



EUROPEAN CENTRAL BANK

EUROSYSTEM

## DECEMBER 2014 EUROSYSTEM STAFF MACROECONOMIC PROJECTIONS FOR THE EURO AREA<sup>1</sup>

*Activity has turned out weaker than was expected at the beginning of the year, mostly driven by unexpectedly subdued growth in investment and exports. The current phase of modest growth is projected to extend into 2015. However, a number of supportive external and domestic factors, among them the very accommodative monetary policy stance in the euro area – strengthened by the standard and non-standard measures taken in June and September 2014 – should come to the fore during the course of 2015, with real GDP growth subsequently expected to shift into a somewhat higher gear. Real GDP is projected to increase by 0.8% in 2014, 1.0% in 2015 and 1.5% in 2016. As these rates increasingly exceed estimated potential growth, the output gap will close slowly over the horizon but remain negative in 2016. Substantial downward revisions were made to the real GDP growth outlook vis-à-vis the projection published in the September 2014 issue of the Monthly Bulletin.*

*Euro area HICP inflation is projected to remain low in the near term and to rise only gradually over the projection horizon. It is projected to average 0.5% in 2014, 0.7% in 2015 and 1.3% in 2016. The recent fall in oil prices has significantly dampened the short-term inflation outlook. However, the gradual narrowing of the negative output gap and rising external price pressures, reinforced by the lower exchange rate of the euro, are expected to support an increase in HICP inflation over the projection horizon. Nevertheless, the remaining slack in the economy will prevent a strong pick-up in inflation. Compared with the projection published in the September 2014 issue of the Monthly Bulletin, the outlook for HICP inflation has been revised significantly downwards.*

*This article summarises the macroeconomic projections for the euro area for the period 2014-16. Projections for a period over such a long horizon are subject to very high uncertainty.<sup>2</sup> This should be borne in mind when interpreting them. It should also be stressed that the recent non-standard monetary policy measures were taken into account in this projection exercise only to the extent that they have already affected financial variables, whereas further transmission channels have not been incorporated. This implies that the baseline most likely underestimates the impact of the monetary policy packages.*

### THE INTERNATIONAL ENVIRONMENT

The global recovery is projected to continue gaining strength, albeit gradually. World real GDP growth (excluding the euro area) is projected to pick up over the projection horizon, rising from 3.6% in 2014 to 4.2% in 2016. The recovery is, however, expected to remain uneven across regions. Following rather subdued activity at the start of 2014, growth momentum in some advanced economies outside the euro area has been broadly firming. By contrast, growth momentum in emerging markets has remained subdued overall, with some divergence across regions. Beyond the short term, global activity should strengthen gradually, but the recovery is still expected to remain modest. While some key advanced economies are benefiting from diminishing headwinds, increasing structural challenges and the tightening of financial conditions make it unlikely that emerging economies will return to the growth rates recorded before the crisis.

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<sup>1</sup> Eurosystem staff macroeconomic projections are an input into the Governing Council's assessment of economic developments and the risks to price stability. Information on the procedures and techniques used is given in *A guide to Eurosystem staff macroeconomic projection exercises*, ECB, June 2001, which is available on the ECB's website. The cut-off date for including the latest information in this exercise was 20 November 2014.

<sup>2</sup> See the article entitled "An assessment of Eurosystem staff macroeconomic projections" in the May 2013 issue of the Monthly Bulletin.

Global trade momentum remained weak in the first half of the year. However, global trade growth is expected to have reached a trough in the second quarter and is projected to pick up over the projection horizon, from 2.7% in 2014 to 5.2% in 2016 (world excluding the euro area). Its elasticity to global activity at the end of the projection horizon is expected to remain below that recorded before the global crisis. With import demand from the euro area's main trading partners expected to expand at a slower pace than that from the rest of the world, euro area foreign demand growth is projected to be slightly weaker than global trade growth (see Table 1).

**Table 1 The international environment**

(annual percentage changes)

	December 2014				September 2014			Revisions since September 2014		
	2013	2014	2015	2016	2014	2015	2016	2014	2015	2016
World (excluding euro area) real GDP	3.7	3.6	4.0	4.2	3.7	4.2	4.3	-0.1	-0.1	-0.1
Global (excluding euro area) trade <sup>1)</sup>	3.4	2.7	3.9	5.2	3.9	5.5	5.9	-1.2	-1.6	-0.7
Euro area foreign demand <sup>2)</sup>	2.9	2.3	3.4	4.9	3.5	5.0	5.6	-1.2	-1.6	-0.6

Note: Revisions are calculated from unrounded data.

1) Calculated as a weighted average of imports.

2) Calculated as a weighted average of imports of euro area trade partners.

Compared with the macroeconomic projections published in the September 2014 issue of the Monthly Bulletin, the global growth outlook has been revised slightly downwards, while the outlook for euro area foreign demand has been revised down more significantly. The revisions to the outlook for euro area foreign demand reflect lower data outturns and a downward revision to the path of the increase in the elasticity of global trade to activity towards its long-term level, in order to account for past forecast errors.

## Box 1

### TECHNICAL ASSUMPTIONS ABOUT INTEREST RATES, EXCHANGE RATES, COMMODITY PRICES AND FISCAL POLICIES

The technical assumptions about interest rates and commodity prices are based on market expectations, with a cut-off date of 13 November 2014. Short-term rates refer to the three-month EURIBOR, with market expectations derived from futures rates. The methodology gives an average level for these short-term interest rates of 0.2% for 2014 and 0.1% for 2015 and 2016. The market expectations for euro area ten-year nominal government bond yields imply an average level of 2.0% in 2014, 1.8% in 2015 and 2.1% in 2016.<sup>1</sup> Reflecting the path of forward market interest rates and the gradual pass-through of changes in market rates to lending rates, composite bank lending rates on loans to the euro area non-financial private sector are expected to decline somewhat in 2014 and 2015, before rising modestly in the course of 2016.

As regards commodity prices, on the basis of the path implied by futures markets in the two-week period ending on the cut-off date of 13 November, the price of a barrel of Brent crude oil is assumed to fall from USD 102.6 in the third quarter of 2014 to USD 85.6 in 2015, before rising to USD 88.5 in 2016. The prices of non-energy commodities in US dollars are assumed to decrease substantially in 2014 and 2015 and to rise in 2016.<sup>2</sup>

Bilateral exchange rates are assumed to remain unchanged over the projection horizon at the average levels prevailing in the two-week period ending on the cut-off date of 13 November 2014. This implies an exchange rate of USD 1.33 per euro in 2014 and of USD 1.25 per euro in 2015 and 2016.

## Technical assumptions

	December 2014				September 2014			Revisions since September 2014 <sup>1)</sup>		
	2013	2014	2015	2016	2014	2015	2016	2014	2015	2016
Three-month EURIBOR (percentage per annum)	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.0	-0.1	-0.1
Ten-year government bond yields (percentage per annum)	2.9	2.0	1.8	2.1	2.3	2.2	2.5	-0.2	-0.4	-0.4
Oil price (in USD/barrel)	108.8	101.2	85.6	88.5	107.4	105.3	102.7	-5.7	-18.8	-13.8
Non-energy commodity prices, in USD (annual percentage change)	-5.0	-6.3	-4.8	3.8	-4.8	0.1	4.4	-1.5	-4.9	-0.6
USD/EUR exchange rate	1.33	1.33	1.25	1.25	1.36	1.34	1.34	-1.9	-6.7	-6.7
Euro nominal effective exchange rate (EER20) (annual percentage change)	3.8	0.5	-2.8	0.0	1.4	-0.8	0.0	-0.9	-2.0	0.0

Note: Revisions are calculated from unrounded data.

1) Revisions are expressed as percentages for levels, differences for growth rates and percentage points for interest rates and bond yields.

The fiscal assumptions reflect the budgetary execution in 2014, information included in draft or approved budget laws for 2015, draft budgetary plans submitted in the context of the European Semester and national medium-term budgetary plans that were available as of 20 November 2014. They include all policy measures that have already been approved by national parliaments or that have been defined in sufficient detail by governments and are likely to pass the legislative process. Overall, the information on the budget execution in 2014 and on fiscal measures planned for 2015 implies a broadly neutral discretionary fiscal policy at the euro area level. Fiscal consolidation measures in some countries are broadly offset by direct tax cuts in several countries and spending increases.

Compared with the September 2014 issue of the Monthly Bulletin, the changes in the technical assumptions include considerably lower US dollar-denominated oil and non-energy commodity prices, a depreciation of the effective exchange rate of the euro, and lower short-term and long-term interest rates in the euro area.

- 1 The assumption for euro area ten-year nominal government bond yields is based on the weighted average of countries' ten-year benchmark bond yields, weighted by annual GDP figures and extended by the forward path derived from the ECB's euro area all-bonds ten-year par yield, with the initial discrepancy between the two series kept constant over the projection horizon. The spreads between country-specific government bond yields and the corresponding euro area average are assumed to be constant over the projection horizon.
- 2 Oil and food commodity price assumptions are based on futures prices up to the end of the projection horizon. The prices of other non-energy hard commodities are assumed to follow futures until the fourth quarter of 2015 and thereafter to evolve in line with global economic activity. EU farm gate prices (in euro), which are used for forecasting food consumer prices, are projected on the basis of an econometric model that takes into account developments in international food commodity prices.

## REAL GDP GROWTH PROJECTIONS

Recent economic developments have not confirmed the recovery which was expected at the beginning of this year. Real GDP grew only modestly in the second and third quarters of 2014, following an unwinding of temporary factors that had boosted activity in the first quarter. The weaker than expected activity has taken place against the background of subdued global trade developments, increasing concerns about domestic growth prospects possibly nourished by the standstill of the economic reform process in some countries, persistent geopolitical tensions and a weaker than envisaged pick-up in residential investment in some countries.

Real GDP growth is projected to stay muted in the near term. The impact of the adverse factors that hindered growth earlier in the year will still weigh on growth in the next few quarters. This is indicated by business and consumer confidence indicators, which have weakened since the spring, with their levels

now indicating continued but only modest activity in the near term. In particular, private investment activity is expected to remain subdued into early 2015.

Nevertheless, several fundamentals remain positive and support the expected pick-up in 2015 and beyond. Domestic demand should benefit from the accommodative monetary policy stance and an improved functioning of the monetary policy transmission process – further strengthened by the standard and non-standard measures recently taken by the ECB – a broadly neutral fiscal stance following years of substantial fiscal tightening, and some improvement in credit supply conditions. In addition, private consumption should benefit from a pick-up in real disposable income stemming in particular from the favourable impact of falling commodity prices, but also from rising, albeit modest, wage and employment growth and, in the context of improving profit growth, rising other personal income (including distributed profits). In addition, overall activity will be increasingly supported over the projection horizon by the favourable impact on exports of an assumed gradual strengthening of external demand, further bolstered by the impact of the depreciation of the euro.

However, the recovery is projected to remain subdued by historical standards as a number of factors continue to dampen growth in the medium term. The remaining need for the adjustment of private and public sector balance sheets is expected to diminish only gradually over the projection horizon. Moreover, the drag on private consumption from high unemployment rates in some countries is expected to abate only gradually, while ample spare capacity in some countries will continue to hold back investment spending. In terms of annual averages, real GDP growth is projected to be 0.8% in 2014, 1.0% in 2015 and 1.5% in 2016.

Looking at the components of demand in more detail, private consumption expenditure maintains its moderate momentum over the horizon, owing to a pick-up in real disposable income. Following several years of pronounced weakness, real disposable income will accelerate thanks to stronger labour income (reflecting rising employment and slightly higher wage growth), a rising contribution from other personal (mainly profit-related) income, and low commodity prices. Increasing household net worth and low financing costs will also support private consumption.

The saving ratio is expected to be flat, remaining at historically low levels. This reflects opposing effects. On the one hand, the very low interest rates and gradually declining unemployment will have a downward impact. On the other hand, there are upward effects as rising disposable income in some countries decreases the need to use savings for consumption. The observed weakening in consumer confidence might strengthen the precautionary savings motive. Furthermore, in some countries, household deleveraging pressures remain elevated, which is having further upward effects on the saving ratio.

The outlook for residential investment remains subdued. Residential investment should gain some momentum in the course of 2015, as activity recovers in an environment of low mortgage rates and improved credit supply conditions, and as housing market adjustment needs gradually fade. However, in some countries, the adjustment in housing markets and/or the still weak growth of real disposable income continue to dampen residential construction. Moreover, in some countries, the favourable impact of historically low mortgage rates appears to be weaker than previously expected.

A number of factors should support business investment, namely the projected gradual strengthening in domestic and external demand, the very low level of interest rates, the need to modernise the capital stock after several years of subdued investment, an improvement in credit supply conditions, and some strengthening of profit mark-ups as activity recovers. In addition, headwinds from corporate sector deleveraging needs are expected to gradually ease following a decline in the debt-to-GDP ratio in recent years. Nevertheless, debt levels remain elevated, so deleveraging needs might continue to dampen growth.

Business investment growth is estimated to remain fairly low in the near term. Despite the above-mentioned supportive factors, business confidence has declined lately. The impact of some adverse factors appears to weigh strongly on business investment, notably still unfavourable although improving financing conditions in some countries, concerns about the slow pace of structural reforms in certain

countries, and the persistence of geopolitical tensions. In addition, uncertainty about the demand outlook weighs on business investment.

Euro area foreign demand is projected to pick up moderately as global activity recovers. Extra-euro area exports will increase moderately in the second half of 2014, broadly in line with foreign demand. Exports are projected to gain momentum in the course of 2015, reflecting the gradual strengthening of foreign demand and the favourable impact of the recent depreciation of the euro. Export market shares are expected to remain broadly unchanged over the projection horizon. Extra-euro area imports will pick up only moderately over the projection horizon, reflecting the subdued growth of demand in the euro area and the lower exchange rate of the euro. Net exports are projected to contribute positively, albeit modestly, to real GDP growth towards the end of the projection horizon. The current account surplus will increase over the horizon, reaching 2.4% of GDP in 2016.

Employment growth has recently witnessed a comparatively fast and strong pick-up. Employment started to recover already from mid-2013 onwards, initially in terms of hours worked, but then also in terms of persons. In the second quarter of 2014, headcount employment was up 0.4% in year-on-year terms, compared with real GDP growth of 0.8%. This relatively fast recovery appears to reflect the upward impact of past wage moderation and probably the positive impact of recent labour market reforms. These reforms – for example, via increased decentralisation of wage bargaining, reduced employment protection and more flexible working arrangements – appear to have led to a comparatively faster and stronger response of employment to output developments than seen historically, though with some notable cross-country differences.

Euro area labour market conditions are expected to improve modestly over the projection horizon. Headcount employment is estimated to continue its modest recovery in the second half of 2014, and is projected to broadly maintain this momentum over the projection horizon. The recovery in employment reflects the continued pattern of a comparatively fast and strong response to the pick-up in activity. The labour force is expected to increase moderately, owing to immigration and as the gradually improving labour market situation stimulates participation of certain segments of the population. The unemployment rate is expected to decline over the projection horizon, albeit remaining far higher than before the crisis.

Compared with the macroeconomic projections published in the September 2014 issue of the Monthly Bulletin, the real GDP growth projection for 2014-16 has been revised downwards by 1.0 percentage point. The revision is due to a weaker outlook for exports, as the outlook for euro area foreign demand has been revised down significantly, reflecting lower data outturns and a downward revision in the path of the increase in the elasticity of global trade to activity towards its long-term value. The downward revision to growth is also due to weaker business investment in view of the recent decline in confidence and increasing concerns about domestic growth prospects. Residential investment has also been revised down substantially in view of stronger remaining adjustment needs in the housing markets in some countries and the fact that the impact of historically low mortgage rates appears to have been overestimated in previous projection exercises. Private consumption has also been revised down, reflecting downwardly revised compensation per employee growth and weaker than expected distributed profits, reflecting the overall weaker economic environment.

The recent non-standard monetary policy measures are included in the baseline only through their impact on already observed data and via their impact on the market-based technical financial assumptions, namely via market interest rates and equity prices, and also via the exchange rate. Thus, the baseline may underestimate the favourable impact of the recent non-standard monetary policy measures as additional channels are not included (see Box 2).

**Table 2 Macroeconomic projections for the euro area<sup>1)</sup>**

(annual percentage changes)

	December 2014				September 2014			Revisions since September 2014 <sup>2)</sup>		
	2013	2014	2015	2016	2014	2015	2016	2014	2015	2016
Real GDP <sup>3)</sup>	-0.4	0.8	1.0	1.5	0.9	1.6	1.9	0.0	-0.6	-0.3
		[0.7 - 0.9] <sup>4)</sup>	[0.4 - 1.6] <sup>4)</sup>	[0.4 - 2.6] <sup>4)</sup>	[0.7 - 1.1] <sup>4)</sup>	[0.6 - 2.6] <sup>4)</sup>	[0.6 - 3.2] <sup>4)</sup>			
Private consumption	-0.6	0.8	1.3	1.2	0.7	1.4	1.6	0.1	-0.2	-0.4
Government consumption	0.3	0.9	0.5	0.4	0.7	0.4	0.4	0.2	0.0	-0.1
Gross fixed capital formation	-2.5	0.7	1.4	3.2	1.1	3.1	3.9	-0.5	-1.8	-0.7
Exports <sup>5)</sup>	2.2	3.2	3.2	4.8	3.1	4.5	5.3	0.0	-1.3	-0.5
Imports <sup>5)</sup>	1.3	3.3	3.7	4.9	3.5	4.5	5.3	-0.3	-0.8	-0.3
Employment	-0.9	0.4	0.6	0.5	0.3	0.6	0.7	0.1	0.0	-0.2
Unemployment rate (percentage of labour force)	11.9	11.6	11.2	10.9	11.6	11.2	10.8	0.0	0.0	0.2
HICP	1.4	0.5	0.7	1.3	0.6	1.1	1.4	-0.1	-0.4	-0.1
		[0.5 - 0.5] <sup>4)</sup>	[0.2 - 1.2] <sup>4)</sup>	[0.6 - 2.0] <sup>4)</sup>	[0.5 - 0.7] <sup>4)</sup>	[0.5 - 1.7] <sup>4)</sup>	[0.7 - 2.1] <sup>4)</sup>			
HICP excluding energy	1.4	0.8	1.1	1.3	0.8	1.3	1.6	0.0	-0.2	-0.2
HICP excluding energy and food	1.1	0.8	1.0	1.3	0.9	1.2	1.5	0.0	-0.2	-0.2
HICP excluding energy, food and changes in indirect taxes <sup>6)</sup>	1.0	0.7	1.0	1.3	0.8	1.2	1.5	0.0	-0.2	-0.2
Unit labour costs	1.3	1.1	1.1	0.8	1.0	0.8	1.1	0.1	0.4	-0.3
Compensation per employee	1.7	1.6	1.5	1.8	1.6	1.8	2.2	0.0	-0.3	-0.4
Labour productivity	0.4	0.5	0.4	1.0	0.6	1.0	1.1	-0.1	-0.6	-0.1
General government budget balance (percentage of GDP)	-2.9	-2.6	-2.5	-2.2	-2.6	-2.4	-1.9	0.0	-0.1	-0.3
Structural budget balance (percentage of GDP) <sup>7)</sup>	-2.3	-2.1	-2.1	-2.0	-2.0	-2.0	-1.9	-0.2	-0.1	-0.1
General government gross debt (percentage of GDP)	90.8	92.0	91.8	91.1	93.9	93.1	91.5	-1.9	-1.3	-0.4
Current account balance (percentage of GDP)	2.0	2.1	2.2	2.4	2.3	2.3	2.4	-0.1	0.0	0.0

1) Lithuania is included in the projections for 2015 and 2016. The average annual percentage changes for 2015 are based on a euro area composition in 2014 that already includes Lithuania.

2) Revisions are calculated from unrounded figures.

3) Working day-adjusted data.

4) The ranges shown around the projections are based on the differences between actual outcomes and previous projections carried out over a number of years. The width of the ranges is twice the average absolute value of these differences. The method used for calculating the ranges, involving a correction for exceptional events, is documented in *New procedure for constructing Eurosystem and ECB staff projection ranges*, ECB, December 2009, available on the ECB's website.

5) Including intra-euro area trade.

6) The sub-index is based on estimates of actual impacts of indirect taxes. This may differ from Eurostat data, which assume a full and immediate pass-through of tax impacts to the HICP.

7) Calculated as the government balance net of transitory effects of the economic cycle and temporary measures taken by governments (for the ESCB approach, see *Working Paper Series*, No 77, ECB, September 2001, and *Working Paper Series*, No 579, ECB, January 2007). The projection of the structural balance is not derived from an aggregate measure of the output gap. Under the ESCB methodology, cyclical components are calculated separately for different revenue and spending items. For more details, see the box entitled "Cyclical adjustment of the government budget balance" in the March 2012 issue of the Monthly Bulletin and the box entitled "The structural balance as an indicator of the underlying fiscal position" in the September 2014 issue of the Monthly Bulletin.

## Box 2

### THE INCLUSION OF THE RECENT NON-STANDARD MONETARY POLICY MEASURES IN THE PROJECTIONS

The credit-easing monetary policy packages announced on 5 June and 4 September 2014 comprised a range of non-standard monetary policy measures, implemented through credit operations, namely targeted

longer-term refinancing operations, and outright operations, namely an asset-backed securities purchase programme and a covered bond purchase programme.

The impact of these measures on the outlook for growth and inflation is reflected in the baseline only to the extent that they have already affected financial variables, notably interest rates, equity prices and the exchange rate of the euro. As a result of this technical approach, certain additional potential channels are not captured in the baseline. These include, for example, the direct pass-through channel, associated with the funding cost relief for euro area banks stemming from these measures. A second channel not included in the baseline is the portfolio rebalancing channel, reflecting the fact that the large injections of liquidity associated with each of the three policy measures could strengthen the incentive for investors to reduce their excess holdings of cash by buying and thus bidding up the price – and hence lowering the yield – of alternative financial instruments, other than those purchased by the central bank.

Overall, the baseline is thus likely to underestimate the impact of the monetary policy packages, which represents an upside risk to the baseline projections for growth and inflation.

## PRICE AND COST PROJECTIONS

According to Eurostat's flash estimate, overall HICP inflation stood at 0.3% in November 2014. The low current rate of inflation reflects subdued energy prices related to the recent falls in crude oil prices, low food price inflation as well as modest trends in non-energy industrial goods and services prices.

HICP inflation is projected to remain low in the near term. Thereafter, it is expected to increase only gradually until the end of the projection horizon, reaching a rate of 1.4% in the fourth quarter of 2016. The increase in HICP inflation over the projection horizon is expected to be brought about by the gradual narrowing of the negative output gap and by rising external price pressures. The latter reflect in particular a swing from downward to upward pressures stemming from commodity prices and from the pass-through of the past weakening of the exchange rate of the euro.

The remaining slack in the euro area, together with the assumed moderate developments in commodity prices, will prevent a more substantial pick-up in euro area inflation. The negative output gap is projected to shrink only partially until 2016, implying modest wage and profit margin increases. Overall, HICP inflation is expected to remain very subdued, averaging 0.5% in 2014, 0.7% in 2015 and 1.3% in 2016. HICP inflation excluding energy and food is expected to average 0.8% in 2014, 1.0% in 2015 and 1.3% in 2016.

External price pressures dampen the inflation outlook at present but are expected to rise over the projection horizon, reflecting the projected strengthening in global demand, the lower exchange rate of the euro and, in 2016, an expected increase in commodity prices. External price developments have added to the downward price pressures in the euro area over the recent past. Sluggish global growth, declines in oil and non-oil commodity prices and the past appreciation of the euro have led to declines in euro area import prices in 2013 and 2014. Looking ahead, as these effects gradually fade, the extra-euro area import deflator is expected to rise in 2016.

Improvements in the labour market and declining economic slack are expected to trigger moderate increases in domestic price pressures over the projection horizon. Compensation per employee growth is projected to rise slightly over the horizon but to remain low, given ongoing adjustment processes and wage moderation in several euro area countries. The low inflation environment also contributes to the modest wage outlook. Unit labour cost growth is projected to decline gently over the projection horizon. This reflects the fact that the small pick-up in compensation per employee growth is more than offset by stronger productivity growth. The modest unit labour cost developments are one of the main sources of the expected low domestic cost pressures until the end of the projection horizon.

Profit margins (as measured by the difference between the GDP deflator at factor cost and unit labour cost growth) are expected to decline in 2014, stabilise in 2015 and rebound in 2016 as a result of the strengthening of economic activity and, in particular, a moderation of unit labour cost developments.

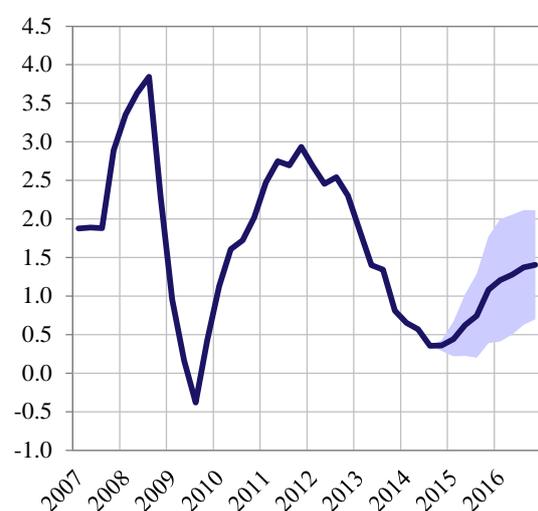
Compared with the macroeconomic projections published in the September 2014 issue of the Monthly Bulletin, the projection for headline inflation has been revised down by 0.1 percentage point for 2014, by 0.4 percentage point for 2015 and by 0.1 percentage point for 2016. This reflects mainly lower oil prices in euro, some downward surprises regarding recent outcomes for the non-energy components, and the impact of the downwardly revised growth outlook. For 2016, the latter is partly compensated for by a stronger upward impact from HICP energy inflation, driven by a weaker exchange rate and an upward change in oil price futures as compared with the September projection. HICP inflation excluding food and energy has also been revised down, reflecting the weaker wage and profit margin dynamics as well as the indirect pass-through of the recent exchange rate depreciation.

**Chart 1 Macroeconomic projections<sup>1)</sup>**

(quarterly data)

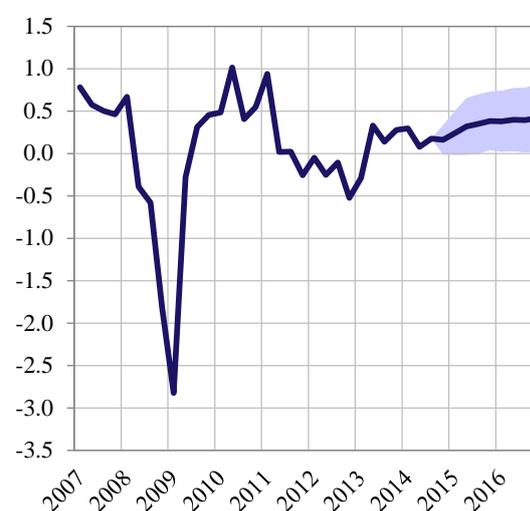
**Euro area HICP**

(year-on-year percentage changes)



**Euro area real GDP<sup>2)</sup>**

(quarter-on-quarter percentage changes)



1) The ranges shown around the central projections are based on the differences between actual outcomes and previous projections carried out over a number of years. The width of the ranges is twice the average absolute value of these differences. The method used for calculating the ranges, involving a correction for exceptional events, is documented in *New procedure for constructing Eurosystem and ECB staff projection ranges*, ECB, December 2009, available on the ECB's website.

2) Working day-adjusted data.

**FISCAL OUTLOOK**

The orientation of fiscal policy will be broadly neutral over the projection horizon. The fiscal stance, measured as a change in the cyclically adjusted primary balance, is expected to be slightly expansionary in 2014-15 and neutral in 2016, in contrast with the significant tightening observed in previous years.

The government deficit ratio is projected to gradually decrease over the projection horizon. This decline will be supported by the improvement of the cyclical position of the euro area economy. The structural budget balance is projected to improve only slightly over the projection horizon, reflecting broadly neutral fiscal policy. The government debt ratio will start declining from 2015 onwards, owing to the recent improvements in the primary balance and a more favourable interest/growth differential.

Compared with the fiscal projection published in the September 2014 issue of the Monthly Bulletin, the deficit outlook and debt dynamics have somewhat deteriorated as a result of a less favourable macroeconomic outlook and a slight relaxation in discretionary fiscal policies. The downward revision of the debt-to-GDP ratio is mainly a result of the implementation of the new statistical standard ESA 2010.

## SENSITIVITY ANALYSES

Projections rely heavily on technical assumptions regarding the evolution of certain key variables. Given that some of these variables can have a large impact on the projections for the euro area, the sensitivity of the latter with respect to alternative paths of these underlying assumptions can help in the analysis of risks around the projections. This box discusses the uncertainty around three key underlying assumptions and the sensitivity of the projections with respect to these assumptions.<sup>1</sup>

### 1) An alternative oil price path

The assumptions for oil prices in the current Eurosystem staff projections are taken from market expectations as measured by oil futures prices. At the cut-off date of 13 November, taking the oil price path implied by futures markets in the preceding two-week period, it had been predicted that a barrel of Brent crude oil would fall from USD 102.6 in the third quarter of 2014 to USD 85.6 in 2015, before rising to USD 88.5 in 2016. After the cut-off date, however, oil prices and oil price futures fell further in an environment of ample oil supply and weak oil demand, in particular after OPEC decided on 27 November 2014 to maintain current production levels. On 2 December 2014, oil price futures implied that the price of Brent crude oil would fall to USD 73.2 in 2015 and rise to USD 78.1 in 2016, i.e. to levels 14.5% and 11.7% lower than those entailed in the baseline projection.

On the basis of Eurosystem staff macroeconomic models, it has been estimated that the alternative oil price path would cause euro area HICP inflation to be about 0.4 percentage point below the baseline projection for 2015 and 0.1 percentage point below the baseline projection for 2016. At the same time, the alternative oil price path would support real GDP growth by about 0.1 percentage point in both 2015 and 2016.

### 2) An alternative exchange rate path

The baseline assumes an unchanged effective exchange rate of the euro until the end of the horizon. However, a weakening of the euro could result from deteriorating growth prospects in the euro area as compared with the US economy, and from expectations of diverging monetary policy stances in the two economies, implying market expectations of a prolonged period of low interest rates in the euro area and a faster normalisation in the United States. An alternative path of the euro, implying a stronger depreciation, has been derived from the 25th percentile of the distribution provided by the option-implied risk-neutral densities for the EUR/USD exchange rate on 13 November 2014. This path implies a gradual depreciation of the euro vis-à-vis the US dollar to an exchange rate of 1.17 in 2016, which is 6.1% below the baseline assumption. The corresponding assumptions for the nominal effective exchange rate of the euro reflect historical regularities, whereby changes in the EUR/USD exchange rate reflect changes in the effective exchange rate with an elasticity of around 52%. This results in a gradual divergence of the effective exchange rate of the euro from the baseline, reaching a level 3.2% below the baseline in 2016. In this scenario, the results from various Eurosystem staff macroeconomic models point to higher real GDP growth, by 0.1-0.3 percentage point, and higher HICP inflation, by 0.1-0.4 percentage point, in 2015 and 2016.

### 3) Additional fiscal consolidation

As stated in Box 1, the fiscal policy assumptions include all policy measures that have already been approved by national parliaments or that have been specified in sufficient detail by governments and are likely to pass the legislative process. For most countries, the measures included in the baseline projection fall short of the fiscal consolidation requirements under the corrective and preventive arms of the Stability and Growth Pact. The commitment to comply with these requirements is broadly reflected in the 2014 stability programmes and in EU-IMF programme documents. However, the underlying measures to achieve these targets are often either missing or not sufficiently well specified. Accordingly, they are not

taken into account in the baseline projection. It is therefore not only necessary but also likely that additional fiscal consolidation measures, as compared with those embedded in the baseline, will be adopted by several governments by 2016.

### Assumptions underlying the fiscal sensitivity analysis

The fiscal sensitivity analysis takes as a starting point the “fiscal gap” between governments’ budgetary targets and the baseline budget projections. Country-specific conditions and information in terms of both size and composition are used to gauge the likely additional fiscal consolidation. In particular, country-specific information aims to capture uncertainties surrounding fiscal targets, the likelihood of additional fiscal consolidation measures with an impact on aggregate demand as opposed to other deficit-reducing factors, and the associated macroeconomic feedback effects.

On the basis of this approach, some further fiscal consolidation measures that have an impact on demand are assessed to be likely in 2015 and in 2016, bringing the cumulative amount of additional consolidation to around 0.2% of GDP by the end of 2016. As regards the composition of fiscal measures, the sensitivity analysis seeks to incorporate country and time-specific profiles of the most likely additional consolidation efforts. In this exercise, at the euro area aggregate level, fiscal consolidation is assessed to be tilted somewhat to the expenditure side of the budget.

### Macroeconomic impact from additional fiscal consolidation

The simulation results of the impact from the fiscal sensitivity analysis on real GDP growth and HICP inflation for the euro area using the ECB’s New Area-Wide Model (NAWM<sup>2</sup>) are summarised in the table below.

The impact on real GDP growth from the additional fiscal consolidation is limited in 2014 and 2015 but estimated to be about -0.1 percentage point in 2016. The impact on HICP inflation is estimated to be negligible over the whole forecast horizon.

The current analysis therefore points to modest downside risks to the baseline projection for real GDP growth in 2016, given that not all of the intended fiscal consolidation measures have been included in the baseline. At the same time, there are negligible risks to the inflation projection.

### The estimated macroeconomic impact of additional fiscal consolidation on GDP growth and HICP inflation in the euro area

(percentage of GDP)

	2014	2015	2016
Government budget targets <sup>1)</sup>	-2.7	-2.2	-1.7
Baseline fiscal projections	-2.6	-2.5	-2.2
Additional fiscal consolidation (cumulative) <sup>2)</sup>	0.0	0.0	0.2
Effects of additional fiscal consolidation with impact on demand (percentage points) <sup>3)</sup>			
Real GDP growth	0	0	-0.1
HICP inflation	0	0	0

1) Nominal targets, as included in the latest EU-IMF programme documents for the relevant countries; for the remaining countries, as included in the draft budgetary plans or approved budget laws for 2015, or the 2014 stability programme updates.

2) Sensitivity analysis based on assessments by Eurosystem staff.

3) Deviations from the baseline in percentage points for real GDP growth and HICP inflation (both on an annual basis). The macroeconomic impact is simulated using the ECB’s New Area-Wide Model.

It should be stressed that this fiscal sensitivity analysis focuses only on the potential short-term effects of likely additional fiscal consolidation. While even well-designed fiscal consolidation measures often have negative short-term effects on real GDP growth, there are positive longer-term effects on activity that are not evident over the horizon of this analysis.<sup>3</sup> Therefore, the results of this analysis should not be interpreted as calling into question the need for additional fiscal consolidation efforts over the projection

horizon. Indeed, further consolidation efforts are necessary to restore sound public finances in the euro area. Without such consolidation, there is a risk that the pricing of sovereign debt could be adversely affected. Furthermore, effects on confidence may be negative, hindering the economic recovery.

- 1 All simulations have been conducted under the assumption of no policy change and no change to any other variable concerning the technical assumptions and the international environment of the euro area.
- 2 For a description of the New Area-Wide Model, see Christoffel, K., Coenen, G. and Warne, A., “The New Area-Wide Model of the euro area: a micro-founded open-economy model for forecasting and policy analysis”, *Working Paper Series*, No 944, ECB, October 2008.
- 3 For a more detailed analysis of the macroeconomic effects of fiscal consolidation, see the article entitled “Fiscal multipliers and the timing of consolidation”, *Monthly Bulletin*, ECB, April 2014.

#### Box 4

### FORECASTS BY OTHER INSTITUTIONS

A number of forecasts for the euro area are available from both international organisations and private sector institutions. However, these forecasts are not strictly comparable with one another or with the Eurosystem staff macroeconomic projections, as they were finalised at different points in time. Additionally, they use different (partly unspecified) methods to derive assumptions for fiscal, financial and external variables, including oil and other commodity prices. Finally, there are differences in working day adjustment methods across different forecasts (see the table below).

#### Comparison of forecasts for euro area real GDP growth and HICP inflation

(annual percentage changes)

	Date of release	GDP growth			HICP inflation		
		2014	2015	2016	2014	2015	2016
Eurosystem staff projections	December 2014	0.8 [0.7-0.9]	1.0 [0.4-1.6]	1.5 [0.4-2.6]	0.5 [0.5-0.5]	0.7 [0.2-1.2]	1.3 [0.6-2.0]
European Commission	November 2014	0.8	1.1	1.7	0.5	0.8	1.5
OECD	November 2014	0.8	1.1	1.7	0.5	0.6	1.0
Euro Zone Barometer	November 2014	0.8	1.2	1.6	0.5	0.9	1.3
Consensus Economics Forecasts	November 2014	0.8	1.1	1.5	0.5	0.9	1.3
Survey of Professional Forecasters	November 2014	0.8	1.2	1.5	0.5	1.0	1.4
IMF	October 2014	0.8	1.3	1.7	0.5	0.9	1.2

Sources: European Commission’s European Economic Forecast, Autumn 2014; IMF World Economic Outlook, October 2014; OECD Economic Outlook, November 2014; Consensus Economics Forecasts; MJEconomics; and the ECB’s Survey of Professional Forecasters.

Notes: The Eurosystem staff macroeconomic projections and the OECD forecasts both report working day-adjusted annual growth rates, whereas the European Commission and the IMF report annual growth rates that are not adjusted for the number of working days per annum. Other forecasts do not specify whether they report working day-adjusted or non-working day-adjusted data.

In the forecasts currently available from other institutions, euro area real GDP growth in 2014 is projected to be the same as that entailed in the Eurosystem staff projections. Projections for real GDP growth in 2015 and 2016 are similar to or slightly higher than the Eurosystem staff projections. Average annual HICP inflation in 2014 is projected to be the same as that entailed in the Eurosystem staff projections. The projections of most other institutions for HICP inflation in 2015 are slightly higher than the Eurosystem staff projections. HICP inflation in 2016 is expected to average between 1.0% and 1.5% according to the other available projections, compared with 1.3% in the Eurosystem staff projection. At present, all available forecasts for 2015 and 2016 are within the ranges of the Eurosystem projections, which are indicated in the table.

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