Global economy and euro area

1. Global economy and euro area

1.1 Modest but stable global growth

In 2016, the global economy maintained modest growth despite a highly uncertain environment. Following a hesitant start, there were signs of growing momentum in the second half of the year. Supported by monetary policy accommodation and the continuing low energy prices, the advanced economies displayed some resilience despite the fears aroused by Brexit in particular. There was thus only a slight dip in growth in the euro area, the United Kingdom and Japan. Conversely, there was a marked slowdown in the United States. In the emerging economies and commodity-exporting countries, growth was stable, but very wide variations persisted between countries. Past reductions in commodity prices and generally modest wage increases continued to restrain inflation worldwide.

TABLE 1 GDP OF THE MAIN ECONOMIES

(percentage changes in volume compared to the previous year, unless otherwise stated)

	2014	2015	2016	*p.m. Contribution to global GDP growth*	*p.m. Share of global GDP[1]*	
				2016	*2010*	*2016*
Advanced countries	1.9	2.1	1.6	*0.7*	*46.3*	*41.9*
of which:						
United States	2.4	2.6	1.6	*0.3*	*16.8*	*15.6*
Euro area	1.1	2.0	1.7	*0.2*	*13.7*	*11.9*
Japan[2]	–0.3	1.2	0.9	*0.0*	*4.9*	*4.1*
United Kingdom	3.1	2.2	2.0	*0.0*	*2.5*	*2.3*
Emerging countries	4.6	4.1	4.1	*2.2*	*53.7*	*58.1*
of which:						
China	7.3	6.9	6.7	*1.1*	*13.9*	*17.9*
India	7.2	7.6	6.6	*0.5*	*5.9*	*7.3*
Russia	0.7	–3.7	–0.6	*0.0*	*3.6*	*3.1*
Brazil	0.1	–3.8	–3.5	*–0.1*	*3.2*	*2.6*
World	3.4	3.2	3.1	*3.1*	*100.0*	*100.0*
p.m. World trade[3]	*3.8*	*2.7*	*1.9*			

Source: IMF.
(1) According to the IMF definitions and calculated on the basis of purchasing power parities.
(2) The data for 2015 and 2016 take account of the switch from the System of National Accounts 1993 to System of National Accounts 2008 and the updating of the reference year from 2005 to 2011. The Japanese authorities made these changes in December 2016.
(3) Average of exports and imports of goods and services.

Stabilisation in the emerging economies

China encountered no major problems in continuing to rebalance its economy in favour of domestic growth based on the strengthening of consumption and a gradual shift in activity from industry towards services. GDP growth dipped again slightly, to an average of 6.7 % in the first three quarters of 2016, down from 6.9 % in 2015. But it remained robust and stayed within the official target range of between 6.5 % and 7 %. The strong credit expansion invigorated the property market, while the additional fiscal stimulus measures bolstered consumption and gave a significant boost to public investment. In contrast, the growth of private investment weakened considerably, despite a revival in residential investment. That slowdown, reflected in a fall in total investment, is partly due to the increased share of services in the Chinese economy – as many services are not open to private capital – and to excess capacity in some industrial sectors. Net exports contracted sharply owing to anaemic global demand and the country's loss of competitiveness in low value added sectors.

Monetary policy, which has been gradually eased since 2014, remained expansionary in 2016. The People's Bank of China still faces the challenge of supporting the economy while safeguarding financial stability. Against the backdrop of strong credit expansion which has fuelled the rapid rise in corporate debt and driven up property prices significantly in some regions, it chose to keep its key interest rates for loans and deposits unchanged at 4.35 % and 1.5 % respectively. In addition, it made only one adjustment to the reserve requirement coefficient, cutting it from 17.5 % to 17 % in March. In order to combat the country's debt problems, the central government introduced policies aimed at supporting the debt restructuring of local authorities and public enterprises.

Since the US Federal Reserve was expected to raise its key interest rates, the capital outflow from China already apparent in 2015 continued, varying in intensity according to changes in the financial markets' perception of the economic situation in China. In these circumstances, the exchange rate remained under pressure. Thus, at the end of 2016, the renminbi slumped to its lowest level against the US dollar in more than eight years. The People's Bank of China dipped heavily into its exchange reserves to support the domestic currency. But it still had to resolve to accompany its depreciation by gradually reducing its central rate against the US dollar.

In the commodity-exporting countries, economic activity in general continued to suffer from the weakness of demand and hence the low level of prices for those products, due in particular to the ongoing transition of the Chinese economy. Brazil languished in a deep recession which had begun in 2015, exacerbated by a political crisis that seriously dented confidence in the country. However, the slowdown in activity seemed to ease during the year, in the wake of a recent rise in commodity prices and a slight expansion of exports, resulting from the past depreciation of the real. The Russian economy, dragged down by the fall in oil prices and the international sanctions imposed since mid-2014 in response to the conflict in Ukraine, showed signs of stabilisation in 2016 following the rise in crude oil prices. Finally, India maintained sound economic growth supported by an improvement in the terms of trade, a fall in inflation, and a number of reforms favourable to the business climate. Nevertheless, the government's decision on 8 November to demonetise the 500 and 1 000 rupee denominations to put a stop to the informal economy may have curbed economic activity from the end of the year.

The advanced economies remained resilient

While the dollar's appreciation and the fall in oil prices had put a temporary brake on exports and investment at the end of 2015 and in early 2016, the American economy gained momentum from the third quarter. The stronger GDP growth was based very largely on a marked export recovery and, to a lesser extent, faster stock-building and a revival in federal government spending. In contrast, private business investment remained weak while consumer spending, which is still the main engine of activity, continued to rise steadily. It was supported in particular by a strengthening labour market and further wage increases. The unemployment rate dropped below 5 %, while hourly wages increased towards the end of the year at their strongest rate since 2009. Labour market participation stabilised, though at just under 63 % at the end of the year, it remained below its pre-crisis level of around 66 %.

Despite signs of gradual improvement on the jobs market, the Federal Reserve adopted a prudent approach. In the face of uncertainty over the real dynamism of the economy, and as inflation still remained below its target of 2 %, the members of the Federal Open Market Committee (FOMC) left the key interest rates unchanged for almost the entire year. The status quo which has long prevailed contrasts with the expectations concerning the federal funds rates published in December 2015, when the Federal Reserve had raised its key interest rates for the first time since 2008, from a range of 0.00-0.25 % to 0.25-0.50 %. At that time, all members of the FOMC were expecting at least two rate increases during 2016. Nonetheless, taking account of the actual and expected developments on the labour market and on the inflation front, the Fed eventually increased its interest rate band by 25 basis points in December 2016. It also foresees further rises in 2017.

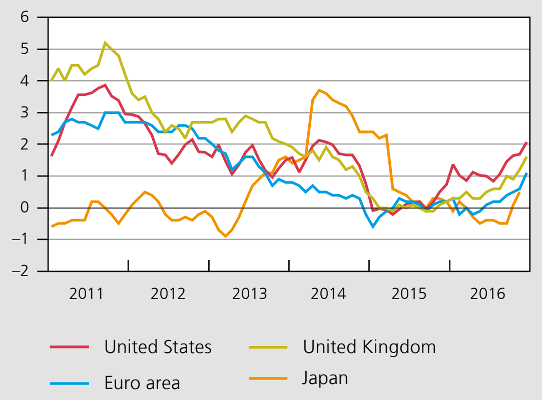
The fiscal policy stance was eased slightly during the fiscal year 2016. The public deficit grew from 4.4 % to 5 % of GDP between October 2015 and September 2016, propelling the public debt to 115.6 % of GDP.

In Japan, the economy maintained modest growth overall, underpinned by buoyant consumption as a result of the gradual improvement in employment and household incomes. In November, the unemployment rate stood at 3.1 %, after having dropped back to 3 % in July, its lowest level since January 1995. However, this favourable picture needs to be qualified slightly as it stems from both a rise in demand for labour and a contraction of the labour force. Japanese economic growth benefited from extremely favourable financial conditions and government support measures. Conversely, it was restrained by weaker demand from the emerging economies, particularly in Asia, and the appreciation of the yen, two factors that considerably depressed Japan's exports.

Despite the relatively healthy state of the Japanese economy, inflation still returned to negative figures in 2016. The Bank of Japan therefore maintained its asset purchase programme aimed at expanding the monetary base by some 80 000 billion yen (or around € 615 billion) a year. It also took various steps to ease its monetary policy further. In view of the worldwide financial tension at the beginning of the year and the uncertainty surrounding the economic outlook in the emerging countries, the interest rate on deposits was thus taken into negative territory at –0.1 %, at the end of January. In addition, a new monetary policy framework was introduced at the end of September, aimed in particular at raising inflation expectations towards the target of 2 %, but also intended to prevent any decline in the financial sector's profitability in a low interest rate environment. That framework comprises two main elements. The first aims to influence the yield curve by tighter control over long- and short-term interest rates. The second is a formal commitment to expand the monetary base until inflation remains above the 2 % target "in a stable manner". The Bank of Japan also stated that it did not rule out the option of cutting its main policy rate further, and if necessary adjusting its asset purchases. Turning to the budget, the consolidation process which began in 2013 was interrupted in fiscal year 2016. Three fiscal stimulus plans were produced, while a further increase in VAT, originally scheduled for April 2017, was postponed to October 2019. In that context, the primary deficit hovered around 5 % of GDP and the gross public debt exceeded 230 % of GDP.

CHART 1 LOW INFLATION IN THE ADVANCED ECONOMIES

(consumer price index, change compared to the corresponding period of the previous year)



Sources: EC, Japan's Ministry of Internal Affairs and Communications, U.S. Bureau of Labor.

In the United Kingdom, the referendum on 23 June and its outcome in favour of Brexit had no significant adverse effect on economic activity. Quarterly GDP growth, which came to 0.6 % in the third quarter, was hardly any lower than in the second quarter, and considerably higher than expected. Thus, supported by the vigour of the services sector which represents almost 80 % of the economy, the 2 % activity growth over 2016 as a whole was only slightly below the 2015 figure. The unemployment rate, which stood at 4.8 % in November, dropped to its lowest level for ten years, thus stimulating private consumption. These favourable developments are probably due in part to the Bank of England's new monetary policy measures. At the beginning of August, it cut its benchmark Bank Rate by 25 basis points to 0.25 %. It also decided to step up its total purchases of government bonds from £ 375 billion (around € 509 billion) to £ 435 billion (around € 590 billion), to purchase £ 10 billion worth of bonds issued by non-financial corporations, and to introduce long-term refinancing operations in order to ensure the effective transmission of its monetary easing to households and businesses. While the slump in sterling following the referendum does not seem to have produced benefits as yet for sectors more geared towards exports, such as industry and agriculture, it has brought higher inflation. Nonetheless, at 1.6 % in December, inflation is still well below the target of 2 %. Although Brexit's macroeconomic impact has been minor so far, it is likely to be painful in the long term. The question mark over the form of future relations between the EU and the United Kingdom is expected to subdue new investment and job creation, and some signs of that were already apparent in 2016. With the higher barriers to trade, financial transactions and the movement of people that could result from Brexit, that uncertainty could thus ultimately curb economic growth in both the United Kingdom and its trading partners.

Growth of world trade slows again

The growth of world trade slackened pace again in 2016. That was due mainly to a slowdown of trade in the emerging countries and in North America. The worldwide sluggishness of economic activity, and more specifically investment – the demand component with the largest import content –, is considered to be a major reason for this slower growth. China's transition to an economy geared to consumption and services – and therefore less dependent on imports of raw materials and machinery – and the decline in capital spending by countries exporting commodities are probably the dominant factors here. Other reasons put forward to explain the weaker expansion of world trade also include the lack of progress in trade liberalisation – or an actual rise in protectionism as evidenced by the restrictions observed by the World Trade Organisation (WTO) – and the fact that global value chains are no longer being lengthened, in contrast to their rapid extension over the past two decades.

Rising commodity prices

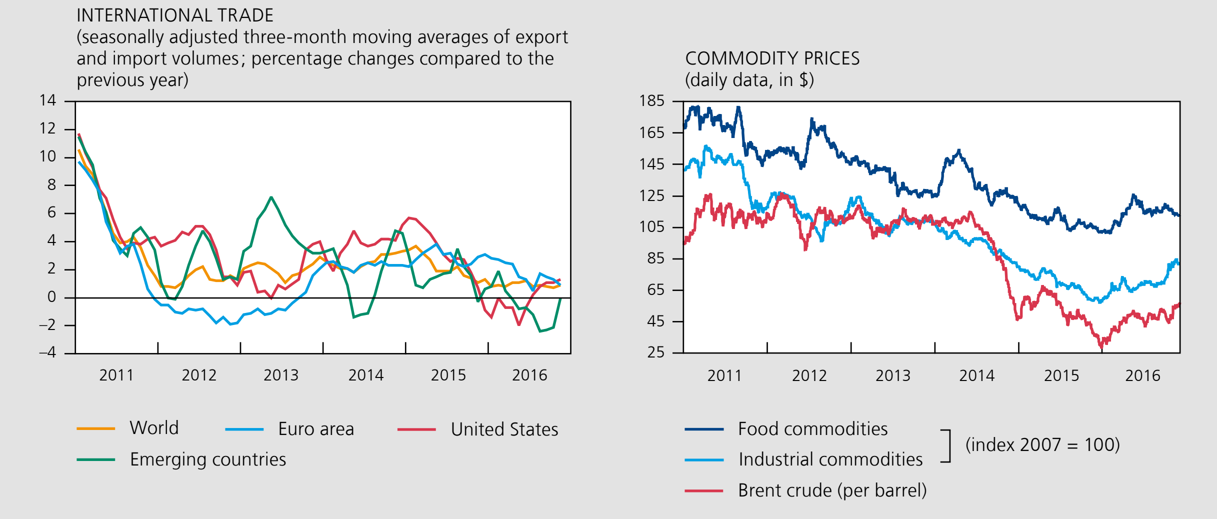
While the price per barrel of Brent crude had dropped below $ 30 in mid-January, oil prices staged a strong recovery throughout the first half of 2016, exceeding the $ 50 mark during the summer. That rise was due largely to involuntary production stoppages that reduced supplies, though oversupply persisted. Conflicts of various kinds and difficult weather conditions interrupted production in a number of major oil-producing countries such as Libya, Nigeria, Venezuela and Canada. At the same time, global demand proved stronger than expected, though without regaining its previous high level. In the second half of the year, oil prices were more volatile. At the end of November, the OPEC countries agreed to cut production, and that drove oil prices above $ 50 per barrel again.

Overall, prices of commodities excluding energy also recorded a modest rise in the first half of the year, before stabilising for a time. That increase is directly related to the recovery of energy prices, as energy is a major input both for industrial raw materials and for agricultural production. On top of that, food prices also rose as a result of disappointing harvests, while the increase in metal prices likewise reflects a slight strengthening of global demand. At the end of the year, the statements made by the US President-elect concerning the introduction of an infrastructure stimulus plan caused prices to surge in anticipation.

Highly favourable financial conditions

Supported by the accommodative monetary policy, financial conditions remained very favourable overall, even

CHART 2 FURTHER SLOWDOWN IN WORLD TRADE AGAINST THE BACKDROP OF RISING COMMODITY PRICES



Sources: CPB, OECD, Thomson Reuters Datastream.

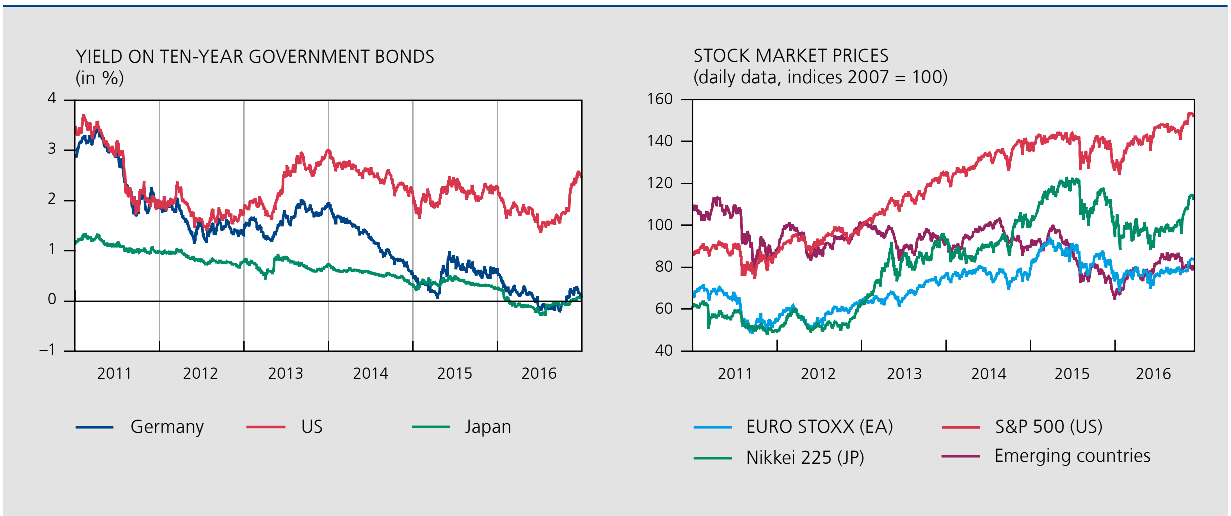
though the financial markets experienced several periods of turbulence.

A first bout occurred in late 2015 and early 2016, against the backdrop of new fears over the outlook for growth in the emerging countries, especially China. Across the world, January brought one of the most intense sell-offs of risky financial positions since the 2008 financial crisis. The tension spread to the advanced economies and triggered a flight to quality. In these circumstances, the yield curve flattened while stock markets faltered and risk premiums went up. These developments were followed by disruption that had a particular impact on the banking sector, where share prices fell sharply following publication of disappointing results. More generally, at the end of January, doubts over the strength of the American recovery combined with the Bank of Japan's decision to take its overnight deposit rate into negative territory reinforced the prospect of a lengthy period of low interest rates, giving rise to fears for the profitability of the financial sector. In parallel with brighter prospects for world growth, investors nevertheless soon regained their appetite for risk, which calmed volatility, supported asset prices and lowered risk premiums. Sentiment regarding the emerging economies also improved as the advanced economies expected interest rates to remain low for a prolonged period, concern over China's growth was diminishing, and commodity prices were picking up. The renewed flow of capital to those countries was accompanied by a strong stock market rally and the appreciation of those countries' currencies.

At the end of June, the markets reacted strongly to the vote in favour of the United Kingdom's departure from the EU. A wave of optimism had driven up asset prices in the preceding days, but the unexpected referendum result caused stock markets to tumble and depressed risk-free yields. At the same time, sterling slumped while the US dollar and the yen appreciated. Although the initial reaction was strong, the turmoil subsided once the central banks stated that they were ready to provide sufficient liquidity and, if need be, adopt new monetary easing measures such as those taken by the Bank of England. The tension then dissipated further against the background of a hesitant improvement in the outlook for the global economy. Nonetheless, sterling remained low and, following the reappraisal of the future monetary policy stance, yields on sovereign bonds remained close to their historical floor.

The unexpected outcome of the American presidential election on 8 November also sent shock waves through both the financial markets and the commodity markets. The prospect of a massive infrastructure investment plan and tax cuts, as advocated by the President-elect, had a beneficial effect on equity markets in general. Following a brief panic in the immediate aftermath of the vote, stock markets rallied overall, especially in the United States where the indices reached new record levels. By contrast, in view of the inflation risk of such a fiscal stimulus plan for the American economy in a virtually full employment situation, and therefore the likelihood that the Federal Reserve might raise its key interest rates sooner, investors turned away from the bond markets. Yields

CHART 3 HISTORICALLY FAVOURABLE FUNDING CONDITIONS



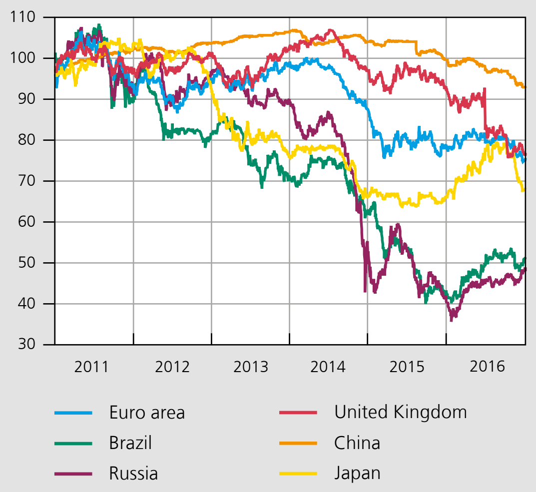
Source: Thomson Reuters Datastream.

on US Treasuries climbed steeply during the week after the election, with the ten-year yield rising by more than 40 basis points. The rise in American interest rates spread to other regions of the world, including the euro area and the emerging economies. On the foreign exchange markets, the US dollar appreciated against most other currencies and particularly in relation to some emerging currencies such as the Mexican peso and the Brazilian real. The statements made by the President-elect sparked fears over the future trading relationships of the United States, and hence over the macroeconomic outlook for a number of countries. The changes at the top of the American administration rekindled the uncertainty surrounding future US fiscal and trade policies in particular.

The euro remained fairly stable against the US dollar for much of 2016 before depreciating at the end of the year. Owing to the status quo long maintained by the Federal Reserve following the December 2015 rise in the key interest rates, the dollar was not expected to strengthen. Conversely, the single currency edged upwards in effective terms, but that rise masked divergences between currencies. It was due essentially to a strong appreciation against the pound sterling, which more than offset the decline against the yen and emerging currencies such as the Russian rouble and the Brazilian real. A significant factor behind the strengthening of the yen until the autumn was its status as a safe haven in an uncertain world. The appreciation of the Russian rouble and the Brazilian real reflects both the rise in commodity prices and the more encouraging macroeconomic outlook for those countries.

CHART 4 EXCHANGE RATES SUBJECT TO POLITICAL UNCERTAINTY

(exchange rates against the US dollar, indices 2011 = 100)



Source : Thomson Reuters Datastream.

1.2 Low inflation in the context of a modest recovery in the euro area

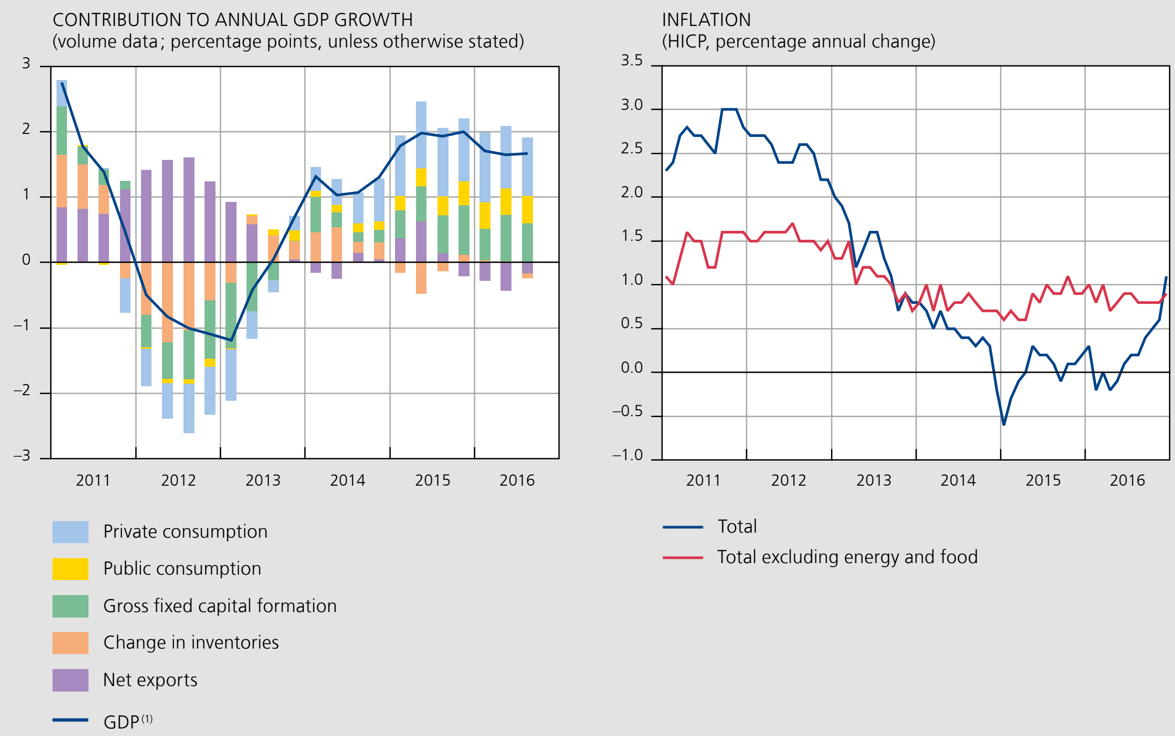
In the euro area, the slow but steady growth of economic activity evident since mid-2013 continued in 2016. The volume growth of GDP came to 1.7 % as an annual average, down slightly against the 2015 figure of 2 %.

Activity was supported by domestic demand on the back of favourable funding conditions resulting in particular from a further easing of Eurosystem monetary policy and a slightly expansionary fiscal policy in the euro area as a whole. Employment was also dynamic. Conversely, the impetus generated by the earlier depreciation of the euro and the fall in oil prices in 2014 and 2015 faded away. External demand remained weak. There were also several factors that continued to hamper the dynamism of the economy. They included the ongoing balance sheet adjustment in a number of sectors and countries, the insufficient implementation of structural reforms – which should boost potential growth in the long term and bolster confidence and demand in the short term –, and the emergence of numerous uncertainties. Overall, production capacity remained underused in 2016, though to a steadily diminishing degree. Despite substantial job creation, unemployment rates were still high, and the recent investment revival was not enough to fill the gap. This last factor is a key determinant of the exceptionally slow pace of recovery from the crisis.

Among the sources of uncertainty affecting the global economy, those relating to the United Kingdom's future exit from the EU were of particular concern to the euro area. So far, however, they have had little impact on confidence. Despite the progress achieved in stabilising the financial system and strengthening the capitalisation of European banks, fears about the banks' profitability and, in some Member States, the high outstanding amount of non-performing loans on their balance sheet may have impeded their ability to fund business activity and investment. Finally, in a climate of mistrust among some sections of the population, a succession of scheduled elections and referendums made it harder for governments to conduct policies that help to strengthen the economy in the long term but may have transitional effects which are perceived as negative.

With growth still insufficient to put a rapid end to the under-utilisation of production capacity in terms of both

CHART 5 LOW INFLATION IN THE CONTEXT OF A MODEST RECOVERY IN THE EURO AREA



Source: EC.
(1) Percentage change compared to the corresponding quarter of the previous year.

labour and capital, and an outlook clouded by numerous uncertainties, inflation remained very low in the euro area. Although the year-on-year change in the harmonised index of consumer prices (HICP), which had been zero in 2015, did become slightly positive again in 2016 at an annual average of 0.2 %, that meagre rise was due mainly to the disappearance of the negative base effects of the energy component following the rise in oil prices on the international markets. Core inflation remained stable throughout the year, hovering around a low level of 0.9 %. With no strengthening of wage dynamics in the euro area, headline inflation shows no convincing signs of converging on the Eurosystem's target, namely a level below, but close to, 2 % over the medium term.

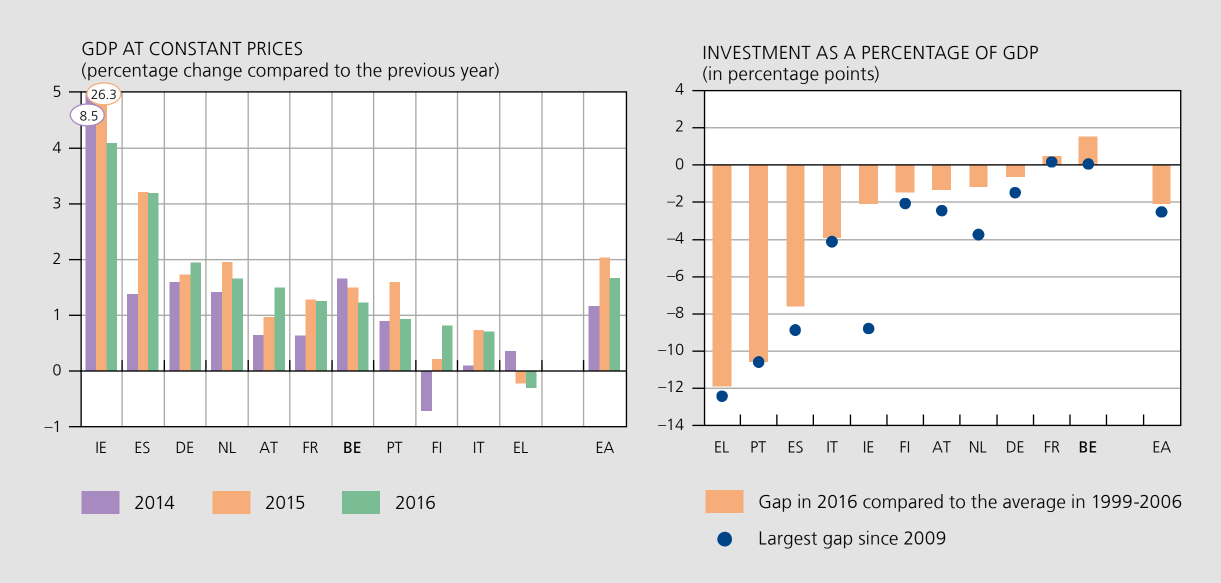
Except for Greece, all Member States contributed to the increase in the euro area's GDP. Among the main economies, Ireland recorded the strongest growth. In Spain, growth remained robust while it gained momentum in Germany. Conversely, in Portugal, Finland and Italy, economic expansion was well below the euro area average. In Greece, GDP declined, but less steeply than during the great recession.

Economic activity in the euro area was predominantly supported by private consumption, which was underpinned by substantial job creation, aided in some countries by the effects of past reforms. Together with low inflation, these developments increased the real disposable income of households despite the continuing sluggishness of wages. The household savings rate remained stable overall, indicating that the gains in purchasing power were used mainly for consumer spending.

Public consumption likewise made a non-negligible contribution to growth in the euro area. Still, there are marked differences from one country to another. In some countries the growth of public consumption resulted from additional expenditure on accommodating refugees or tightening security measures. In Germany, public consumption grew twice as fast as GDP.

The increase in gross fixed capital formation was also relatively strong at 3.3 %, similar to the 2015 figure. It was supported not only by favourable financing conditions, but also by a recovery in the gross operating surplus of firms, while the use of production capacity improved.

CHART 6 RECOVERY CONTINUES IN THE EURO AREA BUT THERE IS STILL A SUBSTANTIAL INVESTMENT GAP



Source: EC.

However, investment was held back by the still muted and uncertain demand outlook, particularly in regard to the global economy and the emerging economies at the start of the year, but also by the process of deleveraging in the private sector of some countries and the uncertainties that persisted in 2016.

Expressed as a percentage of GDP, investment in the euro area as a whole in 2016 was still well below the average level recorded in the pre-crisis years. That investment gap primarily reflects the sharp decline in the Member States seriously affected by the crisis. In Ireland, where investment had already bounced back in 2012, the investment shortfall has now clearly been made up, and the EC estimates Ireland's investment growth at 16 % in 2016. Investment gave a substantial boost to the economy of the Netherlands and Spain, but also to slower-growing economies such as Finland, and even Greece. In most cases, the largest contribution came from corporate investment, although in some countries – including the Netherlands, Finland and Germany – investment in housing also played a major part. Conversely, in Portugal, the fall in investment in housing and public investment seriously hampered growth.

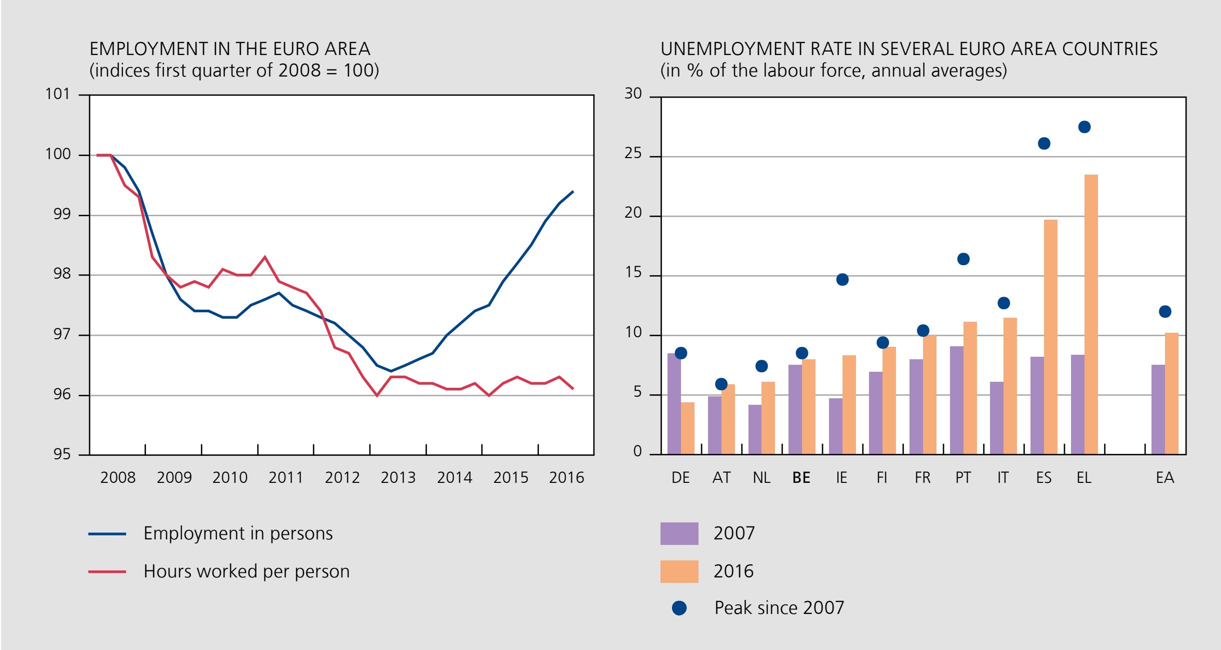
The Investment Plan for Europe, and more particularly the European Fund for Strategic Investments (EFSI), have already produced concrete results. Proposed in November 2014 by the EC President, Jean-Claude Juncker, that plan was intended to trigger investment. The EFSI was created in order to increase the capacity for risk-bearing finance in the EU by providing, over a period of three years, guarantees for project financing by the European Investment Bank (EIB) and the European Investment Fund (EIF). During that period, the investment plan would potentially generate investment amounting to € 315 billion. The resources made available by the EFSI up to the end of 2016 could finance new investment totalling around € 164 billion in the EU Member States as a whole, thus making a significant contribution to the mobilisation of private investment. In December 2016, the Council decided to extend the capacity of the EFSI in terms of both duration and financial resources.

While domestic demand was quite buoyant in 2016, as it had been in the previous year, export growth weakened. The sluggishness of external demand confronting the euro area since the end of 2015 persisted in 2016, in line with the weakness of global trade. While trade within the EU was relatively resilient, it barely compensated for the decline in exports outside the EU during the first half of the year, especially as the nominal effective exchange rate of the euro appreciated slightly at that time. However, the euro lost ground from November onwards.

In parallel with modest activity growth, the situation on the euro area labour markets improved further in 2016

Job creation in the euro area and in most of the Member States was fairly robust, which is noteworthy in view of

CHART 7 LABOUR MARKET SITUATION IMPROVES, BUT THERE IS STILL SCOPE FOR ABSORBING UNDER-EMPLOYMENT



Source: EC.

the sluggish expansion of economic activity. One reason for that contrast may be a shift in the composition of labour towards sectors such as services, which are relatively labour-intensive and use more part-time workers. The proportion of part-timers increased considerably after the 2008 crisis, and continued rising until 2013 when it levelled out. It was driven up by involuntary part-time work and flexible employment contracts against the background of the poor and uncertain demand outlook. Thus, the number of hours worked per worker fell sharply during the recession years.

The unemployment rate for the euro area as a whole edged slightly downwards to an annual average of 10.1 %, its lowest level since the end of 2011. Although the divergences in unemployment rates between Member States have diminished, they remain substantial, as conditions remain difficult in the countries hardest hit by the crisis. For instance, in Greece and Spain, the 2016 unemployment rates were still much higher than in 2007. There is continuing under-employment on the labour market in most other euro area countries. That is due not only to the unemployed but also to people who are absent from the labour market because of the limited job prospects but might enter the market if conditions improved. It seems, though, that the upward trend in the participation rate evident before the crisis has recently been restored to some extent. At the end of 2016, the labour market participation rate for the population of working age reached 73 %.

Further correction of the macroeconomic imbalances in the euro area, but the vulnerabilities have not entirely disappeared

The most vulnerable countries have made major consolidation efforts since the start of the decade, enabling them to reinforce the sustainability of developments in their economies. Nonetheless, many countries still faced high external or internal debt levels, and the progress achieved on that front was rather meagre in 2016.

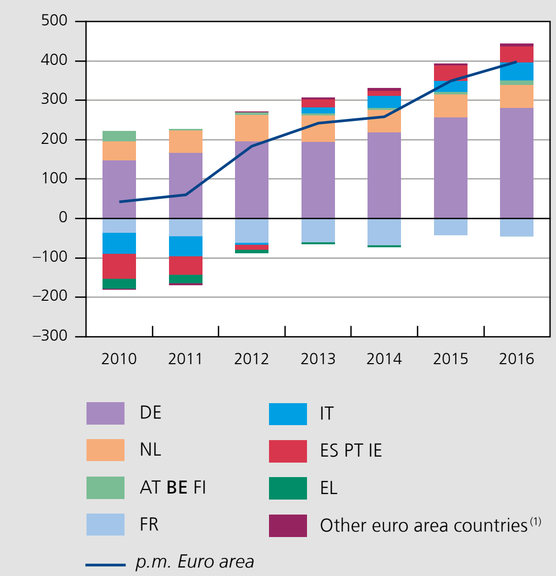
Externally, after the substantial corrections already made in preceding years, the adjustment of current account balances continued in 2016, yet it was asymmetric between the Member States. The euro area's current account surplus with the rest of the world, which had been marginal in 2010, thus increased rapidly to 3.3 % of GDP in 2015 and 3.7 % in 2016. Apart from the reduction in the deficits relating to net imports of petroleum products, which benefited virtually all euro area Member States following the fall in prices, that trend is due to the economic adjustments in countries which had substantial deficits before the crisis, combined with the persistent or even increasing sizeable surpluses in other countries.

In the countries that initially had a deficit, the adjustments resulted both from a fall in their domestic demand – and hence their imports – and stronger export growth thanks to major efforts made in past years to restore their cost competitiveness. Some formerly very large current account deficits were thus gradually absorbed, giving way to a balanced account in Greece and surpluses in Portugal, Spain and Ireland. Nevertheless, taking account of the accumulation of substantial deficits in the past, leading to increased financial liabilities towards the rest of the world, the total net international investment position at mid-2016 was still very negative in Ireland (–190 % of GDP), Greece (–133 % of GDP), Portugal (–106 % of GDP) and to a lesser degree Spain (–88 % of GDP). Those countries must therefore continue to achieve positive current account balances in the future so as to bring their net external liabilities down to more sustainable levels. The environment of modest growth and low inflation makes it harder to reduce those liabilities, and explains the relatively static outstanding positions, despite positive developments in terms of flows.

The adjustment on the part of the debtor countries was not accompanied by an adjustment in the opposite direction by the creditor countries. In 2016, large current account surpluses persisted, or even expanded. In the Netherlands, the surplus has stabilised since 2014 – due to, amongst other factors, a reduction in its gas products surplus following cuts in domestic output –, but it still remained substantial at 8.5 % of GDP. In Germany, the surplus continued to grow, reaching a record 9 % of GDP in 2016. Apart from oil-balance-related effects, the high and persistent surpluses point to excessive savings compared to investment, accentuated by the continued deleveraging in those economies. More generally, the increase in the surpluses is a symptom of the persistent weakness of aggregate demand, reflected since 2009 in a negative output gap in the euro area in general, and weak potential growth, in Germany amongst others. This under-utilisation of resources is a factor in the particularly low core inflation, a situation which has hampered the efforts of the deficit countries.

CHART 8 THE EURO AREA'S CURRENT ACCOUNT SURPLUS ON THE BALANCE OF PAYMENTS HAS INCREASED

(in € billion)



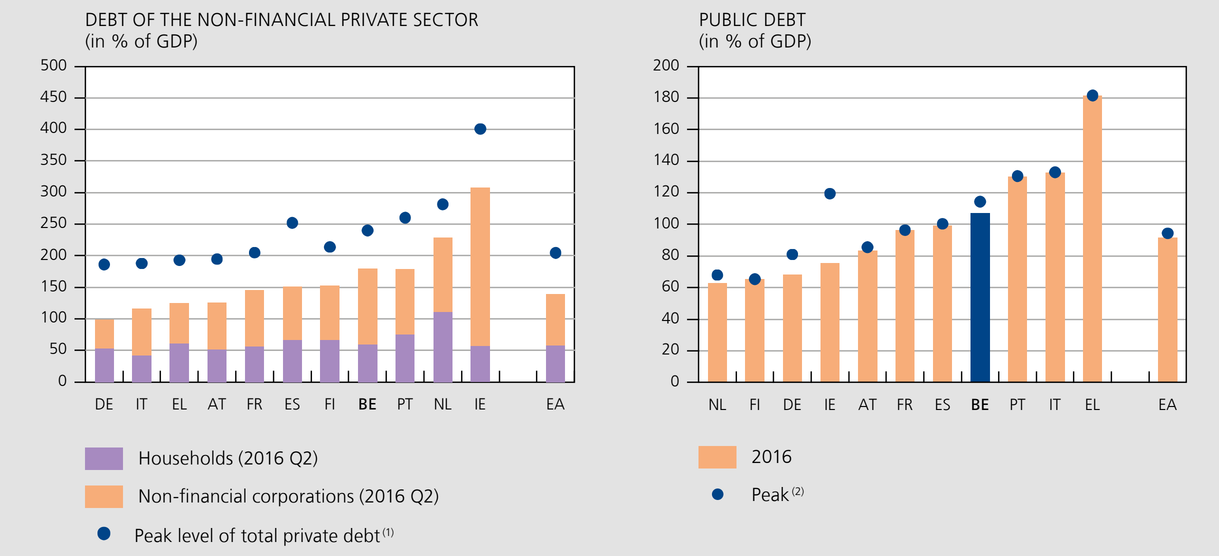
Source: EC.
(1) Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta, Slovakia and Slovenia.

In parallel with the movement in the net external position, the private sector continued to reduce its debt levels, though progress was slow and patchy. The debt diminished not only in some countries where the level had risen in the pre-crisis years, but also in others where it is much less of a problem.

In regard to households, the reductions in the debt/GDP ratio up to the second quarter of 2016 were biggest in the countries with the highest debt burden at the outbreak of the sovereign debt crisis. That was primarily the case in Ireland, where – by mid-2016 – the debt was cut by almost half in relation to its maximum level then (over 100 % of GDP), but also to a lesser extent in Spain and Portugal (cut by less than a quarter) and to a smaller degree in the Netherlands. Some countries where the household debt ratio was already below the average also recorded a slight fall, e.g. Austria, Italy and Germany. In the case of non-financial corporations, the picture was much more varied in the countries which had the highest (consolidated) debt/GDP ratio in 2012. While all those countries recorded a downward trend, some of them maintained that correction until 2016, such as Spain (to just over a quarter of the 2012 level) and Portugal (to over 10 %), while in contrast, others such as Belgium and the Netherlands reversed that trend in 2013 or 2014. Nevertheless, in the latter countries, substantial capital flows and intra-group loans come into play, due to the operating and financing methods of the many multinationals located in their territory. In other countries where the debt ratio was close to, or even below, the euro area average, the changes in corporate debt levels were minimal.

Despite this new reduction, the debt level remained high in some cases in 2016. Although it is difficult to define an equilibrium value that the debt level should tend towards, some countries have private debt levels which are

CHART 9 DELEVERAGING CONTINUED, BUT THE PACE WAS SLOW AND UNEVEN BETWEEN COUNTRIES



Sources: ECB, EC.
(1) Since 1999 or the first available data, depending on the country.
(2) Since 1999.

still substantial from their own historical perspective. The downward trend should continue, and could therefore depress economic activity in the short term. Finally, those countries sometimes also have a high outstanding public debt which, overall, makes their economy very vulnerable to shocks.

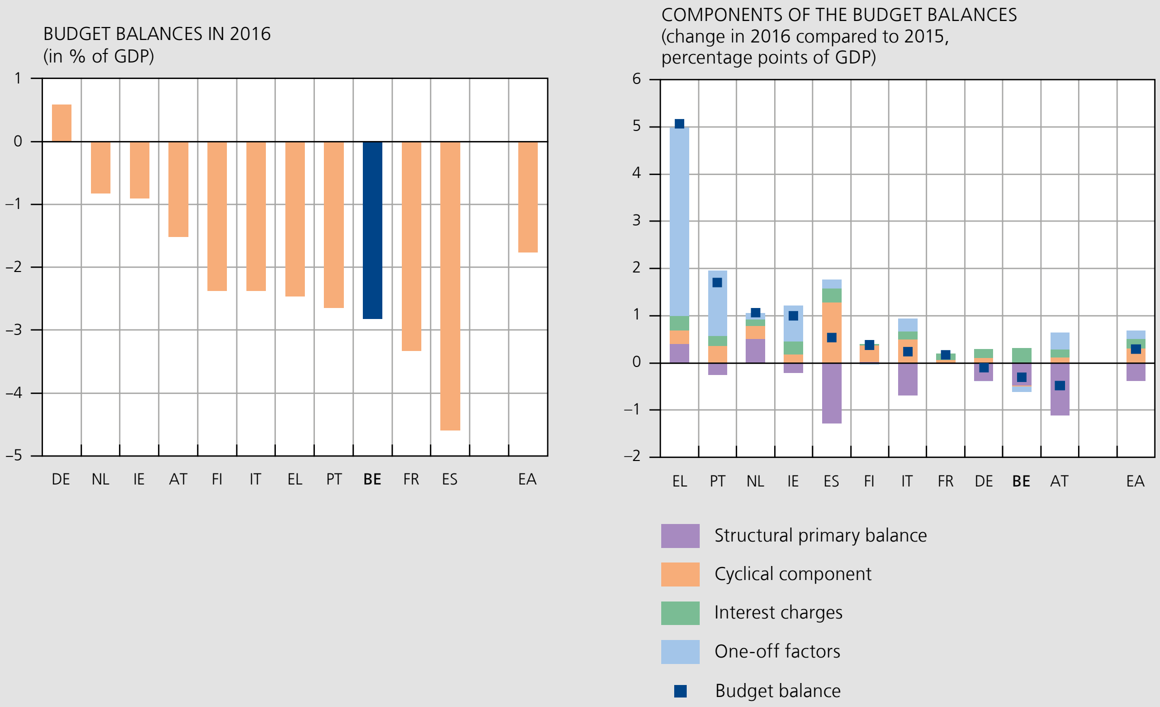
Fiscal policy was slightly expansionary

The general government deficit in the euro area as a whole continued to fall, from 2.1 % of GDP in 2015 to 1.8 % of GDP in 2016. In addition, the public debt declined for the second successive year, to settle at around 90 % of GDP. The improvement in the budget balance is due mainly to the continuing economic recovery, but also to the lower interest charges and one-off factors. Even so, the fiscal policy stance was slightly expansionary; that led to a fall in the structural primary surplus, largely offsetting the said positive factors.

The lower interest charges on the public debt had a favourable impact on public finances in all euro area countries. The economic climate likewise had a beneficial influence, except in a few small Member States and in Belgium. In 2015, Greece, Portugal and Ireland had conducted one-off operations for the purpose of bank recapitalisation, thus placing a heavy burden on their public finances. In 2016, that ceased to have an impact on the budget, so that one-off factors made a positive contribution, on average, to the improvement in the budget balance. Judging by the movement in the structural primary balance, many euro area countries – including Spain, Austria, Italy, Belgium and Germany – pursued an expansionary fiscal policy to a larger or lesser degree. That was often accompanied by tax cuts. In Spain, despite the very positive influence of the economic climate and the fall in interest charges, the strong fiscal stimulus meant only a small reduction in the budget deficit, which still came to 4.6 % of GDP. In Italy, too, the public deficit contracted only slightly, while in Austria and Belgium it actually grew bigger.

According to the EC's autumn forecasts, apart from Spain, France also still had a budget deficit in excess of the reference value of 3 % of GDP. These two countries, like Greece and Portugal, are still subject to an excessive deficit procedure under the corrective arm of the Stability and Growth Pact (SGP). In November 2016, after having examined whether Spain and Portugal had taken effective action to comply with the Council's recommendations on the subject, the EC felt that the procedure should be kept in abeyance in those two countries. The procedure for France was adjourned in July 2015. In the case of Ireland, Cyprus and Slovenia, the excessive deficit procedure was terminated in June 2016. EU Member States also have to respect a medium-term objective

CHART 10 THE FURTHER REDUCTION OF GOVERNMENT BUDGET DEFICITS IS ACCOMPANIED BY A SLIGHT EASING OF FISCAL POLICY



Source : EC.

under the preventive arm of the SGP. This concerns a reference value for the budget balance specific to each country and expressed in structural terms. The balances estimated by the EC for 2016 indicate that, in some Member States such as Austria, the structural budget balance is approaching the medium-term objective, and in others such as Germany that goal has already been surpassed. Conversely, many euro area countries, including Belgium and Italy, still need to make a considerable effort to attain that objective.

The fragility of the euro area's banking sector is impeding the growth revival

In the euro area, the banking sector is an essential source of funding for private sector activity. However, the banks were seriously affected by the crises of 2008 and 2012. Since then, great progress has been made in strengthening their balance sheet, in particular as regards reinforcing their capital ratios following the comprehensive assessment that preceded the introduction of the single supervisory mechanism (SSM) in November 2014 and the phasing in of the new prudential requirements under Basel III. Increased resilience in terms of solvency and liquidity and an accommodative monetary policy have helped to restore the bank credit channel. With the additional support of the demand revival, the growth of bank lending to the private sector took off again recently, but remains very fragile in some countries. Yet capitalisation levels still vary widely between Member States, with the lowest Tier 1 capital ratios in mid-2016 being recorded in Portugal, Italy, Latvia and Spain.

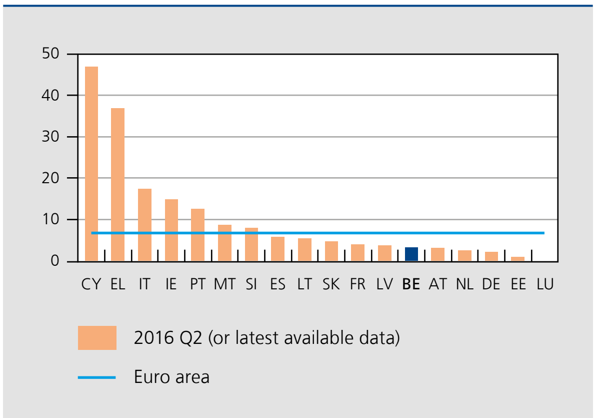
The problems still confronting the banking sector caused episodes of nervousness on the financial markets at the end of 2015 and during 2016. The challenges essentially concern the weak outlook for the return on capital and the persistence of large outstanding amounts of non-performing loans in some countries, a legacy of the crisis which continues to encumber banks' balance sheets and could further impair their profitability.

While the low level of interest rates attenuated the cyclical slowdown and supported economic activity, it tended to be detrimental to the profitability of the financial sector. In such an environment, the accumulated assets could only generate a meagre return, and that was sometimes combined with the persistence of operational and strategic models which were outdated, inappropriate or costly. This modest profitability which, in mid-2016, was lowest in Greece, Portugal, Germany and Italy, had an impact on the valuation of the banks' capital, affecting their ability to raise new funds on the capital markets; ultimately, that threatened to limit their scope for lending to the private sector or to imply a sub-optimum allocation of the capital.

In addition to these issues, there are problems concerning asset quality and credit risk. The balance sheets of some banks still often have massive outstanding amounts of non-performing loans as a result of past crises. Particularly high ratios were seen in Cyprus and Greece and to a lesser degree in Italy, Ireland and Portugal. In some of those countries, the substantial volume of non-performing loans was combined with relatively low capital ratios. A problematic level of private sector debt can cause additional vulnerabilities, owing to the possible risk of default that has to be adequately covered by provisions. Although bank balance sheets are still being cleaned up, various factors prevent that type of loan from being liquidated more quickly and efficiently, such as bankruptcy legislation and procedures, or practices concerning loan loss provisions which vary greatly between Member States. An in-depth examination of this issue and the initiatives taken recently to resolve it is described in detail in the part of this Report on "Prudential regulation and supervision". Finally, since banks in many countries still have a very substantial exposure to debt instruments issued by national governments, renewed political turmoil could further exacerbate the said weaknesses in the banking sector.

CHART 11 FRAGILITIES PERSIST IN THE EURO AREA'S BANKING SECTOR

(non-performing loans, in % of total loans and advances[1])



Source: IMF.

(1) No data available for Finland. Comparability of the data across countries may be limited due to the use of different definitions and consolidation perimeters for non-performing loans in domestic banking sectors.

On the road to completion of Economic and Monetary Union

Despite the progress achieved since the sovereign debt crisis in the euro area – particularly the establishment of the banking union and the improvement in economic governance – the Economic and Monetary Union (EMU) is still imperfect. That prompted the Presidents of the European Commission, the European Council, the Eurogroup, the European Central Bank and the European Parliament to publish a report in June 2015 setting out their plans for strengthening EMU. The intention is to finalise EMU by no later than 2025. In October 2015, in accordance with that report, the EC had already approved an initial set of measures and made recommendations. In September 2016, in line with that package of measures, the Ecofin Council called on the euro area countries to set up national productivity boards. Those boards are to examine developments in productivity and competitiveness, and conduct an independent analysis of the challenges that they present for policy. The Member States and the EC can use that independent expertise in the annual monitoring of economic policy in the context of the European Semester. As regards fiscal policy, at its December meeting, the Ecofin Council decided to give a greater role to the expenditure rule in determining and assessing the SGP objectives. Nevertheless, the structural budget balance remains an essential element of the budgetary framework. Also, at the November 2016 launch of the annual cycle of the European Semester of economic policy coordination, the EC advocated a fiscal policy stance aimed more at supporting the recovery of the euro area as a whole. In addition, in October 2016, the EC appointed the Chairman and the four members of the European Fiscal Board set up in October 2015.

During the year under review, thanks to the progress achieved, the financial union – one of the cornerstones of the Five Presidents' Report – was consolidated as regards the European Capital Markets Union (CMU). Since the 2015 action plan, which defined the priority measures to enable the CMU to take effect by 2019, the first follow-up report was produced in April 2016. To facilitate the development of new types of funding, the EC also proposed renewing the legislative framework concerning venture capital by amending, in July, the Regulations on European venture capital funds (EuVECA) and European social entrepreneurship funds (EuSEF), both of which aim to support young, innovative businesses and firms that wish to make a positive social impact. Those changes were endorsed by the Council at the end of the year. In addition, the securitisation market will be strengthened by the proposal submitted in September 2015 for establishing a new regulatory framework for simple, transparent and standardised (STS) securitisation operations (Securitisation Regulation). Finally, in November 2016, in order to remove national barriers to capital market integration, the EC tabled a proposal on business restructuring and insolvency with the aim of speeding up asset recovery and offering a second chance to entrepreneurs suffering their first bankruptcy.

1.3 The Eurosystem's low interest rate policy is intended to support the recovery in the euro area

Increased risks to price stability required supplementary measures

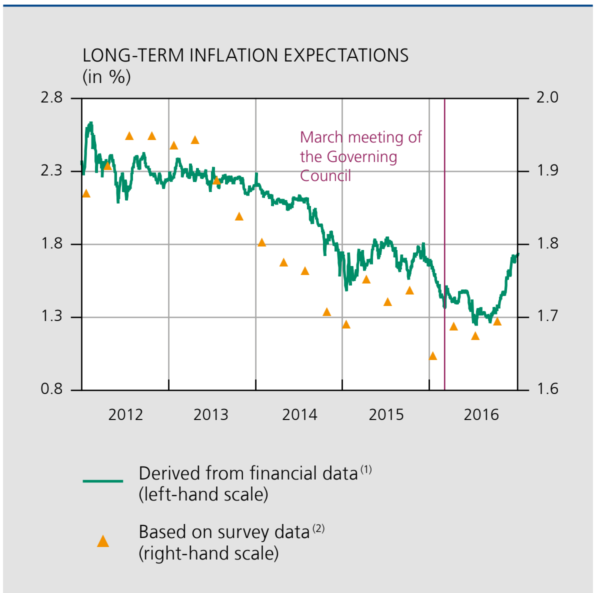
In recent years, the ECB Governing Council has adopted a wide range of stimulus measures. That took place against the backdrop of persistently low inflation in the euro area: since mid-2013, inflation has been lower than the level compatible with price stability, i.e. a rate below, but close to, 2 %. Moreover, the economic recovery remained weak: after eight years, the gap in relation to potential output has still not been closed, so that underused production capacity is exerting downward pressure on prices.

The Governing Council began by further reducing the key interest rates, and in June 2014 the deposit facility rate was cut below zero for the first time. In view of the lack of scope for reducing short-term interest rates any further, it then extended its range of instruments to continue steering the economy's financing conditions. One of those exceptional but crucial measures was the January 2015 decision to launch an expanded asset purchase programme (APP). That measure supplemented the existing programmes for the purchase of covered bank bonds and asset-backed securities by adding a massive programme for purchases of government bonds. The APP was originally intended to run until September 2016, but it was emphasised that it would certainly continue until the Governing Council saw a sustained adjustment in the inflation path consistent with its price stability objective. The Governing Council thus added a further dimension to the forward guidance which it had adopted in the summer of 2013. In fact, it indicated that it would continue to pursue an expansionary monetary policy until its price stability mandate was fulfilled.

However, unexpected financial and economic events exerting downward pressure on economic activity and inflation necessitated further monetary easing and hence adjustment of the APP. In December 2015, the Governing Council thus decided, in the light of the downward revision of the inflation forecast, to cut the deposit facility rate from –0.20 to –0.30 % and to extend the planned period for asset purchases from the end of September 2016 to the end of March 2017, or even longer if necessary. It likewise decided to extend the list of assets eligible for the APP to include securities issued by regional and local governments in the euro area, and to reinvest the principal repaid on maturing bonds for as long as necessary. Finally, the Governing Council also stressed that it was ready to take additional measures in the future. In so doing, it emphasised that the APP was flexible so that the size, composition and duration of the programme could be modified.

In March 2016, the Governing Council once again demonstrated its willingness to act. At the beginning of that year the outlook for world growth deteriorated, financial market volatility increased and inflation expectations began falling again. The inflation forecasts produced by the Eurosystem's staff pointed to heightened risks to price stability; the March 2016 projections assumed inflation rates of only 0.1 % and 1.3 % in 2016 and 2017 respectively (in December 2015 the respective forecast rates were still 1 % and 1.6 %), whereas for 2018 they foresaw inflation at 1.6 %, a level which is admittedly below, but still not close to, 2 %.

CHART 12 THE RENEWED FALL IN INFLATION EXPECTATIONS AT THE BEGINNING OF 2016 REQUIRED MONETARY EASING



Sources: ECB, Bloomberg.
(1) Implicit inflation rate derived from swaps covering the inflation risk in the euro area for a five-year period commencing five years after conclusion of the contract.
(2) Average of the aggregate probability distribution of inflation expectations in five years. Data obtained from the ECB's quarterly survey of professional forecasters.

At its meeting on 10 March 2016, the Governing Council therefore announced a comprehensive package of new measures. As regards the APP, the monthly asset purchases were increased from € 60 billion to € 80 billion. In addition, it was decided that from June 2016 bonds issued by non-financial corporations (1) would also be purchased under the APP (corporate sector purchase programme – CSPP). Moreover, the Governing Council decided to make further cuts to its key interest rates: the rates on the marginal lending facility and the main refinancing operations were reduced by 5 basis points, to 0.25 % and 0 % respectively, while the deposit facility rate was cut by 10 basis points to –0.40 %. In addition, the Governing Council announced that it intended to hold the key interest rates at or below their present levels for an extended period of time, well past the horizon for the net asset purchases, which it had confirmed would continue until March 2017 or beyond, if necessary. Finally, in March 2016, it was also decided to launch a second series of four targeted longer-term refinancing operations (TLTRO II), with a term of four years and a fixed interest rate. Those operations provide cheap and stable funding for the banks in return for more lending to the private sector. By anchoring the interest rate on these long-term operations, the Governing Council also indicates that the key interest rates will remain low for a long time, thus further reinforcing its forward guidance.

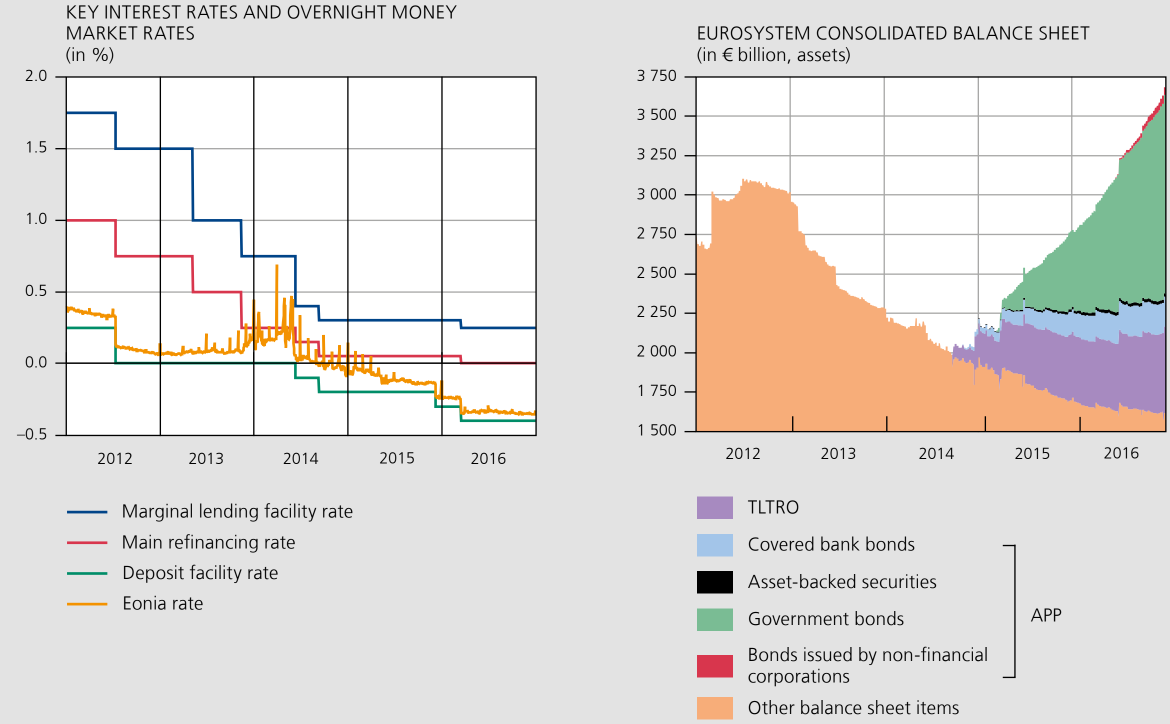
(1) More specifically, this concerns high-quality (investment-grade) euro-denominated bonds issued by non-bank businesses established in the euro area.

All these measures are designed to hold down all the interest rates that are relevant in the economy. The more favourable borrowing conditions are meant to encourage households, businesses and public authorities to consume and invest, so as to take full advantage of the economy's production potential and drive up inflation.

Practical implementation of the monetary policy measures

At the end of 2016, the securities purchased under the APP amounted to around € 1 500 billion, accounting for approximately 40 % of the Eurosystem's balance sheet total. Government bonds made up the bulk of that, with € 1 259 billion. The balance sheet also contained covered bank bonds amounting to € 204 billion, bonds issued by non-financial corporations totalling € 51 billion, and

CHART 13 WITH THE KEY INTEREST RATES CLOSE TO THE FLOOR, THE EUROSYSTEM'S BALANCE SHEET MEASURES ARE VERY IMPORTANT FOR PROVIDING A MONETARY STIMULUS



Sources: ECB, Thomson Reuters Datastream.

asset-backed securities amounting to € 23 billion. The target purchase volumes were met, while the APP's flexibility limited the potential market disruption that could result, for example, from a shortage of secure assets on the private market. Thus, during the summer, taking account of the seasonal reduction in financial market liquidity, smaller volumes were purchased, and that was offset in other months. Most of the Eurosystem central banks also made arrangements for lending securities, whereby the assets held under the APP – particularly government bonds – are loaned to market participants. Those securities are in fact highly prized, partly because they constitute collateral for repo transactions.

As regards the TLTRO II, demand for liquidity at the time of the three operations in June, September and December totalled € 399 billion, € 45 billion and € 62 billion respectively. However, the net liquidity injected into the banking system (€ 115 billion) was less than the sum of those amounts. In fact, at the time of the three operations, but mainly the first one, the banks repaid part of the TLTRO I funds and borrowed the money back in the form of TLTRO II funds. Three characteristics make the latter financially more attractive. First, they are cheaper : under the TLTROs, the banks pay a fixed interest rate corresponding to the rate on the main refinancing operations prevailing at the time of the operation. In view of the cut in the key interest rates in March 2016, the new TLTROs are therefore cheaper than those concluded during the first series of operations. What is more, the cost of financing the TLTRO II could fall *ex post* to the level of the deposit facility rate, provided that the banks grant sufficient credit to the private sector (1). Next, the TLTRO II offers a more stable source of funding : in contrast to what happened with the first series, the banks are not obliged to effect early repayment of the total amount borrowed if they grant insufficient credit. Finally, the longer term of the TLTRO II also makes the series more attractive than the TLTRO I for which the due date (September 2018) is approaching.

Influenced by the APP and the TLTROs, the consolidated balance sheet of the Eurosystem continued to expand, exceeding its mid-2012 peak. In accordance with the growth of the central bank's balance sheet, the liquidity that euro area credit institutions hold with the Eurosystem also increases. Thus, at the end of 2016, the excess liquidity – i.e. the reserves that credit institutions hold with the central bank over and above their reserve requirement, either on their current account or via the deposit facility – came to around € 1 200 billion, compared to € 655 billion at the beginning of the year. Since banks endeavour to place their excess reserves on the market, the abundant surplus liquidity stabilised the overnight money market rate – the Eonia – at a level close to the deposit facility rate. Throughout 2016, the overnight money market rate therefore remained negative, so that interbank financing costs were at unprecedentedly low levels.

The measures produced results : lower nominal interest rates and improved bank lending

The monetary policy measures resulted in significant easing on many financial market segments. Thus, the forward guidance and the signal given by the APP regarding the monetary policy stance – namely that the key interest rates will remain low for an extended period – also brought about a further fall in the longer-term risk-free interest rates, leading to flattening of the yield curve.

Similarly, interest rates on government securities fell further in most euro area countries in 2016, declining to all-time lows. It was the longest-dated securities that recorded the largest falls. Apart from the higher demand resulting from the purchases under the APP, other factors also drove down yields on government bonds, particularly those of the strongest sovereign issuers. The nervousness on the financial markets, triggered partly by Brexit, and the need to provide good-quality collateral for repo transactions boosted demand for this type of securities, and particularly German government bonds. The relatively limited outstanding volume of government securities issued by some large Member States combined with the characteristics of the APP, which distributes the purchases of government bonds among the euro area countries according to the ECB's capital key, also led to a bigger decline in interest rates on certain government bonds. As the capital key reflects the size of a country's economy and population, a considerable proportion of the purchases concerned the German Bund in particular. However, the outstanding amount of German government bonds and the prospects for issuance of those securities are fairly limited, so the APP exerts even stronger downward pressure on the interest rates on German securities than on those of countries with a relatively large outstanding volume of government paper, but with a rather small share in the purchases under the APP (see also box 1). Finally, the Eurosystem's original decision not to purchase securities under the APP offering an interest rate lower than the deposit facility rate also reduced the range of securities actually eligible for the APP. That certainly applies to the German Bund, as the short- and medium-term interest rates on those bonds were generally below that threshold in 2016. To meet its target for purchases, the Eurosystem therefore bought government securities with longer

(1) For more information on TLTRO II, see https://www.ecb.europa.eu/press/pr/date/2016/html/pr160310_1.en.html.

maturities. Consequently, the longer-term interest rates of strong euro area countries also declined, approaching the deposit facility rate, or even falling below it, which sometimes presented challenges for the Eurosystem's implementation of the APP.

Although these factors mainly drove down the bond yields of strong issuers, the spreads on the government bonds of most euro area countries in relation to the Bund, for example, were fairly stable after narrowing sharply prior to the programme's launch and at its start. That could indicate the active operation of the portfolio rebalancing channel of the APP: by rearranging their portfolio of euro area government bonds to the detriment of securities purchased on a large scale by the Eurosystem but in favour of those offering higher yields, investors also drove down interest rates on the latter securities.

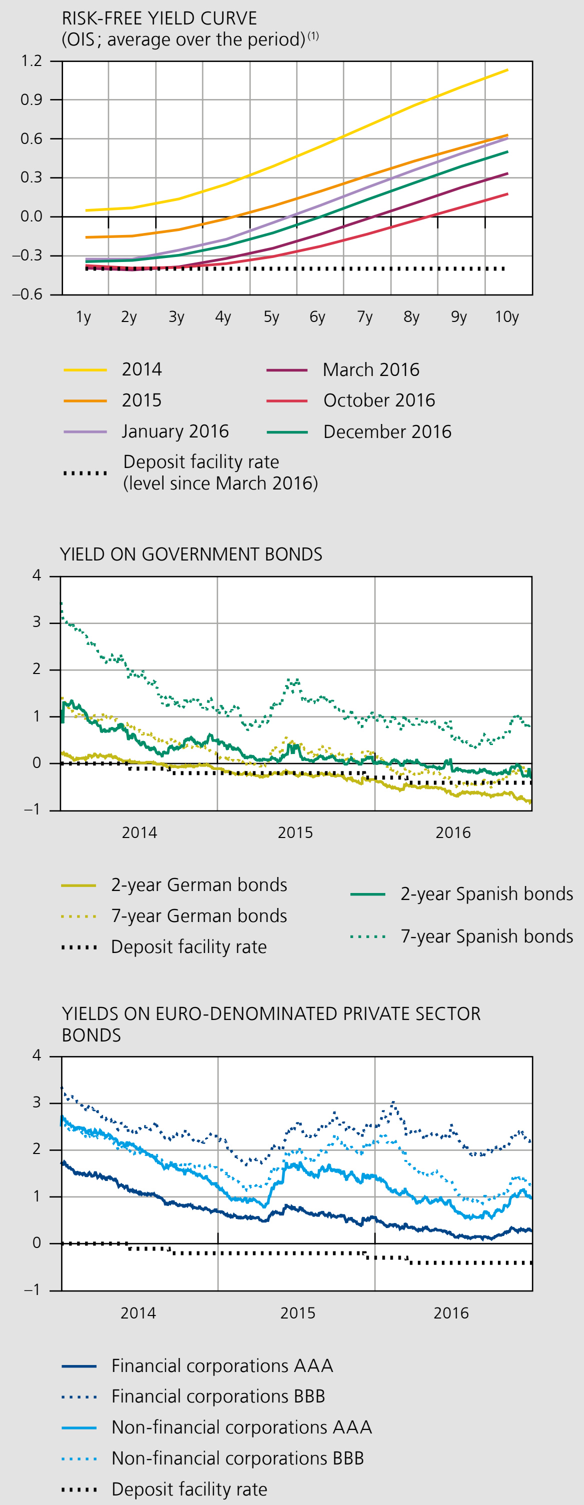
Apart from the banks and public authorities, businesses also benefited from the lower financing costs. The APP purchases of bonds issued by non-financial corporations led to a considerable decline in the interest rates on those securities. Yields on bonds issued by both financial and non-financial corporations not eligible for purchase under the CSPP also declined, once again indicating portfolio rebalancing in the wake of the APP. At the end of the year, while those interest rates began to creep upwards again they remained below the level prevailing at the beginning of the year. It is possible that the more favourable financing conditions in 2016 encouraged the funding of businesses via the market, as there was in fact an increase in net issuance of private sector bonds.

The banking sector – which performs a key role in monetary transmission within the euro area – continued to pass on the monetary policy stimulus to the real economy. The monetary policy measures thus further supported lending to the private sector. On the one hand, bank funding costs for households and businesses continued to fall. Debit interest rates on bank loans to businesses in the various euro area countries therefore converged again to some extent, reflecting a further reduction in financial fragmentation. Also, the positive dynamics of the volume of bank lending to the private sector persisted, but in the vulnerable Member States other than Italy, the growth of credit remained negative.

The bank lending survey (BLS) reveals that both the credit supply and demand for credit contributed to the stronger credit expansion in the euro area. Loan criteria for businesses and households were eased, usually as a result of keener competition and attenuation of the banks' risk perception. The banks also announced that the liquidity generated by the APP would be used in the first instance to expand their

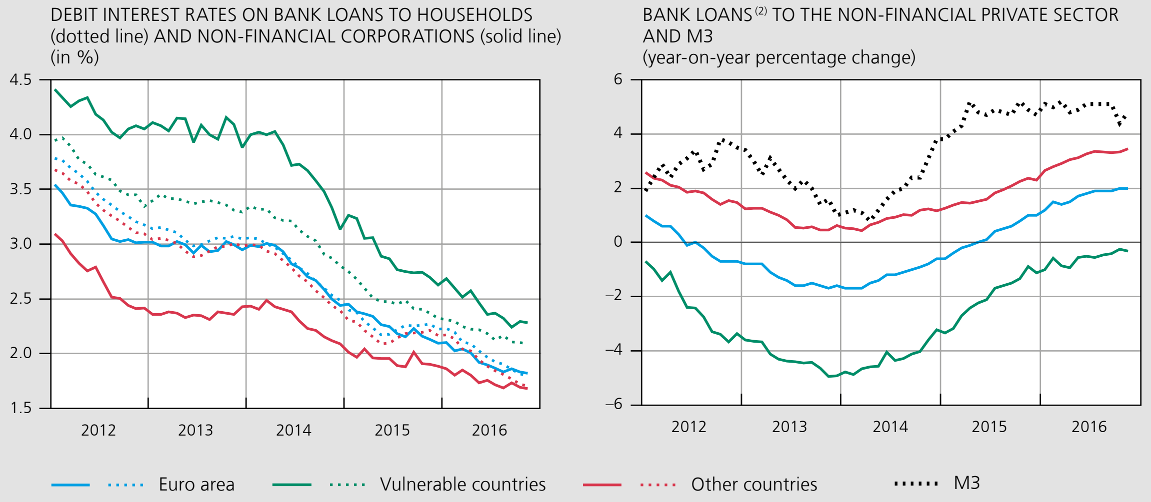
CHART 14 NOMINAL INTEREST RATES FELL SHARPLY

(in %)



Sources: Barclays Capital, Thomson Reuters Datastream.
(1) Interest rates on Eonia swaps with different maturities.

CHART 15 BANK FINANCING OF THE PRIVATE SECTOR IN THE EURO AREA CONTINUES TO IMPROVE (1)



Source: ECB.

(1) The vulnerable countries are Cyprus, Spain, Greece, Ireland, Italy and Portugal. The other countries are the remaining euro area Member States. The two series of data concern a GDP-weighted average.

(2) Taking all maturities together. The data are adjusted for securitisation.

lending. In addition, they indicated that the negative interest rate on the deposit facility had a positive influence on the credit volume, although it could at the same time put pressure on their interest margin. That said, demand for loans on the part of businesses and households also continued to rise as a result of the low interest rates, mergers and acquisitions, a revival in consumer confidence, as well as the improved outlook on the housing market.

The recovery of credit growth and the implementation of the APP – so long as the asset seller is a non-bank resident of the euro area (1) – engendered a strong expansion of the money supply. The broad monetary aggregate M3 recorded relatively stable year-on-year growth of 5 % throughout 2016. The driving force here was the expansion of the most liquid components of M3, particularly sight deposits (M1). The low and flat profile of the yield curve in fact implies that the opportunity costs of holding the most liquid M3 assets are minimal.

The favourable funding conditions in turn help to restore economic activity, inflation and inflation expectations. As a result, the monetary policy measures slowed the downward trend in inflation expectations and supported domestic demand in the euro area.

(1) For more information, see box 2 in the Report 2015.

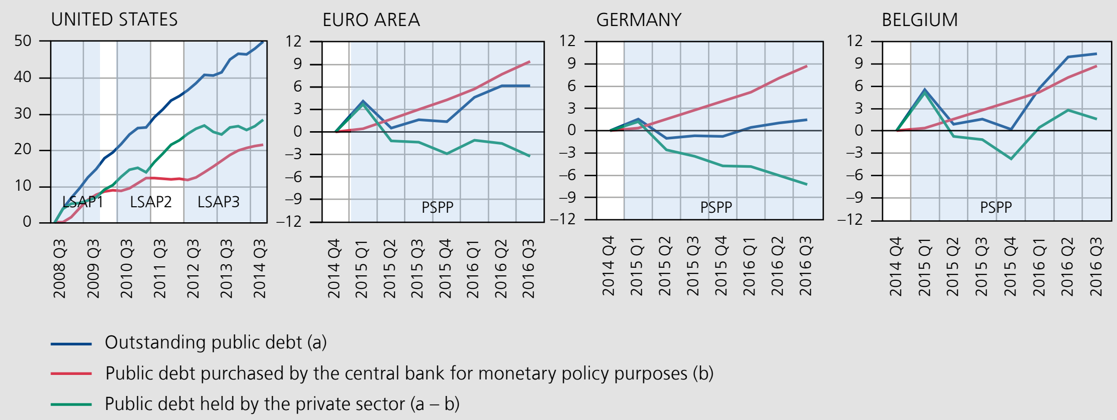
Box 1 – Asset purchase programmes in the United States and in the euro area: impact on government paper held by the private sector

Central bank asset purchase programmes can depress long-term interest rates via various channels. For instance, by purchasing certain long-term securities on a substantial scale, the central bank reduces the supply of those securities on the private market so that their price rises and their yield declines. Certain investors prefer to hold these securities and are therefore prepared to pay a higher price to acquire these "scarce" assets. In addition, the central bank can reduce the aggregate level of the duration risk (i.e. the exposure to unexpected changes in the key interest rate) in the private sector portfolio by taking long-term – and hence riskier – securities off the market, replacing them with safe, short-term securities (central bank reserves). As the total duration risk in the market diminishes, private investors should demand less compensation for that risk, thus lowering the term premium included in the return on long-term securities.

Of course, purchases by the central bank are not the only factor affecting the supply of securities available on the private market: debt security issuers also play an important role. As central bank purchases are concentrated mainly on government paper – on which the yield is an important benchmark for fixing the price of a wide range of financial assets – they indicate a subtle interaction between monetary and fiscal policy. While the central bank tends to put downward pressure on longer-term sovereign bond yields via its purchase policy, governments can partly offset that effect by issuing more of those debt securities, e.g. for the specific purpose of taking advantage of the low interest rates. This box aims to examine the extent to which monetary and fiscal policy have changed the availability of government paper on the private market in the United States and in the euro area.

HOLDERS OF GOVERNMENT PAPER [1]

(changes in outstanding amounts, in % of GDP in 2014, compared to the quarter preceding the announcement of the first purchase programme)



Sources: ECB, Bureau of Economic Analysis, EC, Federal Reserve.

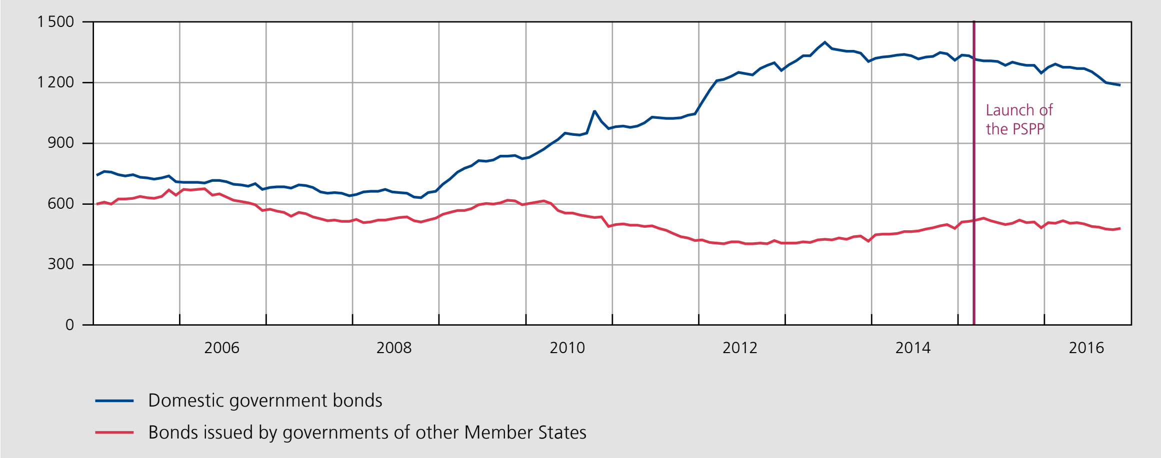
(1) The concept of “public debt” used in the chart varies slightly between the United States and the euro area. For the United States, it covers debt securities issued both by the American government and by the GSEs. These two asset categories can be considered close substitutes and were purchased in more or less equal proportions by the Federal Reserve under the LSAPs. In the euro area, the outstanding amount of the “public debt” only comprises securities issued by national governments; consequently, the purchases by the Eurosystem, represented by the red line in the chart, also concern only the type of securities purchased under the PSPP (in other words, excluding securities issued by supranational institutions). The public debt concept used in the chart concerns government paper at market prices: consequently, it differs from the Maastricht Treaty definition of the public debt, which relates to the consolidated total public debt at nominal value. The movements shown on the chart therefore do not necessarily correspond to those concerning the usual concepts of public debt.

Between December 2008 and October 2014, the Federal Reserve launched three programmes of large-scale asset purchases (LSAPs) [1] and thus removed from the private market long-term debt securities totalling around $ 3 900 billion. The purchases comprised US government bonds and debt securities issued or guaranteed by government-sponsored enterprises (GSEs). Thus, at the end of 2014, the Fed’s portfolio of securities had expanded by 22 % of GDP compared to the third quarter of 2008, when no purchase programmes had yet been introduced. Over the same period, the US Treasury issued additional sovereign bonds for the equivalent of around 50 % of GDP, while the net issuance of securities by the GSEs remained rather flat. Despite the LSAPs, the supply of sovereign instruments on the private market therefore increased considerably in net terms. The additional issuance of sovereign securities thus offset the downward effect of monetary policy on interest rates; from the central

(1) LSAP1 ran from November 2008 to the end of March 2010. LSAP2 – which was confined to purchases of US government bonds – ran from November 2010 to June 2011, and LSAP3 ran from September 2012 to the end of October 2014.

bank's point of view, that is not necessarily negative, as the fiscal stimulus provides additional support for domestic demand, which may be useful when the monetary policy instruments come up against limits, e.g. when short-term nominal interest rates are at their lower bound. Moreover, a steeper yield curve implies lower risks to financial stability, and reduces the transformation risk facing the central bank's balance sheet via purchases of long-term securities financed by means of short-term liabilities.

EURO AREA SOVEREIGN BONDS HELD BY BANKS (1) FROM THE EURO AREA (2)
(in € billion)



Source: ECB.
(1) This specifically concerns monetary financial institutions except for the Eurosystem.
(2) To avoid distortion of the movement in the outstanding amounts of securities by the reclassification or revaluation of securities, the outstanding amount for January 2005 was increased cumulatively by the monthly volume of transactions in such securities.

In the euro area, the situation is different. In view of the current rather neutral fiscal stance, relatively few sovereign bonds are issued. The additional government paper issued since the end of 2014 (totalling around 6 % of GDP) was entirely absorbed by the public sector purchase programme (PSPP), so that the supply of sovereign bonds for the private sector remained virtually unchanged. The euro area's fiscal policy, unlike that in the United States, therefore did not offset the pressure exerted by the central bank on longer-term interest rates.

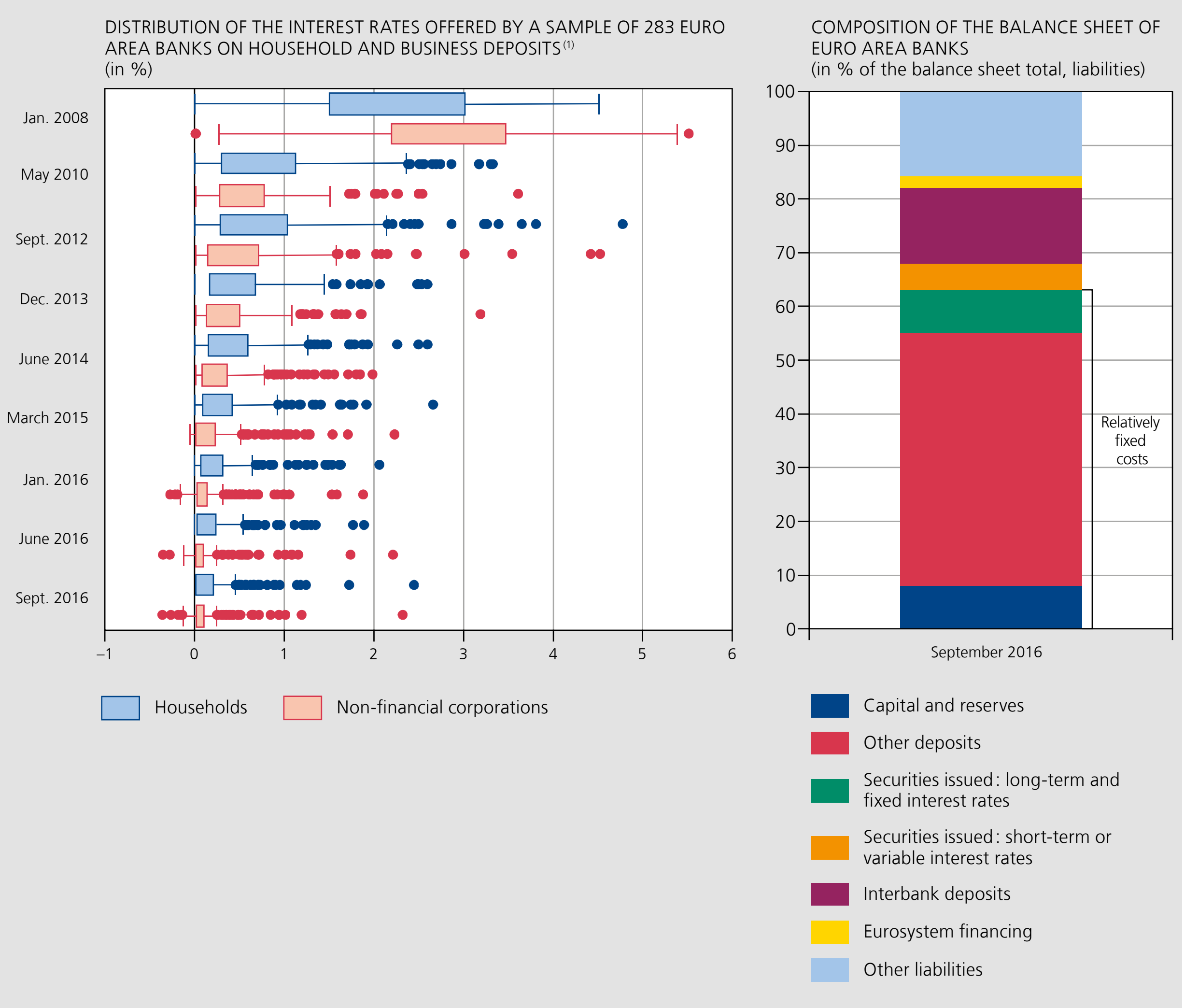
However, the impact of the PSPP on yields on government securities varies from one euro area country to another, depending on the issuance of new debt. In Germany, the virtual absence of any net issuance of government paper combined with the purchases under the PSPP significantly reduced the availability of those instruments on the private market to below the end-2014 level. Driven by a flight to safety, yields on German government paper slumped to an all-time low, and actually became negative up to a maturity of 13 years in the summer of 2016. In Belgium, the issuance of government paper as a percentage of GDP was in line with that in the euro area in 2015, but it increased substantially in 2016. Consequently, the volume available for the private market recently exceeded the end-2014 level.

In parallel with the implementation of the PSPP, the banks reduced their exposure to the public sector. In the final quarter of 2014, the euro area banks still held, on average, € 1 826 billion in euro area government bonds, but by November 2016 that volume had dropped by almost 10 %, and its share in the balance sheet total was down from 6 % to 5.5 %. The accumulation of euro area government bonds on the assets side of the banks' balance sheets therefore seems to be ending. It is worth noting that this gradual reduction is due more to a shrinking portfolio of bonds issued by their own government, while the portfolio of bonds of other governments in the euro area is more stable. As the sovereign debt crisis in the euro area revealed the risks inherent in close links between national governments and the domestic banking sector, the Eurosystem's purchase programme is thus indirectly helping to support financial stability. A smaller concentration of sovereign bonds – and in particular those of the domestic market – on the banks' balance sheets is in fact a good thing in that respect.

There are limits to the reduction of the key interest rates

The transmission of the low interest rate policy to credit interest rates and hence to the real economy continued in 2016, but in the future it could be hampered by the downward rigidity of interest rates on bank deposits. Although the banks did to some extent pass on the reduction in the deposit facility rate in their rates on customer deposits, the former stood at

CHART 16 LIMITS TO FURTHER CUTS IN THE KEY INTEREST RATES



Source: ECB.

(1) The rectangle contains the values between the lower and upper quartiles. The horizontal lines include the values between the lower quartile less 1.5 times the interquartile range and the upper quartile plus 1.5 times the interquartile range. The dots indicate the extreme values.

at –0.40 % at the end of 2016 while the latter was barely negative.

One reason for the downward rigidity of deposit interest rates is that retail customers' deposits are an important, stable, and therefore valuable source of funding for banks. However, if the remuneration on deposits were to become lower than the cost of holding banknotes, households and businesses might decide to withdraw their deposited funds and hold banknotes instead. As large-scale deposit withdrawals could cause major problems for the banking sector, banks are reluctant to cut the deposit rates below zero. In view of the substantial liquid assets of some firms, the cost of holding these assets in banknotes is significant, so that the interest rate on their bank deposits can become slightly negative, and that did happen recently at some banks. Furthermore, some countries set legal limits on the reduction of certain interest rates. That is the case in Belgium, for example, where the interest rate on regulated savings deposits cannot be less than 0.11 % (0.01 % for the basic rate and 0.10 % for the loyalty bonus).

The difficulty of cutting the remuneration on deposits below zero, combined with the importance of deposits as a source of funding, implies that – despite the low policy interest rates – the banks face relatively high and rigid funding costs. When deposit interest rates drop to their lower bound, banks may decide not to reduce their credit interest rates any further, thus preserving their interest margin. Further cuts in the central bank's policy interest rates will thus cease to influence credit rates, and that will seriously impede the transmission of the accommodative monetary policy through the banking sector. The excess capacity in some national banking systems and the resulting fierce competition may nevertheless prompt banks to continue reducing their credit interest rates, even if they leave their deposit rates unchanged. Moreover, the large proportion of loans granted at a variable interest rate – which automatically tracks the Euribor or other short-term interest rates – undermines the interest income of some banks. Cuts in the policy interest rate can thus lead to lower credit interest rates, but at the same time they depress the banking sector's profitability which has been under stress since the outbreak of the crisis. In the long run, that can cause a contraction of the credit supply, thwarting monetary transmission. Aware of the limits of the interest rate instrument, the ECB Governing Council therefore indicated that it cannot continue indefinitely cutting the short-term nominal interest rates below zero.

Less conventional measures extend the boundaries of monetary policy

The Eurosystem therefore adopted non-standard instruments such as balance sheet measures and forward guidance, which exert downward pressure on longer-term interest rates. The central bank thus continues to create more favourable financing conditions, not only for banks but also for businesses and public authorities. Decisions on spending in the economy are not influenced by one specific interest rate but by the whole range of interest rates applicable in the economy.

These non-conventional measures may also have unwelcome side effects. For instance, the continued flattening of the yield curve in 2016 limits the scope for banks to earn money from maturity transformation. In that regard, the banks fund loans and long-term investment (on which they receive interest) mainly by means of short-term liabilities, including deposits (on which they pay interest). Low long-term interest rates mean that the banks probably have to reinvest securities reaching maturity in lower-yielding securities, thus risking further erosion of their interest margin.

All the same, the impact of the low interest rate policy on the banking sector's profitability is not necessarily negative, at least in the short term. The banks' net interest income is depressed by the shrinking interest margin, but at the same time it is supported by the growth in the volume of lending and the improvement in its quality, which also result from the monetary measures. Those measures in fact encourage the economic recovery, boosting demand for loans and placing borrowers in a better position to meet their obligations. The APP also raises the value of the banks' investment portfolio, while the TLTROs reduce their funding costs. But the longer the low interest rate environment persists, the greater the risk of pressure on the banking sector's profitability, and hence its ability to transmit the monetary stimulus to the real economy.

The low interest rate environment may also imply risks to financial stability in the broad sense. Thus, it may threaten the financial health of life insurers and pension funds, or lead to an excessive search for yield.

Finally, the non-conventional measures also come up against operational limits. For instance, the specific rules of the APP – such as the original decision not to purchase assets offering an interest rate below the deposit facility rate, or the obligation to effect purchases in accordance with the ECB capital subscription key – make the measures more difficult to implement. The programme's flexibility nevertheless allows the APP parameters to be adjusted so that any scarcity problems can be overcome. In March 2016, for example, the Eurosystem raised the limits on purchases of securities issued by international institutions and multilateral development banks. It is now permissible to hold 50 % – instead of the previous 33 % – per issuer and per issue of those securities. Nonetheless, the scope for adjusting the APP parameters is still limited. For example, the Eurosystem wants to prevent any market distortion and avoid acquiring a dominant market position in securities.

The December decisions reflected those limits

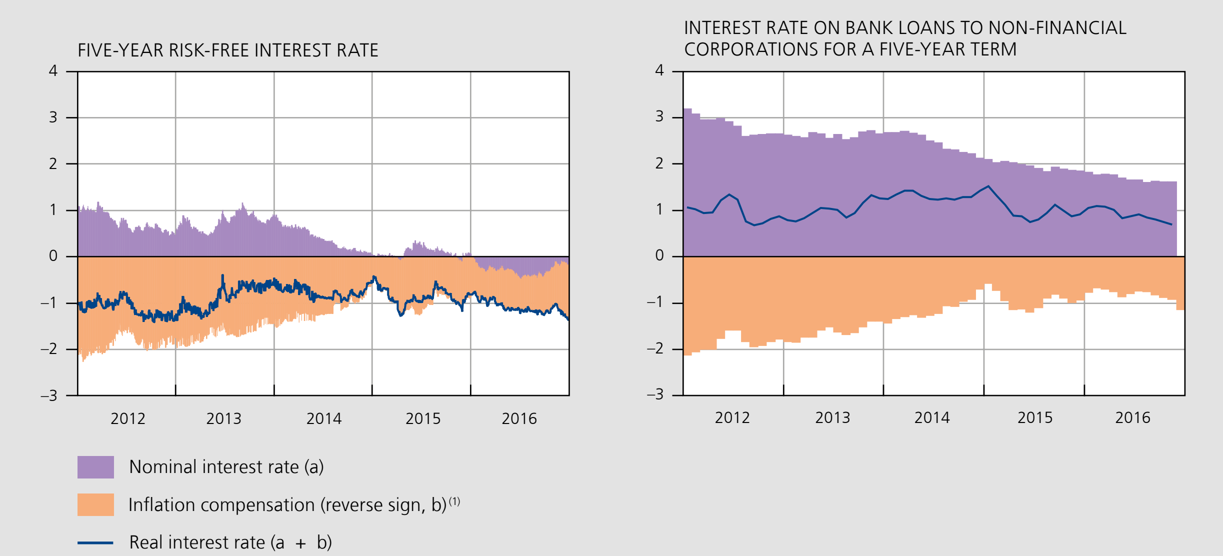
In December 2016, the ECB Governing Council considered that the very accommodative monetary policy stance should be maintained in order to strengthen the economic recovery and steer inflation back towards its target. In fact, according to the December projections produced by the Eurosystem's staff, inflation would come to no more than 1.7 % in 2019.

The key interest rates were kept unchanged, although the Governing Council confirmed that they would remain at or below their present levels for an extended period of time, and well past the horizon for the net asset purchases. Regarding the APP, the planned period was extended from the end of March 2017 to the end of December 2017, or beyond if necessary. That extension implies a more lasting presence on the market, and consequently more sustained transmission of the support measures. Nevertheless, the intensity of the measures was reduced as, in the light of ebbing deflation risks, the Governing Council also decided to reduce the monthly net asset purchases from € 80 billion to € 60 billion from April 2017, the pace adopted in the initial phase of the purchase programme. The reduction in the volume of monthly purchases and extension of the period of the APP should alleviate any problems concerning a scarcity of securities and reduce the downward pressure on interest rates while maintaining the strong stimulus. If the outlook deteriorates or if financial conditions become inconsistent with further progress towards the inflation objective, the Governing Council would consider raising the volume and/or extending the duration of the APP. Finally, to ensure the smooth implementation of the APP, the Governing Council decided to relax certain parameters with effect from January 2017. Thus, the range of maturities for securities eligible for the PSPP, currently from two to thirty years, will extend from one to thirty years. Moreover, the Eurosystem will if necessary be able, under the APP, to purchase securities yielding an interest rate below the deposit facility rate.

The decline in real interest rates was weaker …

While nominal interest rates fell to a historical floor, that was less true of real interest rates. In fact, lower inflation expectations, which were part of the reason for the Eurosystem measures, exerted upward pressure on real interest rates. Thus, the five-year risk-free nominal interest rate and the rate on new corporate loans for a term of five years or less have

CHART 17 REAL INTEREST RATES DECLINED LESS SHARPLY THAN NOMINAL INTEREST RATES
(in %)



Source: Thomson Reuters Datastream.
(1) Measured on the basis of swaps hedging the inflation risk in the euro area for a five-year period.

exhibited a clear downward trend in recent years, while real interest rates calculated on the basis of inflation expectations derived from financial data have tended to remain stable. In practice, inflation expectations declined to much the same degree as the nominal interest rate.

Since economic agents' decisions on saving and investment are influenced by real interest rates, funding conditions in the economy – at least those measured by these very simple indicators – have eased less in recent years than the decline in nominal interest rates would suggest, despite the significant monetary policy measures. It is therefore vital to bring inflation back towards 2 % and anchor inflation expectations around that level again so that real interest rates can be steered appropriately. Hence the importance of the announcement that the APP will remain in force until the Governing Council is sure that inflation is tending towards its objective.

… while the real equilibrium interest rate is too low …

The low interest rate environment is not solely the result of monetary policy, but is also due to negative real developments in the economy which are depressing the equilibrium interest rate, i.e. the rate at which saving and investment are in balance, or the rate at which economic activity achieves its potential level and inflation is stable. Structural forces, such as the increase in excess savings, lower productivity growth and greater income inequality in the euro area, but also cyclical factors, particularly the deleveraging initiated since the crisis and the renewed uncertainty, account for the current extremely low level of the equilibrium interest rate both in the EMU and in other advanced countries. According to some estimates, the equilibrium rate is actually negative in the euro area.

The low equilibrium interest rate obliges the central bank to pursue a low interest rate policy, because in order to achieve price stability (and macroeconomic stability in the broad sense) monetary policy always tries to bring real interest rates in the economy appropriately in line with the real equilibrium interest rate. It is precisely because of the extremely low level of that rate and the risk of an excessive decline in inflation expectations that the Eurosystem has had to take non-conventional measures to ensure that the monetary policy stance is sufficiently expansionary. The low interest rate thus reflects a deeper problem, namely economic weakness. At the same time, this policy helps to remedy that weakness since it aims to rekindle economic activity and hence inflation.

In these circumstances, the economic recovery in the euro area benefits not only from the low real interest rates but also from the increase in the equilibrium interest rate. The Eurosystem can take measures to drive down the former but has little or no influence over the atter.

… which highlights the importance of fiscal policy and structural reforms in reinforcing the monetary stimulus

The Governing Council has already repeatedly stressed in its communication that other policy spheres also need to be used to ensure the structural continuation of the economic recovery, supported by the monetary stimulus. Monetary policy is not the only factor; a good policy mix which can activate the various spheres is crucial.

A role is thus assigned to a fiscal stance more conducive to growth in the euro area, with maximum use of the scope offered by the SGP rules. In that regard, the limited fiscal leeway available to most euro area countries requires carefully considered measures to achieve a balance between support for aggregate demand and the maintenance of confidence in public finances. For example, a neutral shift in public expenditure to the detriment of unproductive items and in favour of growth-friendly public investment meets that requirement. In addition, such a measure optimises the beneficial effects of the low interest rate, which renders investment projects more attractive. Higher public investment in turn boosts potential growth and the equilibrium interest rate.

New structural reforms aimed at the fundamental forces behind the low equilibrium interest rate are likewise very important. But the pace of reform was only moderate in 2016, while there are still many challenges facing the euro area countries: continuing EMU integration, raising the employment rate, stimulating entrepreneurship, guaranteeing the sustainability of pensions, reducing the proportion of non-performing loans on bank balance sheets, etc. A structural policy that addresses these problems in a sustained manner will help to restore confidence, raise productivity, drive up the equilibrium interest rate and boost potential growth.

In addition, a rise in the equilibrium interest rate reduces the risks that the low interest rate policy may imply for financial stability, as it allows the central bank to normalise its interest rates more quickly. In the euro area, there is little sign so far of widespread risks caused by the low interest rate environment. In the Financial Stability Review it published in November 2016, the ECB considers that the impact of the low interest rate policy on banks' profitability is fairly neutral. Nor is there any widespread evidence of an excessive search for yield, inordinate overvaluation of assets, or excessive credit expansion. If such risks materialise, they are generally specific to certain countries or branches of activity, so that prudential policy is the best way of containing them in the first instance. The European Systemic Risk Board (ESRB) plays a key coordinating role here. Monetary policy can thus concentrate fully on maintaining price stability. Nonetheless, the ECB still takes account of any adverse effects of its extremely accommodative policy, and keeps a close watch on them.