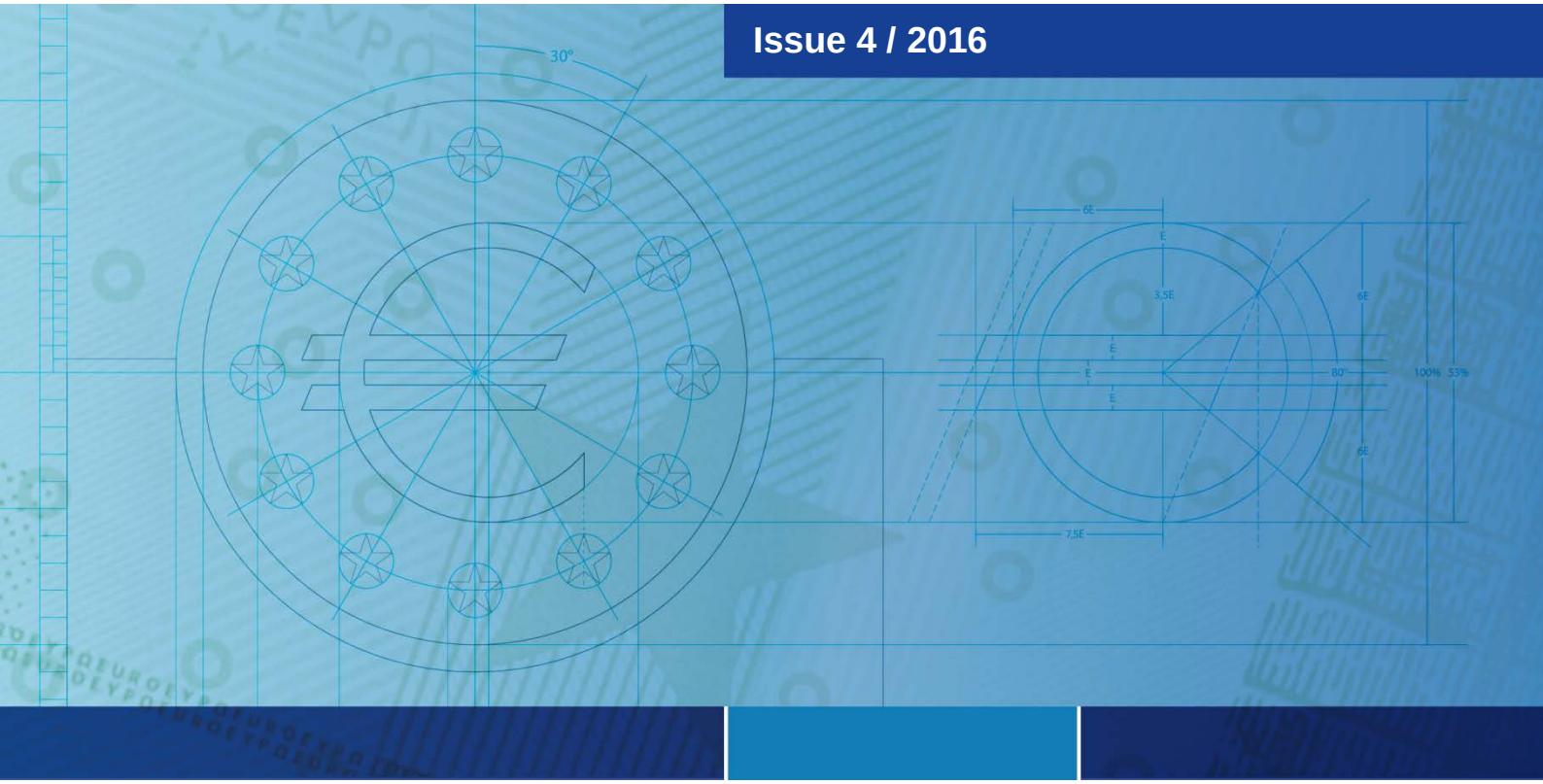
EUROPEAN CENTRAL BANK

EUROSYSTEM

Economic Bulletin

Issue 4 / 2016



Contents

Economic and monetary developments

Overview

At its monetary policy meeting on 2 June 2016, the Governing Council assessed that the comprehensive package of decisions taken in early March underpins the momentum of the euro area's economic recovery and fosters the return of inflation to levels below, but close to, 2%. The ECB's measures continue to ease the cost of credit and contribute to a strengthening in credit creation. The economic recovery in the euro area is proceeding gradually. Additional monetary stimulus, beyond the impetus already taken into account, is expected from the monetary policy measures still to be implemented, namely the corporate sector purchase programme (CSPP) and the new series of targeted longer-term refinancing operations (TLTRO II), and will contribute to further rebalancing the risks to the outlook for growth and inflation. In the current context, it is crucial to ensure that the very low inflation environment does not become entrenched in second-round effects on wage and price setting. The Governing Council will closely monitor the evolution of the outlook for price stability and, if warranted to achieve its objective, will act by using all the instruments available within its mandate.

Economic and monetary assessment at the time of the Governing Council meeting of 2 June 2016

Global growth remained subdued in the first quarter of 2016. Looking ahead, global activity is expected to continue to expand at a modest pace. Low interest rates, improving labour markets and growing confidence support the outlook for advanced economies. By contrast, the outlook for emerging market economies remains more uncertain as growth in China decelerates and commodity-exporting countries adjust to lower commodity prices.

Between early March and early June euro area and global financial markets returned to more stable conditions. A better than expected global economic performance, a further recovery in oil prices and additional monetary stimulus in the euro area supported the valuations of risky assets. Consequently, euro area equity prices increased moderately over the review period, while the announcement of the Eurosystem's corporate sector asset purchases significantly reinforced the decline in spreads on bonds issued by non-financial corporations. Long-term euro area sovereign yields declined somewhat, closely mirroring movements in global long-term yields. In foreign exchange markets, the euro strengthened mildly.

The economic recovery in the euro area is continuing. Euro area real GDP increased significantly in the first quarter of 2016. Growth continues to be supported by domestic demand, while being dampened by weak exports. The latest data point

to ongoing growth in the second quarter, though possibly at a lower rate than in the first quarter.

Looking ahead, the Governing Council expects the economic recovery to proceed at a moderate but steady pace. Domestic demand remains supported by the pass-through of the monetary policy measures to the real economy. Favourable financing conditions and improvements in corporate profitability continue to promote investment. Moreover, sustained employment gains, which are also benefiting from past structural reforms, and still relatively low oil prices provide additional support for households' real disposable income and private consumption. In addition, the fiscal stance in the euro area is slightly expansionary. However, the economic recovery in the euro area continues to be dampened by subdued growth prospects in emerging markets, the necessary balance sheet adjustments in a number of sectors and a sluggish pace of implementation of structural reforms.

The June 2016 Eurosystem staff macroeconomic projections for the euro area foresee annual real GDP to increase by 1.6% in 2016 and 1.7% in 2017 and 2018. Compared with the March 2016 ECB staff macroeconomic projections, the outlook for real GDP growth has been revised up for 2016 and has remained broadly unchanged for 2017 and 2018. In the Governing Council's assessment, the risks to the euro area growth outlook remain tilted to the downside, but the balance of risks has improved on the back of the monetary policy measures taken and the stimulus still in the pipeline. Downside risks continue to relate to developments in the global economy, to the upcoming British referendum on EU membership and to other geopolitical risks.

According to Eurostat's flash estimate, euro area annual HICP inflation in May 2016 was -0.1%. This low level of inflation reflects past falls in energy prices. Looking ahead, on the basis of current futures prices for oil, inflation rates are likely to remain very low or negative in the next few months before picking up in the second half of 2016, in large part owing to base effects in the annual rate of change in energy prices. Supported by the ECB's monetary policy measures and the expected economic recovery, inflation rates should recover further in 2017 and 2018.

The June 2016 Eurosystem staff macroeconomic projections for the euro area foresee annual HICP inflation at 0.2% in 2016, 1.3% in 2017 and 1.6% in 2018. In comparison with the March 2016 ECB staff macroeconomic projections, the outlook for HICP inflation has been revised slightly up for 2016, reflecting recent oil price increases, and has remained unchanged for 2017 and 2018.

The monetary policy measures in place since June 2014 have clearly improved credit flows across the euro area. Broad money growth decreased somewhat in April, but remained robust. Loan growth continued to recover gradually. Domestic sources of money creation were again the main driver of broad money growth. Low interest rates, as well as the effects of the ECB's targeted longer-term refinancing operations (TLTROs) and the expanded asset purchase programme (APP), continue to support money and credit dynamics. Banks have been passing on their favourable funding conditions in the form of lower lending rates, and the recovery in loan growth is still drawing strength from improved lending conditions. The total annual flow of

external financing to non-financial corporations is estimated to have increased moderately in the first quarter of 2016. Overall, the monetary policy measures in place since June 2014 have improved borrowing conditions for firms and households substantially and the comprehensive package of new monetary policy measures adopted in March this year underpins the ongoing upturn in loan growth, thereby supporting the recovery of the real economy.

Monetary policy decisions

The Governing Council assessed that a cross-check of the outcome of the economic analysis with the signals coming from the monetary analysis confirmed the need to preserve an appropriate degree of monetary accommodation in order to secure a return of inflation rates towards levels that are below, but close to, 2% without undue delay. The Governing Council decided to keep the key ECB interest rates unchanged and continued to expect these rates to remain at present or lower levels for an extended period of time, and well past the horizon of the Eurosystem's net asset purchases. Regarding non-standard monetary policy measures, the Governing Council confirmed that the monthly asset purchases of €80 billion are intended to run until the end of March 2017, or beyond, if necessary, and in any case until the Governing Council sees a sustained adjustment in the path of inflation consistent with its inflation aim. On 8 June the Eurosystem started making purchases under the CSPP. Moreover, on 22 June the Eurosystem will conduct the first operation of TLTRO II.

1 External environment

The subdued global growth recorded towards the end of last year persisted into the first quarter of 2016. Looking ahead, global activity is expected to continue to expand at a moderate pace. Low interest rates, improving labour market conditions and growing confidence support the outlook for advanced economies. By contrast, the outlook for emerging market economies remains more uncertain as growth in China decelerates and commodity-exporting countries adjust to lower commodity prices.

Global economic activity and trade

The global economy continues to expand at a moderate pace. Activity indicators have stabilised, suggesting a continued steady trajectory for the global economy. In financial markets, sentiment has rebounded. Nonetheless, uncertainties continue to cloud the horizon as countries navigate the effects of a number of developments currently shaping the international environment, such as low commodity prices adversely impacting commodity exporters; the tightening of financial conditions, mostly in emerging market economies, partly associated with the normalisation of US monetary policy; the gradual rebalancing of the Chinese economy; and geopolitical risks, including the upcoming British referendum.

Commodity prices have rebounded over the last three months. The price of Brent crude oil has bottomed out following the 12-year low recorded in January. Non-oil commodity prices have also increased in the same period. The recent rise in oil prices reflects a combination of weaker supply and stronger demand. Global oil supply remained rather flat in March and April as OPEC output increased, while non-OPEC output declined, particularly in the United States. At the same time, the International Energy Agency raised its forecast for growth in global oil demand in the first quarter of 2016, but left the growth estimate for 2016 unchanged. From a longer-term perspective, however, oil prices remain substantially below the peaks of 2014. As Box 1 discusses, the anticipated boost to global activity from the pronounced slump in oil prices has been more muted than expected. One factor behind this outcome is that the drivers of the oil price decline have changed over time. While most of the early oil price decline in 2014 was explained by the strong rise in oil supply, subsequent falls appear to have reflected weakening global demand.

Monetary policies in advanced economies remain highly accommodative. Having flattened during January, the Federal Funds Futures curve has shifted upwards. With interest rates expected to remain low for an extended period of time in other major economies, the prospect of policy divergence among advanced economies has increased.

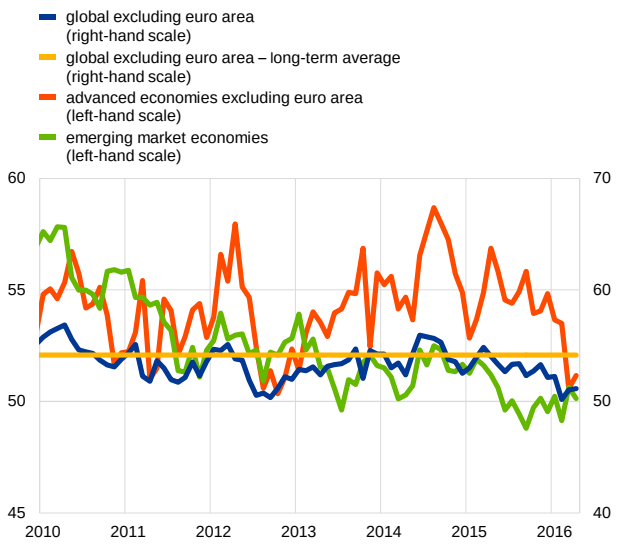
The subdued global growth towards the end of last year persisted into early 2016. GDP growth moderated in the first quarter in the United States and the United Kingdom, although it rebounded somewhat in Japan. On average, activity in other non-euro area European economies also weakened. The data for emerging market economies have been more mixed. In China, macroeconomic data remain consistent

with a gradual slowdown, with activity supported by a rebound in the property sector and robust infrastructure spending in the first quarter. Russia has remained in deep recession, although there are signs that the economy is bottoming out as it benefits from higher oil prices. By contrast, the strong downturn in Brazil has continued amid high political uncertainty.

While survey indicators of global economic activity have stabilised, trade growth has lost significant momentum. Following its lowest reading in more than four years in February, the global composite output Purchasing Managers' Index (PMI), excluding the euro area, recovered somewhat in April (see Chart 1). However, OECD composite leading indicators also point to a loss of growth momentum in advanced and emerging economies. Global trade growth turned negative again at the start of 2016. The volume of global imports of goods fell by 1.8% in the first quarter of the year. Estimates of trade volumes were revised sharply downwards for January and February (see Chart 2). Although advanced economies still reported positive import growth, trade was very weak in emerging market economies, particularly in emerging Asia. The negative reading for the first quarter of 2016 followed two consecutive quarters of relatively strong import growth. Base effects related to a particularly weak figure for January may point to improved momentum in the coming months, but surveys continue to suggest a subdued outlook for global trade, with the global PMI for new export orders decreasing in April.

Chart 1
Global composite output PMI

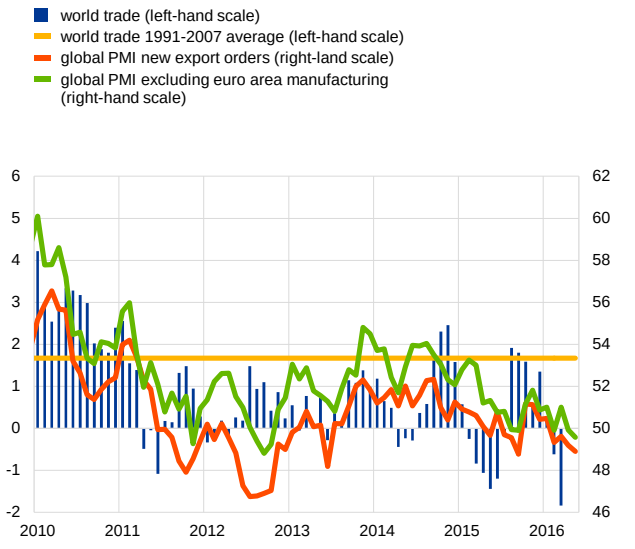
(diffusion index)



Sources: Markit and ECB calculations.
Note: The latest observation is for April 2016.

Chart 2
World trade in goods

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



Sources: Markit, CPB and ECB calculations.
Note: The latest observation is for April 2016 for PMIs and March 2016 for world trade.

Looking ahead, global economic activity is expected to continue to expand at a moderate pace, driven by still-resilient growth prospects in most advanced economies and the progressive easing of the deep recessions in some large emerging market economies. Continued low interest rates, improving labour market conditions and growing confidence are expected to support the outlook for

advanced economies. By contrast, the outlook for emerging market economies remains more uncertain. The gradual deceleration of the Chinese economy is likely to weigh on growth in other emerging market economies, particularly in emerging Asia. Nevertheless, the gradual recovery of Russia and Brazil from deep recessions should support global growth.

Looking at individual countries in more detail, after moderating in the first quarter of the year, economic activity in the United States is expected to rebound. Domestic fundamentals remain supportive – reflected in strong job growth, rising nominal wages and an increase in real disposable income – with domestic demand expected to continue as the main driver of the US growth outlook. Activity should gradually gain traction, supported by more robust consumption and the end of the adjustment in the energy sector. On the other hand, net exports are likely to remain a drag on activity given the past strengthening of the US dollar and weak growth in foreign demand. At the same time, although credit spreads have declined somewhat, interest rates have risen.

Economic activity in the United Kingdom continues to grow steadily. A moderate recovery in activity is expected, driven primarily by consumption as low energy prices continue to raise real disposable incomes. Although lower than in previous years, investment growth remains positive, supported by easing credit conditions. However, growth is potentially constrained by the uncertainty surrounding the referendum on EU membership.

The outlook for Japan remains subdued. Following the decline in activity in the final quarter of 2015, GDP rebounded in the first quarter of this year. Looking ahead, activity should benefit from accommodative monetary policy and the boost to incomes from lower oil prices. A gradual rise in real wages, reflecting the tightening labour market, should also support household spending. Exports are expected to benefit from gradually improving foreign demand, but this will be tempered by the recent rebound of the yen. Moreover, fiscal consolidation will weigh on demand.

Real economic activity in central and eastern Europe – albeit uneven across countries – is projected to remain robust. The main drivers of growth in the region continue to be dynamic private consumption – reflecting higher real disposable income in the low inflation environment – and strong investment growth supported by EU structural funds.

The Chinese economy is expected to slow in the medium term. Activity continues to be supported by low oil prices, robust consumption and a marked improvement in the housing market. Greater stability in financial markets and the renminbi (effective) exchange rate have helped to alleviate some of the uncertainty, which was particularly high at the start of the year. In the near term, monetary accommodation and fiscal stimulus is expected to provide some support for the economy. In the medium term, however, increasing emphasis on reducing overcapacity in some heavy industries and dealing with the related non-performing loans are expected to slow the pace of expansion.

Commodity-exporting countries continue to adjust to the sustained decline in commodity prices. In Russia, still in the midst of a deep recession, funding costs remain elevated despite the easing of financing conditions during 2015. Uncertainty is high, business confidence is weak and lower oil revenue continues to keep public expenditure depressed. Looking ahead, weak positive growth is expected to return only in the second half of 2016, while in 2017 the economy is projected to grow at around its potential rate. In Brazil, political uncertainty, deteriorating terms of trade, and tightening monetary policy and financing conditions are weighing heavily on economic activity. Looking ahead, growth is projected to recover somewhat from the deep recession, as commodity prices stabilise and the drag on investment in commodity sectors moderates.

Overall, the outlook for global growth remains one of a gradual and uneven recovery. According to the June 2016 Eurosystem staff macroeconomic projections, world real GDP growth excluding the euro area is projected to accelerate from 3.1% in 2016 to 3.7% in 2017 and 3.8% in 2018. Euro area foreign demand is expected to increase from 2.0% in 2016 to 3.5% in 2017 and 4.0% in 2018. The modest pick-up in activity and trade foreseen in the baseline scenario reflects resilient growth in advanced economies and a progressive easing of the deep recessions in large emerging market economies, namely Russia and Brazil, over the projection horizon, offsetting the gradual slowdown in the Chinese economy. Compared with the March projections, the outlook for world growth has been revised slightly downwards. Revisions to euro area foreign demand are broadly in line with those to world growth.

Risks to the outlook for global activity remain on the downside, most prominently for emerging market economies. A key downside risk is a stronger slowdown in emerging market economies, including China. Tightening financing conditions and heightened political uncertainty may exacerbate existing macroeconomic imbalances, denting confidence and slowing growth more than expected. Policy uncertainty surrounding the economic transition in China may lead to an increase in global financial volatility. Geopolitical risks also continue to weigh on the outlook, including the upcoming British referendum. Finally, persistently low oil prices may aggravate fiscal or financial imbalances in some oil-exporting countries.

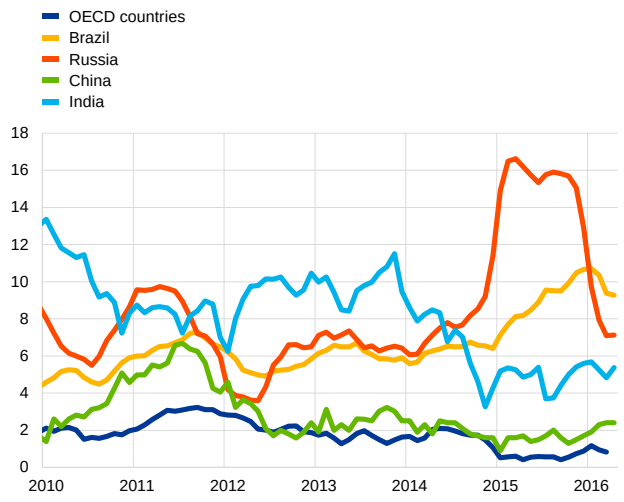
Global price developments

The effects of past oil price declines continue to weigh on global headline inflation. Annual consumer price inflation in the OECD area fell to 0.8% in March, from 1.0% in February, as the drag from falling energy prices increased (see Chart 3). Excluding food and energy, OECD annual inflation has remained unchanged at 1.9% since December. Among large emerging market economies, inflation remains high in Brazil but has fallen in Russia, as the effects of past depreciation of the rouble have waned. In China, inflation has risen slightly on the back of a temporary increase in food prices.

Chart 3

Consumer price inflation

(year-on-year percentage changes)



Sources: National sources and OECD.
Note: The latest observation is for April 2016 for individual countries and March 2016 for the OECD countries.

Global inflation is expected to remain subdued in the short term, before rising slowly from the second half of 2016 onwards. The fall in the prices of oil and other commodities at the start of the year – the recent rebound notwithstanding – should dampen inflation rates further in the short term. Looking ahead, the upward sloping oil futures curve implies increases in oil prices over the projection horizon. At the same time, abundant spare capacity at the global level is expected to weigh on underlying inflation over the medium term.

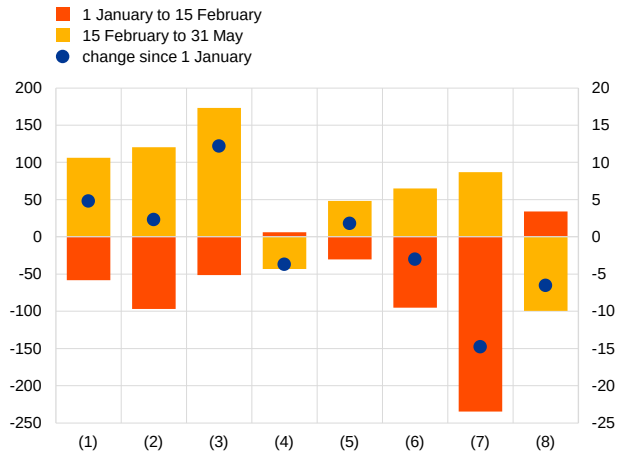
2 Financial developments

Between early March and early June euro area financial markets returned to more stable conditions relative to those prevailing at the beginning of 2016, just like their counterparts at the global level. Better than expected global economic conditions, a further recovery in oil prices and additional monetary stimulus in the euro area supported market valuations of risky assets. Euro area equity prices increased moderately over the review period, i.e. between 9 March and 1 June 2016, while the announcement of corporate sector asset purchases by the Eurosystem significantly reinforced the decline in spreads on bonds issued by non-financial corporations (NFCs). Yields on long-term euro area sovereign bonds declined somewhat, closely mirroring movements in global long-term yields. In foreign exchange markets, the euro strengthened modestly.

Chart 4

Financial market developments

(left-hand scale: basis point changes for 4, 6, 7 and 8; right-hand scale: percentage changes for 1, 2, 3 and 5)

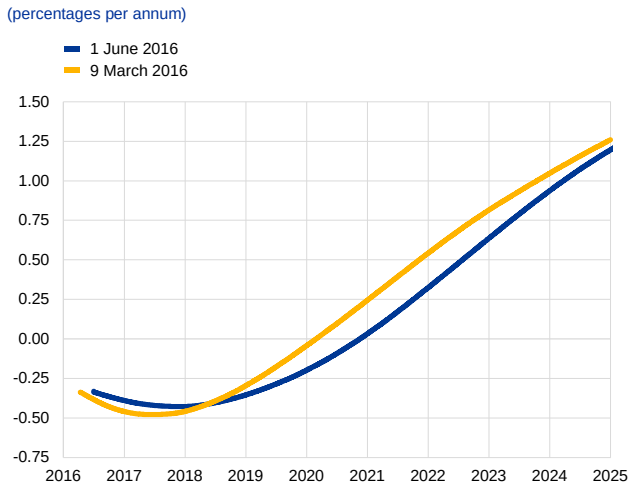


Sources: Standard &Poor's, Financial Times, JP Morgan, Haver Analytics, Merrill Lynch.
Notes: (1) S&P 500; (2) FTSE All-World index, excluding United States; (3) Brent crude oil price in US dollars; (4) ten-year US sovereign bond yield; (5) GDP – PPP-weighted average of percentage change in the exchange rates of emerging market economies (EMEs) against the US dollar; (6) JP Morgan Emerging Market Bond Index (EMBI) sovereign bond spread, basis points; (7) US high-yield corporate bond yield; (8) CBOE Volatility Index (VIX).

In contrast to the developments observed at the beginning of the year, financial markets across the euro area – and the world as a whole – experienced a period of relative tranquillity between early March and early June 2016, following improvements in the global economy and further increases in the price of oil. These improvements continued a trend that had started in the middle of February on the back of positive economic data releases in the United States, a recovery in oil prices, and expectations of further monetary stimulus in the euro area. The concomitant improvement in global financial market sentiment and decline in financial market volatility continued after the Governing Council announced additional easing measures at its meeting in March. Overall, these developments helped stock markets in most advanced economies to recoup the losses incurred since the start of the year, while corporate bond spreads narrowed. In emerging markets, sovereign bond spreads became smaller, with most countries experiencing an improvement in external financing conditions (see Chart 4).

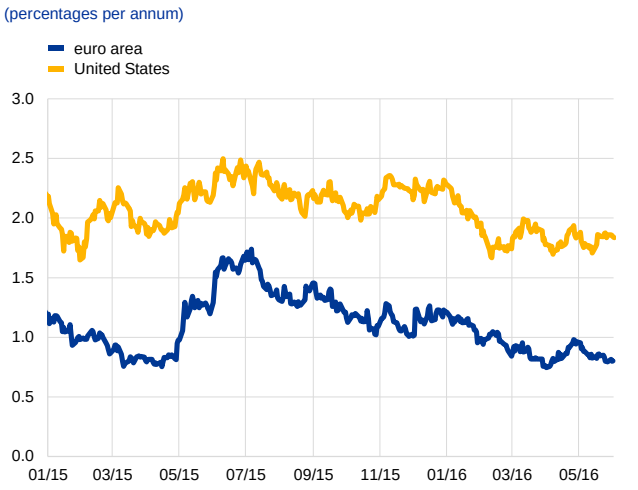
The euro overnight index average (EONIA) declined during the review period, following the Governing Council's decision to cut the deposit facility rate by 10 basis points to -0.40% on 10 March. The EONIA fell by 9.7 basis points during the review period (9 March to 1 June), reflecting a complete pass-through of the decrease in the deposit facility rate. Since the start of the second reserve maintenance period of 2016, when the rate cut took effect, the EONIA has remained in a range between -32 and -36 basis points, except for at the end of the first quarter, when it temporarily rose to -30 basis points. Excess liquidity increased by €144 billion, to around €845 billion, in the context of Eurosystem purchases under the expanded asset purchase programme (see also Box 2).

Chart 5
EONIA forward rates



Sources: Thomson Reuters and ECB calculations.

Chart 6
Ten-year sovereign bond yields in the euro area and the United States



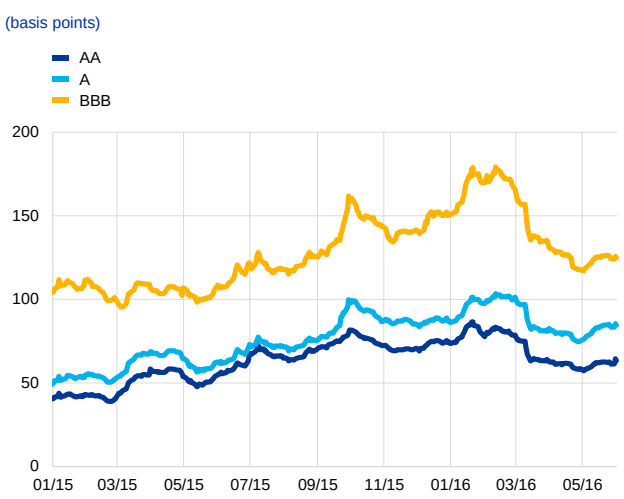
Source: Thomson Reuters.
Notes: The item “euro area” denotes the GDP-weighted average of ten-year sovereign bond yields. The item "United States" denotes the ten-year Treasury yield. The latest observation is for 1 June 2016.

Amid the low overall volatility, changes in the EONIA forward curve were limited, with some declines in the middle segment of the curve. At the short end, the curve moved marginally upwards over the review period, largely reflecting financial markets’ upward revision of short-term forward rates in the euro area on the day of the Governing Council’s meeting in March. In the middle segment, the curve shifted downwards somewhat, suggesting that market participants were expecting the key ECB interest rates to stay lower for longer. By contrast, longer-term EONIA forward rates were virtually unchanged between early March and early June (see Chart 5).

Yields on long-term euro area government bonds declined somewhat over the review period, closely mirroring movements in global long-term yields. In March sovereign yields were on a downward trajectory, with the GDP-weighted average of ten-year euro area government bond yields reaching an all-time low of 0.75% on 1 April 2016. Euro area long-term yields increased thereafter, but repeated declines set in from late April. These declines in long-term spot rates were consistent with the decrease in medium-term EONIA forward rates and saw the GDP-weighted ten-year yield end the review period 11 basis points below its level on 9 March (see Chart 6). Overall, the declines in yields were marginally more pronounced for higher-rated euro area countries, but there were significant reductions in Greek sovereign bond yields in the context of the Eurogroup’s extension of loans to Greece. While euro area long-term yields generally moved closely in line with their global counterparts, long-term bond yield spreads between the United States and the euro area widened, mainly reflecting market perceptions of increased divergence of the monetary policies of the two economies.

Chart 7

Spreads of euro area investment-grade non-financial corporate bonds, by rating



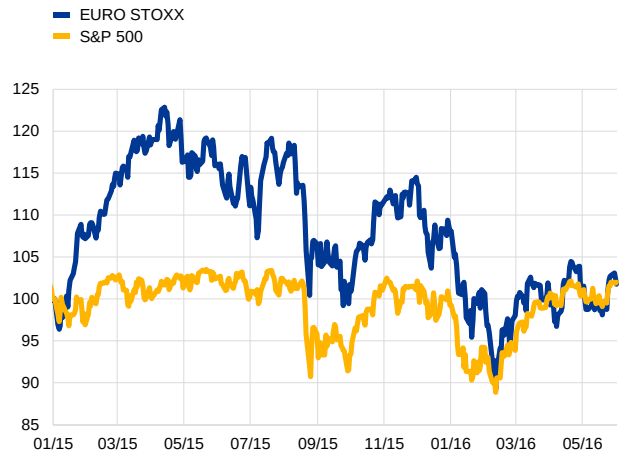
Source: Thomson Reuters.
Note: The latest observation is for 1 June 2016.

Following the Governing Council's announcement of the corporate sector purchase programme (CSPP), spreads on bonds issued by non-financial corporations declined significantly. The announcement of the CSPP in March reinforced a narrowing of NFC bond spreads that had been ongoing amid the improvement in global market sentiment from mid-February. Spreads then continued to decline gradually, including after the release of the CSPP implementation details at the Governing Council's meeting in mid-April, before widening slightly in the course of May. On balance, NFC bond spreads in early June were significantly lower than in early March (see Chart 7). While spreads on bank bonds followed a similar pattern, their reductions were relatively more muted.

Euro area stocks recorded moderate gains amid low market volatility. The broad EURO STOXX index increased by around 2% between 9 March and 1 June 2016. This compares with the circa 6% rise made by the S&P 500 index in the United States (see Chart 8). Euro area bank equity prices decreased by around 2%. Moreover, the prices of euro area bank stocks experienced more pronounced swings in both directions than the wider market as profitability concerns, as well as country and bank-specific events, continued to weigh on the sector.

Chart 8

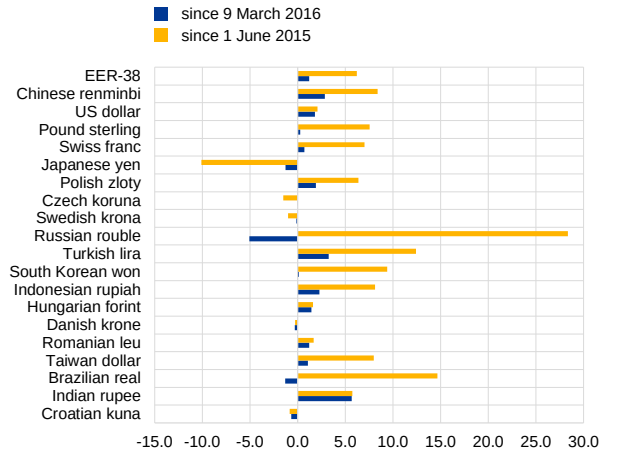
Euro area and US equity price indices



Sources: Thomson Reuters and ECB calculations.
Note: The latest observation is for 1 June 2016.

Chart 9

Changes in the exchange rate of the euro against selected currencies



Source: ECB.
Notes: Percentage changes are relative to 1 June 2016. 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.

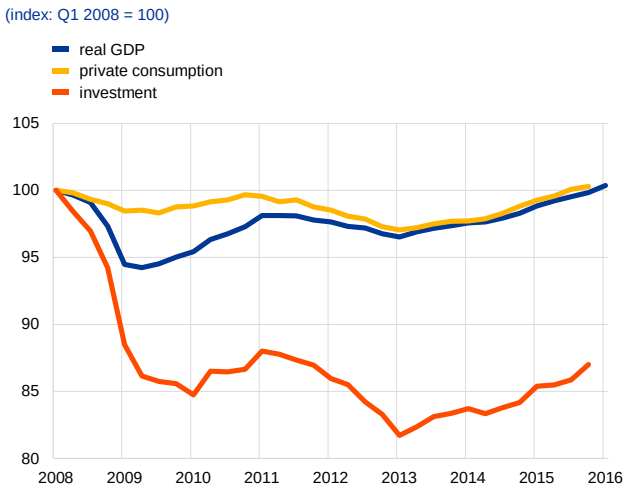
In foreign exchange markets, the euro strengthened modestly in effective terms. The currency appreciated between early March and late April, largely

reflecting evolving market expectations regarding monetary policy stances across major economies. It was also supported by improved market sentiment towards the euro following better than expected data on economic activity in the euro area. From early May the euro weakened in effective terms, also against the US dollar amid the widening of long-term bond yield spreads between the United States and the euro area. Overall, the euro strengthened by 1.2% in trade-weighted terms from 9 March to 1 June (see Chart 9). In bilateral terms, the euro appreciated against the US dollar, the Chinese renminbi, the Swiss franc and the currencies of many emerging market economies, as well as the currencies of most central and eastern European countries. It weakened against the Russian rouble, the Japanese yen and the currencies of some commodity-exporting countries.

3 Economic activity

Euro area real GDP increased significantly in the first quarter of 2016 and growth continues to be supported by domestic demand, while being dampened by weak exports. The latest data point to ongoing growth in the second quarter, though possibly at a lower rate than in the first quarter. Looking ahead, the economic recovery is expected to proceed at a moderate but steady pace. Domestic demand remains supported by the pass-through of the ECB's monetary policy measures to the real economy. Favourable financing conditions and improvements in corporate profitability continue to promote investment. Moreover, sustained employment gains, which are also benefiting from past structural reforms, and still relatively low oil prices provide additional support for households' real disposable income and private consumption. In addition, the fiscal stance in the euro area is slightly expansionary. However, the economic recovery in the euro area continues to be dampened by subdued growth prospects in emerging markets, the necessary balance sheet adjustments in a number of sectors and a sluggish pace of implementation of structural reforms. The June 2016 Eurosystem staff macroeconomic projections foresee euro area real GDP growing by 1.6% in 2016 and by 1.7% in 2017 and 2018.

Chart 10
Euro area real GDP, private consumption and investment



Source: Eurostat.
Note: The latest observation is for the first quarter of 2016 for real GDP and the fourth quarter of 2015 for the components.

Economic growth in the euro area strengthened in the first quarter of 2016 and the level of real GDP has now surpassed its peak in 2008 (see Chart 10). Real GDP growth came out stronger than in the previous quarter in many euro area countries and seems to have been supported by continued positive contributions from private consumption and also investment, which nonetheless remains far below its peak level seen before the crisis. Net exports are likely to have continued to be a drag on growth in the first quarter of 2016, on account of the subdued growth in global trade.

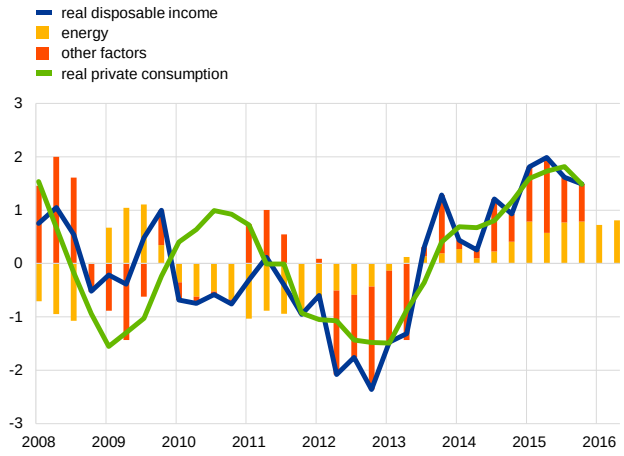
Private consumption dynamics seem to have held up in the first quarter of 2016 and this component remains the main driver of the ongoing recovery. Despite a fall in March, retail sales and car registrations rose by 1%, quarter on quarter, in the first quarter, following a temporary slowdown in the fourth quarter of 2015, reflecting lower sales of seasonal clothing and lower energy consumption due to the mild winter, as well as adverse impacts stemming from the November terrorist attacks in Paris. From a longer perspective, consumer spending has benefited from rising real disposable income among households, which in turn primarily reflects rising employment but also lower oil prices (see Chart 11) and a fairly stable savings ratio. Moreover, while euro area households' interest earnings have declined since 2008, their net interest earnings have been fairly stable. With redistribution from net savers to net borrowers, interest income should continue, on balance, to support private consumption (see Box 3

entitled “Low interest rates and households’ net interest income”). Furthermore, households’ balance sheets have gradually become less constrained and consumer confidence has regained strength on the back of the continued decline in the unemployment rate.

Chart 11

Real disposable income and private consumption

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



Sources: Eurostat and ECB calculations.
Notes: The latest observation is for the fourth quarter of 2015 for real disposable income and private consumption. The second quarter for the energy contribution is based on monthly (estimated) data up to May 2016.

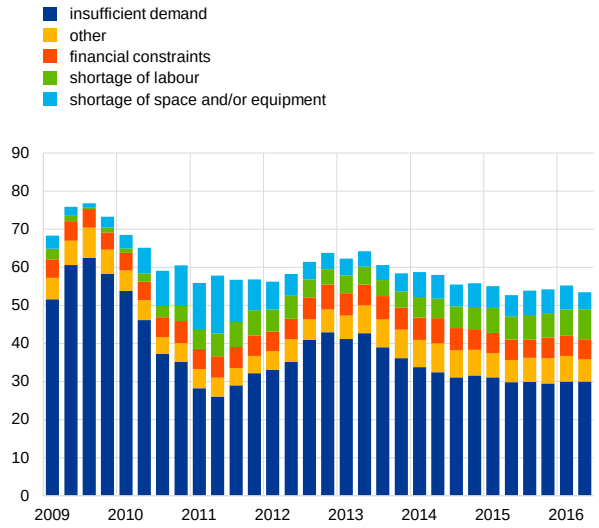
Further improvements in euro area labour markets lend support to private consumption via aggregate labour income. Employment increased further, rising by 0.3%, quarter on quarter, in the fourth quarter of 2015. As a result, employment stood 1.2% above the level recorded one year earlier, which represents the highest annual increase since the second quarter of 2008. Meanwhile, the unemployment rate stood at 10.2% in April, the lowest rate since August 2011, having declined consistently since mid-2013. More timely information such as surveys point to ongoing moderate improvements in euro area labour markets. Notwithstanding these positive developments, wider measures of unemployment – which also take into account sections of the working age population involuntarily working part-time or which have withdrawn from the labour market – remain high, however. Roughly 4% of the labour force is currently involuntarily working part-time owing to a lack of full-time work and a similar proportion is discouraged and is not actively seeking work. Thus, the euro area labour market is likely to be characterised by substantially more slack than suggested by the unemployment rate alone.

Following an increase in capacity utilisation in the manufacturing sector and overall strong growth in capital goods production, investment growth is likely to have continued at the robust pace seen at the turn of the year. Demand conditions have also improved and are thus supporting business investment. Since 2013, for example, demand has become less frequently mentioned in the European Commission’s survey as a factor limiting production (see Chart 12). Residential investment, on the other hand, was likely to have been supported by favourable weather conditions in the first quarter, but also by the strengthening of housing markets more generally as evidenced by increases in applications for building permits and demand for mortgages. Looking ahead, demand for residential property should be further bolstered by low mortgage rates and growth in households’ disposable income, as well as by some search for yield in an environment where the return on alternative assets is low. Improving financing conditions, rising profits and ample cash reserves among euro area firms, combined with gradually improving domestic and external demand, are also expected to support business investment going forward. Nevertheless, the recovery in total investment may be dampened by the further need for corporate deleveraging in some countries, investors’ reduced long-term growth expectations and subdued growth prospects in emerging market economies.

Chart 12

Factors limiting production

(percentage shares)

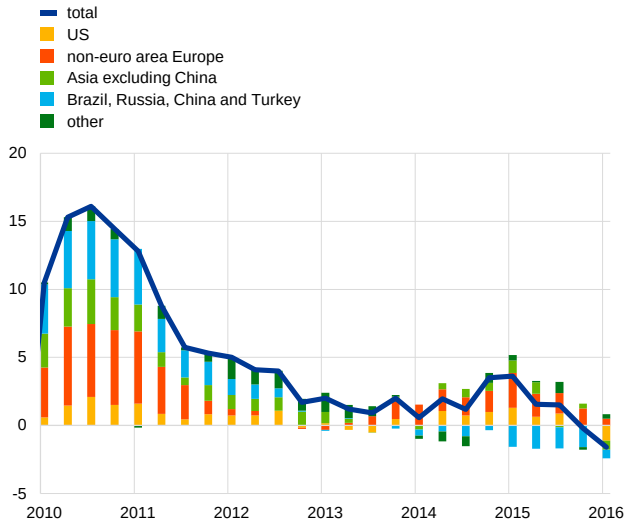


Source: European Commission.
Note: The latest observation is for the second quarter of 2016.

Chart 13

Extra-euro area exports of goods

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



Source: Eurostat.
Note: The latest observation is for the first quarter of 2016, based on monthly data up to February 2016 for the EU countries and March 2016 for all other countries.

The downward trend in goods export growth seems to have continued in the first quarter of 2016 following subdued global trade developments (see Chart 13). Important export destinations such as the United States, but also Switzerland and Japan contributed negatively to export growth and exports to the United Kingdom grew less than in the last quarter of 2015. Among the large emerging market economies, weak demand in Brazil and Russia remained a drag on goods export growth, while the contribution of China was broadly neutral after having been negative during 2015.

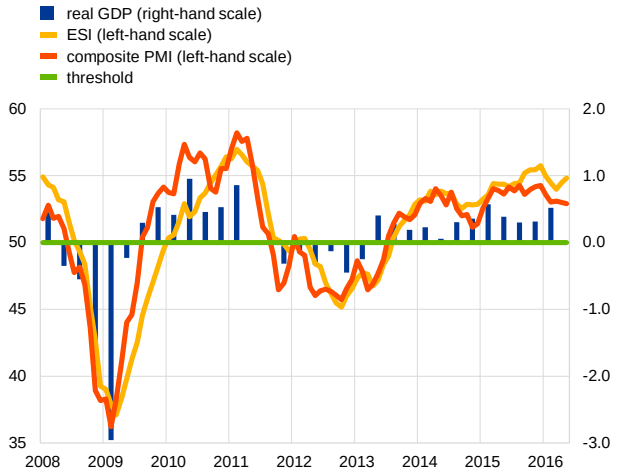
Export growth is expected to increase only modestly in the short term, amid continuing weak global trade dynamics. Export orders as well as sentiment among exporters point to continued subdued external trade developments in the near term and recent movements in the effective exchange rate of the euro are not providing any relief. However, export market shares are expected to remain elevated owing to the lagged effects of previous gains in competitiveness. Looking further ahead, euro area export growth is expected to gradually pick up in line with euro area foreign demand.

Overall, available short-term indicators point to ongoing moderate growth in the second quarter of 2016. The European Commission's Economic Sentiment Indicator (ESI) rose in April and May, while the composite output Purchasing Managers' Index (PMI) edged down (see Chart 14), with both indicators remaining above their long-term average levels. Industrial production (excluding construction) declined in February and March, however, signalling some downside risks to quarterly production growth in the second quarter owing to the associated negative carry-over effects.

Chart 14

Euro area real GDP, the composite PMI and the ESI

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

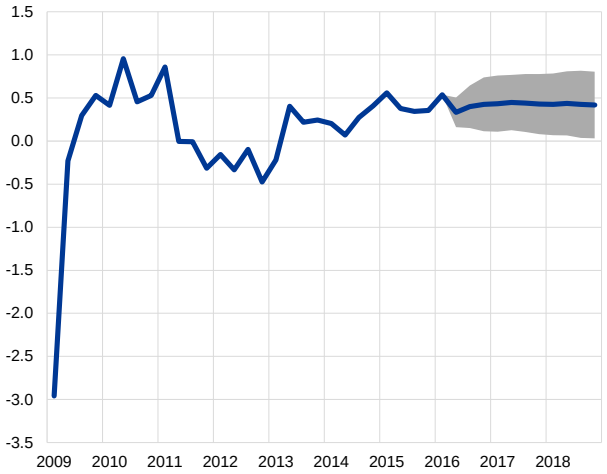


Sources: Markit, European Commission and Eurostat.
Notes: The latest observations are for the first quarter of 2016 for the GDP outcome and May 2016 for the ESI and PMI. The ESI and PMI are normalised.

Chart 15

Euro area real GDP (including projections)

(quarter-on-quarter percentage changes)



Sources: Eurostat and the article entitled "June 2016 Eurosystem macroeconomic projections for the euro area", published on the ECB's website on 2 June 2016.

Looking further ahead, the economic recovery in the euro area is expected to proceed, supported by the pass-through of the ECB's monetary policy measures to the real economy. Investment should also be promoted by further improvements in corporate profitability, while consumer spending is expected to be sustained by ongoing employment gains alongside the still relatively low price of oil. However, the economic recovery continues to be dampened by subdued growth prospects in emerging markets.

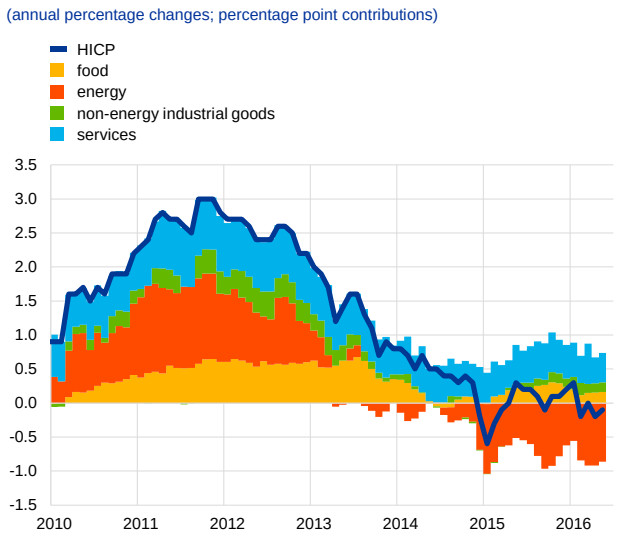
The June 2016 Eurosystem staff macroeconomic projections for the euro area foresee annual real GDP increasing by 1.6% in 2016 and 1.7% in 2017 and 2018 (see Chart 15). Compared with the March 2016 ECB staff macroeconomic projections, the outlook for real GDP growth has been revised up for 2016 and has remained broadly unchanged for 2017 and 2018. The risks to the euro area growth outlook remain tilted to the downside, but the balance of risks has improved on the back of the monetary policy measures taken and the stimulus still in the pipeline. Downside risks continue to relate to developments in the global economy, to the upcoming British referendum on EU membership and to other geopolitical risks.

4 Prices and costs

According to Eurostat's flash estimate, euro area annual HICP inflation was -0.1% in May. This low inflation rate reflects past falls in energy prices. Looking ahead, on the basis of current futures prices for oil, inflation rates are likely to remain very low or negative in the next few months before picking up in the second half of 2016, in large part owing to base effects in the annual rate of change of energy prices. Supported by the ECB's monetary policy measures and the expected economic recovery, inflation rates should recover further in 2017 and 2018. This broad pattern is also reflected in the June 2016 Eurosystem staff macroeconomic projections for the euro area, which foresee annual HICP inflation at 0.2% in 2016, 1.3% in 2017 and 1.6% in 2018. Compared with the March 2016 ECB staff macroeconomic projections, the outlook for HICP inflation remains broadly stable.

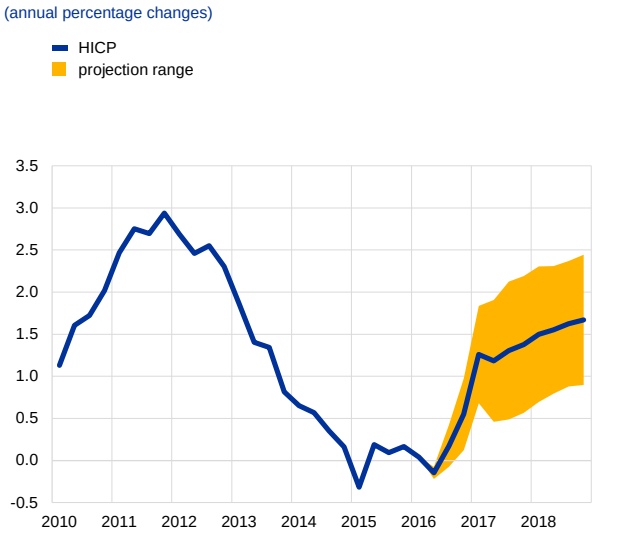
Headline inflation increased slightly in May, but remained in negative territory. According to Eurostat's flash estimate, the annual rate of HICP inflation increased to -0.1% in May, from -0.2% in April, driven mainly by higher energy price inflation and somewhat higher services price inflation (see Chart 16). Owing to the increase in services price inflation from 0.9% in April to 1.0% in May, HICP inflation excluding food and energy increased from 0.7% in April to 0.8% in May.

Chart 16
Contribution of components to euro area headline HICP inflation



Sources: Eurostat and ECB calculations.
Note: The latest observations are for May 2016 (flash estimates).

Chart 17
Euro area HICP inflation (including projections)



Sources: Eurostat and the article entitled "June 2016 Eurosystem staff macroeconomic projections for the euro area", published on the ECB's website on 2 June 2016.
Note: The latest observation is for the first quarter of 2016 (actual data) and the fourth quarter of 2018 (projections).

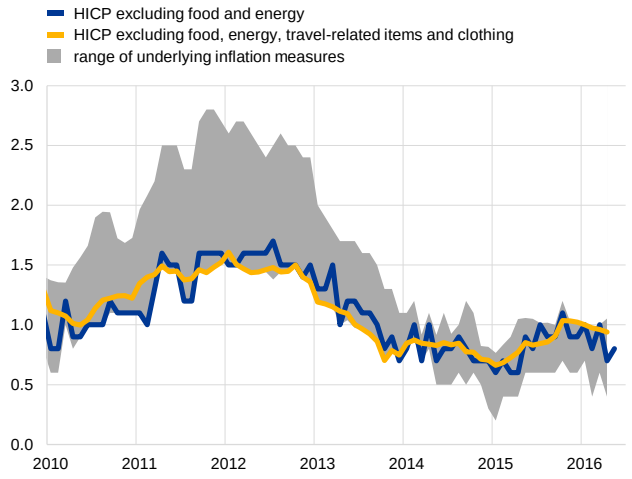
Energy prices continue to be a major drag on headline inflation. For almost one-and-a-half years, the negative contribution of energy price inflation has ranged between 0.5 and 1 percentage point (see Chart 16). Oil prices in (US) dollars have been rising since a low in January 2016 but are still well below the levels observed a year ago. Therefore the recent price increases have only contributed slightly to

containing the negative contribution of energy prices to headline inflation, as HICP energy price inflation still stood at a very low level of -8.1% in May 2016. The impact of the recent upward movement in oil prices will become clearer once the earlier strong declines drop out of the annual inflation rate calculation. The associated upward impacts of the resulting base effects explain most of the expected rise in headline HICP inflation over the coming period until early 2017 (see Chart 17).

Chart 18

Measures of underlying inflation

(annual percentage changes)



Sources: Eurostat and ECB calculations.
Notes: In the range of underlying measures, the following have been considered: HICP excluding energy; HICP excluding unprocessed food and energy; HICP excluding food and energy; HICP excluding food, energy, travel-related items and clothing; trimmed mean (10%); trimmed mean (30%); the median of the HICP; and a measure based on a dynamic factor model. The latest observations are for May 2016 (HICP excluding food and energy, flash estimate) and April 2016 (all other measures).

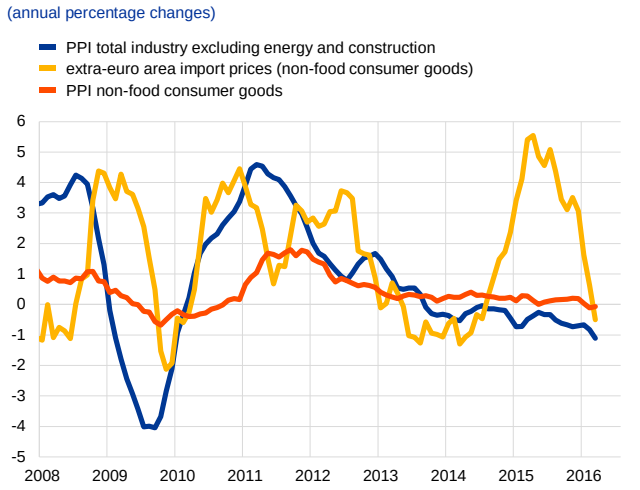
Underlying inflation fails to show any clear upward trend. This is corroborated by a broad range of alternative measures of underlying inflation (see Chart 18). Following an upward movement in the first half of 2015, HICP inflation excluding food and energy hovered between year-on-year rates of 0.8% and 1.1% from July 2015 to March 2016. Its movement recently has been quite volatile, with the annual rate of change increasing from 0.8% in February to 1.0% in March but then falling back to 0.7% in April. This movement resulted primarily from developments in services price inflation, which increased from 0.9% in February, to 1.4% in March 2016, but then returned to 0.9% in April. The recent volatility in HICP inflation excluding food and energy can therefore largely be explained by a calendar effect. Easter occurred in March this year and in April last year, pushing the annual services price inflation rate up in March 2016 and down in April 2016, particularly for travel-related items such as package holidays. When looking at an HICP measure which excludes, in addition to food and energy, items such as travel, and clothing and footwear – which can be strongly affected by calendar effects – the underlying inflation trend is far more stable but shows no clear signals of upward momentum.

The import price inflation rate turned negative and producer price pressures have remained subdued. In 2015 import price inflation in consumer goods excluding food and energy was buoyant, reaching a record high of 5.6% in April of that year. Due to the recent appreciation of the effective exchange rate of the euro and also to the impact of global disinflationary pressures stemming from lower oil prices, this rate has since fallen and, at -0.5%, entered negative territory in March (see Chart 19). The impact of decelerating import prices is evident in the durable goods component of HICP inflation, which saw strong upward momentum that is now continuing to lose its vigour. Inflation rates in other components of the HICP consumer goods sub-indices with relatively high import content, such as semi-durables, have also declined recently. This direct impact of the effective exchange rate of the euro via imported consumer goods should be distinguished from the overall effects of exchange rate movements working through the production and pricing chain. As these take several quarters to fully materialise, the past depreciation of the euro exchange rate is also still passing through. However, for the time being, the annual inflation rate of domestic producer prices for non-food

consumer goods has also remained subdued, at -0.1% in March (unchanged from February). Survey data on input and output prices for the period up to May 2016 point to a continuation of low price pressures at the producer level.

Chart 19

Producer prices and import prices



Sources: Eurostat and ECB calculations.
Note: The latest observations are for March 2016.

Wage pressures remain subdued. Negotiated wage growth decreased slightly to 1.4% in the first quarter of 2016, compared with a rate of 1.5% in the fourth quarter of 2015, and for 2015 as a whole. Wage growth is likely being held back by a range of factors including: continued elevated levels of slack in the labour market; relatively weak productivity growth associated with a large number of jobs being created in services sectors with relatively low productivity; low inflation; and the ongoing effects of labour market reforms implemented in past years in a number of euro area countries.[1]

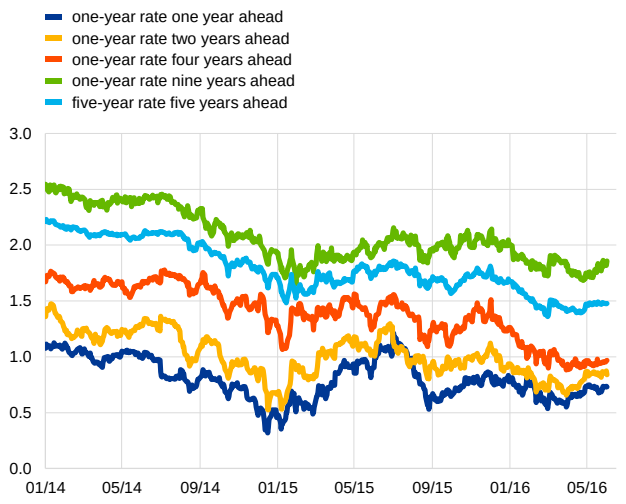
Market-based measures of long-term inflation expectations have continued to stabilise, but remain at levels substantially below those of survey-based expectation measures. The five-year forward inflation rate five years ahead has increased recently to stand somewhat higher than its all-time low at the end of February (see Chart 20). However, looking at a longer historical period, market-based measures of inflation remain at low levels. This partly reflects an indication that market participants consider inflation unlikely to pick up soon. At the same time, it also reflects current inflation risk premia that are most likely slightly negative, suggesting that market-based indicators of inflation tend to underestimate future inflation somewhat. Despite the low level of actual inflation and of market-based inflation expectation indicators, the deflation risk priced in by the market continues to be very limited. In contrast to market-based measures, survey-based measures of long-term inflation expectations, such as those included in the ECB Survey of Professional Forecasters (SPF) and in Consensus Economics surveys, have been far more stable and resilient to the downward adjustment of shorter-term expectations. According to the results of the latest SPF, the average point forecast for inflation five years ahead stands at 1.8%, unchanged from the previous survey, and the downside risk to this mean expectation appears to have decreased slightly.

1 See also the box entitled “Recent wage trends in the euro area”, *Economic Bulletin*, Issue 3, ECB, 2016.

Chart 20

Market-based measures of inflation expectations

(annual percentage changes)



Sources: Thomson Reuters and ECB calculations.
Note: The latest observations are for 1 June 2016.

Looking forward, HICP inflation for the euro area is projected to be low in 2016 but to pick up in 2017 and 2018. Based on the information available in mid-May, the June 2016 Eurosystem staff macroeconomic projections for the euro area foresee an HICP inflation rate of 0.2% in 2016, rising to 1.3% in 2017 and 1.6% in 2018 (see Chart 17).[2] Over the projection horizon, developments in energy price inflation are expected to play a major role in shaping the profile of HICP inflation. The contribution of energy price inflation is forecast to turn positive in 2017 as a result, in particular, of strong upward base effects. Underlying inflation (as measured, for example, by HICP inflation excluding food and energy) is expected to increase gradually in the coming years as improving labour market conditions and declining economic slack translate into higher wages and profit margins. This increase will be supported by the effects of the ECB's monetary policy measures and the continuing pass-through of previous declines in the effective exchange rate of the euro. Compared with the March 2016 ECB staff macroeconomic projections for the euro area, the outlook for HICP inflation remains broadly stable.

2 See the article entitled "June 2016 Eurosystem staff macroeconomic projections for the euro area", published on the ECB's website on 2 June 2016.

5 Money and credit

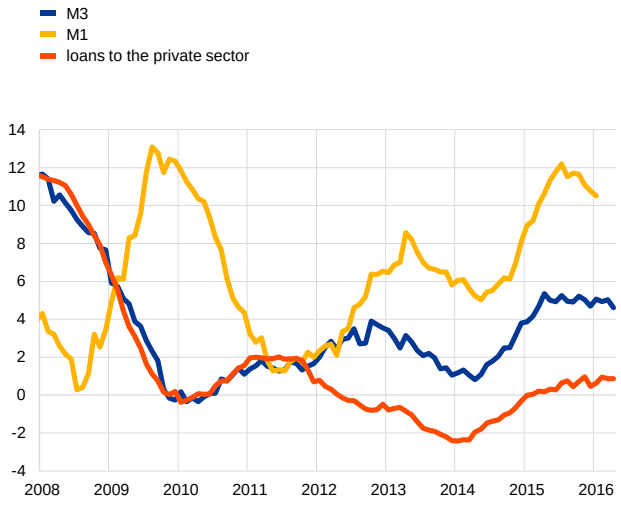
Money growth decreased somewhat in April, but remained robust. At the same time, loan growth continued to recover gradually. Domestic sources of money creation were again the main driver of broad money growth. Low interest rates, as well as the effects of the ECB's targeted longer-term refinancing operations (TLTROs) and the expanded asset purchase programme (APP), continue to support money and credit dynamics. Banks have been passing on their favourable funding conditions in the form of lower lending rates, and the recovery in loan growth is still drawing strength from improved lending conditions. The total annual flow of external financing to non-financial corporations (NFCs) is estimated to have increased moderately in the first quarter of 2016.

Broad money growth decreased somewhat, but remained robust. The annual growth rate of M3 moderated to 4.6% in April 2016, after having hovered around 5.0% since May 2015 (see Chart 21). Broad money growth was once again supported by the most liquid components. M1 has recently been showing signs of deceleration as its annual growth rate also decreased in April 2016, though remains at a high level. Overall, recent developments in narrow money still confirm that the euro area remains on a path of gradual economic recovery.

Chart 21

M3, M1 and loans to the private sector

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

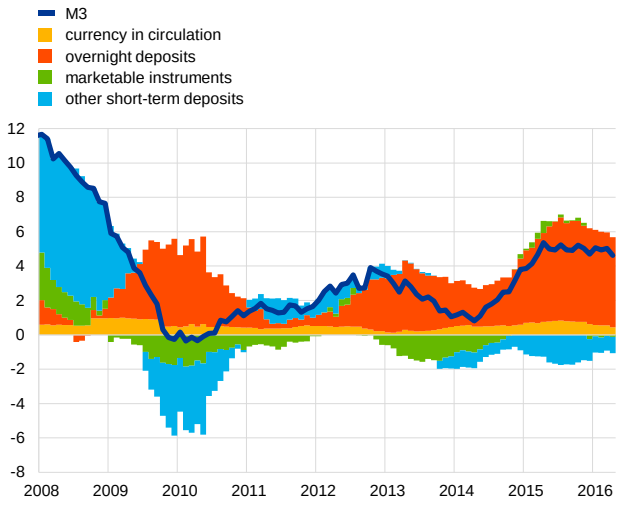


Source: ECB.
Note: The latest observation is for April 2016.

Chart 22

M3 and its components

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



Source: ECB.
Note: The latest observation is for April 2016.

Overnight deposits, which account for a significant proportion of M1, continued to boost M3 growth (see Chart 22). The very low interest rate environment is providing incentives for holding the most liquid components of M3. This development reflects inflows relating to the sale of public sector bonds, covered bonds and asset-backed securities by the money-holding sector in the context of the APP. By contrast, short-term deposits other than overnight deposits (i.e. M2 minus

M1) contracted further in the first quarter of 2016 and in April. In addition, the growth rate of marketable instruments (i.e. M3 minus M2), a small component of M3, continued to decline in the first quarter of 2016 and in April, despite the ongoing recovery in money market fund shares/units.

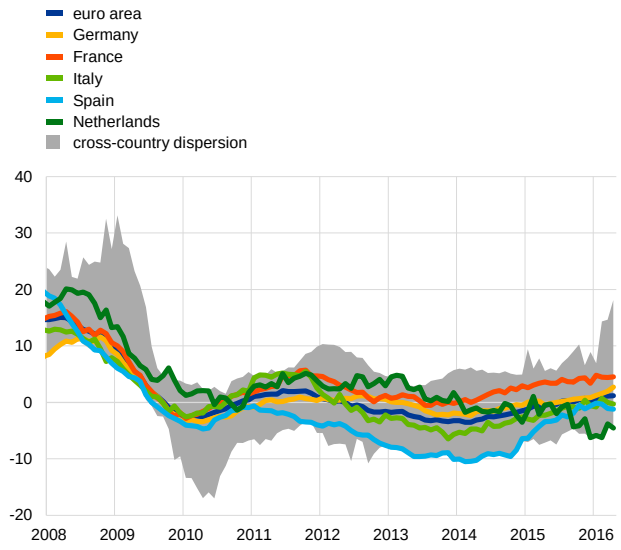
Domestic sources of money creation were again the main driver of broad money growth. Among these, credit to general government remained the most important factor behind money creation, while credit to the private sector displayed a gradual recovery. The former trend reflects the ECB's non-standard monetary policy measures, including the public sector purchase programme (PSPP). A significant percentage of the assets acquired under the PSPP were purchased from monetary financial institutions (MFIs) (excluding the Eurosystem). MFIs' longer-term financial liabilities (excluding capital and reserves) – the annual rate of change of which has been negative since June 2012 – decreased at a slightly lower rate in April 2016. This reflects the flatness of the yield curve, linked to the ECB's non-standard measures, which has reduced incentives for investors to hold longer-term bank instruments. The attractiveness of the TLTROs as an alternative to longer-term market-based bank funding is a further explanatory factor. Meanwhile, the MFI sector's net external asset position remained a drag on annual M3 growth, partly owing to capital outflows from the euro area and the ongoing portfolio rebalancing in favour of non-euro area instruments; a trend which can be explained by euro area government bonds sold by non-residents via the PSPP.

Loan dynamics recovered gradually, but bank lending was still weak. Credit growth improved moderately for both firms and households. The annual growth rate of MFI loans to the private sector increased in the first quarter of 2016 and remained stable in April (see Chart 21). While the annual growth rate of loans to NFCs stayed subdued (see Chart 23), it has recovered substantially from the trough of the first quarter of 2014. This improvement is broadly shared by the largest countries, though loan growth rates are still negative in some jurisdictions. In comparison, the annual growth rate of loans to households (adjusted for sales and securitisation) picked up slightly in the first quarter of 2016 and remained broadly unchanged in April (see Chart 24). The significant decreases in bank lending rates seen across the euro area since summer 2014 (notably owing to the ECB's non-standard monetary policy measures) and improvements in the supply of, and demand for, bank loans have supported these trends. However, the ongoing consolidation of bank balance sheets and persistently high levels of non-performing loans in some countries continue to curb loan growth.

Chart 23

MFI loans to NFCs in selected euro area countries

(annual percentage changes)

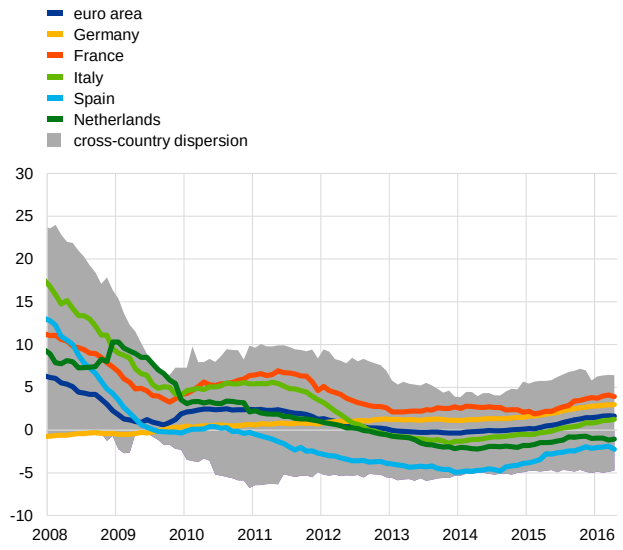


Source: ECB.
Notes: Adjusted for loan sales and securitisation. The cross-country dispersion is calculated on the basis of minimum and maximum values using a fixed sample of 12 euro area countries. The latest observation is for April 2016.

Chart 24

MFI loans to households in selected euro area countries

(annual percentage changes)



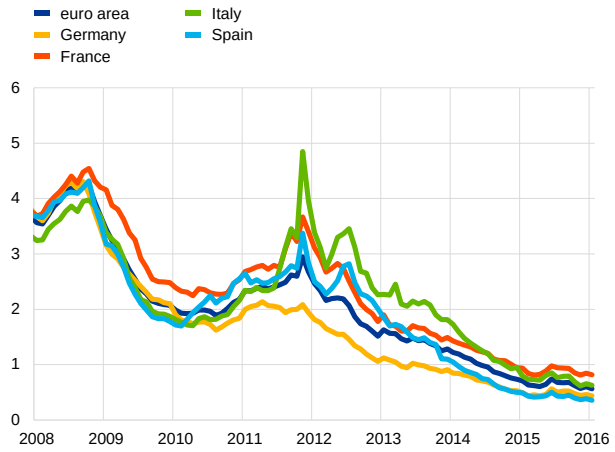
Source: ECB.
Notes: Adjusted for loan sales and securitisation. The cross-country dispersion is calculated on the basis of minimum and maximum values using a fixed sample of 12 euro area countries. The latest observation is for April 2016.

Changes in credit standards and loan demand once again contributed to improving loan growth. The April 2016 euro area bank lending survey identified a number of important factors behind increasing loan demand, including the low general level of interest rates, financing needs for fixed investment and favourable housing market prospects (see survey at: https://www.ecb.europa.eu/stats/money/surveys/lend/html/index.en.html). In this context, the expanded asset purchase programme had a net easing impact on credit standards and particularly on credit terms and conditions. Banks also reported that the additional liquidity from the APP and the TLTROs was mainly used to grant loans. At the same time, euro area banks reported that the APP has had a negative impact on their profitability. Despite the positive developments mentioned, loan growth remained weak, again reflecting factors such as subdued economic conditions and the consolidation of bank balance sheets. Moreover, in some parts of the euro area, tight lending conditions are still weighing on loan supply.

Chart 25

Banks' composite cost of debt financing

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



Sources: ECB, Merrill Lynch Global Index and ECB calculations.
Notes: The composite cost of deposits is calculated as an average of new business rates on overnight deposits, deposits with an agreed maturity and deposits redeemable at notice, weighted by their corresponding outstanding amounts. The latest observation is for March 2016.

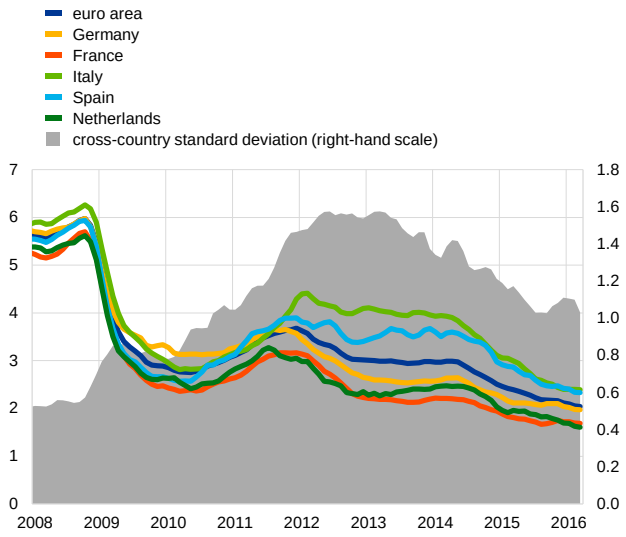
Banks' funding costs have stabilised close to their historical lows. The composite cost of bank funding has been declining for a number of years (see Chart 25) against the backdrop of net redemption of MFIs' longer-term financial liabilities. In general, the ECB's accommodative monetary policy stance, a strengthening of balance sheets and receding fragmentation across financial markets have supported the decrease in banks' composite funding costs. Meanwhile, as regards banks' access to funding, the April 2016 euro area bank lending survey shows that, with the exception of securitisation, no further improvements were noticeable in the first quarter of 2016 for the other major market instruments.

Bank lending rates for the private sector have declined further (see charts 26 and 27). Composite lending rates for NFCs and households have decreased by significantly more than market reference rates since June 2014. Receding fragmentation in euro area financial markets and the improvement in the pass-through of monetary policy measures to bank lending rates have played a positive role here. Furthermore, the decrease in banks' composite funding costs has supported the decline in composite lending rates. Since June 2014, banks have been progressively passing on the decline in their funding costs in the form of lower lending rates. Between May 2014 and March 2016, composite lending rates on loans to both euro area NFCs and households fell by more than 80 basis points – vulnerable euro area countries have seen particularly strong reductions in bank lending rates. Over the same period, the spread between interest rates charged on very small loans (loans of up to €0.25 million) and those charged on large loans (loans of above €1 million) in the euro area followed a downward path. This generally indicates that small and medium-sized enterprises are benefiting to a greater extent than large companies from the decline in lending rates.

Chart 26

Composite lending rates for NFCs

(percentages per annum; three-month moving averages)

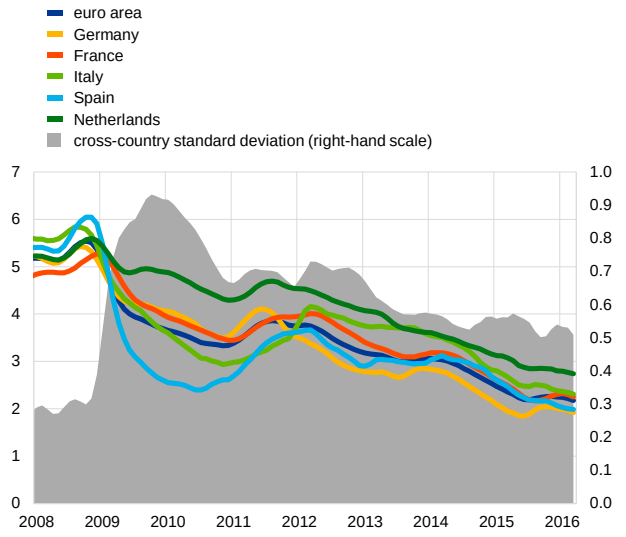


Source: ECB.
Notes: The indicator for the total cost of bank borrowing is calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes. The cross-country standard deviation is calculated using a fixed sample of 12 euro area countries. The latest observation is for March 2016.

Chart 27

Composite lending rates for house purchase

(percentages per annum; three-month moving averages)



Source: ECB.
Notes: The indicator for the total cost of bank borrowing is calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes. The cross-country standard deviation is calculated using a fixed sample of 12 euro area countries. The latest observation is for March 2016.

The total annual flow of external financing to euro area NFCs is estimated to have increased moderately in the first quarter of 2016. NFCs' external financing still stands below the levels observed in early-2012 (the post-financial crisis peak) and end-2004 (before the period of excessive credit growth). The recovery in NFCs' external financing seen since early-2014 has been supported by the improvement in 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. Meanwhile, NFCs further increased their cash holdings in the first quarter of 2016, bringing these to a new historical high – a development related to remaining concerns about the strength of the global recovery and low opportunity costs.

NFCs' net issuance of debt securities rose strongly in March 2016, after contracting in January and February. The March increase was mostly a product of special factors and resulted in a positive flow for the quarter as a whole. Market data show that issuance activity grew modestly in April and May, being supported, inter alia, by the ECB's monetary policy package of March 2016. The net issuance of quoted shares by NFCs remained subdued in the first quarter of 2016.

The overall nominal cost of external financing for euro area NFCs has decreased slightly since March 2016, reaching a new historical low. This decline is mainly explained by the fall in the cost of equity financing and, to a lesser extent, by the reduction in the cost of market-based debt financing. These developments were supported by positive economic news, the announcement of the ECB's March monetary policy package, as well as the global phenomenon of declining yields.

6 Fiscal developments

The euro area budget deficit is projected to further decline over the projection horizon (2016-18) mainly as a result of improving cyclical conditions and decreasing interest payments. The aggregate fiscal stance for the euro area is projected to be expansionary in 2016, but to tighten somewhat in the period 2017-18, notwithstanding large cross-country differences. In a number of Member States the expected fiscal stance implies risks of non-compliance with the Stability and Growth Pact (SGP). In particular the countries with high debt levels would need additional consolidation efforts to set their public debt ratio firmly on a downward path.

The euro area general government budget deficit is projected to decline over the projection horizon. Based on the June 2016 Eurosystem staff macroeconomic projections[3], the general government deficit ratio for the euro area is expected to decline from 2.1% of GDP in 2015 to 1.4% of GDP in 2018 (see the table). The fiscal outlook has improved slightly over the projection horizon, compared with the March 2016 projections. The improvement is mainly due to a better macroeconomic outlook and lower interest payments, while changes to discretionary fiscal policy are expected to be limited. The projections are less optimistic than what the euro area countries outlined in their 2016 updates of the stability programmes, which also include fiscal measures that are not yet legislated for nor fully specified.

The euro area fiscal stance is projected to be expansionary in 2016, but to tighten somewhat in the period 2017-18.[4] The loosening of the aggregate fiscal stance in 2016, which can be viewed as broadly appropriate in the light of the remaining amount of slack in the economy, reflects the impact of discretionary fiscal measures, such as cuts in direct taxes and social security contributions in a number of euro area countries. The slightly tighter fiscal stance in the period 2017-18 is expected to result from restraint in government spending, which will outweigh deficit-increasing measures on the revenue side. In particular, compensation of employees and intermediate consumption are projected to grow below nominal trend GDP growth. By contrast, social transfers and government investment are expected to grow above potential. The projected euro area fiscal stance masks large cross-country differences. In the case of those countries for which a fiscal loosening has been projected, the driving factors vary from country to country, ranging from the strong impact of the refugee influx to the impact of tax cuts and budgetary measures affecting the expenditure side.

Euro area government debt will continue to decline from its elevated level. The euro area debt-to-GDP ratio, which peaked in 2014, declined to 90.7% of GDP in 2015 and is projected to gradually decline further to 87.4% of GDP by the end of 2018. The projected reduction in government debt is supported by favourable developments in the interest rate-growth differential, in the light of the better

3 See the June 2016 Eurosystem staff macroeconomic projections for the euro area, available at https://www.ecb.europa.eu/pub/pdf/other/eurosystemstaffprojections201606.en.pdf?8774facfb96d540891ce434a5ab4394b

4 The fiscal stance is measured as the change in the structural balance, i.e. the cyclically adjusted balance net of temporary measures, such as government support to the financial sector. For a discussion of the concept of the euro area fiscal stance, see the article entitled “The euro area fiscal stance” in this issue of the Economic Bulletin.

macroeconomic outlook and assumed low interest rates. In addition, small primary surpluses and negative deficit-debt adjustments, inter alia reflecting privatisation receipts, will also contribute to the better debt outlook. Compared with the March 2016 projections, the decline in the aggregate debt-to-GDP ratio for the euro area is expected to be slightly higher, mainly as a result of higher primary surpluses and a more favourable interest rate-growth differential. From a cross-country perspective, while the debt-to-GDP ratio is projected to decline in the majority of euro area countries, there are a few countries for which the government debt ratio is expected to increase over the projection horizon. In particular for the high debt countries, further consolidation efforts are needed to set the public debt ratio firmly on a downward path, as their high debt levels make them particularly vulnerable should there be renewed financial market instability or a rebound in interest rates.

Table

Fiscal developments in the euro area

(percentages of GDP)

	2013	2014	2015	2016	2017	2018
a. Total revenue	46.6	46.8	46.6	46.1	45.9	45.9
b. Total expenditure	49.6	49.3	48.6	48.0	47.6	47.2
of which:						
c. Interest expenditure	2.8	2.7	2.4	2.2	2.1	2.0
d. Primary expenditure (b - c)	46.8	46.7	46.2	45.8	45.5	45.3
Budget balance (a - b)	-3.0	-2.6	-2.1	-1.9	-1.7	-1.4
Primary budget balance (a - d)	-0.2	0.1	0.3	0.3	0.4	0.6
Cyclically adjusted budget balance	-2.3	-1.9	-1.7	-1.9	-1.8	-1.6
Structural balance	-2.2	-1.7	-1.6	-1.9	-1.8	-1.6
Gross debt	91.1	92.0	90.7	90.0	89.0	87.4
Memo item: real GDP (percentage changes)	-0.2	0.9	1.6	1.6	1.7	1.7

Sources: Eurostat, ECB and June 2016 Eurosystem staff macroeconomic projections.
Notes: The data refer to the aggregate general government sector of the euro area. Owing to rounding, figures may not add up.

Risks of non-compliance with the SGP are high in a number of countries.

Governments need to strike a balance in their fiscal policy stance between reducing high debt levels and not impairing the recovery, while fully complying with the SGP requirements. For countries with fiscal space, it is welcome that they have used it. Yet countries without fiscal space should continue to implement the measures necessary to ensure full compliance with the SGP, thereby addressing debt sustainability risks and increasing resilience to future shocks. The European Commission released on 18 May its proposed country-specific recommendations for economic and fiscal policies for the EU Member States. It also identified risks of non-compliance with the structural consolidation requirements of the SGP for many countries and published recommendations regarding the implementation of the SGP.[5] To ensure credibility, it is crucial that the fiscal governance framework is applied in a legally sound, transparent and consistent manner across time and countries. Moreover, to increase their room for fiscal manoeuvre, countries should strive for a more growth-friendly composition of fiscal policies.

5 For an assessment of the European Commission's recent communication, see the box entitled "Country-specific recommendations for fiscal policies under the 2016 European Semester", in this issue of the Economic Bulletin.

Box 1
Global implications of low oil prices

This box looks at the impact on global activity of the oil price declines during the last two years. Oil prices have fallen sharply since mid-2014 and reached a ten-year low in early 2016. From their peak in June 2014 to the trough in January 2016, Brent crude oil prices dropped by USD 82 per barrel (70%). Since then, they have recovered modestly by around USD 17 per barrel and, based on oil futures contracts, are expected to rise only gradually in the medium term.

The drivers of the recent oil price decline have changed over time. While most of the oil price decline in 2014 could be explained by the significant increase in the supply of oil, more recently the lower price has reflected weaker global demand. On the supply side, significant investment and technological innovations – particularly in shale oil extraction – caused oil production to surge at a time of weakening growth, particularly in energy-intensive emerging market economies, putting downward pressure on oil prices. Meanwhile, OPEC's decision in November 2014 to keep production quotas unchanged intensified the downward pressures on oil prices amid rising oil inventories. More recently, however, concerns have arisen that weaker global growth has been the main driver of the oil price falls.

The changing nature of the oil price shock has different implications for the global economy. In early 2015 the largely supply-driven fall in oil prices was expected to have a significant net positive impact on global activity, mainly via two channels: (i) income redistribution from oil-producing to oil-consuming countries, which were expected to have a larger marginal propensity to spend; and (ii) profitability gains from lower energy-input costs, which could stimulate investment and thus total supply in net oil-importing countries. However, a more demand-driven oil price fall since the second half of 2015 suggests a less positive impact on the global economy. Although the low oil price may still support domestic demand through rising real incomes in net oil-importing countries, it would not necessarily offset the broader effects of weaker global demand.

Model estimates underscore how the impact on the global economy depends on the underlying nature of the shock. Simulations[6] suggest that a 10% decline in oil prices that is entirely supply driven increases world GDP by between 0.1% and 0.2%, whereas a 10% decline in oil prices that is entirely demand driven is typically associated with a decrease in world GDP of more than 0.2%. Assuming that, for example, 60% of the oil price decline since mid-2014 has been supply driven and the remainder demand driven, the models suggest that the combined impact of these two shocks on world activity would be close to zero (or even slightly negative).

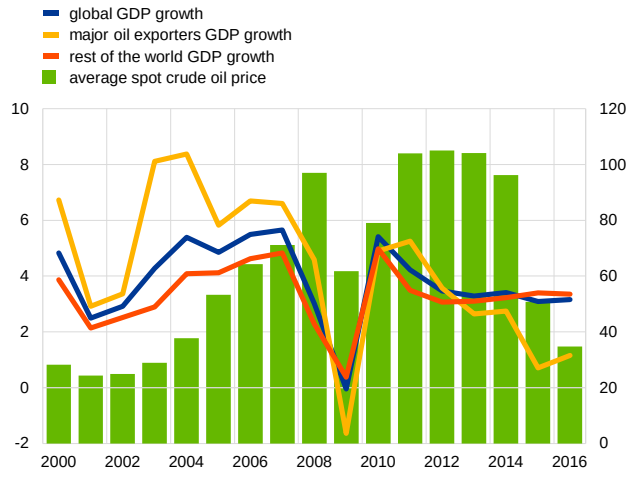
6 The models that are used for the simulations are the National Institute Global Econometric Model (NiGEM), the six-mod version of the IMF's Flexible System of Global Models, and a structural vector auto-regressive (SVAR) model with sign restrictions to identify supply and demand oil price shocks.

The experience of the past year also suggests that changes in the transmission channels may have dampened the expected positive impact of lower oil prices on global activity. Compared with previous episodes of oil price declines in the 1980s and 1990s, the combined effect of several countervailing factors may have altered the propagation mechanisms of the recent oil price shock.

Chart A

GDP growth slowdown in major oil exporters – comparison with the rest of the world

(left-hand scale: annual real GDP growth in percentages; right-hand scale: annual average spot crude oil price in US dollars per barrel)

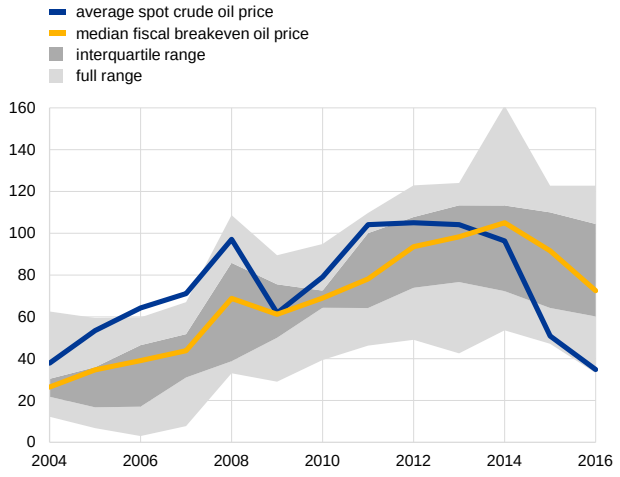


Sources: IMF and ECB staff calculations.
Notes: The group of major oil exporters includes the largest 20 net oil exporters (Algeria, Angola, Azerbaijan, Canada, Colombia, Ecuador, Iran, Iraq, Kazakhstan, Kuwait, Malaysia, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, United Arab Emirates, Uzbekistan and Venezuela). The spot crude oil price is the simple average of three spot crude oil prices – Dated Brent, West Texas Intermediate and Dubai Fateh. The year 2016 is an IMF forecast.

Chart B

Fiscal breakeven oil prices for major oil exporters and spot crude oil price

(US dollars per barrel)



Sources: IMF Regional Economic Outlook and ECB staff calculations.
Notes: The fiscal breakeven oil price is defined as the oil price that balances the government budget. The chart shows the median and the range of fiscal breakeven oil prices for 10 large net oil exporters in the Middle East, Central Asia and Africa. The spot crude oil price is the simple average of three spot crude oil prices – Dated Brent, West Texas Intermediate and Dubai Fateh. The year 2016 is an IMF forecast.

On the one hand, the adverse impact on net oil-exporting countries appears to have been rather severe, and has been accompanied by negative spillovers to other emerging market economies. In several net oil-exporting countries, the oil price decline has interacted with other shocks (including fallout from geopolitical tension) to generate a significant macroeconomic adjustment. Major net oil exporters have managed to cushion, to some extent, the initial adverse impact on their output from the recent oil price decline by running substantial and rising fiscal deficits. Nonetheless, GDP growth in these countries has still declined significantly compared with the rest of the world (see Chart A). With spot crude oil prices falling well below fiscal breakeven prices, i.e. the prices required to balance government budgets (see Chart B), the fiscal situation has become increasingly more challenging in several major oil producers, particularly those with currency pegs to the US dollar or other tightly managed exchange rate arrangements (e.g. Iran, Iraq, Nigeria, Saudi Arabia, the United Arab Emirates and Venezuela). Monetary policy has also been constrained in commodity-exporting countries with more flexible exchange rates (e.g. Canada, Mexico, Norway and Russia). As the currencies of these countries have (sharply) depreciated, inflationary pressures have risen, thereby limiting the room for monetary policy easing in response to slowing growth. Finally, financial strains have exacerbated the downturn in prices, particularly in countries with foreign currency

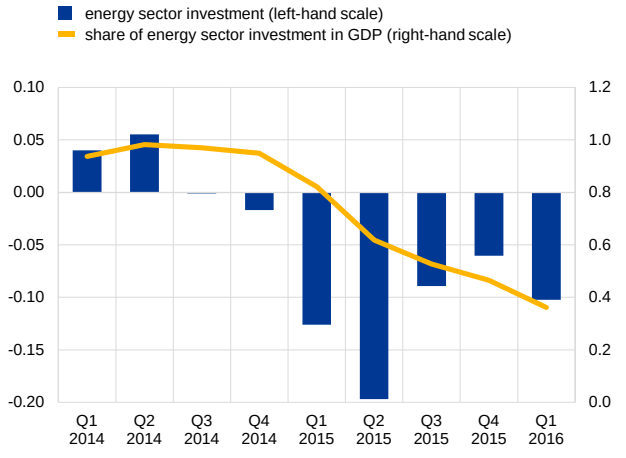
exposures. While the share of major oil-exporting countries in the global economy is relatively small (roughly 15% of global GDP based on purchasing power parity), negative spillovers to countries with close trade or financial links, and global confidence effects, have weighed on global economic activity.

On the other hand, the pickup in demand in several net oil-importing countries as a result of income windfalls from lower oil prices has so far been rather limited. From a longer-term perspective, this could reflect lower energy intensities compared with earlier episodes of oil price declines in the 1980s and the 1990s. In a more recent context, other factors may have restricted the responsiveness of consumption to the oil price decline in some countries, although such effects are often difficult to disentangle empirically. For example, an increase in personal savings in some countries could be related to continued needs for deleveraging that may have prompted households to save more of the windfall gains from lower oil prices than might otherwise have been the case. In addition, expectations may have played a role: spending may build up only gradually if it takes time for households to believe that the lower oil price level will persist. Meanwhile, among emerging market economies, government savings from lower energy subsidies have been used for fiscal consolidation rather than additional economic stimulus. Finally, other factors, such as exchange rate developments and downward adjustments in equity and other asset prices amid increased global economic uncertainty, may have dampened the positive impact of lower oil prices on consumption.

Chart C

US energy sector investment

(left-hand scale: percentage point contribution to quarterly real GDP growth; right-hand scale: percentage of GDP)



Sources: US Bureau of Economic Analysis and ECB staff calculations.

Taking the example of the United States as one of the largest net oil importers, the benefits for consumption of lower oil prices have been smaller than initially anticipated and largely offset by sharp falls in energy-related investment. The oil price decline has supported consumption, but uncertainty about the persistence of low oil prices may have weighed on confidence, implying that the impact of the oil price drop was smaller than initially expected. Meanwhile, the impact of lower oil prices on US shale oil investment was significant, and amplified by the high degree of leverage of shale oil producers and their vulnerability to funding constraints. Since the start of the oil price decline in mid-2014, energy-related investment has dropped cumulatively by 65%, making a negative contribution to GDP growth (see Chart C), while the number of oil rigs has declined to almost one-third of the original number. Yet, in net terms, the estimated impact of the oil price decline on US GDP so far is judged to be modestly positive.

In sum, compared with a year ago, when oil price falls were dominated by supply factors, recent developments suggest that low oil prices have increasingly reflected weakening global demand. While a largely supply-driven fall in oil prices was expected to have a net positive impact on global GDP, a more

demand-driven oil price decline is less likely to provide significant support to global activity. Moreover, the assessment of the role of lower oil prices is clouded by a high degree of uncertainty. One factor driving this uncertainty is possible financial stability and fiscal challenges in some commodity-exporting countries. Another factor is concerns of a more general economic slowdown in emerging market economies, fuelled by widening domestic imbalances and tighter financial conditions in some countries.

Box 2
Liquidity conditions and monetary policy operations in the period from 27 January 2016 to 26 April 2016

This box describes the ECB's monetary policy operations during the first and second reserve maintenance periods of 2016, which ran from 27 January to 15 March and from 16 March to 26 April respectively. On 10 March 2016, the Governing Council announced a comprehensive package of monetary policy decisions, which included a cut in all key ECB interest rates, an expansion of the asset purchase programme in terms of monthly volumes and asset eligibility, plus a series of four new targeted longer-term refinancing operations (TLTROs)[7]. Thus, during the second maintenance period the interest rates on the main refinancing operations (MROs), the marginal lending facility and the deposit facility were lowered to 0.00%, 0.25% and -0.40% respectively as of 16 March[8]. On 30 March 2016 the seventh TLTRO was settled for €7.3 billion, compared with €18.3 billion in the previous TLTRO in December 2015. This brought the total allotted amount in the first seven TLTROs to €425.3 billion.[9] In addition, the Eurosystem continued buying public sector securities, covered bonds and asset-backed securities as part of its asset purchase programme (APP)[10], with a targeted purchase amount that increased from €60 billion to €80 billion per month in the second maintenance period.

Liquidity needs

In the period under review, the average daily liquidity needs of the banking system, defined as the sum of autonomous factors and reserve requirements, stood at €778.6 billion, an increase of €72 billion compared with the previous review period (i.e. the seventh and eighth maintenance periods of 2015). This greater liquidity need is almost exclusively attributable to an increase in autonomous factors, which rose on average by €71.1 billion to stand at €664.5 billion (see table).

7 The ECB's press release of 10 March 2016 is available on the ECB's website: http://www.ecb.europa.eu/press/pr/date/2016/html/pr160310.en.html

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

9 For information on the amounts allotted in TLTROs, see similar boxes in previous issues of the Economic Bulletin, as well as information on open market operations on the ECB's website: www.ecb.europa.eu/mopo/implement/omo/html/index.en.html.

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

Table

Eurosystem liquidity situation

	27 Jan. 2016 to 26 Apr. 2016		28 Oct. 2015 to 26 Jan. 2016	Second maintenance period		First maintenance period	
Liabilities – liquidity needs (averages; EUR billions)							
Autonomous liquidity factors	**1,770.1**	**(+54.3)**	**1,715.8**	**1,799.8**	**(+55.2)**	**1,744.6**	**(+24.5)**
Banknotes in circulation	1,066.1	(+0.9)	1,065.3	1,069.3	(+5.9)	1,063.4	(-9.4)
Government deposits	130.3	(+42.7)	87.6	147.4	(+31.7)	115.6	(+33.2)
Other autonomous factors	573.7	(+10.7)	563.0	583.2	(+17.6)	565.6	(+0.8)
Monetary policy instruments							
Current accounts	562.7	(+34.9)	527.9	570.0	(+13.5)	556.5	(-0.6)
Minimum reserve requirements	114.1	(+0.9)	113.2	114.3	(+0.5)	113.9	(+0.6)
Deposit facility	245.0	(+59.3)	185.7	262.0	(+31.5)	230.5	(+33.9)
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	**1,105.9**	**(-17.0)**	**1,122.9**	**1,113.0**	**(+13.3)**	**1,099.8**	**(-24.0)**
Net foreign assets	616.8	(+5.0)	611.9	627.3	(+19.5)	607.8	(-3.8)
Net assets denominated in euro	489.0	(-22.0)	511.0	485.7	(-6.2)	491.9	(-20.2)
Monetary policy instruments							
Open market operations	1,472.2	(+165.3)	1,306.9	1,518.9	(+86.8)	1,432.1	(+81.8)
Tender operations	521.9	(-10.6)	532.5	518.8	(-5.7)	524.5	(-14.0)
MROs	60.6	(-8.4)	69.1	58.1	(-4.8)	62.9	(-8.7)
Special-term refinancing operations	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)
Three-month LTROs	41.1	(-14.3)	55.3	37.9	(-5.8)	43.7	(-7.9)
Three-year LTROs	0.0	(+0.0)	0.0	0.0	(+0.0)	0.0	(+0.0)
Targeted LTROs	420.2	(+12.1)	408.1	422.8	(+4.9)	417.9	(+2.6)
Outright portfolios	950.3	(+175.9)	774.4	1,000.1	(+92.5)	907.6	(+95.8)
First covered bond purchase programme	19.5	(-1.1)	20.6	19.2	(-0.6)	19.8	(-0.7)
Second covered bond purchase programme	8.8	(-0.9)	9.8	8.7	(-0.3)	9.0	(-0.6)
Third covered bond purchase programme	161.3	(+21.1)	140.2	167.0	(+10.7)	156.4	(+11.9)
Securities markets programme	120.8	(-2.3)	123.1	119.7	(-2.0)	121.7	(-1.2)
Asset-backed securities purchase programme	18.7	(+3.4)	15.2	19.2	(+0.9)	18.3	(+2.8)
Public sector purchase programme	621.2	(+155.7)	465.5	666.3	(+83.8)	582.5	(+83.6)
Marginal lending facility	0.1	(-0.0)	0.1	0.2	(+0.1)	0.1	(-0.1)
Other liquidity-based information (averages; EUR billions)							
Aggregate liquidity needs	778.6	(+72.0)	706.5	801.4	(+42.4)	759.0	(+48.9)
Autonomous factors*	664.5	(+71.1)	593.3	687.1	(+41.9)	645.1	(+48.3)
Excess liquidity	693.6	(+93.3)	600.3	717.5	(+44.4)	673.1	(+32.9)
Interest rate developments (percentages)							
MROs	0.03	(-0.02)	0.05	0.00	(-0.05)	0.05	(+0.00)
Marginal lending facility	0.28	(-0.02)	0.30	0.25	(-0.05)	0.30	(+0.00)
Deposit facility	-0.35	(-0.09)	-0.25	-0.40	(-0.10)	-0.30	(+0.00)
EONIA average	-0.286	(-0.101)	-0.184	-0.340	(-0.101)	-0.239	(-0.013)

Source: ECB.
*The overall value of the autonomous factors also includes the “items in course of settlement”.
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).

The increase in autonomous factors was mainly a result of an increase in liquidity-absorbing factors. The main contributor to this increase was government deposits, which increased on average by €42.7 billion to stand at €130.3 billion in the period under review. This increase was equally divided between the first and second maintenance periods. The increase in government deposits reflects the reluctance of some treasuries to place their excess liquidity at negative rates in the market, owing to both demand and rate constraints. Other autonomous factors averaged €573.7 billion, up €10.7 billion from the previous review period, mainly reflecting an increase in other liabilities to euro area residents denominated in euro. In addition, banknotes averaged €1,066.1 billion, up €0.9 billion compared with the previous review period, contributing the least to the overall increase in autonomous factors.

Liquidity-providing factors declined over the period on the back of lower net assets denominated in euro. Net assets denominated in euro averaged €489.0 billion, down €22 billion from the previous review period. Most of this fall occurred during the first maintenance period on account of a decline in financial assets held by the Eurosystem for purposes other than monetary policy, together with a small increase in liabilities held by foreign institutions with the national central banks. Foreign institutions increased their holdings despite the further cut to the deposit facility rate, possibly owing to fewer attractive investment alternatives in the market. In addition, net foreign assets increased by €5 billion to stand at €616.8 billion. This increase occurred exclusively in the second maintenance period, while the first maintenance period saw a marginal decline. This appreciation of net foreign assets was mainly driven by an increase in the US dollar value of gold, which was only partially offset by an appreciation of the euro in the first quarter of 2016.

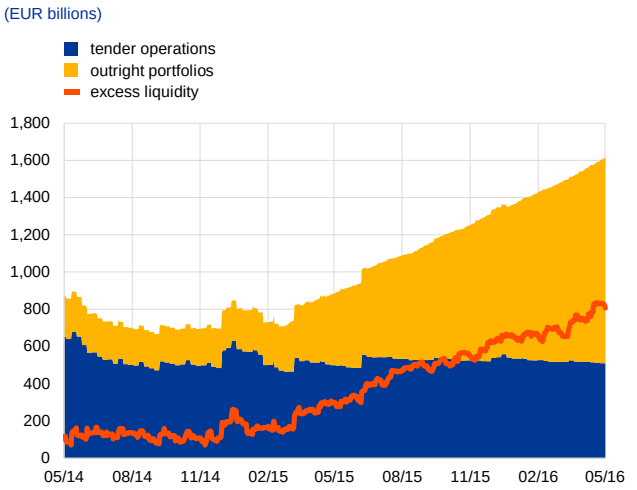
The volatility of autonomous factors remained elevated during the period under review. Such volatility primarily reflected strong fluctuations in government deposits and, to a lesser extent, the quarterly revaluation of net foreign assets and net assets denominated in euro. The level of volatility remained broadly unchanged compared to the previous review period, while the level of autonomous factors continued its upward trend. Still, the average absolute error in weekly forecasts of autonomous factors declined by €1.4 billion to €6.0 billion in the period under review, due to lower forecast errors for government deposits.

Liquidity provided through monetary policy instruments

The average amount of liquidity provided through open market operations – both tender operations and the asset purchase programme – increased by €165.3 billion to stand at €1,472.2 billion (see chart). This increase was entirely due to the Asset Purchase Programme.

Chart

Evolution of monetary policy instruments and excess liquidity



Source: ECB.

The average amount of liquidity provided through tender operations declined slightly – by €10.6 billion – during the period under review to stand at €521.9 billion. The increase in average liquidity provided by the TLTROs was more than offset by a decrease in liquidity provided by regular operations. More specifically, the liquidity provided in MROs and the three-month LTROs decreased by €8.4 billion and €14.3 billion respectively, while the outstanding amount of TLTROs increased by €12.1 billion over the review period. As the only TLTRO so far in 2016 was allotted in March, the overall decline in liquidity provided through tender operations was less pronounced in the second maintenance period than in the first.

The average liquidity amount provided through the asset purchase programme increased by €175.9 billion to stand at €950.3 billion, mainly on account of the public sector purchase programme. The average liquidity provided by the public sector purchase programme, the third covered bond purchase programme and the asset-backed securities purchase programme rose by €155.7 billion, €21.1 billion and €3.4 billion respectively. The redemption of bonds held under the securities markets programme and the previous two covered bond purchase programmes amounted to €4.3 billion.

Excess liquidity

As a consequence of the developments detailed above, average excess liquidity rose by €93.3 billion to stand at €693.6 billion in the period under review (see chart). The increase in liquidity was more noticeable in the second maintenance period, when average excess liquidity rose by €44.4 billion on account of increased purchases and slightly smaller increases in autonomous factors compared with the first maintenance period. The relatively small increase during the first maintenance period was mainly driven by the larger rise in autonomous factors, which partially absorbed the increase in the asset purchase programme.

The rise in excess liquidity was mostly reflected in higher average recourse to the deposit facility, which increased by €59.3 billion to stand at €245 billion in the period under review. Average current account holdings also increased, albeit to a lesser extent, by €34.9 billion, to stand at €562.7 billion.

Interest rate developments

In the review period, money market rates decreased further on the back of the cut in the deposit facility rate to -0.40%. In the unsecured market, the EONIA (euro overnight index average) averaged -0.286%, down from an average of -

0.184% in the previous review period. While the EONIA was almost flat in the first maintenance period, the cut in the deposit facility rate by an additional 0.10%, with effect from the start of the second maintenance period, led to a 0.101 percentage-point decline in the EONIA. In the context of the continued increase in excess liquidity, the pass-through of the negative rates was almost immediate. Furthermore, secured overnight rates declined in line with the deposit facility rate to levels closer to the deposit facility rate. Average overnight repo rates in the GC Pooling market[11] declined to -0.332% and -0.321% for the standard and extended collateral baskets respectively, down 0.088 percentage point and 0.083 percentage point compared with the previous review period.

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

Box 3
Low interest rates and households' net interest income

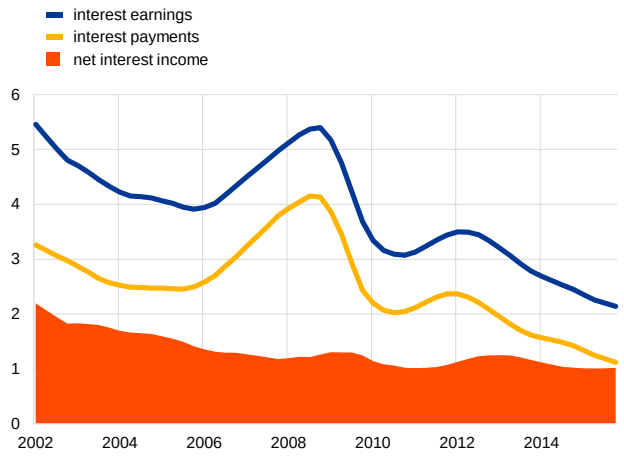
The ECB's accommodative monetary policy stance has substantially lowered borrowing costs for firms and households, while also lowering the returns on savings. As households do not only borrow, but also save, this raises the question about the extent to which lower interest rates have affected households' net interest income. This is particularly relevant when assessing the impact of lower interest rates on aggregate consumption.

Households' interest earnings have decreased by 3.2 percentage points as a share of disposable income since autumn 2008. Chart A shows the evolution of household income from holding interest-bearing assets such as deposits, bonds and loans.[12] However, this excludes the effect of lower interest rates on households' income and wealth via the investments of pension funds and life insurance providers, and the capital gains on long-term bonds and equities.

Chart A

Euro area households' interest payments/earnings

(percentage of gross disposable income)

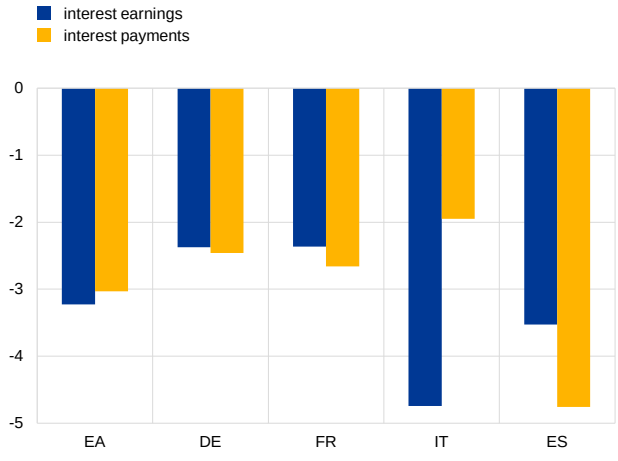


Sources: ECB and Eurostat.
Notes: Interest payments/earnings after allocation of FISIM (financial intermediation services indirectly measured), based on four-quarter sums. The latest observation is for the fourth quarter of 2015.

Chart B

Households' interest payments/earnings
Q3 2008-Q4 2015

(changes as a percentage of gross disposable income, percentage points)



Sources: ECB and Eurostat.
Note: Interest payments/earnings after allocation of FISIM (financial intermediation services indirectly measured), based on four-quarter sums.

While interest earnings have declined, interest payments have also decreased considerably. Between the third quarter of 2008 and the fourth quarter of 2015

[12] To ensure consistency with the measurement of households' disposable income and consumption, interest payments/earnings are *after* the allocation of the intermediation services for which financial institutions do not charge explicitly, but which are paid for as part of the margin between rates applied to savers and borrowers. This choice does not affect the conclusions of the analysis.

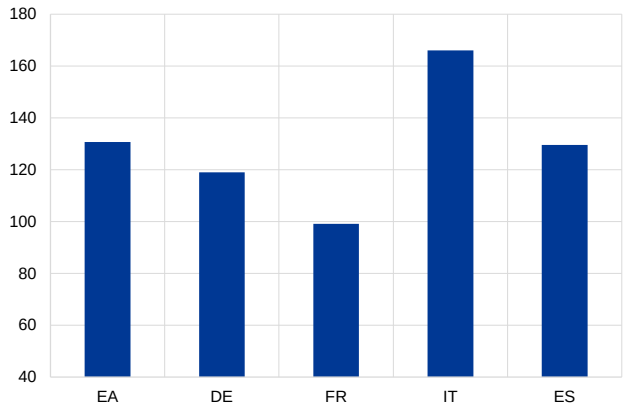
interest payments fell by about 3 percentage points relative to disposable income. The drop in interest earnings is comparable to the drop in interest payments, meaning that the average euro area household's net interest income has been largely unaffected. At the same time, to the extent that individual households are net savers or net borrowers, in terms of net interest income some households have gained from lower interest rates while others have lost.

The net interest income of the household sector has remained fairly stable in Germany and France, but less so in Italy and Spain. Chart B shows that, in Germany and France, the drop in interest earnings and payments is comparable, meaning that lower interest rates have had a minimal effect on the net interest income of the household sector as a whole. Conversely, in Italy, the drop in household interest earnings is more than twice as large as the drop in household interest payments, with a negative impact on households' overall net interest income. The reason for this is that Italian households hold a relatively large amount of interest-bearing assets (see Chart C), whereas they are relatively less indebted (see Chart D). In Spain, the drop in interest payments is significantly larger than the fall in interest earnings, with a positive impact on households' overall net interest income. The larger decline in interest payments in Spain is explained by both the high stock of household debt (Chart D) and the fact that the interest rates paid on a large share of mortgages are indexed to money market rates. The stronger impact on interest payments in Spain is also in line with evidence that monetary policy has relatively large effects in countries with adjustable-rate mortgages.[13]

Chart C

Households' interest-bearing assets

(percentage of gross disposable income)

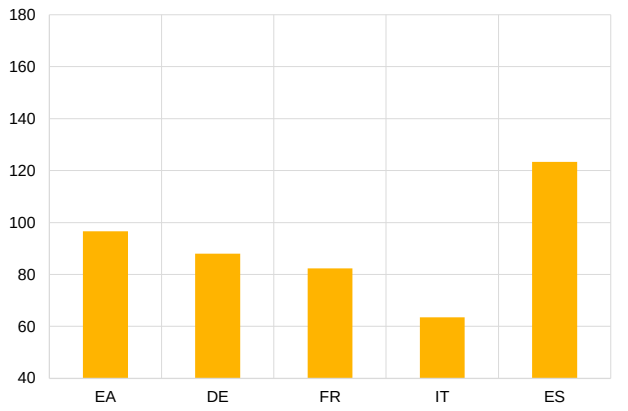


Sources: ECB and Eurostat.
Notes: Interest-bearing assets include currency and deposits, debt securities and loans, as recorded in the euro area accounts. Average over the period from the third quarter of 2008 to the fourth quarter of 2015 (from the first quarter of 2012 to the fourth quarter of 2015 for Italy), based on four-quarter sums.

Chart D

Household debt

(percentage of gross disposable income)



Sources: ECB and Eurostat.
Notes: Household debt corresponds to loans as recorded in the euro area accounts. Average over the period from the third quarter of 2008 to the fourth quarter of 2015 (from the first quarter of 2012 to the fourth quarter of 2015 for Italy), based on four-quarter sums.

[13] See Calza A., Monacelli, T. and Stracca, L., "Housing finance and monetary policy", *Journal of the European Economic Association*, Vol. 11, 2013, pp. 101-122.

Despite lower interest earnings for net savers, low interest rates continue to support private consumption. Lower interest rates typically support consumption today through intertemporal substitution for future consumption, as borrowing becomes cheaper and saving becomes less rewarding. In addition, as average euro area household net interest income has been largely unaffected, lower interest rates have mainly redistributed resources from net savers to net borrowers. As net borrowers typically have a higher marginal propensity to consume than net savers, this redistribution channel of lower interest rates further supports aggregate consumption.[14]

Lower interest rates also support the wealth and income of households through other channels. Households tend not only to be savers; they also invest in other assets for which they do not necessarily receive interest payments. There is evidence that the positive impact of lower interest rates on the prices of euro area stocks and bonds has been significant.[15] Moreover, lower borrowing costs have not only stimulated investment and consumption; they have also supported households' income through higher employment. By holding interest rates low, the ECB has encouraged the demand that is needed to bring the economy back to potential, so that, ultimately, interest rates can rise again.

[14] See Jappelli, T. and Pistaferri, L., "Fiscal policy and MPC heterogeneity", *American Economic Journal: Macroeconomics*, Vol. 6, No 4, 2014, pp. 107-136

[15] See Altavilla, C., Carboni, G. and Motto, R., "Asset purchase programmes and financial markets: lessons from the euro area", *Working Paper Series*, No 1864, ECB, November 2015.

Box 4
Improved timeliness of the euro area quarterly GDP flash estimate: first experiences

On 29 April 2016, Eurostat published for the first time a preliminary flash estimate for euro area and EU GDP with timeliness of 30 days after the end of the reference quarter (first quarter of 2016). This new development meets a long-standing request from users for more timely information about economic growth in Europe. It aims at establishing a release calendar of 30, 60 and 90 days after the end of the reference quarter for national accounts statistics. Moreover, it aims to fulfil the commitment made by the European Statistical System (ESS) to provide policymakers with reliable, comparable and timely statistics.[16] The GDP flash estimate released 45 days after the end of the reference quarter (published since May 2003) has been considered to be an intermediary step towards that aim.[17] This flash estimate is used to analyse the conjunctural developments in the euro area and provides important input for the ECB's economic analysis, macroeconomic projections and short-term forecasting. It will continue to be published by Eurostat in parallel until the new preliminary GDP flash estimate is better established and more countries start publishing their national preliminary flash estimates. Neither flash estimate, however, provides information on revisions to the previous quarters' results, although revisions to the preliminary GDP flash estimate can be observed with each subsequent release.

The underlying methodology for the preliminary GDP flash estimate for the euro area (and the EU) is the same as that applied for compiling the GDP flash estimate at 45 days.[18] The quarter-on-quarter growth rate of euro area GDP is estimated from national data by aggregating the national seasonally and calendar adjusted quarter-on-quarter growth rates using the annual weights of country GDP in current prices for the previous year. The euro area GDP is then derived by applying the estimated euro area growth rate for the current quarter to the level of GDP for the previous quarter, thus also allowing the year-on-year GDP growth rate to be compiled. The main difference with regard to the GDP flash estimate at 45 days is in the availability of national data to users. Most euro area countries do not yet publish

16 See The ESS Vision 2020, p. 5.

17 Initially only four euro area countries (Germany, Greece, Italy and the Netherlands) provided Eurostat with national GDP flash estimates at 45 days. Eurostat used related indicators to estimate GDP for the missing large euro area countries. To some extent, this served as the basis for countries to develop national flash estimates themselves. Although the GDP flash estimates are not part of the ESA 2010 legal framework, nor were they under ESA 95, the increased use of statistical methods and the sharing of experience between countries have also played a role.

18 The methodology is explained in Eurostat's paper "Euro area and European Union GDP flash estimates at 30 days", *Statistical working papers*, 2016 edition. This methodology replaced that for compiling the GDP flash estimate at 45 days after the end of the reference quarter in 2013.

the GDP flash estimates at 30 days but provide them to Eurostat on a confidential basis as input for compiling the euro area and EU preliminary GDP flash estimates. At present only six euro area countries: Belgium, Spain, France, Latvia, Lithuania and Austria (representing 39% of euro area GDP in 2015) publish GDP flash estimates at 30 days. The euro area GDP preliminary flash estimate for the first quarter of 2016 was based on 11 euro area countries and covered 94% of total euro area GDP, of which 55% was provided on a confidential basis.[19] The table below provides an overview of the national GDP release practices, as well as the extent of compliance with the ESA 2010 legal requirement to provide data at 60 days after the end of the reference quarter. This overview suggests that there are some trade-offs in terms of timeliness, level of detail and quality for compiling quarterly national accounts which need to be considered when analysing the data.

Table

GDP and components released under the quarterly national accounts framework

	Preliminary GDP flash (at 30 days)		GDP flash (at 45 days)			Second GDP release (at 60 days)		
	GDP growth	GDP components	GDP growth	GDP growth estimate or revision?	GDP components	Day of release	GDP growth estimate or revision?	GDP components
Belgium	published	-	-	-	-	t+60	revision	yes
Germany	-	-	published	estimate	-	t+54	revision	yes
Estonia	-	-	published	estimate	-	t+68	revision	yes
Ireland	-	-	-	-	-	**t+70**	**estimate**	**yes**
Greece	-	-	published	estimate	-	t+60	revision	yes
Spain	published	-	-	-	-	t+55	revision	yes
France	published	yes	-	-	-	t+60	revision	yes
Italy	-	-	published	estimate	-	t+65	revision	yes
Cyprus	-	-	published	estimate	-	t+68	revision	yes
Latvia	published	-	-	-	-	t+60	revision	yes
Lithuania	published	-	-	-	-	t+60	revision	yes
Luxembourg	-	-	-	-	-	**t+85**	**estimate**	**yes**
Malta	-	-	-	-	-	**t+70**	**estimate**	**yes**
Netherlands	-	-	published	estimate	yes	-	-	-
Austria	published	yes	-	-	-	t+60	revision	yes
Portugal	-	-	published	estimate	-	t+60	revision	yes
Slovenia	-	-	-	-	-	t+60	estimate	yes
Slovakia	-	-	published	estimate	-	t+68	revision	yes
Finland	-	-	published	estimate	-	t+60	revision	yes
Euro area	**published**	**-**	**published**	**revision**	**-**	**t+68**	**revision**	**yes**

Source: ECB compilation based on the websites of the national statistical institutes and Eurostat.
Notes: GDP flash releases refer to Q1 2016 data. Second GDP releases refer to Q4 2015 data. Beyond the releases listed in the table, some euro area countries (e.g. Belgium and France), as well as some non-euro area countries (e.g. the United Kingdom) publish third GDP releases about three months after the end of the reference quarter. They include revisions to the previous estimates for GDP and the main aggregates. Eurostat discontinued the third euro area GDP database update in September 2014, when ESA 2010 entered into force. In addition, quarterly sectoral accounts (early release published at about 110 days and final release two weeks later) might provide revisions to the second euro area GDP release; however these are currently not aligned with the quarterly national accounts for the euro area.

The main difficulty in the national estimation of GDP flash estimates at 30 days arises from the limited availability of source data for the third month of the quarter; the coverage of the source data used in compiling the national GDP of the subsequent estimates improves significantly. For the national preliminary

[19] ECB estimate based on information provided by Eurostat about the first release of the preliminary GDP flash estimate and its News Release of 29 April 2016.

GDP flash estimates, the third month is usually estimated or partially estimated by applying statistical modelling techniques that make use of available monthly information (e.g. short-term statistics, business surveys, price statistics and preliminary estimates of the source data). Several estimation methods are applied at the national level for the GDP flash estimate: direct approaches (e.g. autoregressive distributed lags, dynamic factor models), indirect approaches (temporal disaggregation techniques), pure forecasting models (autoregressive integrated moving average (ARIMA) models, structural time-series models) or multivariate models (vector autoregression (VAR), structural models). The choice depends on the national source data availability for the third month – at about 28 days – after the end of the reference quarter while, at the same time, applying the same compilation practices as in the regular quarterly national accounts (i.e. non-flash estimates) to ensure closeness or a high level of consistency with the final results.

While it is still too early to assess the reliability of the newly available euro area preliminary GDP flash estimate, according to Eurostat's tests[20] it has met predefined recommended quality acceptance criteria. They showed the following results for the euro area preliminary GDP flash estimate[21]:

- **Unbiased estimate** of the euro area GDP growth at 45 days with an average revision within +/-0.05 percentage point and no more than 66.7% of revision in the same direction. Against this criterion, the results for the euro area were 0.0 percentage point of average revision and equal distribution of the upward and downward revisions, accordingly.
- **Maximum average absolute revision** for the euro area of 0.1 percentage point in comparison to the flash GDP growth at 45 days and 0.13 percentage point in comparison to the GDP growth published around 65 days after the end of the reference quarter. The actual results for the euro area were in both cases 0.06 percentage point.
- **Sufficient coverage** defined as 70% of total GDP for the euro area. For the quarters used for the test estimates, the coverage was on average 83% of total GDP for the euro area, consistently reaching 94% in the last three quarters.

When examining the data for the first quarter of 2016, the preliminary GDP flash estimate for the euro area indicated quarter-on-quarter growth of 0.55%, which was revised down by 0.03 percentage point to 0.52% with the release of the GDP flash estimate at 45 days. This could be attributed to two main factors: first, revisions attributable to better national source information and, second, a marginally larger coverage of the euro area (97% of the euro area GDP).

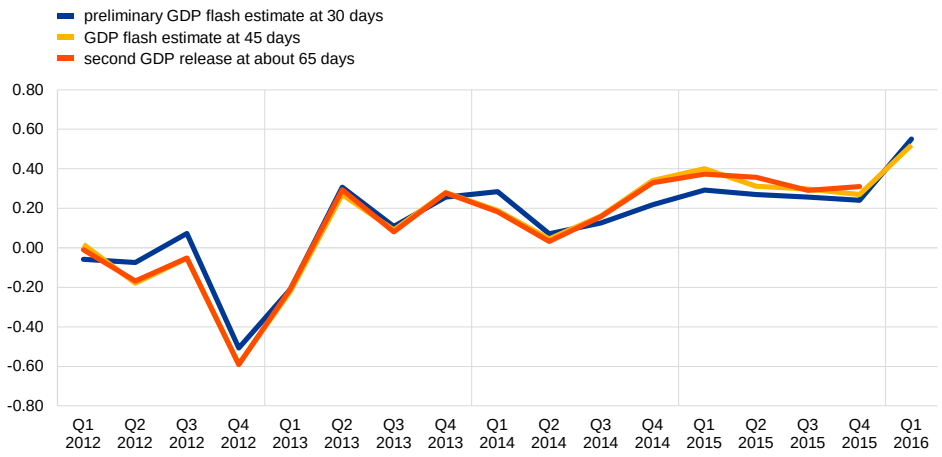
[20] The euro area test estimates were performed over the past two years for both the quarter-on-quarter and year-on-year growth rates based on eight quarters of real-time tests for Q1 2014 - Q4 2015 and eight quarters of "reconstructed" estimates for Q1 2012 - Q4 2013.

[21] Information provided by Eurostat in its paper "Euro area and European Union GDP flash estimates at 30 days", *Statistical working papers*, 2016 edition.

Chart

Revisions to euro area GDP growth

(quarter-on-quarter growth rates; calendar and seasonally adjusted chain-linked volumes)



Source: Eurostat.

The improved timeliness of the estimates of quarterly GDP growth for the euro area from 45 to 30 days after the end of the reference quarter is an important step for policymakers. Various processes serving monetary policy preparation, such as macroeconomic projections and analytical assessments will benefit. The earlier availability of information on GDP developments in the euro area and euro area countries will enable a more thorough analysis of the implications of these developments for the near-term outlook.

Box 5
Country-specific recommendations for fiscal policies under the 2016 European Semester

On 18 May 2016 the European Commission announced its proposed country-specific recommendations for economic and fiscal policies for all EU Member States except Greece, including recommendations for implementing the EU's Stability and Growth Pact (SGP). The country-specific recommendations are scheduled to be approved by economic and finance ministers on 17 June and to be endorsed thereafter by the European Council on 28-29 June.[22] The Council's fiscal policy recommendations aim to ensure that countries comply with the SGP. Hence, they give opinions on the 2016 updates to stability and convergence programmes, which governments had to submit to the European Commission and the Council by mid-April. In terms of follow-up, the country-specific recommendations for fiscal policies issued under the 2016 European Semester will need to be reflected in the draft budgetary plans for 2017 which euro area countries have to submit to the Eurogroup and the European Commission by mid-October. Against this background, this box reviews the recommendations for fiscal policies that were addressed to the 18 non-programme euro area countries.

According to the European Commission's spring 2016 forecast, the aggregate fiscal stance of the euro area is expected to be slightly expansionary in 2016 and 2017.[23] On the one hand, this indicates that euro area countries which have achieved their medium-term budgetary objective (MTO), most notably Germany, are using part of their fiscal space. On the other hand, it also reflects the fact that a sizeable number of countries, including those with high government debt levels, are falling short of their structural consolidation commitments under the Pact (see the table).

Consequently, the Commission's country-specific recommendations identify risks of non-compliance with the structural consolidation requirements of the SGP in many euro area countries. According to the European Commission's spring 2016 forecast, none of the countries with a deficit above the 3% of GDP reference value in 2015 (i.e. Portugal, Spain and France) is expected to deliver a structural consolidation over the period 2016-17 (i.e. a reduction of the budget deficit through factors other than the impact of the economic cycle and temporary budgetary measures). Moreover, significant shortcomings vis-à-vis structural

22 The adoption of the country-specific recommendations by the Economic and Financial Affairs Council (ECOFIN Council) at the meeting scheduled for 12 July will formally conclude the 2016 European Semester.

23 For a discussion of the concept of the euro area fiscal stance, see the article entitled "The euro area fiscal stance" in this issue of the *Economic Bulletin*.

adjustment requirements are anticipated in countries that are currently under the Pact's preventive arm, even though for some countries these requirements have been lowered markedly. In concrete terms, following a recent agreement on how to operationalise the flexibility that the SGP includes for structural reforms[24], countries that have not achieved their MTOs can progress towards them more slowly by delivering smaller structural consolidation efforts if they implement structural reforms, additional investment and pension reforms.[25] The structural adjustment requirements have for some countries been further reduced to accommodate the costs they incur for hosting refugees and for additional security spending. Overall, the granting of this flexibility has lowered the requirements for progressing towards the MTO from, on average, 0.5% of GDP to -0.1% of GDP in 2016.[26] This notwithstanding, the countries under the SGP's preventive arm which have not yet achieved their MTO are expected to fall short of the reduced requirements by conducting expansionary fiscal policies corresponding, on average, to -0.3% of GDP. This further delays the achievement of MTOs by Member States and thus hinders a return to robust public finances during the unique window of opportunity provided by favourable financial conditions.[27]

The fiscal policy recommendations for countries therefore vary according to the existing room for budgetary manoeuvre. They call on Member States whose structural efforts are expected to fall short of their commitments under the SGP to implement further measures to ensure the required compliance. Furthermore, countries that have not yet achieved their MTOs and are expected to maintain general government debt at a level that exceeds the 60% of GDP threshold (Belgium, France, Spain, Italy, Ireland, Portugal and Finland) are recommended to use any so-called windfall gains, i.e. savings from lower than anticipated interest payments, for deficit reductions. At the same time, among the euro area countries that have already reached their MTOs, Germany is recommended to achieve a sustained upward trend in public investment, especially in infrastructure, education, research and innovation. The Netherlands are recommended to prioritise public expenditure towards supporting more investment in research and development.

[24] For details, see the Economic and Financial Committee's Commonly Agreed Position on Flexibility within the Stability and Growth Pact http://data.consilium.europa.eu/doc/document/ST-14345-2015-INIT/en/pdf.

[25] For more details, see the box entitled "Flexibility within the Stability and Growth Pact", *Economic Bulletin*, Issue 1, ECB, 2015.

[26] This excludes countries that have already achieved their MTO.

[27] See the box entitled "The effectiveness of the medium-term budgetary objective as an anchor of fiscal policies", *Economic Bulletin*, Issue 4, ECB, 2015.

Table

Structural effort requirements under the SGP for the period 2016-17

(percentage points of GDP)

	Structural effort 2016	2016 structural effort requirement under SGP	memo: 2016 structural effort requirement under SGP (excluding granted flexibility)	Structural effort 2017	2017 structural effort requirement under SGP
SGP preventive arm					
Belgium	0.3	0.3	0.6	0.2	0.6
Germany	-0.4	0.0	0.0	-0.1	0.0
Estonia	-0.5	0.0	0.0	-0.3	0.0
Ireland	0.2	0.6	0.6	1.0	0.6
Italy	-0.7	-0.35	0.5	0.0	0.6
Cyprus	-1.3	0.0	0.0	-0.9	0.0
Latvia	0.3	0.3	0.8	0.0	-0.1
Lithuania	-0.8	-0.7	0.0	0.4	0.1
Luxemburg	-0.3	0.0	0.0	-1.1	0.0
Malta	0.7	0.6	0.6	0.4	0.6
Netherlands	-0.6	-0.2	0.0	0.3	0.6
Austria	-0.9	-0.8	0.0	-0.3	0.0
Slovenia	0.2	0.5	0.6	-0.4	0.6
Slovakia	0.2	0.25	0.25	0.6	0.5
Finland	-0.2	0.3	0.5	0.1	0.6
SGP corrective arm					
Portugal (EDP deadline 2015)	-0.2	0.6	0.6	-0.3	0.6
Spain (EDP deadline 2016)	-0.2	1.2	1.2	-0.1	0.6
France (EDP deadline 2017)	0.0	0.8	0.8	-0.2	0.9

Sources: European Commission's spring 2016 forecast and country-specific recommendations.
Notes: In this table, requirements of zero reflect that countries were at the MTO at the beginning of the respective year. Structural effort commitments under SGP (second and last column) reflect the requirements which for some countries have been reduced to account for flexibility granted vis-à-vis the implementation of structural reforms, government investment and pension reforms and for the costs of hosting refugees and additional security spending. EDP refers to excessive deficit procedure.

On 18 May the European Commission also released recommendations regarding the implementation of the Stability and Growth Pact. The Commission recommended abrogating the excessive deficit procedures (EDPs) for Ireland and Slovenia by their 2015 deadlines as well as the abrogation of the EDP for Cyprus one year ahead of its 2016 EDP deadline. In reports prepared under Article 126(3) of the Treaty on the Functioning of the European Union (TFEU), the Commission examined the breach of the debt criterion in Belgium, Italy and Finland in 2015 and decided against opening an EDP. In the case of Finland, the breach of the government debt reference value by 3.1% of GDP is explained by mitigating factors, including financial support to other euro area countries to safeguard financial stability and also the negative impact of the economic cycle. As regards Belgium and Italy, the Commission reports accounted for relevant factors, including (i) compliance with the structural effort requirements under the preventive arm of the SGP, (ii) unfavourable economic conditions (i.e. weak growth and low inflation) which make compliance with the debt rule more difficult, and (iii) implementation of growth-enhancing structural reforms. For both countries, the assessment of compliance with the SGP's preventive arm over 2016-17 took account of reduced requirements resulting from the flexibility granted to cope with the costs of hosting refugees and

additional security spending. Moreover, in the case of Italy, additional flexibility was granted for structural reforms and investment which – on top of the above-mentioned flexibility – reduced the structural effort requirement in 2016 from 0.5% of GDP to -0.35% of GDP, in the light also of the authorities' commitment to broad compliance with the SGP in 2017. In the autumn the Commission will revisit the resumption of the adjustment path towards the MTO, based on the draft budgetary plan for next year. The assessments of compliance with the debt rule did not consider previous shortfalls in fiscal consolidation as an aggravating factor or quantify the impact of relevant factors in a comprehensive manner to ensure that any discrepancies with the debt rule were explained in full.[28]

Furthermore, the European Commission's country-specific recommendations advised extending the EDP deadlines for Portugal and Spain by one year to 2016 and 2017, respectively, with structural effort requirements of 0.25% of GDP this year. Notably, while the country-specific recommendations are based on Articles 121 and 148 TFEU, the Council has to take decisions under the excessive deficit procedure as laid out under Article 126 TFEU. Moreover, while Article 10(3) of Council Regulation (EC) No 1467/97[29] asks the Council to act immediately in the event that an excessive deficit has not been corrected, the assessment of whether the deadline extensions should be associated with a stepping up of the EDP and possible sanctions was postponed to early July. Apart from this, the recommended structural effort of 0.25% of GDP compares with an adjustment of "at least 0.5% of GDP" envisaged in Article 3(4) of Regulation No 1467/97.

Finally, the Commission did not recommend opening a significant deviation procedure for Malta, which under the SGP's preventive arm was found to have deviated significantly from both the structural effort requirement and the expenditure benchmark in 2015 under the Commission's spring 2016 forecast.

To ensure credibility, it is important that the governance framework is applied in a legally sound, transparent and consistent manner across time and countries. Learning the lessons from the crisis, major improvements were made to the EU's fiscal governance framework in 2011 and 2013. The introduction of the debt rule to the corrective arm of the SGP and the establishment of the significant deviation procedure for the preventive arm (to help ensure sufficient progress towards the MTOs) are of particular significance here. The same holds for changes to the decision-making process intended to shield the European Commission from political pressure with the aim of increasing automaticity in the application of rules and sanctions. For these improvements to be effective, the full, transparent and consistent implementation of the SGP is essential. The approach to the implementation of the SGP under the 2016 European Semester has raised a number of questions, which will need to be examined.

28 See the article entitled "Government debt reduction strategies in the euro area", *Economic Bulletin*, Issue 3, ECB, 2016.

29 Council Regulation (EC) No 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure.

Articles
The role of euro area non-monetary financial institutions in financial intermediation

With bank lending staging a slow and protracted recovery in the wake of the global financial crisis, non-monetary financial institutions (non-MFIs) have expanded their share of financial intermediation in the euro area. In doing so, they have helped to mitigate the effects of the financial and sovereign debt crises on the euro area economy. At the same time, the observed shift in intermediation towards institutions other than banks may have implications for monetary policy transmission. Differences in regulation and supervision, in particular, appear to motivate some non-MFIs to adjust their risk exposures more quickly than banks in response to changes in the business and financial cycles, thereby accelerating the transmission of monetary policy, while other sectors, like long-term institutional investors, may have a stabilising impact. In this respect, the rising role of non-MFIs that are subject to less regulation and supervision has to be assessed for its possible repercussions on monetary policy transmission. In addition, the interplay of all financial intermediaries needs to be monitored from a monetary policy perspective.

1 Introduction

With lending by monetary financial institutions (MFIs) recovering only slowly, financial institutions outside the MFI sector have accounted for a rising share of financial intermediation in the euro area since the global financial crisis.[30] Between the end of 2008 and the fourth quarter of 2015, non-MFIs expanded their share of financial assets held by euro area financial corporations from 42% to 57%.[31] They have thus helped channel funding to the various sectors of an economy whose financial intermediation has traditionally mainly relied on banks.[32]

The interaction of several factors, both cyclical and structural in nature, can be identified as being among the key drivers of this shift. On the side of euro area banks, lending has languished as they have dealt with the fallout from the global financial crisis and the euro area sovereign debt crisis. This reduced supply of finance from banks is one cause of the rise of intermediation by non-MFIs. At the same time, the rise of non-MFIs has been supported by the low level of interest rates

30 Euro area MFIs include credit institutions, money market funds and the Eurosystem.

31 The reported shares are based on the outstanding amounts of total financial assets held by the financial sector as a whole and its sub-sectors, thus reflecting not only genuine growth but also revaluation effects and statistical reclassifications between the two comparison points. Assets held by the Eurosystem are excluded from the figures.

32 The terms "MFI" and "bank" are used synonymously in this article.

in the wake of the financial crisis, as well as longer-term structural factors, including demographic trends and population ageing. These have led to an increase in purchases of products offered by insurance corporations and pension funds (ICPFs) and to higher investment flows into non-money market fund investment funds (non-MMF IFs), as returns on existing pension schemes have lagged behind objectives. In addition, regulatory arbitrage may have transferred some intermediation activities from banks to non-MFI sectors.

Structural change in euro area financial intermediation, such as the shift from MFIs to non-MFIs, has implications for monetary policy transmission. Most of the transmission channels of monetary policy work by influencing the way in which financial intermediaries provide funding to the economy. In this setting, banks retain a major role in the euro area. However, the growing importance of non-MFIs makes them increasingly relevant for the propagation of monetary impulses. In this role, non-MFIs may react differently from banks to changes in the monetary policy stance, thereby altering the way monetary policy is transmitted through financial markets and intermediaries' balance sheets to the real economy.

In particular, some non-MFIs may accelerate the transmission of monetary policy. Specifically entities in the other financial institution (OFI) sector may react faster than banks to monetary policy impulses and changes in the economic and financial outlook. This means that they also retrench more rapidly in times of crisis. Part of this is associated with the less stringent regulation and supervision some non-MFIs are subject to. By contrast, banks as deposit-taking institutions hold reserves with central banks and act as their direct counterparties in monetary policy operations. For this reason they also generally enjoy a public sector backstop associated with extensive regulation and supervision.

Consequently, understanding trends and developments in the euro area non-MFI sectors is crucial for monetary policy. Against this background, Section 2 of this article provides a brief overview of academic findings on the role of the non-MFI sectors in monetary policy transmission. Section 3 describes and analyses the role of non-MFIs within the financial system of the euro area, while Section 4 focuses on the trends observed for the individual constituents of the euro area non-MFIs. Sections 3 and 4 both provide examples of developments that have implications for monetary policy transmission stemming from the findings presented in Section 2. Section 5 concludes.

2 The role of non-MFIs in monetary policy transmission – a review of the literature

Monetary policy affects the economy through several sectors and channels of transmission. Most of these channels work by influencing the decisions of financial intermediaries, which provide funding and investment opportunities to financial and non-financial sectors of the economy. In the euro area, MFIs, which comprise banks and money market funds (MMFs), are the main providers of financial services in the economy and therefore play a major role in the transmission of monetary policy.

However, owing to their increasing relevance in the financial sector, non-MFIs have now also become more important for the transmission of monetary policy impulses. Non-MFIs include non-MMF IFs, other financial intermediaries except ICPFs (including financial vehicle corporations, FVCs), financial auxiliaries, captive financial institutions and money lenders, and ICPFs (see Box 1 for a detailed description of non-MFIs according to the European System of Accounts 2010).

Owing to differences in business models and associated legal and regulatory requirements, non-MFIs respond differently from banks to monetary policy impulses. Banks, as deposit taking institutions, are typically highly regulated financial intermediaries subject to capital and liquidity requirements. Together with money market funds (seen as providing close substitutes for deposits) and central banks they comprise the MFI sector, as the creator of inside and outside money respectively. The MFI sector has thus traditionally been seen as the natural starting point for analysing monetary transmission in bank-based financial systems. At the same time, banks, as depository institutions subject to minimum reserve requirements have, in times of stress, access to emergency liquidity assistance from central banks and, if they become insolvent, they are subject to an orderly resolution process that can involve public backstops. Non-MFIs are financial intermediaries that can also be involved in maturity and liquidity transformation and credit risk transfer, but they generally do not have access to public backstops or central bank liquidity.

The mechanisms through which monetary policy is transmitted have been the focus of extensive analysis and empirical investigation over the last few decades. The main focus of this effort, especially in the early years, has been on the role of the assets and liabilities of banks, which provided the primary source of debt financing for the non-financial corporate (NFC) sector and for households in the euro area. However, some of the mechanisms featured in this research can also provide insight into the processes involving non-MFI sectors to different degrees.

Broadly speaking, the channels of monetary transmission comprise an interest rate (or cost-of-capital) channel, a broad credit channel and a risk-taking channel.[33] While these three channels can potentially work for MFIs and non-MFIs alike, there may be differences in terms of speed and amplitude in the transmission of monetary policy impulses. This is due, for example, to the possible interactions with the different regulatory and supervisory frameworks in which financial intermediaries operate. In particular, the presence of less regulated – and therefore more flexible – non-bank intermediaries can make monetary transmission faster.[34]

[33] For a detailed characterisation of these channels, see the article entitled "Monetary policy and loan supply in the euro area", *Monthly Bulletin,* ECB, October 2009.

[34] ICPFs and investment funds are subject to regulatory requirements to protect policy holders. The main difference between them and the banking sector remains access to central bank liquidity and the government guarantee for bank depositors.

This is because they can adapt their risk exposure to changes in financing conditions more quickly.[35]

In particular, some non-MFIs seem to respond faster to changes in the business and financial cycles than banks. Indeed, some studies have shown that the leverage of security brokers and dealers is pro-cyclical and linked to monetary policy changes. Tighter monetary policy tends to lower the risk-taking of broker-dealers, leading to an increase in the pricing of risk.[36] Concerning other intermediaries, some studies have shown that ICPFs, as long-term investors, are in principle better placed to look through short-term market volatility and play a counter-cyclical role.[37] At the same time, such institutional investors strongly depend on stable returns from fixed income and have been shown to react relatively strongly to interest rate changes. For example, insurance corporations, which are large holders of securities, tend to engage in a search for yield, as they systematically choose riskier investments from among the assets fulfilling their regulatory requirements.[38] This seems to be intensified when interest rates are low. In parallel, however, their long investment horizons increase their resilience to sudden changes in monetary policy rates. When looking at investment funds, the available evidence generally supports the notion that lower real interest rates shift portfolio investment towards riskier assets – out of the money market and into the riskier equity market – causing significant increases in stock prices in countries where investment home bias is strong.[39]

Overall, existing research suggests that the increasing role of non-MFIs in the financial sector may imply a somewhat faster transmission of monetary shocks, notably through the risk-taking channel. At the same time, recent historical analysis has shown that the relationship between credit and broad money began to decouple after the early 1970s, when financial intermediaries other than banks started to become important contributors to credit intermediation in a number of countries, but to a lesser extent in the euro area.[40] In line with this, it is found that

35 For a discussion on changes to monetary policy transmission in the euro area, see, for example, the article entitled "The shadow banking system in the euro area: overview and monetary policy implications", *Monthly Report*, Deutsche Bundesbank, March 2014 and Beck, G., Kotz, H.-H. and Zabelina, N., "Lost in translation? ECB's monetary impulses and financial intermediaries' responses", *White Paper*, No 36, SAFE, April 2016.

36 See in particular Adrian, T. and Shin, H.S. "Liquidity and Leverage", *Journal of Financial Intermediation*, 19 (3), July 2010, pp. 418-437 and, by the same authors, "Procyclical Leverage and Value-at-Risk", *Review of Financial Studies* 27(2), February 2014, pp. 373-403.

37 See, for example, "Procyclicality and structural trends in investment allocation of insurance corporations and pension funds", Discussion Paper by the Bank of England and the Procyclicality Working Group, July 2014.

38 See Becker, B., and Ivashina, V., "Reaching for Yield in the Bond Market", *Journal of Finance,* Vol. 70, No 5, October 2015, pp. 1863–1902.

39 See Hau, H. and Lai, S., "Asset Allocation and Monetary Policy: Evidence from the Eurozone", *Journal of Financial Economics*, forthcoming. Several analytical studies have also addressed how monetary policy affects the investment decisions of MMFs. Evidence is based on US MMFs, which are large liquidity providers owing to their size. Owing to their regulatory framework, including the most recent changes that will be implemented over the coming months, there seems to be little scope for these intermediaries to engage in risk-shifting (see Chodorow-Reich, G., "Effects of Unconventional Monetary Policy on Financial Institutions", *Brookings Papers on Economic Activity* (Spring), 2014, pp. 155-204, and La Spada, G., "Competition, Reach for Yield, and Money Market Funds", *Staff Reports*, No 753, Federal Reserve Bank of New York, December 2015).

40 See Schularick, M. and Taylor, A.M., "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870-2008", *American Economic Review*, 102(2): 1029-61, 2012.

non-MFIs induce higher time-variation in the velocity of money and credit, implying potentially greater instability in the transmission of monetary policy.[41] More generally, the growing role of non-MFIs affects the relative importance of different transmission channels of monetary policy.

Box 1

Financial institutions according to the European System of Accounts 2010

The financial accounts are the framework for the analysis of the financial sector as they provide a comprehensive presentation of the financial positions, financial transactions and other flows in the economy. In the European Union, the financial accounts are compiled according to the concepts and definitions laid down in the European System of Accounts 2010 (ESA 2010) and the ECB Guideline on quarterly financial accounts, which ensure consistent recording for the euro area and comparability across countries.[42]

The ESA 2010 defines the financial sector broadly as all institutional units whose principal activity is the production of financial services.[43] In addition to financial intermediaries, this definition includes financial auxiliaries, captive financial institutions and money lenders. Financial auxiliaries facilitate financial transactions, e.g. as brokers or consultants, between third parties without becoming the legal counterparty. Thus they do not put themselves at risk and their financial positions tend to be small. Captive financial institutions and money lenders are defined as institutional units most of whose assets or liabilities are not transacted on open markets. One example of such a unit is a special purpose entity (SPE) that raises funds in open markets – e.g. by issuing debt securities – but lends exclusively to a parent corporation. Conversely, trusts and money lenders may receive funds from one individual household or corporation and invest them in the financial markets.

Financial intermediaries are divided into sub-sectors according to their main type of financing. Monetary financial institutions (MFIs) comprise the ECB and national central banks, which issue currency and deposits, deposit-taking institutions and money market funds (MMFs). MMFs belong to the MFI sector, as they issue fund shares or units which are considered close substitutes for bank deposits.

Non-monetary financial institutions (non-MFIs) cannot issue deposits or money market fund shares or units. As they do not offer deposits or close substitutes to deposits to the public, non-MFIs are not subject to the same regulatory framework as MFIs. Three of the non-MFI sub-sectors can be easily characterised by their main liabilities – these are non-MMF IFs, insurance corporations and pension funds (see Table A).

41 See Adrian, T. and Liang, N., "Monetary Policy, Financial Conditions, and Financial Stability", *Staff Reports*, No 690, Federal Reserve Bank of New York, September 2014.

42 See Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union (OJ L 174, 26.6.2013, p. 1) and ECB Guideline on the statistical reporting requirements of the ECB in the field of quarterly financial accounts (OJ L 2, 7.1.2014, p. 34).

43 The financial accounts cover all entities resident in the euro area, but not funds resident offshore. All institutional units are covered, regardless of whether or not they belong to a bigger corporation or banking group.

Table A

MFIs and non-MFIs according to ESA 2010

Monetary financial institutions (MFIs)	
Central bank	
Deposit-taking corporations except the central bank	
Money market funds (MMFs)	
Non-monetary financial institutions (non-MFIs)	
Other financial institutions (i.e. financial corporations other than MFIs, insurance corporations and pension funds)	
Non-MMF investment funds (non-MMF IFs)	Non-MMF collective investment schemes, includes real estate investment funds, "funds of funds", exchange traded funds (ETFs) and hedge funds. Investment funds may be open-ended or closed ended.
OFIs excluding IFs	
Other financial intermediaries	
Financial vehicle corporations engaged in securitisation transactions (FVCs)	Special purpose entities (SPEs) created to purchase assets, such as a portfolio of loans, from the original holder.
Security and derivatives dealers	Security and derivative dealers acquiring assets and incurring liabilities on their own account (as opposed to security brokers, which are financial auxiliaries).
Financial corporations engaged in lending	For example, financial corporations engaged in financial leasing, hire purchase, factoring and the provision of personal or commercial finance.
Specialised financial corporations	For example, venture and development capital companies, export/import financing companies, financial intermediaries that acquire deposits or loans vis-à-vis MFIs only and central clearing counterparties.
Financial auxiliaries	For example, security brokers, corporations that manage the issue of securities, corporations providing infrastructure to financial markets, head offices of groups of financial corporations.
Captive financial institutions and money lenders	For example, trusts, holding companies, SPEs that qualify as institutional units and raise funds in open markets to be used by their parent corporations, corporations engaged in lending from funds received from a sponsor.
Insurance corporations (ICs)	Corporations primarily engaged in the pooling of risks in the form of direct insurance or reinsurance.
Pensions funds (PFs)	Corporations primarily engaged in the pooling of social risks and providing income in retirement

Non-MMF IFs raise funds almost exclusively by issuing investment fund shares or units and invest the funds in the financial markets or in real estate. Exceptions from this simple financing model are hedge funds, which may incur substantial amounts of other liabilities, such as loans and financial derivatives.

Insurance corporations and pension funds (ICPFs) collect funds by offering insurance and pension schemes. Insurance corporations may offer insurance products to the public, as well as pension schemes to groups of employees. Pension funds are restricted by law to offering pension schemes to specified groups of employees and self-employed persons. The liabilities of ICPFs consist mainly of insurance technical reserves, which are recognised in the financial accounts as life insurance and annuity entitlements and pension entitlements. Mandatory social (health or pension) security funds managed by general government are not included in this definition.

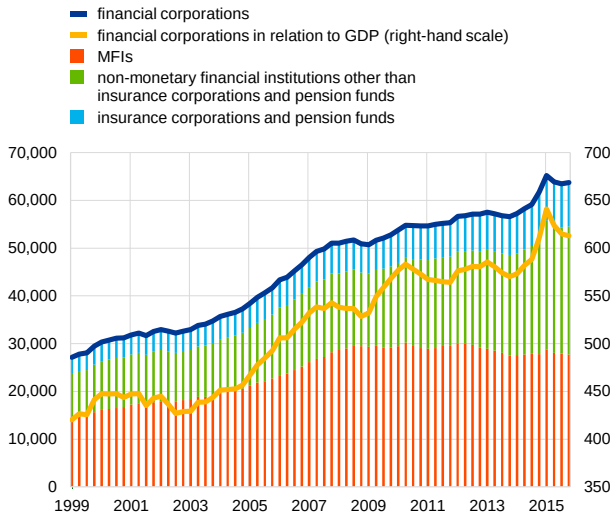
A fourth group of financial intermediaries is determined residually as "other financial intermediaries", which together with financial auxiliaries and captives are referred to as "other financial institutions excluding non-MMF Ifs". This sub-sector is very heterogeneous and includes, for example, FVCs engaged in securitisation transactions, security and derivatives dealers, financial corporations engaged in lending (mainly financial leasing or factoring companies) and other specialised financial corporations. These institutions are less regulated and their

economic and financial importance varies widely between countries. Euro area statistics for these institutions are typically based on indirect information, e.g. from securities markets or counterparty sector information (e.g. MFI loans to other financial institutions). Euro area-wide data collection exists only for FVCs and is based on an ECB regulation. FVCs are created to purchase assets, such as portfolios of loans originated by an MFI or other lender. FVCs finance the purchase of such assets from the original holder by issuing asset-backed securities (ABSs).[44] FVCs thus increase the liquidity of the original holder and allow the purchasers of the ABSs to invest in a specified pool of assets. Owing to the lack of harmonised data sources that would allow the separate identification of these sub-sectors, other financial intermediaries are, for the purpose of the euro area financial accounts, grouped together with financial auxiliaries and captives.

3 The role of non-MFIs within the euro area financial system

Chart 1
Total financial assets held by euro area financial corporations

(outstanding amounts; left-hand scale: EUR billions; right-hand scale: percentages of nominal GDP)



Source: ECB.
Notes: Financial corporations and MFIs excluding the Eurosystem. The latest observations are for the fourth quarter of 2015.

In the years preceding the crisis, both bank and non-bank financial intermediaries boosted risk taking and credit growth and facilitated a rapid expansion of the financial sector (see Chart 1). Financial intermediaries exploited securitisation as a means of managing their balance sheets more flexibly and thereby increased overall credit supply. At the same time, (risky) illiquid loans were transformed into short-term, money-like marketable instruments, which were perceived to be almost risk-free and were held by banks or sold on to households, firms and institutional investors. The outbreak of the sub-prime crisis in the United States in 2007 revealed that these developments were unsustainable. In the years that followed, the collapse of securitisation via non-MFI conduits, often sponsored by banks, contributed, among other factors, to the sharp contraction in the flow of bank credit. Banks were no longer able to transfer risk off their balance sheets, a process that had facilitated further loan origination, or even had to bring risks that had been moved off their books back onto their balance sheets. This experience illustrates the capacity of accounting and regulatory changes to blur

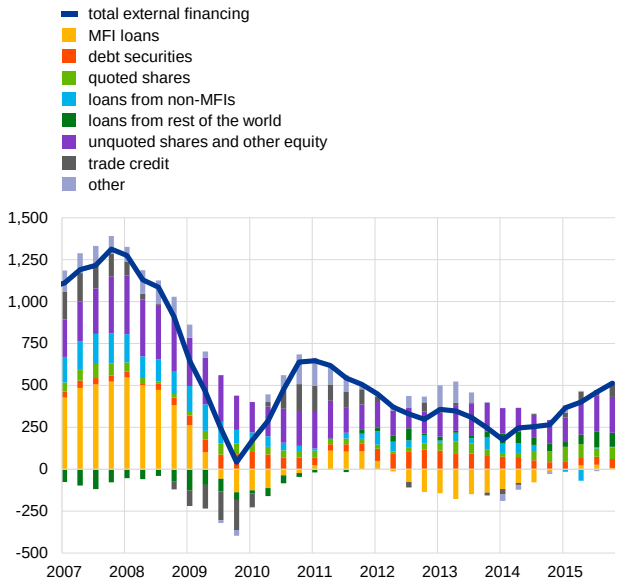
[44] For a precise description, see the background note on FVC statistics collected under Regulation ECB/2013/40, which is available on the ECB's website at https://www.ecb.europa.eu/stats/money/fvc/html/index.en.html

the line between bank and non-bank lending, boosting the risk-taking channel and altering the transmission of monetary policy.[45]

The size of the euro area financial sector has continued to increase since the global financial crisis, but at a slower pace and with diverging developments across MFIs and non-MFIs. Between the end of 2008 and the end of 2015, financial assets held by euro area financial corporations increased from €51 trillion (528% of GDP) to €64 trillion (613% of GDP). The share of these assets held by MFIs fell from 58% to 43% over this period. By contrast, the share held by non-MFIs rose from 42% to 57%. Of this, non-MFIs other than ICPFs accounted for a 42% share (up 11.8 percentage points when compared with the end of 2008), with ICPFs accounting for 15% (up 2.7 percentage points).

Chart 2
Total external financing of euro area NFCs

(annual flows; EUR billions)



Source: ECB.
Notes: "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. The latest observations are for the fourth quarter of 2015.

Banks have experienced a slowdown in balance sheet growth or a shedding of assets as a result of the global financial crisis and the euro area sovereign debt crisis and associated regulatory changes. In particular, on the credit supply side, the fragile economic environment triggered a surge in non-performing loans and a marked deterioration in the balance sheets of banks. At the same time, stricter regulation and supervision, coupled with feeble growth and low interest rates, have challenged the existing business models of banks, forcing them to adapt. However, the ECB's non-standard measures have provided liquidity and supported credit, mitigating the risks of disorderly deleveraging in the banking sector as a whole. On the credit demand side, economic weakness and depressed asset prices lowered the collateral value underpinning loans to the non-financial private sector. Together, this resulted in a net tightening of credit standards and a restriction of bank credit to NFCs and households in 2008 and 2009, and again in 2011 and 2012.

While the net flow of finance from MFIs to NFCs contracted in 2009 and 2010, and again between 2012 and 2014, the flow of finance from non-MFIs remained positive (see Chart 2). Over this period, the primary form of financing offered by non-MFIs took the form of market and non-market-based equity financing, the issuance of debt securities and the provision of loans. The sustained provision of funding from non-MFIs after

[45] See also Altunbas, Y., Gambacorta, L. and Marqués-Ibáñez, D., "Securitisation and the bank lending channel", *European Economic Review*, 53(8): 996-1009, 2009 and Moutot, P. et al, "The role of other financial intermediaries in monetary and credit developments in the euro area", *Occasional Paper Series*, No 75, ECB, Frankfurt am Main, October 2007.

the crisis hit was supported by a range of factors and has had a stabilising impact on the euro area economy.[46]

- **First, very low interest rates and the associated search for yield by investors have supported financial intermediation by non-MFIs**. Specifically, the activities of non-MFIs were helped by factors impacting the portfolio choices on the asset side of the non-financial sectors, such as lower returns on bank deposits, falling risk premia and a recovery in a range of asset markets. On the liability side, progress on repairing balance sheets allowed firms in the euro area to tap financing sources other than bank credit, such as equity and corporate debt issuance. Insofar as these developments were related to the low interest rates resulting from the ECB's monetary policy, they provide another illustration of the mechanics of the risk-taking channel for monetary policy transmission.

- **Second, structural factors, such as demographic trends, have also benefited financial intermediation by non-MFIs.** Population ageing has led to a rise in purchases of life insurance and pension investment products, partly reflecting households' increased concerns about the sustainability of both public and private pension schemes in view of lower potential growth, high sovereign debt levels and low returns on existing pension schemes.

- **Third, some non-MFIs have been less exposed to regulatory tightening than banks, opening opportunities for regulatory arbitrage.** However, large parts of the non-MFI sector in the euro area, such as ICPFs, are in fact subject to extensive regulation and supervision. As a result, regulatory arbitrage is likely to have played at best a secondary role in the observed shift of financial asset holdings from banks to non-MFIs in these cases.

- **Fourth, the rising share of non-MFIs in the euro area financial sector also reflects methodological changes.** The transition to the ESA 2010 implied the assimilation of a large set of entities, such as financing SPEs, into the group of non-MFIs, having previously been classified in the NFC sector alongside the firms they are typically serving. In fact, the rapid expansion of financing SPEs explains some 15% of the overall increase in the size of the financial sector between the end of 2008 and the end of 2015.

Data improvements over time will make it possible to isolate and analyse in greater detail financial flows across sectors. In future, a more conclusive assessment might be feasible once longer time series of new data providing a "who-to-whom" breakdown of marketable instruments become available. The ECB began publishing such data in April 2016 (see Box 2). These statistics may be used, for instance, to conduct detailed analyses of the role of various institutional sectors in providing direct and indirect financing to the different parts of the economy. Together with macroeconomic, financial market and confidence indicators, these data can also

[46] See also the articles entitled "The interplay of financial intermediaries and its impact on monetary analysis", *Monthly Bulletin*, ECB, January 2012 and "The financial crisis in the light of the euro area accounts: a flow-of-funds perspective", *Monthly Bulletin*, ECB, October 2011.

provide a better insight into the portfolio investment behaviour of different economic sectors.

Box 2
Extension of the euro area accounts (EAA) with new data on a "who-to-whom" basis for marketable securities

In April 2016, the ECB began publishing quarterly data on securities on a "who-to-whom" basis as part of the financial accounts within the euro area accounts (EAA) framework.[47] Data on a "who-to-whom" basis refer to financial transactions and positions for which both the creditor sector (asset holder) and debtor sector (issuer of the corresponding liability) are simultaneously identified. They represent an important extension of the traditional presentation of the financial accounts. In the traditional presentation, the financial portfolio of a sector is presented, distinguishing instrument type and maturity where applicable, but without detail regarding the counterparty issuing sectors (i.e. the sectors for which the financial claims in the portfolio are liabilities). Similarly, the liabilities of each sector are broken down by instrument and maturity where applicable, but no detail is offered as to which counterparty sectors are the creditors of those liabilities. The "who-to-whom" presentation, therefore, enhances the information provided in the financial accounts by revealing the full web of linkages between holders and issuers at the institutional sector level.

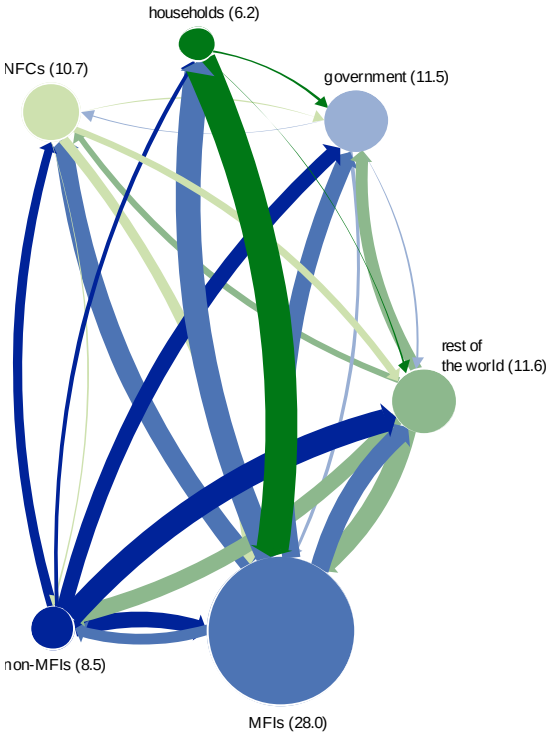
The data are available as quarterly time series for the euro area, starting in the fourth quarter of 2013, and comprise outstanding amounts, financial transactions and revaluations. Three instrument types are distinguished, namely debt securities (differentiating short-term from long-term, based on their maturity at issuance), listed shares and investment fund shares/units (which combine shares/units issued by MMFs and those issued by non-MMF IFs). Euro area residents are categorised into eight institutional sectors (households, NFCs, MFIs, non-MMF IFs, other financial intermediaries, insurance corporations, pension funds and general government), both as holders and as issuers of securities. Non-euro area residents are then added as holders of securities issued by the various resident sectors. Non-residents are also considered with regard to securities they have issued if the securities are held by any of the resident sectors.

47 The data will be published every quarter as part of the second and complete press release on euro area economic and financial developments by institutional sector.

Chart A

"Who-to-whom" funding relationships (loans, deposits and debt securities)

(outstanding amounts in the fourth quarter of 2015; EUR trillions)



Notes: The size of the nodes is proportional to the combined liabilities of each sector in the form of loans, deposits and debt securities (including intra-sector claims). The amounts outstanding of these combined liabilities are indicated in brackets. Deposits can only be liabilities for the MFI sector, the government and the rest of the world. The width of the arrows linking two sectors indicates the total amount of funding from one sector to another sector when combining those instruments. Only combined funding relationships larger than €150 billion are plotted.

Data on a "who-to-whom" basis are compiled in an analogous way to other financial accounts data. This means that different source statistics are prioritised and combined, filling any coverage gaps in them and ensuring that the classification and valuation of all transactions and positions is consistent with the ESA 2010. Data on a "who-to-whom" basis for loans and deposits have been available within the EAA since 2010. For marketable securities, various ECB source statistics have for some time already contained sufficient detail on counterparties to also allow a derivation of "who-to-whom" data for several combinations of holder and issuing sectors. Many gaps still existed, but they have now been closed with the collection of securities holdings statistics by the ECB since early 2014.[48] A "who-to-whom" presentation of the financial accounts that also covers marketable securities has therefore only recently become possible.

Notwithstanding the central role of the MFI sector in the financing of all sectors in the euro area economy, non-MFI financial institutions are also an important source of direct funding, especially for the government and NFC sectors. This is evident from Chart A, which depicts the network of inter-sector claims resulting from combining all instruments available on a "who-to-whom" basis representing debt – i.e. loans, deposits and debt securities. The significant funding of MFIs by non-MFIs also hints at an indirect role for non-MFIs in the provision of credit to other sectors. Finally, non-MFIs are pivotal in the channelling of credit between the euro area and the rest of the world.

4 The role of various non-MFI sectors in the euro area

Other OFIs constitute the largest group of non-MFIs. This is a residual group comprising a very heterogeneous set of institutions.[49] Together this group holds a

48 See also the article entitled "Who holds what? New information on securities holdings", *Economic Bulletin*, Issue 2, ECB, March 2015.

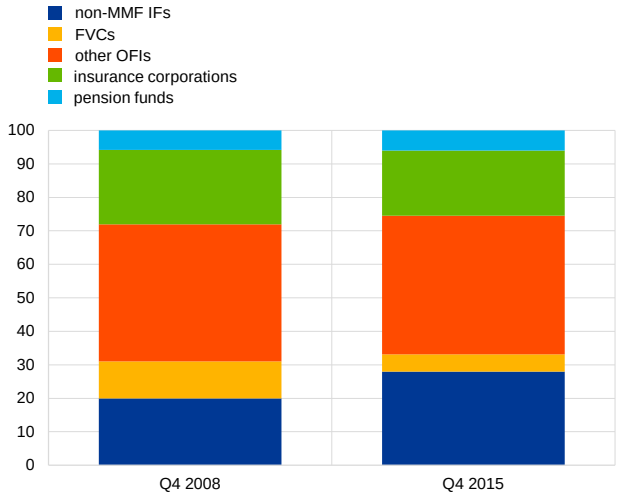
49 For the purpose of this section, the category "other OFIs" is defined differently from the classification presented in Table 1 of Box 1. Owing to data limitations, only non-MMF IFs and FVCs can be singled out. Consequently, the assets held by other OFIs have been calculated as a residual by subtracting the assets held by non-MMF IFs and FVCs from the assets held by the aggregate OFI sector.

41% share in the total financial assets of non-MFIs (see Chart 3). Non-MMF IFs and insurance corporations (ICs) account for 28% and 19% respectively, while FVCs and pension funds (PFs) play a significantly smaller role.

Chart 3

Share of total financial assets held by euro area non-MFIs by sector

(outstanding amounts; percentages)

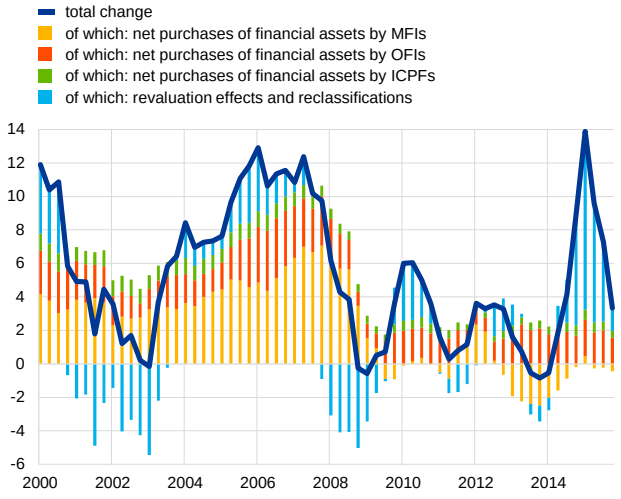


Source: ECB.
Notes: The assets held by other OFIs have been calculated by subtracting the assets held by non-MMF IFs and FVCs from the assets held by the aggregate OFI sector.

Chart 4

Changes in total financial assets held by euro area financial corporations

(outstanding amounts; annual percentage changes; percentage point contributions)



Source: ECB.
Note: Financial corporations and MFIs excluding the Eurosystem. The latest observations are for the fourth quarter of 2015.

Half of the increase in the size of the financial sector between the end of 2008 and the end of 2015 can be attributed to actual transactions by OFIs (see Chart 4). Most of the other half was due to revaluation effects associated with the recovery and the subsequent sharp increase in stock and bond prices. Within OFIs, 40% of the net accumulation of financial assets was concentrated in non-MMF IFs, with other OFIs accounting for the remainder.

4.1 Non-money market fund investment funds (non-MMF IFs)

Non-MMF IFs account for an increasing share – currently 28% – of the total financial assets held by euro area non-MFIs (see Chart 3)**.** They thus play a significant and increasing role in providing market-based financing to euro area banks and NFCs.[50] The assets of non-MMF IFs are primarily concentrated in debt securities and equity holdings (see Chart 5). Non-MMF IFs hold around 13% and 9% of the debt securities issued by euro area NFCs and banks respectively (see Chart 6). Moreover, non-MMF IFs also hold around 14% of the quoted shares issued by these two sectors. Importantly, however, 40% of their debt security holdings and 60% of their shares and other equity holdings consist of securities

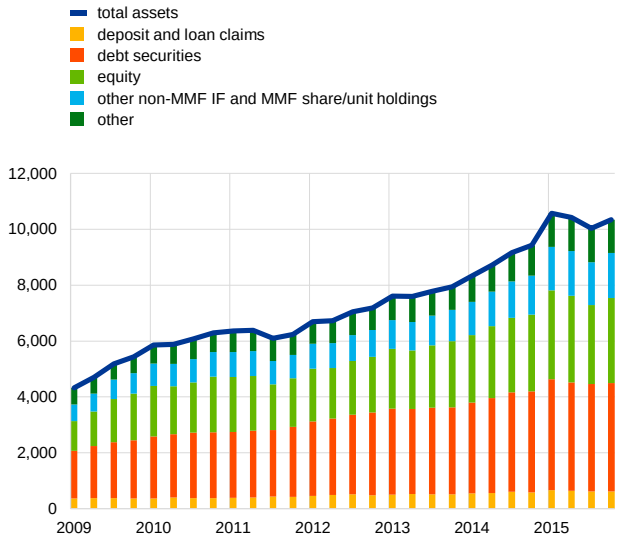
[50] See also the article entitled "Harmonised ECB statistics on euro area investment funds and their analytical use for monetary policy purposes", *Monthly Bulletin*, ECB, August 2010.

issued by the rest of the world. This may reflect both an investor preference for holding globally diversified portfolios and the small size of euro area stock and bond markets relative to global securities markets.

Chart 5

Financial assets held by euro area non-MMF IFs

(outstanding amounts; EUR billions)

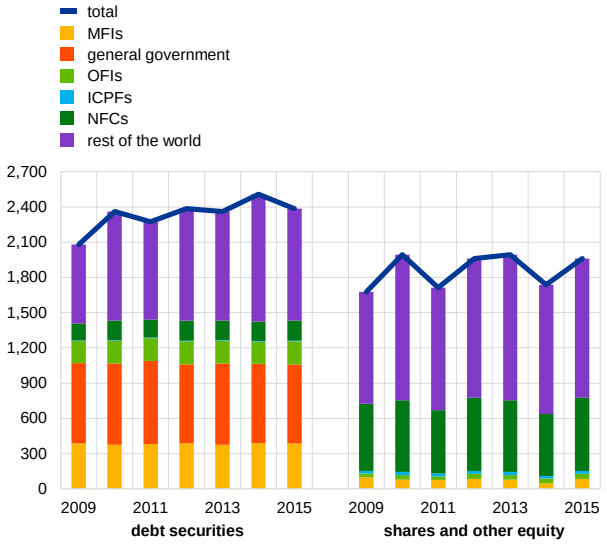


Source: ECB.
Note: The latest observations are for the fourth quarter of 2015.

Chart 6

Euro area non-MMF IFs' holdings of securities, by sector

(outstanding amounts; EUR billions)

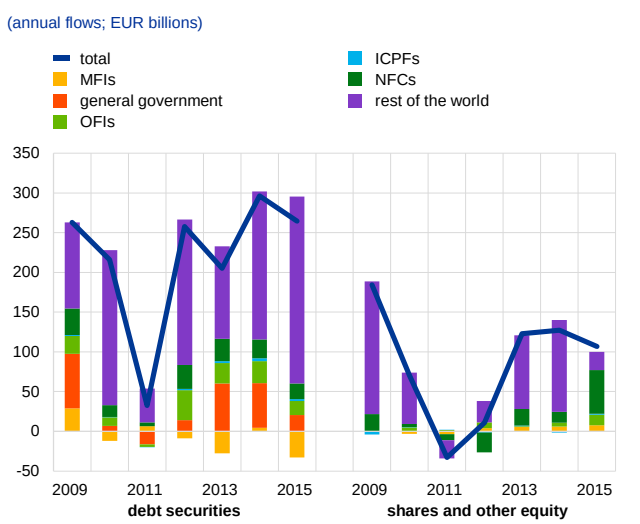


Source: ECB.
Note: The latest observations are for the fourth quarter of 2015.

Possible reasons for the increased role of the non-MMF IF sector since the global financial crisis include the low interest rate environment and demographic dynamics. In particular, low deposit rates have enhanced the attractiveness of investing in securities, thereby benefiting the business of non-MMF IFs. Similarly, monetary policy measures have facilitated a reduction in risk premia, a rise in investor confidence and a decrease in investor risk aversion, all of which support stronger inflows into non-MMF IFs. This would seem to be in line with the mechanics of the risk-taking channel of monetary policy transmission that was discussed in Section 2. Finally, non-MMF IFs have profited from concerns among euro area households about their future pension benefits. Such concerns have led to higher savings which, in the face of low interest rates, have been channelled towards riskier assets to achieve the level of return that enables households to accomplish the desired degree of lifetime consumption smoothing.

Chart 7

Euro area non-MMF IFs' net purchases of securities, by sector



Source: ECB.
Note: The latest observations are for the fourth quarter of 2015.

Since the peak of the global financial crisis at the end of 2008, non-MMF IFs' holdings of equity securities have risen more than their holdings of debt securities (see Chart 5). Valuation effects, specifically the sharp recovery in stock prices since the lows seen after the collapse of Lehman Brothers, are the main explanation for the strong increase in equity holdings. In fact, net purchases of debt securities by non-MMF IFs have been considerably larger than net purchases of equities (see Chart 7).

Moreover, non-MMF IFs have tended to favour foreign investments (see Chart 7), possibly in relation to some waning of euro area investors' home bias during the peak of the sovereign debt crisis. They have also modestly scaled back their exposure towards the euro area banking sector. To some extent, this can be explained by the declining financing needs of euro area banks owing to their deleveraging efforts and their ability to obtain funding through customer deposits and central bank facilities.

4.2 Financial vehicle corporations (FVCs)

The financial asset holdings of FVCs have fallen steadily since the global financial crisis, reflecting the decline in securitisation transactions that previously allowed banks to shift risk off their balance sheets (see Chart 8).[51] Primarily involved in the securitisation of loans to households, FVCs hold 12% of the total loan claims on euro area households. For loan claims on euro area NFCs, the share of FVCs is smaller at 3%.[52]

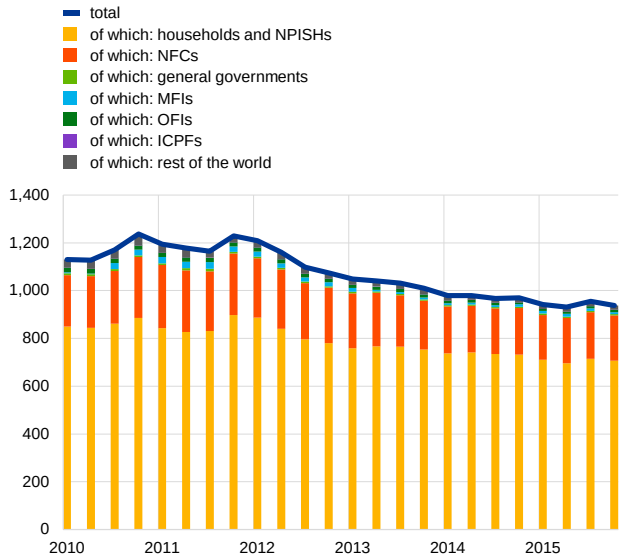
51 See also the article entitled "New features in monetary and financial statistics", *Economic Bulletin*, Issue 8, ECB, December 2015.

52 Both figures are reported net of intra-sectoral loans.

Chart 8

Securitised loans originated by euro area MFIs, by borrowing sector

(outstanding amounts; EUR billions)



Source: ECB.
Note: The latest observations are for the fourth quarter of 2015.

Possible drivers of the decline of FVCs include deleveraging pressures and the stigma attached to these instruments in the wake of the global financial crisis. As banks and the non-financial private sector consolidated their balance sheets, the credit growth necessary to sustain the continued securitisation of loans evaporated. At the same time, the prominent role of FVCs in the financial market turmoil of 2008 and 2009, regulatory developments and other structural factors triggered a decline in securitised products, irrespective of the potential of simpler, more transparent and more robust securitisation to enhance financial intermediation.[53]

4.3 Other OFIs

Among non-MFIs in the euro area, financial assets of other OFIs have grown significantly in recent years, accounting for 41% of the total, with about a quarter of this share attributable to financing SPEs.[54] In order to benefit from a favourable tax regime and financial technology, financing SPEs – which are subsidiaries of another company – are typically located in a country, within or outside the euro area, which is different from the domicile of their parent.[55] Bond market financing obtained by financing SPEs and returned to their parent in the form of loans account for close to one-third of the increase in total financial assets held by other OFIs since the global financial crisis.

Other OFIs mainly hold equity and loan claims on their asset side (see Chart 9). This is due to the fact that the other OFI sector is generally dominated by highly specialised business models. Venture capital corporations, development capital companies and holding companies provide risk capital to firms, whereas financial leasing companies and financing SPEs provide loans.

53 See "The case for a better functioning securitisation market in the European Union", Bank of England and European Central Bank staff, May 2014.

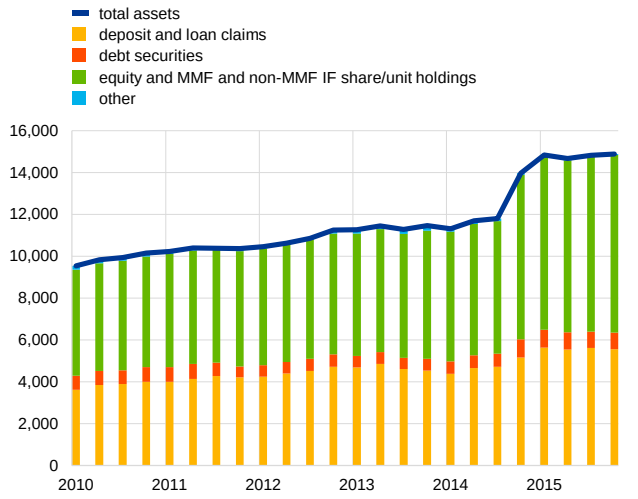
54 See also van der Veer, K., Klaaijsen, E. and Roerink, R., "Shedding a clearer light on financial stability risks in the shadow banking system", *Occasional Studies*, Vol. 13, No 7, De Nederlandsche Bank, 2015.

55 According to the ESA 2010, domestic financing SPEs are classified as subsidiaries in the OFI sector only if they are independent institutional units (i.e. they enjoy autonomy of decision), while those located in a foreign country always belong to the OFI sector.

Chart 9

Financial assets held by other OFIs resident in the euro area

(outstanding amounts; EUR billions)



Source: ECB.
Notes: The assets held by other OFIs have been calculated by subtracting the assets held by non-MMF IFs and FVCs from the assets held by the aggregate OFI sector. The latest observations are for the fourth quarter of 2015.

As more granular data on other OFIs are scarce and the category encompasses a very heterogeneous set of entities, comprehensive analysis is challenging. However, it is likely that reductions in risk aversion and improvements in investor confidence since the global financial crisis have bolstered the business of at least some other OFIs, such as venture capital corporations, as was highlighted in Section 2. In addition, in the same way that tax arbitrage is one of the motives for the establishment of financing SPEs, regulatory arbitrage might be one of the factors shaping trends in the other OFI sector, although firm evidence of this is not easily available.

4.4 Insurance corporations and pension funds (ICPFs)

The financial assets of ICPFs account for 25% of total assets held by euro area non-MFIs. The portfolios of ICPFs are primarily invested in debt securities, particularly of governments, and equities (see Charts 10 and 11). This reflects their attempts to match their assets with their liabilities, which mostly consist of life insurance and pension claims with a long residual maturity. The preference of ICPFs for government bonds is largely due to their institutional asset allocation policies and the relatively small size of the euro area corporate bond market.

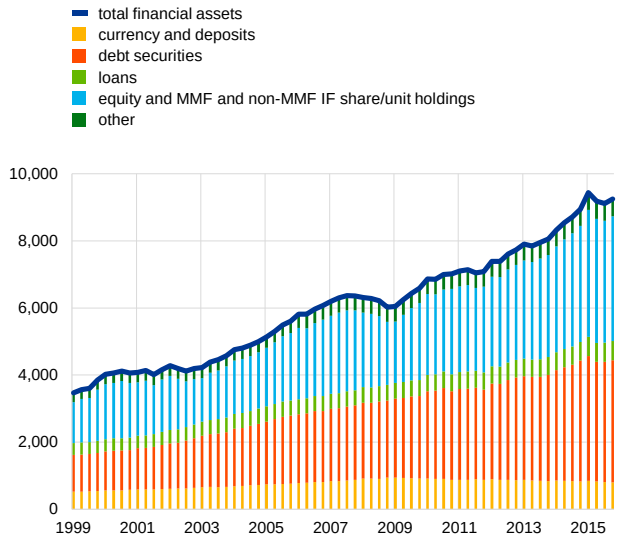
ICPFs are also an important source of funding for the private sector. They hold 19% and 15% of the debt securities issued by euro area NFCs and banks, respectively, in addition to around 3% of the quoted shares issued by these sectors. At the same time, ICPFs hold 20% of the debt securities issued by euro area sovereigns. By contrast, loans by ICPFs to households and NFCs in the euro area are relatively marginal, accounting for a mere 3% and 1%, respectively, of the total loan claims against these borrowers.[56] However, in some euro area countries insurance corporations have started to compete with banks in the household mortgage market, as new legislation and technological innovation have enabled the provision of loans via specialised internet platforms.

[56] Figures on loans are reported net of intra-sectoral exposures.

Chart 10

Financial assets held by euro area ICPFs

(outstanding amounts; EUR billions)

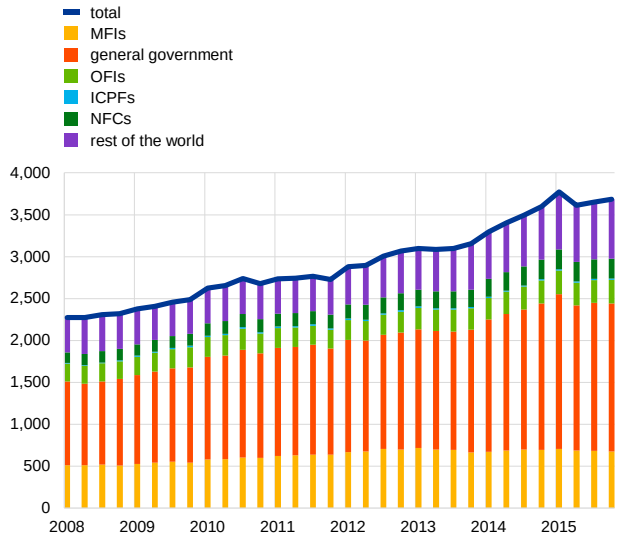


Source: ECB.
Note: The latest observations are for the fourth quarter of 2015.

Chart 11

Euro area ICPFs' holdings of debt securities, by issuing sector

(outstanding amounts; EUR billions)

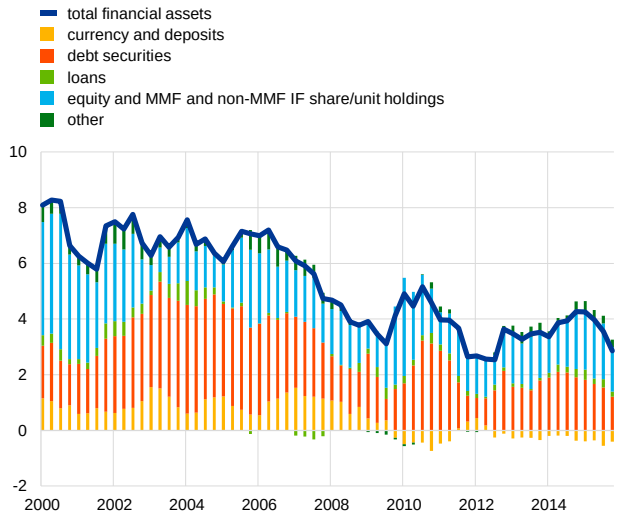


Source: ECB.
Note: The latest observations are for the fourth quarter of 2015.

Chart 12

Financial investment by euro area ICPFs

(annual percentage changes; percentage point contributions)



Source: ECB.
Note: The latest observations are for the fourth quarter of 2015.

After declining modestly in the immediate aftermath of the global financial crisis, the financial assets of ICPFs have significantly expanded in recent years. The drivers of this development are likely to be similar to those mentioned in the case of non-MMF IFs and include factors related to population ageing and the positive effects of an accommodative monetary policy on confidence, risk taking and the prices of securities. In this environment, ICPFs have increased their risk exposure – within the limits posed by statutory requirements – by investing in equities and the shares/units of non-MMF IFs rather than in debt securities (see Chart 12). In fact, annual flows from ICPFs into these instruments in 2014 and 2015 reached levels similar to those observed in 1999 and 2000. Again, this exemplifies the functioning of the monetary policy transmission channels described in Section 2.

A look at the period before the global financial crisis provides further evidence that the portfolio choices of ICPFs respond to financial cycles.[57] In particular, between 2003 and 2008, ICPFs increased

[57] Time series for ICPFs go back to the beginning of the millennium, which is further than for the other non-MFI sectors covered in Section 4.

their debt securities holdings significantly more than their exposure to equities, in spite of favourable stock markets and a flattening of the yield curve (see Chart 12). This behaviour reflected a change in risk appetite among ICPFs after the losses incurred in the wake of the bursting of the dotcom bubble in 2000 forced them to repair their balance sheets. In addition, the response of ICPFs to a variety of regulatory, valuation and accounting changes also played a role.[58]

5 Concluding remarks

With euro area banks cutting back the supply of credit in the wake of the global financial and the euro area sovereign debt crises, the role played by the non-MFI sectors in financial intermediation has increased and has helped to mitigate the effects of the crises on the euro area economy. This trend was facilitated by very low interest rates leading to a search for yield by investors, structural factors, such as an ageing population in the euro area, and some scope for regulatory arbitrage. In this environment, non-MMF IFs and ICPFs have been particularly prominent in increasing their role in euro area financial intermediation in recent years. As large holders of debt securities and equity, these entities have provided a significant amount of financing to the real economy, although not exclusively to the benefit of the euro area, as they are generally holders of globally diversified portfolios. Among other OFIs, venture capital corporations are likely to have profited from a search for yield, while the activities of financing SPEs are often related to tax arbitrage by sponsoring corporations.

These developments have implications for monetary policy transmission. As Section 2 has shown, the channels of monetary policy transmission to the real economy apply – in different forms – to MFIs and non-MFIs alike. However, differences in the business models between these two groups of euro area financial intermediaries, also reflected in terms of regulation and supervision, imply that the generally larger role for non-MFIs may speed up the – indirect – transmission of monetary policy.

The increased role of non-MFIs calls for a more integrated analysis of the interplay between different financial intermediaries and transmission channels that complement or substitute the traditional bank lending and interest rate channels. As regards individual sectors among non-MFIs, non-MMF IFs and ICPFs may have less significant implications for monetary policy transmission. Like MFIs, they are subject to regulation and supervision, implying that impulses from monetary policy are likely to find their way to the real economy in a manner similar to MFIs, albeit via different channels. By contrast, the same is not necessarily true for the other OFI sector. As some other OFIs are not subject to the same level of scrutiny as banks, they warrant special monitoring, because the financing they provide has the

[58] See also "ESRB report on the regularly treatment of sovereign exposures", European Systematic Risk Board, March 2015, "Risk transfer and the insurance industry", Global Financial Stability Report, *World Economic and Financial Surveys*, International Monetary Fund, April 2004 and "Risk management and the pension fund industry", Global Financial Stability Report, *World Economic and Financial Surveys*, International Monetary Fund, September 2004.

potential to be of a more cyclical nature, with implications for the stability of monetary policy transmission. However, specifically in this corner of the euro area financial system, data are scarce, although longer time series and new statistics, such as the "who-to-whom" data presented in Box 2 of this article, may remedy some of these shortcomings in the future.

The euro area fiscal stance

This article discusses the concept of an appropriate euro area aggregate fiscal stance in the context of the institutional architecture of Economic and Monetary Union (EMU). To this end, it assesses recent initiatives towards a better coordination of national fiscal policies with a view to ensuring an appropriate euro area-wide fiscal stance which balances the objectives of sustainable public finances and macroeconomic stabilisation.

There is widespread agreement that national fiscal policies need to ensure that public debt is sustainable, while automatic stabilisers can operate freely to cushion country-specific shocks. At the same time, in the event of a very severe crisis, such as the deep recession in 2008-09, automatic fiscal stabilisers alone may not be sufficient to absorb the shock, and additional discretionary action may be required, provided this does not endanger medium-term fiscal sustainability. These elements are all embedded in the rules of the Stability and Growth Pact (SGP). However, there are no rules in the SGP for countries that have over-achieved their targets.

There may be circumstances in which the independent conduct of national fiscal policies does not result in an appropriate aggregate euro area fiscal stance. This article reviews the proposals of the Five Presidents' Report[59] in this respect, including the setting-up of a European Fiscal Board – which is expected to become operational by September 2016 – to advise the European Commission on an appropriate fiscal stance both at national and European level within the rules of the SGP. In the longer run, the report envisages the creation of a euro area treasury to improve joint decision-making regarding economic and fiscal policies and the setting-up of a euro area macroeconomic stabilisation function.

1 Introduction

In Economic and Monetary Union, fiscal policies are a national responsibility. In this respect, they need to ensure the sustainability of government debt and cushion country-specific shocks. Sustainable public finances are a prerequisite for ensuring price stability within the euro area. At the same time, in a monetary union, fiscal policy remains a major tool available to national governments to deal with country-specific circumstances. In the absence of a fiscal authority at the centre, national fiscal policies are governed by the EU's common fiscal framework, the Stability and Growth Pact, which was agreed in 1997 to operationalise the Maastricht Treaty's budgetary rules.[60] Within the SGP, national fiscal policies are considered a

[59] See *Completing Europe's Economic and Monetary Union*, European Commission, Brussels, June 2015, available at https://ec.europa.eu/priorities/sites/beta-political/files/5-presidents-report_en.pdf

[60] See also "EMU and the conduct of fiscal policies", *Monthly Bulletin*, ECB, January 2004.

matter of common concern – they should be coordinated and should not be allowed to impose disproportionate costs on other EMU participants.[61]

The SGP framework guides Member States towards achieving sound fiscal positions and provides room to cushion normal cyclical fluctuations via automatic stabilisers. Member States set medium-term budgetary objectives (MTOs) which are intended to anchor progress towards sustainable public finances, while allowing budgetary room for manoeuvre. Adjustments required to meet the MTO are defined in structural terms (i.e. net of the impact of the cycle and one-off measures) and therefore generally allow the full operation of automatic stabilisers. These should be sufficient to deal with normal cyclical developments at national level. Under such circumstances, discretionary fine-tuning of the cycle via active fiscal policy measures is typically regarded as not very effective.[62] At the same time, the SGP does not contain any rules on the conduct of fiscal policy for countries that have over-achieved their minimum requirements. In this regard, it is asymmetric.

The EU's current fiscal governance framework contains no rules or instruments to directly manage the aggregate euro area fiscal stance, which is a key difference when compared to fiscal federations such as the United States. In fact, in the absence of fiscal policy instruments at the central level, the euro area-wide fiscal stance is merely the sum of individual euro area countries' fiscal stances. However, in some situations, a more active management of the euro area-wide fiscal policy stance may appear warranted from an aggregate perspective. The SGP does contain provisions permitting countries to provide fiscal stimulus in exceptional circumstances, provided that this does not endanger medium-term fiscal sustainability. At the same time, the SGP does not oblige those countries with fiscal room for manoeuvre to make use of it. There is therefore no guarantee that the coordination of national fiscal policies through the SGP results in an appropriate aggregate euro area fiscal stance. In the light of this, the Five Presidents' Report, "Completing Europe's Economic and Monetary Union", released in mid-2015, highlights the need to reflect on ways to ensure that "the sum of national budget balances leads to an appropriate fiscal stance at the level of the euro area as a whole".[63]

The Five Presidents' Report contemplates, as steps within a comprehensive overhaul of the institutional architecture of EMU, a more active steering of the euro area-wide fiscal stance. In this context, it envisages the setting-up of a euro area treasury to achieve more collective decision-making on fiscal policy. The report also proposes the creation of a central macroeconomic stabilisation function to

---

61 See Article 121 of the Treaty on the Functioning of the European Union, which states that "Member States shall regard their economic policies as a matter of common concern and shall coordinate them within the Council", and Article 126, which states that "Member States shall avoid excessive government deficits". Article 126 goes on to say that compliance with budgetary discipline shall be examined on the basis of two criteria, the deficit ratio and the debt ratio, in relation to certain reference values (specified as 3% and 60% of GDP respectively in Protocol (No 12) on the excessive deficit procedure).

62 See "Fiscal policy influences on macroeconomic stability and prices", *Monthly Bulletin*, ECB, April 2004, and "The operation of automatic fiscal stabilisers in the euro area", *Monthly Bulletin*, ECB, April 2002.

63 See *Completing Europe's Economic and Monetary Union*, op. cit.

complement automatic stabilisers at the national level if national budgets become overwhelmed by very large macroeconomic shocks.

When assessing the "appropriateness" of the fiscal stance both at the national and the euro area level, the European Commission will in future be advised by a new European Fiscal Board, which is scheduled to become operational by September 2016. According to the Five Presidents' Report, the European Fiscal Board "should lead to better compliance with the common fiscal rules, a more informed public debate, and stronger coordination of national fiscal policies".[64]

Against this background, this article discusses the concept of an appropriate euro area aggregate fiscal stance in the context of the EU's institutional framework. To this end, it assesses the recent initiatives towards better coordination of national fiscal policies with a view to ensuring an appropriate euro area-wide fiscal stance which balances the objectives of sustainable public finances and macroeconomic stabilisation.

The article is structured as follows. Section 2 briefly reviews developments in the euro area fiscal stance over the last decade. Section 3 then discusses the concept of an appropriate euro area aggregate fiscal stance. Section 4 reflects on the limits on coordinating the euro area fiscal stance within the current EU fiscal framework. From this analysis, Section 5 derives institutional considerations relating to the work of the envisaged European Fiscal Board as well as a euro area treasury and a euro area fiscal capacity. Section 6 concludes.

2 Recent developments in the euro area fiscal stance

The fiscal stance aims to capture governments' discretionary policy actions. Two principal ways of measuring the fiscal stance are used in practice (see Box 1). First, the change in the cyclically adjusted primary balance, which removes the cyclical component and interest payments from the headline budget balance. Second, bottom-up estimates of discretionary policy measures, which sum up the outcomes of policy measures included in national budgets.

As Chart 1 shows, following several years of tightening, the euro area aggregate fiscal stance appears now to have turned mildly expansionary. The chart depicts the fiscal stance for the period 2007-16 as measured by the change in the cyclically adjusted primary budget balance. It shows that the fiscal stance was loosening in 2008-10, reflecting the impact of several stimulus measures, including the European Economic Recovery Plan (EERP), which the Commission launched in November 2008 and which amounted to about 1.5% of GDP for the euro area. This was followed by a tightening euro area aggregate fiscal stance over the period 2011-13, reflecting comprehensive consolidation packages in euro area countries to restore debt sustainability and correct the excessive deficits that had emerged during the sovereign debt crisis. In 2014 the fiscal stance was broadly neutral in the

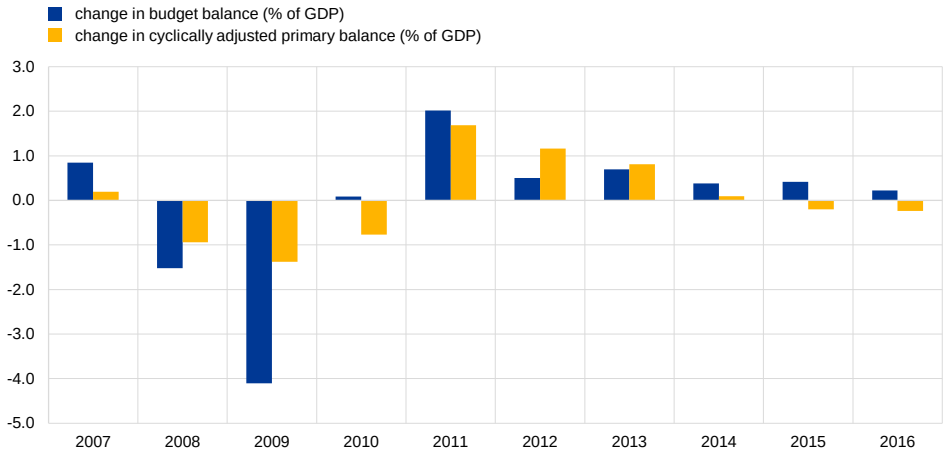
64 See *Completing Europe's Economic and Monetary Union*, op. cit.

absence of broad-based fiscal adjustment measures in most euro area countries. According to the European Commission's 2016 winter forecast, the euro area aggregate fiscal stance is expected to be mildly expansionary in 2015-16.

Chart 1

Changes in headline and cyclically adjusted primary budget balances of the euro area aggregate

(percentages of GDP)



Sources: AMECO, ECB calculations.

Box 1

Measuring the fiscal stance

The initial impulse that fiscal policies provide to the economy is transmitted through several channels, which differ according to the government's ability to influence budgetary outcomes in the short term. A major channel operates via "automatic fiscal stabilisers", which provide an automatic buffer to private demand through built-in features of government budgets. Notably, during a downturn, without the government taking any action, unemployment and social security benefits increase, while tax revenues tend to fall, thereby contributing to a smoothing of the business cycle. The magnitude of these automatic stabilisers is closely related to the size of the welfare system and the tax system.[65] Furthermore, fiscal policies can impact on economic activity through the implementation by governments of discretionary budgetary measures that affect public expenditure and revenues.[66]

The concept of the fiscal stance aims to capture only that part of the initial fiscal impulse to economic activity that stems from the discretionary policy actions of governments. Two principal ways of measuring the fiscal stance are used in practice. First, the change in the cyclically adjusted primary balance,[67] which removes the cyclical component and interest payments from the

65 Another impact relates to governments paying interest on public debt, which presents a financial flow between the government and the economy. However, in the short term, the ability of governments to influence the size of the interest payments is limited and works mainly via debt management strategies.

66 For an overview of the fiscal impulse and its components, see Section 3.2 of van Riet, A. (ed.), "Euro area fiscal policies and the crisis", *Occasional Paper Series*, No 109, ECB, 2010, pp. 22-26.

67 Variants of this measure, such as the change in the structural balance or in the structural primary balance (see Box 3), are also used in practice.

headline balance. Second, bottom-up estimates of discretionary policy measures, which sum up the outcomes of policy measures included in national budgets.

The fiscal stance as measured by the cyclically adjusted primary balance is difficult to gauge in real time. First, the separation of policy-induced changes in the headline budget balance from the impact of the business cycle requires the size of the output gap to be captured, i.e. actual output relative to its potential. Real-time estimates of the latter – an unobservable variable – are, however, subject to frequent ex post revisions. This distorts the proper measurement of the fiscal stance in real time, attributing too much or too little of the fiscal impulse to discretionary policy action.[68] Second, the fiscal stance may be distorted in real time through developments in government revenues which result from their response to economic growth that is not in line with standard elasticities. In an economic upswing, for example, the fiscal stance being measured may signal an increase in government revenues, which in real time is assessed to have resulted from discretionary policy action. Ex post, however, this may turn out to have been due to revenue windfalls related to transitory developments in tax bases connected with temporary fluctuations in, for example, asset prices and oil prices.

By contrast, bottom-up estimates of discretionary policy measures aim to identify the impact of individual tax and spending measures. On the revenue side, identifying a measure and gauging its impact against a no-policy baseline is relatively straightforward. On the expenditure side, distinguishing a spending measure from the impact of other economic developments (e.g. unemployment, demographic developments) is less clear cut and requires expenditure developments to be measured against a benchmark, which should ideally be exogenous. For example, under the SGP's preventive arm, the expenditure benchmark is based on a long-term average of potential output growth, while the bottom-up approach under the corrective arm is based on trend growth. These growth variables are also non-observable.[69]

Overall, policy recommendations regarding the fiscal stance need to acknowledge the caveats surrounding its measurement. Not only is the "exact" size of discretionary fiscal policy measures difficult to capture in real time, but so is the direction of the fiscal stance. In fact, whether the stance is tightening or loosening, and whether it is doing so in an economic environment that is improving or deteriorating, cannot be concluded with certainty given the difficulties surrounding the determination of a country's position in the cycle.

---

[68] For a discussion, see Kamps, C., De Stefani, R., Leiner-Killinger, N., Rüffer, R. and Sondermann, D., "The identification of fiscal and macroeconomic imbalances – unexploited synergies under the strengthened EU governance framework", *Occasional Paper Series*, No 157, ECB, 2014.

[69] For a discussion, see "The assessment of fiscal effort", *Monthly Bulletin*, ECB, October 2014.

3 What is an appropriate euro area fiscal stance?

3.1 The fiscal stance and the trade-off between sustainability and stabilisation

Discretionary fiscal policies are generally considered a weak macroeconomic stabilisation tool during normal economic cycles. First, it takes time to adopt and implement a fiscal measure, especially major new programmes ("implementation lag"). Second, fiscal measures in support of the economy tend to be difficult to reverse once implemented, facing resistance from benefiting groups. Third, it is difficult to get the size, timing and economic mechanism of a fiscal impulse measure exactly right. Consequently, there is, for example, a risk that the economic impact of a discretionary fiscal stimulus will start to be felt only once the economy is already picking up, rendering the instrument pro-cyclical rather than counter-cyclical.[70]

There is therefore broad consensus that automatic fiscal stabilisers represent "the first line of defence" by being a predictable and systematic response to normal asymmetric shocks.[71] In particular, during a downturn, without the government taking any action, unemployment and social security benefits increase, while tax revenues tend to fall, thereby contributing to a smoothing of the business cycle. Within the euro area, the magnitude of such automatic fiscal stabilisers varies across countries, but is relatively large on average when compared to, for example, the United States, given the euro area countries' more extensive welfare and tax systems.[72]

Under exceptional circumstances, automatic stabilisers alone may be regarded as insufficient to cushion the very detrimental and prolonged impact of deep swings in the cycle.[73] At the same time, the effectiveness of a discretionary fiscal stimulus is generally larger in such circumstances. While there is considerable uncertainty surrounding the size of short-term fiscal multipliers, recent evidence indicates that multipliers may be larger in deep recessions or financial crises or when monetary policy is constrained. In times of severe and extended

---

70 See Taylor, J.B., "Reassessing discretionary fiscal policy", *Journal of Economic Perspectives*, Vol.14, No 3, 2000, pp. 21-36. For a detailed discussion on the role of fiscal stimulus in the economy, including desirable features such as timely, targeted and temporary (TTT), see van Riet, A., op. cit.

71 Traditional New Keynesian DSGE (Dynamic Stochastic General Equilibrium) models also reflect the dominant view, according to which the key role in terms of macroeconomic stabilisation should be played by monetary policy, while the role of fiscal policy would be limited to the operation of automatic stabilisers. See Brendon, C. and Corsetti, G., "COEURE Survey: Fiscal and Monetary Policies after the Crises", *CEPR Discussion Papers*, No 11088, 2016. See also the discussion in van Riet, A., op. cit.

72 Estimates differ across studies. See, for example, Dolls, M., Fuest, C. and Peichl, A., "Automatic Stabilizers and Economic Crisis: US vs. Europe", *NBER Working Paper Series*, No 16275, National Bureau of Economic Research, 2010, which finds that automatic stabilisers absorb 38% of a proportional income shock in the EU, compared to 32% in the United States.

73 For a review, see Brendon, C. and Corsetti, G., op. cit. While cautioning that discretionary fiscal policy is normally at a disadvantage compared with monetary policy as a counter-cyclical tool, Taylor (op. cit.) points out that fiscal policy could play a role in situations where monetary policy is constrained at the zero lower bound. In this case, one would need to state explicitly how fiscal policy would be used, such rules being more difficult to specify and enforce in practice than parallel rules for monetary policy. See also the discussion in Box 2.

crisis, the risks of misidentifying the occurrence of a shock and its depth are more limited and the risk of a policy mistake is therefore lower. At the same time, fiscal multipliers may be small (or even negative) when government debt levels are high and concerns about debt sustainability are increasing.[74]

The fiscal stance impacts on both fiscal sustainability and stabilisation, implying a trade-off for expansionary policies. For example, while a fiscal stimulus would tend to raise output in the short run, it would at the same time add to debt and thereby increase sustainability risks. The size of these individual effects depends on the nature of the fiscal stimulus (e.g. whether it is permanent or temporary and the types of instrument applied), the starting fiscal position and the observed financial and macroeconomic conditions, etc.[75]

A fiscal stance is usually assessed as appropriate if it provides a suitable balance between the sustainability and stabilisation objectives of fiscal policy. There is thus usually not just *one* "appropriate" fiscal stance, but rather a range thereof, all of which balance stabilisation and sustainability objectives, but with different weights on each objective. The theoretical and empirical literature does not provide clear guidance on where the optimal balance lies. It does, however, indicate that governments should respond more forcefully to sustainability constraints when their debt levels are high. Indeed, in such regimes, the impact of fiscal adjustment on output stabilisation is mitigated through confidence effects via the interest rate channel. Consequently, any recommendation regarding an "appropriate" fiscal stance requires an operationalisation of the sustainability and stabilisation objectives, which means taking into account the debt level of the country (see Box 3 for an evaluation of the European Commission's metric to assess the appropriateness of the fiscal stance).

Gauging stabilisation needs is not straightforward. Generally, a government's decision to increase or reduce support to the economy depends on its assessment of the state of the economy as measured, for example, by the level of the output gap and on the speed at which the government wishes to close it. However, as explained in Box 1, output gap estimates are subject to a high degree of uncertainty and may therefore give wrong signals in real time regarding stabilisation needs.[76] For this reason, monetary policy has for a long time reduced the emphasis on unobserved indicators, such as the output gap, whose mismeasurement was one of the main driving factors behind the Great Inflation of the 1970s.[77]

There is also no simple indicator for assessing whether a government's debt is sustainable. Sustainability of government debt means that the accumulated debt

---

74 For a discussion, see the article "Fiscal multipliers and the timing of consolidation", *Monthly Bulletin*, ECB, April 2014.

75 For a discussion on the output and debt effects of fiscal consolidation, see also Warmedinger, T., Checherita-Westphal, C. and Hernández de Cos, P., "Fiscal multipliers and beyond", *Occasional Paper Series*, No 162, ECB, 2015.

76 See Cimadomo, J., "Fiscal policy in real time", *The Scandinavian Journal of Economics*, Vol. 114, No 2, 2012, pp. 440-465, and Kamps, C. et al., op. cit.

77 See "The 'Great Inflation': lessons for monetary policy", *Monthly Bulletin*, ECB, May 2010.

can be serviced at any point in time.[78] At the same time, any sovereign debt sustainability analysis (DSA) is sensitive to the assumptions applied.[79] A comprehensive DSA framework should generally consider both debt dynamics and the level at which debt stabilises, test the resilience of the debt path under various adverse scenarios and account for other relevant indicators (e.g. a government's gross financing needs, the structure of government debt, the scope for contingent liabilities, the quality of institutions and political risks). In its sustainability assessments under the European governance framework, the European Commission uses three indicators, aimed at summarising short, medium and long-term risks, alongside a more comprehensive DSA framework. Against this background, Box 2 provides a literature overview of how past (estimated) fiscal reaction functions have dealt empirically with the response to the stabilisation and sustainability objectives.

Box 2
Fiscal reaction functions

The literature on fiscal reaction functions can shed some light on the past behaviour of fiscal policies across euro area countries with respect to both sustainability and stabilisation. While not sufficient to guarantee appropriate policies in the future, past fiscal behaviour can provide useful indications of the extent to which governments have given consideration to sustainability and/or stabilisation objectives. The fiscal reaction framework is commonly used as a weak test for fiscal sustainability following Bohn.[80] Accordingly, governments are considered to abide by sustainability constraints if they react systematically to increases in the debt-to-GDP ratio by raising their primary surplus ratio.[81] The literature covers related research objectives, including the estimation of "fiscal reactions" following the literature on monetary policy rules (Taylor)[82] or the work on active and passive fiscal policy regimes (Leeper).[83] Most empirical studies on fiscal reaction functions test the sustainability condition by estimating the response of fiscal policy (usually the primary balance, but also the cyclically adjusted primary balance) to the (lagged) debt ratio and controlling for cyclical conditions (current output gap), in addition to other factors. The specification of a fiscal reaction function in terms of both debt and the output gap

78 For a review of the theoretical and practical concepts of sustainability, see the article entitled "Analysing government debt sustainability in the euro area", *Monthly Bulletin*, ECB, April 2012.

79 See, for instance, the IMF and the Commission's DSA frameworks in *Staff Guidance Note for public debt sustainability analysis in market-access countries*, IMF, 2013, and *Fiscal Sustainability Report 2015*, European Commission, January 2016.

80 See Bohn, H., "The Behavior of U.S. Public Debt and Deficits", *The Quarterly Journal of Economics*, Vol. 113, No 3, 1998.

81 As pointed out in several studies, this can be considered only a weak test of sustainability as, inter alia, there is likely to be an upper limit for primary surpluses as a share of GDP. At very high debt ratios, the probability of fiscal fatigue is higher. See Gosh, A.R., Kim, J.I., Mendoza, E.G., Ostry, J.D. and Quereshi, M.S., "Fiscal Fatigue, Fiscal Space and Debt Sustainability in Advanced Economies", *Economic Journal*, Vol. 123, No 566, February 2013, pp. F4-F30.

82 See Taylor, J.B., op. cit. For an application, see Galí, J. and Perotti, R., "Fiscal policy and monetary integration in Europe", *Economic Policy*, Vol. 18, No 37, October 2003, pp. 533-572.

83 See Leeper, E., "Equilibria under 'active' and 'passive' monetary and fiscal policies", *Journal of Monetary Economics*, Vol. 27, No 1, 1991, pp. 129-147. For an application, see Afonso, A. and Toffano, P., "Fiscal regimes in the EU", *Working Paper Series*, No 1529, ECB, April 2013.

allows an assessment of policymakers' efforts (or the lack thereof) to stabilise both public debt and output.[84]

While a monetary policy rule, such as the Taylor rule, has been considered closely in practice, with good performance over past periods,[85] the fiscal reaction function literature does not provide "benchmark" reaction coefficients to set a normative behaviour. Instead, a statistically significant, positive reaction coefficient for the lagged debt is taken as a sufficient, but not necessary, condition for sustainability. The larger the coefficient, the stronger is the reaction to increases in debt. Particular caution is warranted when drawing inferences about debt sustainability solely from fiscal reaction function estimates based on past behaviour. As regards the fiscal reaction to the output gap, a statistically significant, positive (negative) coefficient is generally interpreted as evidence of a counter-cyclical (pro-cyclical) fiscal policy.

For the euro area countries, the fiscal reaction function literature generally finds that governments have, on average, given (some) consideration to sustainability constraints. The responsiveness seems to have been much stronger during the recent euro area sovereign debt crisis with its onset in the economic and financial global crisis of 2008.[86] Overall, there is evidence of non-linearities in the government response to debt, with greater attention paid to the sustainability objective when the debt level is high.[87] The evidence with respect to responsiveness during the post-Maastricht and euro area periods is more mixed, but some recent studies point to stronger average responsiveness after the Maastricht Treaty, followed, however, by weakening responsiveness during the pre-crisis euro area period.[88]

As regards the stabilisation role of fiscal policy, most evidence points to a significant counter-cyclical role through automatic stabilisers and less through discretionary fiscal policy. For instance, some earlier studies conclude that there was no evidence that the Maastricht Treaty and the SGP prevented automatic stabilisers from doing their job in euro area countries. On the contrary, these countries appear to have strengthened the counter-cyclical nature of fiscal policy (up to 2002).[89] These and other studies conclude that both the overall fiscal policy and the discretionary component have been responding in a counter-cyclical manner since the adoption of the Maastricht Treaty. However, the evidence for the discretionary fiscal policy, as well as for the responsiveness during the euro area period, is weaker.

---

84 See, inter alia, the discussion in Plödt, M. and Boeing-Reicher, C., "Estimating fiscal policy reaction functions: The role of model specification", *Journal of Macroeconomics*, Vol. 46, December 2015, pp. 113-128.

85 Taylor proposed coefficients for the reaction of real short-term interest rates of 0.5 for both the output and inflation gaps, with "values near this suggestion commonly found in empirical work in the US in the 1980s and 1990s" and also "resulting in good performance in model simulations" (see Taylor, J.B., op. cit.).

86 See, inter alia, the fiscal reaction function analysis and overview in *Fiscal Sustainability Report 2015*, op. cit.

87 See, for example, De Groot, O., Holm-Hadulla, F. and Leiner-Killinger, N., "Cost of borrowing shocks and fiscal adjustment", *Journal of International Money and Finance*, Vol. 59, 2015, pp. 23-48 and Plödt, M. and Boeing-Reicher, C., op. cit. At very high debt ratios, the probability of fiscal fatigue increases. See Gosh, A.R. et al., op. cit.

88 See, for instance, Bénétrix, A.S. and Lane, P.R., "Fiscal cyclicality and EMU", *Journal of International Money and Finance*, Vol. 34(C), 2013, pp. 164-176; Plödt, M. and Boeing-Reicher, C., op. cit.; Weichenrieder, A. and Zimmer, J., "Euro membership and fiscal reaction functions", *International Tax and Public Finance*, Vol. 21, No 4, 2014, pp. 598-613. The second study warns, however, that in terms of statistical significance the different response over the euro area period is sensitive to changes in specification, such as an exclusion of Greece from the panel.

89 See Galí, J. and Perotti, R., op. cit.

Overall, there is evidence that, on average, governments in the euro area respond to both stabilisation and sustainability objectives. Several studies point to improvements in the conduct of fiscal policy from the perspective of both of these objectives after Maastricht and to a weakening of responsiveness during the early euro area period. The crisis acted as a disciplining device for sustainability, with a stronger reaction than before to the increasing debt levels seen in many euro area countries during the crisis (at least until 2012-13, which is as far as the studies go).

3.2 Specific elements of an appropriate fiscal stance at the euro area level

As at the national level, an appropriate aggregate fiscal stance for the euro area would seek a balance between the sustainability and stabilisation objectives. Notably, macroeconomic stabilisation needs would be gauged with respect to the size of the output gap for the euro area as a whole, while an assessment of debt sustainability risks would start by capturing developments in aggregate public debt.

However, the euro area aggregate fiscal stance is currently a purely mechanical concept, aggregating the fiscal stances at individual country level. In the absence of a centralised fiscal policy instrument, the euro area fiscal stance merely captures the sum of discretionary national policies. The direction of the euro area fiscal stance may therefore reflect very different developments at individual country level with, for example, fiscal tightening in some countries and fiscal loosening in others. The outcome may not always be optimal.

Inconsistencies between the assessment of the fiscal stance at the euro area and national level may arise for various reasons. Such inconsistencies can be caused by heterogeneous preferences at the central euro area level and the various national levels regarding the relative importance of the two policy objectives, i.e. ensuring fiscal sustainability and providing macroeconomic stabilisation. Therefore, the pursuit of national policies does not necessarily lead to an “optimal” outcome at the euro area level. In addition, problems may arise if previous shortfalls vis-à-vis SGP requirements and related fiscal sustainability concerns require a pro-cyclical fiscal tightening in some euro area countries, while other countries with fiscal room for manoeuvre are enjoying favourable macroeconomic conditions and do not therefore have an incentive to pursue expansionary policies. Indeed, in the context of the reviews of euro area countries' draft budgetary plans, the Eurogroup has repeatedly stressed that, while the aggregate stance implied by the plans could be viewed as broadly appropriate, its composition across euro area countries was problematic because countries with remaining fiscal imbalances were falling short of SGP commitments, while countries with fiscal room for manoeuvre were not making full use of it.[90]

[90] See, for example, *Eurogroup Statement on the Draft Budgetary Plans for 2016*, 23 November 2015.

In addition, a mechanical aggregation may not adequately capture the impact of national policies on the euro area economy. This is the case if a fiscal impulse in one euro area country spills over to other countries. Trade links between countries are the main transmission channel for such an impact.[91] For example, if a fiscal expansion is conducted in a euro area country that has sizeable trade links with countries outside the euro area, the increase in domestic and euro area demand will be lower than if the same fiscal impulse were to occur in a euro area country whose trade links were mainly within the euro area. The assessment of the euro area fiscal stance, as a purely mechanical aggregation of national fiscal stances, and its macroeconomic impact on the euro area economy, may vary for a given fiscal impulse, depending on the magnitude of such spillover effects.

Importantly, the euro area aggregate fiscal stance can only be deemed "appropriate" if it safeguards the sustainability needs of all euro area countries. Since fiscal policy in EMU remains a national responsibility, sovereign debt sustainability must be ensured in all euro area countries, as sustainability problems in one country can have adverse implications for others as well as for the conduct of common policies at the euro area level. Sustainability indicators applied to the euro area aggregate debt ratio can thus be used only as a reference or for indicative purposes. In particular, a desired euro area fiscal stance may not necessarily be attainable via the aggregation of national fiscal policies if some countries face severe debt sustainability risks. In other words, the more divergent debt levels across euro area countries are, the greater is the likelihood that the aggregation of national policies will not lead to an appropriate stance for the euro area as a whole.

Box 3
The European Commission's metric to assess the appropriateness of the fiscal stance

In its 2015 report on public finances in EMU, the European Commission proposed a framework to assess the appropriateness of the euro area fiscal stance.[92] Based on this approach, the fiscal stance – as measured by the change in the structural primary balance – is assessed against dual criteria: on one hand, the need to address long-term sustainability risks and, on the other hand, the objective of providing macroeconomic stabilisation in the short term.

The sustainability component of the Commission assessment is captured by a variant of the "S1 indicator". Specifically, the S1 indicator quantifies the cumulative adjustment of the structural primary balance over the next five years that would be needed to reduce government debt to 60% of GDP in 2030, also taking into account implicit liabilities related to ageing. A quarter of this cumulative adjustment is then treated as the frontloaded adjustment effort required in a given year to satisfy the sustainability criterion. By spreading the adjustment effort, the S1 indicator is not in fact a pure sustainability indicator, but implicitly accounts for the stabilisation objective. From a pure

91 The size of fiscal spillovers depends on various factors, e.g. trade elasticities and possible confidence effects in financial markets that affect sovereign risk premia. For more details, see the box entitled "Fiscal spillover effects in the euro area", *Monthly Bulletin*, ECB, April 2014.

92 See Annex A1 to "Report on Public Finances in EMU – 2015", *European Economy – Institutional Papers*, No 14, European Commission, December 2015.

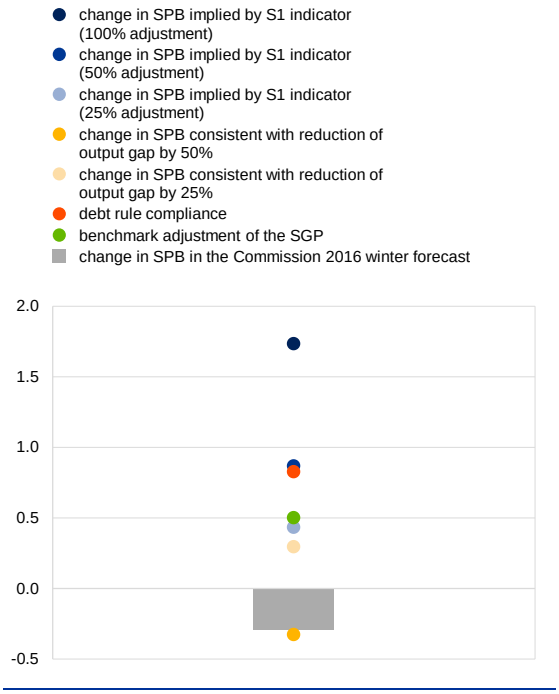
sustainability perspective, it would be preferable to frontload the entire effort to the first year, since this minimises the total adjustment effort.[93]

The macroeconomic stabilisation criterion of the Commission assessment is captured by the change in the structural primary balance that would be consistent with a closure of the output gap by 25% or 50%, respectively, in a given year.[94] The sustainability and stabilisation component of the assessment are not linked via relative weights, but are assessed separately. The approach is thus intended to provide a positive rather than a normative analysis of budgetary developments by spanning ranges between the sustainability and stabilisation requirements.[95]

Chart A

Assessment of the 2016 euro area fiscal stance

(percentages of GDP)



Sources: European Commission (AMECO database) and ECB calculations.

Similar to the Commission analysis, Chart A presents an illustrative range for the appropriate fiscal stance using alternative specifications of the sustainability and stabilisation objectives.

At present, the sustainability objective clearly calls for a tightening of the euro area fiscal stance. In its analysis, the Commission assumes that 25% of the total adjustment indicated by the S1 indicator would need to be carried out in 2016 to fulfil the sustainability criterion. Based on the Commission's 2016 winter forecast, such an adjustment for the euro area would amount to around 0.4% of GDP (see light blue circle in Chart A).[96] This adjustment lies below the benchmark adjustment of 0.5% of GDP implied by the SGP (see green circle in Chart A) and also falls short of the adjustment of around 0.8% of GDP that would be needed to close the gap vis-à-vis the forward-looking debt benchmark of the SGP (see orange circle in Chart A). At the same time, a 0.8% of GDP structural adjustment would reduce the structural deficit of the euro area to around 0.5%

93 See the article "Fiscal multipliers and the timing of consolidation", op. cit., and Warmedinger, T. et al., op. cit.

94 The change in structural primary balance that would be mechanically consistent with the considered changes in the output gap is calculated assuming a fiscal multiplier of 0.8.

95 For further details on the approach to assessing the appropriateness of the fiscal stance, see Annex 1 ("Assumptions underlying the assessment of fiscal stance") in "Report on Public Finances in EMU – 2015", op. cit.

96 Note that the computations for the S1 indicator are based on deterministic debt projections for the period to 2030. These projections are based on the Commission's 2016 winter forecast. Beyond the forecast horizon, the projections assume a closing of the output gap by 2020 and a parallel increase in GDP deflator growth to 2%. Assumptions for potential growth are taken from the T+10 scenario of the Economic Policy Committee's Output Gaps Working Group and extended by the assumptions from the Commission's 2015 Ageing Report. Ageing costs are also taken from the Commission's 2015 Ageing Report.

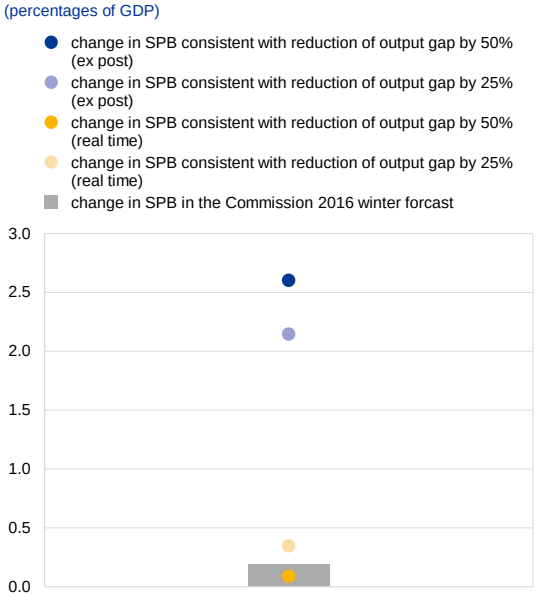
of GDP, in line with the maximum level of the medium-term objective implied by the Fiscal Compact.[97] This would also roughly correspond to a 50% "frontloading" of the total adjustment effort implied by the S1 indicator (see middle blue circle in Chart A). A full closure of the "sustainability gap" implied by the S1 indicator would require a tightening of the euro area structural primary balance by around 1.7% of GDP in 2016. All in all, this sensitivity analysis suggests that the sustainability objective clearly calls for a tightening of the euro area fiscal stance, with the Commission's preferred gauge providing a lower bound for the required adjustment.

The stabilisation objective, on the other hand, does not give a clear recommendation of the appropriate euro area fiscal stance at the current juncture. The European Commission's 2016 winter forecast expects the euro area output gap to decline by around 40% from a gap of -1.8% of GDP in 2015 to -1.1% of GDP in 2016. Therefore, the lower bound of the stabilisation component, which requires a reduction of the output gap by 25% in 2016, is consistent with a tightening of the fiscal stance by around 0.3% of GDP (see light yellow circle in Chart A). On the other hand, a targeted reduction of the output gap by 50% – the upper bound in the Commission analysis – would call for a loosening of the euro area fiscal stance by around 0.3% of GDP in 2016.

Overall, the analysis suggests that the projected loosening of the euro area fiscal stance by 0.3% of GDP in 2016 is heavily tilted towards the stabilisation objective, while deviating significantly from both the sustainability objective and the benchmark requirement under the SGP.

Chart B

Stabilisation objective: real-time versus ex post assessment for 2007



Sources: European Commission (AMECO database) and ECB calculations.

The assessment of the stabilisation objective based on output gap developments may suffer from a real-time bias. As explained above, a comparison of output gap estimates for the euro area with the respective estimates contained in real-time forecast vintages suggests a tendency to mismeasure output gaps in real time. This real-time bias may result in very different assessments of the appropriateness of the fiscal stance against the stabilisation criterion based on ex post and real-time data. Chart B provides an illustrative example for the year 2007. The European Commission's spring 2007 forecast estimated a negative output gap of 0.4% of GDP for the euro area in 2007. Compared to 2006, this implied a closure of the gap by around 50%, implying that a broadly neutral fiscal stance would have been assessed as appropriate vis-à-vis the upper bound of the stabilisation component (see dark yellow circle in Chart B). A closure of the output gap by 25% would have been consistent with a

97 The Fiscal Compact of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union requires contracting parties to reach budgetary positions in balance or in surplus. This fiscal rule is deemed to be respected if a structural deficit limit of 0.5% of GDP is not exceeded.

slight tightening of the fiscal stance by around 0.3% of GDP. At the same time, the sustainability criterion would not have been a constraint since the debt ratio in the euro area stood at around 65% of GDP. Therefore, judged against the European Commission's metric and based on real-time data, the slight tightening of the fiscal stance by 0.2% of GDP (see grey bar in Chart B) would have been assessed as broadly appropriate. However, the estimate contained in the European Commission's 2016 winter forecast suggests that the euro area output gap in 2007 was not somewhat negative but strongly positive (+2.6% of GDP).98 Based on ex post data, a closing of the output gap from positive territory by 25% and 50%, respectively, would have been consistent with a strong tightening of the structural primary balance (see blue circles in Chart B). In hindsight, a stronger fiscal tightening in economic good times before the crisis would have seemed more appropriate. This exemplifies the great uncertainty involved in a reliance on output gaps in the real-time assessment of the fiscal stance.

4 Limits of the current fiscal framework on the setting of the euro area fiscal stance

The EU's current institutional framework entails no provisions or instruments to directly manage the aggregate euro area fiscal stance, which is a key difference between the euro area and federations such as the United States. In fact, fiscal policies are conducted in 19 euro area countries on the basis of national budgets and within different national fiscal frameworks. While the EU budget has common resources used, in particular, to promote economic and social cohesion among Member States, it is rather small in size (around 1% of the EU's aggregate GDP), not specific to the euro area and not focused on macroeconomic stabilisation. At the euro area level, the institutional framework has been complemented by the European Stability Mechanism (ESM), a crisis management tool providing financial assistance to euro area countries experiencing or threatened by financing difficulties. Overall, however, the lack of common fiscal instruments at the centre stands in stark contrast to other federations such as the United States, where important policy instruments such as the setting of tax policies and important spending functions, e.g. defence and social and health insurance, operate at the federal level.

Notably, the SGP affects the aggregate fiscal stance indirectly rather than steering it directly. The euro area countries' decentralised fiscal policies are coordinated by the SGP, which takes the economic cycle into account. As indicated in Box 4, the SGP contains a multitude of provisions for countries under both its preventive and corrective arms that modulate the required structural effort according to economic conditions and, to a lesser extent, the government debt ratio. Consequently, the SGP affects the aggregate euro area fiscal stance indirectly.

In addition, the SGP does not entail obligations for countries that have fiscal room for manoeuvre to contribute to a desirable aggregate fiscal stance. As

98 The same holds true for 2006, where the output gap was estimated at -0.8% of GDP in real time, while the latest Commission forecast suggests that it stood at +1.4% of GDP.

indicated in Chart 1 above, the euro area aggregate fiscal stance is expected to be mildly expansionary in 2016. At the same time, while a number of euro area countries were assessed as being at risk of non-compliance with the SGP and therefore required additional fiscal tightening measures,[99] others still have fiscal room for manoeuvre under the SGP rules. This notwithstanding, the SGP does not contain any provisions that incentivise these countries to use their existing fiscal room for manoeuvre to provide support to the euro area economy. The logic of the SGP is that it sets minimum requirements rather than targets for national fiscal policies, leaving it up to individual Member States to set themselves targets going beyond minimum requirements.

Recent legislative developments tend towards stronger coordination of the euro area fiscal stance. In particular, Regulation (EU) No 473/2013, which entered into force on 30 May 2013, includes common provisions for monitoring and assessing draft budgetary plans. Moreover, it requests the Council to issue policy recommendations for the euro area as a whole, including advice regarding the euro area aggregate fiscal stance. For example, to strengthen the scope of this advice, within the 2016 European Semester, i.e. the annual cycle of policy coordination and surveillance, the release of these recommendations for the euro area was frontloaded to November 2015.[100] Member States should take these recommendations into account when defining their policy strategy. Thus, instead of actively steering the aggregate euro area fiscal stance, this frontloading enables the Commission and the Council to assess the draft budgetary plans of the individual euro area countries for the forthcoming year in the light of the recommended aggregate fiscal stance for the euro area as a whole.

Box 4
Provisions for accommodating the state of the economy in the SGP

The provisions of the SGP take into account the state of the economy. The 2005 reform of the SGP introduced the concept of the structural balance, which caters for cyclical impacts on the government budget balance. To this end, it enshrined the medium-term budgetary objective (MTO), which sets country-specific structural balance targets over the medium term. These are designed, inter alia, to ensure sustainable government debt ratios by also taking into account the budgetary

99 See the Eurogroup statement on the follow-up to the review of draft budgetary plans for 2016, available at http://www.consilium.europa.eu/en/press/press-releases/2016/03/07-eurogroup-statement-draft-budgetary-plans-2016

100 See also Recommendation for a Council Recommendation on the economic policy of the euro area (COM(2015) 692 final), available at http://ec.europa.eu/europe2020/pdf/2016/ags2016_euro_area_recommendations.pdf

costs of ageing. At the same time, MTOs are aimed at ensuring sufficient fiscal room for manoeuvre to deal with cyclical downturns and preserve public investment.[101]

The SGP foresees a significant role for the operation of automatic fiscal stabilisers. Such fiscal stabilisers are built into existing tax-transfer systems and operate automatically over the cycle and thus around the countries' paths of structural adjustment. At the same time, countries that have reached their MTOs can let their automatic stabilisers operate freely, thereby helping to smooth the business cycle.

In addition, under its preventive arm, the SGP foresees a modulation of fiscal adjustment requirements according to the cyclical position and other factors. On 12 February 2016, the ECOFIN Council endorsed a commonly agreed position on how to take the economic cycle, structural reforms and investment into account within the existing rules of the SGP. Within a matrix, different states of the economy are defined and related to structural adjustment needs. Specifically, it distinguishes "economic good times" and divides economic developments that are worse than in "normal times" into "bad", "very bad" and "exceptionally bad" economic times. The matrix modulates the structural adjustment requirements needed in order to move towards the MTO according to the size of the output gap, economic growth and the debt ratio. These adjustment requirements can be reduced if a country implements structural reforms or undertakes public investment, with the possible cumulative reduction being capped at 0.75% of GDP. Consequently, in an unfavourable economic environment, even countries with high debt-to-GDP ratios could be allowed to let their structural balance deteriorate without falling foul of the EU's fiscal rules.

Under the SGP's corrective arm, excessive deficit procedure (EDP) deadlines can be set over horizons of several years and can be further extended. This allows a spreading of the required amount of structural adjustment over the medium term, thereby taking stabilisation considerations into account. Furthermore, various relevant factors, such as low inflation, are taken into account in the assessment of compliance with the requirements under the debt rule.[102]

The SGP also contains a general escape clause, introduced with the "six-pack" reforms[103] in 2011, which can bring about broad-based reductions in structural effort requirements. This clause can be triggered for all or for individual euro area countries whenever an unusual event outside the control of Member States occurs that has a major impact on the financial position of the general government or in periods of severe economic downturn for the euro area or the Union as a whole.[104] In the event of such developments, it is possible to depart from the adjustment requirements under the preventive arm. Similarly, the fiscal effort requirements under EDPs can be

---

101 MTOs are set by Member States according to country-specific circumstances. They must respect minimum values and are designed to serve three goals: (i) Member States maintain a safety margin that prevents them from breaching the 3% deficit reference value during cyclical downturns; (ii) Member States' debts are sustainable taking into consideration the economic and budgetary impact of ageing populations (i.e. by in part frontloading projected ageing-related increases in government spending, while ensuring long-run convergence of the debt ratio to 60%); and (iii) Member States have room for budgetary manoeuvre, in particular when it comes to preserving public investment. For more details, see the box entitled "The effectiveness of the medium-term budgetary objective as an anchor of fiscal policies", *Economic Bulletin*, Issue 4, ECB, 2015.

102 See the article entitled "Debt reduction strategies in the euro area", *Economic Bulletin*, Issue 3, ECB, May 2016.

103 For more information on the "six pack", see the box entitled "The EU's new framework for economic governance", *Monthly Bulletin*, ECB, July 2012.

104 A severe economic downturn is defined as a protracted period of negative growth and/or large negative output gaps.

adjusted and EDP deadlines can be extended. However, under the corrective arm, an annual structural improvement of 0.5% of GDP should in principle apply. In any case, the general escape clause can only be triggered if it does not endanger the fiscal sustainability of the Member State concerned in the medium term. The exact conditions for the application of this clause (including the metric for sustainability) are not explicitly defined.[105]

5 Institutional considerations surrounding the future setting of the euro area fiscal stance

5.1 The European Fiscal Board

The newly created European Fiscal Board will advise the European Commission on the appropriateness of the fiscal stance at both national and euro area level within the rules of the SGP. As a follow-up to the Five Presidents' Report, Commission Decision (EU) 2015/1937[106] established a European Fiscal Board which – once fully operational – will provide an evaluation of the implementation of the provisions of the SGP and of the implications of budgetary policies at national level for the aggregate euro area fiscal stance.

The European Fiscal Board will not be equipped with policy tools to actively influence the setting of fiscal policies. It will rather contribute in an advisory capacity to multilateral surveillance in the euro area. However, the Commission Decision does not specify how the Board will perform its advisory function. In particular, it remains unclear how it would be involved in the procedures of the European Semester, the EU's annual cycle of economic and fiscal policy coordination.

Given the envisaged institutional set-up, it is unclear how effectively the European Fiscal Board will be able to carry out its role. The fact that, according to the Commission Decision, the European Fiscal Board will operate within the European Commission's institutional structure and not have a strong public voice is likely to undermine its credibility as an independent policy advisory institution.[107]

From an operational point of view, the European Fiscal Board will need to develop a sound methodological framework on which to base its assessment of the fiscal stance. The Commission Decision also remains vague on how the Board shall perform its tasks in practice. While the assessment of Member States' compliance with the provisions of the EU fiscal framework can build on well-

[105] According to the European Commission, this exceptional provision is expected to be used only in the most unusual of circumstances. See "Vade mecum on the Stability and Growth Pact", *European Economy – Occasional Papers*, No 151, European Commission, May 2013.

[106] Commission Decision (EU) 2015/1937 of 21 October 2015 establishing an independent advisory European Fiscal Board.

[107] See the box entitled "The creation of a European Fiscal Board", *Economic Bulletin*, Issue 7, ECB, 2015.

established methodological foundations, this is not the case for the assessment of the appropriateness of the fiscal stance, in particular at the euro area level. Given the European Fiscal Board's mandate to provide its assessments within the rules of the SGP, it will be important to ensure that SGP compliance in all Member States and debt sustainability risks form key elements of the assessment of the fiscal stance.

5.2 Options for a better setting of fiscal policies at the euro area level

In the context of a far-reaching overhaul of the institutional architecture of EMU, the Five Presidents' Report proposes two fiscal instruments at the euro area level – a macroeconomic stabilisation function and a euro area treasury. The experience of the crisis has shown that, without monetary policy instruments at the national level, fiscal policies can become overwhelmed if country-specific shocks are very large and not well catered for by the shock-absorbing capacity of the economy and the financial sector. At the same time, as discussed in Section 4, the pursuit of national policies does not necessarily result in an appropriate stance at the euro area level. Central fiscal policy tools may therefore be useful to address idiosyncratic shocks more effectively and/or better steer the aggregate fiscal stance where appropriate.

A macroeconomic stabilisation function at the euro area level could complement automatic stabilisers at national level under certain conditions. While the ultimate design of a euro area macroeconomic stabilisation function would depend on political preferences, certain design principles should be adhered to in order to preserve incentives for sound fiscal policymaking and for addressing structural weaknesses at the national level. As emphasised in the Five Presidents' Report, a euro area macroeconomic stabilisation function should neither be aimed at income equalisation nor lead to permanent transfers between Member States. It should take the form of automatic stabilisation and not aim at fiscal fine-tuning of the economic cycle. The stabilisation function would therefore not be a tool to actively steer the euro area fiscal stance, but rather reduce the need for euro area countries to address large country-specific shocks by using discretionary policies.

Mutual insurance against asymmetric shocks through a stabilisation function will require convergence in other policy areas. In this context, the Five Presidents' Report emphasises that any move towards risk sharing needs to be preceded by a new convergence process towards more resilient economic structures in euro area countries.

In the longer term, a euro area treasury could be created and equipped with fiscal instruments to contribute to the setting of the aggregate euro area fiscal stance. The creation of such a central treasury would be the only way to effectively steer the euro area aggregate stance. However, to be effective, the budgetary capacity of this treasury needs to be sufficiently large to be able to react to economic shocks in the euro area. It is clear that the creation of such a central treasury function would require far-reaching institutional reform – in particular, a shift of

sovereignty to the euro area level via an amendment to the Treaty on the Functioning of the European Union. A future euro area treasury would need to be democratically legitimised and accountable in order to carry out fiscal policy functions at the central level.

6 Conclusions

Recent institutional reforms have gone in the direction of strengthening the aggregate euro area perspective when assessing fiscal policies in the euro area. Following the "two-pack" reforms in 2013,[108] the Council – based on the Commission's assessment of euro area countries' draft budgetary plans – now issues policy recommendations for the euro area as a whole, including advice regarding the appropriateness of the euro area aggregate fiscal stance. Member States should take into account this advice when defining their policy strategy in the context of the annual stability programme updates. At the same time, once operational, the newly established European Fiscal Board will advise the Commission on the appropriateness of the fiscal stance at both the national and euro area level within the rules of the SGP. The SGP, however, does not contain any requirement to contribute to the euro area-wide fiscal stance.

The assessment of the appropriateness of the euro area fiscal stance is not straightforward. Such an assessment needs to balance various objectives, notably with regard to sustainability and stabilisation, and to account for severe measurement problems, notably with respect to the output gap. While the European Commission's approach to assessing the fiscal stance at the national and euro area level provides a useful basis for discussion, further work needs to be done to develop a sound methodological framework that is sufficiently robust to draw policy conclusions. Compliance with the provisions of the SGP and the timely correction of debt sustainability risks need to be key elements of the assessment of the fiscal stance.

The Stability and Growth Pact provides flexibility for Member States' budgetary policies to react to cyclical fluctuations while ensuring adequate progress towards sound and sustainable fiscal positions. The full and consistent implementation of the SGP is crucial to ensure that markets trust the capability of the EU governance framework to effectively coordinate fiscal policies in EMU. At the same time, compliance with the SGP rules will enable Member States to rebuild fiscal buffers and increase their capacity to cushion future economic shocks effectively.

The decentralised fiscal framework, however, does not necessarily result in an appropriate stance at the euro area level. Two additional features for the future institutional architecture of EMU therefore appear desirable. First, the creation of a euro area macroeconomic stabilisation function to cushion large country-specific

[108] See the box entitled "The 'two-pack' regulations to strengthen economic governance in the euro area", *Monthly Bulletin*, ECB, April 2013.

shocks, which can overwhelm national stabilisation capacities as experienced in the recent crisis. The aim of such a central macroeconomic stabilisation function would not be to actively steer the euro area fiscal stance but to provide an additional layer of automatic stabilisation, which would mitigate the need for discretionary policies at national level. A central stabilisation function would need to be well designed to preserve incentives for sound fiscal policymaking and for addressing structural weaknesses at the national level. At the same time, access to a prospective macroeconomic stabilisation function would need to be made conditional on significant progress on economic convergence in the euro area to achieve similarly resilient economic structures, ensuring that the stabilisation function does not imply permanent transfers between Member States. Increased risk sharing in the euro area would also have to be accompanied by more joint economic policy decision-making. Second, in the longer term, a euro area treasury could be equipped with fiscal policy tools to contribute directly to the setting of the euro area fiscal stance. This would require a shift of sovereignty to the euro area level via a Treaty amendment. Strong democratic legitimacy and accountability are crucial prerequisites for a euro area treasury that would carry out fiscal policy functions.

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 [2]	United States	United Kingdom	Japan	China	Memo item: euro area	OECD countries		United States	United Kingdom (HICP)	Japan	China	Memo item: euro area [3] (HICP)
							Total	excluding food and energy					
	1	2	3	4	5	6	7	8	9	10	11	12	13
2013	3.1	1.5	2.2	1.4	7.7	-0.3	1.6	1.6	1.5	2.6	0.4	2.6	1.4
2014	3.3	2.4	2.9	-0.1	7.3	0.9	1.7	1.8	1.6	1.5	2.7	2.0	0.4
2015	3.1	2.4	2.3	0.6	6.9	1.6	0.6	1.7	0.1	0.0	0.8	1.4	0.0
2015 Q2	0.8	1.0	0.6	-0.4	1.8	0.4	0.5	1.6	0.0	0.0	0.5	1.4	0.2
Q3	0.7	0.5	0.4	0.4	1.8	0.3	0.5	1.7	0.1	0.0	0.2	1.7	0.1
Q4	0.7	0.3	0.6	-0.4	1.5	0.3	0.7	1.8	0.5	0.1	0.3	1.5	0.2
2016 Q1	.	0.2	0.4	0.4	1.1	0.5	1.0	1.9	1.1	0.3	0.1	2.1	0.0
2015 Dec.	-	-	-	-	-	-	0.9	1.9	0.7	0.2	0.2	1.6	0.2
2016 Jan.	-	-	-	-	-	-	1.2	1.9	1.4	0.3	0.0	1.8	0.3
Feb.	-	-	-	-	-	-	1.0	1.9	1.0	0.3	0.3	2.3	-0.2
Mar.	-	-	-	-	-	-	0.8	1.9	0.9	0.5	-0.1	2.3	0.0
Apr.	-	-	-	-	-	-	0.8	1.8	1.1	0.3	-0.3	2.3	-0.2
May [4]	-	-	-	-	-	-	.	.	.	.	.	.	-0.1

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

1) Quarterly data seasonally adjusted; annual data unadjusted.

2) Data for Argentina are currently not available owing to the state of emergency in the national statistical system declared by the government of Argentina on 7 January 2016. As a consequence, Argentina is not included in the calculation of the G20 aggregate. The policy regarding the inclusion of Argentina will be reconsidered in the future depending on further developments.

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

4) 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
2013	53.4	54.8	56.8	52.6	51.5	49.7	52.2	52.7	50.6	3.1	-0.1	5.5
2014	54.2	57.3	57.9	50.9	51.1	52.7	53.1	54.1	51.5	2.8	3.7	2.3
2015	53.3	55.8	56.3	51.4	50.4	53.8	51.7	53.9	50.3	0.8	3.8	-1.4
2015 Q2	53.3	55.9	57.2	51.3	51.1	53.9	51.1	54.1	49.6	-1.2	-1.0	-1.4
Q3	53.0	55.4	55.1	51.9	49.0	53.9	50.2	54.0	48.8	1.9	1.0	2.6
Q4	52.7	55.0	55.4	52.3	49.9	54.1	51.3	53.2	50.5	1.4	0.2	2.2
2016 Q1	51.1	51.5	54.2	51.2	50.3	53.2	50.6	51.3	49.4	-2.7	0.2	-4.8
2015 Dec.	52.2	54.0	55.2	52.2	49.4	54.3	50.9	52.6	49.8	1.4	0.2	2.2
2016 Jan.	52.2	53.2	56.2	52.6	50.1	53.6	51.0	52.7	50.1	-0.2	-0.9	0.4
Feb.	50.2	50.0	52.7	51.0	49.4	53.0	49.9	50.3	48.9	-1.2	-0.3	-1.9
Mar.	51.0	51.3	53.6	49.9	51.3	53.1	51.0	51.1	49.3	-2.7	0.2	-4.8
Apr.	51.2	52.4	51.9	48.9	50.8	53.0	49.9	51.6	48.7	.	.	.
May	.	50.8	.	.	.	52.9	.	.	.	.	.	.

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
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	-0.11	-0.07	-0.02	0.05	0.17	0.31	0.09
2015 Nov.	-0.13	-0.14	-0.09	-0.02	0.08	0.37	0.08
Dec.	-0.20	-0.19	-0.13	-0.04	0.06	0.53	0.08
2016 Jan.	-0.24	-0.22	-0.15	-0.06	0.04	0.62	0.08
Feb.	-0.24	-0.25	-0.18	-0.12	-0.01	0.62	0.01
Mar.	-0.29	-0.31	-0.23	-0.13	-0.01	0.63	-0.01
Apr.	-0.34	-0.34	-0.25	-0.14	-0.01	0.63	-0.02
May	-0.34	-0.35	-0.26	-0.14	-0.01	0.64	-0.03

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
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	-0.45	-0.40	-0.35	0.02	0.77	1.17	1.66	1.68	-0.35	-0.22	0.82	1.98
2015 Nov.	-0.41	-0.40	-0.40	-0.13	0.58	0.98	1.73	1.34	-0.41	-0.36	0.58	1.77
Dec.	-0.45	-0.40	-0.35	0.02	0.77	1.17	1.66	1.68	-0.35	-0.22	0.82	1.98
2016 Jan.	-0.45	-0.45	-0.47	-0.23	0.44	0.89	1.47	1.18	-0.47	-0.46	0.43	1.55
Feb.	-0.50	-0.51	-0.54	-0.36	0.22	0.73	1.14	1.01	-0.54	-0.56	0.18	1.23
Mar.	-0.49	-0.49	-0.49	-0.30	0.26	0.75	1.18	1.03	-0.49	-0.47	0.25	1.21
Apr.	-0.54	-0.52	-0.50	-0.27	0.34	0.86	1.28	1.13	-0.50	-0.45	0.33	1.39
May	-0.56	-0.54	-0.53	-0.33	0.22	0.76	1.17	1.03	-0.53	-0.48	0.19	1.19

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
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	356.2	3,444.1	717.4	261.9	628.2	299.9	189.8	500.6	373.2	278.0	377.7	821.3	2,061.1	19,203.8
2015 Nov.	358.2	3,439.6	703.0	269.0	640.1	297.3	187.0	507.4	394.1	270.3	385.3	850.1	2,080.6	19,581.8
Dec.	346.0	3,288.6	652.5	262.8	630.2	278.1	180.2	494.9	391.7	263.6	363.3	811.0	2,054.1	19,202.6
2016 Jan.	320.8	3,030.5	589.3	250.1	584.0	252.6	161.6	463.6	379.6	254.3	345.1	769.6	1,918.6	17,302.3
Feb.	304.3	2,862.6	559.2	245.9	569.1	250.5	144.0	449.9	352.5	245.7	332.8	732.6	1,904.4	16,347.0
Mar.	322.2	3,031.4	598.6	257.6	595.8	271.6	155.9	483.1	366.3	248.1	349.9	746.9	2,022.0	16,897.3
Apr.	323.4	3,031.2	623.9	254.7	597.3	273.2	153.6	491.4	364.9	252.3	337.0	772.7	2,075.5	16,543.5
May	319.5	2,983.7	602.3	248.6	591.6	279.5	150.8	491.9	357.8	252.1	335.4	755.7	2,065.6	16,612.7

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
2015 Apr.	0.16	0.79	0.87	1.19	7.03	17.01	4.89	6.13	6.42	2.66	2.02	2.41	2.17	2.35	2.49	2.24
May	0.16	0.82	0.83	1.13	6.98	17.08	5.04	6.29	6.60	2.67	2.06	2.36	2.09	2.29	2.45	2.17
June	0.15	0.78	0.77	1.11	6.97	17.02	4.88	6.15	6.47	2.59	2.03	2.27	2.12	2.31	2.48	2.18
July	0.15	0.74	0.67	1.14	6.83	17.08	5.10	6.20	6.53	2.61	2.06	2.32	2.21	2.35	2.56	2.22
Aug.	0.14	0.67	0.67	1.00	6.83	17.03	5.30	6.28	6.62	2.60	2.12	2.35	2.30	2.33	2.60	2.26
Sep.	0.14	0.67	0.67	1.08	6.85	17.06	5.21	6.18	6.55	2.68	2.07	2.36	2.29	2.38	2.61	2.25
Oct.	0.14	0.66	0.64	0.99	6.71	16.98	5.22	6.03	6.43	2.64	2.06	2.32	2.30	2.41	2.58	2.26
Nov.	0.14	0.65	0.64	0.96	6.68	16.91	5.23	6.22	6.60	2.68	2.04	2.31	2.32	2.45	2.62	2.27
Dec.	0.13	0.64	0.64	0.98	6.61	16.95	4.84	5.94	6.25	2.53	1.99	2.27	2.27	2.41	2.55	2.22
2016 Jan.	0.12	0.62	0.63	1.25	6.65	16.88	5.31	6.29	6.65	2.53	1.99	2.22	2.30	2.40	2.53	2.23
Feb.	0.12	0.60	0.60	0.89	6.66	16.88	5.01	6.13	6.46	2.61	1.99	2.19	2.23	2.33	2.48	2.19
Mar. [(p)]	0.11	0.58	0.59	0.87	6.63	16.88	5.14	5.98	6.35	2.53	1.89	2.09	2.10	2.24	2.38	2.10

Source: ECB.

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

2) Including non-profit institutions serving households.

3) Annual percentage rate of charge (APRC).

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
2015 Apr.	0.19	0.30	0.90	3.34	3.46	3.58	2.97	2.18	2.60	2.26	1.63	1.93	2.02	2.34
May	0.18	0.30	0.91	3.28	3.37	3.50	2.97	2.15	2.46	2.23	1.56	1.85	2.04	2.25
June	0.18	0.31	1.09	3.25	3.19	3.47	2.87	2.09	2.33	2.23	1.59	1.91	2.03	2.24
July	0.17	0.32	0.86	3.19	3.27	3.60	2.87	2.07	2.36	2.20	1.50	1.73	2.04	2.17
Aug.	0.17	0.24	0.92	3.16	3.25	3.57	2.91	2.07	2.32	2.23	1.42	1.53	2.03	2.15
Sep.	0.17	0.26	0.98	3.20	3.23	3.51	2.89	2.03	2.25	2.21	1.53	1.87	2.17	2.22
Oct.	0.16	0.26	0.80	3.09	3.18	3.42	2.89	2.04	2.28	2.20	1.45	1.69	2.02	2.15
Nov.	0.16	0.23	0.84	3.05	3.14	3.39	2.88	2.02	2.16	2.20	1.43	1.62	1.98	2.12
Dec.	0.14	0.23	0.85	3.01	3.07	3.18	2.77	2.01	2.13	2.17	1.47	1.77	1.92	2.08
2016 Jan.	0.13	0.27	0.77	2.97	3.23	3.25	2.78	2.00	2.22	2.17	1.39	1.67	2.07	2.09
Feb.	0.13	0.24	0.70	2.93	3.16	3.28	2.76	1.96	2.11	2.09	1.33	1.47	1.74	2.01
Mar. [(p)]	0.13	0.14	0.87	2.89	3.04	3.22	2.68	1.92	2.03	2.02	1.36	1.77	1.77	2.04

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 Euro-system)	Non-MFI corporations			General government		Total	MFIs (including Euro-system)	Non-MFI corporations			General government	
			Financial corporations other than MFIs	FVCs	Non-financial corporations	Central govern-ment	Other general govern-ment			Financial corporations other than MFIs	FVCs	Non-financial corporations	Central govern-ment	Other general govern-ment
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
						Short-term								
2013	1,255	483	124	.	67	529	53	508	314	31	.	44	99	21
2014	1,318	542	129	.	59	538	50	410	219	34	.	38	93	25
2015	1,260	517	139	.	61	478	65	334	150	36	.	32	82	34
2015 Oct.	1,336	547	146	.	74	509	60	363	172	32	.	32	86	42
Nov.	1,348	554	146	.	73	509	66	311	140	39	.	30	75	26
Dec.	1,260	517	139	.	61	478	65	295	133	51	.	27	57	26
2016 Jan.	1,284	524	142	.	68	483	67	329	141	35	.	33	87	33
Feb.	1,300	535	141	.	71	487	66	317	143	31	.	30	81	31
Mar.	1,283	515	134	.	72	493	69	319	123	37	.	30	89	40
						Long-term								
2013	15,111	4,403	3,090	.	921	6,069	628	222	70	39	.	16	89	9
2014	15,130	4,046	3,162	.	995	6,285	642	220	65	43	.	16	85	10
2015	15,179	3,783	3,211	.	1,067	6,482	637	213	66	44	.	13	81	8
2015 Oct.	15,332	3,856	3,289	.	1,050	6,500	636	232	78	43	.	12	89	10
Nov.	15,376	3,866	3,275	.	1,063	6,528	644	196	67	34	.	16	67	11
Dec.	15,179	3,783	3,211	.	1,067	6,482	637	154	49	61	.	16	23	4
2016 Jan.	15,150	3,753	3,188	.	1,053	6,522	634	205	75	23	.	6	93	8
Feb.	15,086	3,750	3,107	.	1,046	6,550	633	208	65	42	.	4	88	10
Mar.	15,097	3,727	3,071	.	1,056	6,604	639	246	73	38	.	25	94	17

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					
2013	16,366.6	4,886.4	3,214.6	.	987.4	6,598.1	680.1	5,649.0	569.1	742.5	4,337.4
2014	16,448.0	4,588.1	3,290.7	.	1,053.3	6,823.2	692.7	5,958.0	591.1	780.6	4,586.3
2015	16,439.0	4,300.1	3,349.8	.	1,127.8	6,959.9	701.4	6,744.8	586.1	911.6	5,247.1
2015 Oct.	16,667.7	4,403.1	3,434.8	.	1,124.2	7,009.4	696.2	6,832.1	612.1	888.4	5,331.5
Nov.	16,723.7	4,420.6	3,420.4	.	1,136.3	7,036.3	710.2	7,029.8	613.9	942.2	5,473.7
Dec.	16,439.0	4,300.1	3,349.8	.	1,127.8	6,959.9	701.4	6,744.8	586.1	911.6	5,247.1
2016 Jan.	16,433.8	4,276.6	3,329.8	.	1,120.9	7,005.5	701.1	6,343.8	490.7	858.0	4,995.1
Feb.	16,386.2	4,285.1	3,248.0	.	1,117.1	7,037.1	698.9	6,240.6	471.7	877.4	4,891.6
Mar.	16,380.1	4,242.2	3,205.5	.	1,128.0	7,097.1	707.3	6,419.7	483.4	902.0	5,034.3
						Growth rate					
2013	-1.4	-8.9	-3.3	.	8.0	4.5	-1.1	0.7	7.2	-0.4	0.2
2014	-0.7	-7.9	0.4	.	5.1	3.1	1.1	1.5	7.2	1.2	0.7
2015	-0.2	-6.9	3.2	.	5.3	1.8	0.5	1.1	4.5	1.5	0.6
2015 Oct.	0.1	-6.0	2.4	.	4.3	2.4	0.1	1.0	3.3	1.0	0.7
Nov.	0.0	-5.7	1.5	.	4.5	2.2	1.2	1.0	3.0	1.5	0.6
Dec.	-0.2	-6.9	3.2	.	5.3	1.8	0.5	1.1	4.5	1.5	0.6
2016 Jan.	-0.7	-7.7	1.7	.	4.4	2.0	0.6	1.0	3.3	1.5	0.7
Feb.	-1.2	-7.2	-0.8	.	2.8	2.0	-0.5	1.0	3.3	1.2	0.7
Mar.	-1.3	-6.9	-2.5	.	3.3	2.2	0.1	0.9	3.3	1.5	0.6

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
2013	101.2	98.2	96.7	91.1	102.1	98.6	111.9	95.6
2014	101.8	97.8	96.7	91.3	102.4	100.2	114.7	96.1
2015	92.4	88.4	89.1	83.4	91.4	91.2	106.5	87.9
2015 Q2	91.2	87.5	88.2	82.2	90.4	90.1	104.4	86.3
Q3	92.7	88.7	89.6	83.8	92.3	91.4	107.6	88.6
Q4	92.4	88.3	89.3	83.9	91.0	91.0	107.7	88.3
2016 Q1	94.1	89.5	90.8	.	.	.	110.4	90.1
2015 Dec.	92.5	88.2	89.3	-	-	-	108.0	88.4
2016 Jan.	93.6	89.1	90.3	-	-	-	109.9	89.6
Feb.	94.7	90.0	91.4	-	-	-	111.3	90.9
Mar.	94.1	89.5	90.9	-	-	-	110.0	89.9
Apr.	94.8	90.0	91.6	-	-	-	110.6	90.2
May	95.1	90.2	91.8	-	-	-	111.1	90.4
Percentage change versus previous month								
2016 May	0.2	0.1	0.2	-	-	-	0.4	0.2
Percentage change versus previous year								
2016 May	3.8	2.6	3.6	-	-	-	6.1	4.5

Source: ECB.

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

2) ULCM-deflated series are available only for the EER-18 trading partner group.

2.9 Bilateral exchange rates

(period averages; units of national currency per euro)

	Chinese renminbi	Croatian kuna	Czech koruna	Danish krone	Hungarian forint	Japanese yen	Polish zloty	Pound sterling	Romanian leu	Swedish krona	Swiss franc	US Dollar
	1	2	3	4	5	6	7	8	9	10	11	12
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
2015	6.973	7.614	27.279	7.459	309.996	134.314	4.184	0.726	4.4454	9.353	1.068	1.110
2015 Q2	6.857	7.574	27.379	7.462	306.100	134.289	4.088	0.721	4.4442	9.300	1.041	1.105
Q3	7.008	7.578	27.075	7.462	312.095	135.863	4.188	0.717	4.4290	9.429	1.072	1.112
Q4	7.000	7.623	27.057	7.460	312.652	132.952	4.264	0.722	4.4573	9.302	1.085	1.095
2016 Q1	7.210	7.617	27.040	7.461	312.024	126.997	4.365	0.770	4.4924	9.327	1.096	1.102
2015 Dec.	7.019	7.640	27.027	7.461	314.398	132.358	4.290	0.726	4.5033	9.245	1.083	1.088
2016 Jan.	7.139	7.658	27.027	7.462	314.679	128.324	4.407	0.755	4.5311	9.283	1.094	1.086
Feb.	7.266	7.636	27.040	7.463	310.365	127.346	4.397	0.776	4.4814	9.410	1.102	1.109
Mar.	7.222	7.559	27.051	7.457	311.154	125.385	4.293	0.780	4.4666	9.285	1.092	1.110
Apr.	7.346	7.495	27.031	7.443	311.462	124.287	4.311	0.792	4.4724	9.203	1.093	1.134
May	7.386	7.498	27.026	7.439	314.581	123.214	4.404	0.778	4.4991	9.295	1.106	1.131
Percentage change versus previous month												
2016 May	0.5	0.0	0.0	-0.1	1.0	-0.9	2.2	-1.8	0.6	1.0	1.2	-0.2
Percentage change versus previous year												
2016 May	6.8	-0.8	-1.4	-0.3	2.7	-8.6	7.9	7.8	1.2	-0.1	6.4	1.4

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)												
2015 Q1	22,500.8	23,313.7	-812.9	9,479.7	7,094.0	7,296.1	10,971.1	-67.3	5,101.9	5,248.6	690.4	13,190.0
Q2	22,094.2	22,748.5	-654.3	9,382.6	7,171.3	7,193.4	10,532.3	-26.1	4,885.9	5,044.9	658.5	12,815.0
Q3	21,653.1	22,261.8	-608.6	9,384.2	7,265.4	6,854.8	9,999.3	-33.6	4,803.5	4,997.1	644.2	12,660.8
Q4	22,101.4	22,519.6	-418.2	9,694.9	7,521.1	7,169.5	10,157.5	-42.6	4,635.4	4,840.9	644.2	12,498.8
Outstanding amounts as a percentage of GDP												
2015 Q4	212.5	216.5	-4.0	93.2	72.3	68.9	97.7	-0.4	44.6	46.5	6.2	120.2
Transactions												
2015 Q2	95.8	3.1	92.7	123.9	130.7	135.9	8.7	-0.1	-161.5	-136.3	-2.4	-
Q3	87.3	35.8	51.5	119.3	131.9	24.3	-67.4	-0.8	-58.2	-28.8	2.7	-
Q4	31.3	-149.9	181.2	114.7	77.7	106.2	-31.3	45.1	-239.3	-196.3	4.6	-
2016 Q1	354.5	288.3	66.2	94.3	67.0	116.0	-32.3	7.1	136.0	253.6	1.1	-
2015 Oct.	235.4	109.0	126.3	119.5	62.6	63.4	24.4	8.0	50.6	22.1	-6.0	-
Nov.	-74.3	-47.6	-26.7	-84.7	-14.3	23.7	1.9	17.9	-33.6	-35.2	2.5	-
Dec.	-129.8	-211.3	81.5	80.0	29.5	19.1	-57.5	19.3	-256.2	-183.3	8.1	-
2016 Jan.	172.1	194.7	-22.6	1.8	32.8	23.8	-50.4	10.1	137.7	212.3	-1.1	-
Feb.	169.8	132.4	37.4	66.5	22.0	44.4	-21.7	4.6	53.1	132.0	1.1	-
Mar.	12.5	-38.8	51.3	25.9	12.1	47.8	39.8	-7.5	-54.8	-90.7	1.1	-
12-month cumulated transactions												
2016 Mar.	568.9	177.3	391.6	452.2	407.3	382.4	-122.1	51.3	-323.1	-107.8	6.0	-
12-month cumulated transactions as a percentage of GDP												
2016 Mar.	5.5	1.7	3.8	4.3	3.9	3.7	-1.2	0.5	-3.1	-1.0	0.1	-

Source: ECB.

1) Net financial derivatives are included in total assets.

3 Economic activity

3.1 GDP and expenditure components

(quarterly data seasonally adjusted; annual data unadjusted)

	GDP											
	Total	Domestic demand								External balance [1]		
		Total	Private consumption	Government consumption	Gross fixed capital formation				Changes in inventories [2]	Total	Exports [1]	Imports [1]
						Total construction	Total machinery	Intellectual property products				
	1	2	3	4	5	6	7	8	9	10	11	12
	Current prices (EUR billions)											
2013	9,931.8	9,595.2	5,558.5	2,094.5	1,949.0	1,004.3	573.1	366.7	-6.8	336.6	4,373.4	4,036.7
2014	10,106.4	9,732.9	5,631.1	2,128.5	1,984.6	1,007.5	595.7	376.3	-11.3	373.6	4,521.3	4,147.8
2015	10,400.2	9,940.4	5,738.0	2,169.1	2,054.2	1,020.5	631.9	396.5	-20.8	459.7	4,751.0	4,291.3
2015 Q1	2,573.8	2,462.9	1,421.0	538.3	509.0	255.8	154.9	97.0	-5.4	110.9	1,167.6	1,056.8
Q2	2,591.7	2,473.5	1,433.0	540.4	510.1	253.4	155.6	99.8	-10.0	118.2	1,196.8	1,078.7
Q3	2,606.9	2,490.4	1,439.4	543.0	513.6	253.8	156.7	101.7	-5.6	116.5	1,195.2	1,078.7
Q4	2,624.0	2,510.0	1,444.1	546.4	521.6	256.4	161.2	102.7	-2.1	114.0	1,192.5	1,078.4
	as a percentage of GDP											
2015	100.0	95.6	55.2	20.9	19.8	9.8	6.1	3.8	-0.2	4.4	-	-
	Chain-linked volumes (prices for the previous year)											
	quarter-on-quarter percentage changes											
2015 Q2	0.4	0.0	0.3	0.3	0.1	-1.0	0.2	2.7	-	-	1.7	1.0
Q3	0.3	0.7	0.5	0.3	0.4	0.0	0.5	1.3	-	-	0.2	1.2
Q4	0.3	0.6	0.2	0.6	1.3	1.1	2.0	0.9	-	-	0.2	0.9
2016 Q1	0.5	.	.	.	.	.	.	.	-	-	.	.
	annual percentage changes											
2013	-0.3	-0.7	-0.6	0.2	-2.6	-3.6	-2.5	0.1	-	-	2.1	1.3
2014	0.9	0.9	0.8	0.8	1.3	-0.5	4.1	2.1	-	-	4.1	4.5
2015	1.6	1.8	1.7	1.3	2.7	0.7	5.2	4.2	-	-	5.0	5.7
2015 Q2	1.6	1.4	1.7	1.2	2.6	0.4	4.6	5.2	-	-	6.0	5.8
Q3	1.6	1.9	1.8	1.2	2.5	0.4	3.1	6.9	-	-	4.6	5.5
Q4	1.6	2.2	1.5	1.6	3.4	1.2	5.0	6.5	-	-	3.6	5.3
2016 Q1	1.5	.	.	.	.	.	.	.	-	-	.	.
	contributions to quarter-on-quarter percentage changes in GDP; percentage points											
2015 Q2	0.4	0.0	0.2	0.1	0.0	-0.1	0.0	0.1	-0.2	0.4	-	-
Q3	0.3	0.7	0.3	0.1	0.1	0.0	0.0	0.1	0.3	-0.4	-	-
Q4	0.3	0.6	0.1	0.1	0.3	0.1	0.1	0.0	0.1	-0.3	-	-
2016 Q1	0.5	.	.	.	.	.	.	.	.	.	-	-
	contributions to annual percentage changes in GDP; percentage points											
2013	-0.3	-0.7	-0.4	0.0	-0.5	-0.4	-0.2	0.0	0.2	0.4	-	-
2014	0.9	0.9	0.4	0.2	0.3	0.0	0.2	0.1	0.0	0.0	-	-
2015	1.6	1.7	0.9	0.3	0.5	0.1	0.3	0.2	0.0	-0.1	-	-
2015 Q2	1.6	1.3	1.0	0.3	0.5	0.0	0.3	0.2	-0.4	0.3	-	-
Q3	1.6	1.8	1.0	0.3	0.5	0.0	0.2	0.3	0.1	-0.2	-	-
Q4	1.6	2.2	0.8	0.3	0.7	0.1	0.3	0.2	0.3	-0.6	-	-
2016 Q1	1.5	.	.	.	.	.	.	.	.	.	-	-

Sources: Eurostat and ECB calculations.

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

2) Including acquisitions less disposals of valuables.

3 Economic activity

3.2 Value added by economic activity

(quarterly data seasonally adjusted; annual data unadjusted)

	Gross value added (basic prices)											Taxes less subsidies on products
	Total	Agriculture, forestry and fishing	Manufacturing energy and utilities	Construction	Trade, transport, accommodation and food services	Information and communication	Finance and insurance	Real estate	Professional, business and support services	Public administration, education, health and social work	Arts, entertainment and other services	
	1	2	3	4	5	6	7	8	9	10	11	12
	Current prices (EUR billions)											
2013	8,927.3	152.3	1,737.0	458.1	1,680.2	412.6	442.3	1,030.6	945.2	1,751.4	317.6	1,004.5
2014	9,073.5	146.7	1,756.9	461.6	1,711.1	417.6	453.9	1,051.0	968.0	1,781.8	324.8	1,033.0
2015	9,329.3	146.4	1,815.9	469.8	1,771.3	431.1	456.4	1,075.8	1,008.2	1,821.1	333.4	1,070.9
2015 Q1	2,312.6	36.1	451.1	117.1	438.5	106.3	114.9	265.7	247.8	452.5	82.5	261.2
Q2	2,324.2	36.2	453.6	116.4	441.1	107.4	114.5	267.6	250.9	453.5	83.0	267.4
Q3	2,337.7	36.7	454.3	117.0	444.4	108.3	113.7	270.5	253.3	456.0	83.6	269.2
Q4	2,351.7	37.4	454.4	118.7	447.3	109.2	113.1	271.9	256.3	459.2	84.2	272.3
	as a percentage of value added											
2015	100.0	1.6	19.5	5.0	19.0	4.6	4.9	11.5	10.8	19.5	3.6	-
	Chain-linked volumes (prices for the previous year)											
	quarter-on-quarter percentage changes											
2015 Q1	0.6	0.8	1.0	0.6	0.8	0.5	0.6	0.1	1.0	0.3	0.2	0.1
Q2	0.3	0.3	0.4	-0.5	0.4	0.9	0.1	0.1	0.9	0.1	0.3	1.0
Q3	0.3	0.6	0.2	-0.1	0.5	0.5	-0.6	0.7	0.6	0.1	0.4	0.3
Q4	0.2	0.5	-0.5	1.0	0.3	0.8	0.3	0.3	0.6	0.2	0.4	1.2
	annual percentage changes											
2013	-0.2	3.2	-0.6	-3.3	-0.8	2.5	-2.5	1.1	0.3	0.4	-0.5	-1.1
2014	0.9	3.1	0.6	-0.9	1.4	2.0	-0.6	1.3	1.4	0.5	1.2	0.8
2015	1.5	0.8	1.8	0.3	2.0	2.7	0.8	1.1	2.7	0.8	1.1	2.6
2015 Q1	1.2	0.6	1.2	-1.0	1.7	2.5	1.1	1.0	2.2	0.6	0.8	2.2
Q2	1.5	0.6	1.8	0.1	2.1	3.1	1.3	0.7	2.7	0.8	1.0	2.6
Q3	1.5	0.2	1.9	0.2	2.0	2.4	0.2	1.1	2.8	0.7	0.9	2.9
Q4	1.5	2.2	1.1	0.9	1.9	2.7	0.4	1.2	3.1	0.7	1.3	2.7
	contributions to quarter-on-quarter percentage changes in value added; percentage points											
2015 Q1	0.6	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	-
Q2	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	-
Q3	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	-
Q4	0.2	0.0	-0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	-
	contributions to annual percentage changes in value added; percentage points											
2013	-0.2	0.1	-0.1	-0.2	-0.2	0.1	-0.1	0.1	0.0	0.1	0.0	-
2014	0.9	0.1	0.1	0.0	0.3	0.1	0.0	0.1	0.1	0.1	0.0	-
2015	1.5	0.0	0.3	0.0	0.4	0.1	0.0	0.1	0.3	0.1	0.0	-
2015 Q1	1.2	0.0	0.2	0.0	0.3	0.1	0.1	0.1	0.2	0.1	0.0	-
Q2	1.5	0.0	0.3	0.0	0.4	0.1	0.1	0.1	0.3	0.2	0.0	-
Q3	1.5	0.0	0.4	0.0	0.4	0.1	0.0	0.1	0.3	0.1	0.0	-
Q4	1.5	0.0	0.2	0.0	0.4	0.1	0.0	0.1	0.3	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													
2013	100.0	85.0	15.0	3.4	15.3	6.2	24.8	2.7	2.7	1.0	12.9	24.0	7.0
2014	100.0	85.1	14.9	3.4	15.2	6.0	24.8	2.7	2.7	1.0	13.0	24.1	7.1
2015	100.0	85.3	14.7	3.4	15.1	6.0	24.9	2.7	2.6	1.0	13.3	24.0	7.0
annual percentage changes													
2013	-0.7	-0.6	-1.0	-1.6	-1.3	-4.2	-0.8	0.3	-1.0	-1.9	0.3	0.2	-0.2
2014	0.6	0.7	-0.2	0.7	-0.1	-1.8	0.7	0.8	-0.9	1.0	1.9	0.7	0.7
2015	1.0	1.2	-0.2	0.1	0.3	-0.2	1.3	1.0	-0.1	1.7	2.8	0.8	0.6
2015 Q1	0.9	1.0	-0.2	-0.3	0.2	-0.3	1.2	0.4	-0.5	1.4	2.6	0.7	0.5
Q2	0.9	1.1	0.1	0.4	0.1	0.5	1.0	0.8	0.2	2.1	2.8	0.7	0.4
Q3	1.0	1.3	-0.4	0.1	0.5	-0.6	1.3	1.4	-0.1	1.7	3.0	0.9	0.4
Q4	1.2	1.5	-0.3	0.3	0.5	-0.4	1.6	1.5	0.0	1.2	3.0	0.9	1.3
Hours worked													
as a percentage of total hours worked													
2013	100.0	80.1	19.9	4.4	15.7	6.9	25.8	2.9	2.8	1.0	12.5	21.8	6.3
2014	100.0	80.3	19.7	4.4	15.6	6.7	25.8	2.9	2.7	1.0	12.7	21.9	6.3
2015	100.0	80.5	19.5	4.4	15.6	6.7	25.7	2.9	2.7	1.0	12.9	21.9	6.3
annual percentage changes													
2013	-1.4	-1.4	-1.8	-1.4	-1.5	-5.5	-1.6	-0.1	-1.6	-3.1	-0.8	-0.4	-1.4
2014	0.6	0.8	-0.4	-0.4	0.2	-1.7	0.6	1.0	-1.0	0.6	2.0	1.1	0.6
2015	1.2	1.4	0.1	0.9	0.7	0.4	1.0	1.9	-0.2	2.0	3.0	0.9	1.0
2015 Q1	0.7	0.9	-0.3	0.4	0.0	-0.6	0.6	0.7	-0.9	1.7	2.4	0.8	1.1
Q2	1.0	1.3	0.1	0.9	0.6	0.8	0.5	1.7	0.0	2.7	3.0	0.9	1.0
Q3	1.2	1.5	0.1	0.8	0.8	0.0	1.0	2.7	-0.4	2.9	3.5	1.1	1.1
Q4	1.3	1.6	0.1	1.3	0.9	0.5	1.4	2.1	0.2	0.8	2.9	0.7	1.5
Hours worked per person employed													
annual percentage changes													
2013	-0.8	-0.7	-0.8	0.2	-0.2	-1.4	-0.8	-0.4	-0.5	-1.3	-1.1	-0.5	-1.2
2014	0.0	0.1	-0.1	-1.1	0.2	0.1	-0.1	0.1	-0.1	-0.4	0.1	0.4	-0.1
2015	0.1	0.2	0.3	0.8	0.4	0.6	-0.2	0.8	-0.1	0.3	0.2	0.1	0.3
2015 Q1	-0.2	-0.1	-0.1	0.7	-0.2	-0.2	-0.6	0.3	-0.4	0.3	-0.3	0.1	0.6
Q2	0.1	0.2	0.0	0.5	0.4	0.3	-0.5	0.8	-0.1	0.6	0.2	0.2	0.6
Q3	0.2	0.3	0.4	0.7	0.3	0.6	-0.3	1.2	-0.3	1.2	0.5	0.2	0.7
Q4	0.1	0.1	0.5	1.0	0.5	0.9	-0.1	0.6	0.2	-0.4	-0.1	-0.3	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		
2013	159.334	4.6	19.217	12.0	5.9	15.623	10.7	3.594	24.4	10.299	11.9	8.918	12.1	1.4
2014	160.308	4.6	18.630	11.6	6.1	15.214	10.4	3.417	23.7	9.932	11.5	8.699	11.8	1.5
2015	160.556	4.5	17.438	10.9	5.6	14.293	9.8	3.145	22.3	9.252	10.7	8.187	11.0	1.6
2015 Q2	160.462	4.6	17.690	11.0	5.7	14.518	9.9	3.172	22.5	9.404	10.9	8.286	11.2	1.5
Q3	160.591	4.4	17.213	10.7	5.3	14.098	9.6	3.115	22.2	9.134	10.6	8.079	10.9	1.5
Q4	161.081	4.4	16.909	10.5	5.4	13.838	9.4	3.071	22.0	8.939	10.3	7.971	10.7	1.6
2016 Q1	.	.	16.640	10.3	.	13.622	9.3	3.018	21.7	8.727	10.1	7.913	10.6	.
2015 Nov.	-	-	16.878	10.5	-	13.821	9.4	3.057	21.9	8.903	10.3	7.975	10.7	-
Dec.	-	-	16.824	10.5	-	13.770	9.4	3.054	21.9	8.894	10.3	7.930	10.7	-
2016 Jan.	-	-	16.741	10.4	-	13.693	9.3	3.048	21.9	8.792	10.1	7.949	10.7	-
Feb.	-	-	16.695	10.4	-	13.655	9.3	3.040	21.8	8.760	10.1	7.935	10.7	-
Mar.	-	-	16.483	10.2	-	13.517	9.2	2.966	21.4	8.629	10.0	7.854	10.6	-
Apr.	-	-	16.420	10.2	-	13.489	9.2	2.932	21.1	8.543	9.8	7.877	10.6	-

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												
2013	-0.7	-0.6	-0.9	-0.5	-0.4	-0.8	-2.3	-0.3	-0.6	-0.6	-0.5	-0.8	-4.4
2014	0.9	1.8	1.3	1.8	2.6	-5.4	1.7	3.2	1.5	0.7	2.4	-0.1	3.8
2015	1.6	1.7	0.9	2.1	2.0	0.5	-0.8	2.6	2.8	1.7	3.7	2.7	8.8
2015 Q2	1.4	1.8	1.0	2.7	1.0	-1.1	-0.9	5.3	2.7	1.7	3.6	2.8	7.0
Q3	1.9	2.2	1.0	2.8	2.8	0.0	-1.1	2.1	3.4	2.6	4.1	3.0	9.4
Q4	1.3	1.7	1.6	1.7	1.7	-1.9	0.5	1.5	2.5	1.3	3.4	2.0	10.0
2016 Q1	1.5	2.2	2.0	3.3	1.5	-2.9	1.9	0.6	2.3	1.8	2.9	0.9	9.4
2015 Nov.	1.8	2.0	2.3	2.0	1.5	-0.6	0.6	3.3	2.1	1.0	2.8	2.0	11.0
Dec.	0.0	0.7	0.9	-0.5	2.4	-5.5	0.8	0.6	2.8	1.5	3.7	2.8	13.7
2016 Jan.	3.5	4.6	2.5	5.3	6.8	-2.7	4.9	1.2	2.2	1.3	3.4	-0.6	10.8
Feb.	1.0	2.1	2.4	3.4	0.8	-5.3	3.4	1.3	2.7	2.6	3.0	0.8	10.3
Mar.	0.2	0.2	1.1	1.6	-2.5	-0.7	-0.5	-0.6	2.1	1.5	2.1	2.5	7.6
Apr.	.	.	.	.	.	.	.	.	.	.	.	.	8.5
	month-on-month percentage changes (s.a.)												
2015 Nov.	-0.2	-0.2	0.6	-1.3	0.2	-2.0	1.1	0.6	0.1	-0.1	-0.1	0.2	2.7
Dec.	-0.5	-0.2	-0.2	-0.6	0.2	-2.7	-0.6	-0.2	0.6	0.7	0.6	1.4	3.9
2016 Jan.	2.4	2.4	1.2	4.0	3.1	2.9	2.0	-0.6	0.3	0.3	0.5	-0.3	0.3
Feb.	-1.2	-1.2	0.1	-1.1	-2.3	-1.3	-0.6	0.0	0.3	0.4	0.1	0.0	-0.4
Mar.	-0.8	-1.1	-0.8	-1.1	-1.8	2.0	-0.9	-0.8	-0.5	-1.3	-0.5	-0.4	-1.5
Apr.	.	.	.	.	.	.	.	.	.	.	.	.	1.2

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	100.0	-6.1	80.8	-12.8	-13.6	-8.6	6.9	-	51.0	52.4	52.9	52.7
2013	93.5	-9.0	78.7	-18.8	-27.8	-12.2	-5.3	87.2	49.6	50.6	49.3	49.7
2014	101.5	-3.8	80.5	-10.2	-26.4	-3.1	5.0	87.7	51.8	53.3	52.5	52.7
2015	104.2	-3.1	81.4	-6.2	-22.5	1.6	9.3	88.4	52.2	53.4	54.0	53.8
2015 Q2	103.7	-3.1	81.2	-5.2	-24.4	-0.1	7.9	88.3	52.3	53.4	54.1	53.9
Q3	104.5	-2.9	81.4	-7.0	-22.5	3.0	10.6	88.5	52.3	53.6	54.0	53.9
Q4	106.2	-2.4	81.8	-6.4	-18.4	5.0	12.7	88.7	52.8	54.0	54.2	54.1
2016 Q1	104.0	-3.8	81.7	-8.3	-18.9	1.9	10.7	88.5	51.7	52.9	53.3	53.2
2015 Dec.	106.6	-1.9	-	-5.7	-17.5	2.9	12.9	-	53.2	54.5	54.2	54.3
2016 Jan.	105.0	-3.1	81.9	-6.3	-18.9	2.7	11.6	88.6	52.3	53.4	53.6	53.6
Feb.	104.0	-4.1	-	-8.8	-17.5	1.3	10.9	-	51.2	52.3	53.3	53.0
Mar.	103.0	-4.1	-	-9.7	-20.4	1.8	9.6	-	51.6	53.1	53.1	53.1
Apr.	104.0	-3.6	81.5	-9.3	-19.2	1.3	11.7	88.3	51.7	52.6	53.1	53.0
May	104.7	-3.6	-	-7.0	-17.5	3.2	11.3	-	51.5	52.4	53.1	52.9

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
2012	12.3	96.5	-1.7	1.7	-5.3	-0.1	-3.0	30.9	1.3	132.9	1.4	-6.4	1.2
2013	12.6	95.0	-0.3	1.2	-4.1	0.6	-1.8	32.2	3.2	130.4	2.0	-1.4	0.9
2014	12.7	94.2	0.7	2.0	0.9	2.7	1.2	31.9	3.6	132.1	1.6	3.3	1.0
2015 Q1	12.6	93.8	1.8	2.0	-0.4	4.1	1.5	32.3	4.2	134.1	2.0	2.9	1.3
Q2	12.7	93.6	2.0	1.9	-0.4	2.9	1.6	33.1	5.0	133.3	2.4	5.3	1.4
Q3	12.6	93.5	1.6	2.0	1.3	2.6	2.0	33.0	5.2	132.2	2.6	3.7	1.6
Q4	12.5	93.5	1.5	2.1	4.1	3.5	2.9	33.9	6.9	131.8	3.3	8.7	1.8

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
2015 Q2	905.2	822.5	82.8	525.8	445.3	190.5	171.8	162.6	146.9	26.4	58.4	9.7	37.4
Q3	892.6	810.3	82.3	514.2	434.6	190.5	174.5	162.6	144.0	25.3	57.2	9.7	4.1
Q4	894.9	810.6	84.3	515.8	431.9	195.3	180.5	157.7	140.8	26.0	57.4	15.4	8.9
2016 Q1	872.3	799.5	72.7	510.2	426.1	191.3	173.5	144.9	137.5	25.9	62.5	9.2	7.1
2015 Oct.	300.8	272.9	27.9	172.8	144.8	64.8	60.6	54.3	48.0	8.8	19.5	4.9	1.8
Nov.	299.1	269.5	29.5	172.0	144.2	65.4	59.7	52.9	46.3	8.8	19.3	4.3	1.9
Dec.	295.0	268.2	26.9	170.9	142.9	65.1	60.1	50.5	46.6	8.5	18.6	6.3	5.2
2016 Jan.	292.5	266.3	26.2	171.5	142.7	64.4	60.4	48.0	44.7	8.6	18.4	2.7	3.6
Feb.	290.2	271.0	19.2	168.0	143.7	64.4	57.5	49.4	47.5	8.4	22.3	3.5	1.2
Mar.	289.6	262.2	27.3	170.7	139.7	62.4	55.5	47.6	45.3	8.8	21.8	3.1	2.3
12-month cumulated transactions													
2016 Mar.	3,565.0	3,243.0	322.0	2,065.9	1,737.9	767.6	700.3	627.9	569.3	103.6	235.5	44.0	57.5
12-month cumulated transactions as a percentage of GDP													
2016 Mar.	34.3	31.2	3.1	19.9	16.7	7.4	6.7	6.0	5.5	1.0	2.3	0.4	0.6

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)													
2015 Q2	8.2	4.2	514.1	242.4	106.0	153.5	429.5	453.9	265.2	71.0	110.8	318.3	59.9
Q3	4.5	0.7	507.7	234.9	105.7	153.7	423.5	445.8	253.9	71.4	113.3	317.8	50.6
Q4	3.5	2.0	509.5	238.3	105.7	154.7	426.6	444.1	248.4	73.0	114.5	324.9	44.6
2016 Q1	-1.3	-3.0	499.1	.	.	.	418.6	435.3	.	.	.	323.8	.
2015 Oct.	0.5	-0.7	168.2	79.8	35.2	50.8	143.0	148.4	84.0	25.0	37.6	107.4	15.9
Nov.	6.2	4.1	170.8	78.8	35.2	51.7	141.1	147.7	82.3	24.0	38.3	107.8	14.2
Dec.	4.0	3.1	170.5	79.7	35.4	52.2	142.6	148.0	82.1	24.0	38.7	109.8	14.4
2016 Jan.	-2.0	-1.3	166.6	77.7	33.8	50.5	139.0	145.7	80.3	22.8	38.5	105.8	12.3
Feb.	1.1	1.7	167.3	78.9	33.9	49.8	140.1	146.8	80.4	24.4	39.0	111.9	11.8
Mar.	-2.7	-8.4	165.1	.	.	.	139.6	142.8	.	.	.	106.1	.
Volume indices (2000 = 100; annual percentage changes for columns 1 and 2)													
2015 Q2	2.9	2.4	117.2	113.6	119.1	121.6	118.2	104.3	104.1	104.6	104.7	107.4	99.3
Q3	1.3	2.8	116.8	111.8	118.9	122.5	117.0	105.9	105.4	107.1	106.7	107.8	99.2
Q4	0.8	4.8	117.7	115.1	118.3	122.5	117.5	107.4	107.6	107.2	107.5	110.2	101.3
2016 Q1	.	.	.	.	.	.	.	.	.	.	.	.	.
2015 Sep.	-1.6	2.3	116.4	111.6	119.7	120.5	117.4	106.3	106.4	106.7	106.3	109.1	100.2
Oct.	-1.6	3.1	117.0	115.3	119.1	121.9	118.9	107.3	107.7	112.2	106.0	110.0	102.6
Nov.	3.7	7.0	118.4	114.2	118.7	122.3	116.7	107.1	106.6	106.9	107.9	110.3	94.7
Dec.	0.5	4.3	117.8	115.8	117.2	123.5	116.9	107.7	108.6	102.6	108.5	110.3	106.7
2016 Jan.	-3.7	0.9	116.5	114.3	113.5	120.6	114.9	108.8	109.2	102.7	107.3	107.6	108.6
Feb.	1.1	6.6	117.7	116.5	114.4	119.9	116.7	110.2	110.9	108.8	109.1	114.1	110.7

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) [2)]						Memo item: Administered prices	
	Index: 2015 = 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 2016	100.0	100.0	70.7	55.8	44.2	100.0	12.1	7.4	26.5	9.7	44.2	86.5	13.5
2013	99.5	1.4	1.1	1.3	1.4	-	-	-	-	-	-	1.2	2.1
2014	100.0	0.4	0.8	-0.2	1.2	-	-	-	-	-	-	0.2	1.9
2015	100.0	0.0	0.8	-0.8	1.2	-	-	-	-	-	-	-0.1	0.9
2015 Q2	100.5	0.2	0.8	-0.5	1.1	0.5	0.3	0.6	0.2	2.4	0.3	0.1	1.0
Q3	100.0	0.1	0.9	-0.8	1.2	0.0	0.1	0.4	0.2	-2.5	0.4	0.0	0.9
Q4	100.2	0.2	1.0	-0.6	1.2	-0.1	0.1	1.0	0.1	-3.0	0.2	0.1	0.7
2016 Q1	99.2	0.0	1.0	-0.8	1.1	-0.4	0.1	-0.8	0.2	-4.4	0.2	0.0	0.3
2015 Dec.	100.2	0.2	0.9	-0.5	1.1	-0.2	0.0	-0.6	0.0	-1.8	0.1	0.2	0.7
2016 Jan.	98.7	0.3	1.0	-0.3	1.2	-0.2	0.0	-0.4	0.2	-2.7	0.0	0.3	0.3
Feb.	98.9	-0.2	0.8	-1.0	0.9	-0.1	0.0	0.0	0.0	-1.3	0.0	-0.2	0.3
Mar.	100.1	0.0	1.0	-1.1	1.4	0.2	0.0	0.5	-0.1	1.0	0.3	-0.1	0.3
Apr.	100.1	-0.2	0.7	-1.1	0.9	0.0	0.2	0.2	0.1	0.1	-0.2	-0.3	0.1
May [3)]	100.5	-0.1	0.8	.	1.0	0.3	0.0	0.3	0.0	1.6	0.2	.	.

	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 2016	19.5	12.1	7.4	36.3	26.5	9.7	10.7	6.4	7.1	3.2	15.2	8.0
2013	2.7	2.2	3.5	0.6	0.6	0.6	1.7	1.4	2.4	-4.2	2.3	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
2015	1.0	0.6	1.6	-1.8	0.3	-6.8	1.2	1.1	1.3	-0.8	1.5	1.2
2015 Q2	1.1	0.7	1.8	-1.3	0.2	-5.3	1.2	1.2	1.2	-0.9	1.4	1.2
Q3	1.2	0.6	2.1	-1.8	0.4	-7.2	1.1	0.9	1.4	-0.4	1.7	1.0
Q4	1.4	0.7	2.6	-1.7	0.5	-7.2	1.2	1.0	1.1	-0.1	1.5	1.2
2016 Q1	0.8	0.6	1.1	-1.7	0.6	-7.4	1.1	1.0	0.6	0.0	1.6	1.2
2015 Dec.	1.2	0.7	2.0	-1.3	0.5	-5.8	1.2	1.0	0.7	-0.1	1.5	1.2
2016 Jan.	1.0	0.8	1.4	-1.0	0.7	-5.4	1.1	1.0	0.8	0.0	1.6	1.2
Feb.	0.6	0.6	0.6	-1.9	0.7	-8.1	1.1	1.0	0.4	-0.1	1.0	1.3
Mar.	0.8	0.4	1.3	-2.1	0.5	-8.7	1.1	1.0	0.7	0.1	2.1	1.3
Apr.	0.8	0.5	1.2	-2.1	0.5	-8.7	1.1	1.0	0.5	0.1	0.9	1.2
May [3)]	0.8	0.6	1.3	.	0.5	-8.1	.	.	.	.	.	.

Sources: Eurostat and ECB calculations.

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

2) In May 2016 the ECB started publishing enhanced seasonally adjusted HICP series for the euro area, following a review of the seasonal adjustment approach as described in Box 1, *Economic Bulletin*, Issue 3, ECB, 2016 (https://www.ecb.europa.eu/pub/pdf/ecbu/eb201603.en.pdf).

3) Estimate based on provisional national data, which usually cover around 95% of the euro area, as well as on early information on energy prices.

4 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]
	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			
2013	108.5	-0.2	-0.1	0.4	-0.6	0.6	1.7	2.6	0.3	-1.6	0.3	-1.9	-1.0
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	1.0
2015	104.0	-2.7	-2.3	-0.5	-1.3	0.7	-0.6	-1.0	0.2	-8.1	0.2	1.6	3.8
2015 Q2	104.9	-2.1	-1.6	-0.3	-0.7	0.7	-0.8	-1.4	0.1	-6.5	0.4	1.3	4.0
Q3	104.0	-2.6	-2.6	-0.5	-1.1	0.6	-0.6	-1.1	0.1	-8.3	0.2	1.6	3.5
Q4	102.7	-3.1	-2.5	-0.7	-2.0	0.6	-0.2	-0.3	0.2	-9.3	-0.1	2.3	4.9
2016 Q1	100.5	-3.8	-2.7	-0.9	-2.2	0.4	-0.4	-0.5	0.0	-11.3	.	.	.
2015 Oct.	103.1	-3.2	-2.8	-0.7	-1.9	0.6	-0.1	-0.3	0.2	-9.8	-	-	-
Nov.	102.9	-3.2	-2.5	-0.7	-2.1	0.6	-0.2	-0.4	0.2	-9.3	-	-	-
Dec.	102.1	-3.0	-2.2	-0.7	-1.9	0.5	-0.3	-0.4	0.2	-8.9	-	-	-
2016 Jan.	100.9	-3.0	-2.0	-0.7	-1.8	0.4	-0.2	-0.2	0.0	-9.0	-	-	-
Feb.	100.2	-4.2	-3.0	-0.8	-2.2	0.4	-0.4	-0.5	-0.1	-12.7	-	-	-
Mar.	100.5	-4.2	-3.1	-1.1	-2.6	0.3	-0.6	-0.9	-0.1	-12.1	-	-	-

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

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

4.3 Commodity prices and GDP deflators

(annual percentage changes, unless otherwise indicated)

	GDP deflators								Oil prices (EUR per barrel)	Non-energy commodity prices (EUR)					
	Total (s.a.; index: 2010 = 100)	Total	Domestic demand				Exports [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
2013	103.7	1.3	0.9	1.1	1.2	0.4	-0.4	-1.3	81.7	-9.0	-13.3	-6.9	-8.2	-9.9	-6.9
2014	104.5	0.9	0.5	0.5	0.8	0.5	-0.7	-1.7	74.5	-8.8	-1.8	-12.1	-4.7	0.4	-8.7
2015	105.8	1.2	0.3	0.2	0.6	0.7	0.1	-2.1	48.3	-4.1	5.2	-9.0	-0.8	4.8	-5.6
2015 Q2	105.7	1.3	0.4	0.3	0.6	0.9	0.9	-1.1	57.4	-0.6	2.0	-2.0	3.9	5.4	2.6
Q3	106.0	1.3	0.3	0.3	0.5	0.7	0.1	-2.3	46.1	-6.5	6.4	-13.1	-3.3	5.7	-10.6
Q4	106.4	1.3	0.4	0.3	0.6	0.7	-0.3	-2.4	40.7	-9.1	3.9	-16.2	-9.3	-3.0	-14.8
2016 Q1	.	.	.	.	.	.	.	.	32.5	-13.4	-4.9	-18.2	-13.7	-9.8	-17.2
2015 Dec.	-	-	-	-	-	-	-	-	35.7	-11.1	1.8	-18.5	-12.5	-8.0	-16.5
2016 Jan.	-	-	-	-	-	-	-	-	29.7	-14.9	-3.8	-21.2	-14.7	-9.7	-19.3
Feb.	-	-	-	-	-	-	-	-	31.0	-14.4	-5.5	-19.5	-14.1	-9.5	-18.3
Mar.	-	-	-	-	-	-	-	-	36.5	-10.9	-5.3	-14.1	-12.3	-10.2	-14.2
Apr.	-	-	-	-	-	-	-	-	38.2	-10.1	-6.4	-12.2	-13.2	-12.9	-13.5
May	-	-	-	-	-	-	-	-	42.7	-9.7	0.1	-15.2	-12.0	-9.2	-14.6

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	-	-	-2.0	34.0	57.7	56.7	-	49.9
2014	-0.9	-1.5	1.0	-17.2	14.2	49.6	53.5	49.7	48.2
2015	-2.7	1.4	2.5	-13.3	-1.1	48.9	53.5	49.6	49.0
2016	.	.	.	.	.	.	.	.	.
2015 Q2	-1.3	3.2	2.9	-15.1	-0.9	54.7	54.4	50.4	49.0
Q3	-2.0	1.1	2.2	-12.5	-0.2	49.5	53.6	49.9	49.9
Q4	-2.1	1.9	3.7	-8.7	-0.8	45.6	53.6	49.2	49.6
2016 Q1	-4.8	0.7	3.5	-9.3	-1.7	41.5	52.5	47.7	49.0
2015 Dec.	-3.2	1.4	2.4	-7.1	0.3	47.0	53.5	49.8	49.4
2016 Jan.	-4.1	0.2	3.3	-7.9	-0.9	42.1	52.7	48.3	49.1
Feb.	-5.6	1.4	3.5	-10.4	-1.4	40.8	52.4	47.6	48.9
Mar.	-4.6	0.4	3.7	-9.6	-2.9	41.6	52.5	47.1	49.1
Apr.	-2.8	1.6	4.0	-8.9	-2.9	45.2	52.7	47.4	48.7
May	-0.7	2.2	5.8	-8.0	-2.3	47.7	55.5	48.8	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	
2013	101.4	1.4	1.5	1.1	1.2	1.9	1.8
2014	102.7	1.3	1.3	1.2	1.3	1.2	1.7
2015	104.2	1.5	1.8	0.6	1.6	1.4	1.5
2015 Q2	108.3	1.7	2.2	0.4	1.8	1.6	1.5
Q3	101.6	1.1	1.5	0.2	1.2	0.9	1.6
Q4	109.4	1.3	1.5	0.7	1.2	1.6	1.5
2016 Q1	.	.	.	.	.	.	1.4

Sources: Eurostat and ECB calculations.

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

4 Prices and costs

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

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

	Total (index: 2010 =100)	Total	By economic activity									
			Agriculture, forestry and fishing	Manu-facturing, energy and utilities	Con-struction	Trade, transport, accom-modation and food services	Information and commu-nication	Finance and insurance	Real estate	Professional, business and support services	Public ad-ministration, education, health and social work	Arts, enter-tainment and other services
	1	2	3	4	5	6	7	8	9	10	11	12
Unit labour costs												
2013	103.7	1.2	-1.2	2.1	0.3	0.9	-1.6	3.6	-2.9	1.0	1.4	2.1
2014	104.7	1.0	-4.0	1.4	0.7	0.5	0.8	1.3	1.4	2.1	1.2	0.7
2015	105.4	0.6	0.3	0.1	0.4	0.6	0.6	0.1	3.3	1.6	1.1	0.9
2015 Q1	105.1	0.8	-0.3	0.6	1.2	0.6	-0.2	-0.1	3.4	2.3	1.2	1.0
Q2	105.3	0.7	0.6	0.3	0.9	0.4	0.3	0.1	3.3	1.4	1.1	1.2
Q3	105.6	0.7	0.8	0.0	0.3	0.6	1.3	1.1	3.1	1.9	1.2	0.8
Q4	106.1	0.9	0.4	0.9	-0.2	1.4	0.8	0.5	3.3	1.1	1.5	0.7
Compensation per employee												
2013	105.2	1.6	3.7	2.7	1.2	0.8	0.6	2.0	0.0	1.1	1.6	1.8
2014	106.6	1.3	-1.6	2.0	1.7	1.2	2.0	1.7	1.6	1.6	1.0	1.2
2015	107.9	1.3	1.0	1.6	0.9	1.3	2.3	1.0	2.7	1.5	1.1	1.3
2015 Q1	107.7	1.2	0.5	1.6	0.5	1.0	1.9	1.5	3.0	1.9	1.2	1.4
Q2	107.9	1.4	0.8	1.9	0.6	1.4	2.6	1.3	1.9	1.4	1.2	1.8
Q3	108.2	1.3	0.9	1.4	1.1	1.4	2.2	1.3	2.5	1.7	1.0	1.4
Q4	108.7	1.3	2.2	1.5	1.1	1.7	2.0	0.9	3.3	1.2	1.3	0.7
Labour productivity per person employed												
2013	101.4	0.4	4.9	0.7	0.8	-0.1	2.2	-1.5	3.0	0.1	0.2	-0.3
2014	101.8	0.3	2.4	0.6	1.0	0.7	1.2	0.4	0.3	-0.5	-0.2	0.5
2015	102.4	0.6	0.7	1.5	0.5	0.7	1.7	0.9	-0.6	-0.1	0.0	0.4
2015 Q1	102.5	0.4	0.8	1.0	-0.6	0.5	2.1	1.6	-0.4	-0.4	0.0	0.3
Q2	102.5	0.7	0.2	1.6	-0.4	1.1	2.3	1.1	-1.3	0.0	0.1	0.6
Q3	102.5	0.6	0.1	1.4	0.8	0.7	1.0	0.3	-0.5	-0.2	-0.1	0.5
Q4	102.5	0.4	1.9	0.6	1.3	0.3	1.2	0.4	0.0	0.1	-0.2	0.0
Compensation per hour worked												
2013	107.2	2.3	3.7	2.9	2.6	1.8	0.8	2.5	1.5	2.2	2.1	3.0
2014	108.5	1.2	-0.4	1.8	1.5	1.3	1.8	1.7	1.2	1.2	0.7	1.3
2015	109.6	1.1	0.7	1.2	0.3	1.3	1.2	1.3	2.4	1.3	1.1	0.9
2015 Q1	109.5	1.4	1.0	1.9	0.5	1.5	1.1	2.1	2.8	2.1	1.0	0.4
Q2	109.6	1.2	0.2	1.5	0.3	1.7	1.5	1.5	0.7	1.1	1.0	1.1
Q3	109.7	1.0	0.6	1.0	0.5	1.4	1.1	1.8	1.9	1.3	0.9	0.4
Q4	110.3	1.2	1.4	0.9	0.4	1.7	1.2	1.0	3.2	1.1	1.7	0.5
Hourly labour productivity												
2013	103.5	1.2	4.7	0.9	2.3	0.7	2.6	-1.0	4.4	1.2	0.7	0.9
2014	103.8	0.3	3.6	0.4	0.9	0.8	1.0	0.5	0.7	-0.6	-0.6	0.6
2015	104.3	0.5	-0.2	1.1	-0.1	1.0	0.9	1.0	-0.9	-0.3	-0.1	0.1
2015 Q1	104.4	0.6	0.1	1.2	-0.4	1.1	1.8	2.0	-0.7	-0.2	-0.1	-0.3
Q2	104.4	0.6	-0.3	1.2	-0.7	1.6	1.5	1.3	-1.9	-0.2	-0.1	0.0
Q3	104.2	0.4	-0.6	1.1	0.3	1.0	-0.3	0.6	-1.7	-0.7	-0.3	-0.2
Q4	104.2	0.3	0.9	0.2	0.4	0.5	0.5	0.2	0.4	0.2	0.0	-0.2

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											
2013	909.7	4,476.3	5,386.1	1,683.3	2,142.8	3,826.1	9,212.1	121.4	418.1	86.5	626.0	9,838.1
2014	968.5	4,952.3	5,920.9	1,598.5	2,148.8	3,747.2	9,668.1	123.9	423.4	106.4	653.6	10,321.7
2015	1,034.5	5,569.7	6,604.1	1,448.1	2,160.6	3,608.6	10,212.8	77.1	474.2	72.9	624.3	10,837.0
2015 Q2	1,014.0	5,298.7	6,312.6	1,480.1	2,160.5	3,640.7	9,953.3	90.3	436.8	100.6	627.6	10,580.9
Q3	1,028.2	5,425.1	6,453.3	1,449.3	2,164.4	3,613.7	10,067.0	98.4	452.8	75.2	626.4	10,693.4
Q4	1,034.5	5,569.7	6,604.1	1,448.1	2,160.6	3,608.6	10,212.8	77.1	474.2	72.9	624.3	10,837.0
2016 Q1	1,051.5	5,715.1	6,766.6	1,426.9	2,163.7	3,590.5	10,357.2	88.7	463.3	89.3	641.3	10,998.5
2015 Nov.	1,037.4	5,544.1	6,581.6	1,448.3	2,162.6	3,610.8	10,192.4	91.5	480.6	83.8	655.9	10,848.3
Dec.	1,034.5	5,569.7	6,604.1	1,448.1	2,160.6	3,608.6	10,212.8	77.1	474.2	72.9	624.3	10,837.0
2016 Jan.	1,044.5	5,625.5	6,670.0	1,450.1	2,156.8	3,606.9	10,276.9	86.0	474.2	78.8	639.0	10,915.9
Feb.	1,046.9	5,669.4	6,716.2	1,430.2	2,165.1	3,595.2	10,311.4	92.6	468.1	88.3	648.9	10,960.3
Mar.	1,051.5	5,715.1	6,766.6	1,426.9	2,163.7	3,590.5	10,357.2	88.7	463.3	89.3	641.3	10,998.5
Apr. [p]	1,047.5	5,747.5	6,795.0	1,408.7	2,162.7	3,571.4	10,366.4	93.5	472.2	98.0	663.7	11,030.1
	Transactions											
2013	45.6	250.4	295.9	-114.4	45.5	-68.9	227.0	-11.6	-48.7	-63.3	-123.6	103.4
2014	58.2	379.4	437.5	-90.9	3.2	-87.7	349.8	1.0	10.8	12.8	24.6	374.4
2015	64.8	576.3	641.1	-143.3	12.0	-131.3	509.8	-47.8	48.9	-26.2	-25.2	484.6
2015 Q2	20.5	151.9	172.3	-47.6	10.9	-36.7	135.6	-35.2	4.0	4.0	-27.2	108.4
Q3	14.3	129.0	143.3	-35.3	3.1	-32.3	111.0	8.2	18.3	-18.5	8.0	119.0
Q4	6.3	128.8	135.0	-3.4	-4.0	-7.4	127.6	-21.5	21.4	-2.7	-2.8	124.8
2016 Q1	17.2	155.9	173.1	-17.0	3.3	-13.7	159.4	12.1	-10.9	14.3	15.4	174.8
2015 Nov.	7.6	48.2	55.7	7.4	-1.9	5.5	61.2	-15.7	11.8	5.1	1.3	62.5
Dec.	-3.0	31.3	28.4	1.3	-1.9	-0.6	27.8	-14.0	-6.5	-12.2	-32.7	-4.9
2016 Jan.	10.1	57.6	67.8	2.5	-3.7	-1.3	66.5	9.0	0.6	4.6	14.1	80.6
Feb.	2.4	43.1	45.5	-18.2	8.3	-10.0	35.5	6.4	-6.1	8.5	8.9	44.4
Mar.	4.7	55.2	59.9	-1.2	-1.3	-2.5	57.4	-3.4	-5.4	1.2	-7.5	49.8
Apr. [p]	-4.0	31.9	27.9	-18.6	-1.0	-19.5	8.3	4.7	8.6	8.9	22.3	30.6
	Growth rates											
2013	5.3	5.9	5.8	-6.4	2.2	-1.8	2.5	-9.2	-10.4	-38.0	-16.1	1.0
2014	6.4	8.4	8.1	-5.4	0.1	-2.3	3.8	0.8	2.6	18.7	4.0	3.8
2015	6.7	11.6	10.8	-9.0	0.6	-3.5	5.3	-38.2	11.5	-25.6	-3.9	4.7
2015 Q2	8.8	12.4	11.8	-10.7	0.5	-4.4	5.2	-30.9	6.9	24.2	0.6	4.9
Q3	8.3	12.4	11.7	-11.4	0.5	-4.7	5.2	-23.0	9.0	-0.7	0.7	4.9
Q4	6.7	11.6	10.8	-9.0	0.6	-3.5	5.3	-38.2	11.5	-25.6	-3.9	4.7
2016 Q1	5.9	11.0	10.1	-6.8	0.6	-2.4	5.4	-28.9	7.6	-2.8	-1.0	5.0
2015 Nov.	8.0	11.7	11.1	-9.9	0.3	-4.0	5.2	-29.6	12.3	7.7	2.7	5.0
Dec.	6.7	11.6	10.8	-9.0	0.6	-3.5	5.3	-38.2	11.5	-25.6	-3.9	4.7
2016 Jan.	6.1	11.4	10.5	-7.4	0.7	-2.7	5.5	-29.3	10.1	-15.8	-1.2	5.1
Feb.	5.7	11.2	10.3	-7.4	0.9	-2.6	5.4	-28.1	7.6	-12.2	-2.4	4.9
Mar.	5.9	11.0	10.1	-6.8	0.6	-2.4	5.4	-28.9	7.6	-2.8	-1.0	5.0
Apr. [p]	4.6	10.7	9.7	-7.3	0.4	-2.8	5.0	-26.9	6.5	-4.5	-1.6	4.6

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													
2013	1,710.5	1,186.7	397.8	109.8	16.2	5,413.6	2,539.7	874.7	1,994.5	4.7	804.8	194.9	300.1
2014	1,814.9	1,318.7	365.4	111.6	19.2	5,556.8	2,751.5	809.6	1,992.7	3.0	896.0	222.7	333.1
2015	1,927.4	1,480.8	321.8	116.5	8.2	5,750.9	3,060.9	694.3	1,993.1	2.6	990.0	224.5	362.5
2015 Q2	1,858.2	1,410.7	322.6	112.8	12.2	5,647.3	2,911.4	735.1	1,998.0	2.8	955.1	228.0	340.9
Q3	1,901.1	1,451.1	324.0	115.8	10.1	5,695.3	2,987.9	707.4	1,997.0	3.0	966.6	218.0	356.2
Q4	1,927.4	1,480.8	321.8	116.5	8.2	5,750.9	3,060.9	694.3	1,993.1	2.6	990.0	224.5	362.5
2016 Q1	1,986.5	1,534.8	325.6	115.9	10.1	5,832.8	3,140.3	694.3	1,995.5	2.6	980.1	220.2	374.8
2015 Nov.	1,934.2	1,486.9	321.4	116.9	9.1	5,727.8	3,033.2	698.5	1,992.2	3.9	990.3	222.4	371.7
Dec.	1,927.4	1,480.8	321.8	116.5	8.2	5,750.9	3,060.9	694.3	1,993.1	2.6	990.0	224.5	362.5
2016 Jan.	1,966.0	1,520.9	319.8	115.5	9.8	5,764.6	3,077.4	694.5	1,989.1	3.5	986.0	224.2	377.7
Feb.	1,976.9	1,530.7	320.7	116.0	9.6	5,795.2	3,102.9	693.4	1,996.0	2.9	979.4	232.1	373.5
Mar.	1,986.5	1,534.8	325.6	115.9	10.1	5,832.8	3,140.3	694.3	1,995.5	2.6	980.1	220.2	374.8
Apr. [p]	2,008.9	1,561.7	322.9	115.7	8.6	5,849.2	3,158.8	693.1	1,994.0	3.3	963.3	213.8	377.1
Transactions													
2013	98.2	90.1	-6.9	9.1	5.9	107.9	182.4	-100.1	31.9	-6.2	-15.1	-13.3	-7.8
2014	69.2	91.2	-25.9	1.5	2.4	140.7	210.0	-65.7	-1.8	-1.7	53.6	7.5	21.7
2015	100.1	140.1	-33.7	4.9	-11.2	194.5	302.4	-108.2	0.7	-0.4	76.5	-1.8	27.9
2015 Q2	13.6	32.0	-16.8	1.0	-2.6	50.9	73.5	-28.0	6.4	-1.0	11.8	2.8	0.9
Q3	42.5	41.0	0.4	3.1	-2.1	48.3	77.7	-27.7	-1.9	0.2	10.8	-10.1	13.4
Q4	14.5	18.5	-2.8	0.7	-2.0	56.1	71.9	-11.4	-3.9	-0.5	19.0	4.2	6.1
2016 Q1	64.5	58.1	4.9	-0.5	2.0	84.0	80.5	1.0	2.5	0.1	-3.4	-4.1	13.3
2015 Nov.	-7.6	-10.1	3.8	-0.1	-1.2	21.4	28.6	-5.5	-2.1	0.4	21.1	-2.4	5.5
Dec.	-3.2	-3.4	1.3	-0.3	-0.8	24.1	28.3	-3.9	1.0	-1.3	2.5	2.1	-8.8
2016 Jan.	40.2	41.2	-1.7	-0.9	1.6	14.1	16.5	0.6	-4.0	1.0	-3.5	-0.4	15.0
Feb.	10.5	9.3	1.0	0.4	-0.2	30.6	25.4	-1.0	6.8	-0.6	-6.7	7.8	-2.7
Mar.	13.8	7.6	5.6	0.0	0.6	39.4	38.7	1.4	-0.4	-0.3	6.8	-11.4	0.9
Apr. [p]	22.1	26.7	-2.9	-0.2	-1.5	16.4	18.5	-1.3	-1.5	0.7	-17.2	-6.4	2.1
Growth rates													
2013	6.1	8.2	-1.7	8.9	56.4	2.0	7.7	-10.3	1.6	-56.7	-1.9	-6.4	-2.5
2014	4.0	7.6	-6.5	1.4	14.4	2.6	8.3	-7.5	-0.1	-36.9	6.3	4.0	7.3
2015	5.5	10.6	-9.4	4.4	-57.9	3.5	11.0	-13.4	0.0	-14.2	8.4	-0.8	8.3
2015 Q2	4.3	10.6	-13.9	1.3	-23.5	3.0	10.8	-13.9	0.1	-37.8	13.6	-1.1	5.3
Q3	5.1	10.9	-12.3	2.4	-32.3	3.0	11.1	-15.5	0.0	-37.7	14.2	-4.9	5.8
Q4	5.5	10.6	-9.4	4.4	-57.9	3.5	11.0	-13.4	0.0	-14.2	8.4	-0.8	8.3
2016 Q1	7.3	10.8	-4.2	3.8	-30.8	4.3	10.7	-8.7	0.2	-30.7	4.1	-3.2	9.8
2015 Nov.	5.0	10.0	-11.0	1.9	-31.7	3.3	10.9	-14.5	0.1	-18.1	9.6	-4.7	10.9
Dec.	5.5	10.6	-9.4	4.4	-57.9	3.5	11.0	-13.4	0.0	-14.2	8.4	-0.8	8.3
2016 Jan.	6.5	10.8	-9.0	4.3	-17.6	3.7	10.5	-11.3	0.2	-12.8	9.4	-3.1	9.8
Feb.	6.5	10.5	-7.5	4.6	-29.2	4.0	10.5	-10.0	0.4	-26.4	6.9	1.8	7.8
Mar.	7.3	10.8	-4.2	3.8	-30.8	4.3	10.7	-8.7	0.2	-30.7	4.1	-3.2	9.8
Apr. [p]	8.4	12.0	-3.4	2.4	-23.5	4.3	10.5	-8.1	0.0	-6.6	0.8	-7.3	9.2

Source: ECB.

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

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

3) Including non-profit institutions serving households.

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

5 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												
2013	3,404.9	1,096.7	2,308.2	12,709.1	10,544.4	10,929.9	4,353.6	5,222.8	869.2	98.7	1,364.7	800.0
2014	3,608.4	1,132.4	2,473.8	12,562.8	10,510.7	10,921.3	4,271.6	5,200.4	909.8	128.9	1,277.4	774.7
2015	3,896.6	1,110.2	2,784.0	12,680.7	10,591.7	10,989.6	4,273.5	5,307.3	887.3	123.6	1,301.7	787.4
2015 Q2	3,683.5	1,138.0	2,543.1	12,636.8	10,592.2	10,986.4	4,291.3	5,258.5	906.8	135.5	1,255.3	789.4
Q3	3,819.0	1,127.8	2,688.9	12,653.0	10,564.8	10,963.0	4,274.9	5,277.6	891.1	121.2	1,310.9	777.3
Q4	3,896.6	1,110.2	2,784.0	12,680.7	10,591.7	10,989.6	4,273.5	5,307.3	887.3	123.6	1,301.7	787.4
2016 Q1	4,049.1	1,115.2	2,920.8	12,708.8	10,645.3	11,029.1	4,290.3	5,338.3	908.1	108.6	1,312.2	751.3
2015 Nov.	3,880.9	1,119.0	2,759.5	12,736.5	10,650.2	11,046.6	4,307.5	5,310.1	908.2	124.4	1,288.1	798.2
Dec.	3,896.6	1,110.2	2,784.0	12,680.7	10,591.7	10,989.6	4,273.5	5,307.3	887.3	123.6	1,301.7	787.4
2016 Jan.	3,967.6	1,117.2	2,848.0	12,689.5	10,617.2	11,013.4	4,289.1	5,311.7	890.8	125.5	1,306.1	766.3
Feb.	4,007.3	1,117.6	2,887.3	12,728.7	10,659.0	11,044.3	4,302.2	5,329.9	900.5	126.4	1,309.0	760.7
Mar.	4,049.1	1,115.2	2,920.8	12,708.8	10,645.3	11,029.1	4,290.3	5,338.3	908.1	108.6	1,312.2	751.3
Apr. [p]	4,095.6	1,122.8	2,959.6	12,716.7	10,652.0	11,035.6	4,293.3	5,343.7	901.4	113.6	1,317.2	747.6
Transactions												
2013	-25.0	-73.5	48.5	-305.7	-248.1	-270.7	-132.9	-4.0	-120.9	9.7	-72.7	15.1
2014	72.1	16.0	56.1	-103.9	-50.2	-33.8	-60.8	-15.4	14.3	11.7	-90.0	36.2
2015	284.2	-20.7	304.6	100.1	71.4	51.4	3.4	98.1	-24.7	-5.5	24.3	4.4
2015 Q2	58.1	-10.7	68.6	2.8	10.3	5.1	1.6	31.5	-23.8	1.0	-14.1	6.7
Q3	112.2	-10.1	122.3	54.8	-7.9	-3.7	-6.0	24.7	-12.2	-14.4	64.4	-1.6
Q4	73.5	-16.4	89.8	8.3	23.8	18.4	-0.5	22.8	-1.0	2.6	-22.4	6.9
2016 Q1	123.2	2.7	120.5	68.3	84.0	74.5	38.4	36.0	24.5	-14.9	14.2	-29.9
2015 Nov.	36.6	-1.5	38.1	18.6	35.3	31.3	12.4	8.4	14.6	0.0	-20.4	3.7
Dec.	26.9	-7.1	33.9	-26.6	-38.9	-38.3	-19.9	-0.7	-17.8	-0.5	17.1	-4.8
2016 Jan.	61.2	5.1	56.2	26.0	35.6	32.8	22.2	6.6	4.8	2.0	7.0	-16.6
Feb.	36.2	0.0	36.1	45.0	43.5	41.0	15.6	18.2	8.9	0.8	4.1	-2.7
Mar.	25.8	-2.4	28.3	-2.6	4.9	0.7	0.6	11.2	10.7	-17.7	3.2	-10.6
Apr. [p]	51.2	5.9	45.2	12.7	11.7	10.3	5.5	5.8	-4.6	5.0	4.5	-3.5
Growth rates												
2013	-0.7	-6.3	2.2	-2.3	-2.3	-2.4	-2.9	-0.1	-12.3	10.9	-5.1	1.9
2014	2.1	1.5	2.4	-0.8	-0.5	-0.3	-1.4	-0.3	1.5	11.9	-6.6	4.5
2015	7.9	-1.8	12.3	0.8	0.7	0.5	0.1	1.9	-2.7	-4.2	1.9	0.5
2015 Q2	5.1	1.6	6.7	0.2	0.6	0.3	-0.2	1.2	-1.0	17.8	-5.2	3.0
Q3	7.2	0.5	10.2	0.8	0.6	0.4	0.1	1.6	-2.0	-1.4	1.0	1.9
Q4	7.9	-1.8	12.3	0.8	0.7	0.5	0.1	1.9	-2.7	-4.2	1.9	0.5
2016 Q1	10.1	-3.0	16.0	1.1	1.0	0.9	0.8	2.2	-1.3	-19.1	3.3	-2.3
2015 Nov.	7.8	-0.7	11.7	1.2	1.2	1.0	0.7	2.0	-0.2	-1.4	-0.7	3.4
Dec.	7.9	-1.8	12.3	0.8	0.7	0.5	0.1	1.9	-2.7	-4.2	1.9	0.5
2016 Jan.	8.7	-2.5	13.7	0.9	0.8	0.6	0.5	1.9	-2.5	-9.6	2.4	-0.3
Feb.	10.1	-2.4	15.9	1.2	1.2	0.9	0.7	2.2	-1.4	-6.9	2.9	-1.4
Mar.	10.1	-3.0	16.0	1.1	1.0	0.9	0.8	2.2	-1.3	-19.1	3.3	-2.3
Apr. [p]	10.4	-2.6	16.3	1.2	1.1	0.9	0.9	2.2	-1.7	-16.4	4.1	-2.4

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									
2013	4,353.6	4,408.4	1,065.7	740.9	2,547.0	5,222.8	5,547.4	573.6	3,853.7	795.5
2014	4,271.6	4,330.9	1,080.7	720.5	2,470.4	5,200.4	5,546.2	563.3	3,861.1	776.0
2015	4,273.5	4,333.8	1,038.5	758.2	2,476.8	5,307.3	5,639.1	595.6	3,948.0	763.7
2015 Q2	4,291.3	4,347.6	1,080.8	743.1	2,467.3	5,258.5	5,589.0	578.7	3,908.9	771.0
Q3	4,274.9	4,333.8	1,058.3	745.9	2,470.7	5,277.6	5,611.3	582.4	3,926.5	768.7
Q4	4,273.5	4,333.8	1,038.5	758.2	2,476.8	5,307.3	5,639.1	595.6	3,948.0	763.7
2016 Q1	4,290.3	4,352.3	1,045.2	767.7	2,477.3	5,338.3	5,657.0	603.4	3,972.9	762.0
2015 Nov.	4,307.5	4,365.8	1,076.6	755.4	2,475.4	5,310.1	5,638.8	596.8	3,944.8	768.5
Dec.	4,273.5	4,333.8	1,038.5	758.2	2,476.8	5,307.3	5,639.1	595.6	3,948.0	763.7
2016 Jan.	4,289.1	4,352.2	1,048.9	765.6	2,474.6	5,311.7	5,642.8	596.4	3,953.2	762.1
Feb.	4,302.2	4,361.5	1,049.4	774.1	2,478.7	5,329.9	5,650.5	601.4	3,966.7	761.8
Mar.	4,290.3	4,352.3	1,045.2	767.7	2,477.3	5,338.3	5,657.0	603.4	3,972.9	762.0
Apr. [p)]	4,293.3	4,357.0	1,044.3	772.3	2,476.7	5,343.7	5,662.6	604.5	3,979.9	759.3
	Transactions									
2013	-132.9	-144.0	-44.3	-44.6	-44.0	-4.0	-17.2	-18.2	27.4	-13.2
2014	-60.8	-64.3	-14.2	2.3	-48.9	-15.4	4.7	-3.0	-3.4	-9.0
2015	3.4	8.8	-44.9	32.7	15.7	98.1	75.9	21.8	80.0	-3.6
2015 Q2	1.6	3.7	-2.7	7.7	-3.5	31.5	21.6	9.4	22.8	-0.7
Q3	-6.0	-0.8	-19.1	4.0	9.2	24.7	25.7	5.2	19.8	-0.3
Q4	-0.5	1.4	-22.1	13.5	8.1	22.8	18.1	5.1	20.0	-2.4
2016 Q1	38.4	43.4	15.6	12.7	10.2	36.0	23.0	9.1	27.0	-0.1
2015 Nov.	12.4	9.3	15.5	-2.4	-0.7	8.4	8.8	2.7	3.6	2.1
Dec.	-19.9	-18.1	-32.0	5.9	6.1	-0.7	1.6	-0.6	3.9	-4.0
2016 Jan.	22.2	23.9	13.2	6.5	2.5	6.6	5.7	1.3	6.3	-1.0
Feb.	15.6	18.6	1.4	10.0	4.2	18.2	8.9	5.1	13.1	-0.1
Mar.	0.6	0.9	0.9	-3.8	3.5	11.2	8.4	2.8	7.5	1.0
Apr. [p)]	5.5	6.4	0.0	5.1	0.5	5.8	5.6	0.9	7.1	-2.2
	Growth rates									
2013	-2.9	-3.2	-4.0	-5.6	-1.7	-0.1	-0.3	-3.0	0.7	-1.6
2014	-1.4	-1.5	-1.3	0.3	-1.9	-0.3	0.1	-0.5	-0.1	-1.1
2015	0.1	0.2	-4.1	4.5	0.6	1.9	1.4	3.8	2.1	-0.5
2015 Q2	-0.2	-0.3	-1.1	2.3	-0.5	1.2	0.6	1.8	1.6	-0.8
Q3	0.1	0.2	-2.6	3.6	0.3	1.6	1.1	2.6	1.8	-0.4
Q4	0.1	0.2	-4.1	4.5	0.6	1.9	1.4	3.8	2.1	-0.5
2016 Q1	0.8	1.1	-2.6	5.2	1.0	2.2	1.6	5.1	2.3	-0.5
2015 Nov.	0.7	0.8	-0.8	3.6	0.5	2.0	1.4	3.6	2.1	-0.1
Dec.	0.1	0.2	-4.1	4.5	0.6	1.9	1.4	3.8	2.1	-0.5
2016 Jan.	0.5	0.7	-3.0	4.8	0.8	1.9	1.4	4.0	2.1	-0.5
Feb.	0.7	1.0	-3.0	6.2	0.7	2.2	1.5	5.0	2.3	-0.3
Mar.	0.8	1.1	-2.6	5.2	1.0	2.2	1.6	5.1	2.3	-0.5
Apr. [p)]	0.9	1.2	-2.8	5.7	1.1	2.2	1.5	5.3	2.3	-0.8

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										
2013	261.7	7,311.0	2,371.2	91.5	2,507.2	2,341.1	1,146.5	150.2	183.8	121.9
2014	264.6	7,187.7	2,248.9	92.2	2,380.9	2,465.8	1,378.2	224.8	184.5	139.7
2015	278.6	7,065.8	2,184.2	79.8	2,253.1	2,548.8	1,325.0	279.1	205.9	135.6
2015 Q2	265.2	7,168.6	2,223.1	86.7	2,329.7	2,529.0	1,453.9	240.5	224.6	147.1
Q3	287.6	7,100.6	2,223.8	83.7	2,263.4	2,529.7	1,356.0	253.7	213.6	140.0
Q4	278.6	7,065.8	2,184.2	79.8	2,253.1	2,548.8	1,325.0	279.1	205.9	135.6
2016 Q1	318.8	7,027.0	2,182.9	76.8	2,174.8	2,592.6	1,279.8	306.7	247.1	152.1
2015 Nov.	296.0	7,122.9	2,189.4	80.3	2,283.4	2,569.9	1,380.0	269.8	217.7	146.0
Dec.	278.6	7,065.8	2,184.2	79.8	2,253.1	2,548.8	1,325.0	279.1	205.9	135.6
2016 Jan.	306.1	7,046.6	2,174.2	78.6	2,221.8	2,571.9	1,313.8	297.7	215.0	141.7
Feb.	294.6	7,073.5	2,185.7	77.6	2,193.4	2,616.7	1,288.2	304.2	246.6	142.5
Mar.	318.8	7,027.0	2,182.9	76.8	2,174.8	2,592.6	1,279.8	306.7	247.1	152.1
Apr. [(p)]	316.9	7,047.9	2,183.6	75.4	2,173.2	2,615.7	1,283.2	299.3	237.0	140.0
Transactions										
2013	-44.9	-80.8	-19.0	-14.3	-137.3	89.8	362.0	-53.6	32.2	43.7
2014	-5.7	-161.3	-122.3	2.0	-151.4	110.3	238.4	0.9	0.7	17.8
2015	7.8	-218.7	-104.0	-13.5	-203.8	102.5	-98.5	-12.1	21.4	-4.0
2015 Q2	-18.0	-86.1	-34.7	-3.9	-50.5	3.0	0.6	-57.1	-11.8	-13.6
Q3	22.0	-37.7	6.1	-3.1	-58.6	17.9	-64.8	1.0	-11.0	-7.1
Q4	-11.7	-57.9	-47.5	-3.9	-42.3	35.8	-36.9	10.4	-7.7	-4.3
2016 Q1	40.1	-61.5	1.4	-2.9	-49.9	-10.1	-70.9	32.8	41.3	17.3
2015 Nov.	-51.8	-11.2	-21.1	-1.9	-6.2	18.1	-15.3	-40.4	21.3	1.1
Dec.	-17.9	-12.8	-3.0	-0.5	-18.5	9.2	-32.4	-3.5	-11.7	-10.4
2016 Jan.	27.6	-33.8	-9.3	-1.1	-22.5	-0.8	-24.2	11.4	9.1	6.9
Feb.	-11.4	-13.0	11.9	-1.0	-30.8	6.9	-74.1	13.0	31.6	0.9
Mar.	23.9	-14.7	-1.2	-0.8	3.4	-16.2	27.4	8.4	0.7	9.5
Apr. [(p)]	-2.2	8.7	0.8	-1.4	-3.8	13.1	-13.5	-13.2	-10.1	-12.0
Growth rates										
2013	-14.7	-1.1	-0.8	-13.5	-5.1	3.8	-	-	10.3	23.3
2014	-2.2	-2.2	-5.2	2.2	-6.0	4.6	-	-	0.4	14.6
2015	3.2	-3.0	-4.6	-14.4	-8.4	4.1	-	-	11.6	-2.9
2015 Q2	-6.0	-3.0	-5.3	-3.4	-8.1	4.4	-	-	31.0	23.5
Q3	11.8	-3.4	-3.7	-9.1	-9.3	3.1	-	-	30.5	15.0
Q4	3.2	-3.0	-4.6	-14.4	-8.4	4.1	-	-	11.6	-2.9
2016 Q1	11.4	-3.3	-3.3	-15.2	-8.4	1.9	-	-	4.6	-4.8
2015 Nov.	10.3	-3.4	-4.9	-11.4	-8.8	3.6	-	-	18.0	11.7
Dec.	3.2	-3.0	-4.6	-14.4	-8.4	4.1	-	-	11.6	-2.9
2016 Jan.	3.4	-3.4	-4.4	-15.3	-8.8	3.3	-	-	5.7	7.0
Feb.	10.0	-3.4	-3.5	-15.4	-9.4	3.0	-	-	8.2	-1.8
Mar.	11.4	-3.3	-3.3	-15.2	-8.4	1.9	-	-	4.6	-4.8
Apr. [(p)]	17.4	-2.8	-2.7	-15.3	-7.8	2.4	-	-	12.0	4.7

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
2012	-3.7	-3.4	-0.3	0.0	0.0	-0.6
2013	-3.0	-2.6	-0.2	-0.1	-0.1	-0.2
2014	-2.6	-2.2	-0.2	0.0	-0.1	0.1
2015	-2.1	-1.9	-0.2	0.1	-0.1	0.3
2015 Q1	-2.5	.	.	.	.	0.1
Q2	-2.4	.	.	.	.	0.1
Q3	-2.1	.	.	.	.	0.4
Q4	-2.1	.	.	.	.	0.3

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
2012	46.1	45.6	12.2	12.9	15.4	0.4	49.7	45.2	10.4	5.4	3.0	22.6	4.5
2013	46.6	46.1	12.5	12.9	15.5	0.5	49.6	45.5	10.4	5.4	2.8	23.0	4.1
2014	46.8	46.3	12.5	13.1	15.5	0.5	49.3	45.4	10.3	5.3	2.7	23.1	4.0
2015	46.6	46.1	12.6	13.1	15.4	0.5	48.6	44.7	10.2	5.2	2.4	23.0	3.9
2015 Q1	46.7	46.2	12.5	13.1	15.5	0.5	49.2	45.3	10.3	5.3	2.6	23.1	3.9
Q2	46.6	46.2	12.5	13.1	15.4	0.5	49.0	45.2	10.3	5.3	2.5	23.1	3.9
Q3	46.6	46.1	12.5	13.2	15.4	0.5	48.7	45.0	10.2	5.2	2.5	23.1	3.8
Q4	46.6	46.1	12.6	13.2	15.4	0.5	48.7	44.8	10.2	5.3	2.4	23.0	3.9

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
2012	89.3	3.0	17.4	68.9	45.5	26.2	43.9	11.3	78.0	19.7	31.6	38.0	87.2	2.2
2013	91.1	2.6	17.2	71.3	46.0	26.2	45.1	10.4	80.7	19.4	32.2	39.5	89.0	2.1
2014	92.0	2.8	16.9	72.4	45.1	26.0	46.9	10.0	82.0	19.0	32.0	41.0	89.9	2.1
2015	90.7	2.8	16.1	71.7	45.7	27.5	45.0	9.4	81.3	17.8	31.8	41.1	88.6	2.1
2015 Q1	93.0	2.7	16.9	73.4	.	.	.	.	.	.	.	.	.	.
Q2	92.4	2.8	16.3	73.3	.	.	.	.	.	.	.	.	.	.
Q3	91.8	2.8	16.2	72.8	.	.	.	.	.	.	.	.	.	.
Q4	90.8	2.8	16.1	71.8	.	.	.	.	.	.	.	.	.	.

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
2012	3.4	0.6	0.0	1.0	0.3	0.3	-0.1	0.5	-1.3	0.3	2.7	5.0
2013	1.8	0.2	-0.3	-0.7	-0.4	-0.4	-0.1	0.3	-0.1	0.4	1.9	2.7
2014	0.9	-0.1	0.0	-0.2	0.2	-0.2	-0.2	0.0	0.0	0.2	1.0	2.6
2015	-1.4	-0.3	-0.8	-0.4	0.0	-0.1	-0.2	-0.1	-0.1	-0.3	-0.2	1.4
2015 Q1	0.9	-0.1	0.1	0.0	0.4	-0.1	-0.2	-0.1	0.0	0.1	0.9	2.6
Q2	-0.6	-0.1	-0.9	-1.0	-0.3	-0.3	-0.2	-0.2	0.1	0.0	0.5	1.4
Q3	-0.6	-0.4	-0.4	-0.4	0.2	-0.3	-0.1	-0.2	0.1	-0.1	0.1	1.6
Q4	-1.3	-0.3	-0.8	-0.4	0.1	-0.2	-0.1	-0.1	0.0	-0.4	-0.2	1.3

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
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
2015	14.9	12.9	4.3	2.0	0.5	6.6	2.9	1.2	0.1	3.3	3.0	0.4	1.2
2015 Q1	15.1	13.1	4.5	2.0	0.5	6.5	3.1	1.3	0.3	3.5	2.9	0.6	1.7
Q2	15.1	13.0	4.8	2.0	0.5	6.6	3.0	1.3	0.2	3.4	2.9	0.5	1.5
Q3	15.1	13.1	4.3	2.0	0.5	6.6	2.9	1.2	0.1	3.3	3.0	0.4	1.4
Q4	14.9	12.9	4.3	2.0	0.5	6.6	2.9	1.2	0.1	3.3	3.0	0.4	1.2
2015 Nov.	15.6	13.6	4.5	2.0	0.5	6.6	2.9	1.2	0.1	3.3	3.0	0.4	1.4
Dec.	14.9	12.9	4.3	2.0	0.5	6.6	2.9	1.2	0.1	3.3	3.0	0.4	1.2
2016 Jan.	15.1	13.2	5.4	2.0	0.5	6.6	2.8	1.2	0.1	3.3	3.0	0.3	1.2
Feb.	15.4	13.5	4.9	1.9	0.5	6.6	2.8	1.2	0.0	3.2	3.0	0.3	1.2
Mar.	15.6	13.7	4.8	1.9	0.5	6.6	2.8	1.2	0.0	3.2	2.8	0.3	1.1
Apr.	15.0	13.2	4.2	1.9	0.5	6.8	2.7	1.2	0.0	3.2	2.8	0.4	1.3

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 (+)								
2012	-4.2	-0.1	-0.3	-8.0	-8.8	-10.4	-4.8	-2.9	-5.8
2013	-3.0	-0.1	-0.2	-5.7	-13.0	-6.9	-4.0	-2.9	-4.9
2014	-3.1	0.3	0.8	-3.8	-3.6	-5.9	-4.0	-3.0	-8.9
2015	-2.6	0.7	0.4	-2.3	-7.2	-5.1	-3.5	-2.6	-1.0
2015 Q1	-3.2	0.4	0.5	-3.4	-4.3	-6.0	-3.9	-2.9	-0.2
Q2	-3.1	0.4	0.6	-2.5	-4.7	-5.4	-4.0	-2.9	-0.4
Q3	-2.9	0.9	0.7	-1.9	-4.4	-5.3	-3.9	-2.6	-0.9
Q4	-2.6	0.7	0.4	-2.3	-7.2	-5.1	-3.5	-2.6	-1.0
	Government debt								
2012	104.1	79.6	9.5	120.1	159.6	85.4	89.6	123.3	79.3
2013	105.2	77.2	9.9	120.0	177.7	93.7	92.4	129.0	102.5
2014	106.5	74.7	10.4	107.5	180.1	99.3	95.4	132.5	108.2
2015	106.0	71.2	9.7	93.8	176.9	99.2	95.8	132.7	108.9
2015 Q1	110.8	74.4	10.0	104.6	170.5	100.2	97.6	135.4	107.5
Q2	109.4	72.6	9.9	101.6	169.4	99.8	97.8	136.0	110.7
Q3	108.9	72.0	9.8	98.3	171.8	99.7	97.1	134.5	110.2
Q4	106.0	71.2	9.7	93.8	176.9	99.2	96.1	132.7	108.9

	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Austria	Portugal	Slovenia	Slovakia	Finland
	10	11	12	13	14	15	16	17	18	19
	Government deficit (-)/surplus (+)									
2012	-0.8	-3.1	0.3	-3.5	-3.9	-2.2	-5.7	-4.1	-4.3	-2.2
2013	-0.9	-2.6	0.8	-2.6	-2.4	-1.3	-4.8	-15.0	-2.7	-2.6
2014	-1.6	-0.7	1.7	-2.0	-2.4	-2.7	-7.2	-5.0	-2.7	-3.2
2015	-1.3	-0.2	1.2	-1.5	-1.8	-1.2	-4.4	-2.9	-3.0	-2.7
2015 Q1	-1.9	-0.7	1.1	-2.4	-2.1	-2.2	-7.1	-4.6	-2.9	-3.5
Q2	-2.1	0.4	1.3	-2.0	-2.1	-2.2	-6.4	-4.5	-2.9	-3.1
Q3	-2.1	0.1	1.2	-1.7	-2.0	-2.5	-3.1	-4.1	-2.6	-3.0
Q4	-1.3	-0.2	1.2	-1.5	-1.8	-1.2	-4.4	-2.9	-3.0	-2.7
	Government debt									
2012	41.4	39.8	22.0	67.5	66.4	81.6	126.2	53.9	52.4	52.9
2013	39.1	38.8	23.3	68.6	67.9	80.8	129.0	71.0	55.0	55.5
2014	40.8	40.7	22.9	67.1	68.2	84.3	130.2	81.0	53.9	59.3
2015	36.4	42.7	21.4	63.9	65.1	86.2	129.0	83.2	52.9	63.1
2015 Q1	35.6	38.0	22.3	68.6	69.3	85.3	130.2	82.0	54.4	60.5
Q2	35.3	37.6	21.7	67.2	67.1	86.4	128.4	81.0	54.7	62.3
Q3	36.4	38.1	21.5	66.0	66.2	86.4	130.3	84.4	53.9	61.0
Q4	36.4	42.7	21.4	63.9	65.1	86.2	129.0	83.2	52.9	63.1

Source: Eurostat.

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

This Bulletin was produced under the responsibility of the Executive Board of the ECB. Translations are prepared and published by the national central banks.

The cut-off date for the statistics included in this issue was 1 June 2016.

ISSN 2363-3417 (html)
ISSN 2363-3417 (epub)
ISSN 2363-3417 (online)
EU catalogue No QB-BP-16-004-EN-Q (html)
EU catalogue No QB-BP-16-004-EN-E (epub)
EU catalogue No QB-BP-16-004-EN-N (pdf)