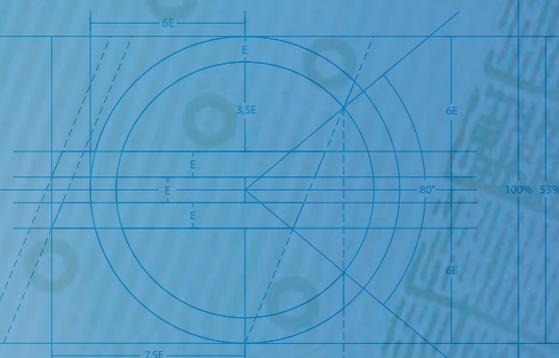




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UPDATE ON ECONOMIC AND MONETARY DEVELOPMENTS

SUMMARY

The recent decline in oil prices is supporting the global economic recovery. Nevertheless, the recovery remains gradual and economic developments vary across regions. Growth in the United States remains robust, momentum is slowing in China, and activity in Japan has not regained traction. Economic conditions in Russia have deteriorated further, but spillovers to other emerging markets remain limited to date. Global trade is showing signs of strengthening. The decline in energy prices has lowered inflation rates globally.

In euro area financial markets, short-term money market rates have declined further in an environment of increased excess liquidity, temporarily reaching new historic lows. Long-term interest rates also reached new historic lows, reflecting weak growth momentum and subdued inflation dynamics, as well as market expectations of sovereign debt purchases by the Eurosystem. At the same time euro area stock prices have increased. The exchange rate of the euro has depreciated further, both in nominal effective terms and against the US dollar.

Overall, the latest economic indicators and survey results remain consistent with a moderate economic expansion in the euro area in the short term, while the recent fall in oil prices should support growth in the longer term. Meanwhile, although labour markets have shown some further signs of improvement, unemployment remains high and unutilised capacity is expected to diminish only gradually.

Euro area HICP inflation declined significantly in December, to -0.2%. On the basis of current information, the short-term inflation outlook remains weak and annual HICP inflation is likely to stay very low or negative in the coming months. Supported by the ECB's monetary policy measures, the ongoing recovery and the assumption embedded in futures markets of a gradual increase in oil prices in the period ahead, inflation rates are expected to increase gradually later in 2015 and in 2016.

The monetary analysis indicates that the annual growth of M3 recovered further in November. The decline in loans to non-financial corporations has continued to moderate, while the growth of loans to households has stabilised at a slightly positive level. These developments have been facilitated by a broad-based and substantial reduction in lending rates recorded since summer 2014. Despite the improvement in lending conditions, as reported in the January 2015 euro area bank lending survey, credit standards still remain relatively tight. The ECB's monetary policy measures should support a further improvement in credit flows.

At its meeting on 22 January 2015, based on its regular economic and monetary analyses, the Governing Council of the ECB conducted a thorough reassessment of the outlook for price developments and of the monetary stimulus achieved so far. As a result, the Governing Council decided:

- first, to launch an expanded asset purchase programme, encompassing the existing purchase programmes for asset-backed securities and covered bonds as well as purchases of euro-denominated investment-grade securities issued by euro area governments and agencies and European institutions in the secondary market (for further details, see Box 1);
- second, to change the pricing of the six remaining targeted longer-term refinancing operations (TLTROs) by removing the 10 basis point spread over the rate on the Eurosystem's main refinancing operations that applied to the first two TLTROs;
- third, in line with its forward guidance, to keep the key ECB interest rates unchanged.



I EXTERNAL ENVIRONMENT

The recent decline in oil prices is supporting the global economic recovery. In response to a well-supplied oil market, Brent crude oil prices continued to decline sharply in December and January (see Chart 1) and stood on 21 January 2015 about 31% below the levels of early December (in US dollar terms). According to the futures curve, markets have priced in only a gradual increase in oil prices for the coming years. As lower oil prices lead to a redistribution of income from net oil producers to net oil consumers, this supports global demand, as net oil-consuming countries tend to have a higher propensity to spend.

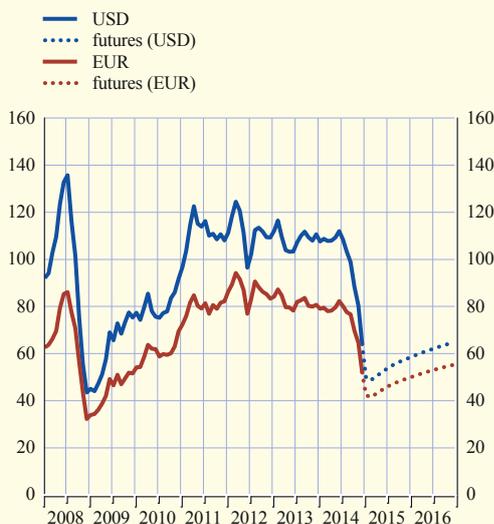
Despite the support from lower oil prices, the global economic recovery remains gradual, and surveys point to some softening in the growth momentum in the fourth quarter of 2014. The composite output Purchasing Managers' Index (PMI) excluding the euro area fell slightly in December to a level below both its long-term average and its third-quarter reading (see Chart 2).

Global trade continues to show signs of strengthening. The volume of world merchandise imports excluding the euro area increased by 3.4% on a three-month-on-three-month basis in October, moving further above its long-term average. However, the global PMI for new manufacturing export orders moderated in the final quarter of 2014.

Falling energy prices are leading to a decline in global inflation. As a result, annual consumer price inflation in the OECD area decreased further to 1.5% in November. The fall in inflation was broad-based across major economies, except for Russia, which experienced a significant increase. Annual OECD inflation excluding food and energy fell further to 1.7% in November. Given the

Chart 1 Brent crude oil prices and futures

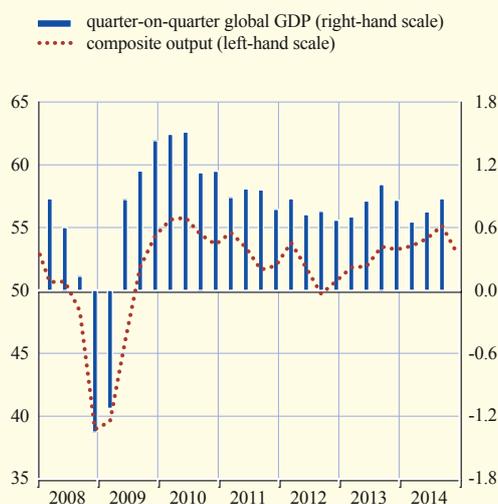
(USD or EUR per barrel)



Sources: Bloomberg and ECB staff.
Note: The futures curve is dated 21 January 2015.

Chart 2 Global composite output PMI and GDP

(left-hand side: diffusion index quarterly averages; right-hand side: percentages; quarterly data)



Sources: Markit and ECB.
Note: The latest observation is for the fourth quarter of 2014 for PMI and the third quarter of 2014 for GDP.

ongoing weakness in commodity prices, it is expected that significant downward pressures on global inflation will continue.

US activity was stronger than expected, and indicators point to robust growth in the short term.

According to the third estimate, real GDP growth increased by 1.2% quarter on quarter in the third quarter of 2014, which is the strongest growth rate in almost a decade. Recent data remained robust, suggesting only a slight moderation in growth in the final quarter of the year. On balance, the income windfall for consumers from lower oil prices is expected to more than offset the negative impact from the further strengthening of the US dollar since December, thus providing a boost to the overall outlook for the United States. At the same time falling oil prices are expected to lead to lower CPI inflation in the short term, reinforced by downward pressures from the appreciation of the US dollar. This was already reflected in a drop in annual CPI inflation to 0.8% in December from the rate of 1.7% that had prevailed since August.

As Japan's economy failed to re-gain sustained traction after the hike in VAT in April, the government announced further fiscal stimulus measures. The second data release confirmed the decline in Japanese real GDP by 0.5% quarter on quarter in the third quarter of 2014. High-frequency indicators point to a return to positive, albeit weak, growth in the fourth quarter. At the end of 2014 the government announced a stimulus package and a reduction in the effective corporate tax rate in order to support growth. Meanwhile annual consumer price inflation continued to ease to 2.4% in November, driven largely by lower energy prices.

In the United Kingdom, short-term indicators point to a slowdown in economic activity, while inflation has fallen to very low levels. While activity will be supported by higher real disposable income in view of falling energy prices, survey indicators point towards a near-term slowdown in the pace of expansion. Annual CPI inflation eased further to 0.5% in December 2014 owing to lower energy prices. At the same time annual CPI inflation excluding food and energy remained broadly stable at around 1.3%.

Growth momentum in China has slowed, and inflation remains low. Quarterly GDP growth slowed to 1.5% in the final quarter of 2014 on the back of weakness in the housing market and heavy industries. In a longer term perspective, Chinese growth continues on its path of gradual deceleration (see Box 2), although the recent drop in oil prices could provide some temporary support. Annual consumer price inflation – at 1.5% in December – is hovering at close to two and a half-year lows and is expected to decline further, reflecting both the slowdown in demand and the current weakness in commodity prices.

While the economic situation deteriorated markedly in Russia, spillovers to other emerging market economies remain limited thus far. With the fall in oil prices accelerating in December, tensions in Russian financial and foreign exchange markets intensified, triggering forceful policy action. Following a rise of 100 basis points at its regular meeting on 11 December 2014, the Central Bank of Russia increased the policy rate by a further 650 basis points to 17% on 15 December 2014. Repercussions on other emerging market economies have been comparatively limited. However, there are some signs of deterioration in the financial market indicators of countries with closer commercial links to Russia in the Commonwealth of Independent States and in Central and Eastern Europe.

2 FINANCIAL DEVELOPMENTS¹

Short-term money market rates declined further in an environment of increased excess liquidity, briefly registering a new historic low. This followed the settlement of the December 2014 targeted longer-term refinancing operation (TLTRO), the second in the series, which amounted to €129.8 billion, compared with the €82.6 billion settled in the first TLTRO in September 2014. The net liquidity injection of the second TLTRO amounted to €95 billion, contributing to a significant increase in excess liquidity. The EONIA declined from an average level of around -2 basis points in the first week of the twelfth maintenance period to an average level of around -5 basis points in the remaining four weeks (recording a new historic low of -8.5 basis points on 24 December), amid higher excess liquidity. The EONIA stood at -6.8 basis points on 21 January 2015 (see Chart 3).

Long-term interest rates in the euro area also reached new historic lows against the background of a weak economic and inflation outlook. A synthetic measure of ten-year AAA-rated euro area government bond yields showed that they declined from 0.84% on 4 December 2014 to a new historic low of 0.48% on 16 January 2015 (see Chart 4). At the end of the review period they stood at 0.54%. The decline in long-term yields reflected market expectations of a further weakening of inflation dynamics in an environment of weak growth, as well as increasing market expectations of sovereign debt purchases by the ECB. The yield on US Treasuries with a ten-year maturity (see Chart 4) recorded a decline similar to that of euro area yields, suggesting that global factors may have contributed to the decline in the synthetic measure of the ten-year AAA-rated euro area government bond yields. The spreads between sovereign bonds in Germany and other euro area

Chart 3 EONIA expectations based on the overnight index swap yield curve

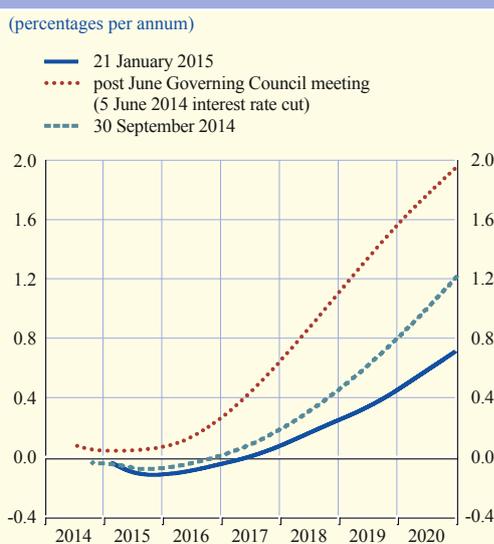


Chart 4 Ten-year government bond yields



¹ The period under review is from 4 December 2014 to 21 January 2015.

countries remained relatively stable, although in Greece political uncertainties led the spread to increase by more than 200 basis points.

In the euro area, stock prices increased in the last part of the review period. The broad-based EURO STOXX equity price index increased by 3.1% over the review period as a whole. The predominance of dampening factors, such as weak growth momentum and the political uncertainties in Greece, abated in the week of the monetary policy meeting of the Governing Council, amid market expectations of sovereign debt purchases by the ECB. Stock market uncertainty in the euro area, as measured by implied volatility, increased and ended the review period at levels that are at the higher end of the range recorded over the past two years. The stock market in the United States weakened over the review period – the Standard & Poor’s 500 index declined by 1.9% – and implied volatility increased slightly.

The euro continued to depreciate amid expectations of further diverging monetary policies in the euro area and abroad. Overall, the euro weakened by 3.4% in trade-weighted terms over the review period. In the euro area, the subdued inflation outlook and declining benchmark bond yields, which reflected, among other things, the global increase in risk aversion, weighed on the exchange rate. The euro fell by 5.8% against the US dollar, which was supported by market uncertainty in an environment of declining oil prices and heightened geopolitical tensions. The euro also continued to depreciate – albeit at a slower pace – against the pound sterling, which reached a six-year high against the single currency. Higher volatility and the decline in risk appetite supported the Japanese yen, leading the euro to decline by almost 8% against the Japanese currency. Following the announcement of the Swiss National Bank on 15 January 2015 that it would discontinue its minimum exchange rate target of 1.20 Swiss francs per euro, the euro depreciated sharply against the Swiss franc, to trade at around parity thereafter. The Danish krone continued to trade close to its central rate within ERM II, while Danmarks Nationalbank reduced interest rates twice over the review period. In contrast, a weakening of the currencies of central and eastern European countries mitigated the depreciation of the euro in effective terms. On 1 January 2015 Lithuania adopted the euro and became the 19th member of the euro area (see Box 3).

3 ECONOMIC ACTIVITY

Following six quarters of positive output growth, most recent hard data remain consistent with a further moderate economic expansion in the fourth quarter of 2014. In October and November industrial production excluding construction stood, on average, 0.3% above its third-quarter level, when production contracted by 0.4%. For the same period, construction production stood 0.5% above the figure for the third quarter, when it also recorded a decline. Recent developments in retail trade and car registrations are in line with continued positive private consumption growth in the fourth quarter, while the production of capital goods points to a modest expansion of euro area investment.

The outlook of a gradual recovery is also confirmed by more timely survey data. The euro area composite output Purchasing Managers’ Index (PMI) declined from the third quarter to the fourth quarter, mainly reflecting a weakening in sentiment for the services sector. However, the average for the fourth quarter remains consistent with moderate positive growth, signalling a continuation of the ongoing gradual recovery (see Chart 5). The economic sentiment indicator (ESI) also declined, albeit marginally, over the same period. As with the PMI, the average for the fourth quarter of the year is, however, still in line with an expansion of output.

Chart 5 Euro area real GDP, composite Purchasing Managers' Index and economic sentiment indicator

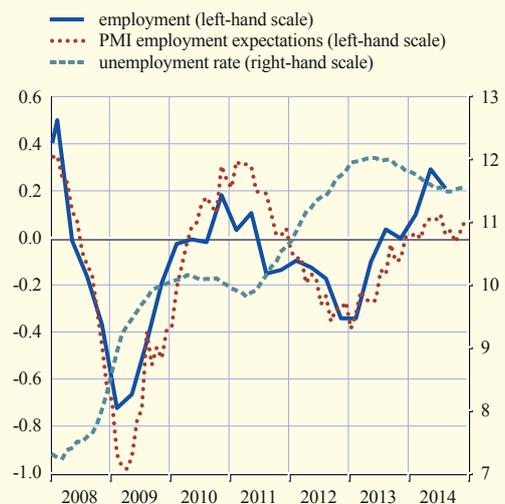
(quarter-on-quarter percentage growth; indices)



Sources: Markit, DG-ECFIN, Eurostat and ECB.
 Notes: The ESI is normalised with the mean and standard deviation of the PMI over the period since January 2000. Latest observations: third quarter of 2014 for GDP outcome, December 2014 for the economic sentiment indicator and Purchasing Managers' Index.

Chart 6 Euro area employment, Purchasing Managers' Index employment expectations and unemployment

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



Sources: Eurostat and Markit.
 Latest observations: third quarter of 2014 for employment, November 2014 for unemployment and December 2014 for the Purchasing Managers' Index.

Labour markets, while still weak, have improved somewhat further. Employment rose by 0.2% quarter on quarter in the third quarter of 2014, following an increase of 0.3% in the previous quarter (see Chart 6). The unemployment rate for the euro area, which started to decline in mid-2013, remained stable at 11.5% between August and November 2014 (see also Box 4). More timely information obtained from survey results points to a modest strengthening of labour markets in the last quarter of 2014.

Looking beyond the short term, the recent fall in oil prices should support growth, particularly domestic demand, through gains in the real disposable income of households and in firms' profits (see Box 5). Domestic demand should also be supported by the Governing Council's monetary policy measures, the ongoing improvements in financial conditions and the progress made in fiscal consolidation and structural reforms. Furthermore, demand for euro area exports should benefit from the global recovery. However, the euro area recovery is likely to continue to be dampened by high unemployment, sizeable unutilised capacity and the necessary balance sheet adjustments in the public and private sectors. The results from the latest Survey of Professional Forecasters show that private sector GDP growth forecasts were revised down for 2015, by 0.1 percentage point to 1.1%, compared with the previous survey round, while those for 2016 remained unchanged at 1.5%. At the same time, unemployment expectations remained unchanged.

4 PRICES AND COSTS

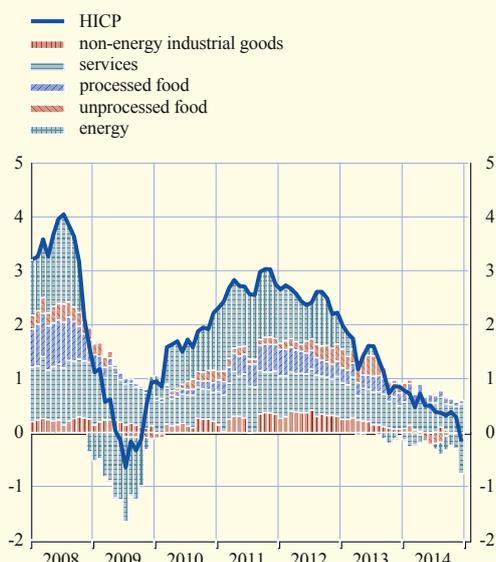
The recent fall in oil prices has led to significant downward pressures on HICP inflation (see Box 5). The annual rate of change of the euro area HICP was -0.2% in December 2014, the first negative rate recorded since October 2009, and down from 0.3% recorded in November 2014 (see Chart 7). In contrast to headline inflation, HICP excluding food and energy continued on a broadly stable path, remaining at 0.7% from October to December.

Price developments at the earlier stages of the production chain continue to signal a subdued outlook for inflation. The annual rate of industrial producer price inflation excluding construction and energy stabilised between October and November to stand at -0.2% in December. Producer price inflation for non-food consumer goods declined slightly in November. Only the annual rate of change of import prices for intermediate goods has seen the first positive recording since November 2012, which can be partly explained by the recent depreciation of the euro effective exchange rate. Pipeline pressures for HICP food have remained weak at each stage of the price chain. In November, the annual rate of change in producer prices for consumer food fell slightly, while euro area farm gate prices were also quite weak.

Labour cost growth continues to be moderate. The annual rate of change in compensation per employee for the euro area fell slightly, making a year-on-year increase of 1.3% in the third quarter of 2014, from 1.4% in the previous quarter (see Chart 8). Sectoral data indicate that the slower annual growth in compensation per employee was mainly accounted for by lower contributions from the industry and the construction sectors. The annual rate of change in unit labour costs for the euro area was marginally higher at 1.1% in the third quarter of 2014, as the deceleration in compensation per employee was more than offset by a slowdown in productivity growth.

Chart 7 Contribution of components to euro area HICP headline inflation

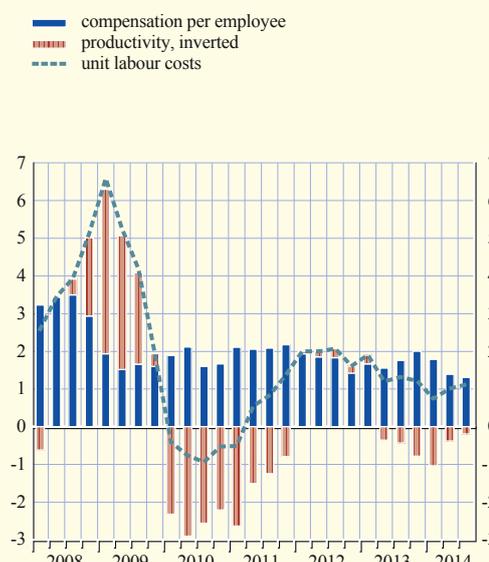
(annual percentage changes; percentage point contributions)



Sources: Eurostat and ECB calculations.
Note: The latest observation refers to December 2014.

Chart 8 Compensation per employee, productivity and unit labour costs in the euro area

(annual percentage changes)



Sources: Eurostat and ECB calculations.
Note: The latest observation is for the third quarter of 2014.

Similarly, profit margins remain weak. Profit growth (measured in terms of gross operating surplus) remained unchanged at 1.0% in the third quarter of 2014 in line with the modest recovery in economic growth. The weak dynamics reflected subdued contributions from real GDP growth and growth in profits per unit of output (a measure for profit margins). From a sectoral perspective, the subdued developments in profits are shared by the industrial and the market services sectors. Box 6 discusses these recent profit developments in further detail.

Financial market indicators of medium and long-term inflation expectations have shown signs of a weakening, while survey-based measures for longer-term expectations have remained more stable. Long-term forward inflation-linked swap rates and the five-year forward five-year ahead, bond-based break-even inflation rate declined substantially in December and early January 2015, following the sharp decline in oil prices. These measures currently stand at around 1.5-1.6%, possibly reflecting, to some extent, negative inflation risk premia. By contrast, survey-based measures for longer-term inflation expectations remain broadly unchanged. According to the ECB Survey of Professional Forecasters (SPF), for the first quarter of 2015, the average inflation expectations for 2019 were around 1.8% (see survey at: www.ecb.europa.eu/stats/prices/indic/forecast/shared/files/reports/spfreport201501.en.pdf). Shorter-term survey-based and market-based inflation expectations, as measured by inflation swap rates, have continued to decline and point to a very subdued outlook for inflation over the next two years.

On the basis of current information and prevailing futures prices for oil, annual HICP inflation is expected to remain very low or negative in the months ahead. Supported by the ECB's monetary policy measures, the expected recovery in demand and the assumption of a gradual increase in oil prices in the period ahead, inflation rates are expected to increase gradually later in 2015 and in 2016. The results from the latest SPF imply average inflation expectations of 0.3%, 1.1% and 1.5% for 2015, 2016 and 2017 respectively. The downward revisions of 0.7 percentage point for 2015 and 0.3 percentage point for 2016 mainly reflect lower oil prices.

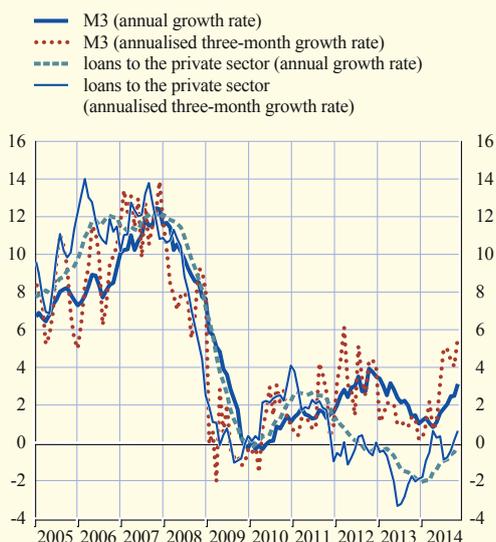
5 MONEY AND CREDIT

Money dynamics remain on a path of recovery. The annual growth rate of M3 picked up to 3.1% in November, after 2.5% in October and the trough of 0.8% in April (see Chart 9). The rate of increase over the past three months was 5% in annualised terms. The recovery of M3 growth was broad-based across countries and sectors, and reflected high inflows into overnight deposits held by both households and non-financial corporations (NFCs).

In an environment of very low interest rates, investors continue to search for yield. The low remuneration of monetary assets encourages money holders to prefer overnight deposits to other deposits or marketable instruments within M3, even though there are signs that the contraction of marketable instruments is phasing out. While some investors have moved from less liquid deposits included in M3 towards riskier assets outside M3, other investors have shifted away from longer-term financial liabilities, thereby supporting M3 growth. The annual rate of change in longer-term MFI financial liabilities (excluding capital and reserves) held by the money-holding sector declined further in November. In addition, international investors again showed a keen interest in euro area securities. In the 12 months to the end of November 2014, MFIs' net external assets increased by €315 billion. This figure largely reflects the net purchases by foreigners of securities issued by euro area residents and current account surpluses.

Chart 9 M3 and loans to the private sector

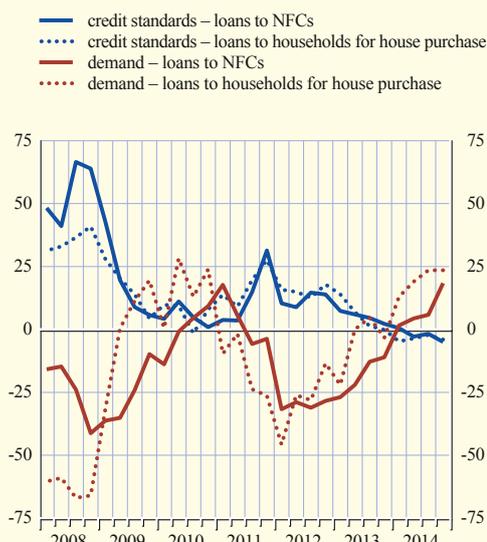
(annual rate of growth and annualised three-month growth rate)



Source: ECB.

Chart 10 Credit standards and net demand for loans to non-financial corporations and households for house purchase

(net percentages)



Source: ECB.

Loans to the private sector continue to recover gradually. The annual rate of change in MFI loans to the private sector was -0.2% in November, after -0.5% in October (see Chart 9). The gradual improvement in credit dynamics was visible across households and firms. The annual rate of change in MFI loans to NFCs (adjusted for sales and securitisation) was -1.3% in November, compared with -1.6% in October and the trough of -3.2% in February. The annual growth of loans to households increased marginally to 0.7% in November, thus remaining slightly above the average observed since early 2013. Despite these positive trends, the consolidation of bank balance sheets and further deleveraging needs in some economic sectors and banking jurisdictions still curb credit dynamics.

The reductions in bank lending rates have been sizeable since summer 2014. The overall nominal cost of external financing for euro area NFCs declined in the fourth quarter of 2014, after having stabilised in the autumn of 2014. The cost of market-based debt has continued to fall in January 2015, while the cost of equity has stabilised. The declines were due to the ECB's accommodative monetary policy stance, the decrease in banks' composite funding costs, which have stabilised close to historically low levels, and increased competition among banks for loans. Rates on loans to NFCs declined further in November, in particular in the case of long-term loans (the cost-of-borrowing indicator for euro area NFCs fell to 2.5% in November, compared with 2.8% in June). Rates on loans to households for house purchase also fell in November, (the cost-of-borrowing indicator for households for house purchase decreased to 2.6%). At the same time, the cost of deposit funding for euro area banks remained broadly stable, while yields on bank bonds declined slightly. MFI issuance of debt securities remained negative, and the ongoing contraction of balance sheets and the strengthening of the banks' capital base is reducing the need for banks to seek funding via debt securities issuance.

The January 2015 euro area bank lending survey points to improvements in lending conditions; however, credit standards remain tight from a historical perspective (see survey at: www.ecb.europa.eu/stats/pdf/blssurvey_201501.pdf). Banks continued to ease credit standards for loans to both NFCs and households (in net terms) in the fourth quarter of 2014 (see Chart 10). These positive developments were driven by improved cost of funds and balance sheet conditions, as well as by stronger competitive pressures. In addition, the impact of the targeted longer-term refinancing operations (TLTROs) on the loan supply is expected to largely translate into a narrowing of lending margins. The survey points to a pick-up in demand for loans to NFCs and consumer credit, and a continued increase in the demand for housing loans (see Chart 10). Firms' loan demand was largely driven by financing needs for fixed investment.

However, the overall growth in external financing of non-financial corporations in the euro area, viewed on an annual basis, remains relatively weak. According to the most recent euro area accounts, debt securities issuance by euro area NFCs moderated in the third quarter of 2014 but remained sufficient, together with robust equity issuance, to more than offset the declining net redemptions of bank loans. Securities issuance data for October and November suggest that the flows remain positive and support a gradual increase in the external financing of euro area NFCs.



BOXES

Box 1

THE GOVERNING COUNCIL'S EXPANDED ASSET PURCHASE PROGRAMME

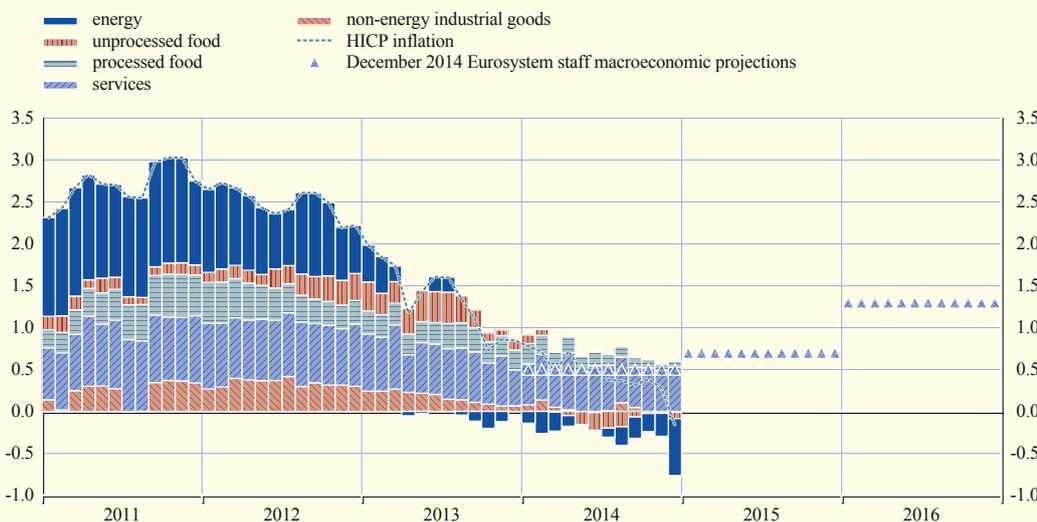
At its meeting on 22 January 2015 the Governing Council of the ECB decided to launch an expanded asset purchase programme (APP), encompassing the existing purchase programmes for asset-backed securities and covered bonds, as well as purchases of euro-denominated investment-grade securities issued by euro area governments, agencies and European institutions in the secondary market. Under this expanded programme, the combined monthly purchases of public and private sector securities will amount to €60 billion. The intention is for these purchases to be carried out until the end of September 2016, and they will, in any case, be conducted until the Governing Council sees a sustained adjustment in the path of inflation which is consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term. This box explains the rationale for the Governing Council's decision to expand its existing asset purchase programme and indicates the main transmission channels and key modalities of the APP.

Rationale for expanding the ECB's asset purchase programme

With regard to the outlook for price developments, the December 2014 Eurosystem staff projections pointed to a relatively low path for inflation until 2016 in an environment of gradual recovery. More recently, the fall in oil prices further weakened the short-term inflation outlook. In this environment, the likelihood had increased that inflation would remain too low for a prolonged period, implying risks to medium-term price stability. While the sharp fall in oil prices over recent months remains the dominant factor driving current inflation developments, measures of HICP excluding energy and food prices have also been falling since 2013 and remained relatively low in 2014 (see Chart A). Moreover, from the summer of 2014 the weaker inflation dynamics started to influence market-based measures of inflation expectations across

Chart A Annual HICP inflation and Eurosystem staff macroeconomic projections

(annual percentage changes and percentage point contributions)



Sources: Eurostat and Eurosystem staff macroeconomic projections.

a range of maturities, including at horizons at which they should normally show resilience to realised inflation observations. In January 2015 market-based inflation expectations suggested that inflation would only return to more normal levels at very extended horizons. Overall, the risk had intensified that the sequence of negative surprises to headline inflation figures would be propagated to price formation in the future.

Regarding the assessment of the monetary stimulus achieved via the monetary policy initiatives adopted between June and September 2014, the Governing Council considered two dimensions: the pass-through potential of each unit of euro liquidity introduced and the quantity of liquidity likely to be generated.

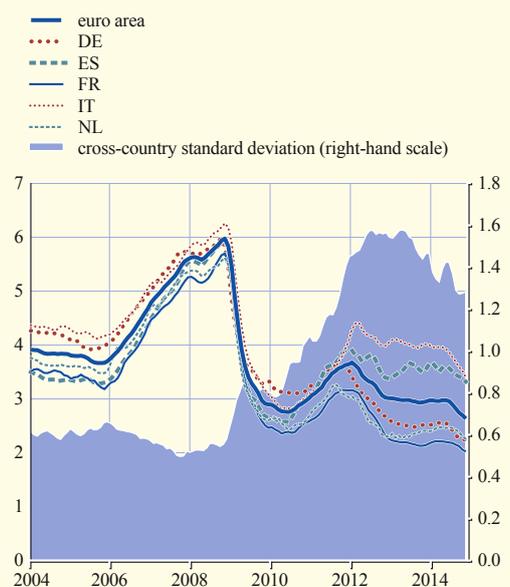
The strength of the pass-through from a given amount of liquidity injected into private sector borrowing costs has been satisfactory. This can be seen, for instance, in the downward trend of bank lending rates to non-financial corporations that started in the third quarter of 2014, coinciding with the first targeted longer-term refinancing operation (TLTRO) and the announcement of the asset-backed securities purchase programme (ABSPP) and covered bond purchase programme (CBPP-3; see Chart B). In addition, on average, over recent months net redemptions of loans to non-financial corporations have moderated from the historically high levels recorded a year ago, and net lending flows turned slightly positive in November 2014. In addition, the January 2015 Bank Lending Survey indicated a further net easing of credit standards across all loan categories in the fourth quarter of 2014.

However, the monetary policy measures did not result in a sufficient quantity of liquidity being generated. In this regard, recent measures have fallen short of the expectations regarding the expansion of the Eurosystem's balance sheet that had been entertained when the measures were calibrated with a view to fostering a more rapid return of inflation to levels below, but close to, 2%. This has weakened the overall transmission of the measures to the broader financing conditions in the economy, thereby significantly reducing the upside support that the summer 2014 measures were expected to provide to inflation in the medium term.

A forceful monetary policy response therefore became warranted. Given the weakened medium-term outlook on price stability and the quantitative shortfall of existing monetary policy measures, the Governing Council judged the prevailing degree of monetary accommodation as insufficient to adequately address the heightened risks of too prolonged a period of low inflation and to ensure that the ECB fulfils its objective of price stability.

Chart B Composite indicator of the nominal cost of bank borrowing for non-financial corporations

(percentages per annum; three-month moving averages)



Source: ECB.

Notes: The composite indicator of the cost of borrowing is calculated by aggregating short and long-term rates using a 24-month moving average of new business volumes. The cross-country standard deviation is calculated over a fixed sample of 12 euro area countries. The latest observation refers to November 2014 preliminary data.

Transmission and key modalities of the ECB's expanded asset purchase programme

With key interest rates at their lower bound, the Governing Council considered outright purchases of securities with a high potential for influencing the financing conditions faced by euro area households and firms to be warranted in view of the ECB's price stability mandate. At the lower bound for policy interest rates, the adoption of further quantitative measures that can expand the size and change the composition of the Eurosystem's balance sheet constitutes the only effective tool to provide further monetary policy accommodation. In this regard, balance sheet measures in the form of outright asset purchases allow full control to be taken of the degree of monetary stimulus. At the same time, further outright purchases should be composed of assets that both feature a high transmission potential to the real economy and are available in sufficient volumes. Purchases of investment grade bonds of euro area sovereigns are an effective instrument in this respect for at least two reasons. First, the sovereign yield curve constitutes the bedrock benchmark indicator for pricing a vast array of credit instruments and forms of external finance for the private economy, for example bank loans, corporate loans and equity. Conducting such purchases in proportions across sovereign issuers that indirectly reflect the economic weight of the various Member States in the euro area economy broadens the scope of interventions and thus amplifies their monetary impact. Second, the market for such securities is sufficiently deep and liquid to minimise the potential distortive effects of central bank action on the formation of market prices.

The APP will work through the same channels that have been shown to be associated with quantitative policies in other jurisdictions, although the relative importance of these channels may differ. The ECB's interventions underscore the Governing Council's determination to use all available tools within its mandate to address the risks of too prolonged a period of low inflation. In this way, the announcement of a significant expansion in the size and composition of the Eurosystem's balance sheet through the APP will strengthen confidence and support inflation expectations, having a direct impact on real interest rates and thus counteracting an unwarranted tightening of financial conditions. Furthermore, the ECB's interventions will reduce yields on government bonds, which will set in motion a more conventional chain of propagation channels that will support the economic recovery and help bring inflation back to levels below, but close to, 2%. These avenues work through price effects – as mentioned above, the pricing of a large variety of assets and loan contracts in the economy are a function of sovereign yields – and through quantity effects, as the additional liquidity introduced through the purchases is used by private investors to re-allocate their portfolios into a multitude of other assets that are not addressed by the central bank interventions, thereby leading to an easing of conditions across broad sources of private-sector financing.

The Governing Council decided on the purchase modalities for the APP. Purchases will be conducted at a monthly pace of €60 billion and are intended to be carried out until the end of September 2016 and, in any case, until the Governing Council sees a sustained adjustment in the path of inflation consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term. The monthly purchases will comprise purchases of asset-backed securities and covered bonds under the ABSPP and CBPP-3, as well as additional purchases of securities issued by euro area governments, agencies and EU institutions. With regard to these additional asset purchases, the Governing Council retains control over all the design features of the programme, including the purchase allocation, asset eligibility, and the pace and size of the purchases, thereby safeguarding the singleness of the Eurosystem's monetary policy.

While the ECB will coordinate the purchases, the Eurosystem will make use of decentralised implementation to mobilise its resources.

With regard to the sharing of hypothetical losses, the Governing Council decided that 20% of the additional asset purchases will be subject to loss sharing. The Governing Council decided that purchases of securities of European institutions (which will constitute 12% of the additional asset purchases and will be purchased by NCBs) will be subject to loss sharing. The rest of the NCBs' additional asset purchases will not be subject to loss sharing. The ECB will hold 8% of the additional asset purchases. This implies that 20% of the additional asset purchases will be subject to a regime of risk sharing. The arrangement underlines the choice of the monetary policy instrument that is most appropriate to achieve price stability, while taking into account the unique institutional structure of the euro area, where a common currency and single monetary policy coexists with 19 national fiscal policies. In particular, the chosen regime ensures the effectiveness of sovereign bond purchases by mitigating concerns relating to moral hazard, thereby preserving incentives for prudent fiscal policies and the necessary structural reforms.

With regard to asset eligibility, the Governing Council announced the following criteria. The Governing Council decided to buy securities that fulfil the collateral eligibility criteria for marketable assets in order to participate in Eurosystem monetary policy operations. Securities that do not achieve the specified criteria will be eligible, as long as the Eurosystem's minimum credit quality threshold is not applied for the purpose of their collateral eligibility. Moreover, in the case of euro area Member States under financial assistance programmes, eligibility will be suspended during reviews and will resume only in the event of a positive outcome.

The sizeable increase in the Eurosystem's balance sheet will further ease the monetary policy stance, and the APP will decisively underpin the firm anchoring of medium to long-term inflation expectations. Moreover, these decisions by the Governing Council will support its forward guidance on the key ECB interest rates and reinforce the fact that there are significant and increasing differences in the monetary policy cycles of major advanced economies. Taken together, these factors should strengthen demand, increase capacity utilisation, and support money and credit growth, thereby contributing to a sustained return of inflation towards a level below, but close to, 2% over the medium term.

Box 2

THE OUTLOOK FOR CHINA'S ECONOMY: RISKS, REFORMS AND CHALLENGES

China's economic growth has slowed further in 2014, continuing the moderation seen since the stimulus package implemented in the wake of the financial crisis. Cyclical factors have played a role, including the softening in global demand and monetary tightening to keep credit growth in check. But much of the slowdown has been structural as the traditional drivers of buoyant Chinese growth – favourable demographics, manufacturing exports and the country's accession to the World Trade Organization – are running out of steam.

Although economic activity has weakened, internal imbalances continue to increase – particularly the reliance on credit-driven investment to fuel growth. China's investment reached 46% of GDP in 2013 (Chart A). Judging by current trends (i.e. for the period until the third quarter of 2014), it is likely that this ratio will only decline very marginally in 2014, largely shrugging off the drop in property investment resulting from a weak housing market. Meanwhile, leveraging activity has continued to rise: since the end of 2007, China's private sector credit-to-GDP ratio has increased by over 80 percentage points and credit growth remains well in excess of nominal GDP growth, despite having moderated somewhat since early 2013 (Chart B).

Imbalances have given rise to a number of policy challenges. Corporate and local government debt has expanded significantly, helped by the rapid growth of shadow banking. In addition, there has been growing concern among analysts and policy-makers about overinvestment and the misallocation of capital across a number of industries – in particular property and related heavy industries. The housing market slowed sharply in 2014, leading to higher inventories and lower house prices. Anecdotal evidence suggests that property developers, especially smaller firms, are under pressure to consolidate or scale back activities. Prices of construction-related goods

Chart A Investment

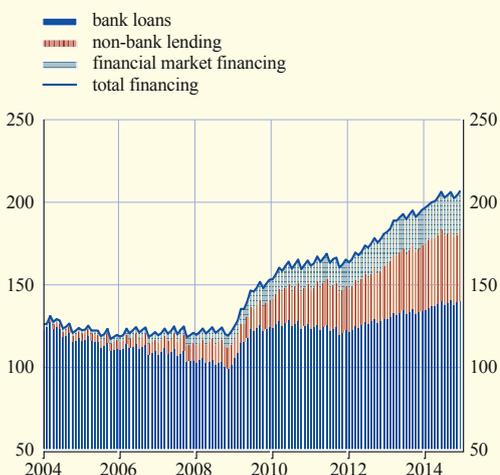
(percentage of GDP)



Source: Haver Analytics.
Note: The last observation is for 2013.

Chart B Breakdown of total financing

(percentage of GDP)



Source: People's Bank of China.
Note: The last observation is for December 2014.

(such as steel) have also fallen and PPI inflation in China has been negative since early 2012, putting pressure on profit margins in a range of heavy industries. Furthermore, fast credit expansion has led to rising non-performing loan ratios, but these are still at a low level. A number of defaults or near-defaults on bonds and other financial products, something previously unheard of in China, also point to growing tensions in the financial sector. Moreover, high and rising debt levels seem to be constraining local governments' ability to continue investing in infrastructure at the same high pace as a few years ago. It should be noted that the recent fall in oil prices is generally a positive development for China, given that it is a major net importer of oil. But this will only be significant if oil prices stay low for an extended period of time. Overall, although it is likely that China's growth will continue to decelerate gradually in the foreseeable future, in line with its declining potential, the downside risks to the economic outlook seem to have increased.

Structural reforms are needed to address vulnerabilities. A comprehensive reform agenda was announced at the end of 2013, based on a diagnosis of the structural economic challenges facing China. The broad principles underlying the agenda emphasise the need for markets to play a decisive role in allocating resources to all enterprises, regardless of whether they are in private or public ownership, with enterprises being able to compete under equal conditions. They also aim to limit the scope of government action to effective regulation and preserving macroeconomic stability, rather than micromanaging decisions by economic actors. The specific proposals are wide-ranging, including price and financial sector liberalisation, the opening up of markets to private firms and foreign competition, reform of state-owned enterprises (SOEs), fiscal reform, as well as land and household registration reform. If implemented in full, they should help reduce the medium-term risks of an abrupt slowdown in growth.

Some promising steps have been taken to date, but progress has been uneven. Substantial headway has been made in respect of financial sector reform, promoting cross-border capital flows, social security and fiscal reform, while measures to liberalise the economy and reform SOEs seem to have been more limited so far. The State Council has proposed a deposit guarantee system and approved plans to make local government debt more transparent and sustainable. Further action has been taken towards realising capital account liberalisation (the Shanghai-Hong Kong Stock Connect pilot programme being a case in point). The daily trading range of the exchange rate was increased to 2% and interest rates are gradually being liberalised. Labour mobility has also been promoted through a reform of China's hukou (household registration) system. In other areas, progress has been rather patchy. Some local governments have announced timetables for reforming SOE governance and reducing government holdings, but without clearly redefining the role of SOEs. In addition, measures to liberalise the economy appear quite modest, focusing on streamlining administrative approval processes and opening up a number of infrastructure projects and industries to private capital and foreign investment.

While important challenges remain, the Chinese authorities continue to be committed to the reform process. They have set 2020 as the deadline for implementing the bulk of reforms and they have recently reaffirmed their commitment to achieving that goal. As regards the financial sector, complementing the proposed deposit guarantee system with a clearer framework for the resolution of non-viable financial institutions will help further reduce moral hazard while allowing for more progress in interest rate liberalisation. Furthermore, dismantling administrative hurdles and investment restrictions in industries such as banking, telecommunications and energy would stimulate effective competition, enable new firms to enter the market and boost innovation and productivity, ultimately putting growth on a more sustainable footing.

Box 3

LITHUANIA ADOPTS THE EURO

On 1 January 2015 Lithuania adopted the euro and became the 19th member of the euro area. The conversion rate between the Lithuanian litas and the euro was irrevocably fixed at 3.45280 litas to the euro. This was the central rate of the Lithuanian litas throughout the country's membership of the Exchange Rate Mechanism II.

Lithuania is a very small economy compared with the rest of the euro area. As such, the country's adoption of the euro will have no significant impact on the euro area's aggregate macroeconomic data (see the table). Lithuania's population is around 3 million and its GDP accounts for about 0.4% of euro area GDP. In terms of purchasing power parity, GDP per capita was slightly below 70% of the euro area average in 2013.

Key economic characteristics of Lithuania and the euro area

	Reporting period	Unit	Euro area excluding Lithuania	Euro area including Lithuania	Lithuania
Population and economic activity					
Total population ¹⁾	2013	millions	335.8	338.8	3.0
GDP	2013	EUR billions	9,904.4	9,939.4	35.0
GDP per capita	2013	EUR thousands	29.5	29.3	11.8
GDP per capita (PPP)	2013	Euro 18=100	100.0	99.7	67.5
GDP (share of world GDP) ²⁾	2013	percentages	12.3	12.4	0.1
Value added by economic activity³⁾					
Agriculture, fishing, forestry	2013	percentage of total	1.7	1.7	3.8
Industry (including construction)	2013	percentage of total	24.6	24.6	30.7
Services (including non-market services)	2013	percentage of total	73.6	73.6	65.5
Monetary and financial indicators					
Credit to the private sector ⁴⁾	2013	percentage of GDP	128.8	128.5	45.8
Stock market capitalisation ⁵⁾	2013	percentage of GDP	56.9	56.7	9.1
External trade					
Exports of goods and services ⁶⁾	2013	percentage of GDP	43.7	43.8	84.1
Imports of goods and services ⁶⁾	2013	percentage of GDP	40.2	40.4	82.8
Current account balance ⁶⁾	2013	percentage of GDP	2.2	2.2	1.6
Labour market⁷⁾					
Labour force participation rate ⁸⁾	2014Q3	percentages	72.4	72.4	74.1
Unemployment rate	2014Q3	percentages	11.1	11.1	9.3
Employment rate ⁸⁾	2014Q3	percentages	64.4	64.4	67.2
General government					
Surplus (+) or deficit (-)	2013	percentage of GDP	-2.9	-2.9	-2.6
Revenue	2013	percentage of GDP	46.5	46.5	32.8
Expenditure	2013	percentage of GDP	49.4	49.4	35.5
Gross debt outstanding	2013	percentage of GDP	93.3	93.1	39.0

Sources: Eurostat, IMF, European Commission, ECB and ECB calculations.

1) Estimated annual average.

2) GDP shares are based on a purchasing power parity (PPP) valuation of the countries' GDP.

3) Based on nominal gross value added at basic prices.

4) Comprises loans, holdings of securities other than shares, and holdings of shares and other equities.

5) Defined as the total outstanding amount of quoted shares excluding investment funds and money market fund shares issued by euro area/Lithuanian residents at market value.

6) Balance of payments data. Euro area data are compiled on the basis of transactions with residents of countries outside the euro area (i.e. excluding intra-euro area flows). Data for Lithuania include transactions with residents from the rest of the world (i.e. including transactions with the euro area).

7) Referring to the working age population (i.e. those aged between 15 and 64). Data from the Labour Force Survey.

8) Share of the working age population (i.e. those aged between 15 and 64).

The macroeconomic imbalances that built up in the years preceding the 2007-08 crisis have been corrected thanks to measures put in place by the Lithuanian government, without any external support. Prior to 2007 credit growth and capital inflows fuelled growth in domestic demand in Lithuania, which experienced one of the EU's fastest growth rates. At the same time macroeconomic imbalances built up as the country experienced sizeable capital inflows, mainly to the non-tradable sector. The government started to implement adjustment measures in 2008 by cutting nominal wages in the public and private sectors in order to restore competitiveness. A credible and frontloaded consolidation strategy together with structural reforms also helped Lithuania's adjustment. The budget deficit was reduced from 9.4% in 2009 to 2.6% in 2013. Liquidity was provided to the banking system, combined with measures to raise capital buffers and reforms to strengthen banking supervision. The economy started to recover in 2010, led by a strengthening in exports on account of strong foreign demand and gains in competitiveness, followed by a rebound in domestic demand. Although the ratio of public debt to GDP more than doubled during the economic crisis, it stood at 39% in 2013, which is significantly below the euro area average of 93% in the same year.

More recently, economic activity has remained dynamic, with real GDP growing by 2.6% year on year in the third quarter of 2014 and positive developments in the labour market. The unemployment rate stood at 9.3%, compared with its peak of 18.2% in the second quarter of 2010. However, there has been a decline in the labour force owing to the number of people emigrating in search of work in other EU countries. This fact combined with the skill mismatching that characterises the Lithuanian labour market may lead to skill shortages and wage increases, undermining Lithuania's ability to continue to gain market shares in global trade.

Lithuania's production structure is broadly similar to that of the euro area as a whole. In the Lithuanian economy, industry (including construction) contributes around 31% to total value added. The share of services is slightly lower, at around 66%, while the contribution of the agricultural sector, at 4%, is somewhat above that of the euro area as a whole. Furthermore, Lithuania is a very open economy and its key trading partner is the rest of the euro area, which accounts for around 38% of its total exports and 40% of its total imports. Other important trading partners include Poland and Russia.

The country's financial sector is bank-dominated. Bank credit to the private sector amounted to 46% of GDP in 2013. The banking system is highly concentrated and dominated by Nordic banks, and became 90% foreign-owned after the failure of the two largest domestic banks. Meanwhile, the country's non-banking financial sector is very small and undeveloped – its stock market capitalisation, at just below 10% of GDP in 2013, is among the lowest of the euro area countries. Capital markets are small and mainly consist of government bond markets.

In order to fully reap the benefits of the euro and to allow adjustment mechanisms to operate efficiently within the enlarged currency area, Lithuania needs to continue its reform efforts after the euro has been adopted.¹ Economic policies should be geared towards maintaining price stability, ensuring the sustainability of the convergence process and sustainable growth in the long term. The Lithuanian authorities have committed to fully aligning their fiscal framework with the euro area fiscal requirements, strengthening it through the Fiscal Compact and increasing the flexibility of the economy in the face of adverse shocks. Lietuvos bankas is assuming

¹ For more details see ECB Convergence Report (2014).

macro-prudential policy powers, as the relevant law was approved by the Parliament, which will further strengthen cooperation under the European banking union and maintain financial stability. Lithuania needs to remain vigilant by implementing macro-prudential policies that avoid the emergence of any renewed financial imbalances arising after euro adoption. Despite the progress made so far in terms of structural reforms, the authorities are committed to do more in terms of further improving the business environment, investing in infrastructure needs and improving the quality of state-owned enterprises with a view to maintaining the competitiveness of the economy. Skill mismatches in the labour market need to be addressed in order to tackle the high structural unemployment by reforming the educational system and reducing the labour tax wedge. These reforms would lead to an improved labour market and contribute to potential growth. In the environment of the stability-oriented monetary policy conducted by the ECB, it is essential that Lithuania ensures an economic environment that is conducive to sustainable output and job creation in the medium to long term.

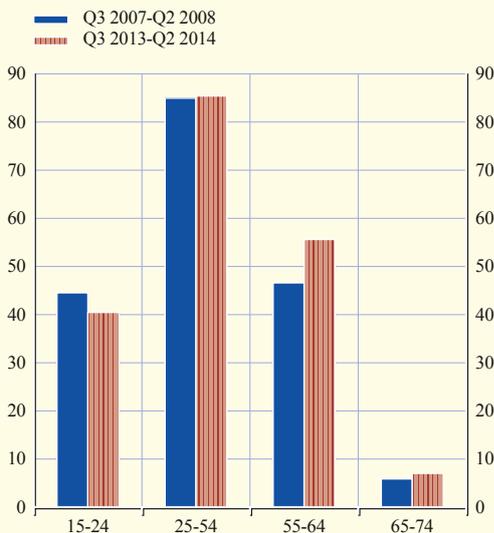
RECENT DEVELOPMENTS IN THE LABOUR FORCE PARTICIPATION RATE IN THE EURO AREA

Despite the severe recessionary periods that have affected the euro area in recent years, the labour force participation rate in the euro area has shown (atypically) positive developments. Defined as the share of the working age population that is either employed or currently seeking work, the participation rate¹ was on a rising trend in the euro area from 2000 to 2012. It then stabilised at around 64% in 2014. This box reviews recent developments in participation rates in the euro area as a whole and in the four largest euro area countries, and discusses the impact of demographic trends in comparison with other cyclical and structural factors.²

The rise in the aggregate participation rate has been driven mainly by the increase in the participation rates of older age groups (55-74), while the participation rate of younger age groups (15-24) has been falling (see Chart A). At the same time, the evolution of the population distribution was putting downward pressure on the participation rate. This is explained by the fact that the shares of the population subgroups with the lowest participation rates (those between 55 and 74 years old) have increased, whereas the shares of those with the highest participation rates (mainly the prime-age population) have decreased (see Chart B).

Chart A Developments in participation rates across age groups in the euro area

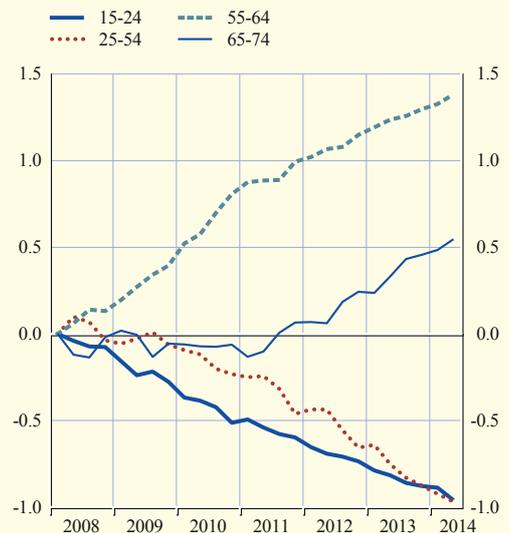
(labour force participation rates for the 15-74 age group)



Source: Eurostat, Labour Force Survey.

Chart B Developments in the shares of each population subgroup in the total working age population (aged 15-74)

(change in percentage points since the second quarter of 2008)



Source: Eurostat, Labour Force Survey.

1 This box focuses on the population aged between 15 and 74.

2 For a further discussion of factors affecting the labour force participation rate, see the box entitled "Recent developments in labour market participation in the euro area", *Monthly Bulletin*, ECB, Frankfurt am Main, November 2013.

There have been diverging developments in participation rates across the four largest euro area countries since the start of the crisis. The participation rate has risen sharply in Germany and shown a slight increase in France (see Chart C). In Spain, the participation rate continued to rise despite the heavy impact of the crisis on its labour market,³ before starting to fall at the beginning of 2013. In Italy, after declining, the participation rate started to increase again in 2012.

The rise in the German participation rate was driven mostly by changes in participation behaviour across age groups, particularly in older age groups, which might be due to the implementation of the Hartz reforms and the phasing-out of early retirement options between 2006 and 2010. From 2009 participation rates also benefited from an increase in net immigration to Germany.

In France, the small rise in the participation rate was mainly attributable to an increase in the participation rate of older age groups (driven by an increase in the retirement age). In Spain, the rise in the participation rate up to 2012 mainly reflected positive changes in participation decisions (primarily among those aged between 40 and 64), which broadly offset the negative impact of changes in the population composition. The sharp rise in the Spanish participation rate also benefited from the resilience of the upward trend in female participation (which started in the 1980s). The fall in the participation rate since 2013 to some extent reflects the outward migration of foreigners and could also be explained by the fall in the participation rate of both the youth cohorts and older (those aged between 65 and 74) cohorts. In Italy, the negative impact of changes in the population composition was broadly offset by changes in participation decisions. The sharp decline in the participation rate that started after 2008 was related to the increase in discouraged workers. From 2012 the participation rate started to rise again, partly driven by the pension reform, which foresaw a gradual increase in the retirement age and restrictions on early retirement.

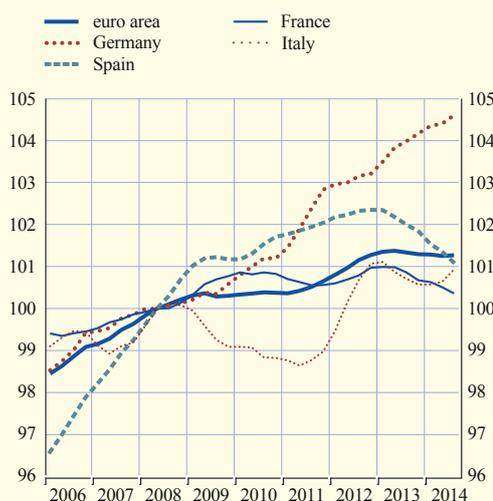
Concluding remarks

Looking ahead, the population distribution in the euro area is changing, with the share of older age groups (where participation rates are lower), in particular, increasing over time. Although higher participation rates can be expected from these older age groups (as a result of improvements in health and life expectancy, benefit reforms and retirement ages), further increases in the participation rate of all age groups will be needed if the aggregate participation rate is to continue to follow a rising trend.

3 The participation rate in Spain appears to be very resilient, whereas the unemployment rate tripled between 2008 and 2013.

Chart C Participation rates in the euro area and the four largest euro area countries

(population aged 15-74; four-quarter moving average; index: Q2 2008 = 100)



Source: Eurostat, Labour Force Survey.

THE RECENT OIL PRICE DECLINE AND THE EURO AREA ECONOMIC OUTLOOK

The recent large decline in oil prices seems to be mainly driven by supply-related factors.

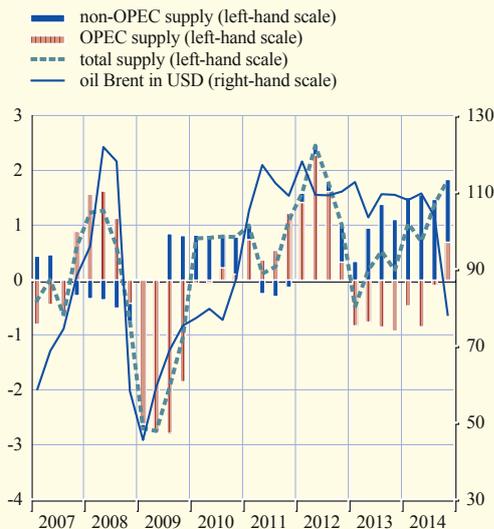
Global oil supply has been supported by growth in US shale oil production and steady production from Russia, Iraq and Libya, while OPEC decided in November not to lower its production target (see Chart A). In addition, global demand for oil has been softening and oil demand forecasts for 2014 and 2015 have been repeatedly revised downwards.¹ However, the role of demand factors in the decline of oil prices appears to have been limited. This is underlined by developments in prices of other commodities, which typically correlate strongly with economic activity and demand, and which have declined to a much lesser extent compared with oil prices (see Chart B). This suggests that oil-specific supply shocks played a dominant role.

The recent fall in oil prices should therefore be expected to support global economic activity.

Lower oil prices imply a transfer of income from net oil exporters to net oil importers. Given world production of oil of about 90 million barrels per day, a USD 60 (per barrel) oil price decline, as observed since July 2014, leads to an overall net income redistribution of approximately 2% of world GDP. As oil importers have, on average, a higher propensity to consume, global demand increases. Besides the euro area, most euro area trading partners are expected to gain from a fall in oil prices.

Chart A Global oil supply

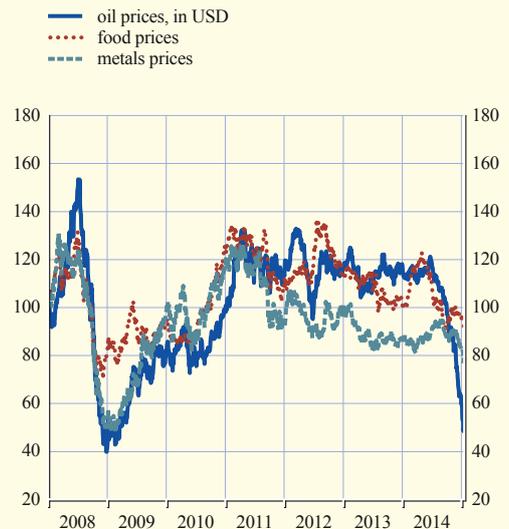
(annual changes in million barrels per day; quarterly data)



Source: International Energy Agency (IEA).

Chart B Co-movement of oil, food and metals prices

(index: 1 January 2008:100)



Source: ECB.

Note: The index for metals is composed of aluminium, lead, copper, nickel, zinc and tin.

¹ The International Energy Agency (IEA) repeatedly revised downwards projected oil demand, with 2015 global oil demand expected to decline by 0.8%.

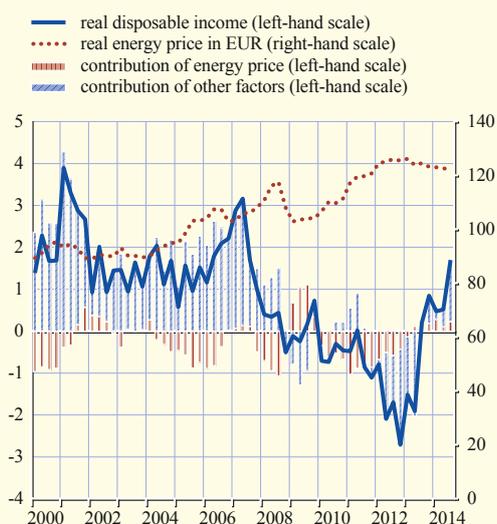
For oil importing economies such as the euro area, the recent decline in oil prices exerts significant downward pressure on HICP inflation in the near term. Direct effects are visible in consumer energy prices with a short lag as movements in upstream oil prices are generally fully passed through to pre-tax consumer prices with a lag of only around three to five weeks. Lower energy prices may also influence other prices through indirect effects, probably feeding through later.² In addition, they may trigger second-round effects in the behaviour of price and wage-setters.

Changes in oil prices affect economic activity predominantly via real disposable income and corporate profits. A decline in oil prices has typically favourable effects for economic activity, as it leads to direct increases in real disposable income and profits. At the same time, the extent to which real disposable income and profits react to declining oil prices may vary considerably, depending on the factors underlying the decline in oil prices. If oil prices fall primarily as a result of ample supply, real disposable income and profits will clearly increase. However, if weak global demand drives oil prices down, at least part of the increase in purchasing power and profitability through lower energy prices will be eroded by lower foreign demand.

Historical data confirm that real disposable income and profits react significantly to changes in oil prices. Chart C shows the development of energy prices and real disposable income. Real disposable income growth is broken down further into the gains and losses that are attributable to fluctuations in energy prices and to all other factors.³ Chart D shows the development of oil prices

Chart C Real disposable income growth and contributions

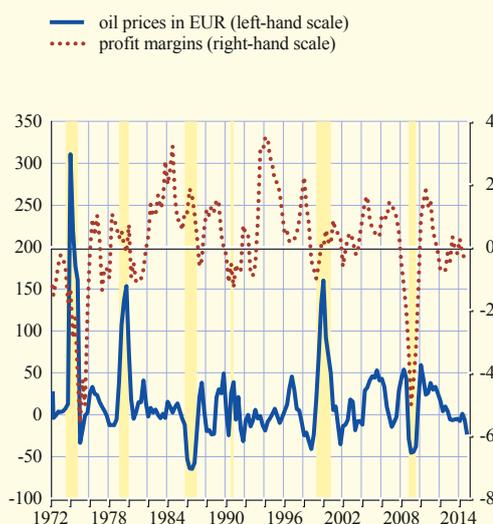
(annual percentage changes; quarterly data)



Sources: Eurostat and ECB staff calculations.
Note: The real energy price in euro is constructed using the US dollar price of Brent oil, the euro/USD exchange rate and the HICP for the euro area.

Chart D Profit margins and oil prices

(annual percentage changes; quarterly data)



Sources: Eurostat, area-wide model (AWM) database and ECB staff calculations.
Note: Yellow bars correspond to periods in which an oil price shock took place.

² See also the box entitled “Indirect effects of oil price developments on euro area inflation”, *Monthly Bulletin*, ECB, December 2014.

³ The contribution of energy price changes to the change in real disposable income equals the product of the nominal energy expenditure share and the percentage rate of change in real energy prices.

and profit margins growth, the latter approximated by GDP deflator growth minus unit labour cost growth. In the wake of the oil price hikes of 1999 and 2000, as well as those in the second half of the 2000s, real disposable income and profit margins declined. At the time of the sharp drop in oil prices in 1986, which, as with the current drop, reflected primarily ample supply, profit margins (for which data are available for a longer period) improved significantly as a consequence. By contrast, the fall in oil prices at the end of 2008 and the beginning of 2009 coincided with very weak global demand, and both real disposable income and profits declined sharply. As the recent decline in oil prices appears persistent and follows primarily from supply factors, it should support real disposable income and profits.

Overall, while the recent oil price decline is expected to significantly decrease HICP inflation in 2015, it should support euro area economic activity in 2015 and 2016. In general, the effects of oil price changes on HICP inflation should be temporary as, at present, futures markets predict a gradual increase in oil prices. If these were to materialise, the downward impact of oil prices on HICP inflation will eventually wear off and oil prices will start contributing positively to HICP inflation in 2016. Since the fall in oil prices seems to be mainly due to supply-related factors, the overall impact on euro area economic activity should be predominantly positive. This effect extends into 2016, as economic activity can generally be expected to react with a lag to lower oil prices.

Box 6

TRENDS IN PROFIT MARGINS OF EURO AREA NON-FINANCIAL CORPORATIONS

Profit margins are an important factor in the development of output prices. They are typically seen as a mark-up on costs and their evolution can thus provide a gauge for the capacity or need of firms to pass on or absorb changes in different costs or charges in their output prices. Profit margins or profit developments are also relevant for real economic developments, e.g. investment. At the aggregate level, the role of profit margins in output price developments is often approximated by developments in gross operating surplus per unit of output (in short: gross unit profits) in relation to the growth in the GDP or value added deflators. However, for the different institutional sectors of the economy, the profit measure of gross operating surplus tends to capture rather different economic forces, and it also includes components that may not correspond to the notion of profits in a more narrow sense. Against this background, this box focuses on profit developments in the non-financial corporations (NFCs) sector (which accounts for roughly half of euro area gross operating surplus) and on underlying components of gross operating surplus.¹

Profit margin developments

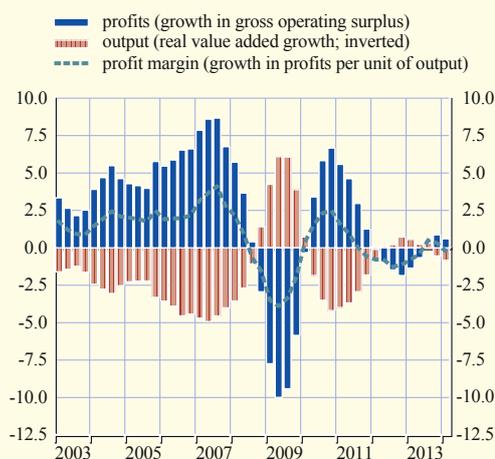
Profit margins of NFCs fell sharply during the 2008/09 recession and declined also over the past two years (see Chart A). Profit margins as measured in terms of gross unit profits are driven by the interplay between developments in gross operating surplus in the numerator and real value added as a measure of output in the denominator. Their declines during the great recession and over the past two years are explained by sharper drops in gross operating surplus than in real value added. In 2014, some improvements in real value added contributed to the decreases in gross unit profits.

Gross and net operating surplus

When activity slumped during the 2008 crisis, gross operating surplus was squeezed and since then has remained below its earlier levels. In an environment of mostly subdued developments in nominal value added, this squeeze reflects the relatively small responsiveness of compensation of employees (see Chart B). As a consequence, the profit share (in value added) moved sharply down to a level below its longer-term average, after trending upwards before the crisis

Chart A Non-financial corporations' gross unit profits and contributions

(annual percentage changes)

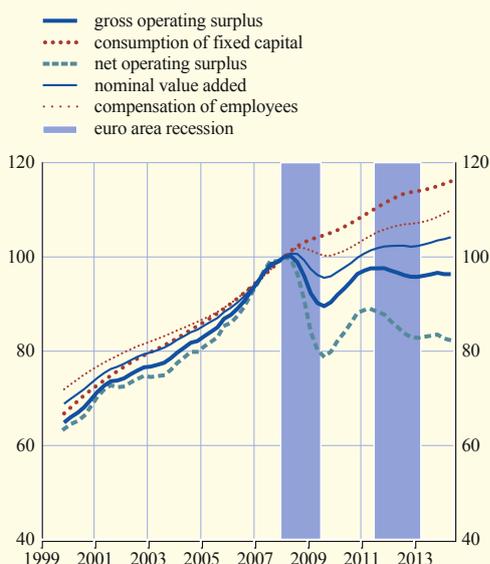


Sources: Eurostat and ECB calculations.
Note: Real value added for non-financial corporations is based on an ECB estimate.

¹ For an analysis of profits focusing on the whole economy, see the box entitled "The role of profits in shaping domestic price pressures in the euro area", *Monthly Bulletin*, ECB, March 2013. For developments in profit margins of NFCs split into euro area external deficit and surplus countries, see the box entitled "A sectoral account perspective of imbalances in the euro area", *Monthly Bulletin*, ECB, February 2012. See also the box entitled "Integrated euro area accounts for the second quarter of 2014", *Monthly Bulletin*, ECB, November 2014.

Chart B Gross and net operating surplus of non-financial corporations

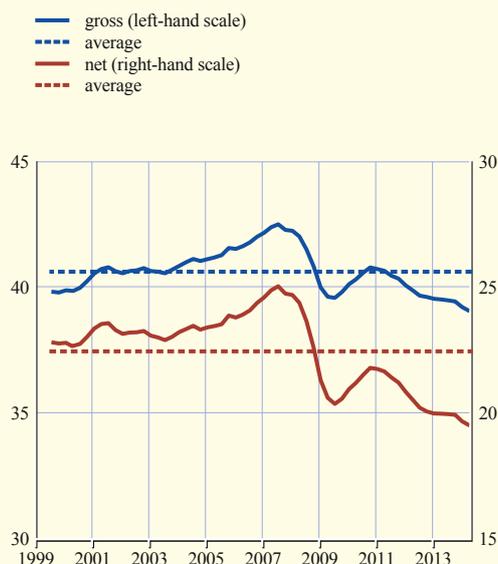
(index: Q1 2008 = 100)



Sources: Eurostat and ECB calculations.

Chart C Gross and net profit shares of non-financial corporations

(percentages of value added; average since 1999)



Sources: Eurostat and ECB calculations.

(see Chart C). Over the past two years, the profit share has continued to weaken. These patterns are more pronounced when looking at net operating surplus, given that consumption of fixed capital and the associated costs of capital services increased unabated during the crisis. The net profit share is thus more visibly below its longer-term average and has more clearly continued to decline in the past two years than the gross profit share.

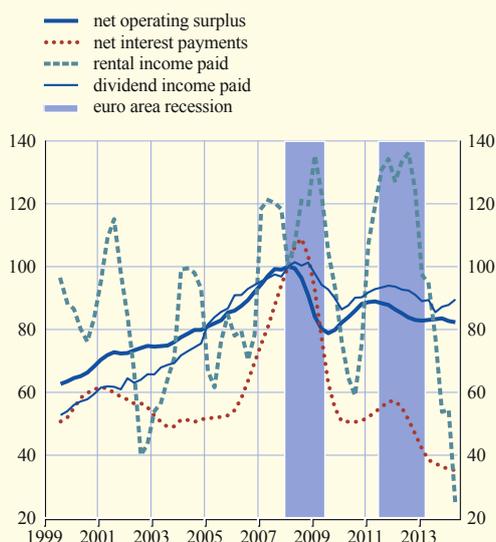
The declines in the profit shares may have different reasons. On the one hand, they reflect the fact that in the weak economic environment prevailing for most of the period since 2008, the additional increases in labour and capital services costs could not be passed on to selling prices. On the other hand, profit shares had increased substantially prior to the 2008 crisis and in this respect, it is difficult to benchmark developments in profit shares as there is no reliable gauge of a truly long-run level of these shares.

Net entrepreneurial income and net retained earnings

Net entrepreneurial income and net retained earnings have developed modestly over the past two years, but remained relatively more robust than net operating surplus. Subtracting from net operating surplus the costs for net interest payments and rental income paid and adding non-interest property income received (such as dividend income received and property income from insurance) provides the profit measure of net entrepreneurial income. Given declines in net interest payments and rental income paid in the past few years, and more recently some improvements in non-interest property income received (see Chart D), net entrepreneurial income has developed better than net operating surplus. From net entrepreneurial income, firms still have to pay, in particular, taxes on income and wealth and dividends; net retained earnings (net savings) – as a measure of the income that firms have ultimately available for additional

Chart D Non-financial corporations' net operating surplus and some components

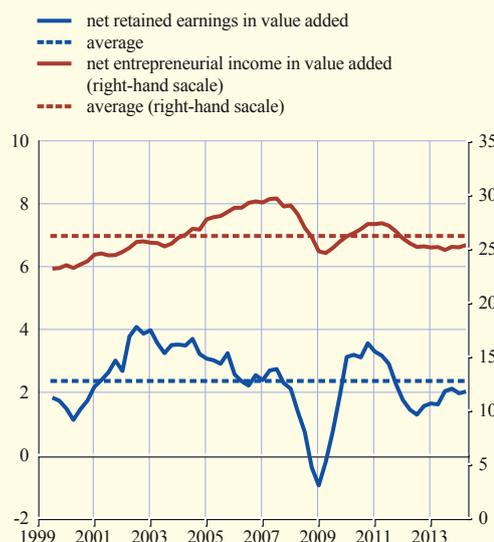
(index: Q1 2008 = 100)



Sources: Eurostat and ECB calculations.

Chart E Share of net entrepreneurial income and net retained earnings in value added for non-financial corporations

(percentages of value added; average since 1999)



Sources: Eurostat and ECB calculations.

financing – is thus smaller than net entrepreneurial income. In contrast to pure cost components such as net interest payments, dividend payments are at the discretion of companies, at least to the extent that they remain in line with shareholder value expectations. Dividend payments, therefore, provide companies with some leeway to influence their net retained earnings.² Due to lower dividend payments net retained earnings declined less than entrepreneurial income.

The shares of net entrepreneurial income and net retained earnings in value added have recently stabilised or improved slightly. This contrasts with a continued decline in the corresponding shares for gross and net operating surplus. Moreover, the shares of net entrepreneurial income and retained earnings stand slightly below the longer-term average, but not at unprecedented low levels (see Chart E). The relative movements in the variables imply that downward price pressures from net unit profits on the growth in the value added deflator over the past year do not reflect a further squeeze in unit net retained earnings but rather declines in net interest payments and dividend payments.

Conclusions

Bearing in mind that there is substantial heterogeneity across euro area countries, data for the euro area as a whole indicate that NFCs' profit margins dropped strongly as profits were squeezed by increases in labour and capital services costs in the aftermath of the 2008/2009 recession. This reflects the limited possibilities of companies to pass cost increases on to output prices in an environment of weak demand and needed competitiveness gains. Cost developments themselves have been increasing, at least relative to income, in view of low productivity growth and downward rigidities in wages.

² In this respect, net retained earnings can also reflect NFCs' choice with regard to generating external or internal financing funds, e.g. at times of constraints in access to external financing, or deleveraging pressures and the need for balance sheet repair.

However, the more narrow profit measure of net entrepreneurial income and companies' net retained earnings remained lately more robust than net profits.

This is the case as net entrepreneurial income was propped up by declines in costs such as net interest payments and as net retained earnings was supported by decreases in dividend income paid. Other profitability measures for NFCs confirm these profit developments. Measures of the return on capital, such as the ratio of entrepreneurial income to loans, bonds and equity net of cash, are currently at relatively low levels but showed some tentative signs of improvement in 2014.

Box 7

FLEXIBILITY WITHIN THE STABILITY AND GROWTH PACT

On 13 January the European Commission issued a Communication on “making the best use of the flexibility within the existing rules of the Stability and Growth Pact” as a “contribution to developing a more growth-friendly fiscal stance in the euro area”. It will be implemented with immediate effect. Without modifying existing regulations, it clarifies and at the same time extends the flexibility of applying the rules of the Stability and Growth Pact (SGP) in three major areas: (i) cyclical conditions, (ii) structural reforms and (iii) public investment. This box outlines the main elements of the Communication and its implications for surveillance under the EU’s fiscal governance framework.

The new treatment of cyclical conditions under the SGP’s preventive arm

Under Article 5(1) of Regulation (EU) No 1466/1997, which lays down the provisions for EU countries under the SGP’s preventive arm, Member States which have not yet reached their medium-term budgetary objective (MTO) are required to pursue an annual improvement in their structural budget balance of 0.5% of GDP as a benchmark. The regulation further specifies that Member States with a debt level exceeding 60% of GDP or with pronounced risks of overall debt sustainability are required to achieve an annual improvement in their structural balance that is higher than 0.5% of GDP. In particular, in assessing the appropriateness of each country’s progress towards its MTO, the Council and the Commission have to assess whether “a higher adjustment effort is made in economic good times”, whereas the effort “might be more limited in economic bad times”.

The Commission’s Communication defines “economic good times” and granulates economic developments which are worse than what is experienced in “normal times” into “bad”, “very bad” and “exceptionally bad” economic times.¹ To this end, it includes a matrix that specifies the fiscal adjustments needed, according to the size of the output gap and economic growth, for countries with government debt below 60% of GDP and for those with government debt above 60% of GDP.² According to this matrix, irrespective of the debt level, no fiscal adjustment is needed (which is equivalent to granting a waiver) in countries faced with “exceptionally bad times”, defined by negative growth or an output gap of below -4% of GDP. In addition, in “very bad times”, defined by an output gap of between -3% and -4% of GDP, the required structural effort is reduced to zero and 0.25% of GDP for countries with debt below and above 60% of GDP, respectively. This compares with requirements of 0.1% and 0.5% of GDP for these groups of countries, respectively, in the 2014 European Semester. In “normal times”, defined by an output gap of between -1.5% and 1.5% of GDP, the required structural effort is 0.5% of GDP for countries with debt below 60% of GDP and above 0.5% of GDP for countries with debt above 60% of GDP. In “good times”, defined by an output gap of above 1.5% of GDP, the required structural effort gradually increases to above 0.75% of GDP and above 1% of GDP for countries with debt below and above 60% of GDP, respectively. In this respect, the Communication goes

1 The Communication does not, however, define a severe economic downturn and thus the conditions for triggering the “general escape clause” (see Article 5(1) of Regulation (EU) No 1466/1997 and Article 3(5) of Regulation (EU) No 1467/1997), which allows structural adjustment under both the Pact’s preventive and corrective arms to be paused in the event of a severe economic downturn in the euro area or the EU as a whole as long as fiscal sustainability is not at risk.

2 As a criterion within this matrix an assessment is made as to whether the economic situation is improving or deteriorating by distinguishing whether real growth exceeds or falls short of a country-specific potential growth rate.

beyond the provisions of the existing SGP Code of Conduct, which states that “in principle, economic ‘good times’ should be identified as periods where output exceeds its potential level”, i.e. periods in which the output gap is positive and larger than zero. Compared with previous requirements applied in the review of draft budgetary plans for 2015, for example, Italy’s required structural effort under the preventive arm would be halved to 0.25% of GDP, keeping in mind that compliance with the debt rule is a binding requirement under the SGP.

However, the output gap, which largely determines the adjustment requirements under the new decision matrix, is an unobservable variable subject to considerable revisions over time. Past experience points to a negative real-time bias of the output gap of the order of 1% of GDP over the 2003-13 period.³ In particular, the boom period of 2006-07 was not identified as “economic good times” in real time. Consequently, the required fiscal adjustment towards the MTO determined by the new matrix in real time might turn out to be smaller than the adjustment that would have been warranted based on ex post data. This could undermine the aim of the Pact’s preventive arm, which is to build buffers in economic good times.

The treatment of structural reforms

Under Article 5(1) of Regulation (EU) No 1466/1997, countries may deviate from the adjustment path towards their MTO if they have implemented major structural reforms which improve long-term fiscal sustainability. The SGP Code of Conduct provides examples of major health, pension and labour market reforms but also clarifies that “only major reforms that have direct long-term positive budgetary effects” and “a verifiable positive impact on the long-term sustainability of public finances” will be taken into account. Furthermore, the Code of Conduct specifies that “only adopted reforms should be considered”. Contrary to the Code of Conduct, the Commission’s Communication provides that reforms can now also be taken into account “ex ante” on the basis of a dedicated structural reform plan presented by the Member State. This plan should contain a timeline for the adoption and delivery of the reforms. In the absence of a methodological framework to gauge the budgetary costs of structural reforms in a consistent manner across time and countries, the Commission envisages granting countries a fiscal loosening for planned structural reforms in the form of a deviation from the adjustment path towards their MTO of up to 0.5% of GDP for up to four years. It would be useful to develop a methodological framework to gauge the short-term budgetary costs of structural reforms and to link any allowance to clearly quantified costs, also given the fact that not all structural reforms entail budgetary costs.

Under the Pact’s corrective arm, i.e. the excessive deficit procedure (EDP), the Commission will take into account the existence of a dedicated structural reform plan, which must provide detailed and verifiable information as well as credible timelines for adoption and delivery, as a relevant factor when recommending opening a procedure and when setting the deadline for correction of the excessive deficit or extending that deadline. Importantly, the Commission has clarified that there is no trade-off between structural reforms and the delivery of “effective action”, i.e. countries subject to an excessive deficit procedure remain obliged to achieve their fiscal consolidation targets.

³ See also Kamps, C., Leiner-Killinger, N., Sondermann, D., De Stefani, R. and Ruffer, R., “The identification of fiscal and macroeconomic imbalances – unexploited synergies under the strengthened EU governance framework”, *Occasional Paper Series*, No 157, ECB, Frankfurt am Main, November 2014.

The treatment of public investment

The Commission's Communication has re-established the "investment clause". This was applied in 2013 and 2014 but had been discontinued for 2015, allowing countries under the SGP's preventive arm to deviate temporarily from the adjustment path towards their MTO to accommodate additional public investment. The investment clause was introduced by the Commission in 2013 by subsuming investment under the above-mentioned "major structural reform" clause of the SGP. This was controversial, as public investment is different in nature from structural reform. The clause now pertains to capital expenditure on projects co-funded by the EU, including the Structural and Cohesion Policy, the Trans-European Network and the Connecting Europe Facility as well as the newly established European Fund for Strategic Investment (EFSI)⁴. While the activation of the old investment clause hinged on negative economic developments in the EU as a whole (i.e. negative GDP growth with a negative or a large negative EU output gap forecast), the new investment clause can be activated on the basis of economic developments in the Member State concerned (either negative GDP growth or an output gap below -1.5% of GDP). As with the old investment clause, Member States need to ensure a safety margin so that the 3% of GDP deficit reference value is respected. An important condition that applied under the old investment clause has been dropped, as there is no longer any reference to compliance with the debt rule. In spring 2014 the Italian authorities' request for activation of the investment clause was rejected by the Commission on the grounds that compliance with the debt rule was not ensured.

Implications for EU fiscal surveillance

The Commission's Communication has implications for the implementation of the Pact's preventive arm in particular. Specifically, the reduction of structural adjustment requirements can be quite substantial as countries can draw on all three provisions in a cumulative manner. While the flexibility of the SGP should be used to avoid fiscal policy hampering the economic recovery and to support structural reform, it has to be carefully calibrated in order not to undermine debt sustainability and thus the credibility of the Pact and its consistent application across countries and over time. In this context the reduction of adjustment requirements also for high-debt countries increases the risk of inconsistencies with the requirements under the debt rule. To avoid the mistakes of the pre-crisis governance framework being repeated, it is also important that the debt rule, which was one of the major lessons of the crisis, is not sidelined. There is also a need for a clear methodological framework for taking into account the budgetary costs of structural reforms. It is important in this respect that structural reforms are only taken into account in the framework once they have actually been implemented.

⁴ Cash contributions to the setting-up of the EFSI will not have an impact on the deficit, but will have an impact on debt if financed through government borrowing (as has been the case for financial contributions to the ESM), which will likely be dealt with through the consideration of relevant factors within the EDP framework.

ARTICLE

GROCERY PRICES IN THE EURO AREA: FINDINGS FROM THE ANALYSIS OF A DISAGGREGATED PRICE DATASET



This article analyses the functioning of the Single Market and the determinants of price level differences across the euro area based on the main findings of an ESCB group of economists established to investigate a unique disaggregated dataset of grocery prices across euro area countries.

The results illustrate the presence of significant border effects, as prices vary substantially more across countries than within countries. In terms of factors determining price level differences across countries, there is strong evidence of market segmentation. It is shown that, in addition to consumer habits, structural features, specifically the competitive situation at the producer and retail levels, have an impact on prices and price dispersion. The analysis also sheds light on other aspects that are relevant for understanding inflation dynamics within and between countries, such as the potential implications for inflation measurement arising from the appearance of new products and retail outlets.

Overall, the analysis shows that further reform efforts that enhance entry into and improve contestability in goods markets and the distributive trades would contribute to a deepening of the Single Market.

I INTRODUCTION AND BACKGROUND

This article draws on a newly available dataset on grocery prices in the euro area, and follows up on the Eurosystem’s Structural Issues Report (SIR) 2011 on “Structural features of distributive trades and their impact on prices in the euro area”.¹ That report discussed the role of the distributive trades sector, which acts as the main interface between producers of consumer goods and consumers. The aim of the report was to analyse the structural features – particularly the degree of competition and regulatory aspects – of the distributive (i.e. wholesale and retail) trades sector and their impact on price developments in the euro area. Among the main findings was a considerable degree of price dispersion across the euro area, with evidence of a “border effect” among euro area countries, i.e. prices vary more across countries than within countries.

The findings of the 2011 SIR suggested that there was ample scope for further improving the Single Market and that further progress in improving effective competition in the distributive trades sector could help narrow price differentials: however, a number of key issues in that report could not be fully addressed owing to the lack of suitable data. First, regarding the Single Market, while the finding of the continued existence of strong border effects appeared robust, the analysis was indirect. Second, although there was some interaction between retail concentration and price dynamics, the impact of concentration on price levels could not be analysed. Lastly, although the report was able to document the emergence of discounters and private labels (i.e. own-branded products), it was not able to provide an indication of the possible impact of these structural changes on inflation measurement.

This article uses a proprietary disaggregated grocery price dataset² to investigate some of these key issues. In particular, the article seeks to: (a) achieve a better understanding of the stylised structural features of euro area grocery prices; (b) examine and quantify the degree of price dispersion and the magnitude of border effects within the euro area; (c) investigate the factors,

1 “Structural features of distributive trades and their impact on prices in the euro area”, Task Force of the Monetary Policy Committee of the European System of Central Banks, *Occasional Paper Series*, No 128, ECB, Frankfurt am Main, September 2011. See also the article entitled “Structural features of the distributive trades sectors and their impact on euro area price developments”, *Monthly Bulletin*, ECB, October 2011.

2 The proprietary data were obtained from Nielsen, an international market information and measurement company. The data are generally collected from barcode scanners.

in particular the role of competition, that determine price level differences across countries; and (d) provide some indication of the possible impact of structural developments in the distributive trades on inflation measurement.³ After describing the dataset, the article looks at some potential determinants of price level differences among euro area countries. It analyses the potential impact of the appearance of private label goods and structural shifts in store formats on the measurement of HICP inflation. The pass-through of VAT changes into consumer prices is also analysed.

The data used in this article consist of around 3.5 million observations on the price and quantity of individual products sold over the period 2009-11, disaggregated across a number of dimensions (including countries, regions, products, brands, pack sizes and store types). Prices of individual products are proxied by unit values (including VAT), i.e. calculated as total sales value over a given period divided by quantity of the product sold, while quantities are available in terms of both number of packages sold and “equivalised” units of content sold (e.g. litre, kg, etc.).⁴ The richness of the data lies in their multidimensionality: they cover 13 euro area countries⁵ – for which 70 regions and approximately ten kinds of store can be identified – as well as 45 product categories⁶, with details on four brands per product category, three stock-keeping units per brand and data on private label aggregates. The sample period spans primarily 2009-11, with 98.6% of monthly observations spanning the 37-month period from November 2008 to November 2011. While the dataset is rich and complex and has an overall estimated market coverage rate of around 75%-85%, it is unbalanced (i.e. not all information is available across all dimensions).⁷ The data were found to be representative, as they are highly congruent with both detailed country CPI data and detailed PPP data obtained from Eurostat, after controlling for pack size.

2 EURO AREA GROCERY PRICE DISPERSION WITHIN AND ACROSS COUNTRIES⁸

Although there is some empirical evidence of a reduction in price dispersion over a longer time period in the euro area,⁹ during the period under review (2009-11) price differences remain substantial across a range of goods, with evidence of only limited convergence (see Box 1).

Notwithstanding their highly disaggregated nature, the data used here present the challenge, when investigating price dispersion, of considerable heterogeneity across product categories in different countries. Brands and specifications of products sold can differ substantially.

3 In order to benefit from country-specific expertise, an expert group of economists from across the ESCB was brought together to analyse the dataset. This article draws on the work and findings of this group.

4 Prices excluding VAT have been calculated using information on VAT rates for each product category in each country.

5 The countries covered are Belgium, Germany, Estonia, Ireland, Greece, Spain, France, Italy, the Netherlands, Austria, Portugal, Slovenia and Slovakia (i.e. all euro area countries except Cyprus, Latvia, Lithuania, Luxembourg, Malta and Finland).

6 (1) 100% fruit juice; (2) all-purpose cleaners; (3) automatic dishwasher detergent; (4) baby food; (5) beer; (6) stock; (7) butter; (8) carbonated soft drinks; (9) cat food; (10) ready-to-eat cereals; (11) chewing gum; (12) chocolate; (13) cigarettes; (14) ground coffee; (15) instant coffee; (16) condoms; (17) deodorant; (18) nappies; (19) dog food; (20) fabric softener; (21) frozen fish; (22) ice cream; (23) strawberry jam; (24) laundry detergent; (25) margarine; (26) refrigerated milk; (27) UHT milk; (28) olive oil; (29) panty liners; (30) paper towels; (31) pasta/spaghetti; (32) frozen peas; (33) tinned peas; (34) rice; (35) shampoo; (36) shaving preparations; (37) sugar; (38) toilet tissue; (39) toothpaste; (40) tinned tuna; (41) vodka; (42) sparkling water; (43) still water; (44) soups; (45) whiskey.

7 This reflects the fact that the underlying data come from country offices, each with different ways of reporting the data. For example, regions or equivalised data are not reported for some product categories in some countries, etc.

8 This section draws from Reiff, A. and Rumler, F., “Within and cross-country price dispersion in the euro area”, *Working Paper Series*, No 1742, ECB, Frankfurt am Main, November 2014; Kulikov, D., “Law of One Price in the euro area: an empirical investigation using Nielsen disaggregated price data”, Working Papers of Eesti Pank 10/2014; Petroulas, P. and Kosma, T., “Analysing price level differences in the euro area”, *Working Paper Series*, ECB, Frankfurt am Main, forthcoming.

9 See, for example, Faber, R.P. and Stokman, A.C.J., “A Short History of Price Level Convergence in Europe”, *Journal of Money, Credit and Banking*, Vol. 41, No 2-3, March-April 2009, pp. 461-477.

For example, types of rice sold vary greatly between countries (e.g. boiled, risotto, paella, etc.). By contrast, for other products, such as nappies, the leading brand tends to be the same across most countries. There can be several reasons for this diversity, including a) the historical presence of brands, b) differences in domestic preferences, and c) regulations in product markets which may hinder the introduction of new brands. Moreover, the data available only cover a time span (2009-11) that includes a period of considerable economic stress in the euro area. For these reasons, the specific price differentials for individual products and countries reported in Box 1 should be considered as indicative. Furthermore, price is only one aspect of interest to consumers; other relevant features may be choice, quality and innovation.¹⁰

10 In this context, see a recent (October 2014) study prepared for the European Commission entitled “Study on the economic impact of modern retail on choice and innovation in the EU food sector”, which examines whether increased concentration (of food retailers/food brand manufacturers) or other factors (such as shop type/size, private label penetration, socio-demographic characteristics) have affected choice and innovation for the consumer in European shops. (http://ec.europa.eu/competition/sectors/agriculture/overview_en.html).

Box 1

CROSS-COUNTRY PRICE DIFFERENTIALS

While there is considerable heterogeneity across product categories with regard to price level differences across countries, there are some common features. Namely, among the products and countries in the dataset, many products in Germany, Spain and the Netherlands tend to be relatively cheap, while they are relatively expensive in Belgium, Ireland and Greece (see Table). For other countries, the rankings are more mixed across product categories.

However, some caveats should be borne in mind when using this dataset to compare price levels across countries. First, the products covered are food, personal and healthcare grocery goods; other categories, such as unprocessed food, energy, durable consumer goods or services, are not represented. Second, the sample period covers 2009-11. While some price adjustments occurred during this period in some euro area countries, additional adjustments may have been made since. Lastly, although broadly consistent, the coverage of store types differs across countries. Nonetheless, the broad features identified tend to hold for a variety of product subsamples that may be considered broadly comparable. They also hold for a very narrow subset of products that have been identified as being an exact match across countries.

During the period under review, there is substantial price dispersion with only limited convergence. The highly diverse unit prices across countries for the product categories under investigation can be seen when the median unit price difference is compared with the euro area average over time, while the median unit price difference across countries shows limited convergence. In fact, the median prices excluding VAT have shown convergence towards the euro area average only in Ireland, Greece and Austria. For branded goods, Ireland and Greece have become less expensive, with a cumulative drop of 3 and 6 percentage points respectively compared with average prices over the period 2009-11, while branded goods in Austria have become less cheap by a total of 2 percentage points (see Table).¹ It should be noted that the brand-level data on prices and volumes show that Ireland and Greece tend to be either the most

1 By contrast, countries such as Belgium and Slovakia show diverging tendencies. Moreover, if unit prices including VAT are compared, the median unit price for some countries no longer converges.

Median difference from euro area average price level (excl. VAT)

(percentages)

Countries	All goods including private label		Branded goods only	
	2009	2011	2009	2011
BE	4	7	18	19
DE	-20	-20	-11	-10
EE	-21	-20	-13	-12
IE	23	17	35	32
GR	10	5	23	17
ES	-14	-13	-3	-3
FR	-4	-3	3	5
IT	-8	-10	2	0
NL	-21	-21	-15	-15
AT	-15	-11	-5	-3
PT	-23	-22	-11	-11
SI	10	11	13	12
SK	-19	-23	-11	-15

Sources: Nielsen and Eurosystem staff calculations.
Note: Excluding tobacco and alcohol products.

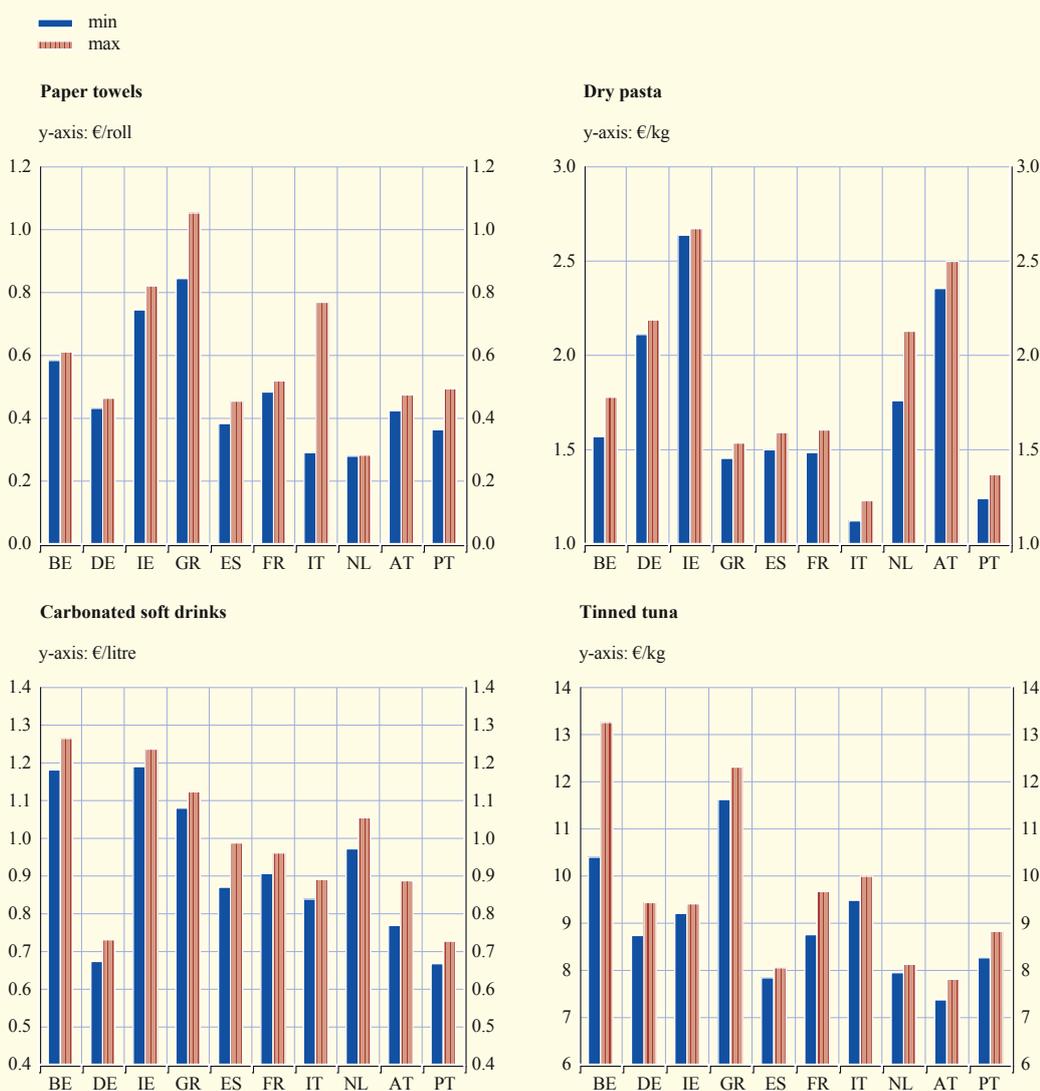
expensive or among the most expensive countries in a majority of the product categories, while Germany and Spain tend to be among the least expensive countries. This is consistent with observed differences in producer market characteristics. Namely, Greece and Ireland tend, on balance, to have higher market shares for the leading brand in most of the product categories, thus implying higher monopoly power and higher mark-ups. At the same time private label goods tend to have low shares of the market in these countries. By contrast, Germany and Spain seem to be characterised by significantly lower market shares for the leading producers and a significantly higher share of private label products. Consumer behaviour also seems to differ. On average, Greek and Irish consumers tend to buy smaller pack sizes and have lower consumption intensities of the products included in the data, while German and Spanish consumers display the opposite behaviour. For a more detailed discussion of possible factors underlying price differentials, see Section 3 of this article.

Price dispersion remains even when controlling for quality differences. In order to control – at least in part – for effects stemming from quality differences that may be reflected in prices, the unit prices of branded market leaders are also considered. By definition, market leaders in each region tend to have a broad consumption base and are characterised by good quality. They offer, in the eyes of the consumer, reasonable value for money. Moreover, for several product categories the market leaders across countries are the same producers (offering the same products). Nevertheless, even in this case the mean and median price difference between the cheapest and most expensive regions across the euro area countries is a full 220% and 181%, respectively. The price differences remain substantial, even in a comparison of the 25th and 75th percentiles.²

Price differences suggest markets may be segmented as they reflect data aggregated geographically (across urban and rural areas) and, as such, do not, in general, reflect a single expensive or cheap location. It would be more understandable if such price differences

² This country-specific clustering of prices may also reflect the impact of possible territorial supply constraints. It should be noted that the country rankings in terms of most/least expensive do not generally change, even if unit prices include VAT.

Minimum and maximum unit price (excl. VAT) for selected products for market leading (at region level) brands



Sources: Nielsen and Eurosystem staff calculations.

Note: Based on average unit prices of market leaders of branded products over the period under review. Results are similar when VAT is included.

existed between, for example, a store in the most expensive part of a large city and a store in a less affluent, primarily rural, district. Instead, it is generally the case that, when prices outside the inter-quartile (i.e. 25th to 75th percentile) range are disregarded, some countries do not figure. For example, in the case of paper towels, there are no prices from Greece (the most expensive country) or from the Netherlands (the cheapest country) inside the inter-quartile range (see Chart). Indeed, for several product categories, a country-specific price clustering is often observed, irrespective of whether or not (i) the market leader is the same across regions within a country, or (ii) the market leader is the same across countries – indicating that markets may be segmented.

Table 1 Border effect in the euro area (within versus cross-country dispersion of unit price (excluding VAT)) Coefficients of variation

Country/product samples	across countries	within countries
EMU 13*, all products	0.37	0.05
EMU 10**, branded products	0.28	0.03
EMU 10, branded products, market leaders***	0.29	0.06
Identical products	0.20	0.04

Sources: Nielsen and Eurosystem staff calculations.

*EMU 13 includes all countries in the sample of the Nielsen dataset; **EMU 10 excludes Estonia, Slovenia and Slovakia; ***Market leaders are defined as the brand within each region that has the largest quantity share for each product category.

Notwithstanding the caveats regarding the measurement of price dispersion, the regional dimension of the dataset makes it possible to obtain a more robust indication of the border effect than was feasible heretofore: cross-country dispersion is significantly higher than cross-regional variation within countries, suggesting substantial border effects in the euro area. This result confirms the indirect evidence of border effects reported in the SIR 2011, which used purchasing power parity (PPP) data (see Box 2 for a comparison). Price dispersion of unit prices is investigated by using coefficients of variation, defined as the standard deviation of a unit price for a product over the mean unit price for that product. Cross-country price dispersion is about five to seven times higher than within-country price dispersion, irrespective of whether one considers the full sample of products or varieties of product subsamples that may be broadly comparable or even identical (see Table 1). For the full range of products in the dataset (including private label goods), the average unit price dispersion is 37% across countries, compared with an average price dispersion of about 5% across regions within a country. Even for the set of identical products, the average unit price dispersion for the exact same product is 20% across countries and 4% within countries.

Box 2

BORDER EFFECTS – EVIDENCE FROM PPP DATA

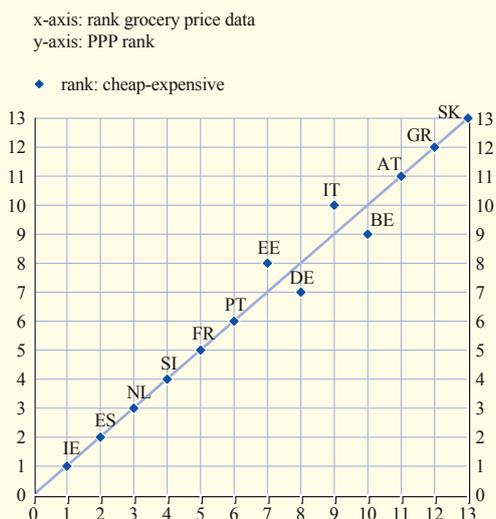
This box considers evidence on border effects from another data source – Eurostat’s purchasing power parity (PPP) dataset. Detailed product-level data, derived from so-called “Quaranta tables” that are used to validate raw price data and for quality control purposes, are utilised. This exercise has three benefits. First, it demonstrates the congruity of the disaggregated price dataset utilised in the rest of this article. Second, it illustrates that the border effect documented in the SIR 2011 using data from 2009 is still present in updated data (from 2012 and 2013). Third, it allows for a comparison with the same product types (food and beverages) and with another product group (home and garden, such as home electronics, paint, toys).¹

Despite substantial methodological differences, the two (disaggregated grocery price and PPP) datasets are highly congruent. Although the PPP dataset generally only includes data collected in capital cities (with some exceptions)², Charts A and B show that for two selected product types (a well-known ready-to-eat cereal brand and refrigerated milk), the ranking of prices across countries is almost identical to that seen in the disaggregated price dataset used in the main

1 These product categories are an important element of consumers’ goods baskets. Food accounts for 20% of the overall HICP, while home and garden products account for around 13%, which is almost half of the non-energy industrial goods component. In addition, they concern strongly traded product categories and are therefore good test cases for the impact of national borders.

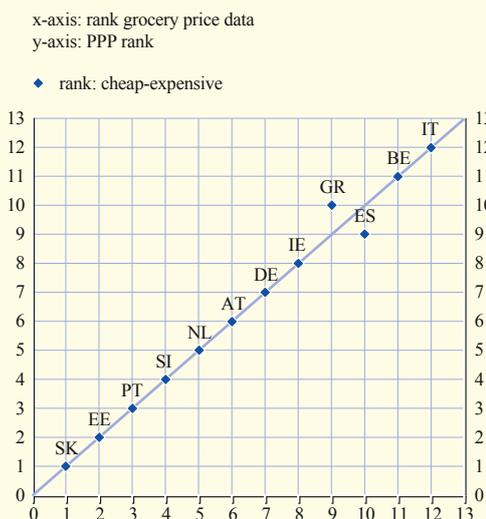
2 In Germany, data are collected for four cities (Berlin, Bonn, Karlsruhe and Munich).

Chart A Rank of prices – cereals ready to eat (specific brand)



Sources: Eurostat PPP database, Nielsen and Eurosystem staff calculations.

Chart B Rank of prices – milk (refrigerated)



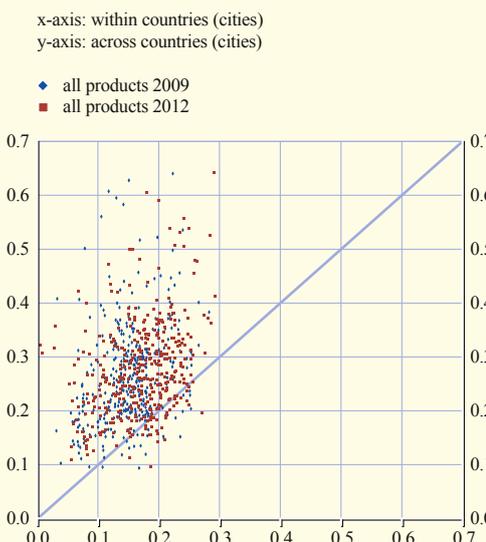
Sources: Eurostat PPP database, Nielsen and Eurosystem staff calculations.

text of this article. Although there are some deviations, these tend to be relatively minor and may relate to technical factors, such as pack size preferences across countries (see Section 3 of this article for a more detailed discussion).

The border effect as documented in the SIR 2011 in food, beverage and tobacco products has remained largely unchanged.

Chart C shows the variation in prices within countries/capital cities and across countries/capital cities in the countries of the euro area for 400 detailed food, beverage and tobacco products in both 2009 and 2012. The impact of national borders is clearly visible, since the variation of prices is almost always larger across countries than within countries. This result also holds if only named brands are considered; this allows us to control for potential quality differentials. The SIR 2011 also confirmed that this larger variation across borders was not the mere

Chart C Dispersion of food and beverage prices within and across countries



Sources: Eurostat PPP database, Nielsen and Eurosystem staff calculations.

result of geographical distance, as while price dispersion across four (fairly near) capital cities is lower than the euro area average, it is much higher than across four large German cities that are geographically much further apart. Thus, the findings of Reiff and Rumler³ – that although distance matters, borders matter more – appear to be robust.

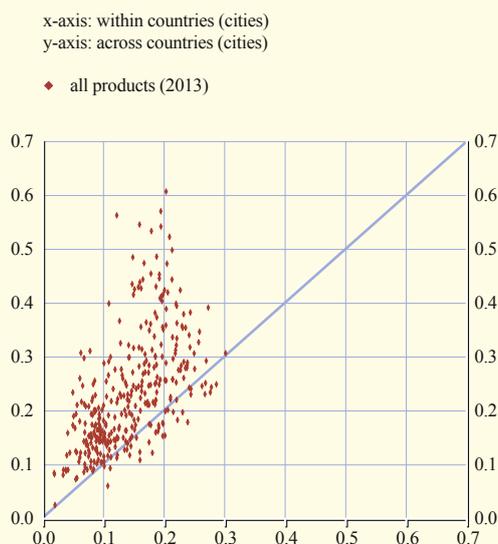
In addition to confirming the previous analysis for food and beverages, the updated PPP data also provide compelling evidence for a border effect when it comes to home and garden products (e.g. home electronics, paint, toys) – see Chart D. These products arguably provide for an even better test case for the existence of a border effect, as they more often tend to have named brands, are highly tradable/traded and local preferences might be a less important factor influencing prices than in the case of food products. Again, it is the case that price variation across countries is much higher

than within countries, both for all products together and for named brands only. Also, the charts for the Benelux countries and the German cities (not reported) provide qualitatively similar results.

Overall, the analysis of the PPP dataset strongly supports the conclusions arrived at through the investigation of the disaggregated price data.

³ Reiff, A. and Rumler, F., op. cit.

Chart D Dispersion of home and garden product prices within and across countries



Sources: Eurostat PPP database, Nielsen and Eurosystem staff calculations.

Overall the data indicate that (a) there is considerable price dispersion across countries, even when specific brands are considered, and (b) price dispersion is substantially higher across countries than within countries (i.e. strong border effects exist).

3 FACTORS EXPLAINING GROCERY PRICE LEVEL DIFFERENCES¹¹

Some price variation can be explained by distance – even within an individual country – but cross-country borders impact more. This is demonstrated when estimating a distance-based relative price equation which also controls for borders. The results show that the greater the distance between two regions, the greater the relative price variation but also that there is always a discrete, large jump in observed relative price differences at the border. By way of example, for the subset of identical products, it is estimated that relative prices differ by approximately 1% on average between two locations that are 100 km apart but within the same country. By contrast, if two locations are 100 km apart and are separated by a border, then relative prices differ by approximately 19.5%. Changes in relative prices also depend positively on distance, i.e. the closer the two locations, the more prices co-move. However, even in this case there is a discrete jump at the border.

¹¹ This section draws from Reiff, A. and Rumler, F., op. cit.; Petroulas, P. and Kosma, T., op. cit.; and Ciapanna, E. and Rondinelli, C., “Retail market structure and consumer prices in the euro area”, *Working Paper Series*, No 1744, ECB, Frankfurt am Main, December 2014.

Price level differences and the associated border effects can be partly explained by observable factors. These include VAT differences between countries (see Box 3), income differences (measured as GDP per capita), regional unemployment as a share of the labour force and regional population density. However, even after controlling for these factors in a regression, the estimated border effect remains significant.¹²

Price dispersion across countries may also be affected by the relative state of the business cycle. Upon regressing price dispersion on a European business cycle indicator, a variable capturing the spread of the business cycle position and a lagged dependent variable, it becomes evident that business cycle conditions have important effects on European price dispersion. Specifically, the estimates indicate that European price dispersion tends to be pro-cyclical – higher during upturns and lower during downturns – and is sensitive to diverging business cycle conditions. In this respect, the time period of investigation is also significant for the estimated border effects.

12 One reason may be that estimated border coefficients are biased upwards as the distribution of prices differs across countries. By using the disaggregated grocery price dataset it is estimated that cross-border price dispersion can be inflated by as much as 25% if cross-country differences in price distributions are not taken into account. See Gorodnichenko, Y. and Tesar, L.L., “Border Effect or Country Effect? Seattle May Not Be So Far from Vancouver After All.”, *American Economic Journal: Macroeconomics*, 1(1), 2009, pp. 219-241.

Box 3

THE PASS-THROUGH OF VAT RATE CHANGES INTO CONSUMER PRICES¹

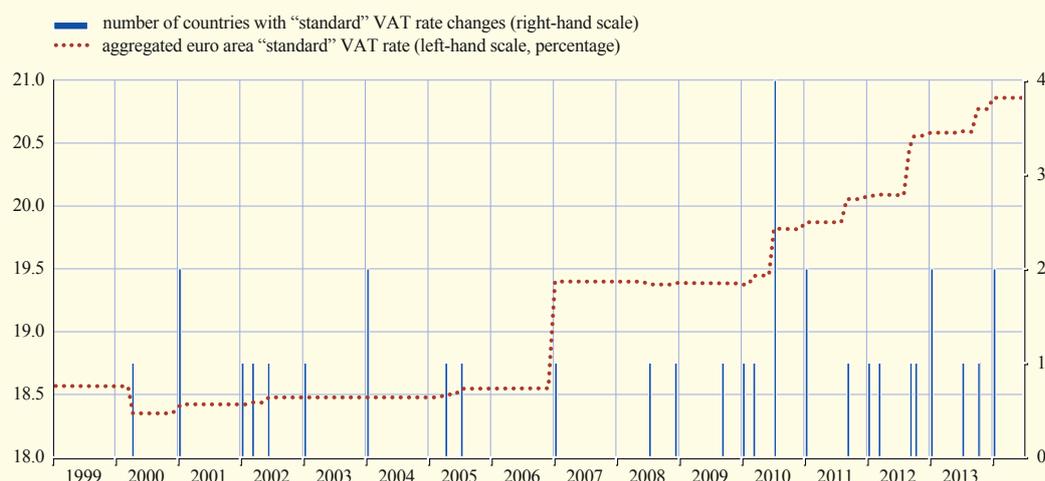
In Europe, value added taxes (VAT) play an important role in consumer prices. Most countries have a standard rate of VAT somewhere between 15% and 25%.² Furthermore, in recent years a number of countries have changed (mostly increased) their VAT rates. This is due in large part to the impact of the financial crisis and budgetary pressures, but has also occurred in the context of a shifting of the tax burden away from labour towards indirect consumption-type taxes. The Chart illustrates that the average euro area standard rate remained relatively constant between 1999 and 2007, at around 18.5%, although there were some country-specific changes. In January 2007 there was a large jump owing to the 3.0 percentage point change in the German standard rate of VAT from 16.0% to 19.0%. Thereafter, the average rate remained relatively stable for about three years, at slightly below 19.5%. However, since the economic crisis in 2008 there have been a cluster of VAT rate changes and the aggregate standard rate has increased to over 20.5% (as at 1 July 2014). Since the launch of EMU in 1999, there have been approximately 30 VAT rate changes, of which two-thirds have occurred since the economic crisis. Clearly, it is of interest to policy-makers to understand how these changes are passed through into consumer prices.³

1 This box draws from Meyler, A., “VAT pass-through: is there any value-added in a disaggregated cross-country and cross-product analysis?”, *Working Paper Series*, ECB, Frankfurt am Main, forthcoming.

2 For a useful overview of existing VAT rates in the European Union and how these have changed over time, see http://ec.europa.eu/taxation_customs/taxation/vat/how_vat_works/rates/ and in particular the document “VAT Rates Applied in the Member States of the European Union”, which is updated twice a year in January and July – http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/how_vat_works/rates/vat_rates_en.pdf.

3 In addition to VAT rate changes, VAT rates may also have an impact on price level differences across countries (see Sections 2 and 3). In the dataset there is a wide range of (standard and reduced) VAT rates across countries and products. For example, in Estonia and Slovakia, the standard VAT rate is applied to nearly all of the products included in the dataset, whereas in Belgium, Spain, the Netherlands and Slovenia, it is applied to fewer than 40% of the products.

Synthetic euro area VAT standard rate and number of VAT standard rate changes



Sources: European Commission and Eurosystem staff calculations.

Assessing the degree of pass-through of VAT rate changes is challenging, particularly when focusing on individual country data. This is because, in some countries, VAT rates changed a number of times in relatively quick succession and more recent VAT rate changes have occurred in a challenging macroeconomic environment which may confound the effect of VAT changes with other developments. To a large extent the country-specific studies estimating the pass-through of VAT rate changes rely on individual HICP subcomponents with long time series of available data.⁴ These approaches are not possible in the case of the dataset used here as the data sample is too short. An additional problem is that prices change for reasons other than VAT rate developments. In this regard, work from the Eurosystem Inflation Persistence Network showed that although prices may change relatively infrequently on average, when they do change they tend to do so by large steps both upwards and downwards (around 10% on average).⁵ In this context, the effects of VAT rate changes of the magnitude 0.5-2.0 percentage points are not easy to detect.

One alternative approach to estimating the pass-through of VAT rate changes is the so-called difference-in-differences approach, which takes advantage of the additional information from the dataset both across countries and across product categories. That is, differences in price developments of "treated" groups (products/countries where the VAT rate changed) and "control" groups (products/countries where the VAT rate did not change) are analysed to estimate the impact of VAT rate changes.⁶ The sample period covered by the dataset allows us to investigate VAT rate changes in six countries: Estonia, Greece, Ireland, Spain, Portugal and Slovakia.

4 See, for instance, "A preliminary assessment of the effect on inflation of the increase in value added tax rates", *Quarterly Report on the Spanish Economy*, Economic Bulletin, Box 4, Banco de España, October 2010; Karabalis, N. and Kontelis, E., "Indirect tax increases and their impact on inflation in 2010-2012", Economic Bulletin, No 38, Bank of Greece, 2013, pp. 7-20; and Doliak, M., "Dopad januárového zvýšenia DPH na spotrebiteľské ceny (The impact of January's VAT increase on consumer prices)", BIATEC (Banking Journal), Ročník 19, No 7, National Bank of Slovakia, September 2011.

5 "Inflation persistence and price-setting behaviour in the euro area: a summary of the IPN evidence", *Occasional Paper Series*, No 46, ECB, Frankfurt am Main, June 2006.

6 For another example of this methodology applied to these data, see Meriküll, J. and Rõdm, T., "One currency, one price? Euro changeover-related inflation in Estonia", *Working Paper Series*, No 1732, ECB, Frankfurt am Main, September 2014.

On average, the results suggest that around one-third to one-half of a VAT rate change is passed through in the month of the rate change. Thus, in the context of the economic crisis and heightened competition, some of the impact of the VAT rate changes may have been absorbed by margins. The estimation results also suggest that, among branded goods, the estimated pass-through of VAT rate changes is lowest for the market leader. These results are broadly in line with theoretical expectations that firms with lower margins are obliged to pass through changes, but those with some degree of monopoly power may absorb some of the changes.⁷

Although the relatively low precision and high uncertainty of the individual estimates need to be borne in mind, the analysis of VAT rate pass-through exploiting cross-country and cross-product information has provided some insight regarding food and personal care goods prices. To extend the results to other categories (e.g. services prices), a more systematic availability of micro consumer price data would be useful.

7 For a fuller discussion see Fullerton, D. and Metcalf, G.E., "Tax Incidence", *Handbook of Public Economics*, Vol. 4, ed. Alan J. Auerbach and Martin Feldstein. Amsterdam: Elsevier, 2002.

Nonetheless, the overall conclusion that there are significant border effects within the single currency area is robust when controlling for distance, for the differences in the distribution of individual prices and for diverging business cycle positions across countries.

One possible explanation of protracted differences in price levels across countries lies in market segmentation (i.e. price discrimination), which may be related to differences in retail market concentration, competition between producers, bargaining power allocation between producers and retailers, differences in consumer habits and differences in local costs such as wages and rents.

Retail market structure may have an impact on price levels, albeit in a complex manner. On the one hand, increased retail market concentration (or less competition) "downstream" or closer to the consumer – i.e. at the store and parent company levels – is associated with higher prices. On the other hand, increased retail concentration "upstream" or closer to the producer – i.e. at the buying group level – is associated with lower prices.^{13,14} Whether the downstream or upstream effects dominate is largely an empirical question. A statistically significant upward impact on prices from increased concentration (lower competition) at the parent company level is found by regressing price levels on regional concentration indices.¹⁵ By contrast, the indications of a downward impact on prices arising from higher concentration at the buying group level are not robust across product categories. On balance, the results suggest that a lower degree of regional competition (higher concentration) at the parent company level is associated with higher prices.

13 A buying group is an organisation of retailers that combines the bargaining power of its members in order to be able to purchase goods at a more advantageous rate than might be achieved through individual negotiation.

14 See Ciapanna, E. and Colonna, F., "The effect of retail sector concentration on prices and SME performance in Italy", 2011, mimeo.

15 These findings are based on econometric investigations where the following equation was estimated at the regional level: $\ln p_{ij} = a_i + b_k + \alpha H^{BGj} + \beta H^{PCj} + \zeta X_j + \varepsilon_{ij}$ where the dependent variable is the average price level (net of the VAT and in natural logs) for good i sold in region j and the main explanatory variable is the Herfindahl-Hirschman Index (HHI), computed at the buying group (H^{BGj}) and at the parent company level (H^{PCj}). Other control variables are included in the vector X_j and are comprised of regional dummies, regional population density, regional per capita GDP and the regional unemployment rate.

These results suggest that appropriate competition-enhancing policies (for example, the removal of zoning restrictions, retail outlet size restrictions or population-based restrictions) might benefit consumers by lowering prices.

In view of the evidence of both microeconomic (market structure, consumer attitudes) and macroeconomic (position in the cycle) determinants of price differences, it is important to try to holistically account for as many factors as possible at the same time. This is done by regressing relative prices on possible explanatory variables split into four main categories.¹⁶

1. Competition in the producer market, which is captured by: (a) the relative quantity share of the market leader, which can be seen as a relative measure of monopoly power; (b) the relative quantity share of other brands that are not the market leaders; and (c) the relative quantity share of private label products.
2. Consumer attitudes, which are measured by: (a) consumption intensity, calculated as the number of units sold per person per month in a location;¹⁷ and (b) consumer cost indifference, measured as the average pack size (while there is a negative relationship between pack size and unit price, it is still the consumer's choice which pack size to buy).
3. Retail market concentration indices for: (a) the parent group level, and b) the buying group level.¹⁸
4. Other regional variables which may be important for determining price levels, such as (a) local costs such as wages and rents, (b) GDP per capita, (c) the unemployment rate, (d) population density, (e) VAT rates, and (f) a dummy variable capturing promotions.¹⁹

The results suggest that there is scope for lowering price dispersion (and lowering prices in some countries) by implementing product market reforms that aim to reduce the rents of the incumbent producers (i.e. the market leaders) and ease the potential entry and growth of new producers (increasing competition) – see Table 2. Significant effects on prices from retail market concentration are also found that depend on the level of aggregation (buying group vs. parent group), confirming that relevant policies regarding retail structures may indeed be beneficial for consumers. Perhaps reflecting the labour-intensive nature of this sector, differences in wages of low-skilled workers are also found to be important in explaining observed price differences, as are differences in rents (albeit not as robustly). The variables capturing the macroeconomic environment (such as regional GDP per capita, population density, unemployment) do not seem as important at the regional level, while VAT differences are significant in explaining price differences across countries. Finally, the variables capturing consumer attitudes (willingness

16 The relative price equation estimated is set up whereby the unit price of a brand for a specific product in a region is expressed relative to the unit prices of the minimum price location (based on the market leaders in each location). All explanatory variables are expressed in similar relative terms and quantity-based variables are instrumented with their third lag to avoid simultaneity.

17 For example, Italy has a relatively high consumption intensity of pasta. Therefore, the price of pasta may be more important to, and monitored more by, Italian consumers compared with the price of, say, strawberry jam.

18 Measured as Herfindahl-Hirschman indices calculated at 5 km radii which are then averaged up to the regions.

19 Promotions are defined as a price that drops by more than 6.25% (implying a 25% reduction in a week, which is a typical promotion period) in a month and increases by more than 6.25% in the next. Time dummies and dummies controlling for product equivalising units are also included.

Table 2 Variables explaining price differences relative to minimum price location

Variables	sign	Mechanism
1 – Product market competition		
1a – market leader share	+	increased monopoly power
1b – other brands share	–	increased competition
1c – private label share	–	increased competition
2 – Consumer attitudes		
2a – consumption intensity	–	increased consumer attention
2b – consumer cost indifference	–	increased consumer awareness
3 – Retailer competition		
3a – retail Herfindahl-Hirschman index (HHI) parent company level	+	reduced competition
3b – retail Herfindahl-Hirschman index (HHI) buying group level	–	countervailing producer power
4 – Other control factors		
4a – wages of low-skilled workers	+	increasing cost
4b – rents of retail shops	+	increasing cost
4c – GDP per capita	+ (n.s.)	income effect
4d – unemployment rate	– (n.s.)	income effect
4e – population density	– (n.s.)	scale economies
4f – VAT	+	pass-through
4g – promotion dummy	–	lower actual prices

Source: Eurosystem staff calculations.

Note: n.s. denotes not significant at the 10% significance level.

to consume private label goods, preferred pack sizes, etc.) are significant and economically meaningful. In this respect it is important to educate and inform consumers, stressing that their habits may affect prices.

4 POTENTIAL IMPLICATIONS OF CHANGES IN THE GROCERY RETAIL STRUCTURE FOR INFLATION MEASUREMENT²⁰

The potential for bias in inflation measurement has long been recognised. The Boskin Commission Report (1996)²¹ highlighted four main sources of possible bias: (i) product substitution bias, which occurs with a fixed-weight consumption basket that fails to reflect the fact that consumers tend to substitute less expensive goods for more expensive goods when relative prices change; (ii) outlet substitution bias, which occurs when shifts to lower price outlets (e.g. discounters) are not adequately captured; (iii) quality change bias, which occurs when improvements in the quality of products are either estimated inaccurately or not at all; and (iv) new product bias, which occurs when new products are introduced into the consumption basket in a sufficiently timely manner. Another source of possible inflation measurement error is the lack of weighting at the elementary index level.²²

20 This section draws from Gabor, E. and Vermeulen, P., “New evidence on elementary index bias”, *Working Paper Series*, No 1754, ECB, Frankfurt am Main, December 2014; McQuade, P., “Substitution to private label products: Evidence from euro area retail scanner data”, paper presented to the 2014 European Economic Association Annual Congress, 25-29 August, Toulouse, France.

21 “Toward a More Accurate Measure of the Cost of Living”, *Final Report to the Senate Finance Committee from the Advisory Committee to Study the Consumer Price Index*, December 1996.

22 For a more detailed discussion of these factors, see also the box entitled “Potential measurement issues in consumer price indices”, *Monthly Bulletin*, ECB, April 2014.

Evidence of the magnitude of inflation measurement bias in euro area countries is relatively scarce and generally relates to the late 1990s. Examples of studies considering new outlet bias are: Lequiller (1997) for France, who suggests a range of 0.05 percentage point to 0.15 percentage point per annum; Hoffmann (1998) for Germany, who argues that the effect is “unlikely to exceed 0.1 percentage point annually”; and Covas and Silva (1999) for Portugal, who, using Portuguese micro data, found that the effect had changed over time, ranging between 0.25 and 0.50 percentage point per annum.²³

More recent work on the subject of inflation measurement highlights the uncertainty surrounding estimates of inflation measurement bias in terms of both sign and magnitude and the fact that these estimates may vary over the business cycle.²⁴ Linz (2009) discusses the impact of a new weighting system on German inflation which gives a higher weight to discounters than previously and results in upward revisions to inflation owing to the pass-through of commodity price shocks. Handbury et al. (2013), using Japanese scanner data for grocery prices, find an upward bias on average over a long time period, which eventually turns from being positive to negative. Greenlees and McClelland (2011), using data from the United States, find that the upward impact on prices from improved item quality offsets most of the downward impact of lower-priced outlets. Lastly, Kryvstov (2013), using Canadian data, argues that quality bias is not an important source of potential mismeasurement of CPI inflation in Canada.

A number of features of the disaggregated price dataset used in this article enable an analysis of the cross-country evidence on possible inflation measurement issues for the euro area. First, as information both on market shares and average prices is available across store types, the possible implications for inflation measurement of structural changes in retail formats can be considered (see Box 4). Second, when constructing consumer price indices, price differences between private label and branded goods are usually implicitly attributed entirely to quality differences (thus the price level shift which occurs when consumers turn to cheaper private label products is not taken into account); however, indirect empirical evidence on the substitution between private label and branded goods using the disaggregated grocery price data suggests that this may not entirely be the case.²⁵ Lastly, as data are available on the volume of sales as well as the average unit price of these sales, the possible impact of the lack of weighting at the elementary index level on consumer price indices can be considered. One caveat is in order: as data are available only for selected grocery goods, it is not possible to draw conclusions about the potential for mismeasurement of overall inflation. Nonetheless, important insights may be obtained and areas for further research identified.

The noteworthy differences in price levels across different store types (even when controlling for composition effects) and structural changes in store formats (notably the emergence of discounters and the relative decline of traditional store types) could have implications for

23 See Lequiller, F., “Does the French Consumer Price Index Overstate Inflation?”, *Série des documents de travail de la Direction des Etudes et Synthèses Économiques*, Institut National de la Statistique et des Études Économiques, August 1997; Hoffmann, J., “Problems of Inflation Measurement in Germany”, Discussion Paper, 1/98, Economic Research Group of the Deutsche Bundesbank, February 1998; and Covas, F. and Santos Silva, J., “Outlet substitution bias”, *Economic Bulletin*, Banco de Portugal, September 1999.

24 See Linz, S., “Weighting of Outlet-types and Regions – a new Weighting System for the German Consumer Price Index”, *Paper prepared for the 11th Meeting of the International Working Group On Price Indices*, Ottawa Group, 2009; Handbury, J., Watanabe, T. and Weinstein, D.E., “How Much Do Official Price Indexes Tell Us About Inflation?”, *NBER Working Paper Series*, No 19504, October 2013; Greenlees, J.S. and McClelland, R., “New Evidence on Outlet Substitution Effects in Consumer Price Index Data”, *The Review of Economics and Statistics*, Vol. 93, No 2, May 2011, pp. 632–646; and Kryvstov, O., “Is There a Quality Bias in the Canadian CPI? Evidence from Micro Data”, *Working Papers*, No 2013-24, Bank of Canada, July 2013.

25 An increasing substitution between private label and branded goods was also estimated for non-stressed countries over the same period. For further evidence, see also Lamey, L., Dereersnyder, B., Dekimpe, M.G. and Steenkamp, J., “How Business Cycles Contribute to Private-Label Success: Evidence from the United States and Europe”, *Journal of Marketing*, Vol. 71, 2007.

inflation measurement. Such structural changes may imply mismeasurement in official inflation statistics if the price level differences between store types do not only reflect quality differences in the retail service provided (as is normally assumed when new outlets enter the samples) or if price changes differ across outlet types and statistical offices are slow to reflect the changing importance of different outlet types in the outlet weights used. Differences in market share and price dynamics are found across store types. Most noticeably, over the period 2009-11, both the relative price and relative market share of discounters increased slightly. These two effects counteract each other. Overall, over the period considered, the net impact on measured inflation does not seem to be economically significant, at less than 0.1 percentage point of the annual inflation rate.²⁶ The negligible impact may be due to the fact that, over the sample period considered, the potential upward bias arising from a substitution effect away from discounters owing to an increase in their relative prices was being counteracted by a downward bias arising from a market share effect as discounters became more attractive in the context of the slowdown in economic activity.

Prices for private label goods are, on average, substantially lower than those for branded goods – see Box 4. Combined with the evidence of substitution between private label and branded goods this suggests implications for inflation measurement. Estimates show that private label goods and branded goods are substitutes – thus resulting in an upward bias – but also that private label goods have seen larger price increases than branded goods over the sample period, which, when combined with an increased market share (the share of private label goods has increased during the economic slowdown), results in a downward bias. A priori, the overall net effect is ambiguous.

²⁶ Hausman and Leibtag (2009) estimate for the United States that the outlet substitution effect (together with new outlet bias) is significant and might even reach 18% of the measured inflation rate (in other words, suggesting that the CPI is overestimated by 0.42 percentage point per annum). See Hausman, J. and Leibtag, E., “CPI Bias from Supercenters: Does the BLS Know that Wal-Mart Exists?”, *NBER Working Paper Series*, No 10712, August 2004.

Box 4

STRUCTURAL SHIFTS IN STORE FORMATS AND THE EVOLUTION OF PRIVATE LABEL GOODS

This box provides a descriptive overview of two noteworthy developments relating to grocery prices in the euro area, namely the evolution of store formats and the emergence of private label goods.

Store formats

Structural shifts in grocery retail and differences in price evolutions across store types need to be taken into account when measuring inflation. There is considerable heterogeneity across countries in terms of the structure of grocery retail, reflecting a combination of factors, such as historical legacies, societal preferences, socio-geographical factors and regulatory conditions. Even so, there has been a widespread increase in the market share of discounters, while shares for smaller grocers and specialist retailers have fallen (see also the SIR 2011). Furthermore, there tend to be substantial differences on average in the price levels found across the different store types for the product categories investigated. All other things being equal, discounters generally tend to be cheapest, followed by hypermarkets and large supermarkets, with small supermarkets,

traditional stores and other store types (such as pharmacies and specialised outlets) being, on average, more expensive.¹

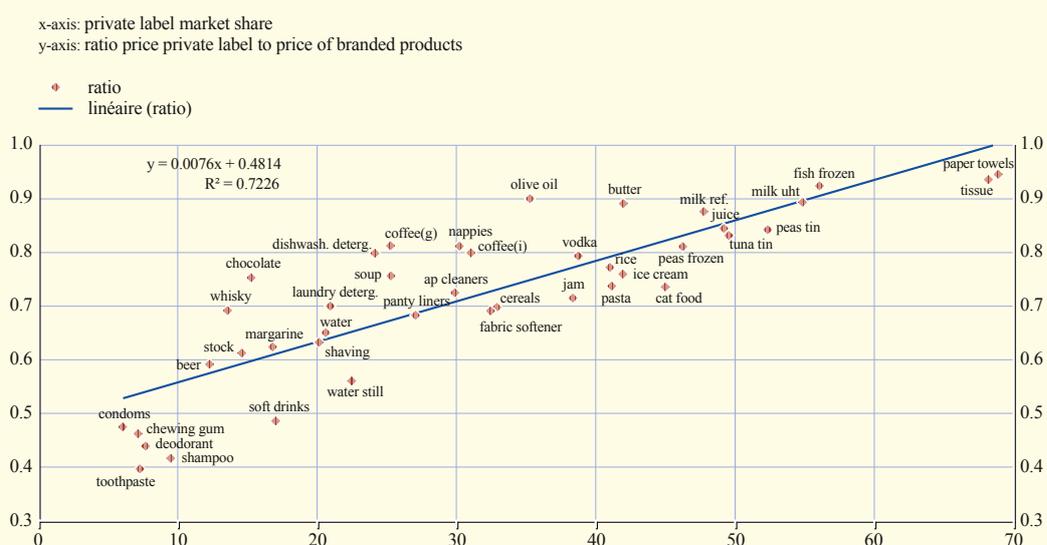
Private label goods

Similarly, growth of private label goods also needs to be reflected in inflation measurement. Partially in response to, but also as a result of, the emergence of discounters, private label (or own label) brands by retailers themselves have emerged. As reported in the SIR 2011, the market share of private label goods has been increasing steadily in the euro area and, more generally, the penetration of private label goods in the market for packaged food is higher in western Europe than in any other geographical region.

There are substantial price differences between private label and branded goods. The data suggest that these are around 35% on average. However, these differences decline slightly over the sample period. At the same time the market share of private label goods has increased. The discount of private label goods relative to branded labels varies across countries, and is largest for Slovenia, Belgium and Greece and smallest for Italy and the Netherlands. The share of private label goods is relatively low in Estonia, Italy and Greece, and relatively high in Germany and Spain.

Across product categories, a noteworthy feature of private label goods prices is the positive relationship between their share of the market and their price relative to branded goods. Product categories with a relatively small share of private label goods have a large discount

Ratio of private label to branded goods prices and private label market share (2009-11)



Sources: Nielsen and Eurosystem staff calculations.
Note: coffee(g) = ground coffee; coffee(i) = instant coffee; ap cleaners = all-purpose cleaners; milk ref. = refrigerated milk.

1 Price differences vis-à-vis discounters, controlling for the composition of goods sold, range on average from 1% up to 17% depending on store type. It should be noted that apparent price differences are larger if the composition of goods (such as the share of private label goods, premium brands, etc.) is not controlled for.

relative to branded products (see Chart). This is due to the nature of the goods as well as consumer perceptions.² For instance, consumers appear to perceive little difference between private label goods and branded goods for products such as paper towels and tissue paper and therefore (i) are willing to consume private label goods, resulting in a high market share for private labels, and (ii) will not pay a large premium for branded products, resulting in a relatively low discount for private labels. On the other hand, for personal care products, such as deodorants, shampoo, condoms and toothpaste, consumers appear to place greater emphasis on brands and therefore (a) are not willing to consume private label goods, resulting in a low market share, and (b) are willing to pay a substantial premium for branded products.

While the net competition effects of private label goods may be unclear a priori,³ an increase in the market penetration of private label goods will exert downward pressure on price levels, as such goods are generally cheaper (other things being equal).⁴

However, determining the impact of increased market shares for discount stores and private label brands on inflation measurement is more challenging and cannot be assessed ex ante. On the one hand, to the extent that price differences are not entirely the result of quality differences, it would imply an upward bias in inflation measurement. On the other hand, although the price of private label goods is, on average, lower than for branded goods, the rate of change in unit prices has been higher for private label goods than for branded goods over the sample period for the goods in the dataset. With an increasing market share, this could suggest some downward bias. Which effect dominates may vary over time and could depend, to some extent, on the business cycle.

2 In general, goods which are relatively generic or “commoditised” are more likely to be offered as private label goods (e.g. canned and packaged food products, tissues and kitchen towels, etc.), while goods which have a higher degree of product differentiation and/or for which advertising or quality is of great importance (e.g. cosmetics, alcoholic drinks, baby food, etc.) tend to exhibit a lower level of private label penetration. J. Steenkamp et al. report that private label brand penetration is highest for certain categories of food and beverage and household products, but lower for many personal care products. In addition, they report that in countries where consumers have low trust in firms and institutions, private label penetration is likely to be low. See Steenkamp, J., Geyskens, I., Gielens, K. and Koll, O., “A global study into drivers of private label success”, commissioned by AIM – European Brands Association, 2004.

3 The existence of private label goods may offer consumers more choice and may counteract the bargaining power of the producers of large brands. However, a high penetration of private label goods might give retailers excessive market power, particularly if competition in the retail sector itself is insufficiently high. In addition, smaller brands might get squeezed out of the market by a combination of large branded and large private label goods. Thus, the overall effect on competition is not straightforward. For a more detailed analysis, see “The impact of private labels on the competitiveness of the European food supply chain”, European Commission, 2011.

4 The 2004 study by J. Steenkamp et al. (op. cit.) found that “aggregated across all FMCG (fast moving consumer goods) categories, manufacturer brands are priced higher than private labels in all regions”, but noted that the price premium varies by a substantial amount across countries and products.

Considering the issue of weighting at the elementary index level, it is known that the choice of index formula for measuring consumer price inflation matters.²⁷ Official consumer price indices are generally constructed by a weighted aggregation of lower level index aggregates, where weights are based on expenditure information. However, at the level of individual products, for example different brands of the same product, usually no expenditure weights are available and the basic price indices for finely defined products (so-called elementary indices) are usually constructed using unweighted averages of price observations. For example, to construct a coffee price index, statistical offices normally construct an unweighted price average based on a sample of different brands, although they might sell at quite different and unknown quantities. The use of unweighted

27 For an early exposition of this issue, see Silver, M., “Elementary Aggregates, Micro-indices and Scanner Data: Some Issues in the Compilation of Consumer Price Indices”, *Review of Income and Wealth*, International Association for Research in Income and Wealth, Vol. 41, No 4, December 1995, pp. 427-438.

Table 3 Summary of inflation measurement analyses

Issue	Effect
Store format	On average, evidence of negligible and insignificant upward CPI bias. Small net effect perhaps due to substitution away from store formats with higher price increases being counteracted by income, where consumers turn to stores that are cheaper – but have higher price increases.
Private label goods	Indirect evidence points to potential upward CPI bias (as estimates show that private label goods and branded goods are substitutes and private label goods have relatively larger price increases) being counteracted over the sample by a market share effect (share of private label increasing owing to economic slowdown). The net effect is ambiguous.
Elementary weighting	Weighting at the elementary level can substantially change measured inflation both upwards and downwards both at the elementary level and at a more aggregated level, compared with using unweighted elementary aggregates. However, the effects are not systematic.

price averages to construct lower level indices of finely defined products is not so much made by choice but by necessity. This begs the question of whether the absence of expenditure weights at the lower levels of aggregation matters for inflation measurement.²⁸

The data used in this article allow for an investigation of the index level issue, as expenditure (sales) shares can be calculated at the elementary level, and a comparison of unweighted and weighted price indices for individual products indeed finds that weighting at the elementary level may have significant effects. These effects may be both positive and negative. Furthermore it seems that, although these effects do not offset each other upon aggregation, there is no systematic positive or negative effect across countries, products and aggregation levels. Thus, while weighting at the elementary level can substantially change measured inflation, the mismeasurement can be both upwards and downwards and the net effects are not systematic.

Overall, the analysis illustrates that there is considerable uncertainty, not only in terms of the magnitude but also of the direction of potential biases in inflation measurement (see Table 3). For instance, developments in the period 2009-11 suggest that, although relative prices for private label goods and discounters were increasing, they also increased their share of the market. While this combination may be due in part to the effect of the economic crisis, it suggests that the upward bias discussed in the literature cannot be assumed, but must be assessed empirically. In this context, ongoing work by the European Statistical System to investigate the information content of scanner data and its use in official price statistics is welcome.²⁹

5 CONCLUSIONS

Overall, the analysis underscores the need to maintain progress with reform efforts that enhance entry into and improve contestability in the consumer goods industries and distributive trades. The analysis of the dataset containing disaggregated information on grocery prices across euro area countries has provided a number of unique and valuable insights into grocery prices in the euro area. In particular, the results highlight substantial deviations from the law of one price and strong market segmentation along national borders, implying that there is

²⁸ Note that this question is different from the issue of whether there may be a bias at the elementary index level owing to the typical substitution behaviour of consumers, as discussed for example in the Boskin Commission Report.

²⁹ For an overview of recent work by European statistical institutes in this area, see papers presented at the “Workshop on Scanner Data for HICP”, hosted by Statistics Portugal, Lisbon, from 26 to 27 September 2013: http://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_sem_lista&tipo=r&detalhe=165101941

ARTICLE

Grocery prices in the euro area: findings from the analysis of a disaggregated price dataset

much progress still to be made in developing the Single Market. Price level differences are shown to be a function of the structure in retail and producer markets, where the competitive situation is of particular importance, but where consumer behaviour also has a role to play.



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FURTHER INFORMATION

ECB statistics can be accessed and downloaded from the Statistical Data Warehouse (SDW):

Data from the statistics section of the Economic Bulletin are available from the SDW:

A comprehensive Statistics Bulletin can be found in the SDW:

Methodological definitions can be found in the General Notes to the Statistics Bulletin:

Details on calculations can be found in the Technical Notes to the Statistics Bulletin:

<http://sdw.ecb.europa.eu/>

<http://sdw.ecb.europa.eu/reports.do?node=1000004813>

<http://sdw.ecb.europa.eu/reports.do?node=1000004045>

<http://sdw.ecb.europa.eu/reports.do?node=10000023>

<http://sdw.ecb.europa.eu/reports.do?node=10000022>

CONVENTIONS USED IN THE TABLES

- data do not exist/data are not applicable

. data are not yet available

... nil or negligible

(p) provisional

s.a. seasonally adjusted

n.s.a. non-seasonally adjusted

I EXTERNAL ENVIRONMENT

1.1 Main trading partners, GDP and CPI

	GDP ¹⁾ (period-on-period percentage changes)						CPI (annual percentage changes)						
	G20	United States	United Kingdom	Japan	China	Memo item: euro area	OECD countries		United States	United Kingdom (HICP)	Japan	China	Memo item: euro area ²⁾ (HICP)
							Total	excluding food and energy					
	1	2	3	4	5	6	7	8	9	10	11	12	13
2012	3.0	2.3	0.7	1.7	7.8	-0.7	2.3	1.8	2.1	2.8	0.0	2.7	2.5
2013	3.1	2.2	1.7	1.6	7.7	-0.5	1.6	1.6	1.5	2.6	0.4	2.6	1.4
2014	.	.	.	.	.	.	.	.	1.6	1.5	.	2.0	0.4
2014 Q1	0.6	-0.5	0.6	1.4	1.5	0.3	1.6	1.6	1.4	1.8	1.5	2.3	0.7
Q2	0.8	1.1	0.8	-1.7	2.0	0.1	2.0	1.9	2.1	1.7	3.6	2.2	0.6
Q3	.	1.2	0.7	-0.5	1.9	0.2	1.8	1.9	1.8	1.5	3.3	2.0	0.4
Q4	.	.	.	.	.	.	.	.	1.2	0.9	.	1.5	0.2
2014 July	.	.	.	.	.	.	1.9	1.9	2.0	1.6	3.4	2.3	0.4
Aug.	.	.	.	.	.	.	1.8	1.9	1.7	1.5	3.3	2.0	0.4
Sep.	.	.	.	.	.	.	1.7	1.8	1.7	1.2	3.2	1.6	0.3
Oct.	.	.	.	.	.	.	1.7	1.8	1.7	1.3	2.9	1.6	0.4
Nov.	.	.	.	.	.	.	1.5	1.7	1.3	1.0	2.4	1.4	0.3
Dec.	.	.	.	.	.	.	.	.	0.8	0.5	.	1.5	-0.2

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

	Purchasing Managers' Surveys (diffusion indices; s.a.)						Merchandise imports ³⁾					
	Composite Purchasing Managers' Index						Global Purchasing Managers' Index ⁴⁾			Global	Advanced economies	Emerging market economies
	Global ⁴⁾	United States	United Kingdom	Japan	China	Memo item: euro area	Manufacturing	Services	New export orders			
	1	2	3	4	5	6	7	8	9	10	11	12
2012	52.7	54.4	52.0	49.9	50.9	47.2	50.2	51.9	48.5	3.9	2.4	4.8
2013	53.4	54.8	56.8	52.6	51.5	49.7	52.3	52.7	50.7	3.7	-0.1	5.9
2014	54.3	57.3	57.8	50.9	51.1	52.7	53.4	54.1	51.5	.	.	.
2014 Q1	53.7	55.3	58.1	53.0	49.9	53.1	53.8	53.7	51.0	-0.3	0.3	-0.7
Q2	54.4	58.3	58.6	48.5	50.7	53.4	53.2	54.7	51.1	-0.1	1.0	-0.7
Q3	55.8	59.8	58.5	51.3	52.2	52.8	54.1	56.3	52.0	2.5	0.8	3.4
Q4	53.3	55.7	56.2	50.9	51.4	51.5	52.8	53.5	50.8	.	.	.
2014 July	56.0	60.6	58.6	50.2	51.6	53.8	54.1	56.6	51.2	0.4	0.8	0.1
Aug.	55.8	59.7	59.3	50.8	52.8	52.5	54.3	56.2	52.5	1.5	0.0	2.3
Sep.	55.5	59.0	57.5	52.8	52.3	52.0	53.8	56.0	52.3	2.5	0.8	3.4
Oct.	53.9	57.2	55.8	49.5	51.7	52.1	53.4	54.0	51.1	3.4	1.2	4.6
Nov.	53.7	56.1	57.6	51.2	51.1	51.1	52.6	54.0	50.3	.	.	.
Dec.	52.5	53.8	55.2	51.9	51.4	51.4	52.5	52.5	50.9	.	.	.

Sources: Eurostat (Table 1.1, col. 3,6,10,13); BIS (Table 1.1, col. 2,4,9,11,12); OECD (Table 1.1, col. 1,5,7,8); Markit (Table 1.2, col. 1-9);

CPB Netherlands Bureau for Economic Policy Analysis and ECB calculations (Table 1.2, col. 10-12)

1) Quarterly data seasonally adjusted; annual data unadjusted.

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

3) 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.

4) Excluding the euro area.

2 FINANCIAL DEVELOPMENTS

2.1 Money market interest rates

(percentages per annum; period averages)

	Euro area ¹⁾					United States	Japan
	Overnight deposits (EONIA)	1-month deposits (EURIBOR)	3-month deposits (EURIBOR)	6-month deposits (EURIBOR)	12-month deposits (EURIBOR)	3-month deposits (LIBOR)	3-month deposits (LIBOR)
	1	2	3	4	5	6	7
2012	0.23	0.33	0.57	0.83	1.11	0.43	0.19
2013	0.09	0.13	0.22	0.34	0.54	0.27	0.15
2014	0.09	0.13	0.21	0.31	0.48	0.23	0.13
2014 Q1	0.18	0.23	0.30	0.40	0.56	0.24	0.14
Q2	0.19	0.22	0.30	0.39	0.57	0.23	0.13
Q3	0.02	0.07	0.16	0.27	0.44	0.23	0.13
Q4	-0.02	0.01	0.08	0.18	0.33	0.24	0.11
2014 July	0.04	0.10	0.21	0.30	0.49	0.23	0.13
Aug.	0.02	0.09	0.19	0.29	0.47	0.23	0.13
Sep.	0.01	0.02	0.10	0.20	0.36	0.23	0.12
Oct.	0.00	0.01	0.08	0.18	0.34	0.23	0.11
Nov.	-0.01	0.01	0.08	0.18	0.33	0.23	0.11
Dec.	-0.03	0.02	0.08	0.18	0.33	0.24	0.11

2.2 Yield curves

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

	Spot rates					Spreads			Instantaneous forward rates			
	Euro area ^{1),2)}					Euro area ^{1),2)}	United States	United Kingdom	Euro area ^{1),2)}			
	3 months	1 year	2 years	5 years	10 years	10 years - 1 year	10 years - 1 year	10 years - 1 year	1 year	2 years	5 years	10 years
	1	2	3	4	5	6	7	8	9	10	11	12
2012	0.06	-0.04	-0.01	0.58	1.72	1.76	1.61	1.48	-0.09	0.17	1.84	3.50
2013	0.08	0.09	0.25	1.07	2.24	2.15	2.91	2.66	0.18	0.67	2.53	3.88
2014	-0.02	-0.09	-0.12	0.07	0.65	0.74	1.95	1.45	-0.15	-0.11	0.58	1.77
2014 Q1	0.16	0.11	0.17	0.76	1.82	1.71	2.60	2.29	0.11	0.40	1.94	3.50
Q2	0.05	-0.01	0.02	0.47	1.44	1.45	2.43	2.16	-0.04	0.16	1.46	3.09
Q3	-0.03	-0.09	-0.10	0.24	1.06	1.15	2.39	1.88	-0.14	-0.02	1.03	2.53
Q4	-0.02	-0.09	-0.12	0.07	0.65	0.74	1.95	1.45	-0.15	-0.11	0.58	1.77
2014 July	0.04	-0.02	0.01	0.43	1.34	1.36	2.45	2.15	-0.04	0.14	1.35	2.91
Aug.	0.00	-0.06	-0.05	0.28	1.03	1.09	2.25	1.82	-0.09	0.04	1.01	2.38
Sep.	-0.03	-0.09	-0.10	0.24	1.06	1.15	2.39	1.88	-0.14	-0.02	1.03	2.53
Oct.	-0.02	-0.08	-0.08	0.22	0.96	1.05	2.24	1.82	-0.12	-0.01	0.93	2.33
Nov.	-0.02	-0.06	-0.07	0.17	0.80	0.86	2.06	1.54	-0.10	-0.02	0.74	2.01
Dec.	-0.02	-0.09	-0.12	0.07	0.65	0.74	1.95	1.45	-0.15	-0.11	0.58	1.77

2.3 Stock market indices

(index levels in points; period averages)

	Dow Jones EURO STOXX indices												United States	Japan
	Benchmark		Main industry indices										Standard & Poor's 500	Nikkei 225
	Broad index	50	Basic materials	Consumer services	Consumer goods	Oil and gas	Financials	Industrials	Technology	Utilities	Telecoms	Health care		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2012	239.7	2,411.9	503.7	151.9	385.7	307.2	122.1	330.2	219.2	235.9	268.5	523.3	1,379.4	9,102.6
2013	281.9	2,794.0	586.3	195.0	468.2	312.8	151.5	402.7	274.1	230.6	253.4	629.4	1,643.8	13,577.9
2014	318.7	3,145.3	644.3	216.6	510.6	335.5	180.0	452.9	310.8	279.2	306.7	668.1	1,931.4	15,460.4
2014 Q1	315.9	3,090.8	639.0	218.7	500.1	323.4	182.2	461.0	306.3	262.3	293.9	640.7	1,834.9	14,958.9
Q2	326.5	3,214.0	657.3	219.5	524.2	360.3	184.5	471.9	305.3	284.9	311.9	656.5	1,900.4	14,655.0
Q3	319.4	3,173.1	645.9	213.8	509.8	351.1	178.9	446.0	315.3	288.7	304.0	686.1	1,975.9	15,553.1
Q4	313.0	3,102.5	634.9	214.7	508.5	307.0	174.5	433.4	316.0	280.4	316.7	688.0	2,009.3	16,660.1
2014 July	322.3	3,192.3	659.8	215.3	522.6	361.0	178.3	453.8	311.5	292.0	308.7	660.0	1,973.1	15,379.3
Aug.	311.3	3,089.1	625.9	210.7	497.0	341.5	173.6	435.3	309.8	281.2	296.7	674.1	1,961.5	15,358.7
Sep.	324.0	3,233.4	650.4	215.3	508.7	350.0	184.5	447.9	324.5	292.6	306.1	725.0	1,993.2	15,948.5
Oct.	304.2	3,029.6	612.5	202.4	481.0	315.8	173.4	416.4	301.8	276.6	294.6	695.0	1,937.3	15,394.1
Nov.	315.7	3,126.1	643.8	217.8	514.8	316.4	174.3	439.7	317.6	280.2	322.7	680.4	2,044.6	17,179.0
Dec.	320.1	3,159.8	651.0	225.2	532.6	288.5	176.0	446.1	330.1	284.7	335.3	687.6	2,054.3	17,541.7

Source: ECB.

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

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

2.4 MFI interest rates on loans to and deposits from households (new business) ^{1), 2)}

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

	Deposits				Revolving loans and overdrafts	Extended credit card debt	Loans for consumption			Loans to sole proprietors and unincorporated partnerships	Loans for house purchase					Composite cost-of-borrowing indicator
	Over-night	Redeemable at notice of up to 3 months	With an agreed maturity of:				By initial period of rate fixation		APRC ³⁾		By initial period of rate fixation				APRC ³⁾	
			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		
2013 Dec.	0.29	1.11	1.60	1.91	7.64	16.92	5.63	6.70	7.05	3.17	2.78	3.00	3.15	3.32	3.37	3.06
2014 Jan.	0.28	1.09	1.66	1.95	7.70	17.06	5.73	6.86	7.34	3.23	2.76	3.01	3.12	3.31	3.36	3.07
Feb.	0.28	1.11	1.61	1.93	7.66	17.06	5.87	6.79	7.38	3.30	2.79	2.95	3.09	3.27	3.35	3.05
Mar.	0.28	1.07	1.56	1.86	7.66	17.06	5.83	6.68	7.28	3.32	2.78	2.90	3.03	3.23	3.29	3.01
Apr.	0.27	1.06	1.54	1.83	7.62	17.24	5.61	6.61	7.18	3.21	2.72	2.91	3.00	3.24	3.29	2.99
May	0.27	1.05	1.40	1.72	7.56	17.25	5.64	6.74	7.27	3.33	2.71	2.87	2.96	3.14	3.23	2.93
June	0.27	1.04	1.32	1.74	7.59	17.21	5.47	6.62	7.11	3.20	2.66	2.85	2.89	3.09	3.20	2.87
July	0.24	1.01	1.30	1.75	7.43	17.06	5.57	6.55	6.97	3.09	2.63	2.75	2.81	2.99	3.10	2.79
Aug.	0.24	0.93	1.21	1.66	7.43	17.02	5.58	6.53	7.02	3.09	2.56	2.74	2.73	2.87	3.04	2.75
Sep.	0.23	0.92	1.19	1.70	7.49	17.08	5.39	6.50	6.98	2.92	2.50	2.69	2.63	2.83	2.97	2.68
Oct.	0.22	0.91	1.10	1.65	7.33	16.97	5.49	6.44	7.00	2.92	2.43	2.63	2.56	2.79	2.90	2.61
Nov. ⁴⁾	0.22	0.89	1.02	1.67	7.27	17.13	5.66	6.56	7.14	2.96	2.43	2.53	2.52	2.73	2.85	2.55

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

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

	Deposits			Revolving loans and overdrafts	Other loans by size and initial period of rate fixation									Composite cost-of-borrowing indicator
	Over-night	With an agreed maturity of:			up to EUR 0.25 million			over EUR 0.25 and up to 1 million			over EUR 1 million			
		Up to 2 years	Over 2 years		Floating rate and up to 3 months	Over 3 months and up to 1 year	Over 1 year	Floating rate and up to 3 months	Over 3 months and up to 1 year	Over 1 year	Floating rate and up to 3 months	Over 3 months and up to 1 year	Over 1 year	
2013 Dec.	0.34	0.81	1.63	3.97	4.52	4.49	3.89	2.87	3.51	3.17	2.17	2.73	2.88	2.94
2014 Jan.	0.33	0.74	1.81	4.03	4.59	4.68	3.84	2.81	3.69	3.20	2.15	2.74	3.00	2.98
Feb.	0.33	0.66	1.75	3.99	4.52	4.59	3.89	2.82	3.59	3.23	2.08	2.78	2.94	2.96
Mar.	0.35	0.68	1.58	3.95	4.58	4.49	3.90	2.78	3.44	3.17	2.17	2.74	2.96	2.99
Apr.	0.34	0.72	1.60	3.98	4.57	4.48	3.80	2.81	3.52	3.15	2.20	2.55	2.88	2.98
May	0.34	0.64	1.38	3.92	4.50	4.51	3.86	2.81	3.45	3.09	2.06	2.40	2.80	2.91
June	0.31	0.59	1.52	3.88	4.29	4.37	3.78	2.68	3.26	3.05	1.94	2.75	2.68	2.79
July	0.28	0.59	1.49	3.76	4.32	4.31	3.63	2.65	3.29	2.93	1.91	2.43	2.69	2.76
Aug.	0.28	0.49	1.63	3.71	4.18	4.28	3.55	2.57	3.20	2.83	1.74	2.43	2.56	2.68
Sep.	0.26	0.51	1.53	3.69	3.98	4.04	3.53	2.46	3.02	2.75	1.80	2.38	2.41	2.65
Oct.	0.25	0.50	1.43	3.61	3.98	3.94	3.54	2.44	2.92	2.69	1.74	2.26	2.49	2.58
Nov. ⁴⁾	0.25	0.43	1.23	3.54	3.76	3.87	3.42	2.38	2.85	2.61	1.73	2.18	2.25	2.49

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						
	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	Non-financial corporations	Central government	Other general government			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government		
													3	4	5	6	7	8	9	10	11	12	13	14
	Short-term													
2011	1,593	702	99	.	79	635	77	748	511	47	.	54	107	29
2012	1,440	601	141	.	75	558	65	704	490	38	.	52	103	21
2013	1,238	474	116	.	67	528	53	510	315	31	.	44	99	21
2014 June	1,331	516	124	.	67	573	52	391	218	23	.	35	86	29
July	1,368	516	155	.	75	578	44	402	181	55	.	40	105	21
Aug.	1,365	527	143	.	74	574	46	326	162	31	.	27	91	16
Sep.	1,340	509	136	.	70	577	49	332	153	27	.	31	95	25
Oct.	1,307	498	133	.	72	563	41	330	139	28	.	37	102	25
Nov.	1,268	492	133	.	69	557	17	277	127	28	.	28	87	7
	Long-term													
2011	14,848	4,816	3,109	.	780	5,595	548	253	98	51	.	9	84	10
2012	15,151	4,797	3,139	.	841	5,747	626	255	99	45	.	16	84	12
2013	15,111	4,412	3,093	.	920	6,059	627	221	69	39	.	16	89	9
2014 June	15,218	4,221	3,120	.	958	6,283	636	247	67	49	.	22	98	10
July	15,159	4,183	3,126	.	967	6,241	641	207	52	37	.	19	86	13
Aug.	15,107	4,155	3,109	.	970	6,229	645	75	29	11	.	3	28	5
Sep.	15,154	4,161	3,126	.	981	6,235	652	217	58	43	.	13	90	13
Oct.	15,124	4,076	3,162	.	981	6,256	650	208	45	40	.	15	101	8
Nov.	15,006	4,058	3,163	.	985	6,302	498	195	58	44	.	14	73	6

Source: ECB.

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

2) Including non-profit institutions serving households.

3) Annual percentage rate of charge (APRC).

4) In accordance with the ESA 2010, in December 2014 holding companies of non-financial groups were reclassified from the non-financial corporations sector to the financial corporations sector.

5) Financial vehicle corporations (FVCs).

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

(EUR billions; percentage changes)

	Debt securities							Listed shares			
	Total	MFIs (including Eurosystem)	Non-MFI corporations		General government		Total	MFIs	Financial corporations other than MFIs	Non-financial corporations	
			Financial corporations other than MFIs	Non-financial corporations	Central government	Other general government					
											FVCs ¹⁾
1	2	3	4	5	6	7	8	9	10	11	
	Outstanding amount										
2011	16,441.0	5,518.7	3,208.1	.	859.2	6,230.2	624.8	3,939.9	339.3	325.1	3,275.5
2012	16,590.3	5,398.4	3,280.6	.	915.7	6,305.2	690.5	4,593.9	404.6	617.8	3,571.5
2013	16,349.1	4,885.7	3,209.5	.	986.9	6,587.2	679.8	5,634.8	569.0	751.0	4,314.8
2014 June	16,549.0	4,736.3	3,243.5	.	1,025.9	6,856.0	687.3	6,009.1	629.3	779.5	4,600.3
July	16,526.3	4,699.6	3,280.8	.	1,041.9	6,818.7	685.3	5,865.5	626.8	775.7	4,463.0
Aug.	16,472.0	4,681.6	3,251.4	.	1,044.5	6,803.4	691.0	5,915.3	637.3	788.9	4,489.2
Sep.	16,494.0	4,669.8	3,261.4	.	1,050.7	6,811.7	700.4	5,929.5	650.7	788.4	4,490.4
Oct.	16,431.5	4,574.4	3,294.7	.	1,053.1	6,818.5	690.7	5,762.0	611.5	763.1	4,387.4
Nov.	16,273.9	4,550.1	3,295.8	.	1,054.5	6,858.5	515.0	6,036.6	628.3	796.6	4,611.7
	Growth rate										
2011	3.9	5.0	-1.5	.	5.7	4.7	12.1	1.6	9.3	4.4	0.4
2012	1.6	-1.8	1.2	.	14.4	2.5	6.1	0.9	4.9	2.0	0.4
2013	-1.2	-8.9	-2.1	.	8.2	4.5	-1.1	0.9	7.2	0.2	0.3
2014 June	-0.4	-7.1	-1.3	.	7.2	4.0	0.7	1.4	6.5	1.6	0.7
July	-0.2	-7.1	-0.3	.	7.9	3.9	1.5	1.4	6.9	2.1	0.5
Aug.	-0.5	-7.1	-1.0	.	7.4	3.6	1.4	1.4	6.9	2.1	0.6
Sep.	-0.5	-6.9	-1.0	.	5.8	3.3	3.1	1.5	6.9	1.9	0.7
Oct.	-0.7	-8.2	0.4	.	5.1	3.3	1.7	1.6	6.9	1.6	0.9
Nov.	-1.1	-8.5	0.0	.	5.1	2.9	0.8	1.6	7.1	1.7	0.8

2.8 Effective exchange rates²⁾

(period averages; index: 1999 Q1=100)

	EER-20						EER-39	
	Nominal	Real CPI	Real PPI	Real GDP deflator	Real ULCM ³⁾	Real ULCT	Nominal	Real CPI
	1	2	3	4	5	6	7	8
2012	97.9	95.6	92.9	89.4	99.1	92.0	107.1	92.9
2013	101.7	98.9	96.4	92.4	102.6	94.5	112.0	96.2
2014	102.2	98.6	96.3	.	.	.	114.7	96.6
2014 Q1	103.9	100.7	97.9	94.8	103.5	97.8	116.6	99.0
Q2	103.8	100.1	97.8	94.5	103.0	97.6	116.0	97.9
Q3	101.6	97.9	95.8	92.2	100.2	95.1	113.7	95.6
Q4	99.6	95.7	94.0	.	.	.	112.4	94.1
2014 July	102.6	98.8	96.6	-	-	-	114.6	96.4
Aug.	101.9	98.2	96.0	-	-	-	114.0	95.9
Sep.	100.4	96.7	94.7	-	-	-	112.4	94.5
Oct.	99.6	95.8	93.9	-	-	-	111.9	93.8
Nov.	99.5	95.7	94.0	-	-	-	112.1	93.8
Dec.	99.6	95.6	94.0	-	-	-	113.2	94.6
	<i>Percentage change versus previous month</i>							
2014 Dec.	0.1	0.0	-0.1	-	-	-	1.0	0.8
	<i>Percentage change versus previous year</i>							
2014 Dec.	-4.1	-5.0	-4.3	-	-	-	-2.2	-4.0

Source: ECB.

1) Financial vehicle corporations (FVCs).

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

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

2.9 Bilateral exchange rates

(period averages; units of national currency per euro)

	Chinese renminbi	Croatian kuna	Czech koruna	Danish krone	Hungarian forint	Japanese yen	Polish zloty	Pound sterling	Romanian leu	Swedish krona	Swiss franc	US Dollar
	1	2	3	4	5	6	7	8	9	10	11	12
2012	8.105	7.522	25.149	7.444	289.249	102.492	4.185	0.811	4.4593	8.704	1.205	1.285
2013	8.165	7.579	25.980	7.458	296.873	129.663	4.197	0.849	4.4190	8.652	1.231	1.328
2014	8.186	7.634	27.536	7.455	308.706	140.306	4.184	0.806	4.4437	9.099	1.215	1.329
2014 Q1	8.358	7.650	27.442	7.462	307.932	140.798	4.184	0.828	4.5023	8.857	1.224	1.370
Q2	8.544	7.599	27.446	7.463	305.914	140.001	4.167	0.815	4.4256	9.052	1.219	1.371
Q3	8.173	7.623	27.619	7.452	312.242	137.749	4.175	0.794	4.4146	9.205	1.212	1.326
Q4	7.682	7.665	27.630	7.442	308.527	142.754	4.211	0.789	4.4336	9.272	1.205	1.250
2014 July	8.394	7.615	27.458	7.456	309.808	137.723	4.144	0.793	4.4098	9.233	1.215	1.354
Aug.	8.197	7.633	27.816	7.455	313.907	137.107	4.192	0.797	4.4252	9.188	1.212	1.332
Sep.	7.921	7.624	27.599	7.445	313.197	138.390	4.190	0.791	4.4095	9.193	1.208	1.290
Oct.	7.763	7.657	27.588	7.445	307.846	136.845	4.207	0.789	4.4153	9.180	1.208	1.267
Nov.	7.641	7.670	27.667	7.442	306.888	145.029	4.212	0.791	4.4288	9.238	1.203	1.247
Dec.	7.633	7.668	27.640	7.440	310.833	147.059	4.215	0.788	4.4583	9.404	1.203	1.233
<i>Percentage change versus previous month</i>												
2014 Dec.	-0.1	0.0	-0.1	0.0	1.3	1.4	0.1	-0.3	0.7	1.8	0.0	-1.1
<i>Percentage change versus previous year</i>												
2014 Dec.	-8.3	0.4	0.4	-0.3	3.5	3.8	0.9	-5.7	-0.1	5.0	-1.8	-10.0

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
<i>Outstanding amounts (international investment position)</i>												
2013 Q4	17,765.8	19,107.1	-1,341.3	7,229.4	5,550.2	5,659.0	9,051.8	-64.8	4,400.0	4,503.5	542.1	11,313.1
2014 Q1	18,191.9	19,456.3	-1,264.4	7,344.9	5,502.6	5,747.5	9,304.4	-49.4	4,578.4	4,649.4	570.6	11,535.4
Q2	18,708.6	19,747.6	-1,039.0	7,465.3	5,522.1	6,037.4	9,609.6	-43.5	4,666.5	4,615.9	583.1	11,638.9
Q3	19,457.8	20,391.7	-933.9	7,643.0	5,603.7	6,407.6	9,967.0	-77.1	4,887.3	4,820.9	597.0	11,959.0
<i>Outstanding amounts as a percentage of GDP</i>												
2014 Q3	194.0	203.3	-9.3	76.2	55.9	63.9	99.4	-0.8	48.7	48.1	6.0	119.2
<i>Transactions</i>												
2013 Q4	249.5	80.3	169.2	212.9	185.7	54.9	87.4	12.0	-30.8	-192.7	0.4	-
2014 Q1	327.3	266.7	60.6	12.3	-8.7	72.7	125.3	5.5	234.2	150.1	2.5	-
Q2	212.5	132.8	79.7	-14.9	-13.8	157.1	200.2	16.1	53.7	-53.7	0.4	-
Q3	182.0	113.3	68.6	56.1	28.4	114.6	38.1	16.1	-3.5	46.8	-1.3	-
2014 June	0.8	-76.2	77.1	-37.2	-25.3	66.5	73.9	4.9	-32.9	-124.8	-0.5	-
July	89.0	70.5	18.5	16.7	7.3	20.4	6.2	3.2	49.3	57.0	-0.7	-
Aug.	33.0	34.0	-0.9	11.3	13.8	27.4	24.4	3.5	-10.4	-4.2	1.2	-
Sep.	59.9	8.9	51.0	28.1	7.4	66.7	7.5	9.5	-42.4	-6.0	-1.9	-
Oct.	0.8	-32.4	33.3	10.7	11.6	16.3	-31.1	0.6	-27.7	-12.9	1.0	-
Nov.	154.2	77.6	76.6	25.5	-2.6	46.7	34.5	3.9	79.9	45.7	-1.8	-
<i>12-month cumulated transactions</i>												
2014 Nov.	805.2	386.3	418.9	105.1	13.6	425.6	366.3	45.4	227.0	6.3	2.1	-
<i>12-month cumulated transactions as a percentage of GDP</i>												
2014 Nov.	8.0	3.9	4.2	1.0	0.1	4.2	3.7	0.5	2.3	0.1	0.0	-

Source: ECB.

1) Net financial derivatives are included in total assets.

3 PRODUCTION AND DEMAND

3.1 GDP and expenditure components

(quarterly data seasonally adjusted; annual data unadjusted)

	GDP											
	Total	Domestic demand								External balance		
		Total	Private consumption	Government consumption	Gross fixed capital formation			Changes in inventories	Total	Exports	Imports	
	Total construction				Total machinery	Intellectual property products						
1	2	3	4	5	6	7	8	9	10	11	12	
Current prices (EUR billions)												
2011	9,768.2	9,628.9	5,492.4	2,046.4	2,024.1	1,066.0	604.5	350.1	66.1	139.3	4,074.6	3,935.3
2012	9,824.4	9,563.5	5,521.4	2,059.5	1,982.4	1,039.8	581.4	357.4	0.1	260.9	4,252.7	3,991.8
2013	9,904.4	9,564.0	5,544.7	2,090.1	1,942.3	1,009.2	569.3	359.7	-13.1	340.4	4,325.9	3,985.5
2013 Q4	2,493.9	2,402.5	1,392.7	524.3	491.2	254.5	145.6	90.4	-5.7	91.3	1,094.8	1,003.4
2014 Q1	2,509.2	2,415.5	1,397.4	527.7	493.2	255.8	144.5	91.2	-2.8	93.6	1,095.7	1,002.1
Q2	2,514.9	2,418.7	1,403.8	529.1	490.0	251.2	145.3	91.8	-4.2	96.2	1,108.8	1,012.6
Q3	2,521.7	2,424.4	1,411.2	533.8	490.1	251.0	145.3	92.2	-10.7	97.3	1,123.7	1,026.4
as a percentage of GDP												
2011	100.0	98.6	56.2	20.9	20.7	10.9	6.2	3.6	0.7	1.4	-	-
2012	100.0	97.3	56.2	21.0	20.2	10.6	5.9	3.6	0.0	2.7	-	-
2013	100.0	96.6	56.0	21.1	19.6	10.2	5.8	3.6	-0.1	3.5	-	-
Chain-linked volumes (prices for the previous year)												
quarter-on-quarter percentage changes												
2013 Q4	0.2	0.0	0.1	0.3	0.7	0.1	1.9	0.4	-	-	0.8	0.2
2014 Q1	0.3	0.3	0.2	0.1	0.3	0.5	-0.2	0.6	-	-	0.4	0.4
Q2	0.1	0.0	0.3	0.3	-0.7	-1.7	0.6	0.2	-	-	1.4	1.3
Q3	0.2	0.2	0.5	0.3	-0.3	-0.6	-0.3	0.2	-	-	1.3	1.4
contributions to quarter-on-quarter percentage changes in GDP; percentage points												
2013 Q4	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	-0.3	0.2	-	-
2014 Q1	0.3	0.3	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	-	-
Q2	0.1	0.0	0.2	0.1	-0.1	-0.2	0.0	0.0	-0.1	0.1	-	-
Q3	0.2	0.2	0.3	0.1	-0.1	-0.1	0.0	0.0	-0.1	0.0	-	-

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)												
2011	8,781.5	146.7	1,712.6	484.9	1,663.9	406.9	434.6	1,007.6	918.3	1,695.0	310.9	986.7
2012	8,833.5	150.8	1,719.2	472.2	1,671.8	409.8	439.1	1,013.1	926.8	1,714.0	316.8	990.8
2013	8,899.1	154.5	1,728.6	462.9	1,678.7	401.0	438.4	1,030.1	939.9	1,744.1	320.7	1,005.3
2013 Q4	2,240.3	38.3	436.2	116.6	422.2	100.4	110.1	259.5	237.2	439.0	80.8	253.5
2014 Q1	2,254.4	38.2	436.3	117.8	424.4	100.4	112.9	261.6	238.4	443.2	81.3	254.9
Q2	2,256.6	37.6	437.8	115.8	424.9	100.1	113.9	262.8	239.5	442.9	81.3	258.3
Q3	2,263.4	36.4	438.2	115.5	427.3	99.7	113.6	263.5	241.4	445.6	82.0	257.9
as a percentage of value added												
2011	100.0	1.7	19.5	5.5	18.9	4.6	5.0	11.5	10.5	19.3	3.5	-
2012	100.0	1.7	19.5	5.3	18.9	4.6	5.0	11.5	10.5	19.4	3.6	-
2013	100.0	1.7	19.4	5.2	18.9	4.5	4.9	11.6	10.6	19.6	3.6	-
Chain-linked volumes (prices for the previous year)												
quarter-on-quarter percentage changes												
2013 Q4	0.3	1.6	0.5	0.2	0.3	0.0	-0.1	0.3	-0.1	0.3	-0.3	0.2
2014 Q1	0.4	2.0	-0.1	0.7	0.7	-0.8	0.8	0.2	0.5	0.4	0.5	0.0
Q2	0.0	-0.6	0.2	-1.7	0.1	-0.3	-0.7	0.2	0.2	0.1	-0.4	1.0
Q3	0.2	0.7	0.1	-0.6	0.5	0.2	0.1	0.3	0.4	0.1	0.5	-0.4
contributions to quarter-on-quarter percentage changes in value added; percentage points												
2013 Q4	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	-
2014 Q1	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	-
Q2	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Q3	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-

Sources: Eurostat and ECB calculations.

3.3 Short-term business statistics

	Industrial production						Construction production	ECB indicator on industrial new orders	Retail sales				New passenger car registrations
	Total (excluding construction)	Main Industrial Groupings							Total	Food, beverages, tobacco	Non-food	Fuel	
		Manufacturing	Intermediate goods	Capital goods	Consumer goods	Energy							
% of total in 2010	100.0	86.0	33.6	29.2	22.5	14.7	100.0	100.0	100.0	39.3	51.5	9.1	100.0
	1	2	3	4	5	6	7	8	9	10	11	12	13
annual percentage changes													
2011	3.4	4.7	4.2	8.4	0.9	-4.3	-3.6	8.6	-0.7	-1.1	-0.2	-3.3	-0.9
2012	-2.5	-2.7	-4.5	-1.1	-2.5	-0.4	-5.0	-3.8	-1.7	-1.3	-1.6	-5.0	-11.1
2013	-0.7	-0.7	-1.0	-0.6	-0.4	-0.8	-2.8	-0.1	-0.8	-1.0	-0.6	-1.0	-4.4
2013 Q4	1.5	1.9	2.5	2.7	0.4	-1.4	-1.2	2.7	0.3	-0.2	0.9	0.2	5.3
2014 Q1	1.3	3.1	3.1	3.9	2.5	-9.2	6.7	4.4	1.0	-0.5	2.3	0.8	5.0
Q2	0.9	1.7	1.4	0.9	3.5	-5.2	3.7	3.9	1.4	1.2	2.0	-0.5	3.9
Q3	0.5	1.1	0.4	1.3	1.7	-3.4	-0.3	2.2	0.9	-0.3	2.0	-0.6	4.1
2014 June	0.2	0.7	0.4	0.3	1.9	-3.9	-0.7	1.7	2.0	1.6	2.7	-0.2	3.3
July	1.7	2.5	1.5	4.0	2.0	-4.3	-0.5	4.5	0.6	-1.0	2.1	-1.9	5.7
Aug.	-0.6	0.0	0.1	-2.2	2.5	-2.9	1.5	1.0	1.6	-0.5	3.6	-0.3	4.1
Sep.	0.2	0.7	-0.5	1.5	0.8	-2.9	-2.3	1.2	0.4	0.8	0.4	0.4	2.5
Oct.	0.8	1.2	-0.6	1.4	3.1	-1.5	0.3	4.0	1.6	0.1	2.5	0.7	4.4
Nov.	-0.4	0.3	-0.6	-0.9	3.1	-4.8	2.2	.	1.5	0.1	2.8	1.5	0.3
month-on-month percentage changes (s.a.)													
2014 June	-0.2	-0.2	0.4	0.2	-1.6	-1.1	-0.2	-1.0	0.4	0.5	0.3	0.2	1.2
July	0.8	1.0	0.9	1.8	0.5	-0.8	0.2	2.2	-0.3	-0.9	0.1	-0.4	0.6
Aug.	-1.2	-1.4	-1.0	-3.3	0.3	1.1	0.5	-2.1	0.6	0.1	1.2	0.8	0.1
Sep.	0.5	0.5	-0.3	2.1	-0.9	0.4	-1.1	1.3	-0.9	0.2	-2.1	-0.2	-1.3
Oct.	0.3	0.5	0.2	0.0	1.5	-0.8	1.1	1.0	0.6	-0.1	0.9	0.5	3.0
Nov.	0.2	0.3	0.3	-0.2	0.9	-0.9	-0.1	.	0.6	0.5	1.4	1.4	-2.7

3.4 Employment ¹⁾

(quarterly data seasonally adjusted; annual data unadjusted)

	By employment status			By economic activity									
	Total	Employees	Self-employed	Agriculture, forestry and fishing	Manufacturing, energy and utilities	Construction	Trade, transport, accommodation and food services	Information and communication	Finance and insurance	Real estate	Professional, business and support services	Public administration, education, health and social work	Arts, entertainment and other services
	1	2	3	4	5	6	7	8	9	10	11	12	13
Persons employed													
as a percentage of total persons employed													
2011	100.0	85.0	15.0	3.4	15.4	6.7	24.8	2.7	2.7	1.0	12.6	23.7	7.0
2012	100.0	85.0	15.0	3.4	15.4	6.4	24.8	2.7	2.7	1.0	12.7	23.8	7.0
2013	100.0	85.0	15.0	3.4	15.3	6.2	24.9	2.7	2.7	1.0	12.9	24.0	7.1
annual percentage changes													
2011	0.1	0.2	-0.1	-2.1	0.0	-3.6	0.5	1.2	-0.6	0.6	2.5	0.0	0.0
2012	-0.5	-0.5	-0.4	-1.6	-0.8	-4.6	-0.5	0.8	-0.4	-0.1	0.5	-0.1	0.6
2013	-0.8	-0.7	-1.1	-1.4	-1.3	-4.5	-0.7	0.2	-1.1	-1.3	0.2	-0.2	-0.2
2013 Q4	-0.4	-0.3	-0.9	0.4	-1.0	-3.3	-0.3	0.0	-1.0	-0.7	0.8	0.1	-1.1
2014 Q1	0.0	0.2	-0.7	0.5	-0.6	-2.8	0.2	0.3	-0.8	0.5	1.0	0.4	0.1
Q2	0.4	0.7	-1.1	-0.7	0.2	-2.3	0.7	0.7	-1.2	0.3	1.9	0.5	0.3
Q3	0.6	0.9	-1.1	-0.9	0.3	-1.7	1.2	1.0	-1.2	0.1	1.8	0.4	0.9
Hours worked													
as a percentage of total hours worked													
2011	100.0	80.0	20.0	4.4	15.8	7.6	25.9	2.7	2.8	1.0	12.3	21.3	6.3
2012	100.0	80.0	20.0	4.4	15.7	7.2	25.8	2.8	2.8	1.0	12.5	21.6	6.3
2013	100.0	80.0	20.0	4.4	15.7	6.9	25.8	2.8	2.8	1.0	12.6	21.7	6.4
annual percentage changes													
2011	0.3	0.4	-0.3	-2.2	0.8	-3.6	0.4	1.2	-0.1	0.4	2.6	0.3	0.0
2012	-1.6	-1.7	-1.4	-2.6	-2.1	-6.5	-1.9	0.3	-0.8	-1.3	-0.3	-0.4	-0.3
2013	-1.2	-1.2	-1.2	-0.7	-1.3	-5.3	-1.3	0.2	-1.5	-2.4	-0.4	-0.5	-0.6
2013 Q4	-0.4	-0.3	-0.5	1.7	-0.2	-3.3	-0.5	0.7	-0.9	-2.1	0.4	0.0	-1.1
2014 Q1	0.6	0.7	0.1	1.6	1.0	-1.4	0.5	0.7	-0.4	0.2	0.9	1.0	0.4
Q2	0.2	0.6	-1.3	-0.2	0.3	-2.5	0.5	0.7	-1.6	-0.3	1.4	0.6	-0.3
Q3	0.5	0.9	-1.1	0.1	0.6	-2.1	1.1	0.9	-1.4	-0.6	1.4	0.3	0.4
Hours worked per person employed													
annual percentage changes													
2011	0.1	0.3	-0.3	-0.1	0.8	0.0	-0.1	0.1	0.5	-0.2	0.1	0.3	0.0
2012	-1.1	-1.1	-1.0	-1.1	-1.3	-2.0	-1.4	-0.5	-0.5	-1.2	-0.8	-0.3	-0.9
2013	-0.4	-0.5	-0.1	0.7	0.1	-0.8	-0.6	0.0	-0.3	-1.1	-0.6	-0.3	-0.5
2013 Q4	0.0	0.0	0.4	1.3	0.8	-0.1	-0.2	0.7	0.1	-1.5	-0.4	-0.1	0.0
2014 Q1	0.6	0.6	0.8	1.1	1.6	1.4	0.3	0.4	0.5	-0.3	-0.1	0.5	0.3
Q2	-0.2	-0.1	-0.2	0.5	0.1	-0.3	-0.3	0.0	-0.4	-0.6	-0.5	0.1	-0.6
Q3	-0.1	0.0	0.0	0.9	0.3	-0.4	-0.1	0.0	-0.2	-0.7	-0.4	-0.1	-0.5

Sources: Eurostat, ECB calculations, ECB experimental statistics (Table 3.3, col. 8) and European Automobile Manufacturers Association (Table 3.3, col. 13).

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

3.5 Labour force, unemployment and job vacancies

(seasonally adjusted, unless otherwise indicated)

	Labour force, millions ¹⁾	Under-employment, % of labour force ¹⁾	Unemployment										Job vacancy rate ²⁾	
			Total		Long-term unemployment % of labour force ¹⁾	By age				By gender				
			Millions	% of labour force		Adult		Youth		Male		Female		
						Millions	% of labour force	Millions	% of labour force	Millions	% of labour force	Millions		% of labour force
% of total in 2013			100.0			81.4		18.6		53.7		46.3		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
2011	157.123	3.6	15.955	10.1	4.6	12.736	8.9	3.219	21.0	8.518	9.9	7.437	10.4	1.7
2012	158.219	3.9	18.004	11.3	5.2	14.502	10.1	3.503	23.3	9.679	11.2	8.325	11.5	1.6
2013	158.207	4.3	19.023	12.0	5.9	15.482	10.7	3.541	24.1	10.215	11.9	8.808	12.1	1.5
2013 Q4	158.333	4.4	18.878	11.9	6.1	15.410	10.7	3.467	23.9	10.096	11.8	8.783	12.0	1.6
2014 Q1	157.751	4.4	18.675	11.8	6.3	15.244	10.6	3.431	23.8	10.037	11.7	8.639	11.8	1.7
Q2	158.067	4.4	18.430	11.6	6.0	15.063	10.4	3.367	23.5	9.817	11.4	8.612	11.8	1.6
Q3	158.491	4.2	18.321	11.5	5.8	14.966	10.3	3.354	23.5	9.705	11.3	8.616	11.8	1.6
2014 June	-	-	18.346	11.5	-	14.993	10.4	3.353	23.5	9.717	11.3	8.628	11.8	-
July	-	-	18.390	11.6	-	15.033	10.4	3.356	23.5	9.734	11.3	8.655	11.8	-
Aug.	-	-	18.275	11.5	-	14.932	10.3	3.343	23.5	9.670	11.3	8.605	11.8	-
Sep.	-	-	18.297	11.5	-	14.934	10.3	3.363	23.5	9.710	11.3	8.588	11.7	-
Oct.	-	-	18.360	11.5	-	14.975	10.3	3.385	23.6	9.776	11.4	8.584	11.7	-
Nov.	-	-	18.394	11.5	-	14.985	10.3	3.409	23.7	9.781	11.4	8.613	11.7	-

3.6 Opinion surveys

(seasonally adjusted)

	European Commission Business and Consumer Surveys (percentage balances, unless otherwise indicated)						Purchasing Managers' Surveys (diffusion indices)					
	Economic sentiment indicator (long-term average = 100)	Manufacturing industry		Consumer confidence indicator	Construction confidence indicator	Retail trade confidence indicator	Service industries		Purchasing Managers' Index (PMI) for manufacturing	Manufacturing output	Business activity for services	Composite output
		Industrial confidence indicator	Capacity utilisation (%)				Services confidence indicator	Capacity utilisation (%)				
	1	2	3	4	5	6	7	8	9	10	11	12
1999-13	100.2	-6.1	80.8	-12.7	-13.9	-8.9	6.5	-	51.0	52.4	52.9	52.7
2012	90.8	-11.7	78.6	-22.1	-27.6	-15.1	-6.8	86.6	46.2	46.3	47.6	47.2
2013	93.8	-9.3	78.3	-18.6	-30.0	-12.5	-6.1	86.9	49.6	50.6	49.3	49.7
2014	101.4	-4.2	.	-10.0	-28.3	-4.0	3.9	.	51.8	53.3	52.5	52.7
2014 Q1	101.6	-3.5	79.8	-11.2	-29.0	-3.1	3.4	87.2	53.4	55.9	52.1	53.1
Q2	102.2	-3.6	79.7	-7.7	-30.7	-2.3	3.9	87.3	52.4	54.5	53.1	53.4
Q3	100.9	-4.9	80.0	-9.9	-28.1	-4.7	3.3	87.6	50.9	51.6	53.2	52.8
Q4	100.7	-4.9	.	-11.2	-25.5	-5.9	4.8	.	50.4	51.2	51.7	51.5
2014 July	102.2	-3.8	79.9	-8.3	-28.2	-2.3	3.6	87.3	51.8	52.7	54.2	53.8
Aug.	100.6	-5.3	-	-10.0	-28.4	-4.6	3.1	-	50.7	51.0	53.1	52.5
Sep.	99.9	-5.5	-	-11.4	-27.7	-7.3	3.2	-	50.3	51.0	52.4	52.0
Oct.	100.7	-5.1	80.0	-11.1	-24.6	-6.4	4.4	87.8	50.6	51.5	52.3	52.1
Nov.	100.7	-4.3	-	-11.5	-26.3	-6.0	4.4	-	50.1	51.2	51.1	51.1
Dec.	100.7	-5.2	-	-10.9	-25.5	-5.3	5.6	-	50.6	50.9	51.6	51.4

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

1) Not seasonally adjusted.

2) The job vacancy rate is equal to the number of job vacancies divided by the sum of the number of occupied posts and the number of job vacancies, expressed as a percentage.

3.7 Households' and non-financial corporations' summary accounts

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

	Households							Non-financial corporations						
	Saving ratio (gross) ¹⁾	Debt ratio	Real gross disposable income	Financial investment	Non-financial investment (gross)	Net worth ²⁾	Housing wealth	Profit share ³⁾	Saving ratio (net)	Debt ratio ⁴⁾	Financial investment	Non-financial investment (gross)	Financing	
	Percentage of gross disposable income (adjusted)	Annual percentage changes						Percentage of net value added	Percentage of GDP	Annual percentage changes				
	1	2	3	4	5	6	7	8	9	10	11	12	13	
2011	13.0	97.6	-0.1	1.9	1.7	1.8	1.1	32.7	3.6	.	3.2	9.9	2.1	
2012	12.9	97.3	-1.6	1.8	-3.7	0.3	-2.2	31.0	1.6	133.4	1.0	-4.8	0.8	
2013	13.1	95.8	-0.5	1.3	-3.9	0.1	-2.3	29.8	2.5	130.1	1.5	-3.2	0.7	
2013 Q4	13.1	96.1	1.0	1.3	-4.4	0.4	-2.3	29.8	2.5	130.1	1.5	-0.4	0.7	
2014 Q1	13.1	95.5	0.6	1.4	3.3	1.9	-1.0	30.0	2.6	129.2	1.7	2.1	0.8	
Q2	13.0	95.5	0.5	1.5	0.0	2.9	-0.1	30.0	2.4	130.1	2.0	-0.5	1.0	
Q3	13.1	94.8	1.7	1.5	0.3	2.7	0.3	.	2.5	129.4	1.7	-0.9	0.8	

3.8 Euro area balance of payments, current and capital accounts

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

	Current account										Capital account ⁵⁾		
	Total			Goods		Services		Primary income		Secondary income		Credit	Debit
	Credit	Debit	Net	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit		
1	2	3	4	5	6	7	8	9	10	11	12	13	
2013 Q4	819.6	765.1	54.6	484.1	429.9	164.9	145.1	148.6	134.6	22.1	55.5	15.9	7.2
2014 Q1	817.6	758.6	59.0	476.7	424.1	168.9	144.3	150.4	132.3	21.6	57.9	9.3	3.4
Q2	829.0	771.1	57.8	484.8	426.7	170.7	150.9	152.1	132.6	21.4	61.0	7.5	3.4
Q3	829.0	762.9	66.1	488.5	424.0	170.7	154.0	147.3	132.3	22.5	52.6	6.5	2.4
2014 June	281.2	263.7	17.5	162.3	144.2	59.9	52.4	51.2	44.9	7.8	22.3	3.1	1.0
July	274.1	256.6	17.5	161.8	142.2	57.7	52.2	47.4	43.2	7.2	19.0	2.6	0.9
Aug.	265.9	248.1	17.8	154.5	134.9	55.9	50.5	47.9	44.7	7.5	17.9	2.3	0.8
Sep.	289.1	258.3	30.8	172.2	146.9	57.1	51.3	52.0	44.4	7.8	15.6	1.7	0.8
Oct.	277.4	257.9	19.5	164.0	145.6	58.5	52.8	47.1	41.9	7.8	17.7	2.8	1.1
Nov.	269.0	251.0	18.1	157.6	138.9	59.1	51.3	44.4	39.7	7.9	21.2	3.4	1.1
12-month cumulated transactions													
2014 Nov.	3,296.8	3,055.2	241.6	1,934.1	1,702.4	683.5	601.8	590.6	521.4	88.6	229.5	35.6	15.6
12-month cumulated transactions as a percentage of GDP													
2014 Nov.	32.8	30.4	2.4	19.3	17.0	6.8	6.0	5.9	5.2	0.9	2.3	0.4	0.2

3.9 Euro area external trade in goods⁶⁾, values and volumes by product group⁷⁾

(seasonally adjusted, unless otherwise indicated)

	Total (n.s.a.)		Exports (f.o.b.)					Imports (c.i.f.)					
	Exports	Imports	Total			Memo item: Manufacturing	Total			Memo items: Oil			
			Intermediate goods	Capital goods	Consumption goods		Intermediate goods	Capital goods	Consumption goods				
1	2	3	4	5	6	7	8	9	10	11	12	13	
Values (EUR billions; annual percentage changes for columns 1 and 2)													
2013 Q4	1.0	-2.1	473.5	231.8	96.2	133.3	386.4	431.9	269.7	58.4	95.8	271.2	81.5
2014 Q1	1.2	0.2	479.5	235.0	95.5	136.8	389.7	436.8	272.0	60.9	96.3	277.6	78.9
Q2	0.7	0.2	480.1	234.2	96.2	137.6	394.9	437.0	270.2	60.6	98.6	280.7	77.9
Q3	2.9	0.4	484.2	235.4	96.3	138.5	396.4	437.9	268.8	60.9	100.1	285.1	76.6
2014 June	3.2	2.9	159.8	77.5	31.7	45.5	131.2	146.6	89.9	20.9	33.0	94.3	25.4
July	2.9	0.9	160.6	78.2	32.0	46.5	131.3	147.7	91.4	20.5	33.3	96.0	26.2
Aug.	-3.2	-4.4	158.4	77.6	30.5	44.9	129.6	143.0	87.5	19.5	33.0	91.8	25.1
Sep.	8.6	4.2	165.2	79.6	33.7	47.1	135.6	147.2	90.0	20.9	33.8	97.3	25.4
Oct.	4.0	-0.1	165.0	79.4	33.5	47.6	134.3	145.4	88.4	20.7	33.8	96.2	24.7
Nov.	0.5	-1.8	165.3	.	.	.	135.1	145.4	.	.	.	94.5	.
Volume indices (2000 = 100; annual percentage changes for columns 1 and 2)													
2013 Q4	1.9	1.3	113.2	111.6	115.4	113.7	113.1	99.4	99.8	95.4	99.1	99.6	95.9
2014 Q1	1.6	2.6	114.8	113.3	114.7	116.9	114.1	100.5	101.0	98.1	99.5	101.8	94.3
Q2	0.8	2.3	114.7	113.1	114.2	117.4	115.4	101.6	101.8	98.3	102.3	103.4	94.0
Q3	1.2	1.9	114.4	112.5	113.8	116.1	114.4	101.4	101.3	98.5	101.9	103.5	93.8
2014 June	2.6	3.9	113.7	111.6	112.4	115.4	114.2	101.7	100.9	100.7	102.7	103.7	90.0
July	1.2	2.2	114.2	112.5	114.0	117.2	114.1	102.9	102.8	103.1	102.4	105.9	93.2
Aug.	-4.5	-2.7	112.4	111.2	108.2	113.6	112.3	99.4	99.2	94.1	100.6	99.8	92.6
Sep.	6.4	6.0	116.7	114.0	119.2	117.6	116.7	101.8	101.9	98.4	102.7	104.8	95.6
Oct.	2.2	1.0	116.6	113.7	118.3	119.2	115.5	100.8	101.4	96.3	101.2	102.5	98.5
Nov.	.	.	.	.	.	.	.	.	.	.	.	.	.

Sources: ECB and Eurostat.

1) Based on four-quarter cumulated sums of both saving and gross disposable income (adjusted for the change in the net equity of households in pension fund reserves).

2) Financial assets (net of financial liabilities) and non-financial assets. Non-financial assets consist mainly of housing wealth (residential structures and land).

They also include non-financial assets of unincorporated enterprises classified within the household sector.

3) The profit share uses net entrepreneurial income, which is broadly equivalent to current profits in business accounting.

4) Based on the outstanding amount of loans, debt securities, trade credits and pension scheme liabilities.

5) The capital account is not seasonally adjusted.

6) Differences between ECB's b.o.p. goods (Table 3.8) and Eurostat's trade in goods (Table 3.9) are mainly due to different definitions.

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

4 PRICES AND COSTS

4.1 Harmonised Index of Consumer Prices¹⁾

(annual percentage changes, unless otherwise indicated)

	Total					Total (s.a.; percentage change vis-à-vis previous period)						Memo item: Administered prices	
	Index: 2005 = 100	Total		Goods	Services	Total	Processed food	Unprocessed food	Non-energy industrial goods	Energy (n.s.a.)	Services	Total HICP excluding administered prices	Administered prices
		Total excluding food and energy											
% of total in 2014	100.0	100.0	69.4	57.2	42.8	100.0	12.3	7.5	26.7	10.8	42.8	87.3	12.7
	1	2	3	4	5	6	7	8	9	10	11	12	13
2012	115.6	2.5	1.5	3.0	1.8	-	-	-	-	-	-	2.3	3.8
2013	117.2	1.4	1.1	1.3	1.4	-	-	-	-	-	-	1.2	2.1
2014	117.7	0.4	0.8	-0.2	1.2	-	-	-	-	-	-	0.2	1.9
2014 Q1	117.2	0.7	0.8	0.3	1.2	0.2	0.3	0.0	0.0	0.0	0.3	0.5	2.0
Q2	118.2	0.6	0.8	0.0	1.3	0.0	0.1	-1.0	-0.1	-0.3	0.3	0.3	2.2
Q3	117.7	0.4	0.8	-0.3	1.2	0.2	0.2	0.2	0.1	-0.4	0.4	0.2	1.6
Q4	117.8	0.2	0.7	-0.6	1.2	-0.2	0.0	0.5	-0.1	-3.0	0.2	-0.1	1.7
2014 July	117.4	0.4	0.8	-0.3	1.3	0.0	0.1	0.1	0.0	-0.2	0.1	0.2	1.8
Aug.	117.6	0.4	0.9	-0.3	1.3	0.0	0.0	0.2	0.1	-0.6	0.1	0.2	1.4
Sep.	118.1	0.3	0.8	-0.3	1.1	0.0	0.1	0.5	0.0	0.1	0.0	0.1	1.5
Oct.	118.0	0.4	0.7	-0.2	1.2	-0.1	0.0	0.1	-0.1	-0.9	0.0	0.2	1.7
Nov.	117.8	0.3	0.7	-0.4	1.2	-0.1	-0.1	0.1	0.0	-1.4	0.1	0.1	1.7
Dec.	117.7	-0.2	0.7	-1.2	1.2	-0.3	0.1	-0.4	0.0	-3.3	0.0	-0.4	1.6

	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
% of total in 2014	19.8	12.3	7.5	37.5	26.7	10.8	10.5	6.2	7.3	3.1	14.7	7.2
	14	15	16	17	18	19	20	21	22	23	24	25
2012	3.1	3.1	3.0	3.0	1.2	7.6	1.8	1.5	2.9	-3.2	2.2	2.0
2013	2.7	2.2	3.5	0.6	0.6	0.6	1.7	1.5	2.4	-4.2	2.2	0.7
2014	0.5	1.2	-0.8	-0.5	0.1	-1.9	1.7	1.4	1.7	-2.8	1.5	1.3
2014 Q1	1.4	1.8	0.7	-0.3	0.3	-1.9	1.8	1.4	1.6	-2.7	1.3	1.2
Q2	0.2	1.5	-1.8	-0.1	0.0	-0.4	1.8	1.4	1.8	-2.8	1.6	1.3
Q3	-0.1	1.0	-2.0	-0.4	0.1	-1.8	1.7	1.3	1.7	-3.1	1.5	1.3
Q4	0.3	0.7	-0.3	-1.1	-0.1	-3.6	1.6	1.4	1.6	-2.6	1.4	1.4
2014 July	-0.3	1.1	-2.6	-0.3	0.0	-1.0	1.7	1.3	1.8	-2.9	1.5	1.4
Aug.	-0.3	1.0	-2.4	-0.4	0.3	-2.0	1.7	1.3	1.9	-2.9	1.5	1.3
Sep.	0.3	1.0	-0.9	-0.6	0.2	-2.3	1.6	1.4	1.5	-3.3	1.5	1.3
Oct.	0.5	0.8	0.0	-0.6	-0.1	-2.0	1.6	1.4	1.5	-2.6	1.5	1.4
Nov.	0.5	0.6	0.2	-0.8	-0.1	-2.6	1.6	1.4	1.4	-2.5	1.3	1.4
Dec.	0.0	0.5	-1.0	-1.8	0.0	-6.3	1.5	1.4	1.9	-2.6	1.4	1.4

4.2 Industry, construction and property prices

(annual percentage changes, unless otherwise indicated)

	Industrial producer prices excluding construction										Construction	Residential property prices ²⁾	Experimental indicator of commercial property prices ²⁾
	Total (index: 2010 = 100)	Total		Industry excluding construction and energy						Energy			
		Manufacturing	Total	Intermediate goods	Capital goods	Consumer goods							
						Total	Food, beverages and tobacco	Non-food					
% of total in 2010	100.0	100.0	78.1	72.1	29.4	20.1	22.6	2.3	20.3	27.9			
	1	2	3	4	5	6	7	8	9	10	11	12	13
2011	105.7	5.7	5.3	3.8	5.8	1.5	3.3	5.8	1.5	10.9	3.3	1.0	3.1
2012	108.6	2.8	2.0	1.4	0.7	1.0	2.5	3.6	0.9	6.6	1.7	-1.8	0.4
2013	108.5	-0.2	-0.1	0.4	-0.6	0.6	1.7	2.7	0.3	-1.6	0.6	-2.1	-1.2
2013 Q4	108.0	-1.1	-0.9	-0.3	-1.7	0.5	0.9	0.3	0.2	-2.8	0.7	-1.6	-1.2
2014 Q1	107.6	-1.6	-1.1	-0.5	-1.8	0.3	0.6	-0.4	0.3	-4.1	0.2	-0.7	.
Q2	107.1	-1.1	-0.4	-0.2	-1.2	0.3	0.5	-0.2	0.4	-3.1	0.2	0.0	.
Q3	106.8	-1.4	-0.6	-0.1	-0.6	0.4	-0.1	-1.0	0.3	-4.5	0.4	0.3	.
2014 June	107.1	-0.9	-0.1	-0.1	-0.9	0.4	0.4	-0.5	0.3	-2.5	-	-	-
July	106.9	-1.3	-0.4	-0.1	-0.6	0.4	0.2	-0.7	0.4	-4.1	-	-	-
Aug.	106.7	-1.5	-0.7	-0.2	-0.6	0.4	0.0	-0.9	0.3	-4.9	-	-	-
Sep.	106.9	-1.5	-0.8	-0.1	-0.5	0.5	-0.4	-1.3	0.2	-4.5	-	-	-
Oct.	106.5	-1.3	-0.9	-0.2	-0.4	0.6	-0.6	-1.4	0.3	-4.1	-	-	-
Nov.	106.2	-1.6	-1.3	-0.2	-0.6	0.6	-0.6	-1.5	0.2	-5.0	-	-	-

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

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

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

4.3 Commodity prices and GDP deflators

(annual percentage changes, unless otherwise indicated)

	GDP deflators								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
% of total									100.0	35.0	65.0	100.0	45.0	55.0	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2012	102.4	1.3	1.5	1.9	0.8	1.4	1.9	2.5	86.6	-5.2	0.2	-7.6	-1.7	5.8	-6.9
2013	103.7	1.3	0.9	1.1	1.3	0.4	-0.3	-1.3	81.7	-8.0	-13.4	-5.3	-7.7	-10.1	-5.8
2014	.	.	.	.	.	.	.	.	74.5	-6.5	-1.6	-8.6	-3.3	0.7	-6.3
2014 Q1	104.4	1.0	0.6	0.7	0.7	0.2	-0.9	-2.0	78.6	-12.9	-8.8	-14.7	-11.1	-6.8	-14.1
Q2	104.5	0.8	0.6	0.8	0.5	0.3	-0.8	-1.4	79.9	-6.2	-1.3	-8.6	-3.7	1.1	-7.4
Q3	104.6	0.8	0.6	0.6	0.8	0.4	-0.6	-1.2	78.0	-4.5	-1.6	-5.8	-1.1	0.2	-2.1
Q4	.	.	.	.	.	.	.	.	61.5	-1.4	6.2	-4.7	3.6	9.3	-0.5
2014 July	-	-	-	-	-	-	-	-	79.9	-4.8	-5.2	-4.6	-1.5	-1.5	-1.6
Aug.	-	-	-	-	-	-	-	-	77.6	-4.2	1.0	-6.4	-1.0	1.3	-2.7
Sep.	-	-	-	-	-	-	-	-	76.4	-4.6	-0.5	-6.4	-0.8	1.0	-2.0
Oct.	-	-	-	-	-	-	-	-	69.5	-2.6	3.8	-5.4	1.0	4.2	-1.3
Nov.	-	-	-	-	-	-	-	-	64.1	-1.4	6.2	-4.7	3.9	9.6	-0.2
Dec.	-	-	-	-	-	-	-	-	51.3	-0.2	8.7	-4.0	5.9	14.1	0.0

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	
	Manufac- turing	Retail trade	Services	Const- ruction		Manufac- turing	Services	Manufac- turing	Services
	1	2	3	4	5	6	7	8	9
1999-13	4.8	-	-	-1.9	34.0	57.7	56.7	-	49.9
2011	13.8	15.5	5.5	-6.6	39.1	64.1	57.1	55.5	51.0
2012	2.7	8.1	1.9	-12.6	38.5	52.7	55.1	49.9	47.9
2013	-0.5	2.0	-1.6	-17.4	29.8	48.5	53.8	49.4	47.8
2014 Q1	0.5	1.9	0.3	-18.3	22.8	49.8	53.8	50.2	48.7
Q2	-0.9	-0.6	0.1	-20.4	14.9	48.7	53.9	50.0	48.7
Q3	-0.7	-1.4	0.2	-17.3	11.7	51.2	53.7	49.8	48.4
Q4	-2.1	-3.8	2.5	-15.8	7.8	48.7	52.6	49.0	47.1
2014 July	0.4	0.2	0.2	-18.5	15.3	52.8	54.9	50.1	48.5
Aug.	-0.7	-0.1	1.0	-16.3	12.8	51.8	53.4	50.3	48.3
Sep.	-1.9	-4.2	-0.6	-17.2	7.1	49.2	52.8	48.9	48.4
Oct.	0.3	-5.6	1.6	-17.1	8.4	49.0	53.1	49.0	46.4
Nov.	-1.6	-3.0	3.3	-15.0	8.8	49.0	52.7	48.8	47.1
Dec.	-4.9	-2.8	2.7	-15.3	6.3	48.1	52.0	49.1	47.7

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

4.5 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)	By economic activity										
		Total	Agriculture, forestry and fishing	Manufactu- ring, energy and utilities	Construc- tion	Trade, transport, accommoda- tion and food services	Information and commu- nication	Finance and insurance	Real estate	Professional, business and support services	Public admini- stration, 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												
2011	100.6	0.6	0.3	-0.1	2.2	0.0	-1.4	0.4	0.8	3.1	0.6	1.1
2012	102.5	1.9	3.6	2.1	2.6	2.6	0.2	-0.4	2.0	3.5	0.5	2.4
2013	103.9	1.4	-2.5	2.1	0.4	1.5	1.8	2.5	-2.4	1.0	1.6	2.2
2013 Q4	104.2	1.2	-4.1	0.3	0.0	0.7	1.7	3.3	-2.4	0.6	2.7	2.0
2014 Q1	104.5	0.7	-4.1	0.9	-0.4	0.3	3.7	0.5	0.4	1.2	0.9	0.8
Q2	104.8	1.0	-3.3	1.7	0.1	0.5	3.6	0.6	0.1	2.2	0.8	1.6
Q3	105.2	1.1	-2.7	1.5	0.7	0.6	3.8	0.5	0.4	2.4	0.9	1.3
Compensation per employee												
2011	102.1	2.1	3.3	2.9	3.0	1.7	2.4	2.2	2.0	2.9	1.3	1.5
2012	103.8	1.7	1.9	2.3	2.5	1.7	2.0	1.0	2.0	2.3	0.9	2.3
2013	105.6	1.7	1.1	2.7	1.6	1.4	0.9	2.4	-0.3	1.0	1.8	1.7
2013 Q4	106.4	2.0	-0.2	2.5	2.1	1.4	1.0	2.9	-0.7	0.8	2.8	2.4
2014 Q1	106.9	1.8	0.1	2.6	3.5	1.8	2.6	1.0	0.8	1.5	1.5	1.5
Q2	107.0	1.4	0.9	2.1	1.9	1.2	1.8	2.0	0.8	1.3	1.3	1.2
Q3	107.4	1.3	1.9	1.9	1.1	1.0	1.9	1.8	1.3	1.7	1.3	0.7
Labour productivity per person employed												
2011	101.5	1.5	3.0	3.0	0.8	1.7	3.9	1.8	1.2	-0.2	0.7	0.3
2012	101.3	-0.2	-1.6	0.2	-0.1	-0.9	1.8	1.4	-0.1	-1.1	0.4	-0.2
2013	101.6	0.3	3.7	0.6	1.2	-0.1	-0.9	-0.1	2.2	-0.1	0.2	-0.6
2013 Q4	102.1	0.8	4.1	2.1	2.1	0.6	-0.7	-0.4	1.7	0.2	0.1	0.4
2014 Q1	102.3	1.0	4.4	1.6	3.9	1.4	-1.1	0.5	0.4	0.3	0.5	0.7
Q2	102.1	0.4	4.4	0.4	1.8	0.8	-1.7	1.3	0.7	-0.9	0.4	-0.4
Q3	102.0	0.2	4.7	0.4	0.3	0.4	-1.9	1.3	0.9	-0.6	0.4	-0.7
Compensation per hour worked												
2011	101.8	1.8	2.3	1.9	3.3	1.6	2.2	1.6	2.2	2.6	1.1	1.4
2012	104.7	2.9	4.0	3.7	4.9	3.4	2.4	1.5	2.2	3.2	1.2	3.3
2013	107.0	2.2	1.3	2.5	2.7	2.1	0.9	2.8	1.1	1.8	2.1	2.1
2013 Q4	107.7	2.0	-0.5	1.6	2.1	1.7	0.4	2.9	1.3	1.1	2.9	2.4
2014 Q1	108.0	1.2	-0.4	0.8	2.0	1.6	2.1	0.7	1.2	1.6	1.0	1.0
Q2	108.4	1.5	1.8	1.8	2.2	1.5	1.9	2.4	1.9	1.3	1.1	1.5
Q3	108.7	1.3	2.3	1.4	1.3	1.1	1.8	2.0	1.4	1.6	1.3	1.0
Hourly labour productivity												
2011	101.3	1.3	3.1	2.2	0.8	1.7	3.9	1.3	1.4	-0.4	0.4	0.3
2012	102.3	0.9	-0.5	1.6	1.9	0.5	2.3	1.9	1.1	-0.3	0.7	0.7
2013	103.0	0.7	3.0	0.5	2.0	0.5	-0.9	0.2	3.3	0.5	0.5	-0.1
2013 Q4	103.3	0.7	2.8	1.3	2.2	0.8	-1.4	-0.5	3.2	0.6	0.2	0.4
2014 Q1	103.4	0.4	3.2	0.0	2.5	1.1	-1.4	0.0	0.7	0.4	0.0	0.4
Q2	103.6	0.6	3.8	0.3	2.1	1.1	-1.8	1.7	1.3	-0.4	0.3	0.3
Q3	103.4	0.3	3.7	0.0	0.7	0.5	-1.8	1.5	1.6	-0.3	0.5	-0.2

4.6 Labour cost indices

(annual percentage changes, unless otherwise indicated)

	Total (index: 2008 = 100)	Total	By component		For selected economic activities		Memo item: Indicator of negotiated wages ¹⁾
			Wages and salaries	Employers' social contributions	Business economy	Mainly non-business economy	
% of total in 2008	100.0	100.0	75.2	24.8	32.4	58.6	
	1	2	3	4	5	6	7
2011	106.7	2.3	2.1	2.7	2.6	1.4	2.0
2012	108.9	2.0	2.0	2.0	2.4	1.2	2.2
2013	110.3	1.3	1.5	0.8	1.2	1.6	1.8
2013 Q4	117.1	1.3	1.6	0.3	1.0	2.1	1.7
2014 Q1	103.7	0.7	1.1	-0.6	0.7	0.5	1.9
Q2	115.7	1.4	1.4	1.3	1.6	1.1	1.9
Q3	108.6	1.3	1.4	1.2	1.2	1.5	1.7

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).

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				Repos	Money market fund shares	Debt securities with a maturity of up to 2 years	11	12	
	Currency in circulation	Overnight deposits	Deposits with an agreed maturity of up to 2 years	Deposits redeemable at notice of up to 3 months	3	4						5	6	7	8	9	10
1	2	3	4	5	6	7	8	9	10	11	12	
	Outstanding amounts											
2011	843.6	3,961.6	4,805.2	1,840.1	1,962.6	3,802.7	8,607.9	147.4	537.6	205.2	890.3	9,498.3
2012	863.4	4,244.0	5,107.5	1,803.3	2,081.5	3,884.8	8,992.3	125.0	483.1	180.6	788.7	9,780.9
2013	908.8	4,483.2	5,391.9	1,691.2	2,123.2	3,814.4	9,206.3	120.0	417.7	86.5	624.3	9,830.6
2013 Q4	908.8	4,483.2	5,391.9	1,691.2	2,123.2	3,814.4	9,206.3	120.0	417.7	86.5	624.3	9,830.6
2014 Q1	924.8	4,563.8	5,488.6	1,667.7	2,125.3	3,793.1	9,281.7	117.1	403.2	84.8	605.1	9,886.8
Q2	931.5	4,627.9	5,559.4	1,671.0	2,131.2	3,802.3	9,361.7	129.7	397.0	75.8	602.5	9,964.2
Q3	948.2	4,745.8	5,694.0	1,647.5	2,136.6	3,784.1	9,478.1	122.4	419.2	68.8	610.5	10,088.5
2014 June	931.5	4,627.9	5,559.4	1,671.0	2,131.2	3,802.3	9,361.7	129.7	397.0	75.8	602.5	9,964.2
July	936.3	4,669.9	5,606.3	1,669.5	2,131.7	3,801.1	9,407.4	128.6	409.1	70.1	607.8	10,015.2
Aug.	943.3	4,713.8	5,657.1	1,658.2	2,134.2	3,792.3	9,449.4	128.6	404.2	74.1	606.9	10,056.3
Sep.	948.2	4,745.8	5,694.0	1,647.5	2,136.6	3,784.1	9,478.1	122.4	419.2	68.8	610.5	10,088.5
Oct.	949.5	4,794.6	5,744.1	1,624.8	2,132.5	3,757.4	9,501.4	130.3	432.6	67.0	630.0	10,131.4
Nov. ^(p)	956.5	4,857.7	5,814.2	1,619.4	2,138.4	3,757.7	9,572.0	128.2	435.2	71.6	635.0	10,206.9
	Transactions											
2011	48.7	43.5	92.2	34.8	33.9	68.7	160.9	-16.8	-29.4	37.8	-8.4	152.6
2012	20.0	289.5	309.5	-36.0	114.9	78.9	388.5	-16.9	-20.2	-18.5	-55.7	332.8
2013	45.3	246.3	291.7	-111.1	43.9	-67.2	224.5	-12.0	-48.8	-62.8	-123.6	100.9
2013 Q4	14.9	33.5	48.4	-15.0	-6.1	-21.1	27.3	9.5	-4.2	-27.0	-21.8	5.5
2014 Q1	15.4	73.4	88.8	-26.2	1.7	-24.5	64.3	-3.0	-6.9	-1.3	-11.2	53.1
Q2	6.7	61.7	68.5	2.3	5.8	8.0	76.5	12.4	-6.0	-5.8	0.7	77.2
Q3	16.7	109.1	125.8	-27.1	5.1	-21.9	103.8	-8.2	8.9	2.8	3.5	107.3
2014 June	2.7	18.4	21.0	1.9	3.7	5.6	26.6	8.6	-1.5	-1.0	6.2	32.8
July	4.8	41.8	46.6	-2.6	0.4	-2.2	44.4	-1.3	12.2	-5.5	5.4	49.7
Aug.	7.0	41.9	48.9	-12.1	2.4	-9.6	39.3	-0.2	-4.8	4.0	-1.0	38.3
Sep.	4.9	25.4	30.3	-12.4	2.3	-10.1	20.2	-6.7	1.5	4.3	-0.9	19.4
Oct.	1.3	48.3	49.6	-22.2	-4.5	-26.7	22.9	7.9	13.5	-2.0	19.4	42.3
Nov. ^(p)	7.0	63.4	70.4	-5.4	5.9	0.5	70.9	-2.1	2.6	4.3	4.8	75.7
	Growth rates											
2011	6.1	1.1	2.0	1.9	1.8	1.8	1.9	-9.7	-5.1	30.2	-1.0	1.6
2012	2.4	7.3	6.4	-1.9	5.9	2.1	4.5	-11.6	-3.9	-9.9	-6.6	3.5
2013	5.2	5.8	5.7	-6.2	2.1	-1.7	2.5	-9.5	-10.4	-37.8	-16.2	1.0
2013 Q4	5.2	5.8	5.7	-6.2	2.1	-1.7	2.5	-9.5	-10.4	-37.8	-16.2	1.0
2014 Q1	6.5	5.5	5.6	-6.5	1.1	-2.4	2.2	-9.9	-10.3	-27.6	-13.5	1.0
Q2	5.6	5.4	5.4	-4.6	0.5	-1.8	2.4	5.2	-8.2	-25.8	-8.8	1.6
Q3	6.0	6.2	6.2	-3.9	0.3	-1.5	3.0	9.7	-2.0	-25.4	-4.4	2.5
2014 June	5.6	5.4	5.4	-4.6	0.5	-1.8	2.4	5.2	-8.2	-25.8	-8.8	1.6
July	5.6	5.6	5.6	-4.3	0.2	-1.8	2.5	0.9	-4.0	-28.7	-7.0	1.8
Aug.	5.8	5.9	5.9	-4.2	0.4	-1.7	2.7	5.9	-5.3	-25.7	-6.7	2.0
Sep.	6.0	6.2	6.2	-3.9	0.3	-1.5	3.0	9.7	-2.0	-25.4	-4.4	2.5
Oct.	5.6	6.3	6.2	-4.9	0.2	-2.1	2.7	9.9	1.0	-21.8	-1.0	2.5
Nov. ^(p)	5.9	7.1	6.9	-4.5	0.4	-1.8	3.3	6.8	2.8	-16.3	0.3	3.1

Source: ECB.

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

5.2 Deposits in M3¹⁾

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

	Non-financial corporations					Households ²⁾					Financial corporations other than MFIs and ICPFs	Insurance corporations and pension funds	Other general government ³⁾
	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													
2011	1,549.5	1,018.5	440.7	74.6	15.8	5,089.1	2,260.6	944.7	1,860.8	23.0	802.1	193.8	277.3
2012	1,618.7	1,112.8	406.9	88.1	10.8	5,308.6	2,360.4	977.3	1,960.3	10.5	811.2	209.1	306.3
2013	1,710.6	1,198.6	400.8	94.7	16.5	5,414.0	2,542.6	875.7	1,991.2	4.5	801.6	192.8	298.6
2013 Q4	1,710.6	1,198.6	400.8	94.7	16.5	5,414.0	2,542.6	875.7	1,991.2	4.5	801.6	192.8	298.6
2014 Q1	1,732.1	1,223.8	398.2	95.2	15.0	5,442.6	2,583.8	864.5	1,988.6	5.7	780.4	205.7	313.3
Q2	1,751.9	1,244.6	394.7	97.3	15.3	5,481.4	2,623.1	859.8	1,994.0	4.5	801.7	210.3	314.6
Q3	1,784.7	1,279.3	391.1	98.9	15.4	5,531.9	2,686.9	845.1	1,995.1	4.9	800.1	208.4	327.1
2014 June	1,751.9	1,244.6	394.7	97.3	15.3	5,481.4	2,623.1	859.8	1,994.0	4.5	801.7	210.3	314.6
July	1,764.8	1,256.4	396.4	98.2	13.8	5,495.5	2,642.4	855.6	1,992.5	5.0	805.6	215.6	318.2
Aug.	1,778.9	1,270.2	394.8	98.5	15.4	5,513.4	2,664.4	850.0	1,994.2	4.9	801.5	216.7	324.2
Sep.	1,784.7	1,279.3	391.1	98.9	15.4	5,531.9	2,686.9	845.1	1,995.1	4.9	800.1	208.4	327.1
Oct.	1,786.6	1,293.8	379.3	100.0	13.5	5,531.1	2,700.0	835.6	1,990.8	4.7	831.9	211.0	321.7
Nov. ⁴⁾	1,816.3	1,320.4	382.0	100.9	13.1	5,552.5	2,730.5	827.1	1,990.1	4.8	840.1	211.4	323.4
Transactions													
2011	-1.1	5.2	-1.0	-5.0	-0.3	71.8	-2.6	42.0	39.5	-7.1	-1.6	12.8	13.6
2012	72.2	99.4	-33.2	10.0	-4.0	222.8	99.4	35.6	100.2	-12.5	16.5	15.0	25.0
2013	97.9	90.4	-6.0	7.7	5.8	108.7	183.7	-100.1	31.1	-6.0	-16.8	-14.2	-8.5
2013 Q4	39.1	27.2	4.8	0.7	6.4	5.4	40.7	-30.5	-3.2	-1.6	3.5	-9.8	-16.3
2014 Q1	17.2	21.6	-3.3	0.4	-1.5	25.5	39.1	-11.8	-2.9	1.1	-22.1	12.3	13.1
Q2	14.8	18.7	-4.3	0.3	0.2	41.4	40.4	-4.9	7.1	-1.2	20.4	4.6	0.9
Q3	24.9	29.2	-5.7	1.6	-0.2	47.3	61.9	-16.0	1.0	0.4	-3.5	-2.3	12.6
2014 June	4.3	7.4	-3.1	0.0	-0.1	20.7	17.8	-0.4	3.9	-0.6	-0.8	4.6	3.8
July	10.5	10.0	1.2	0.9	-1.6	13.4	18.8	-4.5	-1.5	0.5	5.7	5.1	3.6
Aug.	12.7	12.9	-2.1	0.3	1.6	17.4	21.6	-5.7	1.6	-0.1	-5.0	1.1	5.9
Sep.	1.7	6.3	-4.7	0.4	-0.3	16.6	21.5	-5.7	0.9	0.0	-4.2	-8.5	3.1
Oct.	1.8	14.3	-11.6	0.9	-1.9	-0.9	13.1	-9.5	-4.3	-0.2	31.6	2.6	-5.5
Nov. ⁴⁾	29.9	26.8	2.7	0.8	-0.4	21.7	30.7	-8.4	-0.7	0.1	8.6	0.4	1.2
Growth rates													
2011	-0.1	0.5	-0.2	-6.3	-2.2	1.4	-0.1	4.7	2.2	-23.7	-0.2	7.2	5.2
2012	4.7	9.8	-7.5	13.2	-25.2	4.4	4.4	3.8	5.4	-54.2	2.1	7.8	9.1
2013	6.1	8.1	-1.5	8.8	54.6	2.0	7.8	-10.3	1.6	-57.0	-2.1	-6.9	-2.8
2013 Q4	6.1	8.1	-1.5	8.8	54.6	2.0	7.8	-10.3	1.6	-57.0	-2.1	-6.9	-2.8
2014 Q1	5.7	8.0	-1.3	5.6	24.0	1.6	7.2	-10.0	0.6	-31.0	-5.6	-4.3	2.3
Q2	6.2	8.3	-0.6	4.9	40.5	2.0	7.3	-8.1	0.3	-30.3	-4.3	1.7	-0.3
Q3	5.7	8.2	-2.1	3.1	47.4	2.2	7.3	-7.0	0.1	-20.8	-0.2	2.3	3.3
2014 June	6.2	8.3	-0.6	4.9	40.5	2.0	7.3	-8.1	0.3	-30.3	-4.3	1.7	-0.3
July	5.9	8.1	-0.8	4.1	28.0	1.8	6.8	-7.4	0.0	-26.9	-3.5	3.3	1.3
Aug.	6.0	8.4	-1.4	3.4	33.2	2.0	7.0	-7.4	0.2	-23.3	-3.1	5.5	2.6
Sep.	5.7	8.2	-2.1	3.1	47.4	2.2	7.3	-7.0	0.1	-20.8	-0.2	2.3	3.3
Oct.	4.7	8.2	-5.5	2.5	12.0	2.1	6.9	-6.9	0.1	-18.5	1.0	3.4	2.2
Nov. ⁴⁾	5.3	8.8	-5.4	3.3	17.4	2.4	7.5	-7.1	0.2	-14.7	3.6	4.0	0.8

Source: ECB.

- 1) Data refer to the changing composition of the euro area.
- 2) Including non-profit institutions serving households.
- 3) Refers to the general government sector excluding central government.

5.3 Credit to euro area residents¹⁾

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

	Credit to general government			Credit to other euro area residents								
	Total	Loans	Debt securities	Total	Loans					Debt securities	Equity and non-money market fund investment fund shares	
					Total	To non-financial corporations	To households ³⁾	To financial corporations other than MFIs and ICPFs	To insurance corporations and pension funds			
												Adjusted for loan sales and securitisation ²⁾
1	2	3	4	5	6	7	8	9	10	11	12	
Outstanding amounts												
2011	3,169.0	1,176.1	1,993.0	13,298.0	11,022.2	-	4,727.8	5,232.6	970.8	91.1	1,528.5	747.3
2012	3,410.8	1,169.3	2,241.5	13,069.5	10,860.0	-	4,544.6	5,242.3	984.3	89.0	1,435.9	773.6
2013	3,407.5	1,096.3	2,311.2	12,709.4	10,546.4	-	4,354.1	5,221.4	872.6	98.3	1,363.9	799.1
2013 Q4	3,407.5	1,096.3	2,311.2	12,709.4	10,546.4	-	4,354.1	5,221.4	872.6	98.3	1,363.9	799.1
2014 Q1	3,454.0	1,113.0	2,341.0	12,661.6	10,531.2	-	4,337.6	5,232.2	860.6	100.7	1,329.9	800.5
Q2	3,447.9	1,101.7	2,346.2	12,588.1	10,464.7	-	4,306.3	5,191.0	868.5	99.0	1,317.3	806.1
Q3	3,508.9	1,102.3	2,406.7	12,561.6	10,444.7	-	4,284.5	5,194.5	862.4	103.3	1,307.0	809.8
2014 June	3,447.9	1,101.7	2,346.2	12,588.1	10,464.7	-	4,306.3	5,191.0	868.5	99.0	1,317.3	806.1
July	3,469.4	1,106.9	2,362.5	12,570.9	10,439.1	-	4,293.9	5,191.0	852.2	102.1	1,321.0	810.7
Aug.	3,500.5	1,105.5	2,395.0	12,560.4	10,434.7	-	4,290.6	5,191.5	854.9	97.8	1,314.4	811.3
Sep.	3,508.9	1,102.3	2,406.7	12,561.6	10,444.7	-	4,284.5	5,194.5	862.4	103.3	1,307.0	809.8
Oct.	3,523.4	1,097.3	2,426.1	12,543.9	10,431.5	-	4,274.0	5,197.2	857.4	102.9	1,301.1	811.3
Nov. ^(p)	3,537.8	1,108.7	2,429.1	12,534.2	10,431.0	-	4,271.4	5,194.6	857.6	107.4	1,292.3	810.8
Transactions												
2011	96.2	-54.6	150.8	52.4	105.8	132.4	58.4	81.9	-35.8	1.3	-23.5	-29.9
2012	184.9	-4.0	189.0	-100.6	-69.1	-13.4	-107.6	26.0	14.5	-2.0	-69.9	38.5
2013	-24.5	-73.7	49.2	-304.5	-247.4	-221.2	-132.8	-3.5	-120.7	9.6	-71.7	14.6
2013 Q4	-42.3	-11.6	-30.7	-130.1	-56.7	-51.0	-26.5	-5.9	-27.5	3.1	-69.1	-4.2
2014 Q1	13.0	15.2	-2.2	-40.3	-16.2	-13.4	-25.9	7.1	0.1	2.5	-26.8	2.7
Q2	-27.6	-10.3	-17.3	-50.1	-47.4	9.2	-18.7	-35.4	8.5	-1.7	-12.4	9.7
Q3	41.1	-1.4	42.5	-18.9	-10.5	-10.9	-17.7	8.0	-5.1	4.2	-14.1	5.7
2014 June	-29.7	-13.2	-16.5	4.3	-7.2	-1.2	-2.0	2.2	-9.4	2.0	-2.1	13.6
July	15.1	3.4	11.7	-3.5	-15.1	-16.3	-11.5	1.2	-7.9	3.1	3.1	8.5
Aug.	20.5	-1.4	21.9	-10.8	-3.2	-2.7	-3.4	3.1	1.4	-4.3	-7.3	-0.2
Sep.	5.5	-3.5	9.0	-4.7	7.8	8.1	-2.8	3.7	1.4	5.5	-10.0	-2.5
Oct.	18.7	-6.3	24.9	-6.0	-3.7	-2.0	-2.3	4.2	-5.2	-0.4	-6.9	4.6
Nov. ^(p)	5.6	11.1	-5.5	-13.4	2.7	9.0	-0.6	-1.3	0.0	4.5	-10.5	-5.6
Growth rates												
2011	3.2	-4.4	8.3	0.4	1.0	1.2	1.2	1.6	-3.7	1.6	-1.5	-3.8
2012	5.8	-0.3	9.5	-0.8	-0.6	-0.1	-2.3	0.5	1.5	-2.2	-4.6	5.2
2013	-0.7	-6.3	2.2	-2.3	-2.3	-2.0	-2.9	-0.1	-12.2	10.8	-5.0	1.9
2013 Q4	-0.7	-6.3	2.2	-2.3	-2.3	-2.0	-2.9	-0.1	-12.2	10.8	-5.0	1.9
2014 Q1	-0.9	-3.1	0.2	-2.5	-2.2	-2.0	-3.1	-0.1	-10.8	9.0	-6.7	1.0
Q2	-2.5	-1.5	-3.0	-2.2	-1.8	-1.1	-2.3	-0.6	-5.9	4.8	-7.5	0.5
Q3	-0.5	-0.7	-0.4	-1.9	-1.2	-0.6	-2.0	-0.5	-2.6	8.5	-8.6	1.7
2014 June	-2.5	-1.5	-3.0	-2.2	-1.8	-1.1	-2.3	-0.6	-5.9	4.8	-7.5	0.5
July	-1.8	-1.1	-2.0	-1.9	-1.6	-1.0	-2.3	-0.5	-4.8	7.0	-7.3	2.6
Aug.	-1.2	-0.7	-1.4	-1.9	-1.5	-0.9	-2.2	-0.5	-3.8	0.3	-7.9	2.6
Sep.	-0.5	-0.7	-0.4	-1.9	-1.2	-0.6	-2.0	-0.5	-2.6	8.5	-8.6	1.7
Oct.	-0.2	-1.4	0.4	-1.6	-1.1	-0.5	-1.8	-0.4	-2.5	5.8	-7.9	2.5
Nov. ^(p)	0.9	0.6	1.0	-1.4	-0.9	-0.2	-1.6	-0.4	-1.5	8.0	-7.2	2.5

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) Including non-profit institutions serving households.

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

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

	Non-financial corporations					Households ²⁾				
	Total	Adjusted for loan sales and securitisation ³⁾	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Total	Adjusted for loan sales and securitisation ³⁾	Loans for consumption	Loans for house purchase	Other loans
	1					2					3	4	5	6	7	8	9	10
	Outstanding amounts									
2011	4,727.8	-	1,146.1	860.5	2,721.2	5,232.6	-	626.1	3,777.0	829.5
2012	4,544.6	-	1,127.9	795.6	2,621.0	5,242.3	-	602.0	3,823.6	816.7
2013	4,354.1	-	1,065.6	740.8	2,547.8	5,221.4	-	573.5	3,851.5	796.4
2013 Q4	4,354.1	-	1,065.6	740.8	2,547.8	5,221.4	-	573.5	3,851.5	796.4
2014 Q1	4,337.6	-	1,056.9	732.8	2,548.0	5,232.2	-	572.3	3,867.0	793.0
Q2	4,306.3	-	1,058.1	734.1	2,514.1	5,191.0	-	570.3	3,835.3	785.4
Q3	4,284.5	-	1,055.7	726.0	2,502.8	5,194.5	-	567.1	3,844.0	783.4
2014 June	4,306.3	-	1,058.1	734.1	2,514.1	5,191.0	-	570.3	3,835.3	785.4
July	4,293.9	-	1,051.2	731.1	2,511.5	5,191.0	-	571.1	3,836.6	783.3
Aug.	4,290.6	-	1,049.4	730.1	2,511.0	5,191.5	-	566.7	3,843.6	781.2
Sep.	4,284.5	-	1,055.7	726.0	2,502.8	5,194.5	-	567.1	3,844.0	783.4
Oct.	4,274.0	-	1,052.2	723.8	2,498.1	5,197.2	-	568.8	3,848.3	780.1
Nov. ^(p)	4,271.4	-	1,040.1	734.1	2,497.2	5,194.6	-	566.8	3,848.6	779.3
	Transactions									
2011	58.4	64.2	23.8	-22.9	57.4	81.9	102.6	-11.6	86.0	7.5
2012	-107.6	-60.3	6.2	-51.4	-62.3	26.0	34.7	-17.7	48.8	-5.1
2013	-132.8	-127.5	-44.5	-44.5	-43.7	-3.5	14.3	-18.1	27.6	-13.1
2013 Q4	-26.5	-28.2	-8.9	-18.2	0.6	-5.9	1.0	-5.6	6.4	-6.7
2014 Q1	-25.9	-24.8	-6.6	-6.3	-13.0	7.1	8.5	0.0	10.1	-3.0
Q2	-18.7	-7.5	3.3	6.0	-28.1	-35.4	9.3	-2.0	-32.7	-0.7
Q3	-17.7	-19.2	-3.3	-6.6	-7.7	8.0	9.4	1.2	10.2	-3.4
2014 June	-2.0	2.9	17.4	2.9	-22.4	2.2	3.3	0.9	0.8	0.5
July	-11.5	-13.1	-7.4	-1.9	-2.2	1.2	1.9	0.7	1.7	-1.2
Aug.	-3.4	-3.1	-1.9	-1.2	-0.3	3.1	3.3	-1.2	6.0	-1.6
Sep.	-2.8	-3.0	6.0	-3.5	-5.3	3.7	4.2	1.7	2.6	-0.6
Oct.	-2.3	-2.1	-1.8	-0.9	0.4	4.2	5.7	1.9	4.1	-1.7
Nov. ^(p)	-0.6	0.6	-11.7	10.8	0.3	-1.3	3.8	-1.4	0.0	0.1
	Growth rates									
2011	1.2	1.4	2.1	-2.6	2.2	1.6	2.0	-1.8	2.3	0.9
2012	-2.3	-1.3	0.5	-6.0	-2.3	0.5	0.7	-2.8	1.3	-0.6
2013	-2.9	-2.8	-4.0	-5.6	-1.7	-0.1	0.3	-3.0	0.7	-1.6
2013 Q4	-2.9	-2.8	-4.0	-5.6	-1.7	-0.1	0.3	-3.0	0.7	-1.6
2014 Q1	-3.1	-3.1	-5.0	-5.0	-1.6	-0.1	0.4	-1.9	0.6	-1.8
Q2	-2.3	-2.1	-2.7	-3.3	-1.9	-0.6	0.5	-1.4	-0.4	-1.4
Q3	-2.0	-1.8	-1.4	-3.3	-1.9	-0.5	0.5	-1.1	-0.2	-1.7
2014 June	-2.3	-2.1	-2.7	-3.3	-1.9	-0.6	0.5	-1.4	-0.4	-1.4
July	-2.3	-2.2	-2.4	-3.6	-1.9	-0.5	0.5	-1.6	-0.1	-1.4
Aug.	-2.2	-2.0	-2.2	-3.6	-1.7	-0.5	0.5	-1.6	0.0	-1.7
Sep.	-2.0	-1.8	-1.4	-3.3	-1.9	-0.5	0.5	-1.1	-0.2	-1.7
Oct.	-1.8	-1.6	-1.0	-3.3	-1.7	-0.4	0.6	0.1	-0.2	-1.8
Nov. ^(p)	-1.6	-1.3	-1.5	-1.7	-1.6	-0.4	0.7	0.1	-0.2	-1.4

Source: ECB.

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

2) Including non-profit institutions serving households.

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

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

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

	MFI liabilities						MFI assets			
	Central government holdings ²⁾	Longer-term financial liabilities vis-à-vis other euro area residents					Net external assets	Other		
		Total	Deposits with an agreed maturity of over 2 years	Deposits redeemable at notice of over 3 months	Debt securities with a maturity of over 2 years	Capital and reserves		Total		
								Repos with central counterparties ³⁾	Reverse repos to central counterparties ³⁾	
1	2	3	4	5	6	7	8	9	10	
Outstanding amounts										
2011	313.6	7,677.9	2,544.8	115.2	2,809.2	2,208.6	922.8	99.9	268.1	157.8
2012	305.4	7,570.1	2,395.9	106.0	2,680.8	2,387.4	1,029.8	146.4	260.8	201.2
2013	260.2	7,304.4	2,373.3	91.5	2,506.3	2,333.3	1,153.9	124.5	183.8	122.1
2013 Q4	260.2	7,304.4	2,373.3	91.5	2,506.3	2,333.3	1,153.9	124.5	183.8	122.1
2014 Q1	260.9	7,342.5	2,355.5	91.1	2,472.5	2,423.4	1,256.1	118.5	177.0	116.7
Q2	270.2	7,294.6	2,301.8	90.1	2,455.1	2,447.6	1,357.6	135.2	171.2	119.0
Q3	249.6	7,331.6	2,278.6	92.4	2,457.0	2,503.5	1,419.5	179.8	163.6	121.7
2014 June	270.2	7,294.6	2,301.8	90.1	2,455.1	2,447.6	1,357.6	135.2	171.2	119.0
July	272.2	7,298.8	2,292.7	90.7	2,453.3	2,462.1	1,404.7	141.2	169.6	121.0
Aug.	266.1	7,317.2	2,289.8	91.9	2,448.4	2,487.2	1,416.0	162.9	171.9	116.9
Sep.	249.6	7,331.6	2,278.6	92.4	2,457.0	2,503.5	1,419.5	179.8	163.6	121.7
Oct.	254.2	7,270.2	2,265.7	91.8	2,419.9	2,492.8	1,417.8	170.7	183.1	121.1
Nov. ^(p)	256.3	7,262.6	2,258.6	91.0	2,404.4	2,508.6	1,465.6	188.3	184.4	130.8
Transactions										
2011	-1.4	212.6	56.2	-2.5	16.7	142.2	161.4	53.7	-0.5	10.1
2012	-4.9	-115.3	-156.3	-10.2	-106.4	157.6	99.4	28.8	9.4	41.5
2013	-46.0	-89.5	-18.6	-14.3	-137.6	81.0	359.2	-64.7	32.2	43.9
2013 Q4	-20.9	-16.2	-18.6	-2.0	9.1	-4.7	133.0	7.8	-15.4	-3.7
2014 Q1	0.1	1.4	-11.7	-0.4	-33.1	46.6	88.0	-6.1	-6.7	-5.4
Q2	9.4	-65.1	-54.7	-1.0	-15.8	6.4	83.4	15.7	-5.8	2.3
Q3	-20.9	-3.0	-28.4	2.3	-28.5	51.5	27.8	33.4	-7.7	2.6
2014 June	-1.1	-30.3	-12.1	-1.1	-14.5	-2.7	34.0	-7.2	24.0	26.1
July	2.0	-2.5	-10.2	0.6	-10.6	17.7	35.5	2.1	-1.6	1.9
Aug.	-6.1	1.4	-4.5	1.1	-5.5	10.3	-1.4	25.3	2.2	-4.1
Sep.	-16.9	-1.9	-13.7	0.6	-12.4	23.6	-6.2	6.0	-8.3	4.7
Oct.	2.3	-31.7	-11.6	-0.6	-29.8	10.2	13.9	-13.6	19.5	-0.5
Nov. ^(p)	2.1	-19.1	-6.9	-0.8	-14.1	2.8	47.0	19.5	1.3	9.6
Growth rates										
2011	-0.3	2.9	2.3	-2.1	0.7	7.0	-	-	-0.2	6.8
2012	-1.5	-1.5	-6.1	-8.8	-3.8	7.0	-	-	2.5	26.1
2013	-15.1	-1.2	-0.8	-13.5	-5.1	3.4	-	-	10.3	23.5
2013 Q4	-15.1	-1.2	-0.8	-13.5	-5.1	3.4	-	-	10.3	23.5
2014 Q1	-12.1	-1.0	-1.7	-9.6	-4.6	3.9	-	-	-12.9	-0.9
Q2	-9.0	-1.6	-3.9	-6.8	-3.2	2.5	-	-	-23.8	-4.5
Q3	-11.6	-1.1	-4.7	-1.2	-2.7	4.2	-	-	-17.5	-3.2
2014 June	-9.0	-1.6	-3.9	-6.8	-3.2	2.5	-	-	-23.8	-4.5
July	-9.2	-1.3	-4.2	-5.1	-2.6	3.3	-	-	-9.8	9.1
Aug.	-6.1	-1.1	-4.2	-2.9	-2.3	3.2	-	-	-11.5	-0.9
Sep.	-11.6	-1.1	-4.7	-1.2	-2.7	4.2	-	-	-17.5	-3.2
Oct.	-4.6	-1.7	-5.4	-0.9	-4.4	4.7	-	-	-3.1	2.1
Nov. ^(p)	-1.8	-1.9	-5.4	-1.1	-4.9	4.9	-	-	-4.4	-6.6

Source: ECB.

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

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

3) Not adjusted for seasonal effects.

6 FISCAL DEVELOPMENTS

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

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

	Deficit (-)/ surplus (+)	Revenue						Expenditure						
		Total	Current revenue				Capital revenue	Total	Current expenditure				Capital expenditure	
			Direct taxes	Indirect taxes	Net social contributions	Social payments ³⁾			Compensation of employees	Intermediate consumption	Interest			
												3		4	5	6	7	8	9	10	11	12	13
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
2010	-5.8	44.3	44.0	11.4	12.6	15.1	0.2	50.1	44.9	10.7	5.4	2.7	23.4	5.2
2011	-3.8	44.8	44.5	11.7	12.8	15.1	0.2	48.6	44.3	10.4	5.3	3.0	23.1	4.3
2012	-3.3	45.7	45.5	12.2	13.0	15.3	0.2	49.1	44.6	10.3	5.3	3.0	23.4	4.5
2013	-2.5	46.4	46.1	12.5	13.1	15.5	0.3	48.9	44.9	10.4	5.3	2.8	23.8	4.1
2014 Q1	-2.8	46.6	46.1	12.5	13.0	15.4	0.5	49.3	45.3	10.3	5.3	2.8	23.0	4.0
Q2	-2.6	46.6	46.1	12.5	13.0	15.5	0.5	49.2	45.4	10.3	5.3	2.7	23.0	3.8

6.2 Government debt-to-GDP ratio ¹⁾

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

	Total	Financial instrument			Holder		Original maturity		Residual maturity			Currency									
		Currency and deposits	Loans	Debt securities	Resident creditors	Non-resident creditors	Up to 1 year	Over 1 year	Up to 1 year	Over 1 and up to 5 years	Over 5 years	Euro or participating currencies	Other currencies								
														MFIs	6	7	8	9	10	11	12
1	2	3	4	5	6	7	8	9	10	11	12	13	14								
2010	83.6	2.4	15.5	65.6	40.5	23.9	43.1	12.7	70.9	20.7	28.6	34.3	82.3	1.3							
2011	85.5	2.4	15.5	67.5	42.4	24.1	43.1	12.2	73.2	20.3	29.6	35.5	83.7	1.8							
2012	88.7	2.5	17.4	68.8	45.1	26.0	43.6	11.5	77.3	19.5	31.4	37.8	86.6	2.2							
2013	90.7	2.5	16.9	71.3	45.7	26.0	45.0	10.4	80.3	19.3	32.0	39.4	88.7	2.0							
2014 Q1	91.9	2.7	16.7	72.6	.	.	.	.	.	.	.	.	.	.
Q2	92.7	2.6	16.6	73.5	.	.	.	.	.	.	.	.	.	.

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

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

	Change in debt-to- GDP ratio ⁴⁾	Primary deficit (+)/ surplus (-)	Deficit-debt adjustment ⁵⁾								Interest- growth differential	Memo item: Borrowing requirement
			Total	Transactions in main financial assets				Revaluation effects and other changes in volume	Other			
				Total	Currency and deposits	Loans	Debt securities			Equity and investment fund shares		
1	2	3	4	5	6	7	8	9	10	11	12	
2010	5.3	3.4	1.3	1.7	0.0	0.5	0.9	0.2	-0.1	-0.3	0.6	7.5
2011	1.9	1.1	0.0	-0.3	0.2	-0.2	-0.2	-0.1	0.2	0.1	0.8	3.9
2012	3.3	0.6	0.1	1.2	0.3	0.4	-0.1	0.5	-1.3	0.3	2.5	5.1
2013	2.0	0.1	-0.2	-0.5	-0.4	-0.4	-0.1	0.4	-0.1	0.4	2.1	2.8
2014 Q1	1.3	0.0	-0.2	0.0	0.0	0.2	-0.2	0.0	-0.4	0.1	1.5	3.0
Q2	1.0	-0.1	-0.3	-0.1	0.0	0.0	-0.2	0.1	0.0	-0.1	1.4	2.5

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

1) Quarterly ratios (as a percentage of GDP) calculated using a four-quarter cumulated sum for flow data and GDP, and at the end-of-quarter value for outstanding amounts.

2) EU budget transactions are included and consolidated in annual data.

3) Current transfers to non-profit institutions serving households are included in annual data.

4) Calculated as the difference between the government debt-to-GDP ratios in the last and an earlier period, i.e. the previous year for annual data and the same quarter a year earlier for quarterly data.

5) Quarterly data include intergovernmental lending within the context of the financial crisis.

6.4 Government debt securities ¹⁾

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

	Debt service due within 1 year ²⁾					Average residual maturity ³⁾	Average nominal yields ⁴⁾										
	Total	Principal ⁵⁾		Interest			Outstanding amounts				Transactions						
		1	2	Maturities of up to 3 months	3		4	5	6	Total	Floating rate	Zero coupon	Fixed rate	Maturities of up to 1 year	10	11	12	13
	7																		8	9	10	11
2012	16.3	14.2	4.9	2.1	0.5	6.3	3.6	1.5	3.0	3.9	3.4	1.8	2.2				
2013	16.5	14.4	5.0	2.1	0.5	6.3	3.5	1.7	1.3	3.7	2.8	1.3	1.8				
2014 Q1	17.1	15.0	4.9	2.1	0.5	6.4	3.4	1.7	0.8	3.7	2.8	1.2	1.7				
Q2	16.9	14.7	5.5	2.1	0.5	6.4	3.3	1.6	0.6	3.6	2.8	1.1	1.6				
2014 July	17.0	14.9	5.2	2.1	0.5	6.4	3.2	1.5	0.6	3.6	2.8	1.0	1.7				
Aug.	17.9	15.8	6.1	2.1	0.5	6.3	3.2	1.5	0.5	3.6	2.8	1.0	1.7				
Sep.	17.6	15.5	5.8	2.1	0.5	6.3	3.2	1.5	0.5	3.5	2.8	0.9	1.6				
Oct.	17.3	15.2	5.7	2.1	0.5	6.4	3.1	1.5	0.4	3.5	2.8	0.9	1.7				
Nov.	16.3	14.2	5.0	2.1	0.5	6.4	3.1	1.4	0.4	3.5	2.8	0.8	1.7				
Dec.	16.1	14.0	5.1	2.1	0.5	6.4	3.0	1.4	0.4	3.5	2.8	0.8	1.6				

6.5 Fiscal developments in euro area countries ⁶⁾

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

	Belgium	Germany	Estonia	Ireland	Greece	Spain	France	Italy	Cyprus	
	1	2	3	4	5	6	7	8	9	
Government deficit (-)/surplus (+)										
2010	-4.0	-4.1	0.2	-32.4	-11.1	-9.4	-6.8	-4.2	-4.8	
2011	-3.9	-0.9	1.0	-12.6	-10.1	-9.4	-5.1	-3.5	-5.8	
2012	-4.1	0.1	-0.3	-8.0	-8.6	-10.3	-4.9	-3.0	-5.8	
2013	-2.9	0.1	-0.5	-5.7	-12.2	-6.8	-4.1	-2.8	-4.9	
2014 Q1	-2.9	0.4	-0.4	-5.5	-10.2	-6.5	-4.0	-2.9	-5.0	
Q2	-3.1	0.5	-0.3	-5.4	-2.9	-6.3	-4.2	-3.0	-4.0	
Government debt										
2010	99.6	80.3	6.5	87.4	146.0	60.1	81.5	115.3	56.5	
2011	102.1	77.6	6.0	111.1	171.3	69.2	85.0	116.4	66.0	
2012	104.0	79.0	9.7	121.7	156.9	84.4	89.2	122.2	79.5	
2013	104.5	76.9	10.1	123.3	174.9	92.1	92.2	127.9	102.2	
2014 Q1	108.5	75.6	10.5	121.9	174.3	94.9	94.0	130.7	102.5	
Q2	108.7	75.3	10.5	116.7	177.4	96.4	95.2	133.8	109.5	
	Latvia	Lithuania	Luxembourg	Malta	Netherlands	Austria	Portugal	Slovenia	Slovakia	Finland
	10	11	12	13	14	15	16	17	18	19
Government deficit (-)/surplus (+)										
2010	-8.2	-6.9	-0.6	-3.3	-5.0	-4.5	-11.2	-5.7	-7.5	-2.6
2011	-3.4	-9.0	0.3	-2.6	-4.3	-2.6	-7.4	-6.2	-4.1	-1.0
2012	-0.8	-3.2	0.1	-3.7	-4.0	-2.3	-5.5	-3.7	-4.2	-2.1
2013	-0.9	-2.6	0.6	-2.7	-2.3	-1.5	-4.9	-14.6	-2.6	-2.4
2014 Q1	0.0	-1.0	0.2	-3.0	-3.1	-1.5	-4.1	-13.5	-2.7	-2.5
Q2	0.1	-1.1	0.3	-3.2	-3.0	-1.5	-4.8	-13.1	-2.7	-2.5
Government debt										
2010	46.8	36.3	19.6	67.6	59.0	82.4	96.2	37.9	41.1	47.1
2011	42.7	37.3	18.5	69.8	61.3	82.1	111.1	46.2	43.5	48.5
2012	40.9	39.9	21.4	67.9	66.5	81.7	124.8	53.4	52.1	53.0
2013	38.2	39.0	23.6	69.8	68.6	81.2	128.0	70.4	54.6	56.0
2014 Q1	38.7	39.9	23.2	72.3	68.1	81.3	131.6	77.1	57.5	57.5
Q2	41.1	38.7	23.1	75.0	69.6	82.4	129.6	78.3	55.6	58.9

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

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