ARTICLE

JUNE 2014 EUROSYSTEM STAFF MACROECONOMIC PROJECTIONS FOR THE EURO AREA[1]

The economic recovery in the euro area is projected to strengthen gradually over the projection horizon, supported by increases in domestic and, to a lesser extent, external demand. Domestic demand is benefiting from the accommodative monetary policy stance, a return to a broadly neutral fiscal stance, improving financing conditions and rising confidence in an environment of reduced uncertainty. In addition, real disposable income is being supported by gradually increasing wage growth and falling energy prices. At the same time, the adverse impact on the economic outlook stemming from the need for further balance sheet adjustment and from high unemployment is expected to diminish only gradually over the projection horizon. External demand is expected to benefit from a gradual global recovery, although initially its positive impact on euro area exports is likely to be partially offset by the effects of the stronger exchange rate of the euro. Real GDP is projected to increase by 1.0% in 2014, 1.7% in 2015 and 1.8% in 2016. These increases are at rates above estimated potential growth, thereby contributing to a gradual reduction in the negative output gap, with the unemployment rate declining slightly.

Euro area HICP inflation is projected to rise gradually over the projection horizon but to remain low. Headline inflation is expected to increase from 0.7% in the first quarter of 2014 to 1.5% in the last quarter of 2016, and to average 0.7% in 2014, 1.1% in 2015 and 1.4% in 2016. The projected pick-up in overall HICP inflation reflects the gradual strengthening of the economic recovery, which is leading to rising growth in domestic wages and profits. The assumption of increasing prices of non-energy commodities and imported manufactured goods also implies an upward impact on inflation. At the same time, the projected increase in inflation should be contained by assumed declines in oil prices, the lagged impact of the marked appreciation in the exchange rate of the euro since mid-2012 and the remaining slack in the economy. HICP inflation excluding food and energy is projected to rise gradually from 1.0% in 2014 to 1.2% in 2015 and to 1.5% in 2016, reaching 1.7% by the end of 2016.

Compared with the macroeconomic projections published in the March 2014 issue of the Monthly Bulletin, the real GDP growth projection for 2014 has been revised down from 1.2% to 1.0%, reflecting the weaker than expected outcome for the first quarter. In contrast, the projection for 2015 has been revised up from 1.5% to 1.7%, against the background of a stronger recovery in real disposable income. HICP inflation in 2014 has been revised down from 1.0% to 0.7%, largely reflecting the lower than expected outcomes for HICP inflation in recent months. For 2015 and 2016, the HICP inflation projections have been revised down from 1.3% to 1.1% and from 1.5% to 1.4% respectively.

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.[2] This should be borne in mind when interpreting them.

THE INTERNATIONAL ENVIRONMENT

World real GDP growth (excluding the euro area) is projected to pick up gradually over the projection horizon, rising from 3.6% in 2014 to 4.0% in 2015 and to 4.1% in 2016. Available data releases point to a slowing of momentum in advanced economies in the first quarter of the

1 Eurosystem 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 21 May 2014.

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

year, partly related to temporary factors such as the extremely cold weather experienced in North America. Nevertheless, looking through the short-term volatility, surveys indicate reasonably robust growth momentum. Growth in emerging markets has declined, owing to weak domestic demand, the reversal of capital inflows to these economies and more limited leeway for further supportive domestic policies. Financial markets have stabilised in emerging economies since the episode of volatility in early 2014, but in many countries financial conditions have tightened quite considerably since mid-2013, weighing on activity. Looking ahead, global activity is expected to strengthen. Moderating private sector deleveraging and less fiscal consolidation, combined with improving labour markets, should support domestic demand in advanced economies. In turn, stronger demand in advanced economies should foster a rebound in the rest of the world. Growth in some emerging economies is, however, likely to be restrained by structural factors, including infrastructure bottlenecks and capacity constraints, while in those countries that were highly dependent on capital inflows and strong credit growth, activity is likely to be dampened as their economies rebalance and adjust to the changing monetary policy stance in the United States.

Global trade has lost some momentum since late last year. Looking ahead, the pick-up in activity in advanced economies – particularly in investment, which has a high import content – should spur an acceleration in global trade over the projection horizon. However, global trade is judged unlikely to expand at the same pace as in the 1990s and 2000s, when large emerging economies were being integrated into the global economy. Consequently, compared with the previous projection exercise, the baseline projection assumes a lower long-run elasticity of global trade to world activity than that seen before the global financial crisis. Global trade (excluding the euro area) is projected to grow by 4.3% in 2014, 5.7% in 2015 and 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).

Compared with the macroeconomic projections published in the March 2014 issue of the Monthly Bulletin, global real GDP growth for 2014 has been revised down from 3.9% to 3.6%. The outlook for euro area foreign demand has been revised downwards over the entire projection horizon.

Table 1 The international environment

(annual percentage changes)

	June 2014				March 2014			Revisions since March 2014		
	2013	2014	2015	2016	2014	2015	2016	2014	2015	2016
World (excluding euro area) real GDP	3.4	3.6	4.0	4.1	3.9	4.0	4.1	-0.3	0.0	0.0
Global (excluding euro area) trade[1]	3.5	4.3	5.7	5.9	5.1	6.2	6.2	-0.8	-0.5	-0.3
Euro area foreign demand[2]	3.0	3.7	5.2	5.6	4.5	5.6	5.8	-0.7	-0.4	-0.2

1) Calculated as a weighted average of imports.
2) Calculated as a weighted average of imports of euro area trade partners.
Note: Revisions are calculated from unrounded data.

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 14 May 2014. 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, 0.3% for 2015 and 0.4% for 2016. The market expectations for euro area ten-year nominal government bond yields imply an average level of 2.4% in 2014, 2.6% in 2015 and 3.0% in 2016[1]. 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 gradually thereafter.

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 108.8 in 2013 to USD 98.2 in 2016. The prices of non-energy commodities in US dollars are assumed to increase marginally in 2014, before rising somewhat faster in 2015 and 2016.[2]

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 14 May 2014. This implies an exchange rate of USD 1.38 per euro between 2014 and 2016, which is 4.2% higher than in 2013. Over the projection horizon, the effective exchange rate of the euro is assumed to be 2.7% stronger than in 2013.

Technical assumptions

	June 2014				March 2014			Revisions since March 2014 1)		
	2013	2014	2015	2016	2014	2015	2016	2014	2015	2016
Three-month EURIBOR (percentage per annum)	0.2	0.3	0.3	0.4	0.3	0.4	0.8	0.0	-0.1	-0.3
Ten-year government bond yields (percentage per annum)	2.9	2.4	2.6	3.0	2.8	3.2	3.6	-0.5	-0.6	-0.6
Oil price (in USD/barrel)	108.8	107.2	102.2	98.2	105.8	101.1	96.9	1.3	1.2	1.3
Non-energy commodity prices, in USD (annual percentage change)	-5.2	0.3	1.7	4.6	-2.5	3.1	4.8	2.8	-1.4	-0.2
USD/EUR exchange rate	1.33	1.38	1.38	1.38	1.36	1.36	1.36	1.7	2.0	2.0
Euro nominal effective exchange rate (EER20) (annual percentage change)	3.8	2.6	0.1	0.0	1.6	0.0	0.0	1.0	0.1	0.0

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

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 second 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.

The fiscal policy assumptions reflect the approved budget laws of euro area countries, their medium-term budgetary plans and well-specified measures from the updates of the stability programmes that were available as of 21 May 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 March 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. While US dollar-denominated oil prices are somewhat higher than in March, there has also been a moderate appreciation in the exchange rate of the euro.

REAL GDP GROWTH PROJECTIONS

Euro area real GDP rose by 0.2% in the first quarter of 2014, recording its fourth consecutive quarterly increase. Survey data indicate a stabilisation of business confidence across sectors and across countries in recent months, at levels close to or above their long-term averages, pointing to a further increase in activity in the second quarter of 2014. The underlying growth momentum is projected to increase, particularly in some of the stressed economies. The projected pick-up in activity should be supported mainly by a strengthening of domestic demand, owing to the accommodative monetary policy stance, a return to a broadly neutral fiscal stance following years of substantial fiscal tightening, a return to neutral credit supply conditions, and the improved confidence of both businesses and households in an environment of reduced uncertainty. In particular, private consumption should benefit from the favourable impact of rising wage growth and declining energy prices on real disposable income. Moreover, activity is expected to be increasingly supported by a gradual strengthening of external demand, although initially growth in exports is likely to be hampered by the appreciation in the effective exchange rate of the euro. At the same time, the adverse impact on the outlook for domestic demand, stemming from the need for further adjustment of private and public sector balance sheets and, in particular, from high unemployment in some countries, is expected to diminish only gradually over the projection horizon, while labour supply constraints may emerge in other countries. In annual average terms, real GDP is expected to increase by 1.0% in 2014, 1.7% 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 actual growth is projected to exceed the estimated potential growth rate, the output gap is expected to narrow but to still remain negative at the end of the projection horizon.

Looking at the components of demand in more detail, growth in extra-euro area exports is projected to gain momentum in the course of 2014 and 2015, reflecting the gradual strengthening of euro area foreign demand and the fading away of the adverse impact of the euro's recent appreciation. Euro area export market shares are projected to decline marginally over the projection horizon, albeit with rather heterogeneous developments across the euro area countries, reflecting diverse competitiveness developments. Intra-euro area exports are projected to grow more slowly than extra-euro area exports, owing to the still relative weakness of domestic demand within the euro area.

Business investment is projected to pick up gradually during the projection horizon, supported by the strengthening of domestic and external demand in the context of accumulated needs for replacement

Table 2 Macroeconomic projections for the euro area[1]

(annual percentage changes)

	June 2014				March 2014			Revisions since March 2014[2]		
	2013	2014	2015	2016	2014	2015	2016	2014	2015	2016
Real GDP[3]	-0.4	1.0	1.7	1.8	1.2	1.5	1.8	-0.1	0.2	0.0
		[0.6 - 1.4][4]	[0.6 - 2.8][4]	[0.5 - 3.1][4]	[0.8 - 1.6][4]	[0.4 - 2.6][4]	[0.7 - 2.9][4]			
Private consumption	-0.6	0.7	1.5	1.6	0.7	1.2	1.4	0.0	0.2	0.2
Government consumption	0.2	0.4	0.4	0.4	0.4	0.4	0.7	0.0	0.0	-0.3
Gross fixed capital formation	-2.7	1.7	3.1	3.5	2.1	2.7	3.7	-0.4	0.4	-0.2
Exports[5]	1.7	3.6	4.8	5.3	3.6	4.7	5.1	0.1	0.1	0.2
Imports[5]	0.5	3.6	4.8	5.5	3.5	4.7	5.2	0.1	0.1	0.3
Employment	-0.8	0.3	0.5	0.7	0.2	0.5	0.7	0.1	0.1	0.0
Unemployment rate (percentage of labour force)	12.0	11.8	11.5	11.0	11.9	11.7	11.4	-0.2	-0.3	-0.4
HICP	1.4	0.7	1.1	1.4	1.0	1.3	1.5	-0.3	-0.1	-0.1
		[0.6 - 0.8][4]	[0.5 - 1.7][4]	[0.6 - 2.2][4]	[0.7 - 1.3][4]	[0.6 - 2.0][4]	[0.7 - 2.3][4]			
HICP excluding energy	1.4	1.0	1.3	1.6	1.2	1.5	1.7	-0.2	-0.1	-0.1
HICP excluding energy and food	1.1	1.0	1.2	1.5	1.1	1.4	1.7	-0.1	-0.2	-0.1
HICP excluding energy. food and changes in indirect taxes[6]	1.0	0.9	1.2	1.5	1.0	1.4	1.7	-0.1	-0.2	-0.2
Unit labour costs	1.2	0.9	0.7	1.1	0.8	1.0	1.2	0.1	-0.3	-0.1
Compensation per employee	1.7	1.6	1.9	2.2	1.7	2.0	2.3	-0.1	-0.1	-0.1
Labour productivity	0.5	0.7	1.1	1.0	0.9	1.0	1.1	-0.2	0.1	-0.1
General government budget balance	-3.0	-2.5	-2.3	-1.9	-2.7	-2.5	-2.1	0.2	0.2	0.2
Structural budget balance (percentage of GDP)[7]	-2.2	-2.0	-2.0	-1.9	-2.2	-2.2	-2.0	0.3	0.2	0.1
General government gross debt	92.6	93.4	92.6	91.1	93.5	93.2	92.2	0.0	-0.7	-1.1
Current account balance (percentage of GDP)	2.4	2.6	2.6	2.8	2.4	2.6	2.7	0.2	0.0	0.1

1) The data refer to the euro area including Latvia, except for the HICP data in 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.

investment, the very low level of interest rates, a strengthening of profits, reduced uncertainty and the easing of adverse credit supply effects. However, the combined adverse impact of lower trend growth and the need for further corporate balance sheet restructuring in some euro area countries is assessed to dampen the recovery of business investment over the projection horizon.

Residential investment is projected to pick up gradually as activity recovers in an environment of low mortgage rates. However, over the next few quarters, further adjustment needs in the housing markets in some countries and weak growth in real disposable income will continue to weigh on the outlook. Government investment is expected to remain weak throughout the projection horizon, owing to the planned fiscal consolidation measures in several euro area countries that outweigh the more expansionary public investment profile in others.

Employment in terms of persons stabilised in the second half of 2013 and is projected to pick up modestly thereafter. The weak recovery in employment reflects the slow pick-up in activity, the lagged response of employment to output growth and further cuts in the public sector headcount in some countries. These factors are likely to outweigh the positive impact of labour market reforms, which have increased flexibility and supported private sector job creation, especially in some stressed countries. The labour force is expected to increase moderately over the projection horizon, owing to immigration and increases in the participation of certain segments of the population amid an improving labour market situation. The unemployment rate has edged down in recent months and is expected to decline further over the projection horizon but to remain above the levels recorded 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.

Private consumption is expected to gain some momentum during the course of 2014 and to increase further in 2015 and 2016, closely following real disposable income growth, as the saving ratio remains flat. Growth in real disposable income is projected to be supported by stronger labour income, reflecting rising employment and higher wage growth, a less adverse impact of fiscal consolidation and low inflation developments. Government consumption is assumed to increase moderately over the projection horizon.

Extra-euro area imports are projected to grow moderately over the projection horizon, while remaining constrained by the subdued growth of total euro area demand. Net trade is expected to contribute moderately to real GDP growth over the projection horizon. The current account surplus is expected to rise slightly, reaching 2.8% of GDP in 2016.

Compared with the macroeconomic projections published in the March 2014 issue of the Monthly Bulletin, the real GDP growth projection for 2014 has been revised down from 1.2% to 1.0%, reflecting the weaker than expected outcome for the first quarter. The real GDP growth projection for 2015 has been revised up from 1.5% to 1.7%, on account of lower interest rate assumptions and lower commodity price inflation supporting real incomes. The projection for 2016 is broadly unchanged.

PRICE AND COST PROJECTIONS

According to Eurostat's flash estimate, overall HICP inflation stood at 0.5% in May 2014. The subdued current rate of inflation reflects a stagnation of energy prices, food prices and non-energy industrial goods prices, as well as a subdued trend in services prices.

Headline HICP inflation is expected to remain at low levels until the third quarter of 2014. It is then projected to rise gradually and to reach 1.5% by the end of the projection horizon. This projected gradual pick-up in overall HICP inflation reflects the gradual strengthening of the economic recovery and its implications in terms of a narrowing of the negative output gap and a pick-up in wage and profit growth. The assumption of increasing prices of non-energy commodities and imported manufactured goods also implies an upward impact on inflation. Nonetheless, the projected increase in inflation should be modest, contained in particular by the assumption of declining oil prices according to futures markets, the lagged impact of the marked appreciation in the exchange rate of the euro since mid-2012 and the fact that, despite a narrowing of the output gap, there is still likely to be slack in the economy until 2016.

In more detail, energy price inflation is expected to rise from its very negative rate in early 2014 but to remain slightly negative over most of the projection horizon, in line with the downward sloping path of the oil price futures curve. The marginally negative contribution from energy prices to HICP inflation over the projection horizon compares with an average contribution of around 0.5 percentage point over the period 1999-2013 and explains, to a large extent, the moderate inflation outlook.

Food price inflation is projected to continue to decline until the third quarter of 2014, owing to the delayed pass-through of past declines in food commodity prices and to downward base effects. Given the assumed increase in EU farm gate prices and the gradual economic recovery, food price inflation is expected to rise continually over the projection horizon and to average 1.9% in 2016. The average contribution from food price inflation to headline inflation is 0.3 percentage point over the projection horizon, compared with an average contribution of around 0.5 percentage point since 1999.

HICP inflation excluding food and energy is expected to have bottomed out during the fourth quarter of 2013 and the first few months of 2014. It is projected to pick up over the projection horizon as the recovery gains momentum, leading to rising growth rates for wages and profits, and to reach 1.7% in the last quarter of 2016. The average contribution from HICP inflation excluding food and energy to headline inflation over the projection horizon is expected to amount to 0.9 percentage point, which is only slightly below its average since 1999.

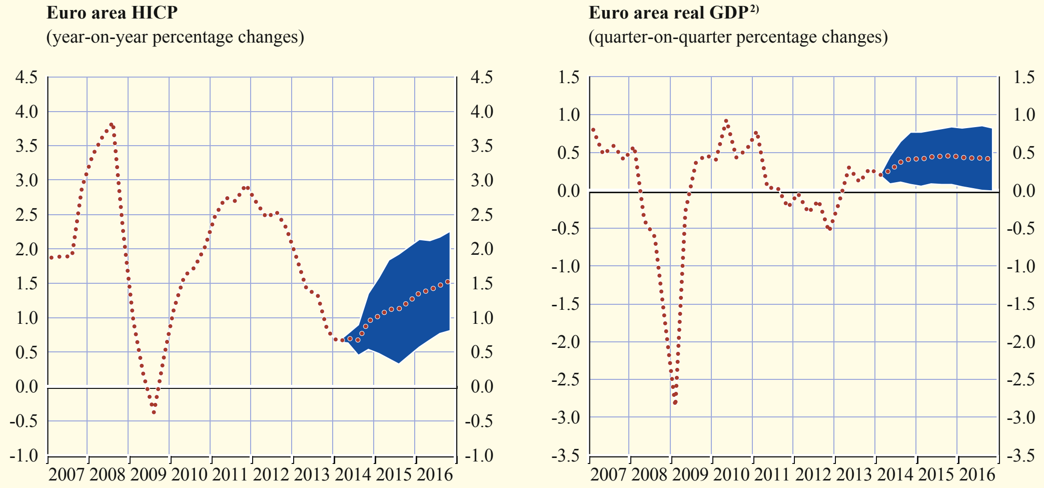
Increases in indirect taxes that are included in fiscal consolidation plans are expected to make a small upward contribution of around 0.1 percentage point to HICP inflation in 2014. The magnitude of this contribution is slightly smaller than that recorded in 2013. In 2015 and 2016, the contributions are currently expected to be negligible, given the lack of information on approved fiscal measures for those years.

External price pressures weakened substantially in the course of 2013, reflecting the impact of sluggish global growth on global prices, the appreciation of the euro and declines in oil and non-oil commodity prices. Looking ahead, the annual growth rate of the import deflator is expected to rise gradually over the projection horizon and to turn positive at the beginning of 2015. It is projected to average 1.2% in 2016, a rate close to its long-term average growth rate. The increase in the growth rate of the import deflator reflects the assumed strengthening of global growth and thus increasing global manufacturing prices, the expected pick-up in non-energy commodity prices and the fading effects from the past appreciation of the euro.

With regard to domestic price pressures, the gradual improvement in euro area labour market conditions is expected to lead to a pick-up in compensation per employee. However, unit labour cost growth is projected to be dampened in the first two years of the projection horizon by a stronger increase in productivity than nominal wage growth, reflecting the cyclical recovery in productivity. In 2016, a continued strengthening of wage growth, together with a weakening of productivity growth, is expected to contribute to a pick-up in unit labour cost growth.

Chart 1 Macroeconomic projections[1)]

(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.

Profit margins (as measured by the difference between the GDP deflator at factor cost and unit labour cost growth) are expected to increase over the projection horizon, supported by the cyclical recovery of the economy.

Compared with the macroeconomic projections published in the March 2014 issue of the Monthly Bulletin, the projection for headline HICP inflation in 2014 has been revised down from 1.0% to 0.7%, largely reflecting the lower than expected outcomes in recent months. The projections for HICP inflation in 2015 and 2016 have been revised down from 1.3% to 1.1% and from 1.5% to 1.4% respectively, mainly reflecting lower unit labour cost growth.

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 3.0% in 2013 to 2.5% in 2014 and to fall further to 1.9% in 2016. This reduction mainly reflects an improvement in the cyclical position. In addition, an improvement in the cyclically adjusted primary balance is expected on account of fiscal consolidation efforts in some euro area countries and only negligible government assistance to the financial sector. The structural budget balance is projected to improve somewhat throughout the projection period, albeit at a slower pace than in recent years. This improvement is mainly driven by assumed continued moderate growth in government expenditure. The euro area general government gross debt-to-GDP ratio is projected to peak at 93.4% in 2014, declining thereafter to 91.1% in 2016.

The following boxes include certain sensitivity analyses (Box 2), comments on the euro area's exposure to the crisis in Ukraine (Box 3) and a comparison with other available forecasts (Box 4).

Box 2

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 of 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.[1]

1) An alternative oil price path

The assumptions for oil prices in the current Eurosystem staff projections are taken from market expectations as measured by oil futures prices, which predict a fall of oil prices over the projection horizon (see Box 1). However, uncertainty remains regarding this profile. There is uncertainty over the evolution of developments in both supply and demand.

The expected fall in oil prices may reflect a market view that oil production in several OPEC countries, which has been reduced recently due to political instability or geopolitical tensions, will partly recover and/or will be compensated by an increase in US production of shale oil. However, higher oil prices might emerge in the event of unexpected geopolitical events in major oil-producing countries in the short 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.[2] The alternative path assumes oil prices to be 1%, 7% and 13% above futures prices for 2014, 2015 and 2016, respectively. Based on Eurosystem staff macroeconomic models, the higher oil price would cause HICP inflation to be 0.2 percentage point above the baseline projection for 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 2015 and 2016.

2) Lower foreign demand

The linkage between global trade and global GDP growth seems to have changed in recent years. Before the financial crisis, global imports typically rose considerably faster than activity (the historical elasticity of trade to activity growth between 1982 and 2007 was 1.8). However, since 2011, global GDP and imports have grown at a similar pace (with the elasticity between 2011 and 2013 averaging 1.1). Continuing this period of relative trade weakness, global trade has softened slightly at the start of 2014.

The baseline projection assumes a gradual recovery in global trade momentum over the projection horizon, albeit to a somewhat lower long-term elasticity to activity than before

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 that 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.

the financial crisis. In this sensitivity analysis, the implications of a lower profile for global imports and euro area foreign demand are considered. It is assumed that global trade elasticity remains at a level similar to that in the recent past, i.e. at 1.1. This implies a reduction in the growth of euro area foreign demand of 0.3 percentage point in 2014 and 1.4 percentage points in both 2015 and 2016.

The results from Eurosystem staff macroeconomic models point to lower real GDP growth (-0.2 percentage point in 2015 and 2016) and lower HICP inflation in 2016 (-0.1 percentage point).

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 2015-2016, 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 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 0.4% of GDP) and somewhat fewer in 2016 (about 0.2% of GDP), bringing the cumulative amount of additional consolidation to around 0.7% 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.

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 1)	-2.5	-1.8	-1.2
Baseline fiscal projections	-2.5	-2.3	-1.9
Additional fiscal consolidation (cumulative) 2)	0.1	0.5	0.7
Effects of additional fiscal consolidation (percentage points) 3)			
Real GDP growth	-0.1	-0.3	-0.2
HICP inflation	0.0	0.1	0.0

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

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[3]) 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 at about -0.3 percentage point in 2015 and -0.2 percentage point in 2016. 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.[4] 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.

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 3

THE EURO AREA'S EXPOSURE TO THE CRISIS IN UKRAINE

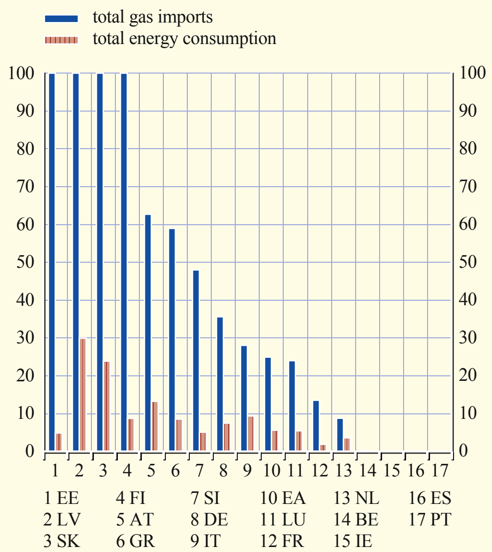
Concerns about a possible escalation of the tensions between Ukraine and Russia have increased lately. This box reviews the exposure of the euro area to Russia and Ukraine and describes the main channels through which the euro area could be affected should the crisis escalate further with the imposition of additional sanctions on Russia.

So far, the crisis has had a notable adverse impact on the Ukrainian and Russian economies but only a limited impact on the euro area economy. While euro area "hard" data appear to be largely unaffected, there is anecdotal evidence of possibly increased uncertainty related to the crisis. However, equity and commodity prices have so far remained relatively stable.

The main potential channels of adverse spillovers to the euro area are trade and financial linkages with Russia, rather than with Ukraine. The euro area imports a considerable amount of energy from Russia, with around 25% of its gas imports and almost 30% of oil imports coming from that country (see Charts A and B). Some euro area countries import gas almost exclusively from Russia. Russia and, to a lesser extent, Ukraine are also destinations for euro area exports. Around 5% of extra-euro area merchandise exports go to Russia, while extra-euro area merchandise exports to Ukraine amount to around 1% (see Chart C). In terms of financial exposure, the claims on Russia

Chart A Gas imports from Russia (in 2011)

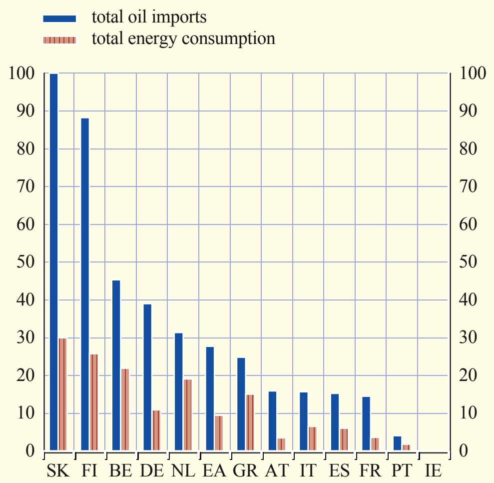
(percentage)



Source: Eurostat.
Notes: Data for Cyprus and Malta are unavailable. Countries are ordered according to the percentage share of gas imports from Russia in their total gas imports.

Chart B Oil imports from Russia (in 2011)

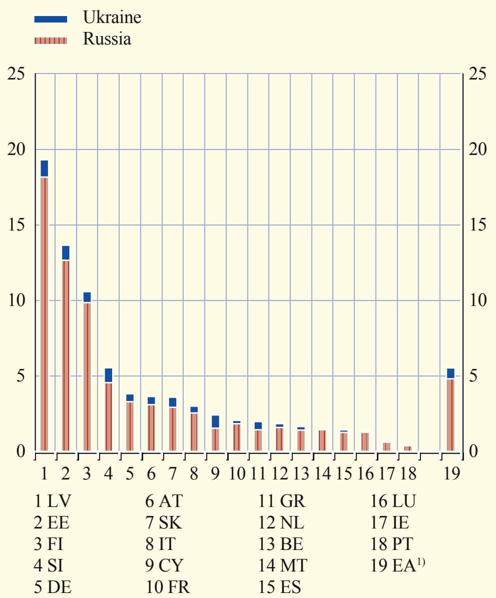
(percentage)



Source: Eurostat.
Notes: Data for Estonia, Cyprus, Latvia, Luxembourg, Malta and Slovenia are unavailable. Countries are ordered according to the percentage share of oil imports from Russia in their total oil imports.

Chart C Merchandise exports to Russia and Ukraine (2013 Q3)

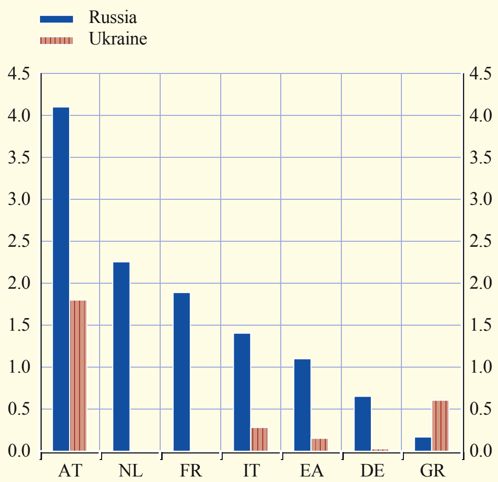
(percentage of total merchandise exports)



Sources: IMF and ECB calculations.
1) Net of intra-euro area merchandise exports.
Notes: Countries are ordered according to the percentage share of merchandise exports to Russia and Ukraine in their total merchandise exports

Chart D Foreign claims of selective euro area banks (by country) on Ukraine and Russia

(percentage of GDP)



Sources: BIS consolidated banking statistics and ECB.
Notes: Countries are ordered according to the foreign claims of euro area banks on Russia as a percentage of 2013 GDP. Data generally refer to 2013 Q4; only euro area countries that are reporting foreign claims of their banks against Russia and Ukraine are shown in the chart; France and the Netherlands have recently not reported their claims against Ukraine; latest data available from Austria are as of 2012 Q3. The euro area figure is indicative as it is based on country data at various points in time.

by euro area banks are equivalent to around 1% of euro area GDP (see Chart D). However, trade and financial linkages exhibit large heterogeneity across euro area countries.

The potential adverse impact from an escalation of the conflict on the euro area economy depends on the type of sanctions imposed by the European Union and the United States on Russia and the retaliatory measures likely to be adopted by Russia. While the specifics of such sanctions are uncertain, such sanctions could lead to a rise in oil prices, a decline in Russia's exports to the euro area, with adverse effects on activity in Russia, and capital outflows leading to a depreciation of the rouble. Unfavourable effects for the euro area could also stem from a drop in equity prices and a fall in confidence as agents become concerned about the intensity of the crisis and its implications.

In the euro area, these channels would likely dampen GDP mainly through the impact on trade and oil prices. At the same time, higher oil prices would lead to higher HICP inflation in the euro area than entailed in the baseline.

In the light of euro area countries' disparate trade exposures and financial links to Russia and Ukraine, any impact from the crisis would be heterogeneous, with those countries that are most exposed to Russia and Ukraine, such as the Baltic States, experiencing the largest adverse impacts.

There may also be a negative impact on some euro area countries as a result of indirect effects from adversely affected third countries, for instance in eastern Europe. Sectors and industries specifically important to some euro area countries, such as agriculture, food, real estate, tourism and certain banking sectors, might be particularly affected by a prolonged or escalated crisis. Finally, those euro area countries that import a large share of their gas and oil from Russia would be particularly negatively affected by a potential disruption in energy supplies from that country.

Box 4

FORECASTS BY OTHER INSTITUTIONS

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

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 Eurosystem staff projections. Projections for real GDP growth in 2015 and 2016 are similar or slightly lower than the Eurosystem 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 Eurosystem staff projections. HICP inflation in 2016 is expected to average between 1.3% and 1.7% according to the other available projections, compared with 1.4% in the Eurosystem staff projection. At present, all available forecasts are inside the ranges of the Eurosystem projections, which are indicated in the table.

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

(annual percentage changes)

	Date of release	GDP growth			HICP inflation		
		2014	2015	2016	2014	2015	2016
Eurosystem staff projections	June 2014	1.0	1.7	1.8	0.7	1.1	1.4
		[0.6-1.4]	[0.6-2.8]	[0.5-3.1]	[0.6-0.8]	[0.5-1.7]	[0.6-2.2]
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	May 2014	1.2	1.6	1.6	0.8	1.2	1.7
Consensus Economics Forecasts	May 2014	1.1	1.4	1.6	0.8	1.3	1.5
Survey of Professional Forecasters	May 2014	1.1	1.5	1.7	0.9	1.3	1.5
IMF	April 2014	1.2	1.5	1.5	0.9	1.2	1.3

Sources: European Commission's European Economic Forecast, Spring 2014; 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 Eurosystem staff macroeconomic projections and the OECD forecasts both report working day-adjusted annual growth rates, whereas the European Commission and the IMF report annual growth rates that are not adjusted for the number of working days per annum. Other forecasts do not specify whether they report working day-adjusted or non-working day-adjusted data.