



EUROPEAN CENTRAL BANK

EUROSYSTEM

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

*Real GDP growth is projected to remain moderate in 2014, gaining pace from 2015. A gradual recovery in domestic and external demand is expected to be the driving factor behind the projected increase in activity. External demand will benefit from the global recovery gradually gaining strength. Domestic demand is expected to benefit from improving confidence in an environment of declining uncertainty, the very accommodative monetary policy stance and falls in oil prices that should support real disposable incomes. Domestic demand should also benefit from a less restrictive fiscal policy stance in the coming years and from gradually improving credit supply conditions. At the same time, the adverse impact on the growth outlook, stemming from the need for further adjustment of private sector balance sheets and from high unemployment, is expected to diminish gradually over the projection horizon. Real GDP is projected to increase by 1.2% in 2014, 1.5% in 2015 and 1.8% in 2016.*

*The gradual strengthening in demand and an ongoing decline in excess capacity in the context of firmly anchored inflation expectations are expected to lead to an increase in HICP inflation over the projection horizon. Euro area HICP inflation is projected to be 1.0% in 2014, 1.3% in 2015 and 1.5% in 2016. This moderate inflation outlook is expected to be mainly due to the declining path of oil price futures and the existing slack in the economy. Given rising, but still moderate, domestic cost pressures, against the background of the expected gradual recovery in economic activity, HICP inflation excluding energy and food is projected to increase from 1.1% in 2014 to 1.7% in 2016.*

*Compared with the macroeconomic projections published in the December 2013 issue of the Monthly Bulletin, the real GDP growth projection for 2014 has been revised marginally upwards. The projection for headline HICP inflation has been revised downwards by 0.1 percentage point for 2014, reflecting the latest data, while it remains unchanged for 2015.*

*The article summarises the macroeconomic projections for the euro area not only for the period 2014 and 2015 but also, for the first time, for the year 2016. Projections for a period over such a long horizon, however, are subject to very high uncertainty.<sup>2</sup> This needs to be borne in mind when interpreting the macroeconomic projections.*

### THE INTERNATIONAL ENVIRONMENT

World real GDP growth (excluding the euro area) is projected to pick up gradually over the projection horizon, rising from 3.4% in 2013 to 4.1% in 2016. While growth gained some momentum in advanced economies in the second half of 2013, growth in emerging markets softened, owing to weak domestic demand, limited leeway for further supportive domestic policies and tensions in financial markets. In the short term, global sentiment indicators suggest favourable business conditions, which is consistent with a progressive strengthening in global activity. While financial tensions in some emerging market economies occurred recently, overall global financial market conditions have remained broadly stable following the US Federal Open Market Committee's decision to start the tapering of asset purchases, in contrast with the turmoil in mid-2013, when the Federal Reserve System announced the possibility of tapering asset purchases for the first time. The global recovery is projected to continue gaining strength gradually. In advanced economies,

1 ECB staff macroeconomic projections are an input to 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 February 2014.

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

**Table I The international environment**

(annual percentage changes)

	2013	March 2014			Revisions since December 2013		
		2014	2015	2016	2013	2014	2015
World (excluding euro area) real GDP	3.4	3.9	4.0	4.1	0.1	0.0	-0.1
Global (excluding euro area) trade <sup>1)</sup>	3.8	5.1	6.2	6.2	-0.2	-0.5	-0.2
Euro area foreign demand <sup>2)</sup>	3.0	4.5	5.6	5.8	0.0	-0.5	-0.1

1) Calculated as a weighted average of imports.

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

diminishing private sector deleveraging and less fiscal consolidation should bolster confidence and support domestic demand, although labour markets are expected to improve only slowly. Stronger growth in advanced economies should support emerging market economies.

Global trade has picked up recently, in line with the slight rebound in economic activity. The latest data point to an improvement in the short term. Looking ahead, world trade is expected to strengthen gradually, with its elasticity to activity at the end of the projection horizon remaining below that recorded before the global crisis. Global trade growth (excluding the euro area) is projected to pick up from 3.8% in 2013 to 6.2% in 2016. With demand from the euro area's main trading partners growing at a slower pace than that from the rest of the world, euro area foreign demand growth is projected to be somewhat weaker.

Compared with the macroeconomic projections published in the December 2013 issue of the Monthly Bulletin, the global growth outlook has been hardly revised. The outlook for euro area foreign demand has been revised downwards for 2014 but remains broadly unchanged for 2015. The revisions for 2014 reflect an adverse carry-over effect from lower than previously projected trade developments in the second half of 2013, which are expected to continue in the short term.

**Box I****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 12 February 2014. The assumption about short-term interest rates is of a purely technical nature. Short-term rates are measured by the three-month EURIBOR, with market expectations derived from futures rates. The methodology gives an average level for these short-term interest rates of 0.3% for 2014, 0.4% for 2015 and 0.8% for 2016. The market expectations for euro area ten-year nominal government bond yields imply an average level of 2.8% in 2014, 3.2% in 2015 and 3.6% 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 bottom out at around the beginning of 2014 and to rise gradually thereafter. As regards commodity prices,

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.

## Technical assumptions

	March 2014				Revisions since December 2013 <sup>1)</sup>		
	2013	2014	2015	2016	2013	2014	2015
Three-month EURIBOR (percentage per annum)	0.2	0.3	0.4	0.8	0.0	0.0	-0.1
Ten-year government bond yields (percentage per annum)	2.9	2.8	3.2	3.6	0.0	-0.3	-0.3
Oil price (in USD/barrel)	108.8	105.8	101.1	96.9	0.6	1.8	1.9
Non-energy commodity prices, in USD (annual percentage change)	-5.2	-2.5	3.1	4.8	0.2	0.1	-0.7
USD/EUR exchange rate	1.33	1.36	1.36	1.36	0.2	0.9	0.8
Euro nominal effective exchange rate (annual percentage change)	3.8	1.6	0.0	0.0	0.1	0.8	0.0

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

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 108.8 in 2013 to USD 96.9 in 2016. The prices of non-energy commodities in US dollars are assumed to fall in 2014, before increasing in 2015 and 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 12 February 2014. This implies an exchange rate of USD per EUR of 1.36 between 2014 and 2016, which is 2.1% higher than in 2013. On average, the effective exchange rate of the euro is assumed to be 1.6% stronger than in 2013.

The fiscal policy assumptions are based on individual euro area countries' national budget plans that were available as of 20 February 2014. They 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.

Compared with the December 2013 issue of the Monthly Bulletin, the changes in the technical assumptions are relatively small. They include slightly lower long-term interest rates in the euro area, slightly higher US dollar-denominated oil prices and a small appreciation of the exchange rate of the euro.

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 first 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

Real GDP continued to recover moderately in the fourth quarter of 2013, rising by 0.3% from the previous quarter, following growth rates of 0.3% and 0.1% in the second and third quarters, respectively, of 2013 (see the chart). Recent survey data appear to have stabilised above their long-term average levels, pointing to a further increase in activity in the first quarter of 2014. The very mild winter weather in some countries is likely to have been supportive of activity in the first quarter. The underlying growth momentum is projected to remain moderate during the course of 2014, before increasing somewhat thereafter. The main factors behind the pick-up in activity over the projection horizon are expected to be a gradual recovery in domestic demand

on the back of improving confidence in an environment of declining uncertainty, the very accommodative monetary policy stance and lower oil prices (supporting real disposable incomes). Domestic demand is also expected to benefit from a less restrictive fiscal policy stance in the coming years and from gradually improving credit supply conditions. In addition, overall activity will be increasingly supported over the projection horizon by the favourable impact of a gradual strengthening of external demand on exports, albeit initially partly mitigated by the impact of the past appreciation of the effective exchange rate of the euro. The adverse impact on the growth outlook, stemming from the need for further adjustment of private and public sector balance sheets, from high unemployment and from the still somewhat elevated uncertainty, is expected to diminish gradually over the projection horizon.

Overall, the recovery is projected to remain subdued by historical standards and euro area real GDP is expected to exceed its pre-crisis level (that of the first quarter of 2008) only from the end of 2015 onwards. In annual average terms, real GDP is expected to increase by 1.2% in 2014, 1.5% in 2015 and 1.8% in 2016. This growth pattern reflects a steadily rising contribution from domestic demand combined with a small positive contribution from net exports. As growth is expected to exceed potential, the amount of slack gradually declines over the horizon.

Looking at the components of growth in more detail, extra-euro area exports are projected to gain momentum in the course of 2014 and 2015, reflecting the strengthening of euro area foreign demand and the gradual fading away of the adverse impact of the past appreciation of the euro. Euro area export market shares are projected to decline somewhat over the projection horizon, reflecting the impact of recent losses in competitiveness. Intra-euro area exports are projected to grow more slowly than extra-euro area exports, owing to the relative weakness of domestic demand within the euro area.

Business investment is projected to pick up gradually, albeit at too moderate a pace to return to pre-crisis levels. A number of factors are expected to support business investment: the projected gradual strengthening in domestic and external demand, the very low level of interest rates, reduced uncertainty, the need to modernise the capital stock after several years of subdued investment, the disappearance of adverse credit supply effects and some strengthening of profit mark-ups as activity recovers. However, the combined adverse impact of ample spare capacity, the need for further corporate balance sheet restructuring, adverse financing conditions in some areas, and a relatively high level of uncertainty in some countries is assessed to fade only gradually over the projection horizon.

Residential investment is expected to increase modestly in the first half of 2014 and to gain only marginal traction over the remainder of the projection horizon. Further adjustment needs in the housing markets of some countries and weak growth in real disposable income continue to weigh on the outlook. Moreover, the relative attractiveness of housing investment in other countries, supported by historically low mortgage rates, can only gradually come into play, as the construction sector in these countries is already near capacity limits. Government investment is expected to remain relatively weak throughout the projection horizon, owing to planned fiscal consolidation measures in several euro area countries.

Employment in terms of persons is projected to increase slightly during 2014, before gathering pace thereafter. The muted recovery in employment reflects the subdued pick-up in activity, the usual lagged response of employment to output fluctuations, an increase in the number of hours worked per head, further cuts in the public sector headcount and the heightened uncertainty in some

countries that weighs on hiring plans in the private sector. These factors are likely to outweigh the positive impact of labour market reforms, which have increased flexibility and lowered the output growth threshold for the creation of jobs in some stressed countries. The labour force is expected to increase moderately over the projection horizon, as certain segments of the population gradually return to the labour market. The unemployment rate is expected to decline modestly over the projection horizon but to remain above 11% in 2016. Labour productivity (measured as output per person employed) is projected to edge up over the projection horizon, reflecting the expected acceleration in economic activity and the lagged response of employment.

Private consumption is expected to gain some momentum in the course of 2014 and beyond, as growth in real disposable income picks up owing to stronger labour income, a gradual improvement in labour market conditions, a slower pace of fiscal consolidation and low inflation developments,

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

(annual percentage changes)								
	March 2014				Revisions since December 2013 <sup>2)</sup>			
	2013	2014	2015	2016	2013	2014	2015	
Real GDP <sup>3)</sup>	-0.4	1.2	1.5	1.8	0.0	0.1	-0.1	
		[0.8 - 1.6] <sup>4)</sup>	[0.4 - 2.6] <sup>4)</sup>	[0.7 - 2.9] <sup>4)</sup>				
Private consumption	-0.6	0.7	1.2	1.4	0.0	0.0	0.0	
Government consumption	0.2	0.4	0.4	0.7	0.1	0.1	0.0	
Gross fixed capital formation	-2.9	2.1	2.7	3.7	0.1	0.5	-0.1	
Exports <sup>5)</sup>	1.1	3.6	4.7	5.1	0.1	-0.1	-0.2	
Imports <sup>5)</sup>	0.0	3.5	4.7	5.2	0.1	0.0	0.0	
Employment	-0.8	0.2	0.5	0.7	0.0	0.0	0.1	
Unemployment rate (percentage of labour force)	12.1	11.9	11.7	11.4	0.0	-0.1	-0.1	
HICP	1.4	1.0	1.3	1.5	0.0	-0.1	0.0	
		[0.7 - 1.3] <sup>4)</sup>	[0.6 - 2.0] <sup>4)</sup>	[0.7 - 2.3] <sup>4)</sup>				
HICP excluding energy	1.4	1.2	1.5	1.7	0.0	-0.1	0.0	
HICP excluding energy and food	1.1	1.1	1.4	1.7	0.0	-0.2	0.0	
HICP excluding energy, food and changes in indirect taxes <sup>6)</sup>	1.0	1.0	1.4	1.7	0.0	-0.1	0.0	
Unit labour costs	1.2	0.8	1.0	1.2	-0.2	-0.2	0.0	
Compensation per employee	1.7	1.7	2.0	2.3	-0.1	-0.1	-0.1	
Labour productivity	0.4	0.9	1.0	1.1	0.1	0.1	-0.1	
General government budget balance (percentage of GDP)	-3.2	-2.7	-2.5	-2.1	0.0	-0.1	-0.1	
Structural budget balance (percentage of GDP) <sup>7)</sup>	-2.5	-2.2	-2.2	-2.0	0.0	0.0	-0.1	
General government gross debt (percentage of GDP)	92.9	93.5	93.2	92.2	-0.3	-0.1	0.2	
Current account balance (percentage of GDP)	2.2	2.4	2.6	2.7	0.2	0.2	0.0	

1) The data refer to the euro area including Latvia, except for the HICP data for 2013. The average annual percentage change in the HICP for 2014 is based on a euro area composition in 2013 that already includes Latvia.

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. 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 2006). 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.

moderated only partially by a slight rise in the saving ratio. Government consumption is projected to increase moderately over the projection horizon.

The pace of growth in extra-euro area imports is projected to accelerate moderately over the projection horizon, partly owing to the impact of the past appreciation of the euro. However, it should remain contained by the subdued growth of total demand. Net trade is expected to contribute positively but moderately to real GDP growth over the projection horizon and the current account surplus is expected to increase, reaching 2.7% of GDP in 2016.

Compared with the macroeconomic projections published in the December 2013 issue of the Monthly Bulletin, the real GDP growth projection for 2014 has been revised marginally upwards.

### **PRICE AND COST PROJECTIONS**

According to the flash estimate by Eurostat, overall HICP inflation stood at 0.8% in February 2014, unchanged from the last quarter of 2013. The subdued current rate of inflation reflects a combination of declining energy prices and moderate increases in food prices, as well as a subdued trend in services prices and non-energy industrial goods prices (see Section 3 and the box entitled “Impact of services and non-energy industrial goods prices on the recent decline in HICP inflation” in this issue of the Monthly Bulletin).

Looking ahead, HICP inflation is expected to remain at low levels in the near term, before rising from late 2014 onwards, as activity gradually recovers. The annual inflation rate is projected to be 1.0% in 2014, 1.3% in 2015 and 1.5% in 2016. At the end of 2016, it is expected to be 1.7%.

This moderate inflation outlook is expected to be mainly due to the declining path of oil price futures and the existing slack in the economy. The gradual strengthening in demand and the ongoing decline of excess capacity in the context of firmly anchored inflation expectations is expected to allow for some increase in profit margins and rising unit labour costs in large parts of the euro area. In addition, gradually diminishing adjustment needs for costs and prices in stressed countries should also contribute to an increase in HICP inflation over the projection horizon.

In more detail, energy prices are expected to decline somewhat over the projection horizon, reflecting the assumed path for oil prices. This exerts a downward impact on HICP inflation. The contribution of energy prices to overall annual HICP inflation is expected to be almost negligible over the projection horizon, which compares with a contribution of 0.5 percentage point on average since 1999.

Food price inflation is expected to continue to moderate in the first three quarters of 2014, owing to the past decline in food commodity prices (in euro) and to downward base effects. It is projected to pick up over the remainder of the projection horizon, in line with the assumed increase in food commodity prices over this period. The upward contribution from food prices to overall HICP inflation is projected to be 0.3 percentage point on average over the projection horizon, slightly lower than its average contribution since 1999 (0.5 percentage point).

HICP inflation excluding energy and food is projected to increase gradually in the course of 2014, averaging 1.1% in the year as a whole, and to rise to 1.4% in 2015 and 1.7% in 2016. These developments are expected to be driven by the projected gradual pick-up in economic activity. The average contribution from this component to overall HICP inflation over the projection horizon is projected to be about 1.0 percentage point, which is also slightly lower than its average contribution since 1999 (1.1 percentage points).



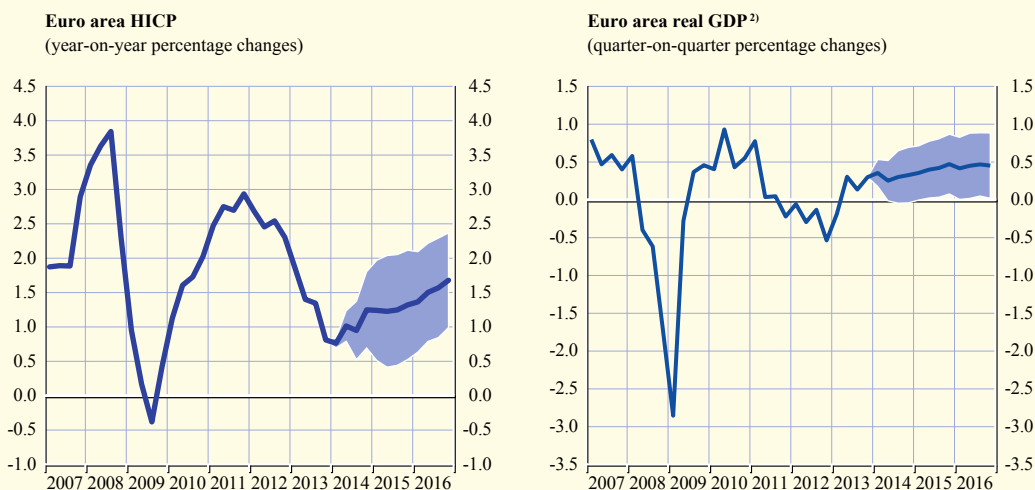
Increases in indirect taxes that are included in fiscal consolidation plans are expected to make a significant upward contribution, of around 0.2 percentage point, to HICP inflation in 2014. The magnitude of this contribution is comparable with that recorded in 2013. In 2015 and 2016, such contributions are projected to be negligible, as there is a lack of detailed information on fiscal measures for those years. Inflation as measured by the HICP excluding energy, food and changes in indirect taxes is therefore projected to pick up somewhat more strongly than the index including taxes.

External price pressures eased in the course of 2013, owing to sluggish global demand, the appreciation of the effective exchange rate of the euro and declines in oil and non-oil commodity prices. These factors led to a decline in the import deflator over the year. Looking ahead, however, given the projected strengthening in global demand over the projection horizon, the expected increase in non-energy commodity prices and the fading effects of the past appreciation of the euro, the import deflator is expected to increase in 2014 and over the remainder of the projection horizon. It is projected to reach annual rates of change around 1.1% in 2016, close to its long-term average growth rate.

Turning to domestic price pressures, given ongoing weak but slowly improving euro area labour market conditions, the annual growth rate of compensation per employee is projected to remain broadly unchanged in 2014, before gaining more momentum in 2015 and 2016. Unit labour cost growth is expected to decline in 2014, reflecting the cyclical pick-up in productivity growth, given the lagged response of employment in an economic recovery and the broadly unchanged growth rate of compensation per employee over the year. As the recovery gains momentum in 2015 and 2016 and labour markets improve gradually, the somewhat stronger growth in compensation per employee than in productivity is expected to lead to a small increase in unit labour cost growth.

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

(quarterly data)



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.

Growth in the profit margin indicator (as measured by the difference between the GDP deflator at factor cost and unit labour cost growth) is expected to strengthen in 2014 and to rise slightly further over the projection horizon, supported by the expected improvement in economic conditions.

Compared with the macroeconomic projections published in the December 2013 issue of the Monthly Bulletin, the projection for headline HICP inflation has been revised downwards by 0.1 percentage point for 2014, while it remains unchanged for 2015.

## FISCAL OUTLOOK

On the basis of the assumptions outlined in Box 1, the general government deficit-to-GDP ratio for the euro area is projected to decrease from 3.2% in 2013 to 2.7% in 2014 and to fall further to 2.1% in 2016. The projected lower deficit for 2014 reflects fiscal consolidation efforts in a number of euro area countries and the unwinding of government assistance to the financial sector. In 2015-16, the projected gradual decline in the government deficit is expected to be mainly driven by a favourable contribution from the cyclical component as excess capacity narrows, and, to a lesser extent, by a continued improvement in the structural component, since the latter is projected to improve at a slower pace than in recent years. As a result, the structural budget balance, i.e. the cyclically adjusted balance net of all temporary measures, is projected to improve perceptibly in 2014 and to a lesser extent over the remainder of the projection horizon. The euro area general government gross debt-to-GDP ratio is projected to peak at 93.5% in 2014, declining thereafter to 92.2% in 2016.

### Box 2

#### SENSITIVITY ANALYSIS

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 of the euro area, the sensitivity of the latter with respect to alternative paths of these underlying assumptions can help in analysing 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 in the two-week period ending on the cut-off date. At present, they imply steadily falling oil prices over the projection horizon. However, uncertainty remains regarding this profile. There is uncertainty over the evolution of both demand and supply developments.

On the demand side, there could be a negative impact of a growth slowdown in emerging market economies on global commodity prices. On the other hand, higher oil prices might emerge in the case of a stronger recovery, globally and most notably in the United States. At the same

<sup>1</sup> 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.



time, on the supply side, the effect of the rise in shale oil production over the projection horizon is assessed to be limited for two reasons. First, most of the shale oil effects appear to have already been priced in and, second, even considerable changes in the scale of the US production may have only a small effect on international prices due to a possible offsetting reaction of oil production in Saudi Arabia. At the same time, upside pressures to oil prices from the supply side could be associated with unexpected geopolitical events.

Overall, in the context of a global recovery, a higher oil price than assumed in the baseline appears to be plausible. Therefore, an upward adjustment of the oil price futures path on the basis of US capacity utilisation in manufacturing is considered in this sensitivity analysis.<sup>2</sup> The alternative path assumes oil prices to be 2%, 8% and 14% above the futures prices in the years 2014, 2015 and 2016, respectively. Based on ECB staff macroeconomic models, the higher oil price would cause HICP inflation to be 0.2 percentage point above the baseline projection in 2015 and 2016. At the same time, higher oil prices would also dampen real GDP growth, which would be 0.1 percentage point lower in 2016.

## **2) A lower exchange rate of the euro**

The euro nominal effective exchange rate as measured against the euro area's 20 major trading partners has strengthened in recent months and currently stands 3% above its long-run historical average since 1999. This strengthening has been largely attributed by market participants to the ongoing retrenchment of global investors from emerging market assets (with part of the capital flowing into the euro area), the correction of the currencies of large commodity-exporting countries and the persistent weakness of the Japanese yen.

The baseline projection assumes unchanged bilateral exchange rates over the projection horizon at the average levels prevailing in the two-week period ending on the cut-off date of 12 February 2014. Against this background and for illustrative purposes, a stylised alternative exchange rate path is constructed, assuming that the euro will depreciate in nominal effective terms by 3% from the second quarter of 2014 onwards. The results of this assumed depreciation point to around 0.1-0.2 percentage point higher real GDP growth and HICP inflation in each year over the projection horizon.

## **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 fiscal targets outlined by governments in their 2014 budget laws or draft budgetary plans, in EU-IMF programme documents and, to some extent, in the 2013 stability programmes (to be updated in April 2014). 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,

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.

which in most countries is not covered by the current budget exercises. 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 most 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 and the associated macroeconomic feedback effects.

On the basis of this approach, the additional consolidation for the euro area is assessed to be about 0.1% of GDP in 2014, while further additional measures are assessed to be likely in 2015 (about 0.6% of GDP) and somewhat fewer in 2016 (about 0.3% of GDP), bringing the cumulative amount of additional consolidation to around 1.0% 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 and direct taxes and social security contributions.

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

The macroeconomic impact from the additional fiscal consolidation is limited in 2014, estimated at about -0.4 percentage point in 2015 and again limited in 2016. The impact on HICP inflation is estimated at around 0.1 percentage point.

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.

### 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>	-2.4	-1.6	-0.8
Baseline fiscal projections	-2.7	-2.5	-2.1
Additional fiscal consolidation (cumulative) <sup>2)</sup>	0.1	0.7	1.0
Effects of additional fiscal consolidation (percentage points) <sup>3)</sup>			
Real GDP growth	-0.1	-0.4	-0.1
HICP inflation	0.0	0.1	0.1

1) Nominal targets, as included in the latest EU-IMF programme documents for the relevant countries; latest excessive deficit procedure recommendations for countries under an excessive deficit procedure; 2014 budget laws and draft budgetary plans and 2013 stability programme updates for countries not under an excessive deficit procedure.

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.

The current analysis therefore points to some downside risks to the baseline projection for real GDP growth, especially in 2015, since not all of the intended fiscal consolidation measures have been included in the baseline. At the same time, there are also 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> Finally, 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.

4 For a more detailed analysis of the macroeconomic effects of fiscal consolidation, see the box entitled “The role of fiscal multipliers in the current consolidation debate”, *Monthly Bulletin*, ECB, December 2012.

### Box 3

#### 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			HICP inflation		
		2014	2015	2016	2014	2015	2016
ECB staff projections	March 2014	1.2 [0.8 – 1.6]	1.5 [0.4 – 2.6]	1.8 [0.7-2.9]	1.0 [0.7-1.3]	1.3 [0.6 – 2.0]	1.5 [0.7 – 2.3]
European Commission	February 2014	1.2	1.8	-	1.0	1.3	-
OECD	November 2013	1.0	1.6	-	1.2	1.2	-
Euro Zone Barometer	February 2014	1.1	1.5	1.5	1.0	1.3	1.8
Consensus Economics Forecasts	February 2014	1.0	1.4	1.5	1.0	1.4	1.8
Survey of Professional Forecasters	February 2014	1.0	1.5	1.7	1.1	1.4	1.7
IMF	January 2014	1.0	1.4	1.5	1.5	1.4	1.5

Sources: European Commission’s European Economic Forecast, Winter 2014; IMF World Economic Outlook, Update January 2014 (GDP); IMF World Economic Outlook, October 2013; OECD Economic Outlook, November 2013; 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 and 2015 is projected to be similar to the path in the ECB staff projections. Projections for real GDP growth in 2016 are within the range of 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 the ECB staff projection. HICP inflation in 2016 is expected to average between 1.5% and 1.8% in the other available projections, which is within the range of the ECB staff projections.

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