EUROPEAN CENTRAL BANK

EUROSYSTEM

JUNE 2015 EUROSYSTEM STAFF MACROECONOMIC PROJECTIONS FOR THE EURO AREA[1]

1. EURO AREA OUTLOOK: OVERVIEW AND KEY FEATURES

The June projections confirm the outlook for a recovery in the euro area. According to Eurostat's flash estimate, real GDP rose by 0.4% in the first quarter of 2015 and recent survey data point to a continuation of the cyclical recovery. Beyond the short term, the factors underlying the expected sustained economic recovery remain in place.

External factors will support the outlook for activity. Despite a modest rebound, the assumed, still comparatively low level of oil prices remains supportive to both private consumption and business investment. In addition, euro area foreign demand is projected to pick up somewhat over the projection horizon. Foreign demand is supported mainly by stronger growth in advanced economies, while the outlook for emerging markets has softened somewhat.

The ECB's recent monetary policy measures are expected to support aggregate demand. Bank lending rates have fallen further on account of the ECB's expanded asset purchase programme (APP), equity prices have risen significantly and the exchange rate has depreciated markedly. Thus, aggregate demand and, more particularly, fixed capital formation and exports are expected to benefit from the accommodative monetary policy stance. Recent non-standard monetary policy measures are expected to support aggregate demand also through the portfolio rebalancing channel and through confidence effects.

Domestic demand should also benefit from other factors. The fiscal stance, measured as a change in the cyclically adjusted primary government balance, is expected to be broadly neutral over the projection horizon, in contrast to the restrictive stance seen until 2013. Credit supply conditions have further improved, as shown by the results of the latest bank lending survey for the euro area, which indicate a net easing of both credit standards and lending conditions. Non-financial company debt (measured as a percentage of GDP) declined slightly further in 2014, continuing a trend observed since 2012. Households also appear to have made some progress in reducing their indebtedness, particularly in countries with a comparatively high debt burden. In addition, the adjustment process in housing markets is expected to have come to an end in many countries, as signalled by a bottoming out in house prices.

However, structural constraints remain. Public sector indebtedness has continued to increase, albeit at a slower pace, and is expected to stay at high levels in some countries. Labour market developments, while generally improving, will remain overshadowed by high structural unemployment in some countries. In addition, concerns about the long-term growth potential and about slow progress in implementing structural reforms, remaining ample spare capacity and still high levels of corporate debt in some countries will continue to weigh on investment spending.

Overall, real GDP growth is projected to increase substantially, from 0.9% in 2014 to 1.5% in 2015, 1.9% in 2016 and 2.0% in 2017. By contrast, the pace of potential output growth is estimated to be around 1% over the projection horizon, as the contributions from labour and capital are expected to

[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 20 May 2015.
The current macroeconomic projection exercise covers the period 2015-17. Projections for a period over such a long horizon are subject to very high uncertainty, and this should be borne in mind when interpreting them. See the article entitled "An assessment of Eurosystem staff macroeconomic projections" in the May 2013 issue of the ECB's Monthly Bulletin.

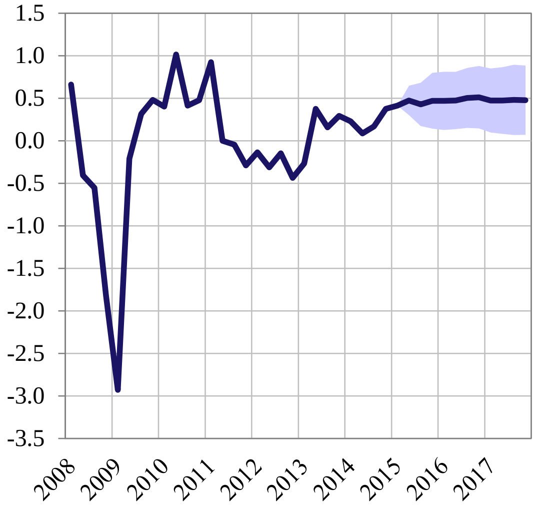
remain subdued. The negative output gap is therefore projected to narrow substantially towards the end of the projection horizon.

Chart 1 Macroeconomic projections[1)]

(quarterly data)

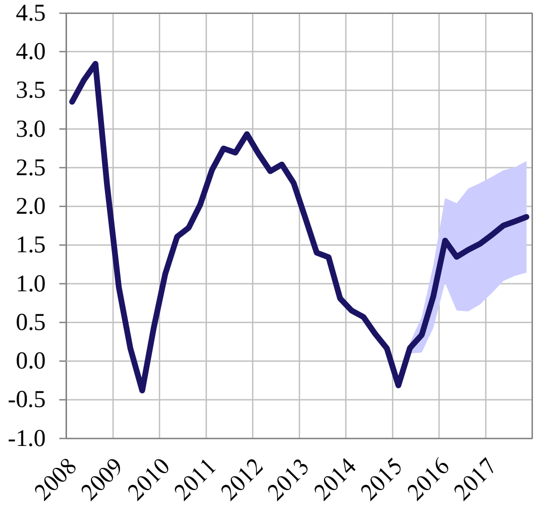
Euro area real GDP[2)]

(quarter-on-quarter percentage changes)



Euro area HICP

(year-on-year 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.

HICP inflation is assessed to have bottomed out in January 2015, edging up over the past few months. The main driver behind this pick-up was an easing of the downward pressure from HICP energy inflation on account of a rebound in US dollar-denominated oil prices. Upward pressure came, in addition, from stronger HICP food inflation, reflecting increases in food commodity prices. The impact of these upward movements in commodity prices was reinforced by a depreciation of the euro. By contrast, HICP inflation excluding energy and food has remained subdued over the past few months and has not yet shown signs of a rebound. Rising price pressures for HICP inflation excluding energy and food are so far visible only at the earlier stages of the price chain, notably in import prices, and have not yet affected domestic producer prices.

Overall, HICP inflation is projected to increase further in the course of 2015 and to average 0.3% for the year as a whole. Upward base effects, together with the expected rise in oil prices embedded in futures markets (see Box 2), are expected to lead to less negative dynamics in HICP energy inflation over the course of the year. HICP inflation excluding energy and food is expected to strengthen gradually in the course of 2015. The declining slack in the labour market and in the economy as a whole is expected to be reflected in firming wage and profit margin growth. Moreover, the lower euro exchange rate and indirect effects from the assumed increases in energy and non-energy commodity prices should contribute to the rebound in HICP inflation excluding energy and food.

Headline inflation is envisaged to rise further, to 1.5% in 2016 and to 1.8% in 2017, owing to the further decline in economic slack and positive external price pressures. These expected increases reflect, in turn, the lagged effects of the exchange rate channel and the upward sloping oil price futures curve. HICP inflation excluding energy and food is also expected to strengthen further, reaching 1.7% in 2017.

2. REAL ECONOMY

A broad-based cyclical recovery in euro area activity is envisaged over the projection horizon. In the first quarter of 2015, activity maintained the momentum seen late last year. Surveys point to a continued cyclical recovery in mid-2015. The positive outlook reflects notably an expected positive impact on activity from the depreciation of the euro since mid-2014, from low interest rates, partly driven by the APP, and from positive income effects due to lower energy prices.

Private consumption expenditure is expected to remain a key driver of the recovery. The near-term outlook for growth in real disposable income remains favourable, although its momentum is expected to be somewhat dampened by the impact of the partial reversal of the decline in energy prices. Thereafter, wage income is expected to pick up against a background of steady employment growth and accelerating nominal compensation per employee, while an increase in other personal income is also expected as the overall economy recovers. Low financing costs and easing financing conditions should support private consumption and, to some extent, rising household net worth – reflecting both increases in financial asset prices in 2015 and further expected improvements in housing markets in the period 2016-17. Overall, annual growth in private consumption is projected to average 1.7% over the projection horizon.

The saving ratio is expected to fall slightly in the next few quarters, after it had initially risen following the oil price-related real income increases. Thereafter, countervailing effects across countries imply a broadly unchanged level in the saving ratio over the rest of the projection horizon. On the one hand, very low interest returns tend to discourage savings via an intertemporal substitution effect. Moreover, in some countries, a further improvement in consumer confidence, in conjunction with gradually declining unemployment, could result in lower precautionary savings. In addition, households might increasingly undertake major purchases that were previously postponed, thereby reducing the saving ratio. On the other hand, in other countries, still high uncertainty related to the sovereign debt crisis, as well as high unemployment and debt levels, are expected to maintain some upward pressure on savings.

Following eight years of contraction, the decline in residential investment in the euro area is expected to come to an end in 2015. However, the outlook for residential investment will improve only gradually, as it remains overshadowed by remaining fragilities in some countries. Nevertheless, residential investment should gain momentum over time, supported by sustained growth in real disposable income, very low mortgage rates and easing financing conditions. This should result in stronger household loan growth. However, high levels of household debt in some countries and unfavourable demographic effects in others are likely to prevent a stronger increase in residential investment.

Business investment is set to gain momentum gradually, driven by the APP and the cyclical recovery. Business investment will continue its modest recovery in the course of 2015, having been hampered by heightened uncertainty from the euro area sovereign debt crisis, weak profitability, ample spare capacity and credit supply constraints in some countries. However, the adverse impact of these factors is expected to diminish over the projection horizon. In addition, the overall pressure from corporate deleveraging in the euro area should, over the forecast horizon, be less of a constraint for business investment than in the past. Furthermore, the strengthening of domestic and external demand, the need to modernise the capital stock after several years of subdued investment, the accommodative monetary policy stance and a strengthening of profit mark-ups are projected to support capital spending. However, compared with previous cycles, the recovery of business investment will be held back by the remaining uncertainty, financial bottlenecks and weaker potential output growth prospects.

Euro area foreign demand has been weaker than expected recently, reflecting a slowdown in emerging markets. It is projected to pick up moderately as global activity recovers (see Box 1). Foreign demand is expected to strengthen over the projection horizon but its momentum is projected to fall well short of its pre-crisis pace, reflecting both lower global activity and a lower global trade elasticity to growth. The pick-up in euro area foreign demand will mask some divergence across euro area countries, reflecting differences in sectoral and regional trade patterns and the fact that some euro area countries are more adversely affected than others given their exposure to Russia and to the CIS region, as well as to oil-exporting countries.

Box 1

THE INTERNATIONAL ENVIRONMENT

Global growth softened at the start of 2015 as the global economy continued along a moderate but uneven recovery path, with continued divergent developments between advanced and emerging market economies. Looking ahead, world real GDP growth (excluding the euro area) is projected to pick up over the projection horizon, rising from 3.4% in 2015 to slightly above 4% in the period 2016-17. Among the factors that should support global growth, the fall in oil prices over the past year is expected to benefit oil-importing countries. Accommodative financial conditions in advanced economies, despite the prospective monetary tightening in the United States, should also support global demand. Moreover, the headwinds that have constrained growth in several advanced economies since the financial crisis – private sector deleveraging, fiscal consolidation and weak labour markets – are diminishing, providing the basis for a more sustained recovery in these economies. By contrast, the outlook in emerging markets has weakened, continuing the slowdown in recent years. In some emerging market economies, persistent macroeconomic imbalances are increasingly constraining growth potential. Other emerging economies are adjusting to lower commodity prices and the prospective normalisation of monetary policies in advanced economies.

Global trade growth slowed markedly at the beginning of 2015 but is expected to strengthen over the projection horizon. Global trade (excluding the euro area) is projected to increase from about 2% in 2015 to around 5% in 2016 and 2017. However, the elasticity of trade to activity over the projection horizon is expected to remain below pre-crisis levels, reflecting a less trade-intensive composition of global GDP growth.

Compared with the staff projections published in March, global activity has been revised downwards for 2015, reflecting the weaker short-term outlook. Euro area foreign demand has also been revised downwards, especially for 2015, reflecting lower projected imports by some major emerging economies, particularly Russia.

The international environment

(annual percentage changes)

	June 2015				March 2015			Revisions since March 2015		
	2014	2015	2016	2017	2015	2016	2017	2015	2016	2017
World (excluding euro area) real GDP	3.7	3.4	4.1	4.1	3.8	4.2	4.1	-0.4	-0.1	0.0
Global (excluding euro area) trade[1)]	2.7	2.0	4.8	5.2	3.9	5.1	5.4	-1.8	-0.3	-0.2
Euro area foreign demand[2)]	2.9	2.2	4.6	5.0	3.2	4.7	5.1	-1.0	-0.2	-0.1

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

A gradual rise in foreign demand and the weaker exchange rate of the euro should support export growth over the projection horizon, with export market shares increasing. Extra-euro area import growth is expected to accelerate gradually over the projection horizon, reflecting the strengthening of total demand in the euro area. The current account surplus is expected to decrease somewhat, reaching 2.0% of GDP in 2017.

Euro area labour market conditions are expected to improve further over the projection horizon. Employment continued to recover in the course of 2014, gaining momentum in the first quarter of 2015. The current recovery remains stronger than suggested by historical elasticities of employment to overall activity, likely reflecting the supportive impact of wage moderation and recent labour market reforms. Headcount employment is estimated to continue to recover significantly over the projection horizon, mainly driven by the economic recovery and, in some countries, supported by fiscal incentives and past labour market reforms. The number of hours worked per person employed is projected to increase somewhat but still remain far below pre-crisis levels. The labour force is expected to expand only moderately, dampened by discouragement effects from still high unemployment in some countries and adverse demographic factors in others.

Box 2

TECHNICAL ASSUMPTIONS ABOUT INTEREST RATES, EXCHANGE RATES AND COMMODITY PRICES

Compared with the March projections, the changes in the technical assumptions include considerably higher US dollar-denominated oil prices, a depreciation of the euro and slightly higher long-term interest rates in the euro area.

The technical assumptions about interest rates and commodity prices are based on market expectations, with a cut-off date of 12 May 2015. 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 0.0% for 2015 and 2016 and 0.2% for 2017. The market expectations for euro area ten-year nominal government bond yields imply an average level of 1.3% in 2015, 1.7% in 2016 and 1.9% in 2017.[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 decline somewhat in 2015, before rising modestly in the course of 2016 and 2017. As regards commodity prices, on the basis of the path implied by futures markets in the two-week period ending on the cut-off date of 12 May, the price of a barrel of Brent crude oil is assumed to fall from USD 98.9 in 2014 to USD 63.8 in 2015, before rising to USD 71.0 in 2016 and USD 73.1 in 2017. The prices of non-energy commodities in US dollars are assumed to decrease substantially in 2015 and to rise in 2016 and 2017.[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 12 May. This implies an exchange rate of USD 1.12 per euro over the projection horizon.

Technical assumptions

	June 2015				March 2015			Revisions since March 2015[1)]		
	2014	2015	2016	2017	2015	2016	2017	2015	2016	2017
Three-month EURIBOR (percentage per annum)	0.2	0.0	0.0	0.2	0.1	0.1	0.2	0.0	0.0	0.0
Ten-year government bond yields (percentage per annum)	2.0	1.3	1.7	1.9	1.2	1.4	1.6	0.1	0.3	0.3
Oil price (in USD/barrel)	98.9	63.8	71.0	73.1	58.5	66.8	70.7	9.0	6.3	3.4
Non-energy commodity prices, in USD (annual percentage change)	-6.2	-13.6	2.9	4.9	-11.0	2.6	4.8	-2.6	0.3	0.0
USD/EUR exchange rate	1.33	1.12	1.12	1.12	1.14	1.13	1.13	-1.8	-1.5	-1.5
Euro nominal effective exchange rate (EER19) (annual percentage change)	0.6	-9.5	-0.2	0.0	-7.9	-0.2	0.0	-1.6	0.0	0.0

1) Revisions are calculated from unrounded data and 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 second quarter of 2016 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 unemployment rate is expected to decline but remain at a historically elevated level. The number of unemployed is expected to decline by about 2.8 million over the projection horizon, reaching its lowest level since mid-2009, while remaining around 4.5 million above its pre-crisis trough. The decline reflects the downward impact of rising employment, which is partly offset by the upward impact of a growing labour force, albeit to a much lesser extent than in the past. Thus, the unemployment rate is expected to fall markedly over the projection horizon, reaching 10.0% in 2017.

The growth outlook remains broadly unchanged compared with the previous projection exercise. Only in 2017 is real GDP growth revised slightly downwards due to weaker private investment growth.

3. PRICES AND COSTS

HICP inflation is projected to average 0.3% in 2015 and to pick up to 1.5% in 2016 and 1.8% in 2017. In the course of 2015 it is expected to increase, pushed higher by the energy component due to upward base effects and the assumption of rising oil prices as embedded in futures markets, as well as by the depreciation of the euro since mid-2014, an assumed increase in non-energy commodity prices and rising domestic price pressures as a result of the economic recovery. In 2016 and 2017, headline inflation should record a further rise as domestic price pressures strengthen on account of the steady narrowing of the output gap and as continued upward price pressures from the external side are expected, particularly through lagged effects from the euro’s depreciation.

Commodity price and exchange rate developments are important drivers of the pick-up in inflation. The falls in energy and non-energy commodity prices over most of the past two years, as well as the appreciation of the euro in the period to early 2014, have exerted substantial downward pressure on HICP inflation and account, to a large extent, for the sharp drop in inflation to very low levels in the recent past. A turnaround from downward to upward external price trends is expected to underpin the pick-up in inflation until 2017. Upward price pressures should stem from the assumed increases in both energy and non-energy commodity prices, as suggested by futures curves, over the projection horizon. The depreciation of the euro since mid-2014 will also contribute to a rising trend in inflation and, given the substantial lagged effects of exchange rate movements on inflation, the more recent upward external price trends are expected to contribute to the rebound in inflation up to the end of the projection horizon. The upward impact of the depreciation of the euro is, however, envisaged to be lower than observed in past episodes on the basis of evidence found in some studies of a decline in the exchange rate pass-through to euro area inflation over time.

The improving labour market conditions are expected to translate into a strengthening in wage growth. Ongoing employment growth and a decline in the unemployment rate are projected to support a gradual increase in the growth rate of compensation per employee, from 1.5% in 2014 to 2.3% in 2017.

The pick-up in wage growth is dampened by a number of factors. These include the remaining degree of labour market slack and the ongoing cost competitiveness adjustment processes in some euro area countries. Moreover, structural labour market reforms aimed at supporting employment growth and implemented during the crisis in some euro area countries are likely to dampen the rebound in wage growth during the current recovery. While the strength of the increase in wages is expected to be moderate, the downward impact on wages from second-round effects driven by the past fall in oil prices is also expected to be limited. This reflects the fact that automatic wage indexation systems mainly apply in the case of upward price adjustments and, in addition, that such schemes have been temporarily suspended or constrained in some of the countries where they operate.

Unit labour cost growth is envisaged to rise only slightly during the economic recovery. Cost pressures from the pick-up in wages are expected to be partially offset by the cyclical acceleration in productivity up to 2017. Unit labour cost growth is expected to rise to 1.3% in 2017.

Table 1 Macroeconomic projections for the euro area[1]

(annual percentage changes)

	June 2015				March 2015			Revisions since March 2015[2]		
	2014	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**	**2015**	**2016**	**2017**
Real GDP[3]	0.9	1.5	1.9	2.0	1.5	1.9	2.1	0.0	0.0	-0.1
		[1.2 - 1.8] [4) 5)]	[0.8 - 3.0] [4) 5)]	[0.7 - 3.3] [4) 5)]	[1.1 - 1.9] [4)]	[0.8 - 3.0] [4)]	[0.9 - 3.3] [4)]			
Private consumption	1.0	1.9	1.6	1.6	1.8	1.6	1.6	0.1	0.0	0.0
Government consumption	0.7	0.7	0.7	0.8	1.0	0.6	0.8	-0.3	0.2	0.0
Gross fixed capital formation	1.2	1.9	3.5	3.9	1.7	4.1	4.6	0.1	-0.6	-0.7
Exports[6]	3.8	4.2	5.4	5.6	4.1	5.1	5.5	0.1	0.2	0.1
Imports[6]	4.1	4.8	5.8	5.9	4.3	5.5	5.8	0.5	0.3	0.1
Employment	0.6	0.9	0.9	1.0	0.9	0.9	0.9	0.0	0.0	0.0
Unemployment rate (percentage of labour force)	11.6	11.1	10.6	10.0	11.1	10.5	9.9	0.0	0.1	0.0
HICP	0.4	0.3	1.5	1.8	0.0	1.5	1.8	0.3	0.0	-0.1
		[0.2 - 0.4] [4)]	[0.9 - 2.1] [4)]	[1.0 - 2.6] [4)]	[-0.3 - 0.3] [4)]	[0.8 - 2.2] [4)]	[1.0 - 2.6] [4)]			
HICP excluding energy	0.7	0.9	1.4	1.7	0.8	1.4	1.8	0.0	-0.1	0.0
HICP excluding energy and food	0.8	0.8	1.4	1.7	0.8	1.3	1.7	0.0	0.0	0.0
HICP excluding energy, food and changes in indirect taxes[7]	0.7	0.8	1.4	1.7	0.8	1.3	1.7	0.0	0.1	0.0
Unit labour costs	1.2	0.8	0.7	1.3	1.1	1.0	1.2	-0.3	-0.3	0.1
Compensation per employee	1.5	1.4	1.7	2.3	1.7	2.0	2.3	-0.3	-0.3	0.0
Labour productivity	0.3	0.6	1.0	1.0	0.6	1.0	1.1	0.0	0.0	-0.1
General government budget balance (percentage of GDP)	-2.4	-2.1	-1.8	-1.5	-2.3	-1.9	-1.5	0.2	0.1	0.1
Structural budget balance (percentage of GDP)[8]	-1.8	-1.7	-1.7	-1.4	-1.8	-1.7	-1.7	0.1	0.1	0.3
General government gross debt (percentage of GDP)	92.0	91.5	90.2	88.4	91.4	89.8	87.9	0.1	0.4	0.6
Current account balance (percentage of GDP)	2.2	2.1	2.0	2.0	2.7	2.5	2.4	-0.6	-0.4	-0.4

1) The data refer to the euro area including Lithuania, except for the HICP data for 2014. The average annual percentage change in the HICP for 2015 is based on a euro area composition in 2014 that already includes Lithuania.
2) Revisions are calculated from unrounded figures.
3) Working day-adjusted data.
4) The ranges shown around the projections are based on the differences between actual outcomes and previous projections carried out over a number of years. The width of the ranges is twice the average absolute value of these differences. The method used for calculating the ranges, involving a correction for exceptional events, is documented in *New procedure for constructing Eurosystem and ECB staff projection ranges*, ECB, December 2009, available on the ECB's website.
5) The ranges of the Eurosystem staff projections for real GDP growth in 2015, 2016 and 2017 have been corrected since this document was first published on 3 June 2015.
6) Including intra-euro area trade.
7) 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.
8) Calculated as the government balance net of transitory effects of the economic cycle and temporary measures taken by governments (for the ESCB approach, see *Working Paper Series*, No 77, ECB, September 2001, and *Working Paper Series*, No 579, ECB, January 2007). The projection of the structural balance is not derived from an aggregate measure of the output gap. Under the ESCB methodology, cyclical components are calculated separately for different revenue and spending items. For more details, see the box entitled "Cyclical adjustment of the government budget balance" in the March 2012 issue of the ECB's Monthly Bulletin and the box entitled "The structural balance as an indicator of the underlying fiscal position" in the September 2014 issue of the ECB's Monthly Bulletin.

Profit margins are projected to increase as the recovery continues. Following a period of weakness over recent years, profit margins are seen to recover again over the projection horizon as productivity picks up and economic activity strengthens, supporting the pricing power of corporations. However, the product market reforms implemented during the crisis are expected to continue dampening profit margin growth during the upswing. Heightened competition in global and domestic product markets may also delay or dampen the cyclical pick-up in profit margins in comparison with historical regularities.

Compared with the projections published in March, the projection for HICP inflation has been revised upwards for 2015 and is broadly unchanged for 2016 and 2017. The upward revision for 2015 reflects upward effects from the recent rebound in oil prices in euro compared with the previous projection exercise.

4. FISCAL OUTLOOK

The fiscal stance, as measured by the change in the cyclically adjusted primary balance, is projected to be broadly neutral over the projection horizon. This reflects moderate growth in government expenditure relative to trend nominal GDP growth, which is assumed to be broadly offset by tax cuts in some countries. The positive impact from automatic fiscal stabilisers on domestic demand will diminish over time as the economy recovers.[2]

The government deficit and debt ratios are projected to decline over the projection horizon. The decline in the general government deficit-to-GDP ratio is entirely due to the cyclical improvement of the euro area economy and declining interest expenditures. By contrast, the structural primary budget balance is projected to remain broadly unchanged over the projection horizon, reflecting the broadly neutral fiscal stance. The general government debt-to-GDP ratio is projected to have peaked in 2014 and to decline over the forecast horizon on the back of the improving budget balance, strengthening economic growth and low interest rates.

Compared with the projections published in March, the path of the general government budget balance is slightly more favourable, while the debt outlook has deteriorated somewhat. The small improvement in the general government balance is mainly due to a further decline in sovereign borrowing costs. The outlook for the government debt ratio has been revised upwards owing mainly to the denominator effect from lower nominal GDP.

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 oil prices and exchange rates and the sensitivity of the projections with respect to these variables.

1) An alternative oil price path

Alternative oil price models show somewhat higher oil prices in 2017. The technical assumptions foresee an increase in oil prices over the projection horizon (see Box 2). This path is consistent with a recovery in world demand for oil as the global economy gains traction and with a slight reduction in oil supply due to underinvestment and losses in oil capacity in some oil-producing countries. Eurosystem staff use a range of alternative models to project oil prices over the projection horizon. These models include (i) a “risk-adjusted” futures model – a statistical model that corrects the forecast error of futures by adjusting a time-varying risk premium linked to US economic activity; (ii) a Bayesian VAR (BVAR) model – an empirical model based on data related to oil fundamentals (oil production and oil inventories) and global activity; and (iii) a dynamic stochastic general equilibrium (DSGE) model – a theoretical model capturing the long-term dynamics in the oil market.[1] An equally weighted average of the oil price

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[2] The fiscal assumptions reflect the information included in budget laws for 2015, as well as national medium-term budgetary plans and stability programme updates that were available on 20 May 2015. 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.

projections derived from these three models together with the oil prices derived from futures markets, as entailed in the baseline, currently suggests slightly lower oil prices in 2015 and 2016 than in the baseline. For 2017, however, this model combination shows a somewhat steeper increase in oil prices, consistent with losses in oil-producing capacity in some countries. The impact of this alternative path on real GDP growth and inflation in 2015 and 2016 is very limited, while pointing to marginally lower growth in 2017 and slightly higher HICP inflation (+0.1 percentage point).

2) An alternative exchange rate path

A further depreciation of the euro could result from expectations of diverging monetary policy stances in the euro area and the United States. Such a scenario would imply a prolonged period of low interest rates in the euro area and a faster upward normalisation of monetary policy in the United States. An alternative path of the euro, implying a further depreciation, has been derived from the 25th percentile of the distribution provided by the option-implied risk-neutral densities for the USD/EUR exchange rate on 12 May 2015. This path implies a gradual depreciation of the euro against the US dollar to an exchange rate of 1.03 in 2017, which is 8.2% below the baseline assumption for that year. The corresponding assumptions for the nominal effective exchange rate of the euro reflect historical regularities, whereby changes in the USD/EUR exchange rate reflect changes in the effective exchange rate with an elasticity of around 52%. This results in a gradual downward divergence of the effective exchange rate of the euro from the baseline, bringing it to a level 4.3% below the baseline in 2017. In this scenario, the results from a number of Eurosystem staff macroeconomic models point to higher real GDP growth (up by 0.1-0.3 percentage point) and higher HICP inflation (up by 0.1-0.4 percentage point) in 2015, 2016 and 2017.

1 For more details see Manescu, C. and Van Robays, I., “Forecasting the Brent oil price: addressing time-variation in forecast performance”, *Working Paper Series*, No 1735, ECB, 2014.

Box 4

FORECASTS BY OTHER INSTITUTIONS

A number of forecasts for the euro area are available from both international organisations and private sector institutions. However, these forecasts are not strictly comparable with one another or with the Eurosystem staff macroeconomic projections, as they were finalised at different points in time. Additionally, they use different (partly unspecified) methods to derive assumptions for fiscal, financial and external variables, including oil and other commodity prices. Finally, there are differences in working day adjustment methods across different forecasts (see the table). As indicated in the table, most of the currently available forecasts from other institutions are close to the point forecasts of the June Eurosystem staff projections and well within the ranges surrounding these projections (shown in brackets 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		
		2015	2016	2017	2015	2016	2017
Eurosystem staff projections	June 2015	1.5	1.9	2.0	0.3	1.5	1.8
		[1.2-1.8] 1)	[0.8-3.0] 1)	[0.7-3.3] 1)	[0.2-0.4]	[0.9-2.1]	[1.0-2.6]
European Commission	May 2015	1.5	1.9	-	0.1	1.5	-
Euro Zone Barometer	May 2015	1.5	1.9	1.6	0.1	1.2	1.6
Consensus Economics Forecasts	May 2015	1.5	1.8	1.6	0.1	1.2	1.5
Survey of Professional Forecasters	May 2015	1.4	1.7	1.8	0.1	1.2	1.6
IMF	April 2015	1.5	1.6	-	0.1	1.0	-

Sources: European Commission's European Economic Forecast, Spring 2015; IMF World Economic Outlook, April 2015; Consensus Economics Forecasts; MJEconomics; and the ECB's Survey of Professional Forecasters.
Notes: The Eurosystem and ECB staff macroeconomic projections 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.
1) The ranges of the Eurosystem staff projections for real GDP growth in 2015, 2016 and 2017 have been corrected since this document was first published on 3 June 2015.

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