

# SEPTEMBER 2014 ECB STAFF MACROECONOMIC PROJECTIONS FOR THE EURO AREA<sup>1</sup>

Recent indicators suggest a weaker outlook in the short term, in an environment of subdued trade developments, geopolitical tensions and uncertainty about the reform process in some euro area countries. Nonetheless, in the baseline projection, the underlying forces for a continued recovery remain in place. Domestic demand will benefit from the accommodative monetary policy stance – strengthened by the standard and non-standard measures taken in June 2014 – and more favourable credit supply conditions. The baseline projections assume a broadly neutral fiscal stance, following years of substantial fiscal tightening. In addition, private consumption will be supported by the impact of low commodity prices and rising incomes, as the labour market gradually improves; investment will benefit from a reduced need for balance sheet adjustment and from catching-up effects following years of subdued activity, while initially being held back by ample spare capacity. Exports will benefit from the gradual global recovery, enhanced by the effects of the weaker effective exchange rate of the euro. Real GDP is projected to increase by 0.9% in 2014, 1.6% in 2015 and 1.9% in 2016. As these rates are above estimated potential growth, they contribute to a gradual reduction in the output gap.

Euro area HICP inflation is envisaged to remain low in the near term, averaging 0.6% in 2014. Thereafter, a slow increase to 1.1% in 2015 and to 1.4% in 2016 is projected. The projected pick-up in headline inflation reflects the expected improvement in economic activity, leading to rising wage and profit growth. In addition, the assumed rise in non-energy commodity prices and more generally in euro area import prices, also related to the weaker exchange rate of the euro, is expected to add to upward price pressures. However, the remaining slack and the assumed decline in oil prices reflecting the downward-sloping path of futures dampen the inflation outlook.

Compared with the projections published in the June 2014 issue of the Monthly Bulletin, the real GDP growth projection for 2014 has been revised downwards by 0.2 percentage point, reflecting the weaker than expected outcome for the second quarter and lower exports in the second half of the year. The projection for 2015 has also been revised downwards, mainly on account of a less favourable carry-over effect. In contrast, the projection for 2016 has been revised upwards, by 0.1 percentage point, mainly on account of the favourable impact of improved financing conditions for private investment. HICP inflation has been revised down by 0.2 percentage point for 2014, reflecting the lower than projected outcomes for HICP inflation over the past few months. In 2015 and 2016, the projection is unchanged, as lower than previously projected underlying dynamics in HICP inflation excluding energy are broadly compensated for by somewhat stronger increases in HICP energy inflation given the higher oil price and lower exchange rate assumptions.

The recent ECB policy measures are included in the baseline only via their impact on the technical financial assumptions (market interest rates and equity prices, including the exchange rate). Therefore, the baseline projection is likely to underestimate the impact of the policy package, as additional channels are not included (see Box 2).

The 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. This should be borne in mind when interpreting them.

For the first time, the euro area projections include Lithuania.

<sup>1</sup> ECB 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 21 August 2014.

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

#### THE INTERNATIONAL ENVIRONMENT

World real GDP growth (excluding the euro area) is projected to pick up over the projection horizon, rising from 3.7% in 2014 to 4.2% in 2015 and to 4.3% in 2016. Short-term volatility notwithstanding, momentum in advanced economies outside the euro area is firming. Activity in emerging markets has also rebounded, led by the strong acceleration in China. Global indicators confirm that growth is strengthening in the near term. Beyond the short term, global activity is expected to strengthen. Highly accommodative monetary policies in advanced economies continue to support financial markets and the global recovery. Increasingly, advanced economies should also benefit from diminishing headwinds, reflecting waning private sector deleveraging, the reduced need for fiscal consolidation and improving labour markets. By contrast, in several emerging economies infrastructure bottlenecks, capacity constraints and macroeconomic imbalances are likely to restrain growth potential, while other emerging economies are adjusting to tighter financial conditions and to the prospective normalisation of monetary policy in the United States.

Global trade momentum has softened since late last year. Looking ahead, rising investment in the advanced economies outside the euro area is expected to spur a gradual rebound in global trade. However, structural factors are also judged to be playing a role, including the slowing pace of integration through global supply chains. As a consequence, and in line with previous forecast rounds, the projection assumes a smaller elasticity of global trade to activity than observed before the global financial crisis. Global trade (excluding the euro area) is projected to strengthen by 3.9% in 2014, by 5.5% in 2015 and by 5.9% in 2016. 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)

	September 2014			June 2014			Revisions since June 2014			
	2013	2014	2015	2016	2014	2015	2016	2014	2015	2016
World (excluding euro area) real GDP	3.7	3.7	4.2	4.3	3.6	4.0	4.1	0.1	0.2	0.2
Global (excluding euro area) trade <sup>1)</sup>	3.4	3.9	5.5	5.9	4.3	5.7	5.9	-0.3	-0.2	0.0
Euro area foreign demand <sup>2)</sup>	2.9	3.5	5.0	5.6	3.7	5.2	5.6	-0.3	-0.3	-0.1

Note: Revisions are calculated from unrounded data.

Compared with the macroeconomic projections published in the June 2014 issue of the Monthly Bulletin, the global growth outlook has been revised upwards by 0.1 percentage point in 2014 and by 0.2 percentage point in both 2015 and 2016. However, these revisions are of a technical nature and entirely reflect an update to GDP weights based on purchasing power parity used to construct global activity aggregates, which attribute more importance to the faster growing emerging market economies, rather than a changed view at the country level. Excluding the effects of changed weights, global GDP growth is essentially unrevised. Euro area foreign demand has been revised downwards by 0.3 percentage point for 2014 and for 2015, and by 0.1 percentage point for 2016. These downward revisions reflect an assessment that global trade is likely to be weaker than previously expected as well as a more pessimistic outlook regarding trade with Russia and Ukraine (see Box 4).

Calculated as a weighted average of imports.

<sup>2)</sup> Calculated as a weighted average of imports of euro area trade partners.

<sup>3</sup> Following the release of the 2011 survey by the International Comparison Program for new purchasing power parity benchmarks, the IMF updated its World Economic Outlook estimates of GDP valued at purchasing power parity (see the box in the IMF's WEO update of July 2014).

#### 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 August 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 2015 and 0.3% for 2016. The market expectations for euro area tenyear nominal government bond yields imply an average level of 2.3% in 2014, 2.2% in 2015 and 2.5% in 2016. 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 remain broadly stable 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, the price of a barrel of Brent crude oil is assumed to fall from USD 109.8 in the second quarter of 2014 to USD 102.7 in 2016. The prices of non-energy commodities in US dollars are assumed to decrease substantially in 2014, to edge up in 2015 and to rise somewhat faster 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 August 2014. This implies an exchange rate of USD 1.36 per euro in 2014 and of USD 1.34 per euro in 2015 and 2016.

Technical assumptions										
	September 2014			June 2014			Revisions since June 2014 <sup>1)</sup>			
	2013	2014	2015	2016	2014	2015	2016	2014	2015	2016
Three-month EURIBOR		·	·		·					
(percentage per annum)	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.0	-0.1	-0.2
Ten-year government bond yields										
(percentage per annum)	2.9	2.3	2.2	2.5	2.4	2.6	3.0	-0.1	-0.4	-0.5
Oil price (in USD/barrel)	108.8	107.4	105.3	102.7	107.2	102.2	98.2	0.2	3.0	4.5
Non-energy commodity prices,										
in USD (annual percentage change)	-5.0	-4.8	0.1	4.4	0.3	1.7	4.6	-5.1	-1.6	-0.2
USD/EUR exchange rate	1.33	1.36	1.34	1.34	1.38	1.38	1.38	-1.8	-3.3	-3.3
Euro nominal effective exchange rate										
(EER20) (annual percentage change)	3.8	1.4	-0.8	0.0	2.6	0.1	0.0	-1.2	-0.9	0.0

Note: Revisions are calculated from unrounded data.

The fiscal assumptions reflect the approved budget laws and supplementary budgets of euro area countries, their medium-term budgetary plans and well-specified fiscal measures from the updates of the stability programmes that were available as of 21 August 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, these assumptions imply, on average, only a small amount of fiscal consolidation over the projection horizon, based on budgetary plans for 2014 and only limited information for 2015 and 2016. The assumed fiscal consolidation over the projection horizon is significantly below that observed in recent years.

Compared with the June 2014 issue of the Monthly Bulletin, the main changes in the technical assumptions include lower short-term and long-term interest rates in the euro area as well as a weaker effective exchange rate of the euro. While US dollar-denominated oil prices are somewhat higher than in the June projections, non-energy commodity prices are lower.

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

- 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 third 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**

The economic recovery in the euro area stalled in the second quarter of 2014, following four quarters of modest growth. The weakness of activity in the second quarter appears to partly reflect the adverse role played by several one-off factors. First, activity in the first quarter was subject to an unusual upward effect from the low number of holidays (as the entire Easter school holiday period fell in the second quarter) and from the warm winter weather that had boosted construction. Neither of these upward effects in the first quarter was sufficiently captured by seasonal or working day adjustment. As they unwound in the second quarter, this dampened growth. Second, negative calendar effects related to the more than usual number of "bridge days" around public holidays in many euro area countries may have reduced the number of effective working days in May, a factor that was not captured by the working day adjustment.

Regarding the second half of 2014, while confidence indicators still stand close to their long-term average levels, their recent weakening indicates a rather modest increase in activity in the near term. The weakening of survey data takes place against the background of the recent further intensification of geopolitical tensions (see Box 4) together with uncertainty about the economic reform process in some euro area countries. All in all, the projection entails a rather moderate pick-up in activity in the second half of 2014, weaker than previously expected.

Looking beyond the near term, and assuming no further escalation of global tensions, a gradual acceleration of real GDP growth over the projection horizon is envisaged. Real GDP growth is expected to pick up in 2015 and 2016, with the growth differentials across countries projected to decline, thanks to the progress in overcoming the fragmentation of financial markets, smaller differences in their fiscal policy paths, and the positive impact on activity from past structural reforms in several countries. The projected pick-up in activity will be mainly supported by a strengthening of domestic demand, owing to the accommodative monetary policy stance - further strengthened by the recent standard and nonstandard measures - a broadly neutral fiscal stance following years of substantial fiscal tightening, and a return to neutral credit supply conditions. In addition, private consumption should benefit from a pick-up in real disposable income stemming from the favourable impact of low commodity price inflation and rising wage growth. Private residential and non-residential investment should also be supported by the fading adverse impact of balance sheet adjustment needs and a catching-up effect following years of subdued investment. Moreover, activity will also be increasingly supported by a gradual strengthening of external demand, enhanced by the recent depreciation of the effective exchange rate of the euro and past gains in competitiveness. Nonetheless, a number of factors continue to dampen progress towards faster growth. The adverse impact on the outlook for private consumption from high unemployment rates in some countries is expected to diminish only gradually over the projection horizon, while ample spare capacity in some countries and, possibly, labour supply constraints in other countries are expected to continue to hold back investment spending. Furthermore, the ongoing geopolitical tensions dampen the near-term outlook for investment and exports. In annual average terms, real GDP is expected to increase by 0.9% in 2014, 1.6% in 2015 and 1.9% in 2016. This growth pattern reflects a steadily rising contribution from domestic demand combined with a small positive contribution from net exports.

Looking at the components of demand in more detail, extra-euro area exports are projected to gain momentum later in 2014 and in the course of 2015, reflecting the gradual strengthening of euro area foreign demand and the favourable impact of the euro's recent depreciation. The recent tensions between the EU and Russia have overall limited implications for euro area foreign demand and exports, but some countries with relatively strong trade links with Russia could be more substantially affected. Euro area export market shares are projected to decline marginally over the projection horizon, albeit with rather

heterogeneous developments across euro area countries, reflecting diverse competitiveness developments and different trade patterns. Intra-euro area exports are projected to grow somewhat more slowly than extra-euro area exports, owing to the still rather weak domestic demand in the euro area.

Business investment is projected to pick up gradually over the projection horizon, supported by the strengthening in domestic and external demand in the context of accumulated needs for replacement investment, by the very low level of interest rates and expected improved pass-through to lending rates in some countries, by a strengthening of profits, and by some improvement in credit supply effects. However, the adverse impact of lower trend growth and further corporate balance sheet restructuring in some euro area countries stand in the way of a stronger recovery of business investment. At the end of the projection horizon, the level of business investment is expected still to be 6% below its pre-crisis peak level, with substantial differences across euro area countries.

Residential investment is projected to gradually pick up in the second half of 2014 before gaining more momentum in 2015, as activity recovers in an environment of low mortgage rates and improved credit supply conditions and as 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. Government investment is expected to remain weak throughout the projection horizon, owing to the continued expenditure restraint in several euro area countries which outweighs the more expansionary public investment profile in other countries.

Employment in terms of persons increased modestly in the first half of 2014. However, employment growth is projected to remain feeble in the second half of 2014, before picking up modestly in 2015 and 2016. The expected recovery in employment reflects the pick-up in activity, the upward impact of past wage moderation and the positive impact of labour market reforms, which have increased flexibility and supported private sector job creation, especially in some stressed countries. However, further cuts in the public sector headcount in some countries will dampen overall employment growth. The labour force is expected to increase moderately during the projection horizon, owing to immigration and as the gradually improving labour market situation stimulates participation of certain segments of the population. The unemployment rate has edged down over recent months, mostly reflecting the turnaround of employment. It is expected to further decline over the projection horizon, albeit remaining significantly higher than the levels experienced before the crisis. Labour productivity (measured as output per person employed) is projected to improve, reflecting the expected pick-up in real GDP growth and the lagged response of employment to developments in activity.

Table 2 Macroeconomic projections for the euro area11

(annual percentage changes)

· 1 0 0 /	September 2014				Revisions since June 2014 <sup>2)</sup>					
	2013	2014	2015	2016	2014	2015	2016	2014	2015	2016
Real GDP <sup>3)</sup>	-0.4	0.9	1.6	1.9	1.0	1.7	1.8	-0.2	-0.1	0.1
		$[0.7 - 1.1]^{4)}$	$[0.6 - 2.6]^4$	$[0.6 - 3.2]^{4)}$	$[0.6 - 1.4]^{4)}$	$[0.6 - 2.8]^{4)}$	$[0.5 - 3.1]^{4)}$			
Private consumption	-0.6	0.7	1.4	1.6	0.7	1.5	1.6	0.0	-0.1	0.0
Government consumption	0.2	0.7	0.4	0.4	0.4	0.4	0.4	0.3	0.0	0.0
Gross fixed capital										
formation	-2.6	1.1	3.1	3.9	1.7	3.1	3.5	-0.6	0.0	0.4
Exports <sup>5)</sup>	1.7	3.1	4.5	5.3	3.6	4.8	5.3	-0.5	-0.3	0.0
Imports <sup>5)</sup>	0.7	3.5	4.5	5.3	3.6	4.8	5.5	-0.1	-0.4	-0.2
Employment	-0.8	0.3	0.6	0.7	0.3	0.5	0.7	0.0	0.1	0.0
Unemployment rate										
(percentage of labour force)	11.9	11.6	11.2	10.8	11.8	11.5	11.0	-0.2	-0.2	-0.3
HICP	1.4	0.6	1.1	1.4	0.7	1.1	1.4	-0.2	0.0	0.0
		$[0.5 - 0.7]^{4)}$	$[0.5 - 1.7]^{4)}$	$[0.7 - 2.1]^{4)}$	$[0.6 - 0.8]^4$	$[0.5 - 1.7]^{4)}$	$[0.6 - 2.2]^{4)}$			
HICP excluding energy	1.4	0.8	1.3	1.6	1.0	1.3	1.6	-0.2	-0.1	0.0
HICP excluding energy and										
food	1.1	0.9	1.2	1.5	1.0	1.2	1.5	-0.1	0.0	-0.1
HICP excluding energy,										
food and changes in										
indirect taxes <sup>6)</sup>	1.0	0.8	1.2	1.5	0.9	1.2	1.5	-0.1	0.0	-0.1
Unit labour costs	1.2	1.0	0.8	1.1	0.9	0.7	1.1	0.1	0.0	0.0
Compensation										
per employee	1.6	1.6	1.8	2.2	1.6	1.9	2.2	0.0	-0.1	0.1
Labour productivity	0.4	0.6	1.0	1.1	0.7	1.1	1.0	-0.1	-0.1	0.1
General government budget										
balance (percentage of GDP)	-3.0	-2.6	-2.4	-1.9	-2.5	-2.3	-1.9	-0.1	0.0	0.0
Structural budget balance										
(percentage of GDP) <sup>7)</sup>	-2.2	-2.0	-2.0	-1.9	-2.0	-2.0	-1.9	0.0	0.0	0.0
General government gross										
debt (percentage of GDP)	92.7	93.9	93.1	91.5	93.4	92.6	91.1	0.5	0.5	0.4
Current account balance										
(percentage of GDP)	2.4	2.3	2.3	2.4	2.6	2.6	2.8	-0.3	-0.3	-0.4

<sup>1)</sup> Lithuania is included in the projections for 2015. The average annual percentage changes for 2015 are based on a euro area composition in 2014 that already includes Lithuania. The projection of national accounts variables is based on the ESA 95 standard.

Private consumption growth is expected to pick up over the projection horizon, closely following real disposable income growth. Real disposable income growth is projected to be supported by stronger labour income, reflecting rising employment and higher wage growth, a less adverse impact of fiscal consolidation, a rising contribution from other personal (mainly profit-related) income, and low commodity prices. The saving ratio is expected to remain stable. This reflects opposite effects from, on the one hand, the downward impact of falling interest rates and gradually declining unemployment

<sup>2)</sup> Revisions are calculated from unrounded figures.

<sup>3)</sup> Working day-adjusted data.

<sup>4)</sup> 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.

<sup>5)</sup> Including intra-euro area trade.

<sup>6)</sup> 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.

<sup>7)</sup> Calculated as the government balance net of transitory effects of the economic cycle and temporary measures taken by governments. The calculation follows the ESCB approach to cyclically adjusted budget balances (see Bouthevillain, C. et al., "Cyclically adjusted budget balances: an alternative approach", *Working Paper Series*, No 77, ECB, September 2001) and the ESCB definition of temporary measures (see Kremer, J. et al., "A disaggregated framework for the analysis of structural developments in public finances", *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 a discussion, also with reference to the Commission's methodology, 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 forthcoming September 2014 issue of the Monthly Bulletin.

implying less need for precautionary savings, and, on the other hand, upward effects from less forced dissaving in some countries as rising disposable income facilitates consumption. Government consumption is assumed to increase moderately over the projection horizon.

Extra-euro area imports are projected to grow moderately over the projection horizon. Imports remain constrained by the subdued growth of total euro area demand and some downward impact stemming from the recent depreciation of the euro. Net trade is expected to contribute moderately to real GDP growth over the projection horizon. The current account surplus is expected to remain broadly stable at 2.4% of GDP in 2016.

Compared with the macroeconomic projections published in the June 2014 issue of the Monthly Bulletin, the real GDP growth projection for 2014 has been revised downwards by 0.2 percentage point, primarily reflecting the weaker than expected outcome for the second quarter. In addition, in the context of heightened geopolitical tensions, the impact of lower world demand on exports and, to a lesser extent, weaker investment imply a downward revision of activity in the second half of 2014. The projection for 2015 has been revised downwards by 0.1 percentage point, mainly reflecting a lower carry-over effect. The projection for 2016 has been revised upwards by 0.1 percentage point, mainly reflecting the positive impact of more favourable financing conditions – supported by the targeted longer-term refinancing operations – on private investment.

#### PRICE AND COST PROJECTIONS

According to Eurostat's flash estimate, overall HICP inflation stood at 0.3% in August 2014. The subdued current rate of inflation reflects a decline in energy and food prices as well as subdued trends in non-energy industrial goods and services prices.

Following a rate of 0.6% in the second quarter of 2014, headline HICP inflation is projected to edge down slightly further to 0.4% in the third quarter before rebounding to 0.7% in the last quarter of 2014. HICP inflation is envisaged to strengthen gradually further over the projection horizon to a rate of 1.5% in the fourth quarter of 2016. The narrowing of the negative output gap in the context of the firming recovery, leading to rising wage and profit growth, should have some upward impact on inflation. In addition, increasing non-energy commodity prices and euro area import prices, reinforced by the lower euro exchange rate, are expected to support increases in euro area consumer prices. Nonetheless, inflation is foreseen to be contained until 2016 by the remaining slack in the economy, as the negative output gap is projected to narrow only partly until 2016, implying very modest wage and profit margin dynamics, and by the assumed decline in oil prices as reflected in futures markets.

In more detail, energy price inflation is expected to remain in clear negative territory in the third quarter of 2014 before hovering around zero over the remaining projection horizon. The impact on consumer energy prices of the slightly downward-sloping path of the futures curve for crude oil prices is partly offset over the projection horizon by upward effects from factors such as the depreciation of the euro and price developments in other energy items. Overall, energy prices are projected to provide a zero contribution to HICP inflation over the projection horizon, which is significantly lower than the 0.5 percentage point added on average over the period from 1999 to 2013. Developments in this HICP component, hence, explain in large part the more moderate inflation outlook over the projection horizon compared with the developments experienced over the first 15 years of Monetary Union.

Food price inflation is projected to remain close to zero in the third quarter of this year but to rebound strongly in the following quarters until mid-2015, when the large downward weather impact on unprocessed food prices and downward base effects should fade. Thereafter, food price inflation is envisaged to continue rising further, albeit more gradually, and to reach rates of 2.0% at the end of the projection horizon. The further increase in food price inflation reflects the assumed rise in EU farm gate prices in line with the gradual strengthening of the economic recovery. Overall, food prices are projected to provide a 0.2 percentage point contribution to HICP inflation over the projection horizon, which is lower than the 0.5 percentage point added on average over the period from 1999 to 2013, thus providing another reason for the comparatively modest inflation outlook.

HICP inflation excluding food and energy is expected to have bottomed out, standing at 0.8% between the last quarter of 2013 and the third quarter of 2014. It is envisaged to rise gradually over the projection horizon as the recovery gains momentum, with the output gap narrowing, and as wage and profit growth strengthens. This measure of underlying inflation is expected to reach a rate of 1.5% in the last quarter of 2016. The contribution of this HICP component to overall HICP inflation is also lower than average, standing at 0.8 percentage point over the projection horizon, as compared with a long-term average of 1.1 percentage points.

Increases in indirect taxes that are included in fiscal consolidation plans are expected to make a small upward contribution of around 0.1 percentage point to HICP inflation in 2014. Given the lack of information on approved fiscal measures over the remaining forecast horizon, the contributions from indirect taxes are currently expected to be negligible in 2015 and 2016 (as compared with a historical average of 0.2%).

External price factors have had a substantial downward impact on recent HICP inflation developments. Annual growth in the import deflator fell sharply from a rate of 2.4% in 2012 to -2.0% in the first quarter of 2014. This drop reflected weak global prices on account of sluggish global growth, the past appreciation of the euro, and declines in oil and non-oil commodity prices. The significant external downward price pressures are expected to come to an end in the second half of 2014, with a turning point for annual growth in the import deflator envisaged. Over the projection horizon, an increase in the annual rate of change of the import deflator until the beginning of 2015 is expected, which is projected to be followed over the remaining projection horizon by broadly stable growth of around 1.4%, a rate close to its long-term average. The increase in the growth rate of the import deflator reflects the assumed rise in global prices given the strengthening of the global economy, the expected pick-up in non-energy commodity prices and the lower euro exchange rate.

With regard to domestic price pressures, the gradual improvement in euro area labour market conditions is envisaged to lead to some acceleration in compensation per employee. Unit labour cost growth is envisaged to decline over the first two years of the projection horizon, to 1.0% in 2014 and further to 0.8% in 2015, before increasing slightly to 1.1% in 2016. The drop in unit labour cost growth in the first two years of the projection horizon is accounted for by the modest dynamics in compensation per employee growth combined with strengthening labour productivity growth. In 2016, unit labour cost growth is expected to recover slightly, owing to a pick-up in compensation per employee growth accompanied by broadly stagnant productivity growth. This pattern reflects the delayed response of both wage and employment growth to the economic recovery, given the substantial and only slowly decreasing slack in euro area labour markets.

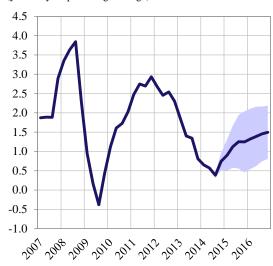
Profit margins (as measured by the difference between the GDP deflator at factor cost and unit labour cost growth) are expected to decline somewhat in 2014. Thereafter, they are foreseen to strengthen gradually, supported by the cyclical recovery of the economy

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

(quarterly data)

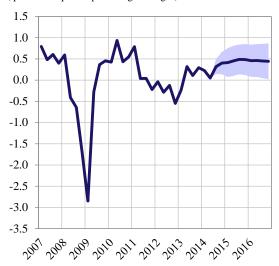
#### Euro area HICP

(year-on-year percentage change)



# 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.

Compared with the macroeconomic projections published in the June 2014 issue of the Monthly Bulletin, the projection for headline HICP inflation has been revised down by 0.2 percentage point for 2014, mainly on account of the lower than envisaged outcomes for HICP inflation over the past few months. For 2015 and 2016, the projection for HICP inflation is unrevised. This reflects broadly offsetting downward revisions in the HICP excluding energy and upward revisions in the HICP energy components. With regard to the former, recent weaker than expected inflation outcomes are expected to imply more persistent lower underlying dynamics in HICP inflation excluding energy than previously envisaged. At the same time, higher oil price and lower exchange rate assumptions entail an upward revision of the HICP energy component.

#### FISCAL OUTLOOK

On the basis of the assumptions outlined in Box 1, the general government deficit for the euro area is projected to decline gradually from 3.0% of GDP in 2013 to 1.9% in 2016. This reduction mainly reflects an improvement in the cyclical position. The structural balance is projected to improve somewhat throughout the projection period, owing to fiscal consolidation efforts in some euro area countries and the expected unwinding of government assistance to the financial sector. The continued moderate growth in government expenditure is expected to more than offset direct tax cuts in several countries. Under current assumptions on fiscal policies, the structural improvement would, however, continue at a much slower pace than in recent years. The euro area general government gross debt-to-GDP ratio is projected to peak at 93.9% in 2014, declining thereafter to 91.5% in 2016.

#### Box 2

#### TREATMENT OF THE ECB'S JUNE 2014 MONETARY POLICY PACKAGE IN THE PROJECTIONS

The monetary policy package announced on 5 June 2014 comprises a wide range of measures, some with immediate implementation (reductions in key ECB interest rates and a prolongation of the fixed rate full allotment tender procedures), others becoming effective as of September 2014 (targeted longer-term refinancing operations – TLTROs), and others not yet specified and decided by the time of the cut-off date for these projections (outright purchases of asset-backed securities – ABSs).

Against this background, the approach chosen in this projection is to allow the policy package to affect the baseline to the extent to which it has affected the market-based technical financial assumptions (namely market interest rates and equity prices, including the exchange rate). The pass-through of changes in these assumptions is expected to be in line with historical regularities; in other words, no judgemental adjustment is made to the standard modelling framework for deriving assumptions about lending rates and credit supply effects, or to any other aspect of the derivation of the baseline.

Many additional potential channels are not captured in the baseline. These include, for example, the pass-through of the funding cost relief for banks to their lending rates, favourable credit supply conditions, and banks' use of TLTRO funds for asset purchases. Overall, therefore, the baseline is likely to underestimate the impact of the policy package, which represents a clear upside risk to the baseline projections for growth and inflation.

#### Box 3

#### 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 ECB staff projections are taken from market expectations as measured by oil futures prices, which predict a fall in oil prices over the projection horizon (see Box 1). However, uncertainty remains regarding this profile.

The expected fall in oil prices may reflect a market view that the recent reduction in the oil production of several OPEC countries owing to political instability or geopolitical tensions will be partly reversed and/or will be compensated for by an increase in the global production of shale oil. However, oil prices might rise in the event of unexpected geopolitical events in major oil-producing countries (e.g. Russia) in the short and medium term or of a stronger global recovery in the medium term.

Overall, in the context of a global recovery, an oil price higher than the one assumed in the baseline projection appears to be plausible. Therefore, an increasing upward adjustment of the path of oil price futures is considered in this sensitivity analysis. The alternative path assumes oil prices to be 3%, 6% and 10% above futures prices for 2014, 2015 and 2016 respectively. On the basis of ECB staff macroeconomic models, the higher oil price would cause HICP inflation to be 0.1-0.2 percentage point above the baseline projection for 2015 and 2016. At the same time, higher oil prices would dampen real GDP growth, which would be 0.1 percentage point lower in 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 and inflation expectations 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 August 2014. This path implies a gradual depreciation of the euro vis-à-vis the US dollar to an exchange rate of 1.24 in 2016, which is 7.4% 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, to reach 3.9% below the baseline in 2016.

The results from ECB staff macroeconomic models point to higher real GDP growth (0.1-0.3 percentage point in 2015 and 2016) and higher HICP inflation in 2015 and 2016 (0.2-0.3 percentage point) in such an event.

#### 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, especially over the period 2015-16, which in most countries is not covered by the current budgets. 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, the additional consolidation for the euro area is assessed to be very limited (less than 0.1% of GDP) in 2014, while further additional measures are assessed to be likely in 2015 (about 0.3% of GDP) and somewhat less in 2016 (about 0.1% of GDP), bringing the cumulative amount of additional consolidation to around 0.4% 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 to the expenditure side of the budget, but it also includes increases in indirect taxes, while stimulus measures through cuts in direct taxes and social security contributions are assessed to be likely in 2016.

# 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>3</sup>) are summarised in the table below.

The impact on real GDP growth from the additional fiscal consolidation is limited in 2014 but estimated to be about -0.2 percentage point in 2015 and 2016 respectively. The impact on HICP inflation is estimated at around 0.1 percentage point in 2015.

The current analysis therefore points to some downside risks to the baseline projection for real GDP growth, especially in 2015 and 2016, since not all of the intended fiscal consolidation measures have been included in the baseline. At the same time, there are also small upside risks to inflation, as part of the additional consolidation is assessed to originate from increases in indirect taxes.

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>4</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.

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

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	2014	2015	2016
Government budget targets <sup>1)</sup>	-2.4	-1.8	-1.1
Baseline fiscal projections	-2.6	-2.4	-1.9
Additional fiscal consolidation (cumulative) <sup>2)</sup>	0.0	0.3	0.4
Effects of additional fiscal consolidation (percentage points) <sup>3)</sup>			
Real GDP growth	0	-0.2	-0.2
HICP inflation	0	0.1	0

<sup>1)</sup> Nominal targets, as included in the latest EU-IMF programme documents for the relevant countries and 2014 stability programme updates for the remaining countries.

- 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 detailed description of the model which was used to derive this upward adjustment, see Pagano, P. and Pisani, M., "Risk-adjusted forecasts of oil prices", *The B.E. Journal of Macroeconomics*, Vol. 9, Issue 1, Art. 24, 2009.
- 3 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.
- 4 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

#### IMPLICATIONS OF THE TENSIONS BETWEEN THE EU AND RUSSIA FOR THE EURO AREA TRADE OUTLOOK

The intensifying geopolitical tensions and a related decline in confidence may have negatively affected activity in the euro area lately. However, the recent tensions between the EU and Russia are assumed in the baseline projection to have only very modest adverse implications for euro area trade. Euro area foreign demand and exports are expected to be affected primarily via two channels.

First, the prospects for the Russian economy have worsened, lowering Russian domestic demand and imports over the projection horizon as compared with the projections published in the June issue of the

<sup>2)</sup> Sensitivity analysis based on assessments by ECB staff.

<sup>3)</sup> 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.

Monthly Bulletin, with adverse implications for euro area foreign demand and exports. Escalating tensions in Ukraine have triggered additional, primarily financial, sanctions by the EU and the United States against Russia. Following a contraction of Russian GDP by 0.3% quarter on quarter in the first quarter of 2014, activity in the coming quarters is anticipated to remain anaemic, reflecting sluggish investment partly as a result of interest rate increases by the Bank of Russia, a much tighter domestic and external financing environment, capital outflows, and elevated uncertainty. Moreover, private consumption is expected to be held back by the uncertain economic outlook and lower real disposable income as a consequence of higher inflation, also due to the rouble depreciation. This deterioration in Russian domestic demand represents a drag on Russian GDP and import growth over the projection horizon, implying a downward revision of Russian imports as compared with the previous projection. As Russia accounts for about 4.5% of euro area foreign demand, this lower path of Russian imports marginally reduces euro area foreign demand, by about 0.1 percentage point by the end of 2016, as compared with the previous exercise.

Second, Russia has imposed an embargo on imports of certain food items originating from countries that have sanctioned Russian individuals and entities, including food imports from the euro area. This embargo by Russia affects around 2% of Russia's total imports of goods and services, representing a further drag on its import growth over the projection horizon. To account for the effects of these import restrictions, it is assumed that about one-third of the imports placed under embargo can immediately be replaced by other suppliers from abroad. The remaining part is assumed to result in a small contraction of Russian import growth in late 2014 and early 2015. This translates into a less than 0.1 percentage point reduction in euro area foreign demand by early 2015 as compared with the previous exercise.

While these adverse repercussions for euro area foreign demand are likely to be small, for some individual euro area countries the impact would be larger, depending on their trade links with Russia. In addition, the recent tensions appear to have led to decreasing business confidence in the euro area.

Certain qualifications need to be taken into account with respect to these estimates. The adverse effect on euro area exports from Russia's embargo might be larger than indicated by the downward revision in foreign demand, as the embargo measures are targeted specifically at the euro area and some other OECD countries and this is not captured by the trade shares which are fixed. Thus, more plausibly, euro area exports could be lowered by more than envisaged above. On the other hand, euro area countries may manage to find alternative export markets, thereby cushioning the impact of the embargo.

Finally, as discussed in the June 2014 Monthly Bulletin (see the box entitled "The euro area's exposure to the crisis in Ukraine"), a further intensification of the tensions in the region may trigger additional sanctions against Russia and retaliatory measures from Russia against the EU. In this case, it is likely that there would be a significantly larger impact on activity and inflation in the euro area.

### Box 5

## 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 ECB 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			HI	HICP inflation				
		2014	2015	2016	2014	2015	2016			
ECB staff projections	September 2014	0.9	1.6	1.9	0.6	1.1	1.4			
		[0.7-1.1]	[0.6-2.6]	[0.6-3.2]	[0.5-0.7]	[0.5-1.7]	[0.7-2.1]			
European Commission	May 2014	1.2	1.7	-	0.8	1.2	-			
OECD	May 2014	1.2	1.7	-	0.7	1.1	-			
Euro Zone Barometer	August 2014	1.0	1.5	1.7	0.6	1.1	1.5			
Consensus Economics Forecasts	August 2014	1.0	1.5	1.6	0.6	1.1	1.5			
Survey of Professional Forecasters	August 2014	1.0	1.5	1.7	0.7	1.2	1.5			
IMF	July 2014	1.1	1.5	1.5	0.9	1.2	1.3			

Sources: European Commission's European Economic Forecast, Spring 2014; IMF World Economic Outlook, Update July 2014 (GDP); IMF World Economic Outlook, April 2014; OECD Economic Outlook, May 2014; Consensus Economics Forecasts; MJEconomics; and the ECB's Survey of Professional Forecasters.

Notes: The ECB 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 slightly higher than entailed in the ECB staff projections. Projections for real GDP growth in 2015 and 2016 are similar or slightly lower than the ECB staff projections. As regards inflation, the forecasts from most other institutions point to average annual HICP inflation in 2014 and 2015 close to or slightly higher than the ECB staff projections. HICP inflation in 2016 is expected to average between 1.3% and 1.5% according to the other available projections, compared with 1.4% in the ECB staff projection. At present, all available forecasts for 2015 and 2016 are within the ranges of the ECB projections, which are indicated in the table.

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