on the improvement in their funding costs in the form of lower bank lending rates: the composite costs of borrowing for households and non-financial corporations in the euro area have declined by around 70 basis points and 75 basis points respectively (see Charts 29 and 30). Recent data for July suggest that bank lending rates have reached historical lows.

Divergences in bank lending rates across countries are significant, but have narrowed further. Despite some encouraging developments in credit supply conditions for the euro area as a whole, credit standards remain heterogeneous across countries and sectors. In this respect, the credit easing package adopted in June 2014 and the APP have contributed to a narrowing of the cross-country dispersion of

Chart 30

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

(percentages per annum; three-month moving averages)

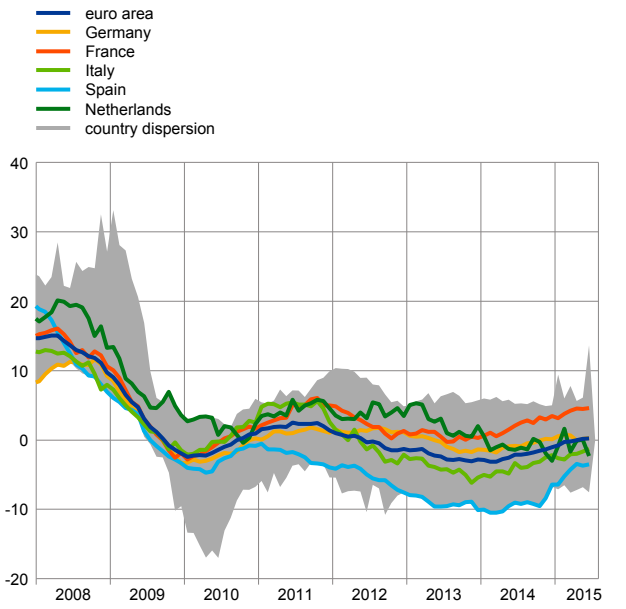


Source: ECB.
Notes: The indicator for the total cost of bank borrowing is calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes. The cross-country standard deviation is calculated over a fixed sample of 12 euro area countries. Latest observation: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

Chart 31

MFI loans to non-financial corporations

(annual rate of growth)

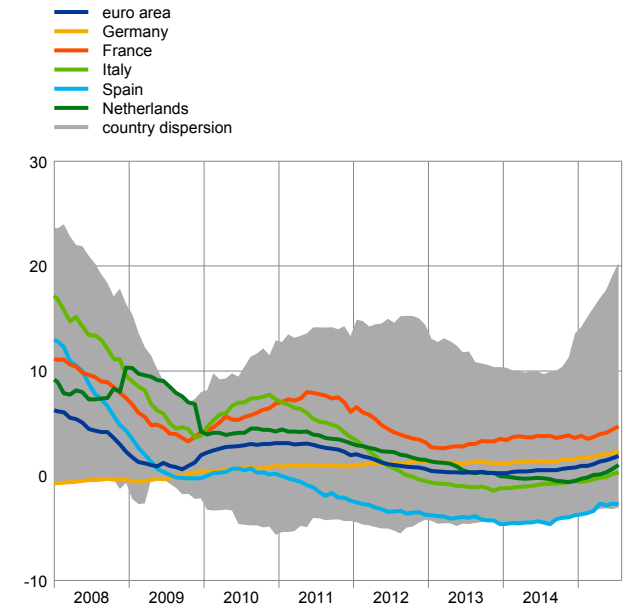


Source: ECB.
Notes: Adjusted for loan sales and securitisation. The country dispersion is calculated as a minimum/maximum over a fixed sample of 12 euro area countries. Latest observation: July 2015.

Chart 32

MFI loans to households

(annual rate of growth)



Source: ECB.
Notes: Adjusted for loan sales and securitisation. The country dispersion is calculated as a minimum/maximum over a fixed sample of 12 euro area countries. Latest observation: July 2015.

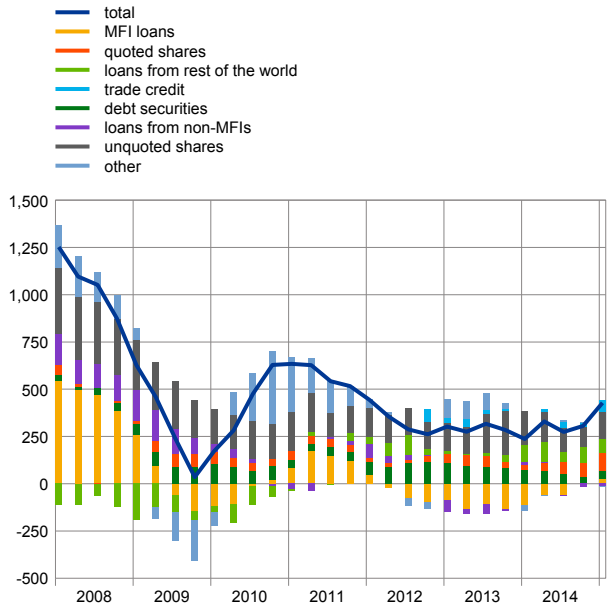
borrowing costs. Those euro area countries displaying relatively low growth rates for loans to NFCs have also experienced particularly strong decreases in bank lending rates for such loans.

The growth of loans to the private sector is recovering gradually. Adjusted for sales and securitisation, annual growth of MFI loans to the private sector increased to 1.4% in July 2015, up from 0.9% in the second quarter of 2015. Following an extended period of accelerating contraction, the annual growth of loans to NFCs has been gradually recovering since the beginning of 2014, reaching 0.9% in July 2015 (see Chart 31). Despite these improvements, the dynamics of loans to NFCs remain subdued. The growth of loans to households improved further through the second quarter and stood at 1.9% in July (see Chart 32). As noted above, these developments have been supported by the significant decreases in bank lending rates which have been widespread in the euro area since summer 2014, as well as by an improvement in both the supply of and demand for bank loans. At the same time, the subdued economic

Chart 33

NFCs' external financing in the euro area

(EUR billions; four-quarter flows)



Sources: Eurostat and ECB.
Notes: MFI loans and loans from non-MFIs (includes other financial intermediaries and insurance corporations and pension funds) corrected for loans sales and securitisation. "Other" is the difference between the total and the instruments included in the chart and includes inter-company loans and the rebalancing between non-financial and financial accounts data. Latest observation: Q1 2015.

conditions and relatively tight lending conditions still weigh on loan supply in some parts of the euro area.

The overall annual flow of external financing to NFCs is estimated to have stabilised in the second quarter of 2015, after strengthening further in the previous quarter. NFCs' external financing in the second quarter stood at levels similar to those observed in early 2012 (see Chart 33) and in 2004-05, before the strong credit growth took place. NFCs' external financing was supported by the strengthening of economic activity, further declines in the cost of bank lending, the easing of bank lending conditions and the very low cost of market-based debt. At the same time, related to low opportunity costs, NFCs, in particular listed firms, maintained historically high cash balances as precautionary liquidity buffers and possibly also to finance possible mergers and acquisitions in the future.

Recent data show that net issuance of debt securities by NFCs moderated in May and June 2015. This development followed the surge in both the direct and indirect issuance of debt securities by NFCs and their conduits in the first quarter of 2015 after the launch of the public sector purchase programme (PSPP). Firms increased their recourse to market-based financing between January and April 2015 in order to benefit from the very favourable market conditions and low interest rates.

The overall nominal cost of external financing for euro area NFCs increased slightly in the second quarter of 2015, after reaching historically low levels in February. This increase was driven by the decline in financial asset prices in the second quarter, resulting in an increase in the cost of both market-based debt and equity for euro area NFCs, which in July and August 2015 stood on average at around 45 basis points higher than observed in February. The increase in the cost of market-based financing was partly compensated for by the continued declines in bank lending rates in the second quarter of 2015.

6 Fiscal developments

The improvement in the euro area fiscal balance is projected to continue, on account of the cyclical recovery and low interest rates. Based on the available information, however, the structural improvement is thought to have come to a halt. 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 projected to continue to decline. Based on the September 2015 ECB staff macroeconomic projections for the euro area, the general government deficit ratio for the euro area is expected to decline from 2.4% of GDP in 2014 to 1.7% of GDP in 2017 (see Table 1). The budgetary improvement is expected to stem entirely from the projected cyclical improvement and lower interest costs in the baseline scenario. Compared with the June 2015 projections, the outlook for the headline deficit is broadly unchanged for 2015, reflecting the fact that only a few new budgetary measures have been adopted in the meantime, while for the outer years the deficit improvement is projected to be more moderate, on account of a slightly less favourable economic recovery.

Table 1

Fiscal developments in the euro area

(percentages of GDP)

	2012	2013	2014	2015	2016	2017
a. Total revenue	45.9	46.4	46.5	46.3	45.9	45.7
b. Total expenditure	49.5	49.3	49.0	48.4	47.9	47.5
of which:						
c. Interest expenditure	3.0	2.8	2.6	2.4	2.3	2.2
d. Primary expenditure (b - c)	46.5	46.5	46.3	46.0	45.6	45.3
Budget balance (a - b)	-3.6	-2.9	-2.4	-2.1	-2.0	-1.7
Primary budget balance (a - d)	-0.6	-0.1	0.2	0.3	0.3	0.5
Cyclically adjusted budget balance	-3.5	-2.2	-1.9	-1.8	-1.9	-1.7
Structural balance	-3.2	-2.2	-1.8	-1.8	-1.8	-1.7
Gross debt	89.0	90.6	91.7	91.6	90.7	89.4
Memo item: real GDP (percentage changes)	-0.7	-0.2	0.9	1.4	1.7	1.8

Sources: Eurostat and September 2015 ECB 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 structural balance is expected to remain broadly unchanged until 2017. This reflects improvements on the expenditure side, mainly in the form of lower interest expenditure, which are projected to be broadly offset by cuts in direct taxes and social contributions on the revenue side in several countries. The euro area fiscal deficit in structural terms is projected overall to decline marginally from 1.8% of GDP in 2014 to 1.7% of GDP in 2017, which is slightly above the level forecast in the June projections.

Government debt is projected to decline gradually over the projection horizon, albeit remaining at a high level. The euro area debt-to-GDP ratio is projected to decline from its peak of 91.7% of GDP in 2014 to reach 89.4% of GDP by the end of the projection horizon. The improvement in the debt outlook, though not happening as quickly as expected in the June projections, is mainly explained by favourable developments in the interest-growth differential and a gradually improving primary

balance. The deficit-debt adjustments are expected to turn favourable, particularly as the debt-increasing impact of financial sector support fades. Further details on the fiscal impact of, and fiscal risks related to, financial sector support are spelt out in the article entitled "The fiscal impact of financial sector support during the crisis" in this issue of the Economic Bulletin. As the projected debt level remains high in many euro area countries, further consolidation efforts are needed to set the debt ratio firmly on a downward path. This is all the more important in view of the substantial long-term challenges resulting from an ageing population and rising healthcare costs.

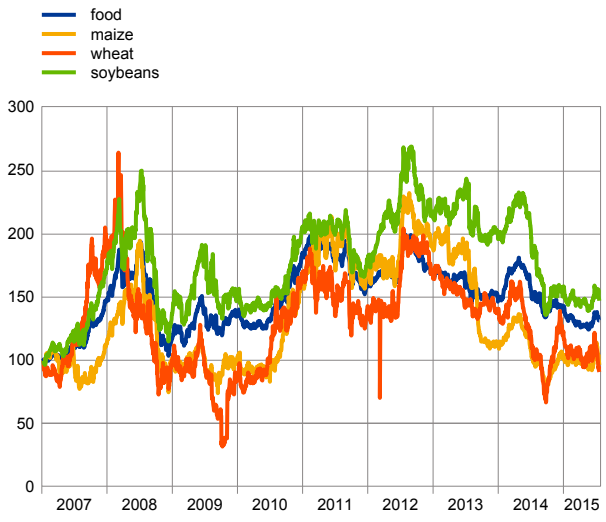
The projected shortfall from structural efforts is expected to widen the gap with respect to the requirements of the Stability and Growth Pact (SGP). The aggregate 2015 fiscal stance is expected to be broadly neutral. This is appropriate within the current weak economic environment, in which fiscal policies should support the economic recovery, while ensuring debt sustainability. In the country-specific recommendations this June, the European Council, however, identified risks of non-compliance with the structural effort requirements of the SGP in 12 of the 17 euro area countries under review (see Box 8). Therefore, it will be important that, in particular, those countries that still need to consolidate increase their emphasis on debt sustainability and achieve progress towards their medium-term budgetary objectives. The draft budgetary plans for 2016 should clarify how governments whose structural efforts fall short of their commitments under the SGP intend to follow up on the country-specific recommendations to ensure compliance with the EU's fiscal rules through faster deficit reduction.

Box 1
Recent developments and outlook for non-oil commodity prices

Global prices for non-oil commodities have come under scrutiny in recent months, as continuing downward pressures have resulted in lows not seen over the past five years. Despite broadly similar trends in commodity prices for food and metals, supply and demand factors specific to individual markets warrant a careful analysis of price developments for key commodities. This box discusses the main drivers of recent developments in, and the outlook for, the prices of selected non-oil commodities.

Chart A
Food commodity prices

(index: 1 January 2007=100)



Sources: Hamburg Institute of International Economics (HWWI) and Bloomberg.

Food commodity prices have been declining since mid-2012 as a result of oversupplied markets on the back of consecutive good harvests. Ample supply and high inventories have contributed to a fall in wheat and maize prices, especially since the beginning of 2015 (see Chart A). The restrictions on wheat exports from Russia in the first half of 2015 did not counter this decline. Concerns about weakening demand for ethanol inputs and slowing Chinese import activity have also contributed to the decline in maize prices. Soybean prices have likewise fallen as a result of plentiful supply.

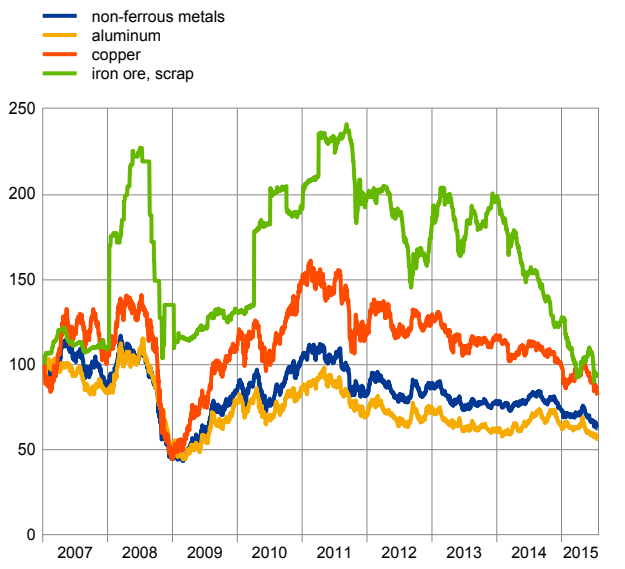
The outlook for global food commodity prices remains subdued. Wheat and maize production levels are expected to decline only marginally in the 2015-16 season, while the production of oilseeds (particularly soybeans) is expected to increase. Price risks on the upside could result from adverse weather conditions, while, on the downside, a stronger than expected slowdown in the production of biofuels could further weaken demand for some agricultural commodities.

Metal commodity prices have been declining since mid-2011 owing to continued supply increases and weakening demand growth, particularly in China. In comparison with food commodities, metals tend to be more sensitive to developments in global economic activity. As China imports a substantial proportion of global metal output, metal prices are particularly responsive to Chinese economic growth. Accordingly, market concerns about the strength of Chinese demand have accelerated the decline in metal prices since the beginning of 2015 (see Chart B). Ongoing increases in supply and high inventories also explain part of this fall. The continued growth in production is supported by large investments in production capacity made in previous years, which were motivated by high prices at the time.

Chart B

Metal commodity prices

(index: 1 January 2007=100)



Sources: Hamburg Institute of International Economics (HWWI) and Bloomberg.

The decline during 2015 has been broad-based across different metal commodities, with prices for iron ore (the main input for steel) declining by 26%, aluminium by 13% and copper by 20% since the start of the year.

Oversupply and the slowdown in the growth of emerging market economies are likely to dampen metal prices in the short term. Growth in demand for commodities in China is expected to remain weaker than in the past, consistent with the gradual rebalancing of the country's growth path. More generally, growth in emerging market economies, whose output tends to be more commodity-intensive than that of advanced economies, is slowing. The outlook for metal prices is therefore one of only gradual rises, as the supply side is expected to rebalance only slowly. The main downside risks relate to a sharper than expected slowdown in the demand growth of emerging market economies, particularly China, and a higher resilience of supply to declining prices.

Box 2
Liquidity conditions and monetary policy operations in the period from 22 April to 21 July 2015

This box describes the ECB's monetary policy operations during the third and fourth reserve maintenance periods of 2015, which ran from 22 April to 9 June 2015 and from 10 June to 21 July 2015 respectively. During the period under review, 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.[1] On 24 June 2015, the fourth targeted longer-term refinancing operation (TLTRO) was settled for an amount of €73.8 billion, slightly more than markets expected but below the €97.8 billion allotted in March. This brought the total allotment in the first four TLTROs to €384 billion.[2] 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.[3]

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, increased by €24.6 billion compared with the previous review period to stand at €606.8 billion. The increase was explained mainly by higher average autonomous factors, which rose by €23.7 billion to €496.8 billion (see the table).

The increase in autonomous factors resulted mainly from an increase in liquidity-absorbing factors, including a significant change in the level of government deposits. The average level of government deposits increased by €19.5 billion to €85.6 billion. After the deposit facility rate was cut to -0.20% in September 2014, government deposits followed a downward trend, as the introduction of the negative deposit facility rate and the decision on the remuneration of government deposits[4] gave national treasuries incentives to

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

2 For information on the TLTRO allotments, see similar boxes in previous issues of the Bulletin or the ECB's website: http://www.ecb.europa.eu/mopo/implement/omo/html/index.en.html.

3 Detailed information on the expanded APP is available on the ECB's website: http://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html.

4 Available at: https://www.ecb.europa.eu/ecb/legal/pdf/oj_jol_2014_168_r_0015_en_txt.pdf.

reduce their cash holdings with the Eurosystem. However, the downward trend in government deposits halted in the second maintenance period of 2015, and deposits increased again in the third and fourth maintenance periods. Low market rates and abundant liquidity reduced the alternatives for treasuries to place cash. In addition, the average level of banknotes in circulation rose by €23.8 billion, reflecting a long-term upward trend in demand for banknotes and recent country-specific developments.

Among the liquidity-providing factors, net foreign assets continued to rise in the period under review but were offset by changes in other autonomous factors. The depreciation of the euro at the beginning of 2015 led to a revaluation of net foreign assets as of the second quarter of 2015. On average over the two reserve maintenance periods, net foreign assets were €42.2 billion higher than in the first and second maintenance periods, at €649.8 billion. However, the effect was offset by an increase of €45.4 billion in other autonomous factors. Apart from this, revaluations in other financial assets of the Eurosystem were the main driver of a €22.9 billion increase in assets denominated in euro, which only partly offset the increase in liquidity-absorbing factors.

The volatility of autonomous factors remained elevated during the period under review. That primarily reflected strong fluctuations in government deposits and somewhat high levels of volatility in demand for banknotes. As a result of the quarterly revaluations at the end of June, net foreign assets and net assets denominated in euro declined, which added to the volatility, but by less than in the previous review period.

The average absolute error in weekly forecasts of autonomous factors increased slightly in the period under review, rising to €6.4 billion, mostly as a result of higher forecasting errors for government deposits. This shows that 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 provision

The average amount of liquidity provided through open market operations – tender operations and outright purchases – increased by €165.3 billion in the period under review, rising to €937.2 billion. This increase was driven almost entirely by outright purchases, while tender operations remained almost unchanged.

The average level of liquidity provided through tender operations increased only slightly, rising to €513.2 billion, albeit with significant substitution among the operations. The two three-year LTROs which matured in the previous

review period and the reduced participation in regular operations (i.e. MROs and three-month LTROs) in this review period were, on average, compensated for by TLTRO allotments. While the average outstanding amount of TLTROs increased by €87.9 billion, the average for MROs decreased by €41.0 billion, the average for three-month LTROs decreased by €6.3 billion, and the average for the three-year LTROs (which stood at €38.6 billion in the previous review period) declined to zero.

Average liquidity provided through outright portfolios increased by €163.4 billion to €424.0 billion owing to the implementation of the expanded APP. The increases in the average liquidity provided by the public sector purchase programme, the third covered bond purchase programme and the asset-backed securities purchase programme (which rose by €135.4 billion, €31.7 billion and €3.7 billion respectively) more than offset the declines caused by the maturing of some bonds held under the Securities Markets Programme and the previous two covered bond purchase programmes.

Excess liquidity

Excess liquidity increased further during the review period, rising to an average of €329.2 billion, on account of the APP and the TLTROs. That increase was fairly evenly distributed across the two maintenance periods, with the respective increases being €73.0 billion and €79.2 billion. While the monthly APP purchases support a steady upward trend in excess liquidity, swings in autonomous factors may contribute to significant fluctuations around this trend within a maintenance period.

Average daily current account holdings increased by €95.8 billion to €339.4 billion on account of the higher level of excess liquidity. Average use of the deposit facility also increased further, rising from €55.5 billion to €101.3 billion. Average recourse to the deposit facility increased only slightly as a percentage of excess liquidity, standing at 46%, compared with 42% in the previous review period.

Interest rate developments

Reflecting the increase in excess liquidity and growing acceptance of trading at negative rates, money market rates decreased further in the period under review. The EONIA decreased to averages of -0.098% and -0.119% in the third and fourth maintenance periods respectively, compared with an average of -0.045% in the previous review period. In the secured segment, overnight rates decreased to levels close to the deposit facility rate. In particular, average overnight repo rates

Eurosystem liquidity situation

	22 April to 21 July		28 January to 21 April	Fourth maintenance period		Third maintenance period	
Liabilities – liquidity needs (averages; EUR billions)							
Autonomous liquidity factors	**1,690.3**	**(+88.7)**	**1,601.6**	**1,696.2**	**(+11.0)**	**1,685.2**	**(+58.0)**
Banknotes in circulation	1,034.5	(+23.8)	1,010.7	1,042.7	(+15.3)	1,027.4	(+11.5)
Government deposits	85.6	(+19.5)	66.1	96.3	(+19.8)	76.5	(+6.3)
Other autonomous factors	570.2	(+45.4)	524.8	557.1	(-24.2)	581.3	(+40.3)
Monetary policy instruments							
Current accounts	339.4	(+95.8)	243.6	381.4	(+78.0)	303.4	(+41.6)
Minimum reserve requirements	111.2	(+0.9)	109.1	112.3	(+1.9)	110.3	(-0.2)
Deposit facility	101.3	(+45.8)	55.5	103.1	(+3.4)	99.7	(+31.1)
Liquidity-absorbing fine-tuning operations	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)
Assets – liquidity supply (averages; EUR billions)							
Autonomous liquidity factors	**1,193.8**	**(+65.1)**	**1,128.7**	**1,183.2**	**(-19.8)**	**1,203.0**	**(+40.8)**
Net foreign assets	649.8	(+42.2)	607.6	642.9	(-12.8)	655.7	(+29.8)
Net assets denominated in euro	544.1	(+22.9)	521.1	540.3	(-7.0)	547.3	(+11.0)
Monetary policy instruments							
Open market operations	937.2	(+165.3)	771.9	997.5	(+111.9)	885.6	(+90.0)
Tender operations	513.2	(+2.0)	511.2	525.7	(+23.2)	502.5	(-2.4)
MROs	89.7	(-41.0)	130.7	82.4	(-13.4)	95.9	(-23.0)
Special-term refinancing operations	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)
Three-month LTROs	90.5	(-6.3)	96.9	83.8	(-12.6)	96.3	(-12.1)
Three-year LTROs	0.0	(-38.6)	38.6	0.0	(+0.0)	0.0	(+0.0)
Targeted LTROs	333.0	(+87.9)	245.1	359.5	(+49.2)	310.3	(+32.6)
Outright portfolios	424.0	(+163.4)	260.7	471.8	(+88.6)	383.1	(+92.6)
First covered bond purchase programme	24.4	(-2.1)	26.5	23.3	(-2.0)	25.3	(-0.7)
Second covered bond purchase programme	11.1	(-0.8)	11.9	10.8	(-0.5)	11.3	(-0.2)
Third covered bond purchase programme	87.1	(+31.7)	55.4	95.1	(+14.9)	80.2	(+16.7)
Securities Markets Programme	136.6	(-4.5)	141.1	134.6	(-3.7)	138.3	(-2.5)
Asset-backed securities purchase programme	7.5	(+3.7)	3.8	8.8	(+2.4)	6.4	(+1.7)
Public sector purchase programme	157.4	(+135.4)	22.0	199.1	(+77.5)	121.6	(+77.6)
Marginal lending facility	0.2	(-0.1)	0.3	0.3	(+0.2)	0.1	(-0.1)
Other liquidity-based information (averages; EUR billions)							
Aggregate liquidity needs	606.8	(+24.6)	582.2	622.9	(+29.9)	593.0	(+17.2)
Autonomous factors	496.8	(+23.7)	473.1	513.3	(+30.7)	482.6	(+17.4)
Excess liquidity	329.2	(+139.5)	189.7	371.9	(+79.2)	292.7	(+73.0)
Interest rate developments (percentages)							
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	-0.107	(-0.063)	-0.045	-0.119	(-0.021)	-0.098	(-0.037)

Source: ECB.
Note: 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).

in the GC Pooling[5] market declined to -0.18% and -0.17% for the standard and extended collateral baskets respectively, down 5 and 7 basis points compared with the previous review period.

[5] The GC Pooling market allows repurchase agreements to be traded on the Eurex platform against standardised baskets of collateral.

Box 3
The usefulness of TARGET2 transaction data for the analysis of the unsecured overnight money market

Despite the importance of money markets, granular information on transactions is generally not readily available. Overnight transactions mainly take place over the counter, and when recording these, the few trading platforms typically focus on certain jurisdictions. For the euro area, daily information on unsecured overnight lending is collected for a panel of banks, and the weighted average of their rate contributions gives rise to the euro overnight index average (EONIA) as the reference rate for the overnight unsecured segment. However, the panel bank contributions are not at the level of individual transactions, but daily aggregates of their lending activity. As of mid-2016, money market transaction data will be collected for the euro area under the Money Market Statistical Reporting Regulation, under which, initially, 53 banks will report.[1]

TARGET2 (the Trans-European Automated Real-time Gross settlement Express Transfer system) offers an unparalleled source of granular overnight money market information. While information on overnight unsecured loans in TARGET2 is not directly available, it can be accessed by screening the set of transactions that occur through the payment system for the settlement of the two legs of an interbank loan.[2] This method has long been used worldwide and allows for the reconstructing of significant parts of the unsecured overnight money market activity.

The large coverage of banks in TARGET2 provides a comprehensive picture of the unsecured overnight money market. A key benefit of using TARGET2 data for analysis is the high number of banks (around 1,000) participating in the payment system.[3] Although a small fraction of overnight market trading settles privately outside TARGET2, TARGET2 data still provide a close representation of the euro area overnight market. This is evidenced by the fact that the total lending as measured by TARGET2 data for the second quarter of 2014 is broadly similar to that resulting from the Euro Money Market Survey (€2.0 trillion),[4] which captures trading outside TARGET2, but covers a much lower number of banks (154).

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1 See Regulation (EU) No 1333/2014 of the European Central Bank of 26 November 2014 concerning statistics on the money markets (ECB/2014/48): https://www.ecb.europa.eu/ecb/legal/pdf/oj_jol_2014_359_r_0006_en_txt.pdf

2 For more information, please see the box entitled “Using TARGET2 payment data to analyse money market conditions”, *Monthly Bulletin*, ECB, May 2013 or the report on the Macro-prudential Research Network (MaRs): https://www.ecb.europa.eu/press/pr/date/2014/html/pr140623.en.html

3 Furthermore, each transaction in TARGET2 contains the same fields and information, allowing comparability. See the TARGET Annual Report 2014: https://www.ecb.europa.eu/press/pr/date/2015/html/pr150601.en.html

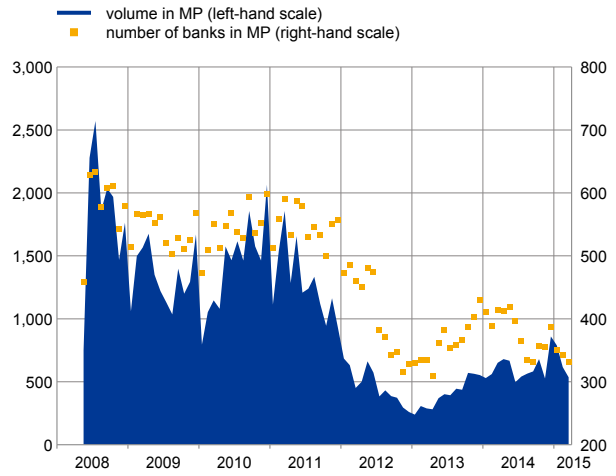
4 See the Euro Money Market Survey and Study: https://www.ecb.europa.eu/stats/money/mmss/html/index.en.html

Aggregate statistics for the overnight unsecured money market based on TARGET2 data confirm some well-known crisis-related developments. For instance, the overnight unsecured money market shrank from a peak of €2.5 trillion per reserve maintenance period in mid-2008 to slightly over €0.5 trillion by the time of the settlement of the second three-year longer-term refinancing operation in March 2012. The total number of banks active in the overnight unsecured market in a given reserve maintenance period dropped from a peak of around 600 in August 2008 to around 330 by June 2015 (see Chart A). In parallel, money market stress became apparent from rate developments. For example, the average spread of the interest rate paid for overnight market funds over the deposit facility rate varied significantly over time. After falling towards the deposit facility rate with the introduction of the fixed rate full allotment procedure and the associated increase in excess liquidity, the spread occasionally reached high levels, especially during the euro area sovereign debt crisis that started in spring 2010 (see Chart B).

Chart A

Overnight unsecured money market volume and number of banks

(EUR billions; number of banks)

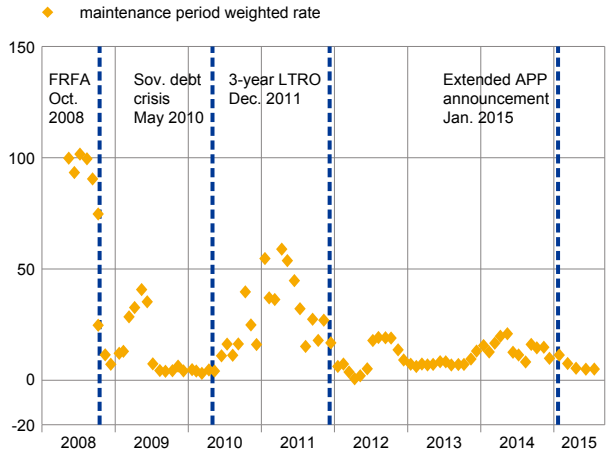


Sources: TARGET2 and ECB calculations.
Note: Figures are computed at maintenance period (MP) level.

Chart B

Weighted average overnight spread

(basis points)



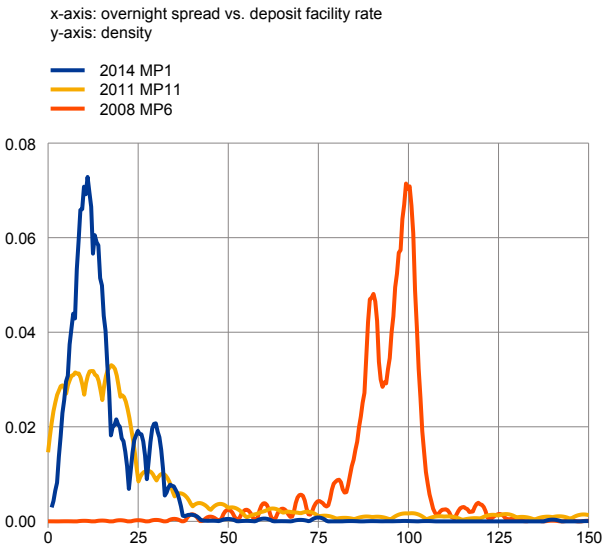
Sources: TARGET2 and ECB calculations.
Notes: Figures are computed at maintenance period level. The overnight spread is over the deposit facility rate. FRFA = fixed rate full allotment. APP = asset purchase programme.

Money market data derived from TARGET2 transactions also provide information on the dispersion of rates and volumes across banks. Chart C presents volume-weighted kernel densities of the spread of overnight rates over the deposit facility rate in selected periods. In mid-2008, the bulk of trading took place at interest rates close to the main refinancing operation rate (i.e. at a spread of 100 basis points) under the variable rate tender procedure, and in 2011 and 2014 at rates closer to the deposit facility rate, with excess liquidity resulting from the full allotment procedure. However, the densities also reveal considerable dispersion of

Chart C

Distribution of overnight spread in selected periods

(basis points)

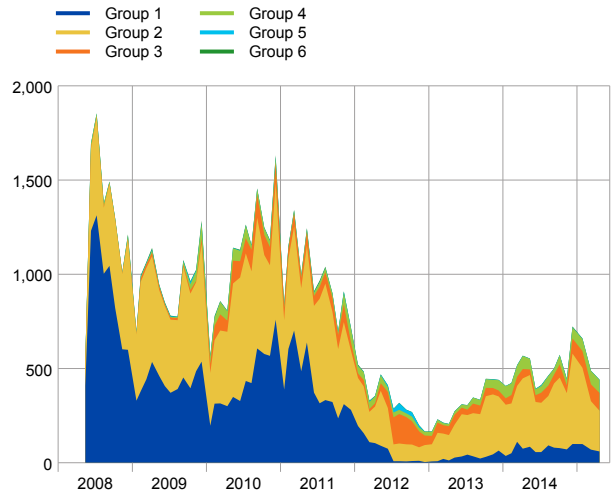


Sources: TARGET2 and ECB calculations.
Notes: Figures are computed at maintenance period (MP) level. The overnight spread is over the deposit facility rate.

Chart D

Overnight borrowing volume by credit risk group

(EUR billions)



Sources: TARGET2, DBRS, Fitch Ratings, Moody's, Standard & Poor's and ECB calculations.
Note: Figures are computed at maintenance period level.

interest rates at different points in time, with a particularly large tail towards higher spreads at the end of 2011 when the sovereign debt crisis reached its height.[5]

Individual bank transaction data can be matched with characteristics of the trading banks, such as their size, geographical location or credit risk, to obtain a better understanding of developments in the overnight unsecured market. To explain the dispersion in rates, TARGET2 data are matched with the credit ratings of the trading banks. For this purpose, the ratings by four agencies[6] are grouped into six credit risk groups from the lowest risk group (1) to the highest risk group (6), as presented in the table. Both borrowing and lending banks are assigned to credit risk groups.[7]

The credit rating data matching indicates that trading volume is largely determined by the credit risk of the borrowing banks. Chart D presents a breakdown of the total borrowing volume by credit risk group.[8] Banks with the highest credit standing (Group 1) strongly reduced their borrowing by end-2012, for at least two important reasons. First, this group of non-stressed banks is known to have

5 As the densities are volume-weighted and trades at higher spreads are relatively small in volume, the density does not capture the full extent to which rates are dispersed.

6 DBRS, Fitch Ratings, Moody's and Standard & Poor's are the four external credit assessment institutions (ECAIs) accepted by the Eurosystem.

7 The assignment to a specific credit risk group is based on the availability of at least one longer-term rating. When two or more ratings are available, the group is determined by the average of the ratings after they have been converted into a numeric scale. The number of banks represented in each group is not homogeneous, as it reflects the representativeness of each group in the euro area. Over time, banks may change group owing to rating migration. See also the table.

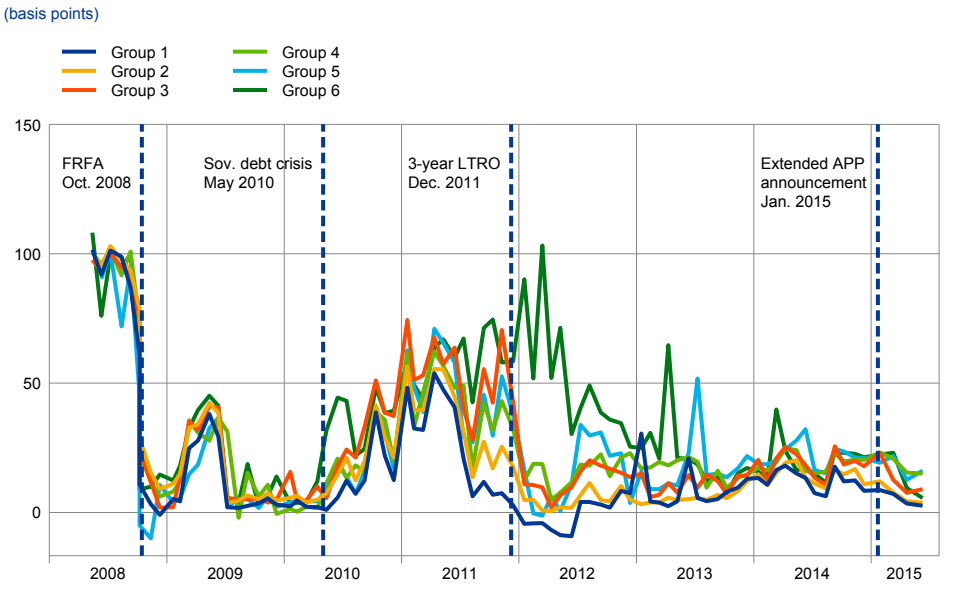
8 The total share of overall volume for banks not included in the sample is around 25%. This share stays relatively constant over time, therefore not biasing the sample.

accumulated a lot of excess liquidity and therefore had smaller borrowing needs despite market access. Second, a significant portion of banks were downgraded during the financial crisis, potentially moving the banks and their lending volume to a new credit risk group. However, credit risk group migration could not, by itself, explain the reduction in total volume for all banks. Furthermore, banks with a lower rating (Groups 2 to 3) kept on borrowing contained amounts throughout the period. Considering the higher liquidity needs of such banks, these limited amounts reflect the fact that banks can also seek funds elsewhere, i.e. at a longer maturity, in the secured segment of the market, from non-bank counterparties or from the Eurosystem. The fact that the secured market has gained importance in recent years can also be partly attributed to a substitution of unsecured trading.[9]

The dispersion of interest rates is also determined by counterparty credit risk, with spreads across bank credit rating groups varying over time. Chart E presents weighted average borrowing rates per credit risk group. Lower-rated banks generally pay higher interest rates, which explain part of the rate dispersion observed in Chart C. However, Chart E also shows that there was little dispersion across the average borrowing rates of credit risk groups during 2008-10 and 2014-15. This indicates how banks with limited market access do not influence overall unsecured money market rates, as they often need to obtain liquidity from other sources, as mentioned above. It was only as of the end of 2011 and into 2012 that considerable rate differentials across credit risk groups emerged, but against small volumes for the more risky borrowers. Overall, only banks of a certain perceived quality could obtain funds in the unsecured interbank market.

Chart E

Overnight borrowing spread by credit risk group

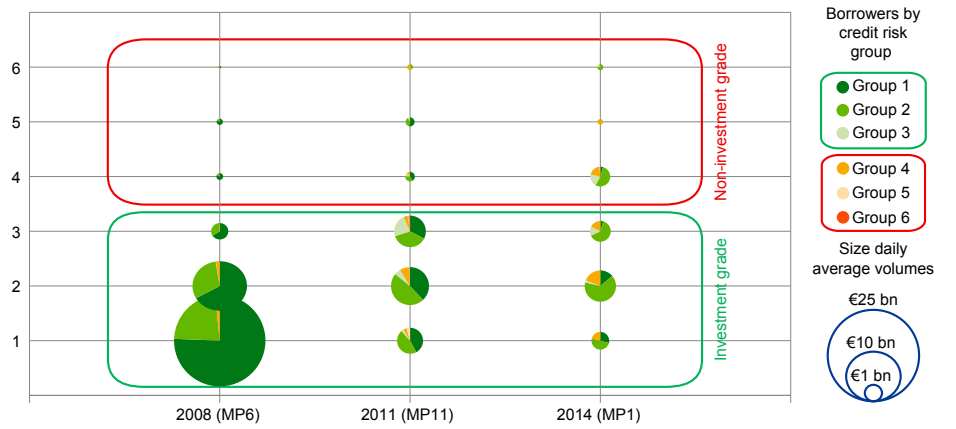


Sources: TARGET2, DBRS, Fitch Ratings, Moody's, Standard & Poor's and ECB calculations.
Notes: Figures are computed at maintenance period level. The overnight spread is over the deposit facility rate. FRFA = fixed rate full allotment. APP = asset purchase programme.

[9] See the Euro Money Market Survey and Study: https://www.ecb.europa.eu/stats/money/mmss/html/index.en.html

Chart F

Overnight lending and borrowing volume by credit risk group



Sources: TARGET2, DBRS, Fitch Ratings, Moody's, Standard & Poor's and ECB calculations.
Notes: The size of the bubble represents average daily lending volumes. The shares within the bubbles represent the borrowing per credit risk group. The figures are based on transactions by counterparties identified in the TARGET2 database and having at least one public credit rating assessment.

Definition of credit risk groups

	Range of classes by credit rating agency (long-term)				Grade	Eurosystem harmonised rating scale for ECAIs
	DBRS	Fitch Ratings	Moody's	Standard & Poor's		
Group 1	AAA to AA (low)	AAA to AA-	Aaa to Aa3	AAA to AA-	INVESTMENT	CQS1
Group 2	A (high) to A (low)	A+ to A-	A1 to A3	A+ to A-		CQS2
Group 3	BBB (high) to BBB (low)	BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-		CQS3
Group 4	BB (high) to BB (low)	BB+ to BB-	Ba1 to Ba3	BB+ to BB-	NON-INVESTMENT	
Group 5	B (high) to B (low)	B+ to B-	B1 to B3	B+ to B-		
Group 6	CCC (high) to D	CCC+ to D	Caa1 to D	CCC+ to D		

Sources: TARGET2, DBRS, Fitch Ratings, Moody's, Standard & Poor's and ECB calculations.
Notes: CQS (credit quality step) refers to the Eurosystem harmonised rating scale for ECAIs (external credit assessment institutions). See the box entitled "Eurosystem credit assessment framework for monetary policy operations", *Monthly Bulletin*, ECB, April 2014.

Investment grade banks dominate overnight market lending. Chart F provides a who-to-whom breakdown of the overnight lending and borrowing volumes per credit risk group, which in comparison with Chart D adds information on the source of the funds in three maintenance periods. It shows that the bulk of trading took place among banks with the highest rating (Group 1) in 2008, but that this volume declined after 2008 as demand from those banks evaporated amid high levels of excess liquidity. However, the bulk of the supply remained in the hands of the investment grade banks, who lent contained amounts to a variety of lower-rated banks in 2011 and 2014.

Box 4
Publication of TARGET balances

The ECB will, as of this month, publish data on the individual TARGET balances of the euro area national central banks (NCBs) on a monthly basis.[1] These data will be included in the ECB's statistical data warehouse (SDW) under the framework of the monetary financial institution balance sheet statistics.[2] The publication of individual TARGET balances is part of the ECB's commitment to transparency. This Box briefly recalls what TARGET balances are and the factors behind their evolution.[3]

TARGET balances are the net claims and liabilities of the euro area NCBs vis-à-vis the ECB which arise through cross-border payments settled in central bank money of the respective national banking sectors or the NCBs themselves and are executed via the common euro area payment platform known as TARGET.[4] When a bank makes a payment to another bank via TARGET, the current account of the payer's bank at its NCB is debited and the current account of the recipient bank at its NCB is credited. If both banks hold their current accounts at the same NCB there is no net impact on the aggregate account of banks at the NCB and there are no implications for TARGET balances. However, in the case of cross-border transactions, the NCB of the paying bank sees a reduction in that bank's account at the NCB, and the NCB of the recipient bank sees an increase in the recipient bank's account. Such positions are balanced by a TARGET liability for the first NCB and a TARGET claim for the second NCB. TARGET liabilities and claims also result from cross-border transactions by NCBs themselves, such as the purchase or sale of securities held for investment purposes. At the end of each day, such intra-Eurosystem claims and liabilities are aggregated and netted out throughout the Eurosystem. This leaves each NCB with a single net bilateral position vis-à-vis the ECB, in the form of a positive or negative TARGET balance. By design, all the TARGET balances (including the ECB's balance) add up to zero.[5]

These TARGET balances constitute a normal feature of the decentralised implementation of monetary policy in the euro area. They reflect cross-border

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1 TARGET stands for Trans-European Automated Real-time Gross Settlement Express Transfer System. The current system is called TARGET2. It fully replaced TARGET in May 2008, but for convenience both TARGET and TARGET2 are referred to in this box as "TARGET".

2 Data are published on the first working day of every month, with a one month time lag. For more details, see the ECB's website under "Statistics > Monetary and financial statistics > TARGET balances of participating NCBs".

3 For more details, see the article entitled "TARGET balances and monetary policy operations" in the *Monthly Bulletin*, Issue 5, ECB, May 2013.

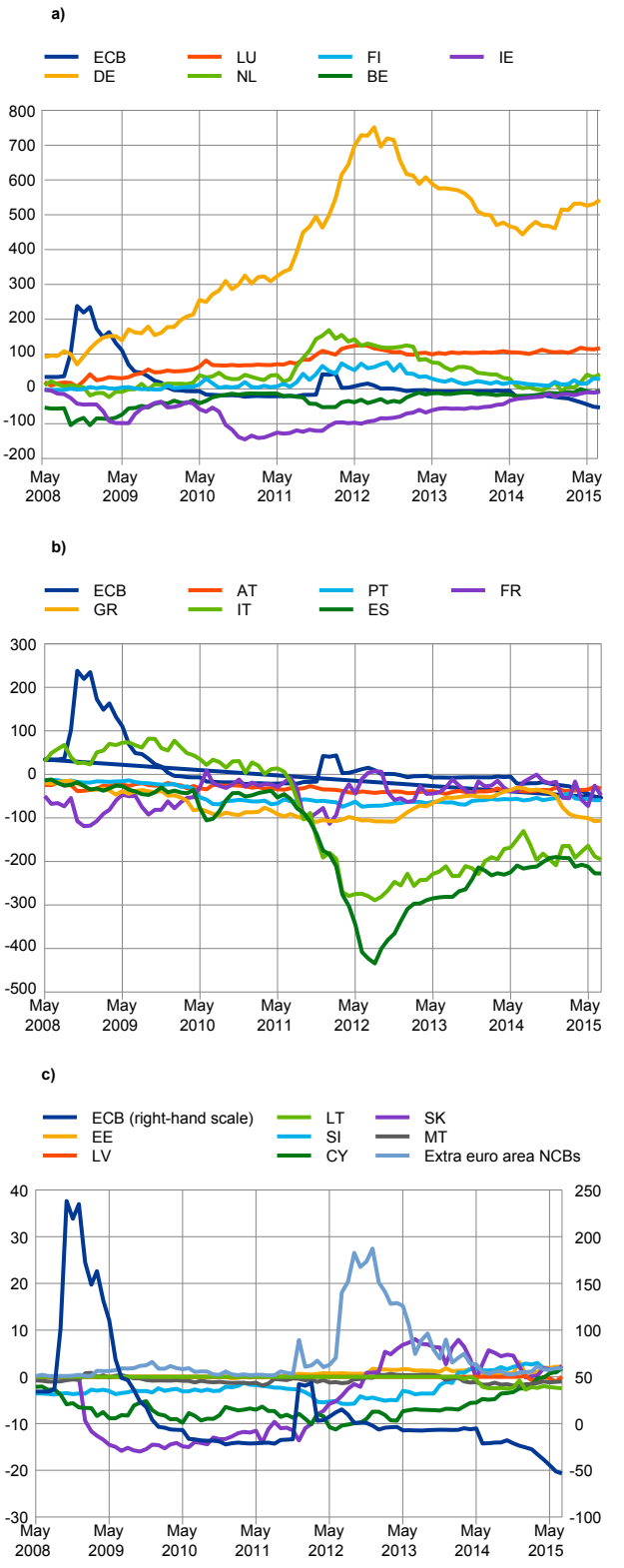
4 A few non-euro area NCBs in the European Union have joined TARGET on a voluntary basis. This article focuses on the euro area countries.

5 The ECB's TARGET balance vis-a-vis the NCBs as depicted in the chart reflects the net result of claims and liabilities stemming from activities carried out directly by the ECB, for instance in the context of the US dollar-euro liquidity swap arrangements.

Chart

TARGET balances

(EUR billions)



Source: ECB.

Notes: "Extra euro area NCBs" represents the claims of those non-euro area EU NCBs that participate in TARGET on a voluntary basis. The NCBs included in this group change over time. As of January 2015, it refers to Bulgaria, Denmark, Poland and Romania.

financial flows within the euro area, which arise from cross-border financial transactions largely initiated by private entities such as credit institutions, corporates or individuals and the resultant cross-border distribution of central bank liquidity. Individual TARGET claims and liabilities of the NCBs vis-à-vis the ECB and of the ECB vis-à-vis the NCBs have therefore existed since the start of Economic and Monetary Union. In fact, the sum of all claims on the balance sheets of euro area NCBs stood at around EUR100 billion prior to mid-2007.

The emergence of large TARGET balances during the crisis broadly reflects the distribution of non-cash central bank liquidity within the Eurosystem. The Eurosystem implements its monetary policy in a decentralised manner, whereby the aggregate Eurosystem liquidity provision via its NCBs corresponds to the aggregate liquidity needs of the euro area banking sector. Liquidity can be redistributed across banking sectors through the euro area interbank market. During the crisis, the liquidity needs of euro area banks increased significantly, with substantial dispersion across countries. At the same time, interbank markets dried up, which prevented the distribution of liquidity via private markets. From the start of the crisis, the Eurosystem accommodated the euro area banking sector's liquidity needs, providing ample extra liquidity through its refinancing operations. As of October 2008, the Eurosystem has fully satisfied banks' demand for central bank liquidity in fixed-rate full-allotment tenders subject to the availability of eligible collateral.

The significant increase in the recourse to central bank funding during the crisis, and its uneven distribution across countries, were associated with a corresponding rise in TARGET claims and liabilities. These increased until the end of 2012 (see chart) as a result of banks in some countries facing net payment outflows in conjunction with reduced access to short-term funding markets while banks in other countries benefited from large financial inflows. Subsequently, as market financing conditions gradually improved and banks' use of Eurosystem refinancing operations declined, TARGET balances generally decreased in absolute terms. They widened again somewhat in late 2014. This in part reflected the relatively higher participation of banks in some countries with TARGET liabilities in the Targeted Longer-Term Refinancing Operations (TLTROs)

launched in June 2014, as these operations tended to be more attractive for such counterparties. The expanded asset purchase programme (APP) that started in March 2015 may affect TARGET balances when the buying and selling parties are operating in different jurisdictions, which might explain more recent developments.

Interpreting TARGET balances within an integrated financial system like the euro area requires caution. For instance, these balances also reflect money transfers within large, cross-border banking groups where the central bank money needed by the group is procured centrally at one NCB and then redistributed among group members via TARGET. These balances also reflect payment flows caused by remote participants.[6] Other factors that highlight the need for caution include differing preferences between euro area countries regarding holding banknotes and access to the Eurosystem monetary policy instruments of banks outside the European Economic Area via subsidiaries in a country connected to TARGET.[7] In addition, cross-country purchases of securities in the context of the APP may affect TARGET balances but do not indicate financial stress. Thus, TARGET balances do not, and are not meant to, provide a complete picture of the net financial flows between countries.

[6] An institution established in a country in the European Economic Area but which is not participating in TARGET (e.g. a bank located in the United Kingdom) may open an account at another NCB of its choice participating in TARGET.

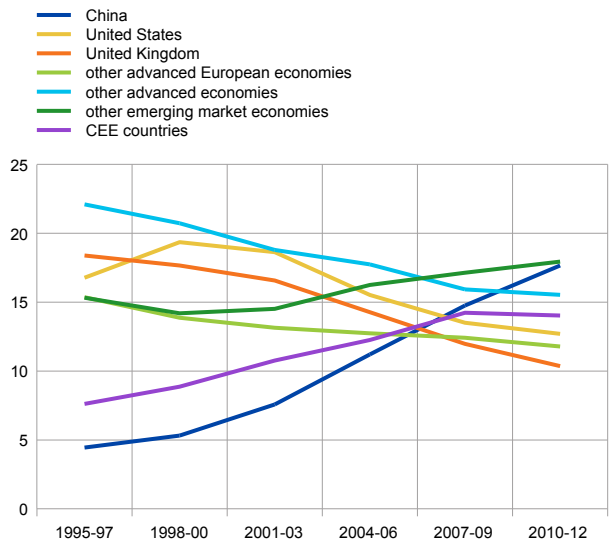
[7] More information on this is provided in the box entitled "TARGET2 balances of national central banks in the euro area", *Monthly Bulletin*, Issue 10, ECB, October 2011.

Box 5
Revised trade weights for the effective exchange rates of the euro reflect the increasing importance of emerging market economies

The ECB has updated recently the trade weights underlying the calculation of the effective exchange rates (EERs) of the euro. This is carried out every three years to capture medium-term changes in the pattern of euro area manufacturing trade in a timely fashion.[1] In the most recent exercise, carried out in August 2015, average trade weights for the three-year period from 2010 to 2012 were added to the series, while weights for previous time periods (from 1995 to 2009) were updated to reflect revised trade data.

Chart A
Evolution of trade weights of the EER-38 group of trading partners

(percentages)



Source: ECB.
Notes: The item "other advanced European economies" comprises Denmark, Norway, Sweden and Switzerland; "other advanced economies" comprises Australia, Canada, Hong Kong, Iceland, Israel, Japan, Korea, New Zealand, Singapore and Taiwan; "CEE countries" comprises Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania; and "other emerging market economies" comprises Algeria, Argentina, Brazil, Chile, India, Indonesia, Malaysia, Mexico, Morocco, Philippines, South Africa, Russia, Thailand, Turkey and Venezuela.

The updated and revised series shows a continued rise in the importance of emerging market economies, in particular China, as trading partners of the euro area (see Chart A and the table). The weight of China in a basket of 38 of the euro area's most important trading partners (the EER-38 group), which stood at around 4% in the period 1995-97, rose further from about 15% in the period 2007-09 to around 18% in the period 2010-12. The importance of other emerging economies as trading partners of the euro area also increased – albeit at a more moderate pace – with Turkey, Russia and Indonesia recording the largest gains. Conversely, the trade weights of advanced economies in the EER-38 group declined over the same period. In 1995 the two largest trading partners of the euro area were the United Kingdom and the United States, with trade weights of around 18% and 17% respectively. In 2012 their shares had declined to about 10% and 13% respectively.

The importance of central and eastern Europe (CEE) in euro area trade has also increased, in line with growing economic integration in Europe. Since the period 1995-97 the combined weight of CEE

[1] For an overview of the methodology used to calculate the euro EERs, see Schmitz, M., De Clercq, M., Fidora, M., Lauro, B. and Pinheiro, C., "Revisiting the effective exchange rates of the euro", *Occasional Paper Series*, No 134, ECB, 2012.

Trade weights for the EER-38 group of trading partners

(percentages)

Country	1995-97	1998-00	2001-03	2004-06	2007-09	2010-12	Change 2010-12 versus 1995-97
China	4.4	5.3	7.6	11.2	14.8	17.7	13.2
United States	16.8	19.4	18.7	15.5	13.5	12.7	-4.1
United Kingdom	18.4	17.7	16.6	14.3	12.0	10.3	-8.1
Switzerland	6.7	6.0	5.8	5.4	5.3	5.5	-1.2
Japan	9.6	8.8	7.6	6.7	5.7	5.3	-4.3
Poland	2.4	2.8	3.3	4.0	5.0	5.1	2.7
Czech Republic	2.2	2.4	3.0	3.4	4.1	4.1	1.9
Sweden	4.8	4.4	3.9	4.1	3.9	3.6	-1.2
Russia	2.5	1.8	2.2	3.0	3.5	3.5	1.0
Turkey	2.2	2.2	2.3	3.0	3.1	3.3	1.1
Korea	2.9	2.7	2.8	3.2	3.2	3.2	0.3
Indonesia	1.5	1.3	1.5	1.8	2.1	2.4	1.0
Hungary	1.5	2.2	2.5	2.6	2.5	2.3	0.7
Denmark	2.6	2.3	2.3	2.2	2.1	1.7	-0.9
Romania	0.7	0.8	1.1	1.4	1.6	1.7	1.0
Taiwan	2.3	2.4	2.1	1.8	1.5	1.5	-0.8
Brazil	1.5	1.4	1.2	1.2	1.4	1.4	-0.1
Hong Kong	2.0	1.7	1.5	1.5	1.3	1.4	-0.6
Mexico	0.9	1.2	1.3	1.2	1.2	1.3	0.5
Singapore	1.8	1.6	1.4	1.4	1.2	1.3	-0.6
Canada	1.5	1.6	1.6	1.4	1.3	1.2	-0.3
Thailand	1.2	1.0	1.0	1.0	1.1	1.1	-0.1
Malaysia	1.2	1.2	1.2	1.1	1.0	1.0	-0.2
South Africa	0.9	0.9	0.9	1.0	0.9	1.0	0.0
Norway	1.3	1.2	1.0	1.1	1.1	1.0	-0.3
Australia	0.8	0.7	0.7	0.7	0.7	0.8	0.0
India	1.0	0.8	0.7	0.6	0.6	0.7	-0.3
Israel	1.1	1.0	0.9	0.7	0.7	0.7	-0.4
Morocco	0.6	0.6	0.6	0.6	0.6	0.6	0.0
Bulgaria	0.3	0.3	0.4	0.4	0.5	0.5	0.2
Chile	0.3	0.3	0.3	0.4	0.4	0.4	0.1
Algeria	0.3	0.3	0.3	0.3	0.4	0.4	0.1
Argentina	0.6	0.5	0.3	0.3	0.3	0.4	-0.2
Croatia	0.5	0.4	0.5	0.5	0.5	0.4	-0.2
Philippines	0.4	0.5	0.5	0.4	0.3	0.3	-0.1
Venezuela	0.2	0.2	0.2	0.2	0.2	0.2	-0.1
New Zealand	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Iceland	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**0.0**

Source: ECB
Note: Countries are listed in the order of their trade weights for the period 2010-12.

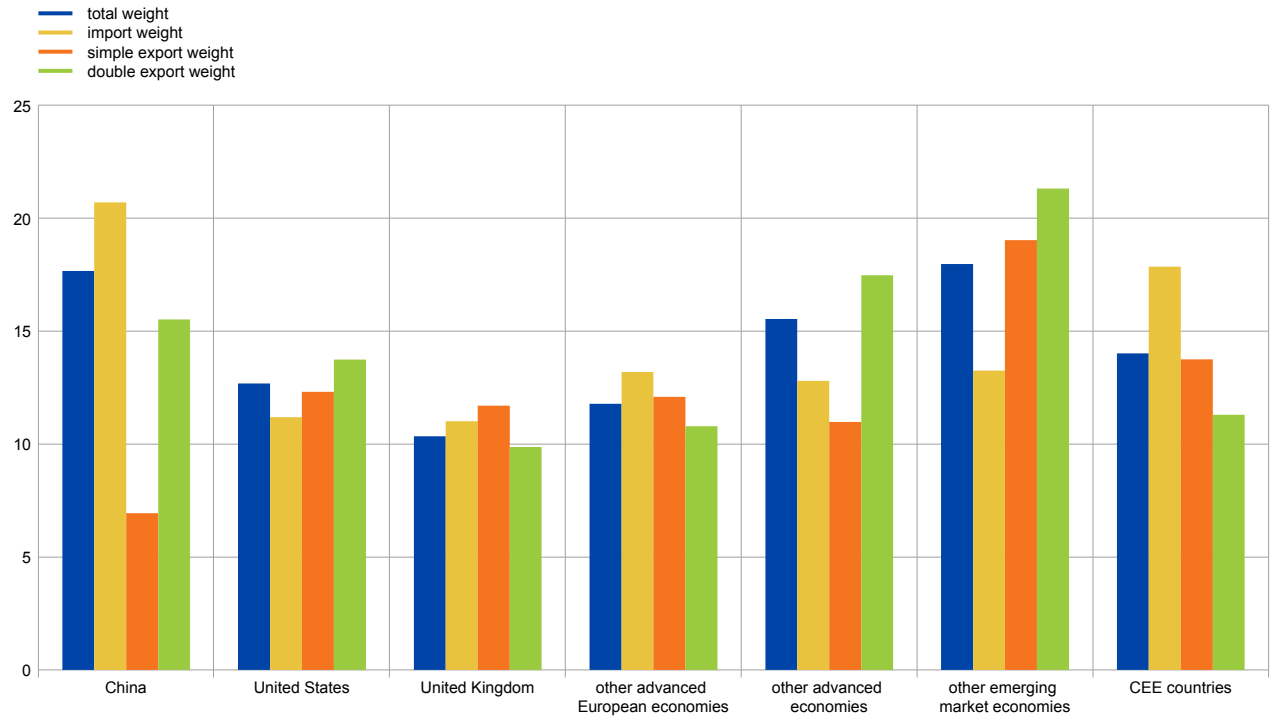
economies has risen above that of, for example, the United States and the United Kingdom, although it remained stable in the 2010-12 reference period, at 14% of the EER-38 group, reflecting the downturn in intra-European trade over that period. In particular, CEE countries had a weight of 18% in euro area manufacturing imports, which was second only to that of China and reflects their crucial role in the pan-European contribution to global value chains.

China's position as the euro area's largest trading partner mainly results from its importance in imports and third-market competition (see Chart B). China has become the main source of euro area manufacturing imports, with a share of 21% over the period 2010-12. On the export side, to also account for competition faced by euro area companies in foreign markets from exporters based in third countries,

Chart B

Comparison of trade weights of the EER-38 group of trading partners, 2010-12

(percentages)



Source: ECB.
Notes: The simple export weights are the shares of each country or group of countries in euro area manufacturing exports. Double export weights capture the competition faced by euro area exporters in foreign markets from domestic producers and exporters from third countries.

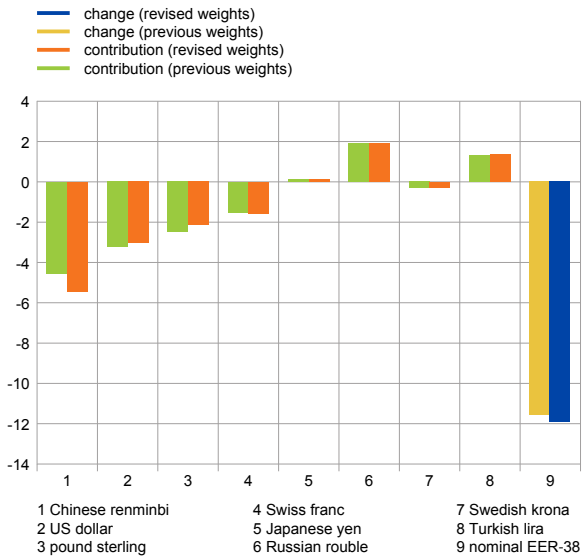
the overall trade weights are adjusted through “double-weighting”. In particular, owing to the importance of China, as well as some other advanced and emerging market economies, as competitors of euro area exporters, this adjustment results in a significant increase in their trade weights beyond the levels implied by direct export linkages. In the case of China, the “double” export weight amounted to 16%, compared with a simple export weight of 7%, over the period 2010-12.

Using the updated weighting scheme, it emerges that the depreciation of the euro – in both nominal and real effective terms – since 2010 was slightly more pronounced than previously indicated. Between the beginning of 2010 and the end of July 2015 the updated daily nominal EER of the euro vis-à-vis the EER-38 group of trading partners depreciated by 12.0%, compared with 11.6% based on the previous indicator. The revision was primarily due to the increased trade weight of the Chinese renminbi (see Chart C). The improvement in euro area price competitiveness since early 2010, as reflected in the real depreciation of the euro, was also slightly more sizeable according to the updated indicators. From the beginning of 2010 to June 2015 the updated CPI-deflated real EER-38 declined by 16.1%, whereas the previous index decreased by 15.3% (see Chart D).

Chart C

Contributions to the change in the nominal EER-38 since 2010

(percentages; percentage points)

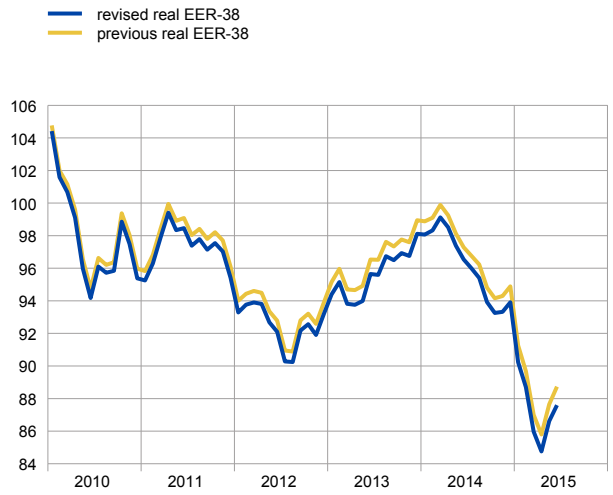


Source: ECB.
Notes: A negative value indicates a depreciation of the euro, while a positive value indicates an appreciation of the single currency. The chart covers the period from 1 January 2010 to 31 July 2015.

Chart D

Previous and revised real EER-38

(CPI-deflated; index: Q1 1999 = 100)



Source: ECB.
Note: A downward movement indicates a depreciation of the euro, while an upward movement indicates an appreciation of the single currency.

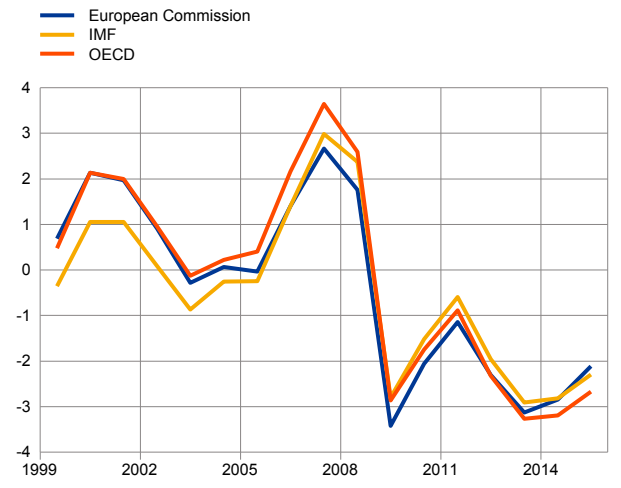
Box 6
A survey-based measure of slack for the euro area

Measures of economic slack, such as the output gap, are an important element of economic policy analysis, as they represent the interaction between demand and supply. However, slack is unobserved and has to be estimated. Indeed, estimates of slack are very uncertain, tend to be revised and, therefore, need to be interpreted with caution.[1] This box presents a tool that draws on information about demand from available survey indicators, in order to estimate slack in the economy. The measure described tends to be revised less frequently, and can thus complement output gap estimates of structural models.

Chart A

Estimates of the euro area output gap

(percentage shares of potential output)



Sources: European Commission Spring 2015 Economic Forecast, IMF World Economic Outlook April 2015 and OECD Economic Outlook May 2015.

Several methods exist to assess the degree of slack in the economy. Estimates of slack based on a production function have the advantage that they are consistent with economic theory and are able to explain developments in potential output via its components (labour, capital and total factor productivity). Estimates of this type are produced by the European Commission[2] and the Organisation for Economic Co-operation and Development (OECD)[3], while the International Monetary Fund (IMF) uses different approaches depending on the country assessed. Chart A depicts the recent estimates by these institutions for the euro area. The output gap in the euro area is estimated to stand between -2.1% and -2.7% in 2015, suggesting that a considerable amount of slack remains. One drawback of such estimates, however, is that they tend to be revised quite significantly, due to changes to data, parameters and the model setup.[4]

To assess the amount of slack, analysts also turn to surveys such as capacity utilisation in the manufacturing sector, or the perceived degree of insufficient demand as a constraint on businesses. These surveys have the advantage of being revised less frequently, thus performing better in real time, and are known

1 See, for example, the box entitled "Recent evidence on the uncertainty surrounding real-time estimates of the euro area output gap", *Monthly Bulletin*, ECB, November 2011

2 See Havik, K. et al., "The production function methodology for calculating potential growth rates and output gaps", *European Economy – Economic Papers,* No 535, European Commission, November 2014.

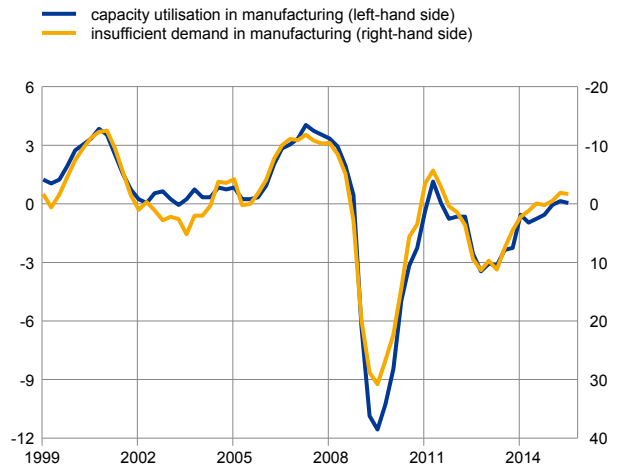
3 See Beffy, P. O. et al., "New OECD methods for supply-side and medium-term assessments: a capital services approach", *OECD Economics Department Working Papers,* No 482, OECD, July 2006.

4 On the revisions and uncertainty of estimates by international institutions, see Section 2.2 of Anderton, R. et al., "Potential output from a euro area perspective", *Occasional Paper Series,* No 156, ECB, November 2014.

Chart B

Capacity utilisation and demand limiting production in manufacturing

(percentage point deviations from historical average)

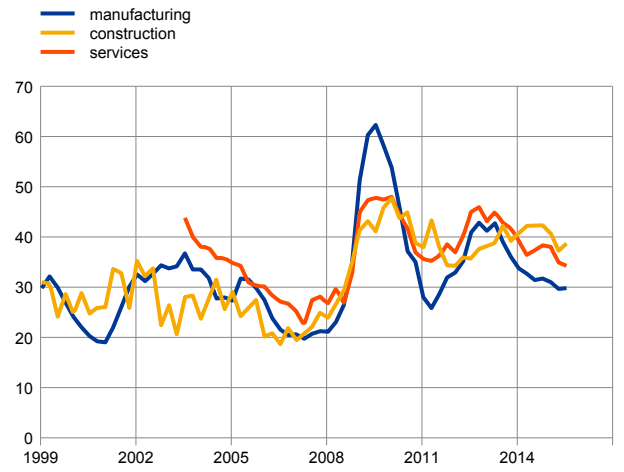


Source: European Commission.

Chart C

Insufficient demand limiting production

(percentage shares of total responses)



Source: European Commission.

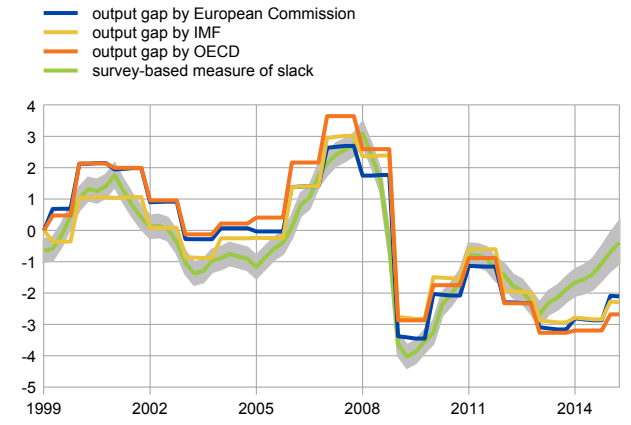
for better identifying turning points in the cycle. Survey indicators are also released with a short delay following the reference period. However, survey measures based on manufacturing capture less than a fifth of the economy and do not take into account the development of slack in the labour market. Surveys of capacity utilisation or insufficient demand in manufacturing indicate that, in mid-2015, slack in the euro area is close to its historical average (see Chart B).

A new survey-based measure of slack maps the results of the European Commission's "factors limiting production" survey to GDP dynamics. In this survey, managers are asked about the main factors currently limiting their production. The answer "insufficient demand limiting production" was selected as the indicator of slack for the model. The survey indicator, which combines information on the manufacturing, construction and services sectors, where available (see Chart C), is used in a bivariate unobserved components model. In the model, actual output is equal to the sum of (unobserved) trend output and the measure of slack. The growth rate of trend output is modelled as a random walk, and slack is determined by developments in the aggregate survey indicator.

Chart D

Slack in the euro area

(percentage point deviation from trend)



Sources: ECB staff calculations, European Commission Spring 2015 Economic Forecast, IMF World Economic Outlook April 2015 and OECD Economic Outlook May 2015.
Note: The grey area represents a +/-2 standard deviation uncertainty band around the survey-based measure.

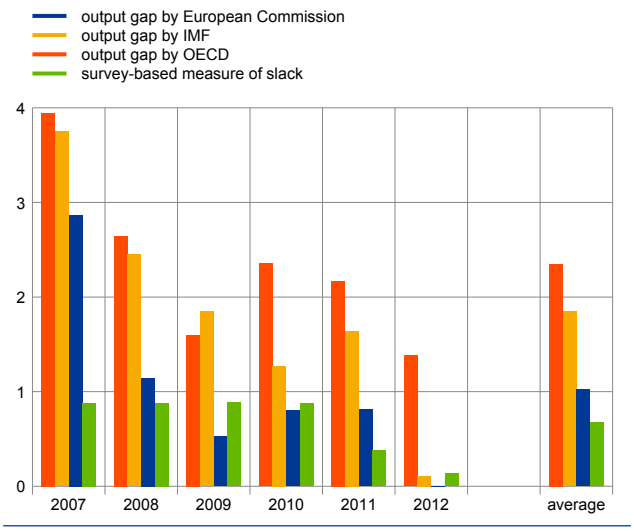
For most of the period since 1999, the survey-based measure shows an estimate of slack similar to the latest estimates by the European Commission, the OECD and the IMF. However, according to the survey-based measure, the amount of slack in the period 2014-15 is declining relatively fast. As a result, the amount of slack according to this measure is currently smaller than that estimated by international institutions (see Chart D). Since the survey-based measure draws

information from firms' assessments of insufficient demand limiting their production, the decline in slack could suggest that growth in the euro area since 2014 reflects an improvement in demand, rather than in supply conditions.

Chart E

Revisions of estimates of slack

(percentage points)



Sources: OECD, IMF, European Commission and ECB staff calculations.

The survey question relating to "insufficient demand limiting production" helps to pin down developments in slack in the model, and this also results in smaller revisions. Recursive estimates show that, over most of the period 2000-14, the survey-based measure produces smaller differences between quasi real-time and ex post estimates than output gap estimates by international institutions. Using GDP vintages to create real-time estimates shows that, for the most volatile period of 2007-12, revisions are the smallest for the (annualised) survey-based measure of slack. Revisions of the European Commission's output gap estimates are somewhat larger. The largest revisions are seen for the OECD and IMF estimates (see Chart E).

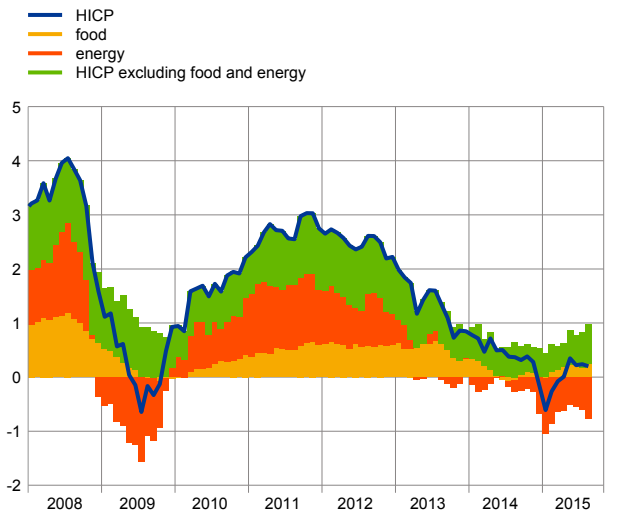
Overall, the survey-based measure of slack indicates a smaller amount of slack in the euro area in 2015 than the published estimates of international institutions. While the measure of slack indicated by the survey-based approach is surrounded by uncertainty, and cannot be broken down into labour, capital and total factor productivity developments, it tends to be revised less frequently. Thus, using such measures to complement output gap estimates of production function-based models could be worthwhile.

Box 7
Recent developments in euro area food prices

Chart A

Contribution of food price developments to HICP inflation

(annual percentage changes; percentage points)

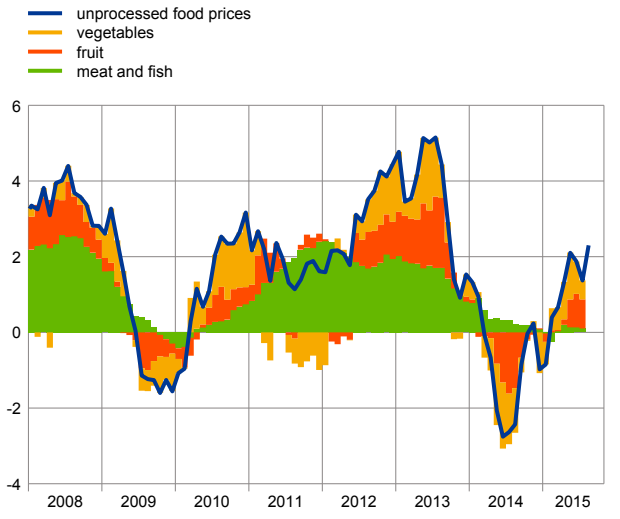


Sources: Eurostat and ECB calculations.
Note: Latest observations are for August 2015 (flash estimates).

Chart B

Unprocessed food price inflation

(annual percentage changes; percentage points)



Sources: Eurostat and ECB calculations.
Note: No breakdown is yet available for the latest observations, which are for August 2015 (flash estimates).

Developments in food prices have reinforced the pattern of euro area inflation driven by energy prices in recent quarters. This holds in respect of both the decline in the contribution to headline inflation in 2014 and its rebound during the first few months of 2015 (see Chart A) – a pattern of decrease and recovery visible in prices of both unprocessed and processed food. As food price inflation can be subject to considerable volatility, this box examines the factors behind recent developments in order to gain a better understanding of the rebound.

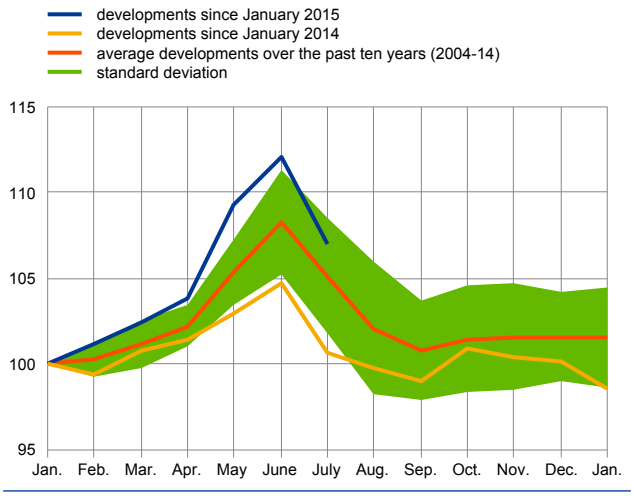
Recent movements in unprocessed food price inflation are largely explained by developments in fruit and vegetable prices. These account for most of the decline in the annual growth rate (from around 5% in mid-2013 to a historic low of almost -3% in mid-2014) and most of the rebound to positive growth rates (of around 2% in mid-2015; see Chart B). Seasonal factors typically play an important role here. Much of the decline in fruit and vegetable prices in early 2014 reflects the mild winter of 2013-14 in conjunction with the unwinding of earlier upward impacts resulting from adverse weather conditions. The rebound to positive annual growth rates in the first half of 2015 thus reflects both the relatively subdued price developments one year earlier and the relatively strong price movements in 2015 (see Chart C).

Recent movements in processed food price inflation are explained by different factors. First, the upturn in early 2015 partly reflects a somewhat larger contribution from tobacco prices, which are often subject to the impact of tax measures (see Chart D). Second, like energy prices, processed food prices can be heavily influenced by developments in international commodity prices. Nevertheless, for the euro area, EU internal market prices measured at the farm gate rather than international commodity prices are typically more relevant for the pass-through to consumer food prices. Both international food prices and EU internal

Chart C

Intra-annual pattern of euro area fruit and vegetable prices

(index: January = 100)

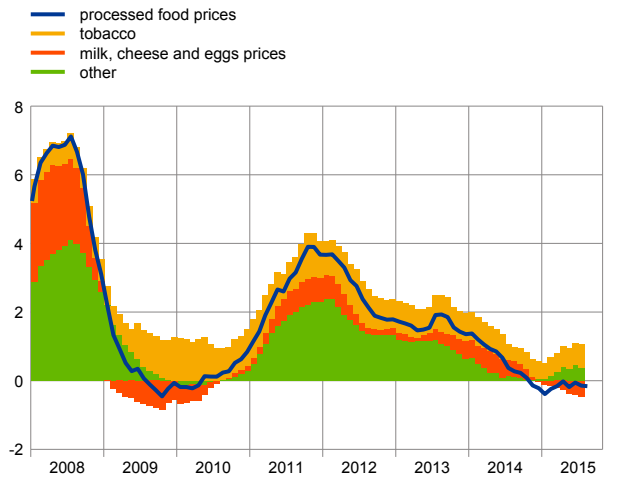


Sources: Eurostat and ECB calculations.
Note: The green shaded area indicates a one standard deviation increase/decrease in the index levels for each month relative to their level in January of the previous year over the period 2004-14.

Chart D

Processed food price inflation

(annual percentage changes; percentage points)



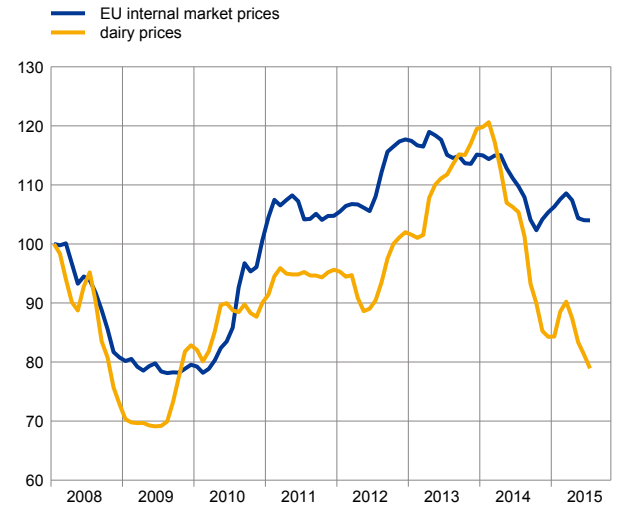
Sources: Eurostat and ECB calculations.
Note: No breakdown is yet available for the latest observations, which are for August 2015 (flash estimates).

market prices (see Chart E) have declined since 2014 and showed tentative signs of stabilisation in early 2015. Downward pressure on commodity prices and also prices of processed food continues to come in particular from the respective dairy components, which are currently also subject to special influences. Barring further decreases in commodity prices, a fading out of such factors should make the rebound in processed food prices more sustained.

Chart E

Developments in EU internal market prices

(EUR; index: January 2008 = 100, non-seasonally adjusted)



Sources: European Commission and ECB calculations.
Note: The latest observations are for July 2015.

A special factor currently affecting food price inflation (both in terms of unprocessed and processed food products) is the Russian ban on imports from the European Union. The Russian ban became effective in mid-2014 and may have prevented a stronger recovery in food prices. Indeed, anecdotal evidence at the time pointed to a negative impact on prices of unprocessed food such as apples and processed food such as dairy products. However, the European Commission responded by activating support measures for perishable fruit and vegetables which may have mitigated the downward pressure on prices resulting from an excess supply of such goods.[1] The extension of the Russian embargo and the mitigating support measures should continue to dampen prices of unprocessed foods.

[1] In early August 2014, in line with the Common Agricultural Policy (CAP), the European Commission announced emergency market support measures for perishable fruit and vegetables, which have been used to purchase fruit and vegetables at full price from farmers, or to compensate them for not harvesting their produce. On 30 July 2015 these measures were extended for another year, until 30 June 2016.

The expiration of EU milk output quotas in March 2015 is a special factor that has affected prices of dairy products in particular. During the past few years, in anticipation of the abolition of these quotas, EU dairy farmers increased their production for world export markets and thus raised their exposure to changes in global demand. Presently, increased competition and excess supply in the wake of lower demand from Russia and some emerging economies are weighing on prices. If there is no pick-up in global demand, some of the downward pressure on food price inflation may fade only gradually.

Overall, rising food prices contributed to the rebound in inflation in early 2015 supported by significant base effects. Food price inflation, however, remains rather low by historical standards. Special factors, such as the Russian ban on EU food imports, the oversupply of dairy products stemming from the abolition of milk quotas and lower than expected global demand, are presently limiting increases in food prices.

Box 8
Country-specific recommendations for fiscal policies under the 2015 European Semester

On 25-26 June the European Council endorsed country-specific recommendations for economic and fiscal policies for 26 non-programme EU Member States.[1] These recommendations were adopted by the economic and finance ministers on 14 July to formally conclude the 2015 European Semester. The Council's fiscal policy recommendations aim to ensure that countries comply with the EU's Stability and Growth Pact (SGP). To this end, they give opinions on the 2015 updates to stability and convergence programmes, which governments had to submit to the Council and the European Commission by mid-April.[2] These opinions take account of the Commission's communication on flexibility within the SGP which was released in January this year.[3] In terms of follow-up work, the country-specific recommendations for fiscal policies issued under the 2015 European Semester will need to be reflected in the draft budgetary plans for 2016 which countries have to submit to the Eurogroup and the Council by mid-October. Against this background, this box reviews the recommendations for fiscal policies that were addressed to the 17 euro area countries under the 2015 European Semester and identifies the implications for their budgetary plans for 2016.

The European Council's country-specific recommendations identify risks of non-compliance with the structural effort requirements of the SGP in 12 of the 17 euro area countries under review. Overall, although the five euro area non-programme countries (Ireland, Portugal, Slovenia, Spain and France) currently subject to an excessive deficit procedure (EDP) are required to make, on average, structural efforts equivalent to 0.7% and 0.9% of GDP in 2015 and 2016 respectively in order to ensure compliance with the SGP, the average figures in a "no policy-change scenario" are actually expected to be slightly negative in both years.[4] In turn, the 12 euro area countries under the SGP's preventive arm are required to progress towards their medium-term budgetary objectives with structural efforts amounting to 0.2% of GDP on aggregate over 2015-16, yet the figures for this period are expected

1 This includes all EU Member States except Cyprus and Greece.

2 These programmes outline governments' budgetary plans for at least the current and subsequent three years. For an overview, see European Commission, "The 2015 stability and convergence programmes – an overview", *Institutional Paper*, No 2, July 2015, Brussels.

3 On 13 January the European Commission issued a Communication entitled "Making the best use of the flexibility within the existing rules of the Stability and Growth Pact" (http://ec.europa.eu/economy_finance/economic_governance/sgp/pdf/2015-01- 13_communication_sgp_flexibility_guidelines_en.pdf). See also the box entitled "Flexibility within the Stability and Growth Pact", *Economic Bulletin*, Issue 1, 2015.

4 Under the SGP's corrective arm, the Council abrogated Malta's excessive deficit by the 2014 EDP deadline. At the same time, it decided against initiating an EDP for Finland, although the breach of the 3% of GDP reference value in 2014 is not forecast to be temporary, with the deficit not expected to return to below the reference value until 2016.

to be slightly negative.[5] The fiscal policy recommendations therefore call on eight Member States (Belgium, Estonia, Italy, Latvia, Lithuania, Malta, Austria and Finland) to make structural efforts commensurate with the preventive arm of the SGP. Two Member States (Belgium and Italy) also face large consolidation gaps with respect to the debt rule. The required improvement in the structural balance under the debt rule in 2015 is equivalent to 2.1% of GDP for Italy (resulting from cumulated consolidation shortfalls since 2013) – which compares with a forecast for structural efforts amounting to 0.3% of GDP – and 1.1% of GDP for Belgium (resulting from cumulated consolidation shortfalls since 2014) – which compares with a forecast for structural efforts amounting to 0.5% of GDP. These requirements are not reflected in the 2015 country-specific recommendations for Italy and Belgium, as the Commission has concluded that the deviation from the debt rule can be explained by relevant factors, such as unfavourable economic conditions and the implementation of structural reforms. In many countries, interest expenditure was lower than initially budgeted. At the same time, instead of using the savings from lower than expected interest payments to accelerate deficit adjustment, many Member States increased

Table

Country-specific fiscal developments in 2015 and 2016

	Country	SGP commitment (change in the structural balance; percentage of GDP – if not at MTO)		European Commission spring 2015 forecast (change in the structural balance; percentage of GDP)		Annual consolidation gap (difference between European Commission spring 2015 forecast and commitment – if not at MTO)		Memo: change in interest expenditure; percentage of GDP between 2014 and 2016 (European Commission spring 2015 forecast)
		2015	2016	2015	2016	2015	2016	2015-2016 (cumulated)
Preventive arm								
	Belgium	0.6	0.6	0.5	0.2	-0.1	-0.4	*-0.4*
	Germany	at MTO	at MTO	-0.2	-0.3	at MTO	at MTO	*-0.3*
	Estonia	-0.2	0.4	-0.5	-0.3	-0.4	-0.7	*0.0*
	Italy	0.25	0.1	0.3	-0.2	0.0	-0.3	*-0.4*
	Latvia	-0.4	0.3	-0.3	-0.3	0.1	-0.6	*-0.2*
	Lithuania	0.2	0.5	-0.7	0.7	-0.9	0.2	*-0.2*
	Luxembourg	at MTO	at MTO	-1.0	-0.2	at MTO	at MTO	*0.0*
	Malta	0.6	0.6	0.5	0.6	-0.1	0.0	*-0.3*
	Netherlands	at MTO	at MTO	-0.1	-0.1	at MTO	at MTO	*-0.1*
	Austria	-0.06	0.3	-0.4	-0.6	-0.3	-0.8	*-0.1*
	Slovakia	0.0	0.25	0.2	0.0	0.2	-0.2	*-0.4*
	Finland	0.1	0.5	-0.2	-0.4	-0.3	-0.9	*-0.1*
Corrective arm (EDP)								
2015	Ireland*	1.9	0.6	0.5	0.3	-1.4	-0.3	*-0.6*
	Portugal*	0.5	0.6	-0.8	-0.6	-1.3	-1.2	*-0.4*
EDP deadline	Slovenia*	0.5	0.6	0.1	-0.5	-0.4	-1.1	*-0.3*
2016	Spain	0.8	1.2	-0.4	-0.2	-1.2	-1.4	*-0.3*
2017	France	0.5	0.8	0.3	0.0	-0.2	-0.8	*-0.1*

Sources: Country-specific recommendations for 2015 (http://www.consilium.europa.eu/en/press/press-releases/2015/06/19-country-specific-recommendations/) and the European Commission's 2015 spring forecast.
Notes: The countries mentioned in the table include euro area countries that are not subject to a financial assistance programme (i.e. all Member States except Cyprus and Greece). The structural effort commitments under the preventive and corrective arm of the SGP are as outlined in the 2015 country-specific recommendations. Ireland was subject to an EDP prior to the "six-pack reform" and is thus required to deliver an annual average structural effort in the absence of annual targets. * Structural effort requirements for 2016 as applicable under the preventive arm, assuming a timely abrogation of the EDP by the 2015 deadline. Structural effort requirements under the SGP's preventive arm exclude requirements under the debt rule. Figures are rounded up, except where they refer to SGP commitments.

[5] See also the box entitled "The effectiveness of the medium-term budgetary objective as an anchor of fiscal policies", *Economic Bulletin*, Issue 4, Frankfurt.

primary spending (i.e. government expenditure excluding interest payments) relative to their initial plans. Countries faced with high general government debt ratios (Belgium, France, Italy, Ireland and Portugal) are therefore advised to use any so-called windfall gains, i.e. savings from lower than anticipated interest payments, for deficit reductions. Moreover, of the countries that have already met their medium-term budgetary objectives, Germany has been advised to further increase public investment in infrastructure, education and research, while the Netherlands has been advised to shift public expenditure towards supporting investment in research and development.

The 2015 European Semester, which is the fifth surveillance cycle since its inception, followed a streamlined approach aimed at issuing fewer and more targeted recommendations. This reorganisation entailed, inter alia, earlier publication of European Commission analyses and recommendations in order to enhance dialogue with Member States. Overall, the 2015 country-specific recommendations appropriately reflect countries' risks of non-compliance with the EU's fiscal rules, while identifying the major areas for reform. To this end, they follow the broad fiscal policy guidance issued for this European Semester in the 2015 Annual Growth Survey, namely "[..] pursuing fiscal responsibility".[6] In general, the European Semester process can only be effective in increasing fiscal sustainability if non-compliance with the EU's fiscal rules is appropriately identified and addressed. In this context, the so-called five presidents' report published in June[7] proposes the establishment of a new European fiscal board, which would provide public and independent assessments of countries' budgetary policies vis-à-vis their obligations under the EU's fiscal framework. These would then feed into the decisions taken by the European Commission in the context of the European Semester. The report also proposes a more integrated European Semester, with national parliaments being involved more. Looking ahead, in the light of persistent vulnerabilities such as high government debt and sizeable structural deficits in euro area countries, any potential reforms of the European Semester should not weaken the ambition of recommendations for budgetary policies.

Fiscal policies should support the recovery, while remaining compliant with the Stability and Growth Pact. Full and consistent implementation is key for confidence in our fiscal framework. The draft budgetary plans for 2016 should therefore clarify how governments whose structural efforts fall short of their commitments under the SGP intend to follow up on the country-specific recommendations in order to ensure compliance with the EU's fiscal rules by reducing their deficits faster. With bond yields subject to volatility, the budgetary plans of high-debt countries in particular should allow for risks related to a reversal of the current low interest rate environment.

6 See European Commission, "Annual Growth Survey 2015", November 2014, Brussels (http://ec.europa.eu/europe2020/pdf/2015/ags2015_en.pdf).

7 See the report prepared by Jean-Claude Juncker, in close cooperation with Donald Tusk, Jeroen Dijsselbloem, Mario Draghi and Martin Schulz, entitled "Completing Europe's Economic and Monetary Union", 2015, Brussels.

Articles
The state of the house price cycle in the euro area

This article discusses the current state of the euro area house price cycle and compares it with historical patterns. It finds that the recovery in house prices in the euro area has been rather muted thus far and appears to be weaker than the typical increase observed historically during the initial phase of an upturn in the house price cycle. At the same time, corrections of previous overvaluations, together with favourable income and financing conditions, suggest that the current recovery has a better chance of being sustained than the short-lived upturn observed relatively soon after the crisis. A gradual and sustained recovery in the house price cycle would support economic developments. At the same time, the accompanying credit dynamics have thus far remained muted, limiting the build-up of systemic risks to the euro area financial system. The new macroprudential toolkit is also helping to mitigate possible risks in a targeted and granular way.

1 Introduction

House prices have been a key indicator in assessing the state of the euro area economy since the financial crisis. This reflects the general importance that the housing sector tends to have for the timing and amplitude of the business cycle and, in particular, its specific importance in the aftermath of a boom-bust episode. In a number of euro area countries, house prices had increased at unsustainable rates and to unsustainable levels prior to the crisis, and the inevitable adjustments had subsequently led to declines in house prices or muted developments at best.

After some ups and downs during a protracted period of adjustment, there are now increasing signs that house prices in the euro area are finally on the rise again. Measured in terms of the annual rate of change in residential property prices, the cycle reached a low point in early 2013 before the rates of change became successively less negative and moved into positive territory in the second half of 2014. This recovery does not appear to have been very strong thus far, but the upward path of the growth rate is relatively broad-based across euro area countries. Against this background, it is instructive to analyse the various factors underlying the nascent recovery in house prices, as well as its strength and sustainability going forward.

Understanding the state and nature of the house price cycle is important from both a macroeconomic and financial stability point of view. This is because it is linked to the business and financial cycles, with house prices affecting credit markets, as they determine the value of collateral that households can borrow and banks can lend against. Tellingly, the collateral channel had shown its importance in the context

of the financial crisis and the banking sector problems that emerged in its aftermath in some euro area countries. Going forward, house price developments deserve particular scrutiny in a low interest rate environment given the complex links between residential property prices, economic activity and credit dynamics.

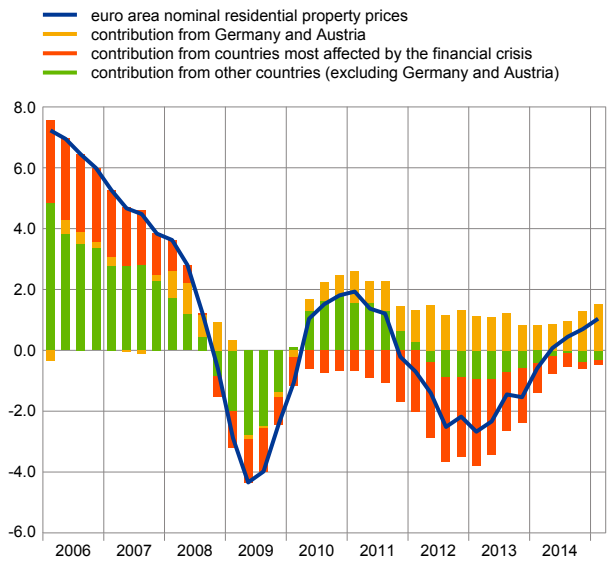
This article discusses the recent developments in, and current outlook for, house prices across the euro area, focusing on price developments in residential real estate and abstracting from those in commercial real estate (Section 2). It then compares the ongoing house price and credit cycles with previous ones (Section 3), before elaborating on the interaction between house price developments, the real economy and the banking sector (Section 4).

2 Recent developments and current outlook for house prices

Recent developments in euro area residential property prices suggest that the corner has been turned and a recovery is underway. The annual rate of change in house prices started to increase in mid-2013, turning mildly positive in the second half of 2014. There were similar signs in 2009-10, relatively soon after the financial crisis, but the recovery could not be sustained, given the unfolding of the euro area sovereign debt crisis. In this context, it is instructive to assess the sustainability of the nascent, but still subdued, recovery for the euro area as a whole by looking at the different factors underpinning it.

Chart 1
Euro area residential property prices by groups of countries

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



Sources: ECB calculations based on national data.
Note: The countries most affected by the financial crisis are Ireland, Greece, Spain, Italy, Cyprus, Portugal and Slovenia. Last observations were for Q1 2015 for all countries except Belgium, Slovakia and Finland, where the last observation was for Q4 2014.

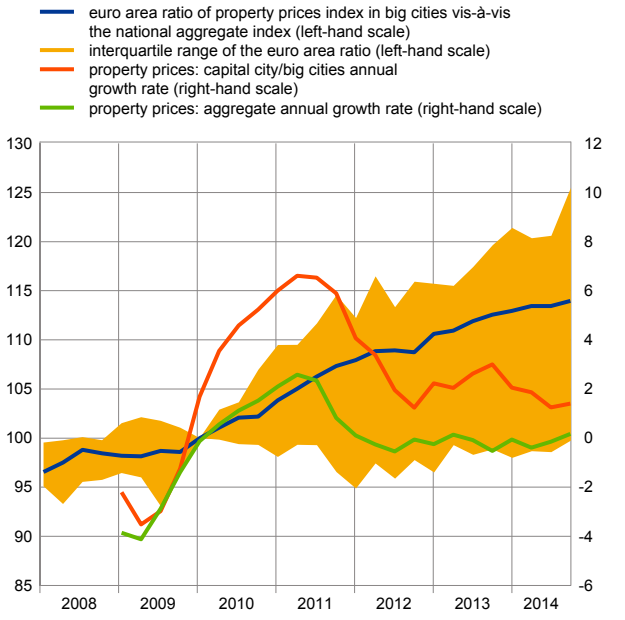
First, the recovery in euro area house prices appears to be relatively broad-based across groups of countries. With contributions to euro area house price growth from Germany and Austria remaining solidly positive, the upturn in the annual growth rate since early 2013 essentially reflects a gradual easing of the negative contributions from the countries most affected by the financial crisis (Ireland, Greece, Spain, Italy, Cyprus, Portugal and Slovenia). To a somewhat lesser extent, this also holds for the group of other euro area countries (excluding Germany and Austria) (see Chart 1). These broad-based contributions towards positive euro area house price growth differ from those in the upturn of 2009-10,
when the countries most affected by the financial crisis continued to contribute negatively and the upturn mainly reflected a strong rebound in house price growth in the other countries.

Second, the current recovery in euro area house price growth seems less contingent on prices in metropolitan areas than in 2009-10. Aggregating selected countries for which data are available shows

Chart 2

Euro area residential property prices at the metropolitan and aggregate level

(Ratio Q1 2010 = 100 and year-on-year percentage changes)



Sources: ECB calculations based on BIS and national sources.
Notes: The euro area ratio is an aggregation of country ratios including Austria, Belgium, Germany, Estonia, Spain, France and Italy up to 2010 and also Ireland, Slovenia and Finland since 2010, and using GDP weights. The shaded area refers to the interquartile range of country ratios (25th to 75th percentile). Different coverage and data sources may account for differences from the aggregate property price developments reported in Chart 1. The last observations were for Q4 2014.

that house prices in metropolitan areas have been growing faster since the financial crisis than in the economy as a whole (see Chart 2). There may be geographical reasons for this, such as less availability of land and a correspondingly lower elasticity of housing supply in metropolitan areas than rural areas. However, this may also imply that house price dynamics in metropolitan areas could pick up faster in response to the economic cycle and then provide false signals if the latter is not sustained. In recent quarters the growth rate differential between growth in metropolitan and economy-wide house prices has remained relatively stable, while the upturn in house prices observed in 2009-10 was characterised by a much stronger acceleration in metropolitan areas than elsewhere, which subsequently also unwound much faster. As with the individual countries, house price dynamics in the euro area as a whole also seem to have been more balanced recently in terms of location, thus providing a better starting point for a sustained recovery than a few years ago.

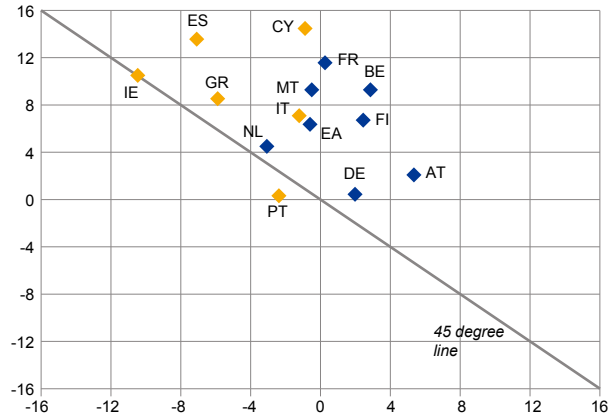
Third, the current recovery is taking place in an environment where earlier imbalances in house prices have resulted in substantial corrections. In several countries, in particular those most affected by the financial crisis, large rises in house prices in the run-up to 2007 were followed by falls in the 2007-13 period, i.e. preceding the current upturn. This suggests some correction of the imbalances that had built up in the pre-crisis period, when a number of countries saw very strong growth in house prices – double-digit in some cases (see Chart 3). It also explains why house prices are currently rising again at a faster pace in some of these countries, such as Ireland and Spain, in an environment of improving macroeconomic and favourable financing conditions. Countries which have experienced relatively strong house price growth since 2007, especially recently (such as Germany and Austria), are the ones that saw more moderate growth in the period up to 2007 and did not require a correction thereafter. The notion of a correction of imbalances also comes through when looking at developments in house prices as a ratio to income (measured in terms of GDP). Countries which had the largest increases in this ratio in the period up to 2007 by and large also saw the smallest increases or biggest declines in the period 2007-13 (see Chart 4). In some countries, such as Spain, Ireland and Greece, the declines were even larger than the previous increases.

Measuring the degree of house price imbalances and the corresponding need for corrections is surrounded by considerable uncertainty. This reflects the complex interaction between the housing, rental and mortgage markets, different structural characteristics between these markets across countries, as well as data

Chart 3

House price growth in the run-up to, and unwinding of, the financial crisis

(average annual percentage changes; x-axis: 2007-2013, y-axis: 2001-2007)

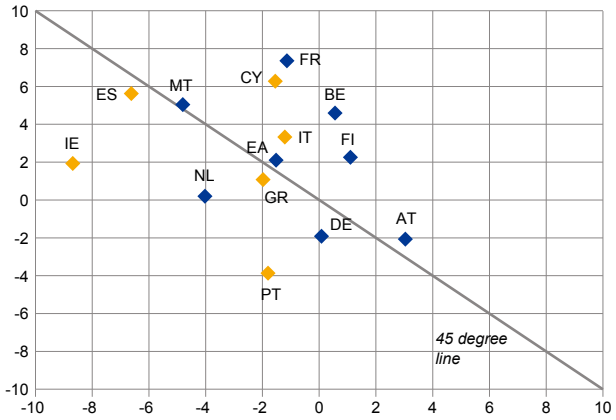


Source: ECB calculations based on national data.
Notes: The countries most affected by the financial crisis are Ireland, Greece, Spain, Italy, Cyprus and Portugal which are shown with a yellow dot. Data for Estonia, Latvia, Lithuania, Luxembourg, Slovenia and Slovakia are not available for the full sample. For Cyprus, the pre-crisis average is computed for the period 2002-07.

Chart 4

House price-to-GDP ratios in the run-up to, and unwinding of, the financial crisis

(average annual percentage changes; x-axis:2007-2013, y-axis: 2001-2007)

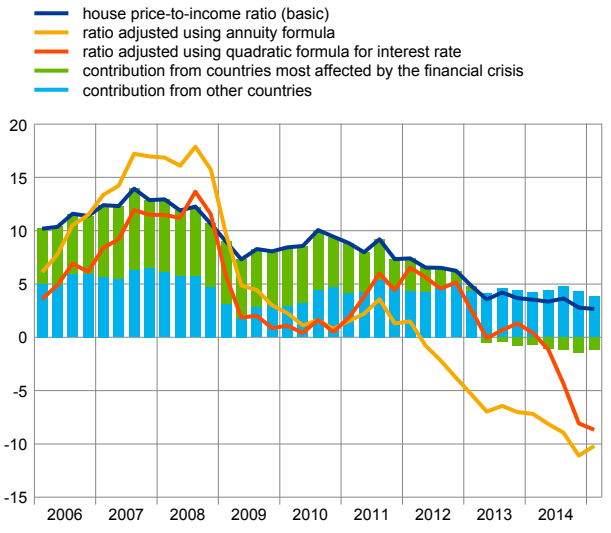


Sources: Eurostat and ECB calculations.
Notes: See Chart 3.

Chart 5

Euro area house price-to-income ratios

(percentage point deviations from long-term average and percentage point contributions)



Sources: Eurostat, ECB and ECB calculations.
Notes: The long-term average is computed over the period since Q1 1996. Disposable income per household is used as the proxy for income. The interest rate is the average mortgage interest rate. Footnote 2 in the main text explains the adjustment methods. The countries most affected by the financial crisis are Ireland, Greece, Spain, Italy, Cyprus, Portugal and Slovenia and their contribution to the euro area ratio is shown in green.

constraints and measurement issues.[1] The house price-to-income ratio is one of the available valuation indicators and represents a crude measure of housing affordability. When the indicator lies above its long-term average, house prices may be seen as overvalued – at least from the perspective of prospective new buyers – which should lead to downward pressures on prices. Since 2010 the imbalance in the house price-to-income ratio for the euro area as a whole has progressively unwound. In 2014 it was only around 3% above its fundamental level, suggesting that house prices were broadly back in line with fundamentals. This reflects in particular the unwinding in the group of countries most affected by the financial crisis, which between 2007 and 2010 had seen relatively little adjustment (see Chart 5). Considering that the affordability of housing and house prices are also determined by the costs of servicing mortgage debt, the basic house price-to-income indicator can be augmented with interest rates, either by an annuity-based or a regression-based approach.[2] These augmented affordability measures suggest that

1 For a discussion, see the box entitled "Statistical valuation metrics for residential property markets", *Financial Stability Review*, ECB, May 2015.

2 The annuity-based measure augments the house price-to-income ratio as follows: r/(1-(1+r)^(-T))* (house price index)/(income index) where T is the mortgage length and r is the nominal mortgage interest rate. Typically, a mortgage length of 20 years and a fixed mortgage interest rate are assumed. The degree of over/undervaluation is then calculated as the deviation in percentage terms of the augmented ratio from its long-term average. Alternatively, house prices can be regressed on income and mortgage interest rates and the residuals are taken as the valuation estimates.

average house prices may currently even be moderately below historically normal valuation levels. However, the boost to housing affordability coming from the current low interest rate environment may not be fully sustainable if interest rates were to normalise further out.

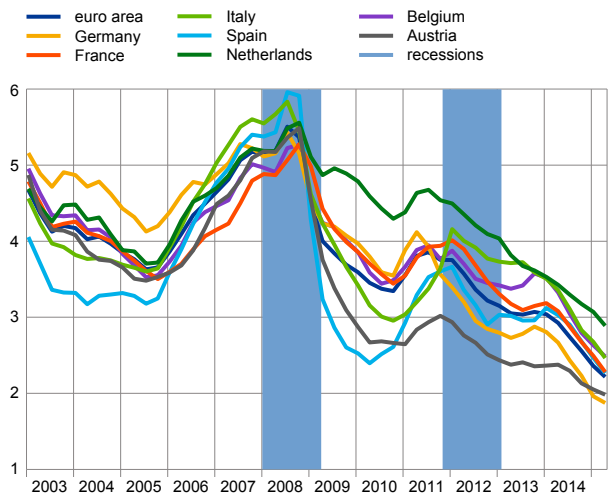
Besides starting from a more balanced position than in 2009-10, there are also other factors supporting a more sustained recovery in house prices. One is related to the improving income and employment prospects for households that are associated with the ongoing economic recovery, which should boost demand for housing and lead to stronger house price growth. European Commission survey figures indicate that households' intentions to purchase a house in the next two years have shown some signs of improvement since the end of 2012, but are still below the longer-term average since 1999. This is likely to continue, since expectations for economic growth one and two years ahead are currently higher than in 2009-10 and there is a prospect of financing conditions remaining favourable in an environment where non-standard monetary policy measures have been designed to keep interest rates low for some time to come.

Bank lending rates and credit standards have become increasingly favourable in recent quarters. This clearly works as a second supporting factor: since the end of the last recession in early 2013 the improvement in financing conditions and the upturn in the house price cycle have coincided. Notwithstanding some heterogeneity across countries, lending rates in the euro area for loans for house purchase declined by more than 90 basis points from that point (see Chart 6), while credit standards became successively less tight and eventually eased over the same period (see Chart 7). Improving housing market prospects have been an important element in the easing of credit standards, suggesting that a sustained improvement

Chart 6

Mortgage lending rates in the euro area and selected countries

(percentages)

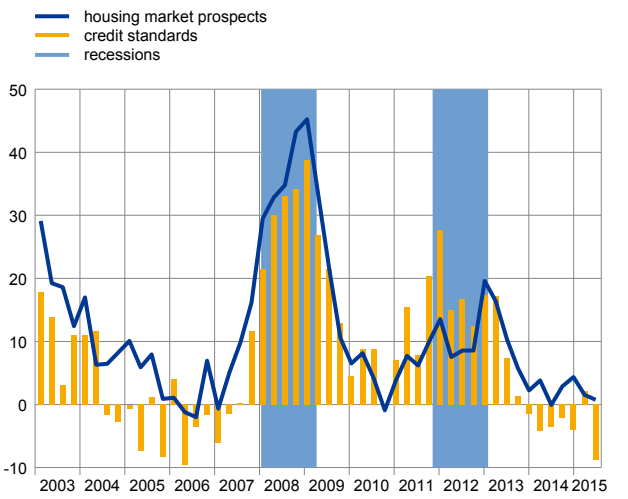


Source: ECB.
Notes: Shaded areas delimit recessions as identified by the CEPR Euro Area Business Cycle Dating Committee. The rates refer to the composite lending rate for house purchases across different periods of interest rate fixation, weighted with a 24-month moving average of new business volumes. The most recent observations are for Q2 2015.

Chart 7

Credit standards for loans for house purchases and housing market prospects

(net percentages; a higher value indicates tightening)



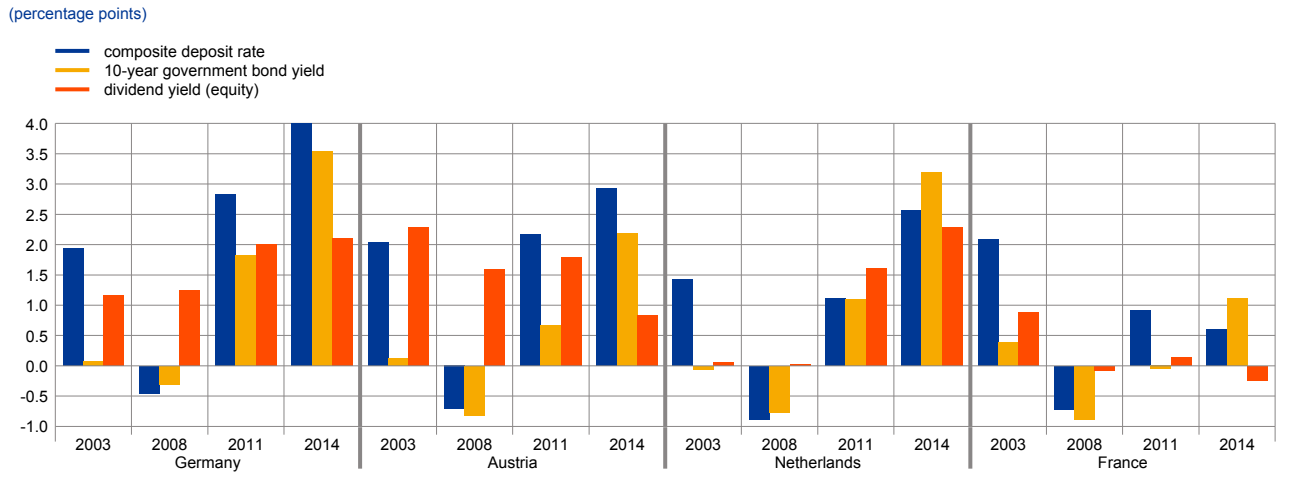
Source: ECB euro area bank lending survey.
Notes: Shaded areas delimit recessions as identified by the CEPR Euro Area Business Cycle Dating Committee. Backward-looking three months. Weighted net percentages are obtained as tightened minus eased. The most recent observations are for Q3 2015.

in housing market prospects due to factors other than credit standards could be reinforced if the latter were to be relaxed further. The chances of these other factors that determine credit standards remaining favourable are good, because the tightening of credit standards in 2011-12 was initially more a result of the unfolding sovereign debt crisis – through the impact of the increasing cost of funds and balance sheet constraints triggered by the crisis – than of housing market prospects becoming less favourable.

The prevailing low interest rate environment could also further sustain housing demand and stimulate house prices from an investment portfolio perspective. Housing can be viewed not only as a consumption good, but also as an investment good, the return on which can be assessed and compared with alternative investments. In the current prevailing low interest rate environment, housing could become comparatively more appealing as an investment for households and/or investors if it promises higher expected returns compared with, for example, bank deposits, securities such as government bonds, or equity investments. Estimates of the return on residential housing are only available for selected euro area countries (Germany, Austria, the Netherlands and France) and are surrounded by considerable uncertainty.[3] Broad as such a comparison naturally is, it indicates that annual returns on residential housing in these countries have generally been higher in recent years (such as 2011 and 2014) than the prevailing nominal long-term yields on government bonds, nominal yields on bank deposits and the dividend yield of the corresponding national equity markets, and that these differentials widened further between 2011 and 2014 (see Chart 8). Overall, the relative return on housing in recent years compares favourably with 2008, when returns on housing were lower than deposit yields and government bond yields.

Chart 8

Returns on housing investment relative to those of alternative assets



Sources: IPD, DataStream and ECB calculations.
Notes: The income return on residential housing is the net annual income receivable as a percentage of the capital employed. The composite deposit rate is the MFI interest rate on deposits from households with agreed maturity (total original maturity, new business coverage).

[3] The estimates of income return are from the IPD Quarterly Research Database and reflect residential property portfolios for institutional investors. These portfolios are likely to invest predominantly in the prime or close-to-prime market, a sector which is likely to have a different dynamic to the entire residential market. In addition, alternative asset classes are characterised by a different level of risk and a corresponding risk premium, and the total return of each asset class is ultimately determined by the stream of income obtained (in terms of rents, dividends and interest payments) plus the appreciation/depreciation of the underlying asset, which is not explicitly considered in this analysis.

3 Stylised facts of house price cycles in the euro area

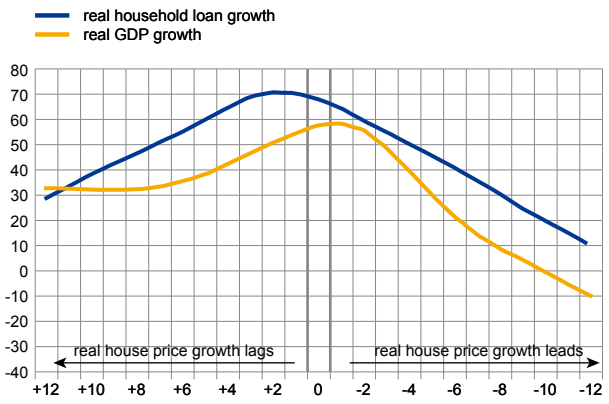
Assessing the current state of the house price cycle and the prospects for a further recovery draws on comparisons with historical patterns. In particular, it is informative to analyse how cycles in euro area house prices have evolved in relation to both the business and credit cycles, as the states of these cycles can condition each other. The analysis looks at the corresponding variables – house prices, GDP and MFI loans to households – in real terms in order to account for differences in average inflation rates over the past few decades.

The real house price cycle is broadly aligned with both the business and credit cycles. This alignment is summarised in the overall strong degree of co-movement between the real house price cycle and the business and credit cycles respectively (see Chart 9). The maximum correlation between annual real house price growth and annual real GDP growth is about 60%, while that between annual real house price growth and annual real household loan growth is about 70%. In both cases, it is found at broadly coincident level. The alignment is particularly apparent during recessions (see Chart 10). All euro area recessions since 1980 have been accompanied by decreasing, and eventually negative, real house price growth, which started to recover only after the trough in real economic activity had been passed. In turn, periods of negative real house price growth are typically preceded by a strong deceleration in real loans, although the growth rate for the latter has rarely turned negative. Unlike in the run-up to recessions, real loan growth does not appear to lead the house price cycle in the recovery phases after a recession. Against this background, the expected recovery in real GDP growth in the coming quarters and the recent mild upturn in the household credit cycle support the view that the real house price cycle is likely to continue to recover at moderate levels in the short to medium term.

Chart 9

Cross-correlations of real GDP growth and real household loan growth with respect to real house price growth

(percentages)

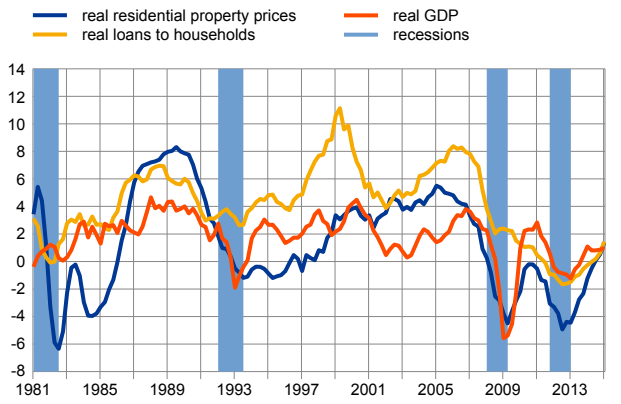


Sources: Eurostat, ECB and ECB calculations.
Notes: Correlations between annual growth rates of real house price growth (deflated by the HICP) with, respectively, real GDP annual growth rates and real MFI loans to household annual growth rates (deflated by the HICP), using data from Q1 1980 to Q1 2015.

Chart 10

Euro area real GDP, real house prices and real loans to households

(year-on-year percentage changes)



Sources: Eurostat and ECB.
Notes: Real house prices and real MFI loans to households obtained by deflating the respective nominal index with HICP. Shaded areas delimit recessions as identified by the CEPR Euro Area Business Cycle Dating Committee. The most recent observations are for Q1 2015.

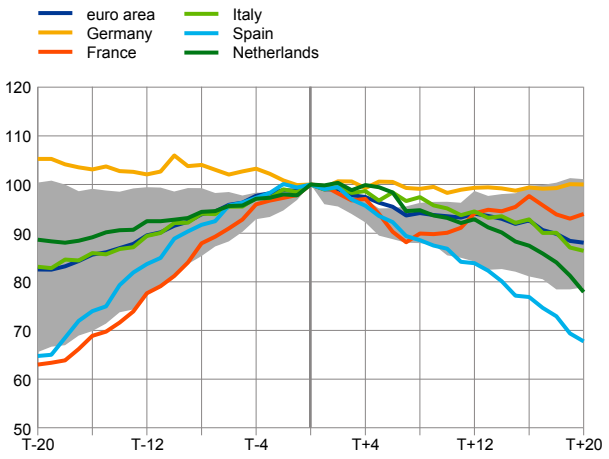
Upturns in the house price cycle are, on average, stronger and longer-lasting than downturns. Looking at ten euro area countries from the first quarter of 1970 to the fourth quarter of 2014 (a sample dictated by the availability of the data), 37 major real house price increases and 43 major real house price decreases can be identified.[4] On average, major upturns see real house prices grow by around 50% over a period of about five years, while major downturns are characterised by a smaller amplitude and shorter duration, decreasing by about 16% on average over a period of around three years. A subset of these major episodes includes outright boom-bust instances, which may last longer. Developments during major upturns and downturns can be used to derive benchmark paths against which to assess the latest downturns and upturns in euro area real house prices.

The fall in euro area real house prices after 2007 was broadly in line with historical patterns. This assessment can be gleaned by comparing developments in real house prices in the euro area and in selected countries around the most recent peak in euro area aggregate real house prices with a benchmark downturn path (see Chart 11). This benchmark path is derived on the basis of the aforementioned historical episodes, depicted by interquartile ranges of historical increases and decreases (i.e. abstracting from the extreme developments found in the upper and lower quartiles). The comparison points to significant country heterogeneity in post-peak house price developments. The decline was much more marked in countries which had also seen a much stronger house price boom preceding the peak (such as Spain) than in those which experienced more stable house prices both before and after the peak (such as Germany). As regards the credit cycle, real household loans

Chart 11

Real house prices around the 2007 peak

(indices, normalised to 100 at T=peak, with T=Q3 2007 for the euro area and euro area countries shown)

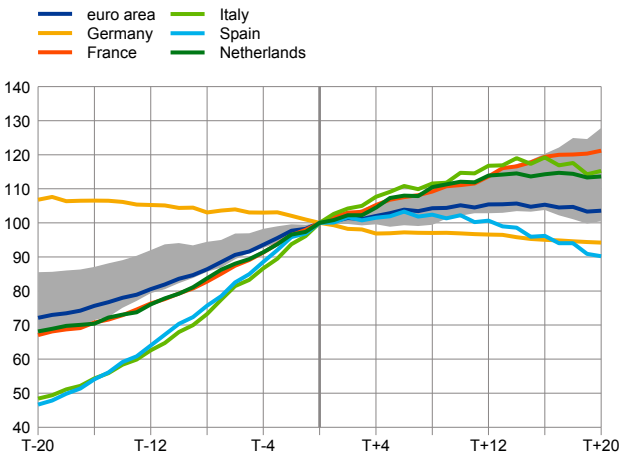


Sources: BIS, ECB, national sources and ECB calculations.
Notes: Grey area delimits interquartile range of developments around peaks for the sample considered (Q1 1970-Q4 2014).

Chart 12

Real MFI loans to households around the 2007 peak

(indices, normalised to 100 at T=peak, with T=Q3 2007 for the euro area and euro area countries shown)



Sources: BIS, ECB, national sources and ECB calculations.
Notes: Grey area delimits interquartile range of developments in real household loans around peaks of real house prices for the sample considered (Q1 1970-Q4 2014).

[4] Identification of "major" house price cycles follows Claessens et al.: "What happens during recessions, crunches and busts?", *Economic Policy*, Vol. 24, 2009, pp. 653-700. A quarterly version of the Bry-Boschan algorithm identifies local maxima (peaks) and minima (troughs) for peak-to-peak and trough-to-trough cycles that last at least five quarters and phases that last at least two quarters. Episodes of ongoing cyclical increases and decreases in real house prices, as well as those which lasted less than a year and those in the lower quartile (i.e. episodes characterised by minor changes) are excluded.

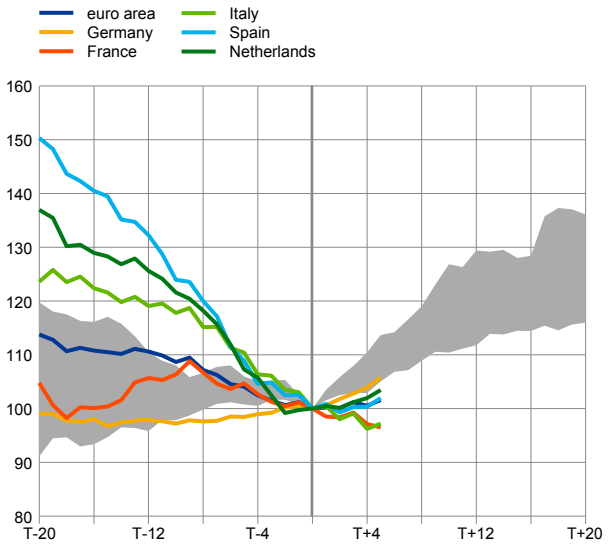
tend to stabilise or even increase for several quarters after the cycle for real house price peaks (see Chart 12). Marked heterogeneity also characterises the pattern of real household loan cycles by country along the latest euro area real house price peak. Overall, the fact that the latest downturn in euro area real house prices appears to be broadly in line with historical declines may lead to an expectation that the subsequent recovery is also likely to be in line with upturns in recent decades.

However, the current euro area real house price upturn has been somewhat weaker than the typical increase observed historically during the initial phase of the upturn. This also appears to be the case for most euro area countries (see Chart 13). Indeed, since the latest euro area trough in 2013, only some countries (such as Germany) have seen an upturn in real house prices, while in others (such as Spain and the Netherlands) there has only been a broad stabilisation followed by a mild increase in prices, or even a further decline (as in France and Italy). These different patterns reflect several factors, including the heterogeneous current state of the business cycle across countries and country-specific policy measures affecting housing and mortgage markets. As regards the credit cycle, real household loans appear to increase markedly both before and after real house price increases start (see Chart 14). As with recent real house price increases, the latest real household loan increases also appear to be weaker than during typical real house price upturns. This is also the case for most euro area countries. Thus, the most recent household loan developments only seem to have heralded, so far, relatively moderate increase in real house prices in the short to medium run.

Chart 13

Real house prices around the 2013 trough

(indices, normalised to 100 at T=trough, with T=Q4 2013 for the euro area and euro area countries shown)

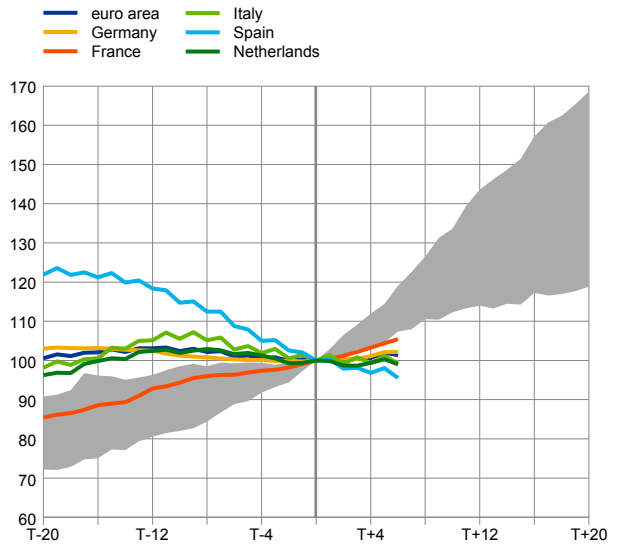


Sources: BIS, ECB, national sources and ECB calculations.
Notes: Grey area delimits interquartile range of developments in real house prices around troughs for the sample considered (Q1 1970-Q4 2014).

Chart 14

Real MFI loans to households around the 2013 trough

(indices, normalised to 100 at T=trough, with T=Q4 2013 for the euro area and euro area countries shown)



Sources: BIS, ECB, national sources and ECB calculations.
Notes: Grey area delimits interquartile range of developments in real household loans around troughs of real house prices for the sample considered (Q1 1970-Q4 2014).

Overall, the downward adjustment of euro area real house prices after 2007 and their recent recovery are in line with historical cyclical patterns. At the same time, this recovery seems to have been somewhat weaker than normal, which may be related to a relatively weaker credit cycle at the current juncture. The euro area house price and credit cycles also remain characterised by heterogeneity across countries. Such heterogeneity in the timing and strength of cyclical patterns may also reflect differences in structural features of housing and mortgage markets across countries (see Box 1).

Box 1

House price cycles and structural features of housing markets

Differences in the cyclical development of house prices across countries may reflect differences in structural characteristics. Such characteristics, or changes therein, can dampen or amplify the impact on house prices of variations in housing supply and demand conditions over the business cycle. This box discusses selected structural features that are of importance for housing markets in the euro area.

Empirical studies point to different categories of structural features that correlate with the variability of the house price cycle.[5] The most prominent categories relate to parameters set by the fiscal and financial frameworks and to those that govern the responsiveness of housing supply to demand shocks. However, it is difficult to assess the precise impact of these parameters, as it typically depends on the combination of structural characteristics in place.

Examples of structural characteristics in the fiscal framework mainly include housing-related taxes and subsidies. For instance, everything else being equal, higher transaction taxes for buying property should dampen housing market activity and thereby also the house price cycle, but may be doing so less in the case of higher tax deductibility of the interest on the mortgage liability that typically comes with a property purchase. In around half the euro area countries, mortgage interest payments are eligible for some degree of tax deductibility, and recurrent property taxes are levied in almost all euro area countries.[6] Property transaction taxes are charged in most countries, although there are some exceptions, such as Estonia, Slovakia and Lithuania. Changes to the fiscal treatment of housing have occurred in a number of countries in the most recent period, including Spain, Ireland, Portugal, Finland, Luxembourg, the Netherlands, Italy, Greece and Portugal, all of which increased property tax rates or restricted the degree of mortgage interest tax deductibility.

Examples of mortgage market characteristics relate to the general conditions under which loans for house purchase are taken up and granted. For instance, higher loan-to-value and loan-to-income ratios typically make house prices more sensitive to the business and credit cycles,

5 European Commission, "House price imbalances and structural features of housing markets", *Quarterly Report on the Euro Area*, Vol. 10, Issue 3, October 2011; and Tsatsaronis, K. and Zhu, H., "What Drives Housing Price Dynamics: Cross-Country Evidence", *Quarterly Review*, Bank for International Settlements, March 2004.

6 "Tax Reforms in EU Member States 2014. Tax Policy Challenges for Economic Growth and Fiscal Sustainability", *European Economy*, European Commission, Vol. 6, 2014; and "Possible Reforms of Real Estate Taxation: Criteria for Successful Policies", *European Economy*, European Commission, Occasional Papers, No 119, October 2012.

as households are less constrained by credit and income when purchasing houses. Acknowledging the various measurement problems associated with a typical loan-to-value ratio, data collected before the crisis show that relatively high ratios used to be observed in the Netherlands and France, whereas they were on the lower side in Italy and Germany.[7] Also, the possibility of mortgage equity withdrawal may in general magnify the response of house prices to increased housing demand in a boom, as it tends to make housing investment even more attractive owing to its collateral services when house prices are anticipated to rise. However, in contrast to the United States, this possibility did not appear to be widespread in euro area countries in the past.

Examples of the structural characteristics of housing supply responsiveness relate mainly to zoning regulations and building approval processes. For instance, housing supply may be relatively inelastic in regions where geographical conditions or local land use regulations inhibit the development of urban land into residential property. If so, a rise in housing demand leads, all things being equal, to a larger increase in house prices than in regions where this additional housing can be supplied relatively quickly with respect to the conversion process for land and the required permits.[8] This type of structural characteristic may be more important for urban than for rural areas.

In conclusion, there are a number of structural characteristics that can affect the amplitude and timing of the house price cycle. These characteristics have remained sufficiently diverse across euro area countries to account for heterogeneities in house price cycles across countries, even in cases where countries would face broadly similar macroeconomic conditions.

4 The implications of house price developments for the macroeconomy and financial stability

A recovery in house prices may have implications for both macroeconomic developments and financial stability.[9] This reflects the inherent interlinkages between house prices, the real economy and the financial sector, as well as the multiple channels through which developments in house prices can influence the economic decisions of households and banks. However, as the current recovery of house prices is taking place in a low interest rate environment, it is important to weigh the positive impact on the macroeconomy and the financial sector against the associated potential risks to financial stability.

7 "Housing finance in the euro area", *Occasional Paper Series*, ECB, No 101, March 2009.

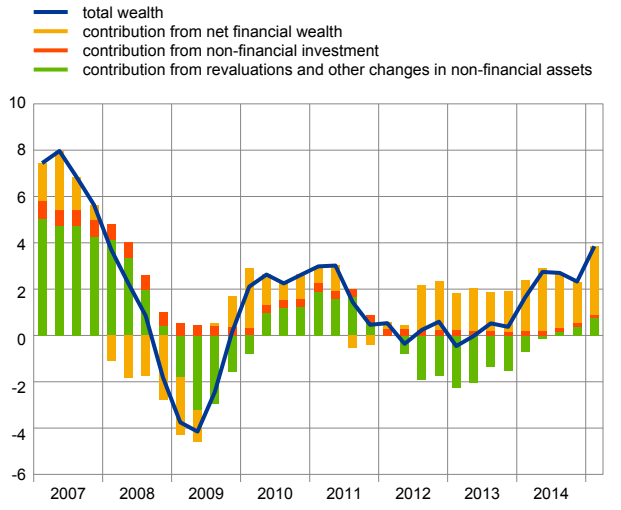
8 Saiz, A., "The Geographic Determinants of Housing Supply". The Quarterly Journal of Economics, August 2010, pp. 1253-1296; Gyourko, J., "Housing Supply", *Annual Review of Economics*, September 2009, pp. 295-318; Andrews, D., "Real House Prices in OECD Countries. The Role of Demand Shocks and Structural and Policy Factors", Organisation for Economic Cooperation and Development, *Economics Department Working Papers* No 831; Catte, P., Girouard, N., Price, R. and André, C., "The Contribution of Housing Markets to Cyclical Resilience", Organisation for Economic Cooperation and Development, *Economic Studies*, Vol. 38, 2004/1; and Glaeser, E.., Gyourko, J. and Saiz, A., "Housing Supply and Housing Bubbles", *Journal of Urban Economics*, September 2008, pp. 198-217.

9 See, for example, "Structural factors in the EU housing markets", ECB, 2003; "Housing Finance in the euro area", *Structural Issues Report*, ECB, 2009; "House price developments in the euro area and the United States", *Monthly Bulletin*, ECB, November 2011; and Hartmann, P., "Real Estate Markets and Macro prudential Policy in Europe", *Journal of Money, Credit and Banking*, 2015.

Chart 15

Changes to household net worth in the euro area

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



Sources: ECB and ECB calculations.
Note: Most recent observation is for Q1 2015.

The impact of house prices on the macroeconomy is typically felt via wealth and collateral effects on consumption, as well as incentive effects on housing investment. In fact, housing wealth in the euro area represents, on average, 37% of households' net worth. Thus, changes in house prices have a direct impact on households' net worth through holding gains/losses on existing non-financial assets, typically the most important source of changes in households' net worth (see Chart 15). A prolonged period of rising house prices, or the expectation that there will be one, could be perceived by households as a permanent increase in wealth, which, in turn, could lead to stronger consumption via a propensity to save less or borrow more, and thereby to higher economic growth.[10] Box 2 discusses the macroeconomic effects of a housing demand shock in the euro area and the United States. Beyond wealth effects, higher house prices increase the value of the collateral against which households can borrow, and thus increase not only their borrowing propensity, but also their borrowing capacity and, in turn, potentially their spending. From an investment perspective, rising house prices may lead to an increase in the demand for residential investment if the value of new dwellings increases relative to their construction costs (i.e. if the so-called Tobin's q for housing investment increases), thereby leading to higher profitability and increased incentives for new constructions. In this context, house prices, like other asset prices, represent a potentially important component in monetary policy transmission, to the extent that changes in interest rates and other (non-standard) monetary policy measures affect house prices, thereby influencing private consumption and residential investment via the aforementioned channels.

Box 2

Macroeconomic effects of housing demand shocks

This box compares the macroeconomic effects of house prices in the euro area with those in the United States[11]**.** The analysis is based on a vector autoregressive model (VAR) that includes macroeconomic variables such as real GDP, consumer prices and the short-term interest rate, with house prices and real housing investment representing the housing sector. In this framework,

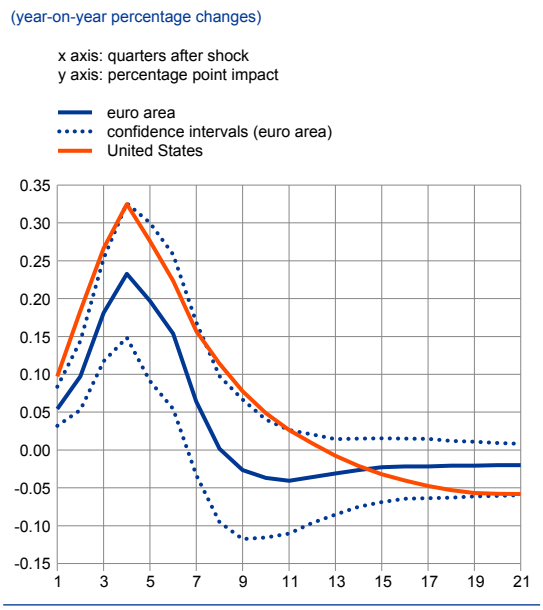
[10] The magnitude of the positive effect on consumption from higher house prices is an empirical matter. However, several findings in the literature point to greater effects on consumption from housing wealth than from financial wealth, and to a greater impact in the United States than in the euro area.

[11] Results are obtained with an updated version of the model presented in Jarocinski, M. and Smets, F., "House prices and the stance of monetary policy", *Review*, Federal Reserve Bank of St. Louis, July 2008, pp. 339-366. The data in this analysis are quarterly and the sample is from Q1 1990 to Q4 2014. Four lags are included, as is the typical practice with quarterly data. The estimation is Bayesian, with standard priors for VARs. The role of the priors is to improve the econometric properties of the model, given that its size is large relative to the sample size. The priors used follow Sims. C. and Zha, T., "Bayesian Methods for Dynamic Multivariate Models", *International Economic Review*, 1998. By shrinking the coefficients, they overcome the overparameterisation of the VAR. A "loose" version of these priors is used.

Chart

Impulse response to a housing demand shock in the euro area and the United States

(year-on-year percentage changes)



Source: ECB simulations.

a housing demand shock is identified by assuming that it causes a positive co-movement between house prices and housing investment on impact. In this analysis, a shock is simulated by assuming that it corresponds to the size of one standard deviation, i.e. the shock of the standard size encountered in the sample period (Q1 1990-Q4 2014).

A housing demand shock raises real GDP growth in the euro area for about two years. After a housing demand shock, the impact on real GDP growth builds up to peak after four quarters at about 0.25 percentage point. The effect then diminishes and fades in approximately two years (see the chart).

The results for the euro area are broadly consistent with other findings. Estimations for industrialised countries provide evidence of significant responses from house price shocks to real GDP.[12] Results for OECD countries[13] show that, economically, housing demand shocks have small but significant impacts on real GDP. Empirical studies investigating the macroeconomic effects of house price shocks in the euro area are, however, rather scarce compared with the research focusing on specific countries, but tend to corroborate these findings, notwithstanding some differences in the magnitude and profile of the responses to the shocks.

The US economy responds to a housing demand shock in a similar way, but with a stronger magnitude[14]. The VAR results suggest that the responses to the shock estimated for the United States are somewhat stronger on impact and more prolonged compared with those in the euro area. One possible explanation for the difference between the euro area and the United States is the stronger housing collateral channel in the latter. Since housing is more common as a form of collateral for loans to households in the United States, borrowing has a tighter link to house prices. Therefore, changes in house prices should have a stronger impact on credit conditions and, consequently, consumption, investment and GDP growth.

12 Interestingly, the effects of house price shocks do not become stronger in periods of house price booms. See Goodhart, C. and Hoffman, B., "House Prices, Money, Credit and the Macroeconomy", *Working Paper Series*, ECB, No 888, 2008. Their analysis is performed for 17 industrialised countries based on a fixed-effects panel VAR.

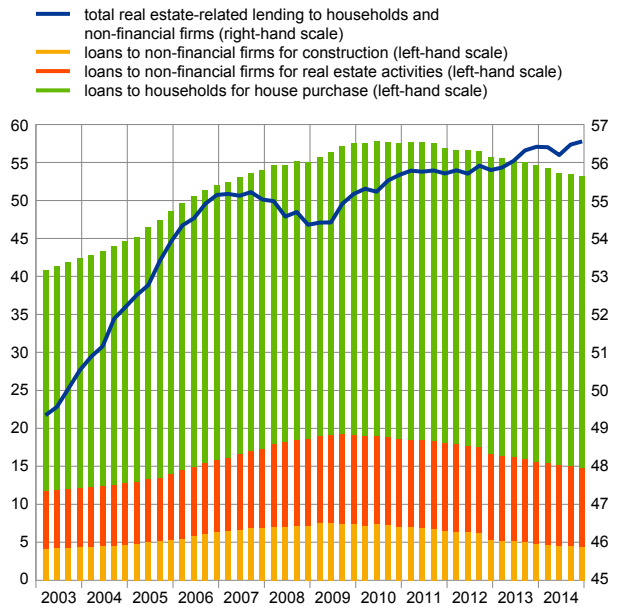
13 See Cardarelli, R., Monacelli, T., Rebucci, A. and Sala, L., "Housing finance, housing shocks and business cycle: VAR evidence from OECD countries", unpublished manuscript, 2008.

14 See Musso, A., Neri, S. and Stracca, L., "Housing, Consumption and Monetary Policy: How different are the US and the Euro Area?", *Working Paper Series*, ECB, No 1161, 2011.

Chart 16

Real estate-related loans of euro area MFIs

(percentage of GDP and percentage of total loans to households and non-financial corporations)

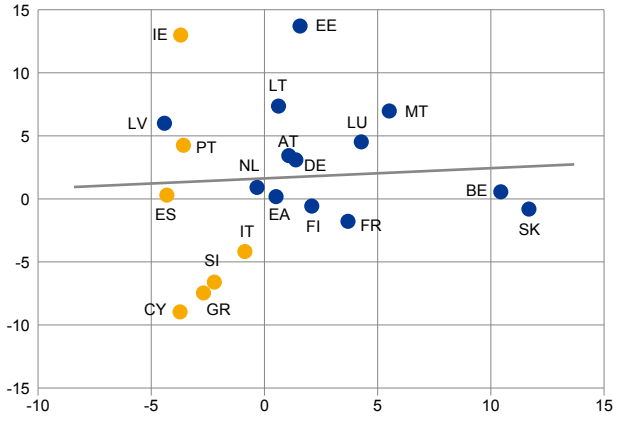


Source: ECB.
Note: Most recent observation is for Q4 2014.

Chart 17

House prices and loans to households in 2014

(year-on-year percentage changes, x-axis: loans to households, y-axis: house prices)



Sources: ECB and ECB calculations.
Notes: Bank lending data are adjusted for securitisation. Countries most affected by the financial crisis are Ireland, Greece, Spain, Italy, Cyprus, Portugal and Slovenia and are depicted with a yellow dot.

The wealth and collateral aspects of house price developments also have an important bearing on the health of the financial sector. This is reflected by the high importance of real estate-related lending relative to banks' balance sheets and overall economic output. In fact, as at the end of 2014, real estate-related loans to households and non-financial firms in the euro area accounted for nearly 57% of euro area banks' total loans to the non-financial private sector, some 17% of the euro area banking sector's total assets and 53% of euro area GDP, with loans to households for house purchase representing the largest share (see Chart 16). Banks typically decide on the volume of loans granted on the basis of borrowers' ability to service debts through income (i.e. loan-to-income ratios) and the value of the property used as collateral for the loan (i.e. loan-to-value ratios). Thus, the aforementioned positive wealth effects and underlying favourable changes in collateral values would translate into lower probabilities of default and losses given default. However, in the event of unsustainable property price developments, the financial sector may load risks onto its balance sheet, especially if house price developments not only have a bearing on the loan volume granted, but, more generally, also translate into laxer credit standards.

Positive effects of rising house prices on economic growth and the banking sector should thus be assessed against the related potential risks for financial stability. In the current low interest rate environment, greater appetite for risk may have the potential to push up real estate prices to values that are not justified by their fundamental values, a development that could be amplified by herding behaviour by investors in an environment of over-optimistic beliefs. In fact, residential property markets have been at the heart of many previous episodes of financial distress once buoyant house price developments started to be accompanied by strong credit growth and leverage. However, there are currently few signs of the ongoing recovery in residential property markets translating into either widespread house price imbalances or rapid housing loan growth at the level of the euro area as a whole or the respective national levels (see Chart 17), especially when compared with the situation prior to the crisis when most euro area countries recorded double-digit household loan growth. Any observed decoupling of loan growth from house prices in the current housing market recovery phase may reflect specific factors,

such as the presence of foreign buyers in certain (mainly high-priced) market segments, especially in some large cities, or the purchase of housing with cash. In this context, countries with stronger growth in average house prices in the past few years, such as Germany and Austria, show signs of regional buoyancy, where house prices may exceed their longer-term fundamental value.[15]

Macroprudential policies seem to be the most appropriate to mitigate real estate-related risks to financial stability, enabling granular and targeted policy action to be taken. The current very accommodative monetary conditions may not only stimulate economic risk-taking – necessary to ensure attainment of the price stability objective – but also lead to unintended side effects in the form of encouraging financial risk-taking.[16] Against this background, there is a need to monitor risk-taking behaviour and, specifically, residential real estate price growth, particularly if they are accompanied by increased leverage, as such developments could amplify the risk of an abrupt residential property price correction. If these were to be widespread, they would lead to instability in the financial system, thereby hampering monetary policy transmission and, ultimately, price stability. Macroprudential policy, comprising a set of granular measures, provides the most appropriate instruments for mitigating risks to financial stability and containing systemic risks in order to support and complement monetary policy, which is geared towards fulfilling the ECB's price stability mandate.

Several euro area countries have implemented macroprudential real estate instruments since the beginning of 2014, or plan to do so. In fact, the new macroprudential toolkit offers national authorities numerous property-related instruments. In terms of their objectives, these instruments may help to alleviate future cyclical challenges by smoothing the credit cycle and to increase the resilience of banks to potential house price excesses. Instruments targeting banks work via regulatory capital requirements, either directly (by imposing higher capital requirements) or indirectly (by targeting variables which affect capital requirements for real estate exposures). In this context, Belgium, for example, has decided to adjust risk weights under the Capital Requirements Regulation and Capital Requirements Directive IV, which has been in force since 1 January 2014. Instruments targeting borrowers work directly on the terms and conditions of the loans by making the volume of the loan granted dependent on the value of the underlying property or the debt-servicing capacity of the borrower.[17] Some countries have opted to introduce or adjust loan-to-value caps (e.g. Estonia, Ireland and the Netherlands), as well as loan-to-income (e.g. Ireland) or debt service-to-income (e.g. Estonia and Lithuania) limits under national legislation.

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15 See the February 2015 issue of the Deutsche Bundesbank's Monthly Report and Schneider, M., Wagner, K., and Waschiczek, W., *The OeNB property market monitor*, April 2015. These studies suggest that prices in German cities in 2014 could have been overvalued by between 10% and 20%, and prices in Vienna at the end of 2014 by 19%.

16 For a more detailed discussion, see the box entitled "Accommodative monetary policy and euro area financial stability", *Financial Stability Review*, May 2015.

17 For a more detailed description of macroprudential real estate instruments, see the ESRB Handbook on Operationalising Macro-Prudential Policy in the Banking sector, March 2014, pp. 49-76.

5 Conclusions

The ongoing upturn in euro area house prices appears to be sustainable. However, it seems that the current recovery is weaker than the typical increase observed historically during the initial phase of an upturn in house prices after a trough, and that it has not so far been accompanied by a significant increase in euro area real household loans. The ongoing recovery in house prices should be further supported by improving prospects for households' income and employment, as well as favourable financing conditions. The prevailing low interest rate environment and its implications on yields will play an important role in this.

Substantial corrections in earlier house price imbalances have taken place in several euro area countries. Since 2007, when the downturn for euro area house prices started, the large heterogeneity in house price dynamics reflected, among other things, country-specific boom-bust cycles, demand and supply conditions, and structural factors. Housing markets in countries which have already corrected previous excesses in house price growth are likely to benefit more from the current favourable environment in terms of low interest rates and improving macroeconomic conditions, and vice versa.

Risks to financial stability appear to be limited at the current juncture, not least as the ongoing recovery in house prices has not translated into rapid credit growth so far. The new macroprudential toolkit has allowed several countries to take steps to rein in any potential house price and credit exuberance, with the numerous property-related instruments boding well for the alleviation of any future cyclical challenges, while also helping to increase the resilience of banks and their borrowers.

The fiscal impact of financial sector support during the crisis

During the financial crisis, most euro area governments provided financial assistance to ailing financial institutions with the aim of safeguarding financial stability and preventing a credit crunch. Over the period 2008-14 accumulated gross financial sector assistance amounted to 8% of euro area GDP, of which 3.3% has been recovered. The fiscal costs of the assistance to financial institutions are comparable to those of other systemic banking crises in the past, as they led to a deterioration in the euro area budget balance and debt by a cumulated 1.8% and 4.8% of GDP respectively. However, on average the measures account for a relatively small part of the overall strong increase in general government debt since the outbreak of the crisis. At the same time, outstanding government guarantees (amounting to 2.7% of euro area GDP at the end of 2014) and further potential losses of asset management vehicles to which impaired assets had been transferred still pose additional fiscal risks to governments. Looking ahead, it is important both to reduce the likelihood of financial institutions facing severe balance sheet problems by enhancing bank capital, banking regulation and supervision, and to promote bank resolution policies that include private sector involvement, thereby protecting taxpayers. In this sense, the recent steps towards a genuine European banking union are encouraging and should not only help to prevent and/or resolve future banking crises in the euro area, but also to reduce their potential fiscal impact on government deficits and debt.

1 Introduction

Since the outbreak of the financial crisis, most euro area governments have provided substantial financial assistance to financial institutions with the aim of safeguarding financial stability and preventing a credit crunch. These measures contributed to the increase in euro area general government debt, which rose by 27 percentage points between 2008 and the end of 2014, when it stood at 92% of GDP. The direct net fiscal costs of financial sector assistance (less than 5% of GDP) were only one factor explaining the overall sharp rise in government debt in the euro area. Yet they played a much more important role in a number of euro area countries. A preliminary assessment of the fiscal impact of financial sector support was provided at an early stage of the financial crisis.[1] Given that further support has been provided since then and in view of the gradual recovery of the euro area financial sector and the recent reforms supporting the prevention of banking crises, it is now a good time to reassess the fiscal costs of financial sector support.

[1] See for example "The impact of government support to the banking sector on euro area public finances", *Monthly Bulletin*, ECB, July 2009; van Riet, A. (ed.), "Euro area fiscal policies and the crisis", *Occasional Paper Series*, No 109, ECB, 2010; and Stolz, S. and Wedow, M., "Extraordinary measures in extraordinary times: public measures in support of the financial sector in the EU and the United States", *Occasional Paper Series*, No 117, ECB, 2010.

This article addresses the following questions: First, which financial assistance measures have been used? Second, how costly were the financial sector assistance measures for taxpayers, how much of the costs have been recovered to date and how much have the measures contributed to the sharp increase in government debt? Third, what are the remaining fiscal risks related to financial sector support? In addressing these questions, the article provides a detailed overview of the government measures to assist financial institutions since the beginning of the crisis.[2] Compared with other systemic banking crises in advanced economies, the direct fiscal costs of financial assistance measures in the euro area are of a similar magnitude, while the overall increase in general government debt is considerably larger. However, the estimated fiscal costs of government intervention in the banking sector vary substantially across studies depending on the methodology used for their derivation and the definition of fiscal costs. This article mainly follows the bottom-up approach which sums up all of the government measures related to the financial crisis, although some of these measures may be difficult to quantify, especially if they were carried out by entities classified outside the general government sector.[3] The article focuses on government measures to support the financial sector and does not look at the central bank liquidity measures adopted during the financial crisis.[4]

The article is structured as follows: Section 2 looks at the support measures used by euro area governments over the period 2008-14, with a particular focus on asset acquisitions and capital transfers. Section 3 assesses their fiscal impact on budget balances and general government debt and discusses the recovery rates on acquired assets. Section 4 outlines the remaining fiscal risks related to government guarantees and asset management vehicles. The article ends with some policy conclusions in Section 5.

2 Financial sector assistance measures

Most euro area governments have supported the financial sector with a set of measures, notwithstanding considerable differences across countries and changes over time. For example, governments supported financial institutions by purchasing their illiquid financial assets and by providing them with direct loans. The acquired assets included equities, debt securities and other assets, which

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2 The analysis is based on data compiled by the Working Group on Government Finance Statistics of the European System of Central Banks (ESCB).The statistical framework is described in more detail in Maurer, H. and Grussenmeyer, P., "Financial assistance measures in the euro area from 2008 to 2013: statistical framework and fiscal impact", *Statistics Working Paper Series*, No 7, ECB, 2015.

3 In the literature, there are two main approaches to estimating the fiscal costs of financial sector support (see also ECB, 2009, op. cit.). First, the bottom-up approach sums up all of the government interventions; see for example Laeven, L. and Valencia, F., "Systemic banking crises database: an update", *Working Paper Series*, No 163, IMF, 2012. Second, the top-down approach assumes that changes in the government debt-to-GDP ratio since the crisis are related to the financial crisis, although this approach also includes debt changes which are unrelated to financial sector support. This approach is followed inter alia by Reinhart, C. and Rogoff, K., "Recovery from Financial Crises: Evidence from 100 Episodes", *American Economic Review*, Vol. 104(5), 2014, pp. 50-55.

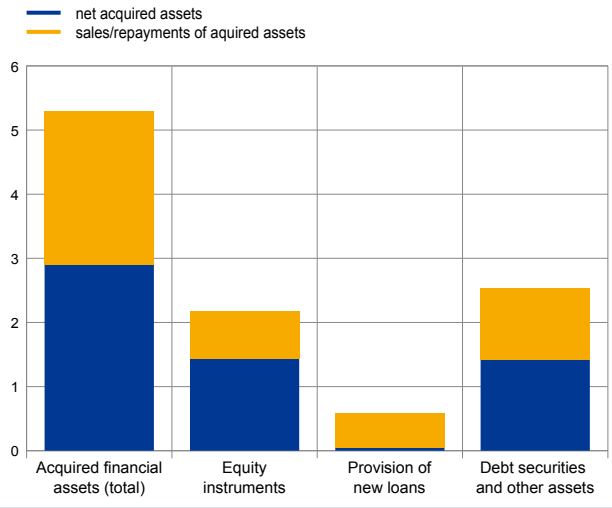
4 Central bank liquidity measures are discussed, for example, in "The ECB's non-standard measures – impact and phasing-out", *Monthly Bulletin*, ECB, July 2011; "The ECB's response to the financial crisis", *Monthly Bulletin*, ECB, October 2010; and "The implementation of monetary policy since August 2007", *Monthly Bulletin*, ECB, July 2009.

governments exchanged against cash or other collateral at their market value. Sometimes governments had to inject capital into ailing financial institutions by acquiring assets well above their market value. These recapitalisations aimed to cover the banks' accumulated losses and eventually resulted in government losses. Some governments were also forced to nationalise (systemic) banks. Moreover, some of the impaired assets were acquired by newly created asset management vehicles. In exchange for the transferred assets, financial institutions were provided with cash and/or bonds issued by the vehicles usually enjoying a state guarantee. Governments also provided explicit guarantees to financial institutions, such as time-restricted guarantees for interbank loans or bonds, and raised the coverage threshold for guaranteed bank deposits. Furthermore, the higher government debt resulting from most of these interventions led to indirect fiscal costs in the form of additional interest payments. At the same time, government interventions also implied indirect revenues in the form of fees for guarantees granted, dividends on acquired equity and interest receipts on the loans provided and debt securities bought.

Chart 1

Assets acquired over the period 2008-14

(percentages of 2014 GDP)



Source: ESCB.
Note: The sum of the net acquired assets (blue) and the sales/repayments (yellow) corresponds to the gross amount of the respective acquired assets.

Among the measures mentioned above, the acquisition of financial assets was used by euro area governments in particular in the early years of the financial crisis. Between 2008 and 2014 governments acquired financial assets in an amount of 5.3% of euro area GDP in gross terms (see Chart 1), two-thirds of which were purchased in the first three years of the crisis. When taking into account the fact that part of the assets has in the meantime been divested without losses, the net acquired assets amounted to 2.9% of GDP in 2014. Among the acquired assets, debt securities and equities together accounted for the bulk (around 90%) of the acquired assets, while new loans were used to a much lower degree over the period 2008-14. The net acquisition of financial assets was particularly pronounced in Germany, Ireland, Greece, Cyprus, Luxembourg, Portugal and Slovenia, with acquisitions being well above 5% of GDP (see column (A) of Table 2).

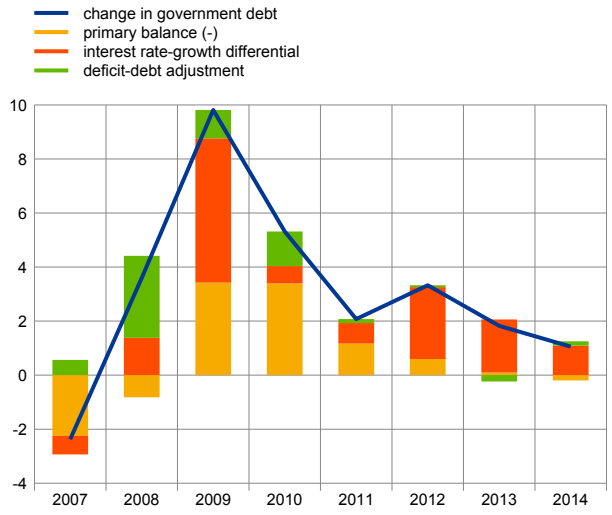
Moreover, euro area governments supported distressed financial institutions via capital transfers. Besides financial assets purchased at above-market prices, capital transfers reflected called government guarantees and other types of debt assumption. Capital transfers amounted to 2.1% of GDP over the period 2008-14. These deficit-increasing capital transfers played a role in particular in Ireland (above 25% of GDP), Greece, Cyprus and Slovenia, while in other countries their extent was more limited (see column (C) of Table 2).

3 Fiscal impact of financial assistance measures

General government debt in the euro area increased from 65% of GDP in early 2008 to 92% of GDP at the end of 2014. Only a relatively small part of this rise in government debt, which was particularly pronounced in the first years of the financial crisis, was driven by the support provided by euro area governments to ailing financial institutions in order to secure financial stability, although for some individual countries the impact on government debt was substantial. To better understand how government finances were affected by the financial crisis in general and by financial sector support interventions in particular, it is useful to decompose the government debt increase into its main driving factors (see Chart 2).

Chart 2
Change in government gross debt and its drivers

(percentages of GDP)



Sources: Eurostat and ECB.
Notes: Deficit-debt adjustment is the difference between the government deficit and the change in government debt. For more details, see "From government deficit to debt: bridging the gap", *Monthly Bulletin*, ECB, April 2007.

First, the debt-increasing impact of a positive interest rate-growth differential, which captures the difference between the interest rate paid to service government debt and the growth rate of the economy, was particularly strong in the early years of the crisis, following the cyclical downturn in the euro area triggered by the financial crisis. More recently, as a consequence of low interest rates and a cyclical recovery, its relative importance has started to decline.

Second, the rise in government debt was also driven by a sharp deterioration of the primary balance. This was inter alia the result of higher primary expenditure, reflecting the role of automatic stabilisers, such as higher unemployment benefits, as well as discretionary fiscal policy measures. The latter also include part of the financial sector assistance measures, in particular the costs of capital transfers to cover accumulated losses of ailing banks. Moreover, lower government revenues following the cyclical downturn and the rebalancing process also contributed to the worsening of the primary balance via so-called second-round effects, as the decline in employment, corporate profits and asset values, triggered by the financial crisis, resulted in lower revenues.

Third, the debt increase was driven by deficit-debt adjustments. These had several causes. Among them are those financial sector support measures that did not affect the primary balance, but did affect general government debt, such as governments' acquisition of equities at market prices or the provision of government loans to the financial sector. As the governments acquired assets, these measures resulted in an increase in gross debt, while net debt remained largely unaffected. Deficit-debt adjustments were particularly pronounced until 2010 for the euro area as a whole.

To quantify the impact of the financial sector assistance measures on the government accounts, it is necessary to look at the individual transactions and the financing requirements resulting from them. Depending on the nature and the magnitude of the assistance measures, government finances are affected differently (see Table 1).

Table 1

Accounting framework for general government assistance to the financial sector

	Examples	Impact on general government debt	Impact on fiscal balance
Direct impact of interventions			
Acquisition of financial assets	Acquisition of equities (market price)	↑	0
	Acquisition of other assets, e.g. debt securities	↑	0
	Provision of loans	↑	0
	Sales of shares	↓	0
	Repayments of loans	↓	0
Capital transfers to banks	Acquisition of financial assets above market price	↑	↑
	Capital injections covering bank losses	↑	↑
	Debt assumptions	↑	↑
	Called government guarantees	↑	↑
Indirect impact of interventions			
Miscellaneous revenues and expenditures	Guarantee fees	↓	↓
	Dividends	↓	↓
	Interest payable/ receivable	↑↓	↑↓
Reclassification of entities and other flows (without transactions)			
Entities reclassified from financial sector to general government	Liabilities of entities (i.e. the non-consolidated liabilities)	↑	0
	Assets of entities (i.e. only the consolidated assets)	(↓)	0
Provision of guarantees			
Government guarantees	Guarantees on liabilities (contingent liabilities)	0	0
	Guarantees on assets	0	0

Source: ESCB.

- While all instruments, except for outstanding government guarantees, increase government debt, most of them do not affect the budget balance (see Table 1). In particular, net acquisitions of financial assets by governments, including equities, loans and debt securities at market prices, are debt-increasing.
- Acquisitions of financial assets usually only affect gross government debt, while net government debt remains broadly unchanged.
- By contrast, all financial sector support measures that include an irreversible annual expenditure for the government are recorded in the cumulated budget balance (see Table 1 and column (B) of Table 2). They include capital transfers, such as the debt of banks taken over by the government, called government guarantees, financial assets purchased at above-market prices and deficit-increasing capital injections into banks to cover past losses. In addition, the general government budget balance is also affected by revenues that are linked to financial support transactions, such as fees received by governments for granting guarantees, dividends from acquired equities as well as interest received on financial instruments acquired. The sum of the net acquisition of

financial assets and the cumulated impact on the budget balance represents the government's net fiscal costs of the financial assistance measure (see Table 2).

- The reclassification of entities from the financial sector to the general government sector (notably in the case of bank nationalisations) increases government debt.
- The provision of government guarantees has no direct impact on public finances, unless the guarantees are called.

Financial assistance measures led to a worsening of the euro area budget balance by a cumulated 1.8% of GDP between 2008 and 2014. How their impact on government accounts is treated in the Stability and Growth Pact is described in the box later in this article. The impact on the budget balance differed considerably across countries. The deficit impact was particularly strong in Ireland, where it led to a cumulated worsening of the budget balance of almost 25% of GDP (see Table 2). The budget balances of Greece, Cyprus and Slovenia were also substantially affected by the support measures, with a cumulated deficit impact of between 8% and 13% of GDP during 2008-14. In most other countries, the cumulated deficit impact was more limited, ranging from 0.4% of GDP in Belgium to 4.4% of GDP in Spain. For France, Italy and Luxembourg, the cumulated revenues from financial assistance measures even slightly exceeded the expenditures.

Table 2

Fiscal impact of financial sector support over the period 2008-14

(percentages of 2014 GDP)

	Net fiscal costs				EDP debt impact	Memo item: Change in government debt
			Cumulated impact on budget balance (deficit (+), surplus (-))			
	Total (A)+(B)	Net acquisitions of financial assets (A)	total (B)	due to capital transfers (C)	(end of 2014) (D)	(2008-14)
BE	3.7	3.3	0.4	1.1	4.6	19.7
DE	8.0	6.7	1.3	1.8	8.2	11.0
IE	31.1	7.0	24.1	25.7	22.6	85.7
GR	22.1	9.6	12.5	14.9	22.2	73.7
ES	5.0	0.6	4.4	4.8	5.0	62.2
FR	0.0	0.1	-0.1	0.1	0.1	31.1
IT	-0.1	0.0	-0.1	0.0	0.1	32.4
CY	18.8	10.3	8.5	9.1	19.4	53.4
LV	5.2	1.9	3.3	3.3	5.5	31.6
LT	1.3	0.2	1.1	0.9	0.9	25.0
LU	5.5	5.6	-0.1	0.1	5.3	16.0
NL	4.8	4.1	0.7	0.7	5.5	26.1
AT	3.5	0.4	3.1	3.6	8.4	19.7
PT	11.3	8.4	2.9	2.6	11.0	61.7
SI	18.1	6.1	12.0	11.5	18.2	58.2
EA	4.7	2.9	1.8	2.1	4.8	27.0

Sources: ESCB and Eurostat.
Notes: Estonia, Malta, Slovakia and Finland are not included in the table as no financial support was provided to the financial sector. The difference between the cumulated budget balance (B) and capital transfers (C) includes net miscellaneous financing costs or revenues, such as fees on guarantees, dividends, and interest payable or receivable linked to acquired financial instruments. As regards column (D), in comparison to the net fiscal costs, the excessive deficit procedure (EDP) debt impact also includes the impact of reclassifications of financial entities (e.g. a bad bank) inside the government (without transactions), other flows and financial transactions not recorded in EDP debt.

General government debt in the euro area increased by 4.8% of GDP over the period from 2008 to 2014 owing to financial sector assistance. The impact on government debt resulted from the sum of the net fiscal costs of financial sector support (4.7% of GDP) and the impact of reclassifications and other flows (0.1% of GDP).[5] The debt increase as a result of financial sector support corresponds to less than one-fifth of the increase in government debt over the same period (see Table 2). The debt impact of financial sector support varied considerably across countries. Financial sector support led to a substantial increase in government debt of around 20% of GDP in Ireland, Greece, Cyprus and Slovenia. It also had a high impact in Germany, especially owing to measures taken at the onset of the crisis, and in Austria and Portugal, mainly as a result of more recent interventions. By contrast, government debt in Italy and France was hardly affected by financial sector support.

Compared with past financial crises in advanced economies, the deterioration in euro area government finances was worse, despite a similar amount of financial sector assistance. According to a recent study from the International Monetary Fund (IMF), which measured the fiscal costs of 60 systemic banking crises between 1970 and 2011, the median increase in overall government debt was around 12% of GDP, of which 7 percentage points were accounted for by the direct fiscal costs of financial sector support.[6] Regarding the recent crisis (2007-11), the IMF analysis looks at a sample of 25 systemic banking crises, mainly involving advanced economies. The median increase in government debt was 18% of GDP, of which 4.2 percentage points were due to direct fiscal costs, compared with an increase in government debt for the euro area of almost 22% of GDP, of which only 4.6 percentage points were explained by direct financial sector support. These differences suggest that the indirect macroeconomic costs of the financial crisis in the euro area have been even more pronounced compared with previous systemic banking crises.

The recovery rates, which represent the share of acquired assets which governments were able to successfully dispose of, are improving, but are still relatively low by historical standards. Recovery rates are derived from the difference between the acquired financial assets in gross terms and the assets in net terms. Up to now, eight years after the crisis started, only a small fraction of the fiscal costs of the euro area has been recovered (see Chart 3). Out of 8% of GDP of accumulated gross financial sector assistance measures,[7] which corresponds to €800 billion, 3.3% of GDP has been recovered through sales of acquired assets and other miscellaneous revenues derived from the assets acquired and the guarantees granted (e.g. dividends, fees, interest receipts). This corresponds to a recovery rate

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5 While the difference is usually very small, there are some exceptions. For example, in Ireland, some financial assistance measures have been financed through the disposal of assets held by government pension funds.

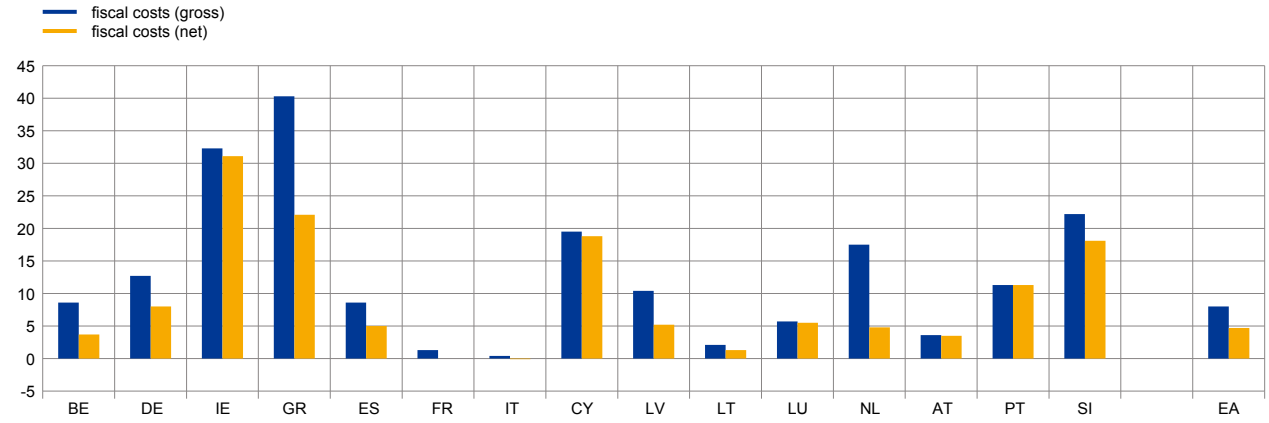
6 See "From Banking to Sovereign Stress – Implications for Public Debt", IMF, 2015, which analyses how certain country and banking sector characteristics impact the fiscal costs of banking crises.

7 To get an idea of governments' financial exposure arising from financial sector support, the net fiscal costs have to be supplemented by the amount of outstanding government guarantees and include the indirect revenues. In the literature, however, it is sometimes argued that gross fiscal costs (which encompass recovered assets) are a better metric to reflect the taxpayers' money spent at the time of the support. This indicator could also serve as a basis for determining the financial buffers needed for government assistance in the context of possible future crises (see for example Laeven, L. and Valencia, F., op.cit.).

Chart 3

Fiscal costs and recovery rates over the period 2008-14

(percentages of 2014 GDP)



Sources: ESCB and Eurostat.
Notes: Estonia, Malta, Slovakia and Finland are not included in the chart as no financial sector support was provided in these countries. As regards Greece, see also footnote 9. The recovery rate is the difference between the acquired financial assets in gross and net terms.

of slightly more than 40% of gross fiscal costs, which is relatively low by international comparison. For example, Sweden was able to recover almost 95% of its budgetary outlays five years after the crisis in 1991.[8] The recovery rates to date are particularly low in Ireland, Cyprus and Portugal, while they are relatively high in the Netherlands.[9]

The recovery rates, however, differ for different types of acquired assets. Looking at the different instruments, most (92%) of the loans provided to banks had been paid back by the end of 2014 (see Chart 1). By contrast, governments still hold a large share of the acquired debt securities and equities, although they were able to sell 43% of the debt securities and 34% of the equities by end-2014. Consequently, the accumulated net acquisition of both debt securities and equities amounted to 1.4% of GDP by the end of 2014.

At the same time, the recovery rates also need to be carefully analysed, together with the accumulated losses related to the assistance measures. In fact, a low recovery rate might be due to very different scenarios and does not necessarily indicate high accumulated losses. For example, a limited recovery rate could indicate, in the best case, that a government retains ownership of a well-performing bank which would generate substantial gains in the event of a subsequent privatisation. In the worst case, a limited recovery rate could indicate that the interventions led to major irreversible losses, as in the case of Cyprus, with a holding loss for the government on equity instruments amounting to 10.5% of GDP owing to the restructuring of one of its largest banks. For the period 2008-14 the accumulated losses on average for the euro area amounted to 1.8% of GDP, thus indicating that almost 25% of the gross fiscal needs are currently accounted for as a loss which cannot be recovered.

8 See also Table 1 in ECB, July 2009, op. cit.

9 With regard to Greece, the substantial difference between gross and net fiscal costs is mainly explained by the following facts. Until 2012 the Hellenic Financial Stability Fund provided loans to the Greek banking system. These loans were subsequently used to bridge the time until recapitalisations in the form of equity acquisitions could take place (2013). Although this basically represents a shift in instruments, the gross fiscal costs include both loans and recapitalisations, while the net fiscal costs are adjusted for the loans cancelled after recapitalisations.

Box
Treatment of financial sector support in the Stability and Growth Pact

In the Stability and Growth Pact (SGP), financial sector support is treated in a special manner given its importance for safeguarding financial stability. At times of severe banking problems, Member States are generally not required to compensate for the fiscal costs arising from financial sector support, provided the measures are of a temporary nature.[10] Given that the fiscal costs to secure financial stability are largely beyond the control of governments, this seems broadly justified. In fact, it is important that the SGP does not provide disincentives to effective public backstops. A similar approach has also been taken in the EU-IMF adjustment programmes, in which nominal fiscal targets are set explicitly by excluding the impact of financial sector support on the deficit.

Under the preventive arm of the SGP, capital injections are excluded from the calculation of the structural effort, provided they are temporary. The structural effort is the main indicator under the preventive arm to assess whether the adjustment path towards the medium-term objective (MTO) is fulfilled. The structural effort is calculated based on the change in the structural balance, which excludes temporary and one-off measures such as capital injections.

Under the corrective arm of the SGP, an excessive deficit procedure (EDP) may not be opened in the case of financial sector support. If a Member State were to be temporarily in breach of the deficit criterion as a result of financial sector support, but the deficit would remain close to 3% of GDP (i.e. not more than 0.5% of GDP above the reference rate), opening an EDP can be avoided. Likewise for the debt, when non-compliance with the debt reduction benchmark results from financial sector support, a debt-based EDP will not be opened. In both cases, financial sector support measures (including contingent liabilities) are accounted for as relevant factors, as under the debt-based EDP assessments for Belgium and Italy published in February 2015.

In addition, financial sector support would not lead to the stepping-up of an existing EDP. Compliance with the EDP requirements is assessed based on the structural effort, which excludes temporary and one-off measures. Thus, Member States providing financial sector support are not forced to make additional fiscal consolidation efforts, provided that the necessary structural efforts are made. For example, in the context of the 2013 extension of the EDP deadline for Slovenia, the Council recommendation also referred to deficit targets, netting out the expected fiscal costs of financial sector support. Moreover, if a country is not able to correct its excessive deficit by the agreed deadline as a result of financial sector support, the procedure will not be stepped up. Instead, the abrogation of the procedure would be delayed for some time (usually one year). However, when deciding on the abrogation of an EDP, the decision is based on the nominal (headline) deficit, which is not adjusted for financial sector support.

[10] See the box entitled “The fiscal implications of financial sector support”, *Monthly Bulletin*, ECB, June 2013.

4 Fiscal risks related to government interventions in financial institutions

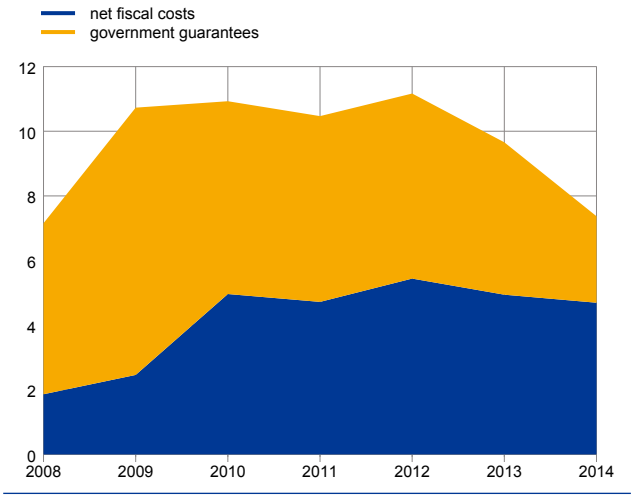
In addition to the above-mentioned fiscal costs, financial sector support can entail significant broader fiscal risks. If one were to include the amount of explicit contingent liabilities related to government guarantees granted to financial institutions, which have no immediate direct impact on government finances but pose a potential fiscal risk should they be called, the government's exposure would be much higher.[11] Moreover, governments also provided implicit guarantees to financial institutions, partly motivated by the too-big-to-fail argument and in order to avoid spillover effects. However, these implicit guarantees are difficult to quantify and are therefore not discussed further in this article.

At the outbreak of the financial crisis, many euro area governments provided explicit guarantees to financial institutions to support financial stability. Most explicit government guarantees were granted to ailing financial institutions for different kinds of liabilities and assets, such as issued bonds, interbank deposits, senior unsecured debt, asset-backed securities and dated subordinated debt. Furthermore, in a few cases, for example in Ireland, Spain and France, government guarantees were also granted for the financing of asset management vehicles (on average these amounted to about 20% of outstanding government guarantees at the end of 2014). Explicit guarantees were mainly granted in the early years of the crisis. The level of government guarantees granted, expressed in terms of GDP, exceeded the net fiscal costs of financial sector support until 2012 (see Chart 4). Government guarantees in the euro area peaked at almost 8% of GDP in 2009 (excluding government guarantees on retail deposits) and declined to 2.7% of GDP by the end of 2014.

Chart 4

Financial exposure of governments arising from interventions in financial institutions

(percentages of GDP)



Source: ESCB.
Notes: The financial exposure of governments arising from interventions in financial institutions comprises the financial assistance measures recorded under direct net fiscal costs and the amount of outstanding government guarantees. Government guarantees and net fiscal costs are expressed as a percentage of annual GDP. Government guarantees do not include deposit insurance schemes.

Since 2012 the amount of outstanding government guarantees has declined strongly. This can be explained by three factors. First, a large share of guarantees has expired since then and, because financial stability has been re-established, it was not necessary to prolong them. There were no or only limited new guarantees granted to financial institutions in 2014. Second, in a few cases guarantees were called and the amounts were then recorded as general government debt. Third, some financial entities to which governments granted guarantees were recently reclassified inside the general government. This implied that the liabilities of the reclassified entities became part

[11] The immediate direct impact of state guarantees on government finances relates to the collection of fees that financial institutions usually have to pay in exchange for the state guarantee, which results in government revenues. However, the collected fees have been rather limited for most countries. For the euro area, they amounted to an annual average of less than 0.05% of GDP during 2008-14.

of general government debt, while the amount of government guarantees to these entities declined accordingly.

While most euro area countries provided explicit government guarantees, their outstanding amount varied across countries. By far the highest level of government guarantees in terms of GDP was observed in Ireland, which peaked at 190% of GDP in 2008, but substantially declined thereafter to around 13% of GDP by the end of 2014 (see Table 3). Government guarantees at end-2014 were still sizeable in Greece and to a lower degree in Belgium, while they had been almost fully phased out in the Netherlands and Austria. For the latter, the decrease in guarantees is explained by the fact that one financial institution is now classified inside the general government, which implies that the respective government guarantees are no longer recorded, whereas gross government debt has increased by the amount of the outstanding liabilities of this entity.

Table 3

Outstanding government guarantees

	Peak amount		End of 2014
	Percentage of GDP	Year	
BE	15.4	(2009)	9.3
DE	5.5	(2009)	0.8
IE	190.0	(2008)	12.9
GR	37.9	(2011)	28.5
ES	9.9	(2012)	5.2
FR	4.7	(2009)	2.2
IT	5.3	(2012)	1.4
CY	16.9	(2010)	5.7
LV	2.8	(2009)	0.2
LU	4.8	(2013)	4.6
NL	12.1	(2009)	0.0
AT	5.0	(2009)	0.0
PT	9.5	(2012)	3.6
SI	5.9	(2010)	0.3
EA	7.6	(2009)	2.7

Sources: ESCB and Eurostat.
Notes: Estonia, Lithuania, Malta, Slovakia and Finland are not included in the table as they did not provide government guarantees to financial institutions. The outstanding government guarantees do not include the guarantees on retail deposits and state guarantees for emergency liquidity assistance. The latter do not fall within the scope of the statistics on government guarantees

Several countries have experienced losses on government guarantees that were called. While for the euro area as a whole, the share of called guarantees seems to be rather limited, amounting to roughly 0.3% of total outstanding guarantees (less than 0.01% of GDP) in 2014, this figure might be somewhat misleading. In particular in cases of major restructuring of financial institutions, to which government guarantees were granted, the outstanding government guarantees decreased through the purchase of impaired assets previously guaranteed. In this respect, estimates of default probabilities can help form a view of the risk of government guarantees being called.[12]

[12] See "Fiscal implications of the global economic and financial crisis", *Occasional Paper Series*, No 269, IMF, 2009. Based on the estimation of the expected default frequency-implied credit default swap spreads, using November 2008 market data, outlays from state guarantees were estimated to be in the order of 1-3% of GDP in cumulative terms for 2009-13 for advanced economies.

In addition, many countries lifted the coverage threshold of their deposit insurance schemes. At the beginning of the crisis, the coverage of the national schemes was increased to a minimum level of €50,000 per depositor per bank. This threshold was then further raised to €100,000 as part of the revisions to the EU Directive on deposit guarantee schemes, which also led to the banks – rather than governments – having to cover the insurance. In contrast to the explicit guarantees provided for financial institutions' assets, the deposit guarantee schemes are not time-restricted. Thus, they do not phase out unless it is decided to lower the threshold covered by the insurance. If claims were to be made, they would in the first instance be covered by the insurance, so the impact on budget balances would likely be limited.

Moreover, government guarantees might imply higher fiscal costs in the long run as they could, like other financial sector interventions, create adverse incentives for financial institutions. In fact, those institutions benefiting from government guarantees and other interventions might be inclined to take more risks or postpone a speedy repair of their balance sheets (see IMF, 2015, op. cit.). Moreover, government guarantees might not be fully credible, in particular if they are sizeable while the country's fiscal space is limited, in which case governments would be unable to pay if the guarantees were to be called.[13] Credibility concerns, however, would make the resolution potentially more costly, as they would increase the likelihood of guarantees being called and the need for further measures in support of the financial sector. Thus, although government guarantees have almost no immediate direct impact on government finances, they might in the end result in higher direct fiscal costs.

Fiscal risks also relate to the newly created asset management vehicles for which fiscal costs could turn out higher than expected. More than half of the euro area countries created such vehicles in order to relieve the balance sheets of financial institutions by transferring impaired assets to these new entities at a reduced book value. Generally, asset management vehicles can be seen as an effective means for dealing with non-performing loans.[14] However, the potential fiscal risks related to asset management vehicles vary considerably across countries, depending on their specific characteristics in terms of government ownership, governments' responsibilities in case of losses and the underlying financing strategy of the entities.[15] In particular when asset management vehicles are classified within the general government sector, all their liabilities are part of general government debt, as for example in the case of the BAMC in Slovenia (see Table 4). The future impact on the budgetary balance depends on how future revenues and expenditures evolve. If, however, the asset management vehicles are classified within the financial

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13 Partly as a result of substantial government guarantees, rating agencies have downgraded a number of euro area countries, which led to an increase in their financing costs (see Stolz and Wedow, 2010, op. cit.).

14 See "Resolving the legacy of non-performing exposures in euro area banks", *Financial Stability Review*, ECB, May 2015.

15 Privately owned asset management vehicles usually impose larger haircuts on the acquired assets than publicly owned entities, which affects the profitability of the entities and the subsequent fiscal risks. The haircut applied to transferred assets has varied from 0% to more than 50%. See Gandrud, C. and Hallerberg, M., "Bad banks in the EU: the impact of Eurostat rules", *Working Paper Series*, No 15, Bruegel, 2014.

Table 4

Key features of selected asset management vehicles

	Year of creation	Government share	Financing (outstanding bond issuance)[1]	Assets[1] percentage of GDP		Haircuts on transferred assets[2]	Net loss (-)/ profit (+) in 2014
			percentage of GDP	total	o/w bank loans	per cent	percentage of GDP
NAMA (Ireland)	2009	49%	7.3	8.4	7.2	57	0.2
SAREB (Spain)	2012	45%	4.3	4.8	3.1	46/63	-0.1
BAMC (Slovenia)	2013	100%	4.2	4.7	3.8	71	0.1

Sources: Websites of the asset management vehicles, and Gandrud and Hallerberg (2014, op.cit.).
1) Data refer to outstanding amounts as at the end of 2014.
2) Average haircuts applied by selected asset management vehicles (see Gandrud and Hallerberg, 2014, op.cit.). As regards Ireland, the haircut relates to loans worth €74 billion in total transferred to NAMA by the five participating institutions (on payment of €31.8 billion as consideration) by the end of 2011. For Spain, the average haircut for the assets transferred was 46% in the case of loans and 63% in the case of foreclosed assets. For Slovenia, the figure given relates to assets transferred in 2013.

sector, the direct fiscal impact is likely to be more limited and mainly related to the risk that future dividends will not cover future losses, in which case the outstanding government guarantees would need to be called. In addition, ownership may be shared, as is the case with the asset management vehicles of Ireland (NAMA) and Spain (SAREB). Moreover, as demonstrated by NAMA and BAMC in 2014, asset management vehicles can also generate profits.

5 Conclusions

During the financial crisis, most euro area governments provided financial assistance to financial institutions with the aim of safeguarding financial stability and preventing a credit crunch. Accumulated gross financial sector assistance measures amounted to 8% of euro area GDP, of which only 3.3% has been recovered. The fiscal costs of the financial assistance measures over the period 2008-14 caused the euro area budget balance and debt to worsen by a cumulated 1.8% and 4.8% of GDP respectively. For the euro area as a whole, the financial sector support explains only a small part of the sharp increase in general government debt since the start of the crisis, while for some individual countries the impact on government debt has been substantial. Euro area countries used a variety of support measures, including bank recapitalisations, the provision of government loans, the acquisition of impaired assets, bank nationalisations and the granting of government guarantees. These measures impact recorded government debt and deficits to different extents. The size of these assistance measures is very heterogeneous across euro area countries. The interventions' overall recovery rate is on average relatively low by international comparison. However, the recovery process is still ongoing. To complete the picture, it is also important to take the fiscal risks related to financial sector support into account, which mainly include the remaining government guarantees granted (amounting to 2.7% of euro area GDP at the end of 2014) and the potential losses (or possible holding gains) of asset management vehicles.

Looking ahead, it is important to secure financial stability while limiting taxpayers' involvement. This requires in the first instance reducing the likelihood that financial institutions will face severe balance sheet problems. Much has already

been achieved in tightening banking legislation, strengthening banking supervision, and should financial institutions indeed face problems, having the appropriate resolution instruments at hand. One important way to reduce the potential fiscal costs of financial assistance measures is to ensure an appropriate contribution by private shareholders and bondholders. Indeed, the EU Capital Requirements Regulation and Capital Requirements Directive IV and the newly created Single Supervisory Mechanism will enhance the resilience of the banking sector and should help prevent the build-up of severe problems on banks' balance sheets which could ultimately result in a severe banking crisis. In addition, the EU Bank Recovery and Resolution Directive and the Single Resolution Mechanism will ensure private sector involvement ahead of government assistance. Taken together, these key pillars of the European banking union should ensure that the risk of additional taxpayer support gradually diminishes.

Statistics

Contents

Further information

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

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 [1] (period-on-period percentage changes)						CPI (annual percentage changes)						
	G20	United States	United Kingdom	Japan	China	Memo item: euro area	OECD countries		United States	United Kingdom (HICP)	Japan	China	Memo item: euro area [2] (HICP)
							Total	excluding food and energy					
	1	2	3	4	5	6	7	8	9	10	11	12	13
2012	3.0	2.2	0.7	1.7	7.8	-0.8	2.3	1.8	2.1	2.8	0.0	2.6	2.5
2013	3.0	1.5	1.7	1.6	7.7	-0.4	1.6	1.6	1.5	2.6	0.4	2.6	1.4
2014	3.3	2.4	3.0	-0.1	7.4	0.8	1.7	1.8	1.6	1.5	2.7	2.0	0.4
2014 Q3	0.9	1.1	0.7	-0.3	1.9	0.2	1.8	1.9	1.8	1.5	3.4	2.0	0.4
Q4	0.8	0.5	0.8	0.3	1.5	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	0.4	0.6	1.7	-0.1	0.1	2.3	1.2	-0.3
Q2	.	0.9	0.7	-0.4	.	0.3	0.5	1.6	0.0	0.0	0.5	1.4	0.2
2015 Mar.	-	-	-	-	-	-	0.6	1.7	-0.1	0.0	2.3	1.4	-0.1
Apr.	-	-	-	-	-	-	0.4	1.6	-0.2	-0.1	0.6	1.5	0.0
May	-	-	-	-	-	-	0.6	1.6	0.0	0.1	0.5	1.2	0.3
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. [3]	-	-	-	-	-	-	.	.	.	.	.	.	0.2

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 [1]		
	Composite Purchasing Managers' Index						Global Purchasing Managers' Index [2]					
	Global [2]	United States	United Kingdom	Japan	China	Memo item: euro area	Manufacturing	Services	New export orders	Global	Advanced economies	Emerging market economies
	1	2	3	4	5	6	7	8	9	10	11	12
2012	52.6	54.4	52.0	49.9	50.9	47.2	50.2	51.9	48.5	3.7	2.5	4.4
2013	53.3	54.8	56.8	52.6	51.5	49.7	52.3	52.7	50.7	3.2	-0.2	5.2
2014	54.2	57.3	57.9	50.9	51.1	52.7	53.4	54.1	51.5	3.5	3.6	3.5
2014 Q3	55.6	59.8	58.5	51.3	52.2	52.8	53.6	56.2	51.6	2.7	1.4	3.4
Q4	53.3	55.6	56.3	50.9	51.4	51.5	52.4	53.6	50.4	1.5	1.8	1.3
2015 Q1	53.9	56.9	57.4	50.4	51.5	53.3	52.8	54.3	50.3	-2.7	1.7	-5.0
Q2	53.4	55.9	57.2	51.3	51.1	53.9	50.9	54.2	49.3	-1.1	-1.2	-1.0
2015 Mar.	54.9	59.2	58.8	49.4	51.8	54.0	52.9	55.5	49.8	-2.7	1.7	-5.0
Apr.	54.1	57.0	58.4	50.7	51.3	53.9	51.0	55.1	49.1	-1.9	0.9	-3.4
May	53.4	56.0	55.8	51.6	51.2	53.6	51.2	54.0	48.7	-1.9	-0.3	-2.8
June	52.7	54.6	57.4	51.5	50.6	54.2	50.5	53.4	50.0	-1.1	-1.2	-1.0
July	53.1	55.7	56.6	51.5	50.2	53.9	50.8	53.9	49.1	.	.	.
Aug.	.	55.0	.	.	.	54.1	50.0	.	48.9	.	.	.

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 [1]					United States	Japan
	Overnight deposits (EONIA)	1-month deposits (EURIBOR)	3-month deposits (EURIBOR)	6-month deposits (EURIBOR)	12-month deposits (EURIBOR)	3-month deposits (LIBOR)	3-month deposits (LIBOR)
	1	2	3	4	5	6	7
2012	0.23	0.33	0.57	0.83	1.11	0.43	0.19
2013	0.09	0.13	0.22	0.34	0.54	0.27	0.15
2014	0.09	0.13	0.21	0.31	0.48	0.23	0.13
2015 Feb.	-0.04	0.00	0.05	0.13	0.26	0.26	0.10
Mar.	-0.05	-0.01	0.03	0.10	0.21	0.27	0.10
Apr.	-0.07	-0.03	0.00	0.07	0.18	0.28	0.10
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

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 [1], [2]					Euro area [1], [2]	United States	United Kingdom	Euro area [1], [2]			
	3 months	1 year	2 years	5 years	10 years	10 years - 1 year	10 years - 1 year	10 years - 1 year	1 year	2 years	5 years	10 years
	1	2	3	4	5	6	7	8	9	10	11	12
2012	0.06	-0.04	-0.01	0.58	1.72	1.76	1.61	1.48	-0.09	0.17	1.84	3.50
2013	0.08	0.09	0.25	1.07	2.24	2.15	2.91	2.66	0.18	0.67	2.53	3.88
2014	-0.02	-0.09	-0.12	0.07	0.65	0.74	1.95	1.45	-0.15	-0.11	0.58	1.77
2015 Feb.	-0.21	-0.25	-0.20	-0.08	0.37	0.62	1.80	1.45	-0.16	-0.17	0.31	1.19
Mar.	-0.21	-0.25	-0.22	-0.08	0.26	0.51	1.69	1.19	-0.20	-0.20	0.29	0.81
Apr.	-0.28	-0.26	-0.21	0.03	0.42	0.68	1.81	1.39	-0.22	-0.08	0.46	1.05
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

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											
	Broad index	50	Basic materials	Consumer services	Consumer goods	Oil and gas	Financials	Industrials	Technology	Utilities	Telecoms	Health care	Standard & Poor's 500	Nikkei 225
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2012	239.7	2,411.9	503.7	151.9	385.7	307.2	122.1	330.2	219.2	235.9	268.5	523.3	1,379.4	9,102.6
2013	281.9	2,794.0	586.3	195.0	468.2	312.8	151.5	402.7	274.1	230.6	253.4	629.4	1,643.8	13,577.9
2014	318.7	3,145.3	644.3	216.6	510.6	335.5	180.0	452.9	310.8	279.2	306.7	668.1	1,931.4	15,460.4
2015 Feb.	353.2	3,453.8	731.3	254.2	624.8	314.0	185.5	498.7	361.1	286.9	376.8	768.6	2,082.2	18,053.2
Mar.	373.9	3,655.3	787.2	268.9	666.9	313.5	198.9	524.1	386.2	292.9	389.2	824.6	2,080.4	19,197.6
Apr.	383.3	3,733.8	798.2	275.7	678.6	331.0	204.9	535.7	394.2	299.5	395.0	861.4	2,094.9	19,767.9
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

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					
	Overnight	Redeemable at notice of up to 3 months	With an agreed maturity of:				By initial period of rate fixation		APRC [3)]		By initial period of rate fixation				APRC [3)]	Composite cost-of-borrowing indicator
			Up to 2 years	Over 2 years			Floating rate and up to 1 year	Over 1 year			Floating rate and up to 1 year	Over 1 and up to 5 years	Over 5 and up to 10 years	Over 10 years		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
2014 Aug.	0.22	0.96	1.20	1.66	7.30	17.00	5.51	6.71	7.05	3.06	2.55	2.74	2.71	2.86	2.96	2.73
Sep.	0.21	0.95	1.17	1.70	7.37	17.06	5.35	6.67	6.99	2.94	2.49	2.69	2.61	2.82	2.88	2.66
Oct.	0.20	0.94	1.09	1.65	7.20	16.96	5.38	6.59	6.98	2.89	2.42	2.63	2.54	2.78	2.81	2.60
Nov.	0.20	0.91	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	1.58	7.14	17.10	5.07	6.21	6.53	2.75	2.42	2.52	2.53	2.68	2.76	2.49
2015 Jan.	0.19	0.86	1.01	1.94	7.18	17.12	5.25	6.42	6.73	2.76	2.30	2.55	2.43	2.44	2.68	2.40
Feb.	0.18	0.84	0.97	1.51	7.13	17.05	5.18	6.47	6.82	2.79	2.07	2.47	2.32	2.49	2.58	2.37
Mar.	0.17	0.82	0.89	1.37	7.13	17.05	5.16	6.16	6.49	2.72	2.11	2.45	2.29	2.41	2.55	2.30
Apr.	0.16	0.79	0.87	1.15	7.03	17.01	4.89	6.13	6.42	2.66	2.01	2.38	2.17	2.36	2.49	2.24
May	0.16	0.82	0.83	1.08	6.98	17.08	5.04	6.29	6.60	2.67	2.05	2.33	2.09	2.29	2.45	2.17
June	0.15	0.78	0.77	1.18	6.97	17.02	4.88	6.14	6.45	2.59	2.02	2.25	2.12	2.31	2.48	2.18
July [p]	0.15	0.74	0.67	1.10	6.82	17.04	5.09	6.22	6.50	2.60	2.04	2.26	2.21	2.36	2.56	2.22

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
	Overnight	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 Aug.	0.28	0.50	1.56	3.74	4.17	4.27	3.55	2.56	3.20	2.85	1.80	2.42	2.54	2.71
Sep.	0.26	0.51	1.46	3.72	4.01	4.03	3.53	2.46	3.01	2.77	1.83	2.38	2.42	2.68
Oct.	0.25	0.50	1.37	3.64	4.00	3.94	3.53	2.43	2.90	2.71	1.75	2.25	2.46	2.60
Nov.	0.25	0.44	1.16	3.57	3.82	3.86	3.42	2.38	2.84	2.63	1.74	2.17	2.27	2.51
Dec.	0.24	0.43	1.26	3.49	3.68	3.75	3.26	2.35	2.78	2.50	1.74	2.16	2.13	2.46
2015 Jan.	0.23	0.44	1.19	3.49	3.78	3.85	2.98	2.31	2.82	2.05	1.67	2.03	2.20	2.46
Feb.	0.22	0.35	1.04	3.43	3.57	3.72	3.12	2.24	2.71	2.39	1.52	1.99	2.14	2.37
Mar.	0.21	0.32	1.07	3.39	3.45	3.65	3.13	2.16	2.67	2.33	1.63	2.11	2.02	2.37
Apr.	0.19	0.30	0.89	3.34	3.46	3.58	2.95	2.18	2.64	2.26	1.62	1.93	2.03	2.33
May	0.18	0.30	0.91	3.28	3.37	3.51	2.96	2.15	2.46	2.23	1.57	1.85	2.04	2.27
June	0.18	0.31	1.10	3.25	3.19	3.48	2.91	2.09	2.33	2.23	1.60	1.91	2.04	2.26
July [p]	0.17	0.31	0.87	3.19	3.27	3.60	2.86	2.07	2.36	2.22	1.51	1.73	2.05	2.19

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 [1]						
	Total	MFIs (including Eurosystem)	Non-MFI corporations			General government		Total	MFIs (including Eurosystem)	Non-MFI corporations			General government	
			Financial corporations other than MFIs	FVCs	Non-financial corporations	Central government	Other general government			Financial corporations other than MFIs	FVCs	Non-financial corporations	Central government	Other general government
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Short-term													
2012	1,426	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	1,312	545	120	-	59	538	50	410	219	34	-	39	93	25
2015 Jan.	1,388	599	127	-	66	543	54	378	186	28	-	33	94	36
Feb.	1,400	606	134	-	70	534	56	351	162	37	-	30	83	39
Mar.	1,420	604	137	-	71	543	66	373	162	45	-	35	89	42
Apr.	1,410	600	134	-	80	533	62	350	158	37	-	38	82	35
May	1,396	591	135	-	80	532	59	326	140	36	-	36	80	33
June	1,329	560	121	-	75	517	56	298	126	30	-	34	77	32
	Long-term													
2012	15,205	4,814	3,166	-	842	5,758	624	255	98	45	-	16	84	12
2013	15,109	4,405	3,087	-	921	6,069	627	222	70	39	-	16	89	9
2014	15,120	4,040	3,158	-	994	6,286	643	219	65	43	-	16	85	10
2015 Jan.	15,222	4,058	3,201	-	1,004	6,316	642	261	80	48	-	8	113	13
Feb.	15,266	4,038	3,209	-	1,017	6,356	646	207	64	21	-	18	86	17
Mar.	15,355	4,026	3,251	-	1,034	6,399	644	285	84	62	-	17	112	10
Apr.	15,276	4,000	3,213	-	1,034	6,389	641	220	70	33	-	21	87	10
May	15,356	3,982	3,235	-	1,037	6,462	640	185	49	41	-	6	85	4
June	15,344	3,938	3,255	-	1,032	6,485	634	207	69	34	-	13	87	5

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				
	1	2	3	4	5	6	7	8	9	10	11
	Oustanding amount										
2012	16,631.5	5,395.8	3,312.1	.	917.0	6,316.2	690.4	4,597.1	404.7	617.9	3,574.5
2013	16,355.8	4,881.7	3,208.6	.	987.9	6,597.8	679.8	5,638.0	569.1	751.0	4,317.9
2014	16,432.4	4,585.5	3,277.8	.	1,052.3	6,823.7	693.1	5,949.4	591.0	787.9	4,570.6
2015 Jan.	16,609.5	4,657.1	3,327.9	.	1,069.7	6,859.1	695.6	6,423.2	573.0	836.0	5,014.3
Feb.	16,665.3	4,643.5	3,343.0	.	1,086.8	6,890.6	701.5	6,855.9	650.5	899.7	5,305.7
Mar.	16,775.5	4,630.4	3,388.6	.	1,104.8	6,941.6	710.1	7,056.1	688.7	933.3	5,434.0
Apr.	16,686.7	4,600.2	3,347.4	.	1,113.6	6,921.8	703.6	6,960.1	683.8	908.3	5,368.0
May	16,751.9	4,572.2	3,369.7	.	1,116.3	6,994.0	699.7	6,983.6	675.3	901.6	5,406.7
June	16,672.3	4,498.3	3,375.7	.	1,106.5	7,001.4	690.4	6,803.4	664.2	879.4	5,259.8
	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	.	8.1	4.5	-1.1	0.9	7.2	0.2	0.3
2014	-0.7	-7.8	0.1	.	4.9	3.1	1.2	1.5	7.2	1.6	0.8
2015 Jan.	-0.7	-7.8	0.6	.	3.0	3.2	1.8	1.5	6.9	1.5	0.7
Feb.	-0.9	-7.6	0.6	.	4.4	2.4	0.7	1.4	6.8	1.2	0.7
Mar.	-0.2	-7.1	2.3	.	5.3	2.6	1.8	1.5	6.8	1.4	0.8
Apr.	-0.3	-6.8	1.7	.	6.7	2.1	1.9	1.5	6.8	1.1	0.8
May	-0.8	-7.2	0.1	.	5.8	2.1	1.4	1.3	5.8	1.2	0.7
June	-1.1	-7.7	0.8	.	4.6	1.6	-0.8	1.0	4.1	0.6	0.7

Source: ECB.

2 Financial developments

2.8 Effective exchange rates [1)]

(period averages; index: 1999 Q1=100)

	EER-19						EER-38	
	Nominal	Real CPI	Real PPI	Real GDP deflator	Real ULCM [2)]	Real ULCT	Nominal	Real CPI
	1	2	3	4	5	6	7	8
2012	97.6	95.0	93.3	88.3	99.7	95.8	107.0	92.5
2013	101.2	98.2	96.7	91.4	102.5	99.1	111.9	95.6
2014	101.8	97.9	96.7	91.6	102.8	100.7	114.7	96.1
2014 Q3	101.3	97.2	96.2	90.8	102.2	100.3	113.7	95.1
Q4	99.0	94.9	94.3	89.1	99.7	98.1	112.3	93.5
2015 Q1	93.0	89.2	89.4	84.2	93.7	92.6	106.4	88.3
Q2	91.2	87.5	88.2	.	.	.	104.4	86.3
2015 Mar.	90.6	86.9	87.4	-	-	-	103.8	86.0
Apr.	89.7	86.1	86.9	-	-	-	102.4	84.8
May	91.6	87.9	88.6	-	-	-	104.7	86.6
June	92.3	88.5	89.1	-	-	-	106.0	87.6
July	91.3	87.5	88.3	-	-	-	105.1	86.7
Aug.	93.0	89.0	90.0	-	-	-	108.1	89.1
Percentage change versus previous month								
2015 Aug.	1.8	1.8	1.9	-	-	-	2.9	2.8
Percentage change versus previous year								
2015 Aug.	-8.4	-8.7	-6.6	-	-	-	-5.2	-6.6

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-19 trading partner group.

2.9 Bilateral exchange rates

(period averages; units of national currency per euro)

	Chinese renminbi	Croatian kuna	Czech koruna	Danish krone	Hungarian forint	Japanese yen	Polish zloty	Pound sterling	Romanian leu	Swedish krona	Swiss franc	US Dollar
	1	2	3	4	5	6	7	8	9	10	11	12
2012	8.105	7.522	25.149	7.444	289.249	102.492	4.185	0.811	4.4593	8.704	1.205	1.285
2013	8.165	7.579	25.980	7.458	296.873	129.663	4.197	0.849	4.4190	8.652	1.231	1.328
2014	8.186	7.634	27.536	7.455	308.706	140.306	4.184	0.806	4.4437	9.099	1.215	1.329
2014 Q3	8.173	7.623	27.619	7.452	312.242	137.749	4.175	0.794	4.4146	9.205	1.212	1.326
Q4	7.682	7.665	27.630	7.442	308.527	142.754	4.211	0.789	4.4336	9.272	1.205	1.250
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
2015 Mar.	6.762	7.647	27.379	7.459	303.445	130.410	4.126	0.724	4.4339	9.245	1.061	1.084
Apr.	6.686	7.590	27.439	7.466	299.429	128.935	4.018	0.721	4.4155	9.325	1.038	1.078
May	6.916	7.559	27.397	7.461	306.327	134.748	4.081	0.721	4.4477	9.304	1.039	1.115
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
Percentage change versus previous month												
2015 Aug.	3.5	-0.4	-0.2	0.0	0.0	1.1	1.0	1.0	-0.4	1.4	2.7	1.3
Percentage change versus previous year												
2015 Aug.	-13.8	-1.0	-2.8	0.1	-0.7	0.0	0.1	-10.4	0.0	3.6	-11.1	-16.3

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 [1]			Direct investment		Portfolio investment		Net financial derivatives	Other investment		Reserve assets	Memo: Gross external debt
	Assets	Liabilities	Net	Assets	Liabilities	Assets	Liabilities		Assets	Liabilities		
	1	2	3	4	5	6	7	8	9	10	11	12
	Outstanding amounts (international investment position)											
2014 Q2	18,472.2	19,741.3	-1,269.2	7,542.8	5,630.5	5,960.8	9,449.4	-70.3	4,532.2	4,661.5	506.8	11,426.2
Q3	19,220.1	20,468.0	-1,247.8	7,797.7	5,900.7	6,306.2	9,713.4	-55.7	4,652.3	4,853.9	519.7	11,836.4
Q4	19,351.7	20,748.8	-1,397.1	7,568.9	5,998.8	6,509.3	9,915.2	-43.6	4,782.7	4,834.7	534.4	11,869.4
2015 Q1	21,087.3	22,381.9	-1,294.5	8,204.4	6,331.7	7,270.9	10,995.3	-21.0	5,029.9	5,054.9	603.1	12,632.8
	Outstanding amounts as a percentage of GDP											
2015 Q1	207.6	220.4	-12.7	80.8	62.3	71.6	108.3	-0.2	49.5	49.8	5.9	124.4
	Transactions											
2014 Q3	209.6	119.2	90.5	69.1	44.7	104.1	19.8	20.3	17.5	54.7	-1.3	-
Q4	57.8	-3.2	61.0	56.1	73.5	93.2	-2.7	10.2	-104.7	-74.0	2.9	-
2015 Q1	504.8	513.7	-8.8	159.7	74.7	129.0	260.3	27.3	182.8	178.7	6.0	-
Q2	62.2	-23.6	85.7	62.3	52.4	133.5	13.8	7.5	-138.8	-89.7	-2.4	-
2015 Jan.	337.8	429.2	-91.4	56.5	67.3	53.8	133.7	7.1	218.8	228.2	1.5	-
Feb.	93.9	107.5	-13.6	51.1	18.9	29.9	76.0	9.7	-1.1	12.6	4.2	-
Mar.	73.2	-23.0	96.2	52.1	-11.5	45.3	50.5	10.5	-35.0	-62.0	0.3	-
Apr.	111.8	121.5	-9.6	15.4	24.1	33.2	-19.5	5.8	61.3	116.8	-3.9	-
May	22.8	-0.5	23.3	31.1	13.2	74.6	54.2	4.3	-85.6	-67.9	-1.6	-
June	-72.5	-144.5	72.0	15.8	15.0	25.7	-21.0	-2.5	-114.6	-138.6	3.1	-
	12-month cumulated transactions											
2015 June	834.4	606.1	228.4	347.3	245.2	459.8	291.1	65.3	-43.3	69.7	5.2	-
	12-month cumulated transactions as a percentage of GDP											
2015 June	8.2	6.0	2.2	3.4	2.4	4.5	2.9	0.6	-0.4	0.7	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		
		Total	Private consumption	Government consumption	Gross fixed capital formation				Changes in inventories	Total	Exports	Imports
						Total construction	Total machinery	Intellectual property products				
	1	2	3	4	5	6	7	8	9	10	11	12
	Current prices (EUR billions)											
2012	9,840.1	9,581.2	5,544.4	2,065.4	1,979.3	1,035.7	580.8	358.0	-7.9	258.9	4,288.9	4,030.0
2013	9,931.7	9,598.4	5,571.9	2,094.9	1,940.4	1,006.3	568.9	360.3	-8.8	333.2	4,362.7	4,029.5
2014	10,103.5	9,729.9	5,651.1	2,127.7	1,970.9	1,001.8	591.8	372.2	-19.7	373.5	4,494.4	4,120.8
2014 Q2	2,520.6	2,428.2	1,409.4	530.1	490.8	249.4	147.4	92.7	-2.1	92.4	1,118.1	1,025.6
Q3	2,531.5	2,437.5	1,416.6	534.2	493.2	249.1	149.2	93.7	-6.5	94.0	1,135.0	1,041.0
Q4	2,544.9	2,444.2	1,423.4	534.3	496.4	251.0	150.0	94.1	-9.8	100.7	1,142.1	1,041.4
2015 Q1	2,564.9	2,458.3	1,425.2	538.8	500.1	252.1	151.9	94.8	-5.8	106.6	1,144.3	1,037.6
	as a percentage of GDP											
2014	100.0	96.3	55.9	21.1	19.5	9.9	5.9	3.7	-0.2	3.7	-	-
	Chain-linked volumes (prices for the previous year)											
	quarter-on-quarter percentage changes											
2014 Q3	0.2	0.3	0.5	0.2	0.1	-0.7	1.1	0.8	-	-	1.4	1.7
Q4	0.4	0.4	0.4	0.1	0.4	0.7	0.0	0.2	-	-	0.8	0.8
2015 Q1	0.4	0.6	0.5	0.6	0.8	0.6	1.3	0.5	-	-	0.6	1.2
Q2	0.3	.	.	.	.	.	.	.	-	-	.	.
	annual percentage changes											
2012	-0.8	-2.3	-1.3	-0.1	-3.7	-4.2	-5.1	1.2	-	-	2.7	-0.7
2013	-0.4	-0.7	-0.6	0.2	-2.4	-3.3	-1.7	-0.3	-	-	2.0	1.3
2014	0.8	0.9	1.0	0.6	1.2	-1.3	4.5	2.8	-	-	3.8	4.1
2014 Q3	0.8	0.6	1.0	0.6	0.6	-2.9	4.8	3.5	-	-	4.1	3.9
Q4	0.9	1.0	1.5	0.7	0.5	-1.5	2.5	2.7	-	-	4.1	4.6
2015 Q1	1.0	1.3	1.7	1.1	0.8	-1.3	3.4	2.2	-	-	4.2	5.1
Q2	1.2	.	.	.	.	.	.	.	-	-	.	.
	contributions to quarter-on-quarter percentage changes in GDP; percentage points											
2014 Q3	0.2	0.3	0.3	0.0	0.0	-0.1	0.1	0.0	-0.1	-0.1	-	-
Q4	0.4	0.3	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	-	-
2015 Q1	0.4	0.6	0.3	0.1	0.2	0.1	0.1	0.0	0.1	-0.2	-	-
Q2	0.3	.	.	.	.	.	.	.	.	.	-	-
	contributions to annual percentage changes in GDP; percentage points											
2012	-0.8	-2.3	-0.7	0.0	-0.8	-1.8	-1.3	0.2	-0.8	1.4	-	-
2013	-0.4	-0.7	-0.4	0.0	-0.5	-1.4	-0.4	0.0	0.1	0.4	-	-
2014	0.8	0.8	0.5	0.1	0.2	-0.5	1.0	0.4	-0.1	0.0	-	-
2014 Q3	0.8	0.6	0.6	0.1	0.1	-0.3	0.3	0.1	-0.2	0.2	-	-
Q4	0.9	0.9	0.8	0.2	0.1	-0.2	0.1	0.1	-0.1	-0.1	-	-
2015 Q1	1.0	1.2	0.9	0.2	0.2	-0.1	0.2	0.1	-0.1	-0.2	-	-
Q2	1.2	.	.	.	.	.	.	.	.	.	-	-

Sources: Eurostat and ECB calculations.

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
	Current prices (EUR billions)											
2012	8,845.3	151.3	1,728.4	467.2	1,675.9	410.3	439.1	1,016.3	924.6	1,717.9	314.4	994.8
2013	8,924.2	154.5	1,740.7	460.1	1,684.8	407.2	440.6	1,032.5	937.1	1,748.0	318.7	1,007.5
2014	9,068.0	148.9	1,763.9	461.3	1,709.3	410.9	450.0	1,054.0	960.2	1,784.1	325.2	1,035.5
2014 Q2	2,261.4	38.0	440.2	115.0	425.5	102.6	113.2	262.9	239.0	444.1	80.9	259.3
Q3	2,272.1	36.9	442.6	114.6	428.6	102.9	112.8	263.8	240.9	447.6	81.6	259.4
Q4	2,283.3	35.8	445.7	115.7	431.6	103.2	112.1	265.6	242.9	448.7	82.0	261.6
2015 Q1	2,306.1	36.6	449.7	116.7	437.6	103.9	113.8	266.9	245.2	453.1	82.5	258.9
	as a percentage of value added											
2014	100.0	1.6	19.5	5.1	18.9	4.5	5.0	11.6	10.6	19.7	3.6	-
	Chain-linked volumes (prices for the previous year)											
	quarter-on-quarter percentage changes											
2014 Q2	0.0	-0.1	0.0	-1.6	-0.1	0.6	-0.3	0.3	0.4	0.1	-0.2	1.1
Q3	0.2	0.9	0.0	-1.0	0.4	0.8	0.4	0.2	0.6	0.1	0.6	-0.4
Q4	0.2	-2.1	0.2	0.7	0.5	0.1	-0.2	0.3	0.4	0.2	0.1	1.3
2015 Q1	0.4	1.4	0.3	0.5	0.9	0.7	0.5	0.1	0.7	0.1	0.1	-0.2
	annual percentage changes											
2012	-0.6	-3.0	-0.5	-5.9	-1.3	2.5	0.7	0.0	-0.9	0.2	-0.6	-2.6
2013	-0.3	2.5	-0.5	-2.9	-0.5	-0.1	-1.7	1.0	0.2	0.0	-0.4	-1.2
2014	0.9	3.7	0.4	-0.7	1.3	1.8	-0.5	1.3	1.5	0.7	0.7	0.7
2014 Q2	0.8	4.3	0.3	-0.6	1.1	1.9	-0.6	1.3	1.2	0.8	0.4	0.4
Q3	0.8	4.8	0.4	-1.9	1.1	2.2	-0.1	1.3	1.5	0.7	0.6	0.3
Q4	0.8	0.2	0.1	-1.3	1.3	1.6	0.2	1.3	2.0	0.5	0.8	1.6
2015 Q1	0.9	0.1	0.6	-1.5	1.7	2.2	0.5	0.9	2.0	0.5	0.6	1.9
	contributions to quarter-on-quarter percentage changes in value added; percentage points											
2014 Q2	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Q3	0.2	0.0	0.0	-0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	-
Q4	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-
2015 Q1	0.4	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	-
	contributions to annual percentage changes in value added; percentage points											
2012	-0.6	0.0	-0.1	-0.3	-0.3	0.1	0.0	0.0	-0.1	0.0	0.0	-
2013	-0.3	0.0	-0.1	-0.2	-0.1	0.0	-0.1	0.1	0.0	0.0	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 Q2	0.8	0.1	0.1	0.0	0.2	0.1	0.0	0.2	0.1	0.2	0.0	-
Q3	0.8	0.1	0.1	-0.1	0.2	0.1	0.0	0.2	0.2	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	0.9	0.0	0.1	-0.1	0.3	0.1	0.0	0.1	0.2	0.1	0.0	-

Sources: Eurostat and ECB calculations.

3 Economic activity

3.3 Employment [1)]

(quarterly data seasonally adjusted; annual data unadjusted)

	Total	By employment status		By economic activity									
		Employees	Self-employed	Agriculture, forestry and fishing	Manufacturing, energy and utilities	Construction	Trade, transport, accommodation and food services	Information and communication	Finance and insurance	Real estate	Professional, business and support services	Public administration, education, health and social work	Arts, entertainment and other services
	1	2	3	4	5	6	7	8	9	10	11	12	13
Persons employed													
as a percentage of total persons employed													
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	12.8	24.0	7.1
2014	100.0	85.1	14.9	3.4	15.2	6.0	24.9	2.7	2.7	1.0	13.0	24.0	7.1
annual percentage changes													
2012	-0.5	-0.5	-0.1	-1.1	-0.6	-4.5	-0.6	1.0	-0.5	0.2	0.7	-0.1	0.6
2013	-0.7	-0.7	-0.8	-1.2	-1.5	-4.3	-0.5	-0.1	-1.2	-0.9	0.2	0.0	0.0
2014	0.6	0.8	-0.4	0.9	-0.1	-1.8	0.8	1.1	-0.9	0.7	2.0	0.7	0.6
2014 Q2	0.6	0.8	-0.5	0.7	-0.1	-1.9	0.9	0.9	-1.3	0.6	2.1	0.7	0.2
Q3	0.7	1.0	-0.5	0.5	0.1	-1.3	1.0	1.3	-0.9	0.9	2.1	0.7	0.7
Q4	0.9	1.1	-0.5	0.6	0.3	-1.5	0.9	1.4	-0.6	0.9	2.5	0.7	1.8
2015 Q1	0.8	1.0	-0.2	0.1	0.4	-0.1	1.1	1.2	-0.7	1.5	2.5	0.5	0.4
Hours worked													
as a percentage of total hours worked													
2012	100.0	80.0	20.0	4.4	15.7	7.2	25.8	2.8	2.8	1.0	12.4	21.5	6.3
2013	100.0	80.0	20.0	4.4	15.7	6.9	25.9	2.8	2.7	1.0	12.5	21.7	6.4
2014	100.0	80.2	19.8	4.4	15.6	6.7	25.9	2.8	2.7	1.0	12.7	21.8	6.3
annual percentage changes													
2012	-1.8	-1.8	-1.5	-2.1	-2.2	-7.0	-2.1	0.5	-1.3	-0.8	-0.5	-0.6	-0.4
2013	-1.3	-1.3	-1.2	-1.5	-1.7	-5.6	-1.1	-0.3	-1.6	-1.9	-0.5	-0.5	-0.8
2014	0.6	0.9	-0.3	0.8	0.4	-1.4	0.8	1.0	-1.3	0.2	2.0	0.9	0.2
2014 Q2	0.4	0.7	-0.8	0.2	-0.4	-1.9	0.7	0.9	-2.0	0.0	1.9	0.9	0.1
Q3	0.6	1.0	-0.9	0.3	0.3	-1.6	0.9	1.0	-1.5	-0.2	2.0	0.8	0.1
Q4	1.1	1.3	0.2	1.8	0.9	-0.7	1.0	1.4	-1.3	1.3	2.7	0.9	1.6
2015 Q1	0.6	0.8	-0.3	1.2	0.4	-0.2	0.6	0.8	-1.3	2.0	2.1	0.4	0.5
Hours worked per person employed													
annual percentage changes													
2012	-1.3	-1.3	-1.4	-1.0	-1.6	-2.6	-1.5	-0.5	-0.7	-1.0	-1.1	-0.6	-1.0
2013	-0.6	-0.7	-0.4	-0.4	-0.2	-1.3	-0.6	-0.3	-0.4	-1.0	-0.8	-0.5	-0.8
2014	0.1	0.1	0.1	-0.1	0.5	0.3	0.0	-0.1	-0.3	-0.5	-0.1	0.2	-0.4
2014 Q2	-0.2	-0.1	-0.3	-0.5	-0.3	0.0	-0.2	0.0	-0.7	-0.7	-0.3	0.1	-0.1
Q3	-0.1	0.0	-0.3	-0.2	0.2	-0.3	-0.1	-0.3	-0.6	-1.1	-0.1	0.1	-0.6
Q4	0.2	0.2	0.6	1.1	0.6	0.7	0.1	0.0	-0.7	0.3	0.2	0.2	-0.2
2015 Q1	-0.2	-0.1	0.0	1.1	0.0	-0.1	-0.5	-0.4	-0.5	0.5	-0.4	-0.1	0.2

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 [1]	Under-employ-ment, % of labour force [1]	Unemployment											Job vacancy rate [2]
			Total		Long-term unemploy-ment, % of labour force [1]	By age				By gender				
						Adult		Youth		Male		Female		
			Millions	% of labour force		Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	% of total posts
	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	3.9	18.187	11.4	5.2	14.630	10.1	3.557	23.6	9.758	11.3	8.429	11.5	1.6
2013	159.334	4.6	19.233	12.0	5.9	15.640	10.8	3.593	24.3	10.307	11.9	8.926	12.1	1.5
2014	160.315	4.6	18.625	11.6	6.1	15.213	10.4	3.412	23.7	9.917	11.5	8.708	11.8	1.7
2014 Q3	160.475	4.4	18.544	11.6	5.9	15.148	10.4	3.397	23.6	9.817	11.3	8.726	11.8	1.6
Q4	160.966	4.6	18.402	11.5	6.1	15.081	10.3	3.322	23.2	9.753	11.3	8.649	11.7	1.8
2015 Q1	160.084	4.7	17.981	11.2	5.9	14.741	10.1	3.240	22.7	9.560	11.1	8.422	11.4	1.7
Q2	.	.	17.759	11.1	.	14.589	10.0	3.170	22.3	9.402	10.9	8.356	11.3	.
2015 Feb.	-	-	17.956	11.2	-	14.720	10.1	3.236	22.7	9.542	11.0	8.415	11.4	-
Mar.	-	-	17.912	11.2	-	14.688	10.1	3.224	22.6	9.513	11.0	8.399	11.4	-
Apr.	-	-	17.790	11.1	-	14.594	10.0	3.196	22.4	9.412	10.9	8.378	11.3	-
May	-	-	17.741	11.1	-	14.588	10.0	3.153	22.2	9.417	10.9	8.323	11.2	-
June	-	-	17.745	11.1	-	14.584	10.0	3.161	22.3	9.377	10.9	8.368	11.3	-
July	-	-	17.532	10.9	-	14.439	9.9	3.093	21.9	9.265	10.7	8.267	11.2	-

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						Con-struction produc-tion	ECB indicator on industrial new orders	Retail sales				New passenger car regis-trations
	Total (excluding construction)		Main Industrial Groupings						Total	Food, beverages, tobacco	Non-food	Fuel	
		Manu-facturing	Inter-mediate 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	-3.8	-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	2.4	0.4	3.7
2014 Q3	0.6	1.2	0.4	1.5	1.9	-3.1	-1.4	2.3	0.8	-0.3	2.0	-0.3	4.1
Q4	0.3	0.9	-0.4	0.9	2.6	-3.2	-0.8	2.9	1.9	0.8	2.9	1.5	1.6
2015 Q1	1.6	1.1	-0.1	1.1	2.3	4.6	-1.6	1.0	2.1	1.0	3.1	2.2	9.0
Q2	1.2	1.5	0.7	2.6	0.8	-0.9	-1.0	4.7	2.1	1.1	3.1	2.3	6.9
2015 Jan.	0.7	0.2	-0.2	0.5	0.3	2.6	0.4	0.6	2.4	2.0	2.9	2.7	11.0
Feb.	2.0	1.2	-0.3	1.4	2.5	6.9	-3.5	0.9	2.4	1.0	3.5	3.1	8.1
Mar.	2.1	1.9	0.2	1.2	4.1	4.5	-2.0	1.5	1.6	0.2	2.9	1.0	8.2
Apr.	0.8	0.9	0.0	2.1	-0.1	0.9	-1.2	2.8	2.6	1.4	3.6	2.9	6.4
May	1.6	2.3	2.0	4.1	0.3	-3.6	0.2	4.3	2.6	1.9	3.4	2.2	6.8
June	1.2	1.4	0.2	1.7	2.1	0.0	-2.3	7.0	1.2	0.1	2.3	1.8	7.5
month-on-month percentage changes (s.a.)													
2015 Jan.	0.2	-0.2	0.0	0.0	-0.5	1.5	1.0	-2.2	0.6	0.7	1.1	0.5	1.5
Feb.	1.0	1.0	0.1	0.6	2.5	1.3	-1.4	0.1	0.0	-0.6	0.5	-0.7	0.0
Mar.	-0.5	-0.3	-0.1	-0.3	0.0	-1.8	0.6	0.6	-0.4	-0.4	-0.2	-0.8	-0.6
Apr.	0.1	0.2	0.1	0.5	-0.4	-1.0	-0.3	2.4	0.7	1.0	0.2	0.6	0.8
May	-0.2	0.2	0.1	1.2	-0.3	-2.9	0.2	-0.1	0.1	0.3	0.2	-0.2	-1.5
June	-0.4	-0.9	-0.5	-1.8	-0.3	3.2	-1.9	2.1	-0.6	-0.8	-0.2	0.0	1.6

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	-12.8	-13.8	-8.7	6.6	-	51.0	52.4	52.9	52.7
2012	90.5	-11.6	78.9	-22.0	-27.7	-15.0	-6.5	86.5	46.2	46.3	47.6	47.2
2013	93.8	-9.1	78.7	-18.7	-29.2	-12.2	-5.4	87.1	49.6	50.6	49.3	49.7
2014	101.6	-3.9	80.4	-10.1	-27.4	-3.2	4.8	87.6	51.8	53.3	52.5	52.7
2014 Q3	101.2	-4.6	80.4	-10.0	-27.3	-3.9	4.5	87.7	50.9	51.6	53.2	52.8
Q4	100.8	-4.5	80.8	-11.3	-24.3	-5.1	5.3	87.9	50.4	51.2	51.7	51.5
2015 Q1	102.6	-4.0	81.1	-6.3	-24.9	-1.6	5.6	88.2	51.4	52.6	53.6	53.3
Q2	103.7	-3.2	81.1	-5.3	-24.9	-0.2	7.6	88.3	52.3	53.4	54.1	53.9
2015 Mar.	103.9	-2.9	-	-3.7	-24.2	-0.8	6.1	-	52.2	53.6	54.2	54.0
Apr.	103.8	-3.2	81.2	-4.6	-25.5	-0.8	7.0	88.5	52.0	53.4	54.1	53.9
May	103.8	-3.0	-	-5.6	-25.0	1.5	7.9	-	52.2	53.3	53.8	53.6
June	103.5	-3.4	-	-5.6	-24.2	-1.3	7.9	-	52.5	53.6	54.4	54.2
July	104.0	-2.9	81.1	-7.2	-23.8	1.1	8.9	88.1	52.4	53.6	54.0	53.9
Aug.	104.2	-3.7	-	-6.9	-22.7	3.1	10.2	-	52.3	53.9	54.3	54.1

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) [1]	Debt ratio	Real gross disposable income	Financial investment	Non-financial investment (gross)	Net worth [2]	Housing wealth	Profit share [3]	Saving ratio (net)	Debt ratio [4]	Financial investment	Non-financial investment (gross)	Financing
	Percentage of gross disposable income (adjusted)		Annual percentage changes					Percentage of net value added		Percentage of GDP	Annual percentage changes		
	1	2	3	4	5	6	7	8	9	10	11	12	13
2011	13.0	97.8	-0.1	1.9	1.8	0.5	1.1	33.6	3.7	.	3.0	10.1	2.0
2012	12.6	97.4	-1.8	1.7	-4.6	0.6	-2.3	31.0	1.8	133.3	1.4	-6.2	1.0
2013	12.7	96.0	-0.5	1.4	-3.5	0.4	-2.2	30.6	3.1	131.9	2.2	-1.7	1.1
2014 Q2	12.6	95.5	0.4	1.5	-0.2	2.7	-0.1	30.9	3.2	132.4	2.4	2.0	1.2
Q3	12.7	95.0	1.6	1.7	-0.7	2.7	0.4	31.5	3.2	132.1	2.0	1.9	1.0
Q4	12.7	95.1	1.3	1.7	-0.5	2.3	0.7	32.2	2.6	133.1	1.9	0.9	1.1
2015 Q1	12.7	94.7	2.2	1.9	-0.1	3.8	1.3	.	2.7	135.3	2.5	1.0	1.5

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 [1]	
	Total			Goods		Services		Primary income		Secondary income			
	Credit	Debit	Net	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit
	1	2	3	4	5	6	7	8	9	10	11	12	13
2014 Q3	835.8	778.1	57.7	491.2	428.7	175.5	157.9	144.9	136.3	24.2	55.2	6.8	2.6
Q4	842.7	784.9	57.8	505.3	430.4	177.9	164.6	135.6	130.8	24.0	59.1	12.8	5.3
2015 Q1	865.3	783.6	81.7	509.0	432.6	182.1	165.6	149.2	127.1	25.0	58.3	8.4	4.5
Q2	870.2	801.9	68.3	520.0	439.3	182.6	166.8	141.8	134.8	25.9	61.0	9.7	5.7
2015 Jan.	282.9	255.1	27.9	166.7	139.8	59.6	54.0	48.2	42.5	8.5	18.7	2.3	1.5
Feb.	287.7	260.5	27.2	170.5	142.9	60.7	55.6	48.0	41.9	8.5	20.2	2.6	1.2
Mar.	294.7	268.1	26.7	171.8	149.9	61.9	56.0	53.0	42.7	8.0	19.4	3.5	1.8
Apr.	292.8	269.0	23.8	174.3	145.8	59.7	56.2	50.9	45.7	7.9	21.3	2.4	1.3
May	291.5	272.4	19.1	172.9	147.9	62.2	55.6	46.8	46.0	9.6	22.9	3.7	1.5
June	285.9	260.5	25.4	172.8	145.6	60.6	55.0	44.1	43.1	8.4	16.8	3.5	2.9
12-month cumulated transactions													
2015 June	3,414.0	3,148.5	265.5	2,025.4	1,731.0	718.1	654.9	571.4	529.0	99.1	233.6	37.7	18.1
12-month cumulated transactions as a percentage of GDP													
2015 June	33.6	31.0	2.6	19.9	17.0	7.1	6.4	5.6	5.2	1.0	2.3	0.4	0.2

1) The capital account is not seasonally adjusted.

3.9 Euro area external trade in goods [1], values and volumes by product group [2]

(seasonally adjusted, unless otherwise indicated)

	Total (n.s.a.)		Exports (f.o.b.)					Imports (c.i.f.)					
			Total				Memo item:	Total				Memo items:	
	Exports	Imports		Intermediate goods	Capital goods	Consumption goods	Manufacturing		Intermediate goods	Capital goods	Consumption goods	Manufacturing	Oil
	1	2	3	4	5	6	7	8	9	10	11	12	13
Values (EUR billions; annual percentage changes for columns 1 and 2)													
2014 Q3	2.9	0.4	486.1	236.1	96.9	139.5	397.7	439.5	269.4	62.1	101.0	287.7	73.3
Q4	4.5	0.0	498.3	237.4	102.4	145.1	409.4	435.6	260.3	63.3	102.9	293.5	65.9
2015 Q1	5.1	1.5	503.9	240.5	103.7	148.5	420.0	444.1	258.9	69.5	108.7	312.5	58.3
Q2	7.8	3.8	517.4	.	.	.	429.8	452.6	.	.	.	313.7	.
2015 Jan.	-0.7	-5.6	163.9	78.4	34.0	47.6	135.9	143.0	83.1	22.4	35.1	100.2	19.2
Feb.	4.3	1.0	168.6	80.5	35.1	49.7	141.0	147.4	86.1	23.3	36.0	104.4	18.9
Mar.	11.0	9.1	171.4	81.6	34.6	51.3	143.1	153.7	89.8	23.9	37.6	107.9	20.2
Apr.	8.6	4.8	173.4	81.7	35.4	51.3	144.0	151.8	89.1	23.7	36.3	105.4	19.3
May	2.5	-0.2	170.8	80.7	34.3	50.9	141.4	149.5	86.8	22.3	36.7	103.0	19.0
June	12.3	6.6	173.1	.	.	.	144.4	151.3	.	.	.	105.4	.
Volume indices (2000 = 100; annual percentage changes for columns 1 and 2)													
2014 Q3	1.2	2.1	114.5	112.6	114.4	116.4	114.7	101.5	101.1	100.4	103.0	104.6	88.8
Q4	3.1	2.0	117.2	113.7	119.3	121.0	116.9	102.0	101.9	98.5	102.5	104.2	97.0
2015 Q1	2.5	4.8	117.3	114.5	118.7	121.9	117.7	105.1	105.7	103.5	104.8	107.3	111.0
Q2	.	.	.	.	.	.	.	.	.	.	.	.	.
2015 Jan.	-1.5	-0.3	115.8	113.0	117.9	119.7	115.3	103.8	104.1	102.8	103.1	105.0	117.3
Feb.	1.5	4.7	117.7	115.0	120.7	121.9	118.8	104.7	105.6	105.2	103.6	107.7	108.9
Mar.	7.0	10.1	118.3	115.6	117.6	124.1	119.2	106.8	107.4	102.6	107.8	109.3	106.8
Apr.	3.1	2.8	118.3	114.6	119.0	122.4	118.5	104.0	104.6	101.8	102.8	105.8	98.8
May	-2.5	-2.3	116.2	113.0	116.5	120.2	116.3	102.0	101.0	97.3	103.5	104.0	91.2
June	.	.	.	.	.	.	.	.	.	.	.	.	.

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 [1)]

(annual percentage changes, unless otherwise indicated)

	Total					Total (s.a.; percentage change vis-à-vis previous period)						Memo item: Administered prices	
	Index: 2005 = 100	Total		Goods	Services	Total	Processed food	Unprocessed food	Non-energy industrial goods	Energy (n.s.a.)	Services	Total HICP excluding administered prices	Administered 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 Q3	117.7	0.4	0.8	-0.3	1.2	0.1	0.2	0.2	0.0	-0.4	0.3	0.2	1.6
Q4	117.8	0.2	0.7	-0.6	1.2	-0.2	0.0	0.4	0.0	-3.0	0.2	-0.1	1.7
2015 Q1	116.8	-0.3	0.7	-1.4	1.1	-0.3	0.2	0.5	0.1	-4.2	0.2	-0.5	1.2
Q2	118.4	0.2	0.8	-0.5	1.1	0.5	0.3	0.6	0.2	2.4	0.4	0.1	0.9
2015 Mar.	117.9	-0.1	0.6	-0.9	1.0	0.2	0.1	-0.1	0.1	1.7	0.0	-0.3	1.1
Apr.	118.2	0.0	0.6	-0.7	1.0	0.1	0.2	0.4	0.1	0.1	0.0	-0.1	0.9
May	118.5	0.3	0.9	-0.4	1.3	0.3	-0.1	0.2	0.1	0.9	0.3	0.3	1.0
June	118.5	0.2	0.8	-0.4	1.1	0.0	0.1	-0.1	0.0	-0.1	0.0	0.1	0.9
July	117.7	0.2	1.0	-0.5	1.2	0.0	0.0	-0.3	0.2	-0.7	0.2	0.1	0.9
Aug. [2)]	117.8	0.2	1.0	.	1.2	-0.1	0.0	0.8	0.1	-2.2	0.1	.	.

	Goods						Services					
	Food (including alcoholic beverages and tobacco)			Industrial goods			Housing		Transport	Communication	Recreation and personal	Miscellaneous
	Total	Processed food	Unprocessed 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 Q3	-0.1	1.0	-2.0	-0.4	0.1	-1.8	1.7	1.3	1.7	-3.1	1.5	1.3
Q4	0.3	0.7	-0.3	-1.1	-0.1	-3.6	1.6	1.4	1.6	-2.6	1.4	1.4
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	-1.4	0.2	-5.3	1.2	1.2	1.2	-0.9	1.4	1.2
2015 Mar.	0.6	0.6	0.7	-1.7	0.0	-6.0	1.2	1.2	1.4	-1.7	1.1	1.3
Apr.	1.0	0.7	1.3	-1.6	0.1	-5.8	1.2	1.3	0.7	-1.2	1.2	1.2
May	1.2	0.6	2.1	-1.2	0.2	-4.8	1.2	1.2	1.6	-0.8	1.8	1.3
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. [2)]	1.2	0.6	2.3	.	0.6	-7.1	.	.	.	.	.	.

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 [1]	Experimental indicator of commercial property prices [1, 2]
	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	-1.6
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	1.3
2014 Q3	106.8	-1.4	-0.6	-0.1	-0.6	0.5	-0.1	-0.5	0.3	-4.5	0.4	0.5	2.1
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	2.8
2015 Q1	104.5	-2.9	-2.6	-0.6	-1.5	0.7	-0.7	-1.3	0.2	-8.5	0.3	1.1	.
Q2	104.9	-2.1	-1.7	-0.3	-0.7	0.7	-0.8	-1.4	0.1	-6.5	.	.	.
2015 Feb.	104.6	-2.8	-2.6	-0.7	-1.7	0.7	-0.7	-1.3	0.3	-8.1	-	-	-
Mar.	104.9	-2.3	-1.9	-0.5	-1.2	0.7	-0.6	-1.1	0.3	-6.8	-	-	-
Apr.	104.8	-2.1	-1.8	-0.4	-0.8	0.8	-0.8	-1.4	0.1	-6.4	-	-	-
May	104.9	-2.0	-1.5	-0.3	-0.6	0.7	-0.8	-1.3	0.0	-6.3	-	-	-
June	104.9	-2.1	-1.8	-0.4	-0.6	0.7	-0.8	-1.4	0.1	-6.8	-	-	-
July	104.7	-2.1	-2.0	-0.4	-0.7	0.7	-0.8	-1.4	0.2	-6.5	-	-	-

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/intro/html/experiment.en.html for further details).

2) Data refer to the Euro 19.

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 [1]	Imports [1]		Import-weighted [2]			Use-weighted [2]		
			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	0.9	1.1	1.2	0.4	-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	0.4	1.0	0.4	-0.7	-1.7	74.5	-8.8	-1.6	-12.1	-4.6	0.7	-8.7
2014 Q3	104.7	0.9	0.5	0.3	1.1	0.5	-0.5	-1.5	78.0	-6.2	-1.7	-8.3	-2.1	0.2	-3.8
Q4	104.9	0.9	0.3	0.2	0.9	0.6	-0.5	-1.9	61.5	-5.5	6.2	-10.8	1.3	9.3	-4.7
2015 Q1	105.3	1.0	0.0	-0.2	0.7	0.5	-0.5	-2.9	49.0	-0.4	8.7	-4.9	5.6	11.6	0.7
Q2	.	.	.	.	.	.	.	.	57.4	-0.5	2.1	-2.0	4.0	5.6	2.6
2015 Mar.	-	-	-	-	-	-	-	-	52.4	1.0	4.6	-1.0	6.2	7.9	4.7
Apr.	-	-	-	-	-	-	-	-	56.6	-1.4	3.4	-4.0	4.9	7.8	2.4
May	-	-	-	-	-	-	-	-	58.9	-0.2	-0.3	-0.1	3.8	3.3	4.2
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	-7.5	4.7	-13.7	-4.0	5.5	-11.6

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	34.0	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	29.8	48.5	53.8	49.4	47.8
2014	-0.8	-1.4	1.2	-17.6	14.3	49.6	53.5	49.7	48.2
2014 Q3	-0.7	-1.8	0.9	-16.9	11.7	51.2	53.7	49.8	48.4
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
2015 Mar.	-4.6	0.6	2.4	-16.3	-3.8	50.7	54.2	49.7	48.6
Apr.	-2.7	2.8	2.3	-17.7	-2.0	52.4	53.6	50.1	48.9
May	-0.6	2.4	2.6	-13.7	-0.6	56.0	55.4	50.0	49.3
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.	-2.4	3.1	2.1	-13.2	0.3	49.6	53.2	50.5	49.1

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 [1]
			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	2.0	2.0	2.1	2.4	1.3	2.2
2013	101.4	1.3	1.5	1.0	1.2	1.6	1.8
2014	102.6	1.2	1.3	0.9	1.2	1.3	1.7
2014 Q3	100.5	1.4	1.5	1.3	1.3	1.8	1.7
Q4	107.9	1.2	1.1	1.3	1.1	1.3	1.7
2015 Q1	97.6	2.2	2.2	2.1	2.3	1.9	1.4
Q2	.	.	.	.	.	.	1.5

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	Manufacturing, energy and utilities	Construction	Trade, transport, accommodation and food services	Information and communication	Finance and insurance	Real estate	Professional, business and support services	Public administration, education, health and social work	Arts, entertainment and other services
	1	2	3	4	5	6	7	8	9	10	11	12
Unit labour costs												
2012	102.5	1.9	2.2	1.8	3.8	2.4	0.0	0.0	1.3	3.7	0.6	3.1
2013	103.8	1.3	0.2	1.8	0.1	1.0	0.8	2.6	-1.9	1.2	1.7	1.7
2014	105.0	1.2	-3.8	1.8	0.5	0.7	1.2	1.0	0.5	2.1	1.3	1.0
2014 Q2	104.8	1.1	-4.7	1.8	0.3	0.9	0.9	0.9	0.2	2.4	1.1	1.2
Q3	105.3	1.3	-4.8	1.8	1.2	1.0	1.0	0.6	1.2	2.3	1.3	1.1
Q4	105.5	1.3	-0.7	2.3	1.1	0.7	1.7	0.9	0.4	2.1	1.5	1.5
2015 Q1	105.8	1.2	1.3	1.7	2.0	0.5	0.4	0.0	3.5	2.5	1.6	0.9
Compensation per employee												
2012	103.6	1.5	0.3	1.9	2.3	1.7	1.5	1.2	1.1	2.1	0.9	1.9
2013	105.3	1.6	3.9	2.8	1.6	1.0	0.7	2.0	-0.1	1.1	1.7	1.4
2014	106.8	1.4	-1.1	2.3	1.6	1.2	2.0	1.4	1.0	1.6	1.3	1.1
2014 Q2	106.7	1.3	-1.3	2.1	1.7	1.1	1.8	1.7	0.9	1.5	1.2	1.4
Q3	107.1	1.3	-0.7	2.1	0.6	1.1	1.9	1.3	1.6	1.7	1.3	1.0
Q4	107.6	1.3	-1.1	2.2	1.2	1.1	1.9	1.8	0.8	1.5	1.4	0.5
2015 Q1	108.2	1.5	1.3	1.9	0.5	1.2	1.4	1.3	2.9	2.0	1.6	1.1
Labour productivity per person employed												
2012	101.1	-0.4	-1.9	0.1	-1.4	-0.7	1.5	1.2	-0.2	-1.5	0.3	-1.1
2013	101.4	0.3	3.7	1.0	1.5	0.1	-0.1	-0.6	1.9	-0.1	0.0	-0.3
2014	101.7	0.3	2.7	0.5	1.1	0.5	0.8	0.4	0.5	-0.5	0.0	0.1
2014 Q2	101.8	0.2	3.5	0.4	1.3	0.3	1.0	0.8	0.7	-0.9	0.0	0.2
Q3	101.7	0.1	4.3	0.3	-0.6	0.1	0.9	0.7	0.4	-0.6	0.0	-0.1
Q4	102.0	0.0	-0.5	-0.2	0.1	0.4	0.2	0.9	0.3	-0.5	-0.1	-1.1
2015 Q1	102.2	0.2	-0.1	0.2	-1.4	0.7	0.9	1.3	-0.6	-0.5	0.0	0.2
Compensation per hour worked												
2012	104.8	2.9	2.3	3.5	5.1	3.4	2.0	1.7	1.7	3.2	1.4	2.9
2013	107.2	2.3	4.2	3.0	3.0	1.8	1.0	2.5	1.4	2.1	2.2	2.1
2014	108.6	1.3	-0.9	1.8	1.3	1.2	1.9	1.7	1.1	1.5	1.1	1.3
2014 Q2	108.4	1.4	-0.6	2.5	1.7	1.3	1.7	2.2	1.5	1.4	0.9	0.9
Q3	108.8	1.3	-0.6	1.9	0.6	1.2	1.7	1.7	1.3	1.4	1.2	1.4
Q4	109.0	1.1	-1.5	1.6	0.7	0.9	1.5	2.5	0.3	1.3	1.1	0.5
2015 Q1	109.9	1.6	1.0	2.0	0.4	1.6	1.1	2.0	2.7	2.2	1.7	0.6
Hourly labour productivity												
2012	102.3	0.9	-0.9	1.7	1.2	0.7	2.1	2.0	0.8	-0.4	0.9	-0.1
2013	103.3	1.0	4.1	1.2	2.8	0.6	0.2	-0.1	2.9	0.7	0.5	0.5
2014	103.5	0.2	2.9	0.0	0.8	0.5	0.9	0.7	1.0	-0.4	-0.2	0.5
2014 Q2	103.6	0.4	4.1	0.7	1.4	0.4	1.0	1.5	1.4	-0.6	-0.1	0.3
Q3	103.4	0.2	4.5	0.1	-0.3	0.2	1.2	1.4	1.5	-0.5	-0.1	0.5
Q4	103.4	-0.2	-1.6	-0.7	-0.6	0.3	0.2	1.6	0.0	-0.7	-0.3	-0.8
2015 Q1	103.9	0.4	-1.2	0.2	-1.3	1.2	1.3	1.8	-1.1	-0.1	0.1	0.0

Sources: Eurostat and ECB calculations.

5 Money and credit

5.1 Monetary aggregates [1)]

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

	M3											
	M2							M3-M2				
	M1			M2-M1								
	Currency in circulation	Overnight deposits		Deposits with an agreed maturity of up to 2 years	Deposits redeemable at notice of up to 3 months			Repos	Money market fund shares	Debt securities with a maturity of up to 2 years		
	1	2	3	4	5	6	7	8	9	10	11	12
	Outstanding amounts											
2012	863.4	4,244.0	5,107.5	1,803.3	2,081.5	3,884.8	8,992.3	125.0	483.1	180.6	788.7	9,781.0
2013	908.8	4,482.6	5,391.4	1,691.2	2,123.2	3,814.4	9,205.8	120.0	417.8	86.5	624.3	9,830.0
2014	967.3	4,949.1	5,916.4	1,605.0	2,129.6	3,734.5	9,650.9	122.2	427.3	104.4	653.9	10,304.8
2014 Q3	948.2	4,745.2	5,693.4	1,647.5	2,136.6	3,784.1	9,477.5	122.4	419.0	68.8	610.2	10,087.7
Q4	967.3	4,949.1	5,916.4	1,605.0	2,129.6	3,734.5	9,650.9	122.2	427.3	104.4	653.9	10,304.8
2015 Q1	993.7	5,173.7	6,167.4	1,529.2	2,133.5	3,662.7	9,830.1	125.7	436.5	96.9	659.1	10,489.2
Q2	1,015.0	5,303.2	6,318.2	1,478.8	2,162.1	3,640.9	9,959.0	91.1	438.0	97.0	626.1	10,585.2
2015 Feb.	992.4	5,106.6	6,099.0	1,535.3	2,123.3	3,658.6	9,757.6	132.4	443.0	108.9	684.3	10,441.9
Mar.	993.7	5,173.7	6,167.4	1,529.2	2,133.5	3,662.7	9,830.1	125.7	436.5	96.9	659.1	10,489.2
Apr.	1,003.3	5,189.9	6,193.2	1,518.9	2,151.1	3,670.0	9,863.2	129.5	451.7	103.5	684.7	10,547.9
May	1,006.7	5,264.9	6,271.6	1,486.1	2,157.2	3,643.3	9,914.9	111.7	442.9	92.7	647.3	10,562.2
June	1,015.0	5,303.2	6,318.2	1,478.8	2,162.1	3,640.9	9,959.0	91.1	438.0	97.0	626.1	10,585.2
July [p)]	1,021.1	5,377.6	6,398.7	1,469.8	2,163.1	3,632.9	10,031.5	105.7	456.2	90.5	652.3	10,683.9
	Transactions											
2012	20.0	289.5	309.5	-36.0	114.9	78.9	388.5	-16.9	-20.2	-18.5	-55.6	332.8
2013	45.3	245.8	291.1	-111.1	43.9	-67.2	223.9	-12.0	-48.8	-62.8	-123.6	100.3
2014	58.0	370.2	428.1	-91.9	3.6	-88.3	339.8	0.8	10.7	12.5	24.0	363.7
2014 Q3	16.7	109.1	125.7	-27.1	5.1	-22.0	103.8	-8.1	10.0	3.4	5.3	109.1
Q4	19.1	125.9	145.1	-40.9	-9.0	-50.0	95.1	-0.5	11.2	18.4	29.1	124.2
2015 Q1	25.2	188.7	213.9	-63.3	4.8	-58.5	155.4	2.3	4.9	-8.7	-1.6	153.9
Q2	21.3	151.6	172.8	-49.1	15.0	-34.1	138.7	-34.3	1.5	1.9	-30.9	107.9
2015 Feb.	7.6	47.2	54.8	-19.3	2.7	-16.6	38.2	12.8	4.4	6.9	24.1	62.3
Mar.	1.3	59.8	61.1	-8.9	10.4	1.5	62.6	-7.0	-6.6	-13.2	-26.8	35.8
Apr.	9.6	37.7	47.4	-8.5	4.0	-4.5	42.8	4.1	15.3	7.5	26.9	69.7
May	3.4	70.9	74.3	-34.1	6.0	-28.1	46.2	-18.0	-8.8	-11.1	-37.9	8.3
June	8.2	43.0	51.2	-6.5	5.0	-1.5	49.7	-20.4	-4.9	5.4	-19.9	29.8
July [p)]	6.1	70.5	76.6	-14.1	1.0	-13.1	63.4	14.4	18.2	-6.4	26.2	89.7
	Growth rates											
2012	2.4	7.3	6.4	-1.9	5.9	2.1	4.5	-11.6	-3.9	-9.9	-6.6	3.5
2013	5.2	5.8	5.7	-6.2	2.1	-1.7	2.5	-9.5	-10.4	-37.8	-16.2	1.0
2014	6.4	8.2	7.9	-5.4	0.2	-2.3	3.7	0.7	2.6	18.3	3.9	3.7
2014 Q3	6.0	6.2	6.2	-3.9	0.3	-1.5	3.0	9.7	-1.1	-26.8	-4.1	2.5
Q4	6.4	8.2	7.9	-5.4	0.2	-2.3	3.7	0.7	2.6	18.3	3.9	3.7
2015 Q1	7.3	10.5	10.0	-7.7	0.3	-3.2	4.6	5.1	5.3	11.0	5.5	4.7
Q2	8.8	12.3	11.7	-10.8	0.7	-4.3	5.2	-30.9	6.8	25.1	0.5	4.9
2015 Feb.	7.9	9.4	9.1	-7.3	0.0	-3.2	4.1	0.5	3.4	22.1	4.8	4.1
Mar.	7.3	10.5	10.0	-7.7	0.3	-3.2	4.6	5.1	5.3	11.0	5.5	4.7
Apr.	8.2	11.0	10.5	-8.0	0.5	-3.3	4.9	6.2	9.2	40.0	11.6	5.3
May	8.3	11.8	11.2	-10.3	0.7	-4.1	5.0	-9.5	7.7	15.1	4.7	5.0
June	8.8	12.3	11.7	-10.8	0.7	-4.3	5.2	-30.9	6.8	25.1	0.5	4.9
July [p)]	8.9	12.7	12.1	-11.5	0.8	-4.6	5.4	-19.1	7.9	25.6	3.6	5.3

Source: ECB.

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

5 Money and credit

5.2 Deposits in M3 [1]

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

	Non-financial corporations [2]					Households [3]					Financial corporations other than MFIs and ICPFs [2]	Insurance corporations and pension funds	Other general government [4]
	Total	Overnight	With an agreed maturity of up to 2 years	Redeemable at notice of up to 3 months	Repos	Total	Overnight	With an agreed maturity of up to 2 years	Redeemable at notice of up to 3 months	Repos			
	1	2	3	4	5	6	7	8	9	10	11	12	13
Outstanding amounts													
2012	1,618.7	1,112.8	406.9	88.1	10.8	5,308.6	2,360.4	977.3	1,960.3	10.5	811.2	209.1	306.3
2013	1,710.6	1,198.6	400.8	94.7	16.5	5,414.0	2,542.6	875.7	1,991.2	4.5	801.0	192.8	298.6
2014	1,813.6	1,329.4	368.3	96.5	19.5	5,556.9	2,753.4	810.7	1,989.9	2.8	885.5	218.9	330.8
2014 Q3	1,789.5	1,283.8	391.1	99.2	15.4	5,531.9	2,686.9	845.1	1,995.1	4.9	794.8	208.4	327.1
Q4	1,813.6	1,329.4	368.3	96.5	19.5	5,556.9	2,753.4	810.7	1,989.9	2.8	885.5	218.9	330.8
2015 Q1	1,847.0	1,392.6	340.4	99.0	14.9	5,598.3	2,843.8	761.7	1,988.8	3.9	952.8	225.0	339.0
Q2	1,851.9	1,407.1	320.7	111.9	12.2	5,649.4	2,911.5	734.7	2,000.3	2.8	965.7	228.6	339.6
2015 Feb.	1,851.7	1,393.7	347.1	97.0	13.9	5,566.5	2,810.2	771.1	1,980.9	4.3	905.4	224.4	349.6
Mar.	1,847.0	1,392.6	340.4	99.0	14.9	5,598.3	2,843.8	761.7	1,988.8	3.9	952.8	225.0	339.0
Apr.	1,844.5	1,387.5	333.3	112.8	10.9	5,611.5	2,859.2	756.7	1,991.9	3.7	959.3	229.8	344.3
May	1,852.0	1,403.6	324.3	111.9	12.2	5,624.4	2,878.1	745.8	1,996.7	3.8	966.4	230.7	346.4
June	1,851.9	1,407.1	320.7	111.9	12.2	5,649.4	2,911.5	734.7	2,000.3	2.8	965.7	228.6	339.6
July [p]	1,889.1	1,440.1	323.2	113.0	12.8	5,667.8	2,945.3	721.5	1,997.8	3.2	980.9	233.7	344.6
Transactions													
2012	72.2	99.4	-33.2	10.0	-4.0	222.8	99.4	35.6	100.2	-12.5	16.5	15.0	25.0
2013	97.9	90.4	-6.0	7.7	5.8	108.7	183.7	-100.1	31.1	-6.0	-17.4	-14.2	-8.5
2014	68.6	90.2	-25.4	1.4	2.5	140.4	209.1	-65.6	-1.4	-1.7	46.4	6.3	20.9
2014 Q3	29.6	33.6	-5.7	1.9	-0.2	47.3	61.9	-16.0	1.0	0.4	-8.3	-2.3	12.6
Q4	7.1	16.3	-12.1	-1.2	4.0	26.0	67.7	-33.0	-6.6	-2.0	56.4	-8.2	-5.7
2015 Q1	29.6	49.1	-17.2	2.5	-4.9	39.1	81.4	-43.3	-0.1	1.1	50.5	4.6	8.6
Q2	8.8	29.4	-19.0	1.0	-2.6	52.9	71.6	-27.2	9.6	-1.1	16.9	3.9	0.7
2015 Feb.	11.7	13.5	-5.0	0.8	2.5	12.1	23.4	-12.7	1.0	0.4	18.3	-4.6	5.8
Mar.	-9.0	-3.9	-8.0	2.0	0.9	30.7	32.8	-9.9	8.2	-0.4	43.0	0.3	-10.7
Apr.	1.6	10.0	-6.3	1.9	-3.9	14.9	18.9	-5.0	1.3	-0.3	10.2	5.1	5.4
May	5.2	14.4	-9.5	-0.9	1.2	12.0	18.3	-11.2	4.7	0.2	4.8	0.7	2.0
June	2.0	5.0	-3.2	0.0	0.1	25.9	34.4	-11.1	3.6	-1.1	1.8	-1.9	-6.7
July [p]	33.3	31.4	0.3	1.1	0.5	17.6	33.2	-13.6	-2.4	0.4	13.0	4.8	3.2
Growth rates													
2012	4.7	9.8	-7.5	13.2	-25.2	4.4	4.4	3.8	5.4	-54.2	2.1	7.8	9.1
2013	6.1	8.1	-1.5	8.8	54.6	2.0	7.8	-10.3	1.6	-57.0	-2.2	-6.9	-2.8
2014	4.0	7.5	-6.3	1.5	14.5	2.6	8.2	-7.5	-0.1	-37.2	5.5	3.4	7.0
2014 Q3	6.0	8.6	-2.1	3.4	47.4	2.2	7.3	-7.0	0.1	-20.8	-0.9	2.3	3.3
Q4	4.0	7.5	-6.3	1.5	14.5	2.6	8.2	-7.5	-0.1	-37.2	5.5	3.4	7.0
2015 Q1	4.6	9.5	-10.0	3.6	-5.7	2.8	9.7	-11.2	0.1	-31.0	14.6	-0.8	5.2
Q2	4.2	10.1	-14.1	4.5	-23.3	3.0	10.8	-13.9	0.2	-38.0	13.7	-1.3	5.1
2015 Feb.	4.8	9.9	-8.9	1.3	-21.9	2.5	8.9	-10.3	-0.2	-25.5	7.9	-0.9	8.0
Mar.	4.6	9.5	-10.0	3.6	-5.7	2.8	9.7	-11.2	0.1	-31.0	14.6	-0.8	5.2
Apr.	4.4	9.9	-11.4	5.5	-37.8	2.9	10.0	-11.4	0.1	-35.3	15.6	1.5	7.5
May	4.4	10.4	-13.9	4.5	-24.1	2.9	10.2	-12.7	0.2	-25.3	13.4	1.8	8.5
June	4.2	10.1	-14.1	4.5	-23.3	3.0	10.8	-13.9	0.2	-38.0	13.7	-1.3	5.1
July [p]	5.5	11.7	-14.3	4.6	-11.1	3.1	11.2	-15.1	0.2	-35.4	14.4	-1.6	4.9

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 [1)]

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

	Credit to general government			Credit to other euro area residents								
					Loans						Debt securities	Equity and non-money market fund investment fund shares
					Total		To non-financial corporations [3)]	To households [4)]	To financial corporations other than MFIs and ICPFs [3)]	To insurance corporations and pension funds		
	Total	Loans	Debt securities	Total		Adjusted for loan sales and securitisation [2)]						
	1	2	3	4	5	6	7	8	9	10	11	12
Outstanding amounts												
2012	3,410.8	1,169.3	2,241.5	13,069.5	10,860.0	-	4,544.6	5,242.3	984.3	89.0	1,435.9	773.6
2013	3,407.5	1,096.3	2,311.2	12,709.4	10,546.4	-	4,354.1	5,221.4	872.6	98.3	1,363.9	799.1
2014	3,609.7	1,131.7	2,478.0	12,562.5	10,512.2	-	4,280.3	5,199.3	904.6	128.1	1,276.5	773.8
2014 Q3	3,508.9	1,102.2	2,406.7	12,561.8	10,444.8	-	4,288.1	5,194.6	858.8	103.3	1,307.0	810.1
Q4	3,609.7	1,131.7	2,478.0	12,562.5	10,512.2	-	4,280.3	5,199.3	904.6	128.1	1,276.5	773.8
2015 Q1	3,674.0	1,153.4	2,520.6	12,674.3	10,613.9	-	4,310.1	5,233.7	935.5	134.6	1,273.1	787.3
Q2	3,684.8	1,137.6	2,547.1	12,624.5	10,590.4	-	4,291.7	5,257.2	905.0	136.5	1,243.7	790.3
2015 Feb.	3,638.7	1,146.7	2,492.0	12,650.5	10,588.3	-	4,312.8	5,221.0	917.4	137.1	1,272.9	789.3
Mar.	3,674.0	1,153.4	2,520.6	12,674.3	10,613.9	-	4,310.1	5,233.7	935.5	134.6	1,273.1	787.3
Apr.	3,702.3	1,151.6	2,550.7	12,654.0	10,610.4	-	4,303.9	5,236.3	933.1	137.1	1,262.0	781.7
May	3,698.4	1,144.0	2,554.4	12,659.4	10,611.2	-	4,300.4	5,243.4	923.2	144.2	1,257.2	791.0
June	3,684.8	1,137.6	2,547.1	12,624.5	10,590.4	-	4,291.7	5,257.2	905.0	136.5	1,243.7	790.3
July [p]	3,727.5	1,132.7	2,594.8	12,712.5	10,608.6	-	4,300.0	5,260.5	916.7	131.5	1,297.4	806.5
Transactions												
2012	185.0	-4.0	189.0	-100.6	-69.1	-13.4	-107.6	26.0	14.5	-2.0	-69.9	38.5
2013	-24.4	-73.6	49.2	-304.5	-247.4	-221.2	-132.8	-3.5	-120.7	9.6	-71.7	14.6
2014	73.6	16.3	57.3	-106.8	-50.7	19.2	-58.3	-15.0	11.0	11.6	-90.0	33.9
2014 Q3	40.4	-1.4	41.8	-18.7	-10.3	-10.6	-18.4	8.2	-4.4	4.2	-14.1	5.7
Q4	47.5	12.8	34.7	1.7	22.8	33.6	4.3	5.1	6.8	6.6	-36.7	15.6
2015 Q1	38.5	21.5	17.0	34.6	45.8	52.9	8.3	20.1	11.5	6.0	-4.0	-7.2
Q2	59.8	-15.4	75.2	-13.1	4.0	22.3	1.2	29.7	-28.9	2.0	-24.3	7.1
2015 Feb.	-20.1	2.7	-22.8	10.6	8.3	15.5	10.3	1.4	-1.5	-1.9	-5.7	8.0
Mar.	27.2	5.4	21.9	14.0	21.5	20.9	-3.0	12.9	14.2	-2.6	-1.1	-6.4
Apr.	39.3	-1.5	40.8	-1.9	12.5	23.1	2.2	7.1	0.6	2.7	-8.9	-5.6
May	8.9	-7.8	16.7	1.2	-1.7	6.6	-4.8	6.9	-10.9	7.0	-4.9	7.8
June	11.6	-6.0	17.6	-12.4	-6.8	-7.4	3.8	15.7	-18.7	-7.7	-10.5	4.9
July [p]	31.6	-5.0	36.7	77.2	21.2	35.9	9.7	4.5	12.1	-5.0	44.9	11.0
Growth rates												
2012	5.8	-0.3	9.5	-0.8	-0.6	-0.1	-2.3	0.5	1.5	-2.2	-4.6	5.2
2013	-0.7	-6.3	2.2	-2.3	-2.3	-2.0	-2.9	-0.1	-12.2	10.8	-5.0	1.9
2014	2.1	1.5	2.4	-0.8	-0.5	0.2	-1.3	-0.3	1.1	11.8	-6.6	4.2
2014 Q3	-0.5	-0.7	-0.4	-1.9	-1.2	-0.6	-2.0	-0.5	-2.5	8.5	-8.5	1.8
Q4	2.1	1.5	2.4	-0.8	-0.5	0.2	-1.3	-0.3	1.1	11.8	-6.6	4.2
2015 Q1	2.8	2.0	3.2	-0.3	0.1	0.8	-0.6	0.0	2.3	14.1	-5.0	2.9
Q2	5.3	1.6	7.1	0.0	0.6	0.9	-0.1	1.2	-1.9	17.8	-6.0	2.6
2015 Feb.	1.9	1.5	2.1	-0.5	-0.1	0.6	-0.6	-0.2	0.5	15.4	-5.6	4.0
Mar.	2.8	2.0	3.2	-0.3	0.1	0.8	-0.6	0.0	2.3	14.1	-5.0	2.9
Apr.	3.9	2.4	4.7	0.0	0.1	0.9	-0.4	0.0	0.3	17.2	-2.5	2.7
May	4.1	0.9	5.6	0.2	0.6	1.0	-0.2	1.0	-0.9	27.0	-5.4	3.7
June	5.3	1.6	7.1	0.0	0.6	0.9	-0.1	1.2	-1.9	17.8	-6.0	2.6
July [p]	5.8	0.8	8.1	0.7	0.9	1.4	0.4	1.3	0.4	10.1	-2.8	3.0

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 [1)]

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

	Non-financial corporations [2)]					Households [3)]				
	Total		Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total		Loans for consumption	Loans for house purchase	Other loans
		Adjusted for loan sales and securitisation [4)]					Adjusted for loan sales and securitisation [4)]			
	1	2	3	4	5	6	7	8	9	10
Outstanding amounts										
2012	4,544.6	-	1,127.9	795.6	2,621.0	5,242.3	-	602.0	3,823.6	816.7
2013	4,354.1	-	1,065.6	740.8	2,547.8	5,221.4	-	573.5	3,851.5	796.4
2014	4,280.3	-	1,081.2	725.1	2,474.0	5,199.3	-	563.3	3,860.1	776.0
2014 Q3	4,288.1	-	1,056.5	726.1	2,505.4	5,194.6	-	567.1	3,843.7	783.8
Q4	4,280.3	-	1,081.2	725.1	2,474.0	5,199.3	-	563.3	3,860.1	776.0
2015 Q1	4,310.1	-	1,089.9	738.9	2,481.3	5,233.7	-	567.9	3,890.4	775.4
Q2	4,291.7	-	1,084.5	744.4	2,462.8	5,257.2	-	578.5	3,907.6	771.1
2015 Feb.	4,312.8	-	1,090.4	734.7	2,487.7	5,221.0	-	565.2	3,882.2	773.6
Mar.	4,310.1	-	1,089.9	738.9	2,481.3	5,233.7	-	567.9	3,890.4	775.4
Apr.	4,303.9	-	1,090.4	738.0	2,475.5	5,236.3	-	566.9	3,894.8	774.6
May	4,300.4	-	1,085.2	742.7	2,472.5	5,243.4	-	568.3	3,901.7	773.4
June	4,291.7	-	1,084.5	744.4	2,462.8	5,257.2	-	578.5	3,907.6	771.1
July [p)]	4,300.0	-	1,086.9	744.7	2,468.3	5,260.5	-	578.7	3,911.7	770.1
Transactions										
2012	-107.6	-60.3	6.2	-51.4	-62.3	26.0	34.7	-17.7	48.8	-5.1
2013	-132.8	-127.5	-44.5	-44.5	-43.7	-3.5	14.3	-18.1	27.6	-13.1
2014	-58.3	-45.0	-13.6	1.6	-46.2	-15.0	41.2	-3.0	-3.2	-8.8
2014 Q3	-18.4	-19.9	-3.1	-6.8	-8.4	8.2	9.6	1.2	13.1	-6.1
Q4	4.3	6.8	-7.3	8.5	3.0	5.1	13.9	-2.2	9.3	-2.1
2015 Q1	8.3	11.2	-0.7	7.3	1.8	20.1	24.2	2.2	17.9	0.0
Q2	1.2	10.7	-0.1	11.6	-10.2	29.7	38.7	9.1	21.7	-1.2
2015 Feb.	10.3	12.4	3.1	-1.1	8.4	1.4	6.4	-0.7	3.8	-1.7
Mar.	-3.0	-2.0	-1.8	3.7	-4.9	12.9	11.6	2.9	7.5	2.4
Apr.	2.2	4.2	3.7	0.7	-2.2	7.1	15.4	-0.7	7.5	0.3
May	-4.8	1.1	-6.2	4.3	-2.8	6.9	9.2	1.7	6.4	-1.1
June	3.8	5.4	2.5	6.5	-5.2	15.7	14.0	8.2	7.8	-0.3
July [p)]	9.7	14.6	2.1	0.3	7.2	4.5	14.0	0.8	4.4	-0.7
Growth rates										
2012	-2.3	-1.3	0.5	-6.0	-2.3	0.5	0.7	-2.8	1.3	-0.6
2013	-2.9	-2.8	-4.0	-5.6	-1.7	-0.1	0.3	-3.0	0.7	-1.6
2014	-1.3	-1.0	-1.3	0.2	-1.8	-0.3	0.8	-0.5	-0.1	-1.1
2014 Q3	-2.0	-1.8	-1.4	-3.3	-1.9	-0.5	0.5	-1.1	-0.2	-1.7
Q4	-1.3	-1.0	-1.3	0.2	-1.8	-0.3	0.8	-0.5	-0.1	-1.1
2015 Q1	-0.6	-0.2	-0.7	2.1	-1.2	0.0	1.1	-0.1	0.2	-1.1
Q2	-0.1	0.2	-1.1	2.8	-0.6	1.2	1.7	1.8	1.6	-1.2
2015 Feb.	-0.6	-0.3	0.5	0.8	-1.5	-0.2	0.9	-0.5	0.0	-1.1
Mar.	-0.6	-0.2	-0.7	2.1	-1.2	0.0	1.1	-0.1	0.2	-1.1
Apr.	-0.4	0.0	0.4	1.4	-1.2	0.0	1.3	-0.1	0.2	-0.7
May	-0.2	0.2	0.4	2.4	-1.2	1.0	1.5	0.5	1.4	-1.0
June	-0.1	0.2	-1.1	2.8	-0.6	1.2	1.7	1.8	1.6	-1.2
July [p)]	0.4	0.9	-0.2	3.1	-0.2	1.3	1.9	1.8	1.6	-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 [1)]

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

	MFI liabilities						MFI assets			
	Central government holdings [2)]	Longer-term financial liabilities vis-à-vis other euro area residents					Net external assets	Other		
		Total	Deposits with an agreed maturity of over 2 years	Deposits redeemable at notice of over 3 months	Debt securities with a maturity of over 2 years	Capital and reserves		Total	Repos with central counter-parties [3)]	Reverse repos to central counter-parties [3)]
	1	2	3	4	5	6	7	8	9	10
					Outstanding amounts					
2012	305.4	7,578.1	2,395.9	106.0	2,680.8	2,395.4	1,029.8	154.4	260.8	201.2
2013	260.2	7,311.0	2,373.3	91.5	2,506.3	2,340.0	1,153.9	130.6	183.8	122.1
2014	262.0	7,175.5	2,253.5	92.2	2,375.1	2,454.6	1,388.8	181.2	185.3	139.8
2014 Q3	249.7	7,336.1	2,278.6	92.4	2,457.0	2,507.9	1,419.3	183.5	163.6	121.7
Q4	262.0	7,175.5	2,253.5	92.2	2,375.1	2,454.6	1,388.8	181.2	185.3	139.8
2015 Q1	287.6	7,314.0	2,259.8	90.5	2,394.8	2,568.8	1,511.5	230.9	234.8	159.1
Q2	265.1	7,155.8	2,219.9	86.5	2,331.5	2,517.9	1,457.0	239.8	224.5	143.7
2015 Feb.	263.0	7,292.9	2,263.3	91.8	2,396.3	2,541.5	1,450.8	257.8	226.3	144.5
Mar.	287.6	7,314.0	2,259.8	90.5	2,394.8	2,568.8	1,511.5	230.9	234.8	159.1
Apr.	260.3	7,227.8	2,238.2	88.7	2,355.3	2,545.6	1,450.6	229.0	209.3	132.1
May	275.9	7,220.5	2,232.7	87.4	2,343.2	2,557.2	1,467.0	233.7	222.9	140.7
June	265.1	7,155.8	2,219.9	86.5	2,331.5	2,517.9	1,457.0	239.8	224.5	143.7
July [p)]	248.1	7,148.2	2,228.9	85.7	2,316.0	2,517.5	1,391.7	248.5	202.2	137.4
					Transactions					
2012	-4.9	-112.8	-156.3	-10.2	-106.4	160.1	99.5	31.3	9.4	41.5
2013	-46.0	-90.8	-18.6	-14.3	-137.6	79.7	359.2	-66.6	32.2	43.9
2014	-6.9	-162.4	-120.1	2.1	-154.9	110.5	246.0	-18.3	1.5	17.7
2014 Q3	-20.9	-1.8	-28.4	2.3	-28.5	52.7	38.4	26.4	-7.7	2.6
Q4	4.5	-94.1	-25.5	1.2	-77.4	7.5	37.8	-52.4	21.7	18.1
2015 Q1	22.4	-50.8	-31.1	-2.8	-47.2	30.3	3.6	48.8	49.4	19.3
Q2	-22.5	-80.8	-39.3	-4.0	-48.3	10.8	-8.1	-34.0	-10.3	-15.4
2015 Feb.	-43.1	-17.5	-8.6	-1.0	-12.1	4.2	-21.1	32.3	23.0	11.3
Mar.	24.6	-15.2	-6.0	-1.3	-22.7	14.8	28.8	-24.8	8.4	14.6
Apr.	-27.3	-38.1	-19.2	-1.8	-18.9	1.8	-30.3	-2.7	-25.4	-27.0
May	15.6	-17.7	-6.9	-1.3	-23.9	14.4	4.3	-8.1	13.6	8.6
June	-10.8	-25.0	-13.2	-0.9	-5.5	-5.4	17.9	-23.2	1.6	3.1
July [p)]	-17.0	-6.2	12.7	-0.7	-21.5	3.4	-55.1	12.7	-22.3	-6.4
					Growth rates					
2012	-1.5	-1.5	-6.1	-8.8	-3.8	7.1	-	-	2.5	26.1
2013	-15.1	-1.2	-0.8	-13.5	-5.1	3.4	-	-	10.3	23.5
2014	-2.7	-2.2	-5.1	2.3	-6.1	4.6	-	-	0.8	14.5
2014 Q3	-11.5	-1.1	-4.7	-1.2	-2.7	4.2	-	-	-17.5	-3.2
Q4	-2.7	-2.2	-5.1	2.3	-6.1	4.6	-	-	0.8	14.5
2015 Q1	5.7	-2.9	-5.9	-0.3	-6.8	3.9	-	-	32.5	36.3
Q2	-6.0	-3.1	-5.4	-3.7	-8.1	4.1	-	-	31.0	20.7
2015 Feb.	-4.3	-2.5	-5.8	0.9	-5.9	4.2	-	-	27.0	28.4
Mar.	5.7	-2.9	-5.9	-0.3	-6.8	3.9	-	-	32.5	36.3
Apr.	-5.6	-3.1	-5.5	-2.3	-7.3	3.3	-	-	28.6	33.0
May	-2.5	-3.2	-5.3	-3.8	-8.4	4.2	-	-	51.4	51.4
June	-6.0	-3.1	-5.4	-3.7	-8.1	4.1	-	-	31.0	20.7
July [p)]	-12.7	-3.1	-4.4	-5.1	-8.5	3.5	-	-	19.0	13.6

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	Socual security funds	
	1	2	3	4	5	6
2011	-4.1	-3.3	-0.7	-0.2	0.0	-1.2
2012	-3.6	-3.4	-0.3	0.0	0.0	-0.6
2013	-2.9	-2.5	-0.2	0.0	-0.1	-0.1
2014	-2.4	-2.1	-0.2	0.0	-0.1	0.2
2014 Q2	-2.6	.	.	.	.	0.1
Q3	-2.4	.	.	.	.	0.3
Q4	-2.4	.	.	.	.	0.2
2015 Q1	-2.4	.	.	.	.	0.2

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				Compen-sation of employees	Intermediate consumption	Interest	Social benefits	
	1	2	3	4	5	6	7	8	9	10	11	12	13
2011	44.8	44.4	11.7	12.6	15.1	0.4	49.0	44.7	10.4	5.3	3.0	22.2	4.3
2012	45.9	45.5	12.2	12.9	15.3	0.4	49.5	45.1	10.4	5.3	3.0	22.6	4.4
2013	46.6	46.1	12.5	12.9	15.5	0.5	49.4	45.4	10.4	5.3	2.8	22.9	4.0
2014	46.7	46.2	12.5	13.1	15.5	0.5	49.1	45.4	10.3	5.3	2.6	23.1	3.7
2014 Q2	46.7	46.2	12.5	13.0	15.5	0.5	49.3	45.4	10.3	5.3	2.7	23.0	3.9
Q3	46.6	46.2	12.5	13.1	15.5	0.5	49.1	45.3	10.3	5.3	2.7	23.0	3.7
Q4	46.7	46.2	12.5	13.1	15.5	0.5	49.1	45.4	10.3	5.3	2.6	23.1	3.7
2015 Q1	46.6	46.2	12.5	13.1	15.5	0.5	49.0	45.3	10.3	5.3	2.5	23.1	3.7

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	MFIs	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 curren-cies
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2011	85.8	2.9	15.3	67.5	42.7	24.3	43.1	12.2	73.6	20.3	29.8	35.7	84.0	1.8
2012	89.1	3.0	17.2	68.8	45.4	26.2	43.6	11.4	77.7	19.5	31.6	38.0	86.9	2.2
2013	90.9	2.7	17.0	71.2	45.9	26.1	45.0	10.4	80.5	19.4	32.2	39.3	89.0	2.0
2014	92.0	2.7	16.8	72.4	45.2	25.9	46.8	10.1	81.8	19.2	32.2	40.5	89.9	2.0
2014 Q2	92.7	2.7	16.7	73.4	.	.	.	.	.	.	.	.	.	.
Q3	92.1	2.6	16.7	72.8	.	.	.	.	.	.	.	.	.	.
Q4	92.0	2.7	16.9	72.4	.	.	.	.	.	.	.	.	.	.
2015 Q1	92.9	2.7	16.7	73.5	.	.	.	.	.	.	.	.	.	.

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 [1)]

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

	Change in debt-to-GDP ratio [2)]	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	0.1	-0.3	0.2	-0.2	-0.2	-0.1	0.4	0.1	0.8	3.9
2012	3.3	0.6	0.1	1.1	0.3	0.3	-0.1	0.5	-1.3	0.3	2.7	5.0
2013	1.8	0.1	-0.2	-0.6	-0.4	-0.4	-0.1	0.3	0.0	0.4	2.0	2.7
2014	1.1	-0.2	0.2	0.0	0.2	-0.1	-0.2	0.1	-0.1	0.2	1.1	2.7
2014 Q2	0.9	-0.1	-0.2	-0.1	0.0	0.0	-0.2	0.1	-0.2	0.1	1.3	2.6
Q3	1.0	-0.3	0.0	0.0	0.0	0.0	-0.2	0.2	-0.3	0.3	1.2	2.7
Q4	1.1	-0.2	0.2	0.2	0.2	0.0	-0.2	0.1	-0.1	0.1	1.1	2.7
2015 Q1	0.9	-0.2	0.1	0.2	0.4	-0.1	-0.2	0.1	-0.2	0.1	1.0	2.7

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 [1)]

(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 [2)]					Average residual maturity in years [3)]	Average nominal yields [4)]						
	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	Maturities of up to 1 year	Issuance	Redemption
	1	2	3	4	5	6	7	8	9	10	11	12	13
2012	16.3	14.2	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 Q2	16.6	14.5	5.4	2.1	0.5	6.4	3.3	1.6	0.7	3.6	2.7	1.1	1.6
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	15.5	13.4	4.6	2.0	0.5	6.5	3.0	1.4	0.0	3.4	2.8	0.6	1.7
2015 Feb.	15.7	13.6	4.5	2.0	0.5	6.5	3.0	1.4	0.3	3.4	2.7	0.7	1.7
Mar.	15.5	13.4	4.6	2.0	0.5	6.5	3.0	1.4	0.0	3.4	2.8	0.6	1.7
Apr.	15.9	13.9	4.8	2.0	0.5	6.6	2.9	1.3	0.3	3.4	2.8	0.5	1.7
May	16.0	13.9	5.1	2.0	0.5	6.6	2.9	1.3	-0.2	3.4	2.8	0.4	1.6
June	15.4	13.4	4.9	2.0	0.5	6.6	2.9	1.2	0.1	3.4	2.8	0.3	1.4
July	15.3	13.3	4.3	2.0	0.5	6.6	2.8	1.2	-0.3	3.4	2.8	0.3	1.5

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	-0.9	1.2	-12.7	-10.2	-9.4	-5.1	-3.5	-5.8
2012	-4.1	0.1	-0.2	-8.1	-8.7	-10.3	-4.8	-3.0	-5.8
2013	-2.9	0.1	-0.2	-5.8	-12.3	-6.8	-4.1	-2.9	-4.9
2014	-3.2	0.7	0.6	-4.1	-3.5	-5.8	-4.0	-3.0	-8.8
2014 Q2	-3.3	0.3	-0.3	-5.1	-3.0	-6.2	-3.9	-2.9	-11.9
Q3	-3.1	0.5	-0.2	-4.6	-2.3	-5.7	-4.0	-2.8	-10.2
Q4	-3.2	0.6	0.6	-4.0	-3.5	-5.8	-4.0	-3.0	-8.8
2015 Q1	-3.5	0.7	0.4	-3.9	-4.6	-5.8	-3.9	-2.9	-0.2
	Government debt								
2011	102.0	77.9	6.0	111.2	171.3	69.2	85.2	116.4	66.0
2012	103.8	79.3	9.7	121.7	156.9	84.4	89.6	123.1	79.5
2013	104.4	77.1	10.1	123.2	175.0	92.1	92.3	128.5	102.2
2014	106.5	74.7	10.6	109.7	177.1	97.7	95.0	132.1	107.5
2014 Q2	108.9	75.8	10.5	114.5	177.4	96.4	95.5	134.1	109.8
Q3	108.3	75.3	10.5	112.6	175.8	96.8	95.7	132.0	104.7
Q4	106.6	74.9	10.6	107.6	177.1	97.7	95.6	132.1	107.5
2015 Q1	111.1	74.4	10.5	104.8	168.8	98.0	97.5	135.1	106.8

	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Austria	Portugal	Slovenia	Slovakia	Finland
	10	11	12	13	14	15	16	17	18	19
	Government deficit (-)/surplus (+)									
2011	-3.3	-8.9	0.4	-2.6	-4.3	-2.6	-7.4	-6.6	-4.1	-1.0
2012	-0.8	-3.1	0.1	-3.6	-4.0	-2.2	-5.6	-4.0	-4.2	-2.1
2013	-0.7	-2.6	0.9	-2.6	-2.3	-1.3	-4.8	-14.9	-2.6	-2.5
2014	-1.4	-0.7	0.6	-2.1	-2.3	-2.4	-4.5	-4.9	-2.9	-3.2
2014 Q2	-0.3	-1.3	1.3	-3.4	-3.0	-1.2	-4.6	-12.8	-2.6	-2.7
Q3	0.0	-0.7	0.7	-2.8	-2.8	-0.4	-4.4	-12.8	-2.8	-2.8
Q4	-1.4	-0.7	0.6	-2.1	-2.4	-2.4	-4.5	-4.9	-2.9	-3.1
2015 Q1	-1.9	-0.8	0.3	-2.5	-2.0	-1.9	-4.4	-4.6	-2.8	-3.0
	Government debt									
2011	42.7	37.2	19.1	69.7	61.3	82.1	111.1	46.5	43.4	48.5
2012	40.9	39.8	21.9	67.4	66.5	81.5	125.8	53.7	52.1	52.9
2013	38.2	38.8	24.0	69.2	68.6	80.9	129.7	70.3	54.6	55.8
2014	40.0	40.9	23.6	68.0	68.8	84.5	130.2	80.9	53.6	59.3
2014 Q2	41.0	38.6	22.4	74.8	68.6	82.2	130.8	78.2	55.7	58.5
Q3	40.4	38.1	22.1	72.2	68.0	80.7	132.2	77.7	55.4	57.8
Q4	40.0	40.8	22.1	68.5	67.9	84.4	130.2	80.9	53.6	59.3
2015 Q1	35.0	38.1	21.6	70.3	68.9	84.7	129.6	81.9	54.0	60.3

Source: Eurostat.

Postal address 60640 Frankfurt am Main, Germany
Telephone +49 69 1344 0
Website www.ecb.europa.eu

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