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Falling oil prices translate into an income transfer from producers to consumers-,
Monetary policy supports euro area recovery from the crisis-,
Forecast risks- and Russian economy and imports to contract substantially in 2015 -articles
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EDITORIAL

Commitment to accommodative monetary policy benefits economic outlook

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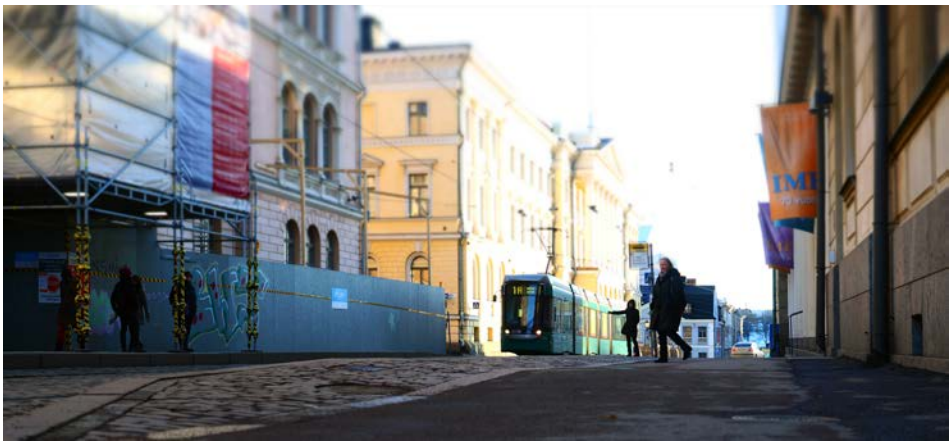
Euro area inflation, core inflation and both short and long-term inflation expectations declined strongly during the second half of 2014. As a result of the prolonged period of exceptionally weak price developments, the ECB's price stability objective began to lose its role as a solid anchor to price formation in the euro area.



In January, the Governing Council of the ECB decided that, as of March, the Eurosystem would purchase on the secondary market a significant amount of euro-denominated public sector securities. In the latter half of 2014, the Governing Council had already begun purchases of private sector asset-backed securities and covered bonds. Securities purchases will total EUR 60 billion per month. As to the duration of the purchases, the Governing Council has stated that *'they are intended to be carried out until end-September 2016 and will in any case be conducted until we see a sustained adjustment in the path of inflation which is consistent with our aim of achieving inflation rates below, but close to, 2% over the medium term.'*

The aim of these accommodative monetary policy measures is to maintain price stability over the medium term. Relaxation of the monetary policy stance will also contribute to supporting economic developments more generally. Determined implementation of all the ECB's measures will help restore inflation sustainably to slightly under 2%.

Commitment to an accommodative monetary policy stance is all the more important, the lower interest rates are and the further inflation expectations are below the price stability

objective, as the monetary policy channel is key to raising inflation expectations and boosting confidence amongst economic agents. The Eurosystem's expanded securities purchase programme is a clear indication of the Governing Council's determination to bring price developments back into line with the price stability objective.

The monetary policy decisions taken have already had a significant positive impact. The short market rates and longer reference rates based on government bonds have declined noticeably in the euro area. The downward trend in inflation expectations has come to a halt, and expectations have begun to climb. Funding costs have fallen and access to credit has improved. Moreover, both monetary growth and lending growth have become stronger. Confidence in the economy has improved, which will speed up the impact of measures on the real economy.

Indeed, the economic recovery is expected to gradually strengthen and become more extensive. Euro area exports should also grow as a consequence of the depreciation in the euro's effective exchange rate as price competitiveness improves and the global economy recovers. In February, the annual rate of HICP inflation in the euro area was -0.3%. This is against the background of the steep fall in the price of oil. Inflation is forecast to gradually pick up, as the boost to aggregate demand from the recent monetary policy measures, euro depreciation and assumptions over a slight rise in the price of oil in the immediate years ahead all support inflation.

Although the accommodative monetary policy stance is justified in order to ensure price stability, negative side-effects cannot be entirely ruled out. Prolonged low monetary policy interest rates and the additional impact from the securities purchases could in some euro area countries or some sectors increase the risks to financial stability. Indeed, the euro area must stand ready to actively apply macroprudential policy tools should this prove necessary. This means that all euro area countries need to have effective macroprudential tools at their disposal.

If we are to derive all the benefits of the monetary policy measures, we will need determined action in other areas of policy, too. Euro area recovery will require structural reforms and balance sheet adjustments in a number of sectors.

Fiscal policy measures to stimulate demand are not necessarily possible or warranted if the government budget has been in deficit for a prolonged period, tax rates are high and the long-term growth outlook is weak. The need for structural reforms to boost potential output growth is particularly strong in those countries with limited scope to increase public demand or where the working-age population is no longer growing. At the same time, full and consistent adherence to the Stability and Growth Pact will sustain the credibility of the general government steering framework.

24 March 2015

Erkki Liikanen
Governor

Tags

- monetary policy
- inflation
- euro area

Falling oil prices translate into an income transfer from producers to consumers

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The fall in the oil price is broadly reflected across the current situation in the global economy and the outlook for the future. According to most assessments, the oil price drop is for the most part a positive supply shock that in the short term will support growth and slow inflation in net oil-importing countries. In addition to the oil price, long-term interest rates have also declined substantially in the euro area. As a whole, the outlook for the advanced economies has strengthened on average, while the outlook for many emerging economies has weakened. There are, however, major differences within the country groups, a fact also reflected in exchange rates. A particular case in point is the appreciation of the US dollar.

According to the Bank of Finland forecast, global growth will gradually accelerate from the 3.1% seen in 2014 to 3.7% in 2017. US growth will continue at a brisk pace, while in the EU22, growth will also accelerate in 2015. Slower growth in China is both expected and primarily positive. The Russian economy will contract in the immediate years ahead. According to the Bank of Finland forecast, the EU22 will experience zero inflation in the current year. In 2016, inflation will average 1.1%, accelerating slowly to 1.7% in 2017.

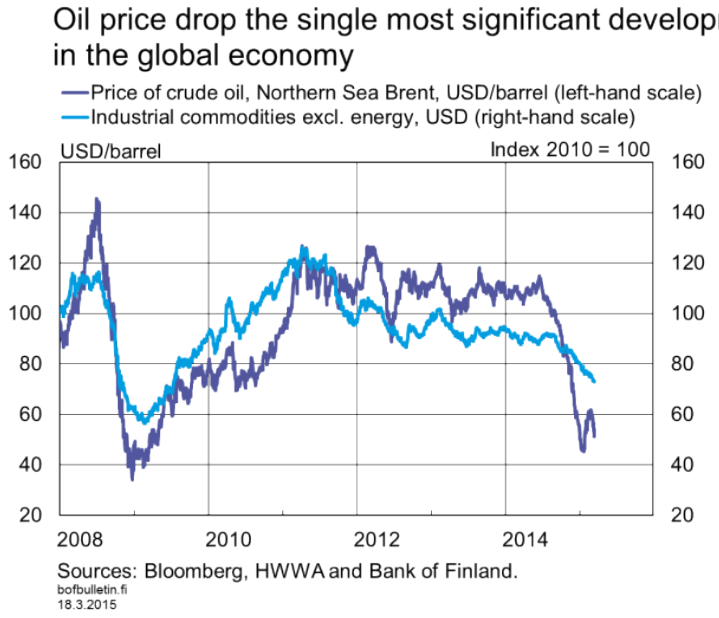
The uncertainty surrounding the growth and inflation forecasts is greater than before, but now also includes upside risks. The low oil price and long-term interest rates could stimulate global growth more than previously estimated. Moreover, depreciating exchange rates in the EU22 and Japan could also drive faster-than-forecast growth and inflation. On the other hand, prolonged slow inflation could interfere with growth, particularly in the EU22. Geopolitical risks continue to overshadow the outlook.

The decision by the Governing Council of the ECB to relax monetary policy through an expanded asset purchase programme will boost demand and accelerate inflation via a number of channels. Completion of the comprehensive assessment of bank balance sheets and the steps taken by the ECB will enhance monetary policy transmission via bank lending. The relaxation in corporate financing conditions and the moderate scale of debt in the euro area corporate sector create the conditions for a recovery in investment. In many euro area countries, households' high debt-servicing expenses and low net assets will maintain pressures to reduce the level of debt while also weakening household demand. Although the accommodative monetary policy stance is justified in order to ensure price stability, negative side-effects cannot be entirely ruled out. It should be possible to apply macroprudential policy to support the focusing of the relaxed monetary policy stance on fixed investment rather than on the housing market.

Falling oil prices translate into an income transfer from producers to consumers

The recent decline in oil prices has been the single most significant change in the global economy over the past six months and as such is reflected broadly in assessments of global economic developments and outlook. Most estimates see the fall in oil prices mainly as a positive supply-side shock that supports growth and curbs inflation over the short term in net oil-importing countries. At the same time, however, the situation in oil-exporting countries has weakened and uncertainty has increased on both financial and commodity markets.

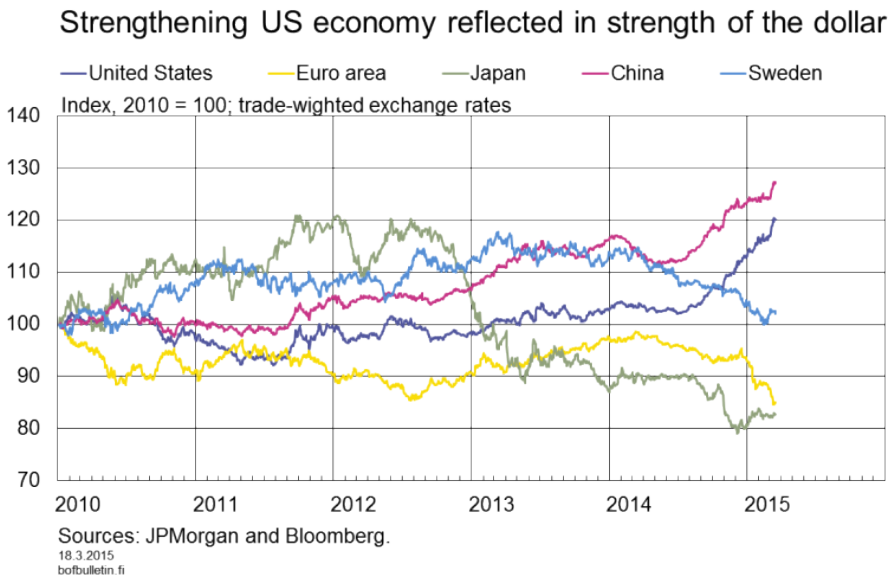
Chart 1.



For a long time, the financial crisis that escalated in 2008 manifested itself mainly as an economic and debt crisis in advanced economies with only a minor impact on emerging economies. By 2013 this situation had changed among increasing signs of economic recovery in the United States. The resulting expectations of a gradual normalisation of the Federal Reserve's monetary policy added to uncertainty on the financial markets,

causing difficulties particularly for advanced economies with weaker fundamentals. Over the past few months, the outlook for the advanced economies improved on average, whereas the outlook for most emerging economies continued to weaken. Large country differences within the groups have been reflected in exchange rate movements, with the US dollar, in particular, appreciating (Chart 2).

Chart 2.



Falling oil prices have meant weaker income prospects for oil-producing countries and non-financial corporations in the energy sector, and their borrowing costs on the financial markets have increased accordingly. At the same time, long-term government bond yields have fallen sharply in the United States, the euro area and Japan.

The market yield of long-term government bonds can be broken down into three components: expected inflation, real interest rate and liquidity premium. Long-term real interest rates can similarly be broken down into short-term interest rates and a so-called time premium. In 2014, medium and long-term inflation expectations fell considerably in the euro area and in the United States. For the most part, changes in e.g. five-year government bond yields in the euro area and the United States can be explained by the decline in inflation expectations. In the United States, real yields on five-year government bonds increased slightly in 2014, while in the euro area they fell slightly. According to a Federal Reserve estimate,[1] however, time premia on e.g. 5–10-year government bonds diminished significantly in the United States.

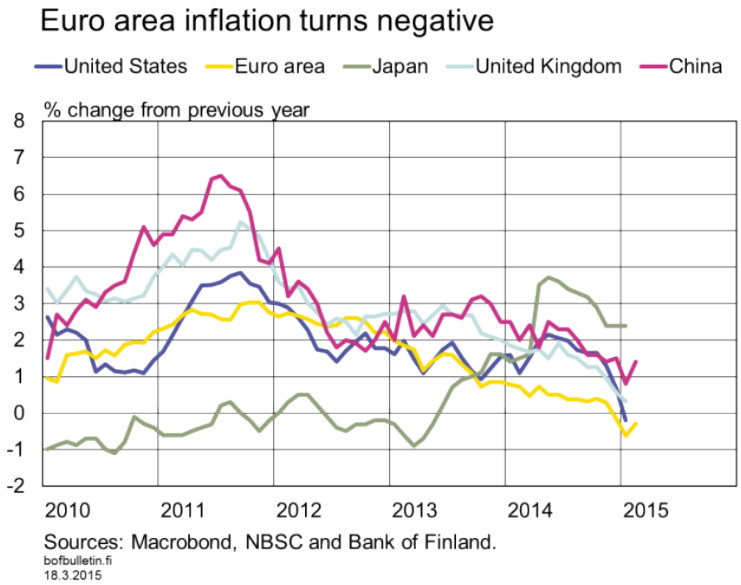
The diminishing time premia are most likely explained by growing demand for government bonds. Demand growth has been supported by central bank purchasing programmes, safe haven demand from market participants and a partially regulation-driven need for market participants to hold government bonds.

1. D´Ámico, S. – Kim, D. – Wei, M. (2010) Tips from TIPS: the information content of Treasury Inflation-Protected Security prices. FED DP 19/2010. See also FED New York Database 2015. No similar analysis was available for the euro area.

Low inflation causes concern

In most major economies, inflation has fallen considerably since end-2014. The euro area has the lowest inflation of all economic regions, with the annual rate of change in consumer prices at -0.3% in February. In the United States, too, inflation rates fell below zero in January. In Japan, inflation was still approximately 2.5%, partly on account of the rise in consumption taxes in April 2014. In China, consumer prices have been falling for a number of years now.

Chart 3.

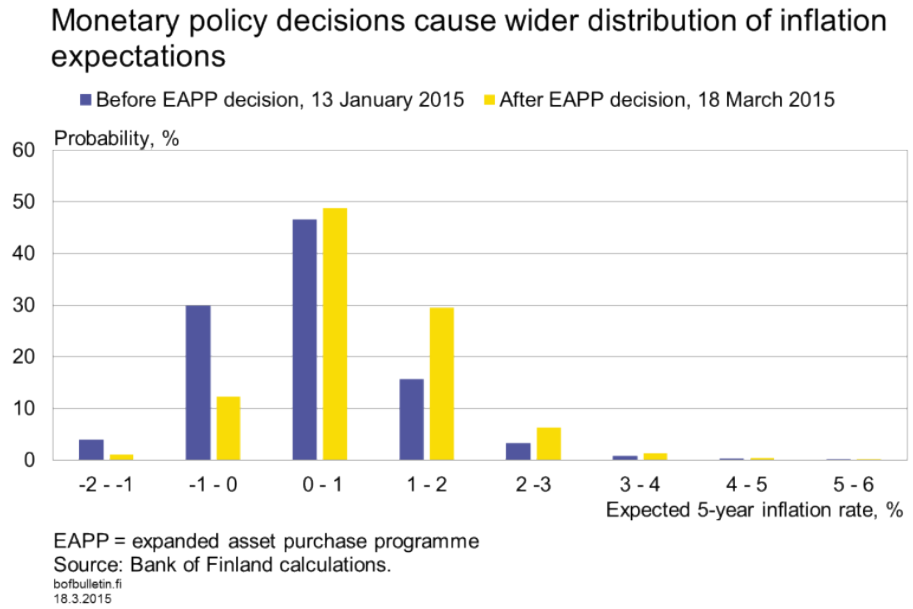


The recent decline in inflation is mainly due to the fall in world market prices of crude oil. Other commodity prices have also contributed to lower inflation. In January, world food prices were 5% lower than a year earlier and approximately 16% lower than in June 2014.

Core inflation (excluding food and energy prices) has declined less than consumer price inflation but is similarly historically low. The subdued price developments reflect supply side factors but also continued cyclical weakness. Output gap estimates and e.g. the low employment rate support the view that there is still unused capacity in the major economic regions.

Alongside actual inflation, expected inflation has also declined. The Governing Council of the ECB decided in its January monetary policy meeting on an expanded asset purchase programme (EAPP) aimed at fulfilling the ECB's price stability mandate. The purchase programme and the accompanying inflation-based forward guidance produced a marked change in inflation expectations. The pronounced fall in longer-term inflation expectations stalled and inflation expectations stabilised. Monetary policy in the euro area is covered in more detail in the section 'Euro area monetary policy'.

Chart 4.



Market expectations about future inflation can be gauged from swap rates and options which reflect, respectively, average expectations and dispersion. Inflation options can be used to estimate a (risk-neutral) probability distribution for expected inflation. Looking at average 5-year inflation probability distributions before and after the January decisions of the Governing Council, Chart 4 shows a considerable change in the distribution of expected inflation. The probability of negative inflation, in particular in the range of -1–0%, has fallen markedly and the probability of higher inflation has grown. Risk-neutral probability distributions show that the monetary policy decisions have had a larger impact on market expectations about future inflation than can be seen when looking at average expectations alone.

Global growth to pick up over forecast horizon

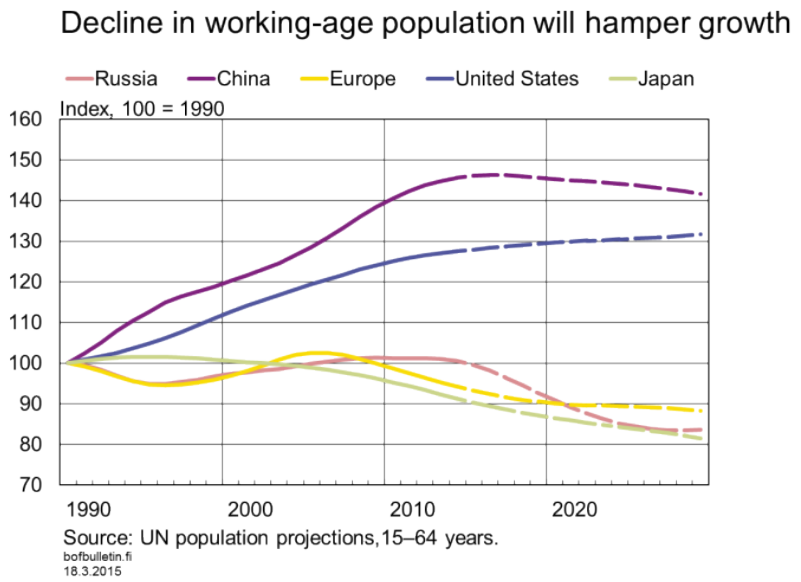
The point of departure for the Bank of Finland's March 2015 forecast for the international economy is slightly more positive than at the time of the September forecast. Net oil-importing countries are benefiting from the fall in oil prices. In e.g. the euro area and Japan, the growth and inflation outlook is supported by already occurred exchange rate developments, while the recovery in the United States is in harmony with the strong dollar.

Forecast assumptions about commodity prices, interest rates and exchange rates are based on market expectations. Fiscal policy assumptions are based on structural reform estimates by national and international institutions, EU fiscal policy rules and forecast cyclical developments. The forecast also assumes that the situation in Greece will be resolved without aggravating the crisis.

In the Bank of Finland forecast, global economic growth will increase gradually from 3.1% in 2014 to 3.7% in 2017. The global real GDP growth forecast for 2015–16 has been revised downwards. The situation in several emerging economies (excl. China) has

deteriorated and their economic outlook has moderated. Forecasts for the United States and the euro area remain broadly unchanged. Differences in economic growth across the major advanced economies reflect imbalances both from before the financial crisis and arising from the subsequent economic crisis. In addition, the dwindling working-age population and differences in fixed investment since 2008 are reflected in estimates of potential output.

Chart 5.



The weaker economic outlook in the emerging economies also has an impact on the forecast for world trade growth. Over the forecast horizon, world trade should accelerate as consumption and investment growth improves in the advanced economies. In 2017, world trade growth is forecast to reach around 5½%.

Table 1.

Growth in GDP and world trade

BKT	2014	2015f	2016f	2017f
United States	2.4	3.1	3.0	2.8
	2.1	*3.1*	*3.1*	
EU22	1.2	1.6	1.9	1.8
	1.1	*1.6*	*1.9*	
Japan	-0.1	0.6	1.4	1.0
	1.1	*1.2*	*1.2*	
China	7.4	7.0	6.0	6.0
	7.0	*7.0*	*6.0*	
Russia	0.6	-4.4	-1.8	0.5
	0.0	*0.5*	*1.5*	
World	*3.1*	*3.3*	*3.5*	*3.7*
	3.2	*3.7*	*3.7*	
Worldtrade	3.5	4.2	5.0	5.4
	3.9	*5.1*	*5.4*	

f = forecast.

EU22 = euroarea, Sweden, Denmark and United Kingdom.

% change from previous year (lower line from previous forecast).

Source: Bank of Finland.

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Growth gathers pace in Europe

The Bank of Finland March forecast for the international economy foresees accelerating economic growth in the EU22 (euro area, United Kingdom, Sweden and Denmark) in 2015. Exports, private consumption and later also investments are expected to grow slightly faster than previously forecast. Compared with the December 2014 forecast of 1.3%, GDP growth for 2015 has been revised upwards by nearly 0.3 of a percentage point. The annualised quarter-on-quarter real GDP growth rate is anticipated to reach 1.7–1.8% in the second half of 2015 and to remain at these levels also in 2016–17.

According to the forecast, GDP in the EU22 will surpass its 2008 level during 2016, although sizable country differences will remain.

As regards fiscal policy, the overall fiscal deficit in the euro area shrank to 2.6% of GDP in 2014. The deficit is still shrinking, but fiscal policy is forecast to remain broadly neutral to growth. The shrinkage of the deficit can be mainly attributed to improving cyclical conditions. The envisaged growth would reduce the overall fiscal deficit in the euro area well below 2% of GDP in 2017.

According to the Bank of Finland forecast, EU22 inflation in 2015 will be zero. This is due to the much lower price oil compared with a year ago. The dampening impact of oil prices on inflation will fade by the end of the year and inflation return to positive territory.

Table 2.

Inflation returning towards price stability objectives

% change from previous year (lower line from previous forecast).

	2014	2015	2016	2017
EU22*	0.6	0.0	1.1	1.7
	0.8	1.2	1.5	
United States	1.6	0.2	1.6	2.0
	1.8	1.9	2.1	
Japan	2.7	0.4	1.1	1.6
	2.9	2.0	1.8	

* Euroarea, Sweden, Denmark and United Kingdom

Sources: National statistical authorities and calculations by the Bank of Finland.

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Inflation is forecast to average 1.1% in 2016 and to accelerate to 1.7% in 2017. In the United Kingdom, a favourable outlook for growth should boost wage increases, thus contributing to price pressures. In the euro area, the ECB's highly accommodative monetary policy will improve economic activity and support the anchoring of inflation expectations. The recovery will also gain from stronger domestic demand, while economic growth should allow wages to start rising moderately. The depreciation of the euro will also contribute to higher inflation via import prices. According to the forecast assumptions, oil and other commodity prices will start to grow moderately over the

projection horizon. Nevertheless, inflation will rise only slowly in view of the abundant unused capacity in the economy. The unemployment rate will remain high and the output gap is not expected to close until the end of the decade.

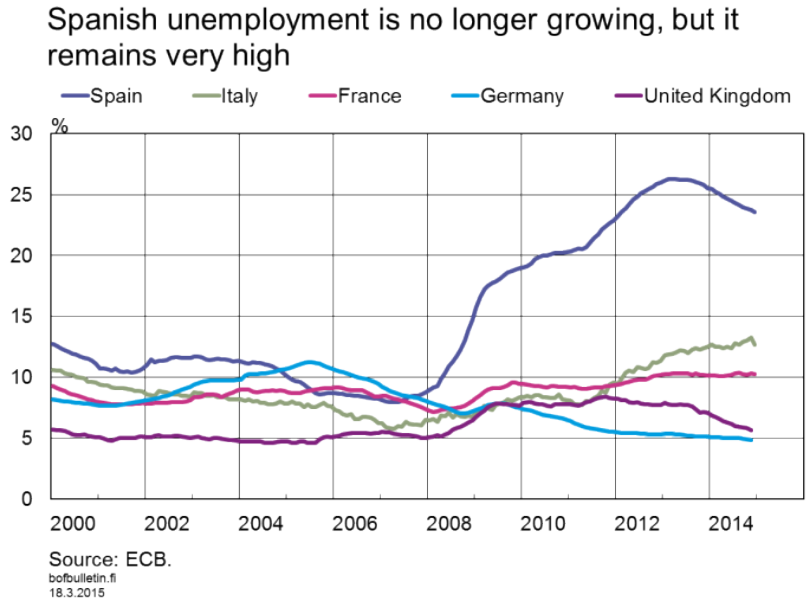
Large differences between EU countries

The economic situation in Germany shows promise for 2015. The carry-over growth effect should be in the order of around ½ a percentage point, and the economic fundamentals are sound. The German economy is competitive, household indebtedness is at a moderate level and the unemployment rate ranks among the lowest in the euro area. On the back of a balanced budget and the lowest debt ratio among the large euro area countries there is no further need for fiscal consolidation over the forecast horizon.

The French economy grew 0.4% in 2014, as in 2013. The drop in the price of oil and a more moderate pace of fiscal consolidation should support private consumption over the forecast horizon. Tax cuts, lower energy costs and the weaker euro should improve the competitiveness of French non-financial corporations, thus enhancing their investment prospects. Structural reforms pave the way for higher employment. Nevertheless, the unemployment rate is forecast to fall only gradually over the forecast horizon.

In Italy, GDP growth has been weak since the onset of the financial crisis in 2008. The Bank of Finland is forecasting sluggish growth for the coming years, too, although Italy stands to benefit from the accommodative monetary policy stance more than average on account of its high debt ratio. Italy has sought to implement reforms to its political system, labour market and banking sector in order to reduce public sector indebtedness and improve growth prospects over the long term. Implementing these and other structural reforms will be key to stabilising the Italian economy.

Chart 6.



Spanish GDP began to growth again in mid-2013 after almost five years of contraction. Growth is expected to remain brisk, and the still high unemployment rate of 23% is expected to moderate over the next few years. Growth will be bolstered by the successful consolidation of the banking sector and structural reforms that have made the labour market more flexible. Inflation fell to around zero in Spain as early as autumn 2013 and clearly entered negative territory around the turn of the year 2014–15. The public finances still substantially in deficit and public debt will slightly exceed 100% of GDP in 2015.

Economic growth in the United Kingdom remained robust in 2014 notwithstanding a slight faltering in pace in the second half of the year. Growth is strongly supported by private consumption, which in turn has been boosted by further improvements in the condition of the labour market, a reduction in household indebtedness and rebounding confidence levels. The output gap is forecast to turn positive towards the end of the forecast horizon and to gradually slow economic growth. Inflation is forecast to remain slow in 2015 but to return rather briskly to a growth path in the latter part of the year as wages growth gathers pace.

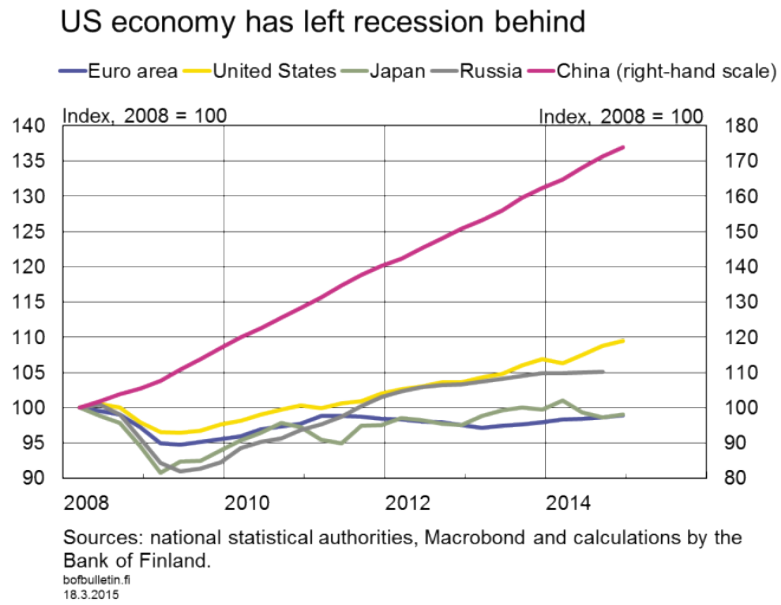
The growth prospects for the Swedish economy remain fairly good, although ongoing household debt accumulation overshadows the medium-term outlook. Despite problems with private sector indebtedness, the Swedish economy has experienced relatively strong growth. Consumer and business confidence indicators indicate solid faith in the future. Inflation has been low and declining continuously. The Riksbank accordingly decided in February to lower its key interest rate to -0.1% and to launch a SEK 10 million government bond purchase programme. In view of this decision, private sector debt accumulation is likely to continue over the forecast horizon.

Denmark is recovering from a long recession. In Denmark, the financial crisis was preceded by a housing market financing bubble that led to significant over-indebtedness among households. With the financial crisis, the Danish banking system ran into difficulties and the private sector was plunged into a balance sheet recession. The outlook for non-financial corporations has for some time been markedly better than the outlook for households. Danmarks Nationalbank has already had to lower its deposit rate to −0.75%.

Strong growth in the United States

The US economy grew by 2.4% in 2014. Of all the advanced economies, its outlook is the most solid, as the balance sheet adjustment of recent years has considerably reduced private sector indebtedness. Lower oil prices also have a positive impact on the US economy as a whole, although shale oil production is suffering. Economic growth is forecast to remain above its potential over the entire forecast horizon, supported by strong private consumption and investment, and GDP is forecast to grow at an annual rate of around 3%.

Chart 7.



Although US general government finances have undergone significant consolidation, the overall fiscal deficit was approximately 5% of GDP in 2014. According to the Congressional Budget Office (CBO), the federal deficit should diminish over the forecast horizon on the back of cyclical developments. In recent years the deficit has been reduced by significant spending cuts and tax hikes.

Inflation has been on a declining path since May 2014, and in January 2015 it became negative. The main factors behind the recent fall in the inflation rate are the lower price of oil and the appreciation of the dollar since summer 2014. In addition, price pressures have been dampened by still modest wage developments. Over the forecast horizon, inflation will pick up as the dampening effect of the oil price fades and the improved economic growth narrows the output gap and tightens the labour market.

Japanese structural reforms progressing slowly

In Japan, the economy reacted strongly to the raising of consumption taxes in 2014. In the final quarter of the year, however, the economy rebounded, and the outlook for economic growth in Japan over the next few years is moderately positive. In the Bank of Finland forecast, GDP growth in Japan averages approximately 1% in the coming years.

In recent years, Japan has sought to boost economic growth through monetary and fiscal policy. However, the structural reforms that constitute the third pillar of the government's growth strategy have made only slow progress. Successful structural reforms are essential to the success of Japan's long-term growth strategy and consolidation of the public finances.

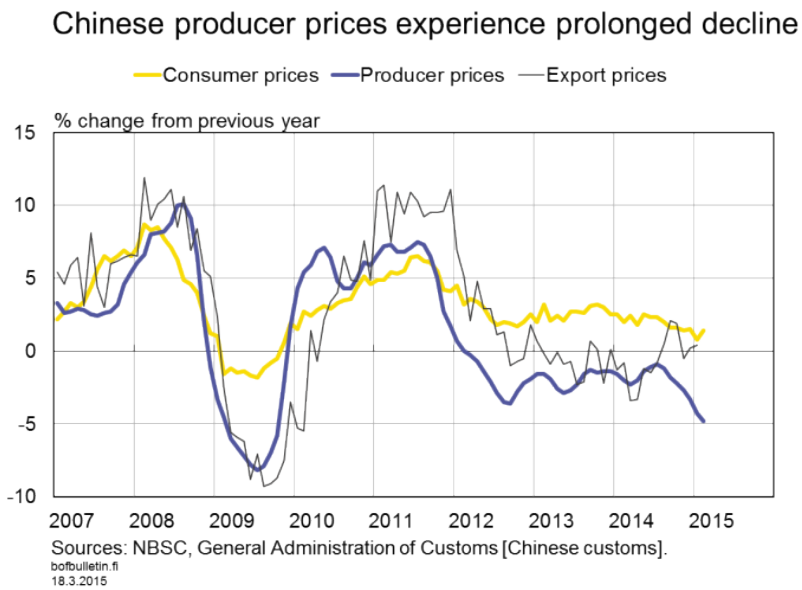
Inflation increased in Japan in 2014 with the raising of consumption taxes and depreciation of the yen. The inflation rate will slow with lower oil prices and the fading of

the impact of the consumption tax hike. In the Bank of Finland forecast, Japan's inflation rate for 2015 is 0.4%, rising to 1.6% by 2017.

Controlled slowdown in growth cannot be guaranteed in China

Economic growth in China slowed in 2014 as expected, with GDP growing 7.4%. In 2015, growth is still expected to reach 7%, but to decline thereafter to 6% in 2016–17. This decline is expected and largely positive. Over the forecast horizon, however, determined implementation of structural reforms will gain in importance. The financial markets expect a deposit protection scheme to be launched in 2015, which would enable the country to remove interest rate restrictions. China also intends to expand the floating range of the renminbi by the end of 2015. Capital markets have gradually opened, but trading is still restricted through various programmes and quotas. A true opening of the capital markets could have a positive impact on economic growth over the forecast horizon.

Chart 8.



In 2014, the GDP share of private and public consumption for the first time surpassed the share of investments. Over the forecast horizon, imports are expected to grow slightly faster than exports and the current account deficit is expected to stay at just below 2% of GDP. These dynamics are driven, on one hand, by higher growth in China than in the rest of the world and by growing consumption and, on the other hand, by the appreciation of the Chinese currency and by low-value-added production moving out of China as labour costs increase.

In 2015, consumer price inflation fell to 0.8%, mainly on account of food and energy prices. Inflation excluding food and energy prices was 1.2%. The protracted fall in producer prices is due particularly to unused capacity in several industries as a result of mainly investment-based stimuli in earlier years.

Russian economy to contract markedly in 2015

Economic growth in Russia has now contracted significantly for three consecutive years. In 2014, GDP grew by just 0.6%, stagnating for part of the year. With the drop in oil prices, the economy is contracting and there are plans to cut public expenditure. GDP is forecast to contract by over 4% in the current year. Once oil prices start to rise at a moderate pace, GDP should stabilise. With the ongoing tensions in eastern Ukraine and a lack of clarity about sanctions and Russian counter-measures, however, exceptional uncertainty prevails in non-financial corporations as regards investment. Hence, recovery will be slow and the economy will continue to contract in 2016.

Russian imports have dwindled in the past 18 months, and in 2015 the economic contraction will further reduce imports. The real exchange rate of the rouble is 25% below its central rate of 2014, which indicates a considerable drop in imports. Russia's fiscal deficit could nevertheless reach 3–4% of GDP in 2015. With impaired access to market sources, this deficit is already being financed – through the banks – by the central bank. The government also has a Reserve Fund it intends to draw on. The size of the Reserve Fund corresponds to approximately 7.5% of Russian GDP. The central bank has also been used – again through the banks – to finance the external debt servicing of the state oil corporation.

Tags

- forecast
- inflation
- economic situation

Russian economy and imports to contract substantially in 2015

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The Russian economy has begun to contract due to the fall in the price of oil. GDP will contract by over 4% in 2015. The uncertainty will cause a decline in investment, and consumption will be cut particularly by rapid inflation. Imports will be reduced by the contracting economy, a weak rouble and declining export income. In 2016–2017, the price of oil will rise and the contraction in the economy and imports will flatten out. Forecast risks relating to investment and imports, in particular, are high.

Economy has begun to contract due to lower oil price – imports down substantially

Russian economic growth has slowed for three years in a row, due to e.g. waning growth in the available labour force, capital and productivity. In addition, a slight decline in export prices, the Ukraine crisis, sanctions, Russia's counter-sanctions and other negative measures, with the accompanying increase in uncertainty, slowed Russian GDP growth to just over ½% in 2014. Growth was at a standstill for a part of the year. The decline in export prices steepened towards the end of the year on the back of the slide in the oil price. The impact began to show in the early months of 2015, with a slight contraction in GDP. Without transient factors, the economy would already have contracted in 2014.

As in 2013, industrial production was partly supported by strong growth in defence spending. The depreciation in the real exchange rate of the rouble since the early months of 2013 has underpinned the position of certain industrial branches relative to imports, and may also have slightly boosted exports of certain non-energy basic commodities.

The rouble's strong depreciation led to consumer spending rushes, which kept private consumption growth at some 2%. However, wage growth slowed, as did pension growth. Inflation rocketed (to almost 17% in February) on the back of rouble depreciation and Russia's counter-sanctions in the form of restrictions on food imports. Consequently, real household incomes contracted in annual terms for the first time since 1999. Aggregate income was underpinned by employment, which remained buoyant for the time being. Household borrowing decreased further.

Steered by the government, investment by most large state enterprises was relatively high. This was, however, insufficient to prevent total investment from falling by some 2%. The net capital outflows of the corporate sector increased, due partly to repayment of foreign debt and considerable constraints in access to foreign funding as a result of domestic uncertainties and external financial sanctions.

Export volumes declined by 2%. Exports of crude oil and gas dwindled markedly, while exports of petroleum products continued to grow at a robust pace. As the fall in export prices steepened, export income in the last months of 2014 was already well over 10%

lower (in euro terms) than a year earlier. Import volumes declined by 7% in 2014 and have now been in decline for 1½ years. The decline steepened considerably towards the end of the year.

Economy contracts substantially and imports decline further, while recovery is slow

The price of oil has now dropped by about a half from the average price in 2014, and this forecast assumes an oil price in 2015 of over USD 55 a barrel, i.e. about USD 40 lower than a year earlier. The impact of this change will be profound, since energy exports account for almost a fifth of Russia's GDP. In addition, the situation in Ukraine, sanctions, restrictive measures imposed by Russia on the economy and trade as well as the slide in the oil price have increased the uncertainties surrounding the Russian economy. The sanctions are assumed to remain unchanged for a relatively long period. Due to the sanctions and instability in Russia, access to foreign funding is expected to remain constrained. Government expenditure is forecast to decline in real terms.

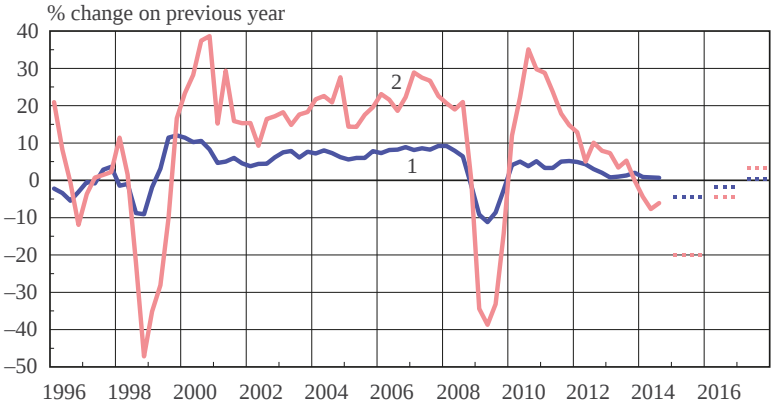
According to the Bank of Finland forecast, Russian GDP will contract by over 4% in 2015 (Chart 1). The high degree of uncertainty will cause a shrinkage in private investment, while private consumption will be cut particularly by rapid inflation. Even though Russian imports have already edged down, they are estimated to fall further, by one fifth, in response to the sharp depreciation of the rouble during the last months of 2014.

In 2016–2017, global economic growth and world trade will pick up, and it is assumed the oil price will rise to around USD 65 a barrel. The Russian economy is expected to continue slightly downward, before a slow recovery in 2017. The drop in investment is expected to flatten out towards the end of the forecast period. With real household income remaining low, it will also take time for private consumption to recover. Export volumes will grow at a very subdued pace. Imports will recover after 2016.

Chart 1.

Russian GDP and imports contract further

1. GDP
2. Imports



Sources: Rosstat and Bank of Finland (BOFIT).

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Consumption and investment both down

Private consumption will decrease substantially in 2015, and slightly further in 2016. Inflation, which will ease only gradually, will erode purchasing power so that real household incomes will fall substantially. The growth prospects for private sector wages are slim in a context of weak corporate profitability and downsizing pressures. Public sector wages are expected to rise only slightly, at the most, and below the inflation rate. The government is also seeking to cut the number of public sector employees. Pensions will barely keep pace with inflation, at best. Household borrowing will remain subdued, even though the debt-servicing burdens stemming from payback of short-term loans will ease gradually. As during the crisis of 2009, savings may be rather substantial. Public consumption will decline amid pressures on the central government finances.

Russian exports should benefit from a recovery in world trade but will increase only very slowly. Energy exports, in particular, which constitute over 60% of total export income, will remain relatively unchanged according to e.g. the most recent estimates by the Russian authorities. The weakness of the rouble may bolster exports of some basic goods as long as there is capacity, but companies' willingness to make new investments is questionable considering Russia's uncertain business environment and the possibility of new trade sanctions.

Investment will dwindle substantially this year and next. Private investment, in particular, will be depressed by a number of uncertainties relating to the ongoing tensions in East Ukraine, uncertain prospects for sanctions and the unpredictability of Russian economic and trade-related measures stemming from possible additional sanctions and recession countermeasures. Investment by state enterprises (efforts to boost them having waned among government leaders) and large projects financed by the state and state-owned banks will remain relatively small in terms of their impact.

Domestic funding is already being constricted by e.g. the need to support non-financial corporations and banks in repayment of foreign debt. As the recession hits, companies will also further cut their inventories.

Imports depressed by economic contraction, the weak rouble and lower export incomes

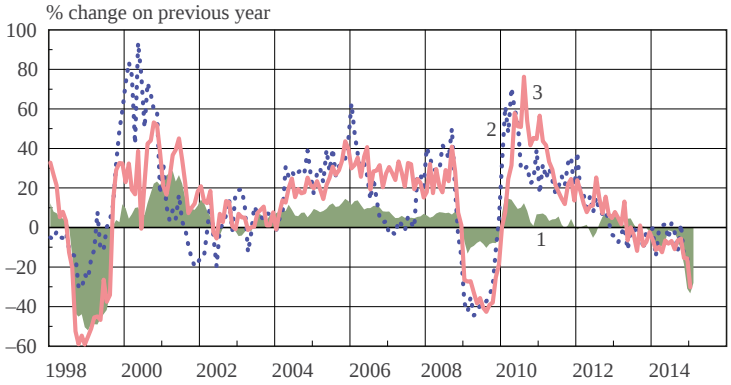
Russian imports will react strongly in 2015, partly dragged down by the economic contraction. As a comparison, import volumes declined by 30% when GDP fell by 8% during the recession of 2009. The real exchange rate of the rouble has now depreciated much more than in 2009: it is a quarter weaker than the average rate for 2014 (Chart 2). Russia's income on exports, which dropped by a third in 2009, will deteriorate under the forecast oil price assumption, by almost a quarter in 2015. Imports will have to adjust to the smaller export income even more than usual, since it would be difficult to fund a current account deficit in the present situation. The current account last posted a deficit for a short period only, during the crisis of 1998. Against this background, import volumes are estimated to fall by a fifth in 2015.

The decline in imports will level off after 2015 as the economic contraction eases. In addition, the rouble's real exchange rate will strengthen, since inflation is considerably faster in Russia than in its trading partners (the difference has grown to over 10%). In the absence of shocks which would lead to capital outflows, the rouble's nominal exchange rate is expected to remain fairly stable, because net capital outflows stemming from e.g. repayment of foreign debt by non-financial corporations and banks will not necessarily exceed the surplus on the current account. The current account will be bolstered by diminishing imports and a recovery in Russia's export income resulting from rising oil prices. The recovery in export income will, in turn, create room for an increase in imports.

Chart 2.

Russian imports depressed by decline in export income and the real exchange rate of the rouble

1. Trade-weighted real exchange rate of the rouble
2. Euro value of Russian goods exports
3. Euro value of Russian goods imports



Sources: Bank of Russia and Bank for International Settlements.

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Monetary policy tightened at same time as government seeks to cut expenditure

It has been difficult to boost economic growth through monetary policy, as corporate willingness to invest has suffered from the prevailing uncertainties. In winter 2014–2015, the monetary policy focus shifted to prevention of instability. The Bank of Russia substantially raised its key policy rate – which is, however, not quite at the level of inflation – to ease inflation and rein in capital outflows. This has driven up bank deposit and lending rates substantially, putting further strain on investment prospects.

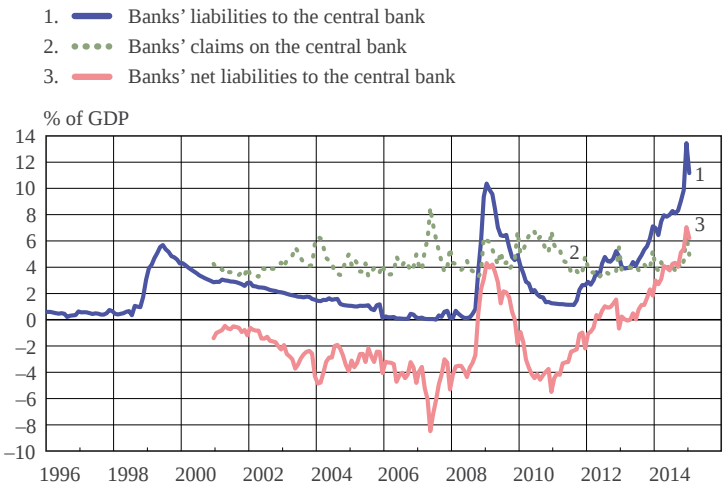
State funding has been used for new business support measures, import substitution and to sustain economic growth. Banks have enjoyed financial support. However, falling oil prices and the looming recession have depressed the outlook for government revenues, even though the rouble weakness compensates for the loss in nominal budget revenue thanks to dollar-denominated oil taxes. In the winter, President Putin called for a reduction in federal budget expenditure in real terms in 2015-2017 (excluding expenditure on defence and internal security). The resulting government policy targets fairly substantial cuts in real expenditure in the years ahead (also excluding pensions). Credit to projects as well as other support to be granted from the National Welfare Fund will compensate to only a relatively limited degree.

If the oil price remains, as assumed, at around USD 55 a barrel, and despite savings decisions, the federal budget deficit is set to grow so large in 2015 (to about 3.5% of GDP) that the government Reserve Fund may be eroded by as much as a half. It is possible that support measures will be implemented using government bonds (as in the bank support operations in December 2014, which amounted to 1.4% of GDP). The support operations can also draw on debtors' bonds (as in the funding of the state-owned oil giant Rosneft,

which was just under 1% of GDP). Where necessary, banks can use both instruments as collateral against even relatively long-term central bank funding. Recourse to the central bank has already become more substantial than ever before (Chart 3).

Chart 3.

Unprecedented recourse to the central bank



Source: Bank of Russia.

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In addition to state financing, the Russian Government has increased reactive manual steering in several areas ahead of the recession. Import controls have been intensified, e.g. by raising certain import duties and favouring domestic products in public procurement and also projects of state-owned enterprises. Capital outflows have been restricted by e.g. strengthening banking controls and issuing instructions to state-owned enterprises. Companies have been encouraged to apply targeted price controls, although this has not been widely used, as yet.

The longer-term outlook is deteriorating. The foundations of growth are being eroded by the contraction in private investment. Government spending is focused increasingly on defence and pensions, while public investment is subject to the largest cuts. Efforts to counter recession via support and protective measures are serving to dampen even minimal reform efforts and undermine competition.

No shortage of forecast risks

The risks to the forecast are substantial and relate particularly to uncertainties in the Russian economy, investment and imports. Renewed fighting in East Ukraine and additional sanctions as well as Russian restrictions on the economy and trade resulting from the additional sanctions or recession countermeasures could further weaken private sector incentives to invest in the real economy. The outflow of private capital could increase despite government efforts to restrict the flows. This would lead to rouble depreciation, faster inflation and lower consumption, which would further depress imports.

The price of oil could turn out to be lower or higher than assumed. The price change would have a rapid impact on the rouble, Russian export income, imports and state revenues. The contraction we predict in private investment could, in turn, further restrict the productive capital of the economy, in which case the economy's ability to respond to the recovery in demand could turn out to be very weak.

Bank panic situations where households and enterprises withdraw their funds from banks are possible, even though the authorities have intensified banking supervision. On the other hand, the Bank of Russia is ready to take immediate support measures.

Turning to the public finances, regional budgets, which are difficult to finance via debt, may end up on a surprisingly weak footing if receipt of key revenue items (profit tax, labour income tax and transfers from the federal budget) should fail. Economic growth in the immediate years ahead may be supported by government finances more than expected, if Russia's leadership cannot cut federal expenditure as targeted. It is also possible they will considerably step up funding via state banks and the central bank. In the longer term, however, this would aggravate the emerging funding gridlock.

Tags

- Russia
- economic situation

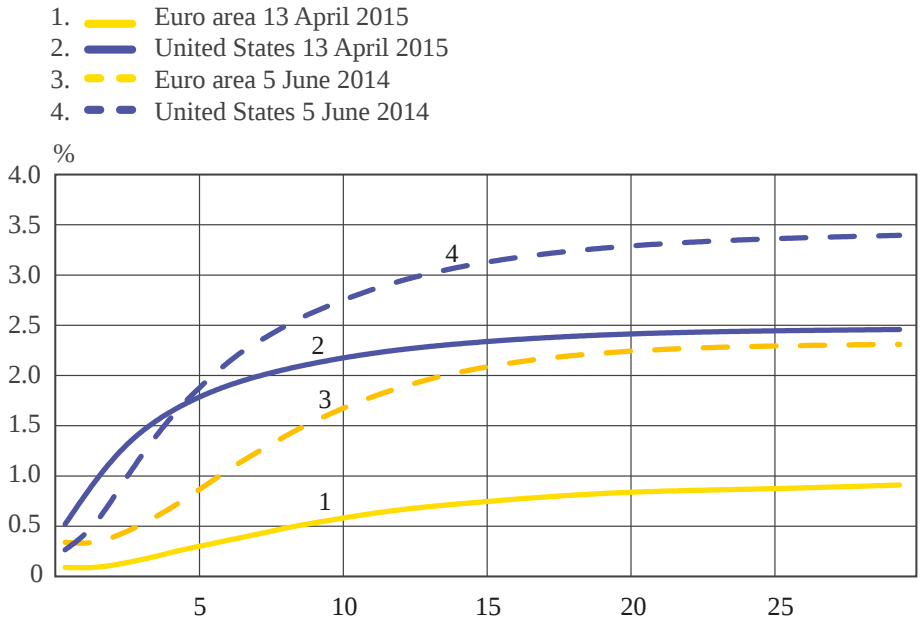
Forecast risks

There is increased uncertainty surrounding the growth and inflation forecasts, yet this time upside risks are also present. On one hand, low oil prices and long-term interest rates could boost global economic growth more than estimated. In addition, currency depreciation in the EU22 and Japan could result in higher-than-forecast growth and inflation. On the other hand, protracted low inflation together with downward wage and price rigidities could be a drag on growth, especially in the EU22. Geopolitical risks continue to weigh on the outlook.

In the Bank of Finland's March forecast for the international economy, assumptions about commodity prices, interest rates and exchange rates are based on market expectations. Risks relate to both the assumptions used and their estimated impact. In particular oil prices could deviate significantly from their current futures prices. Even with stable demand, unforeseeable supply side fluctuations could have an impact on oil prices. Expected long-term interest rates are also exceptionally low. The United States 30-year swap rate has declined approximately 0.9 of a percentage point since June 2014. In the euro area, the corresponding decline has been even greater, at 1.4 percentage points. In mid-March, the euro area 30-year swap rate was just 0.9%.

Chart.

Substantial decline in long-term interest rates



Swap rates.
Sources: Macrobond and Bank of Finland.

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The risks related to growth and inflation have grown more varied. This time, they include upside risks to the growth forecast. On one hand, low oil prices and long-term interest rates could boost economic growth in the advanced economies more than estimated. Low long-term interest rates could also have a greater positive impact on credit growth than incorporated in the current forecast, and the resulting growth in investment and consumption would also likely produce higher inflation rates. On the other hand, geopolitical risks continue to weigh on the outlook.

In the EU22 and Japan, the upside risks to the growth and inflation forecasts are amplified by the possible stronger-than-estimated impacts of the depreciation of the yen and the euro. A stronger-than-forecast pick-up in exports would boost both investment and growth, while higher-than-estimated import price inflation could lead to higher-than-forecast inflation.

Protracted low inflation together with downward wage and price rigidities could, however, drag on growth, especially in the EU22. When inflation is low, elasticity in relative prices sometimes gives way to real elasticities. Any delay in structural reforms to enhance the elasticity of relative prices could therefore result in even greater real adjustment needs for the EU22 in a low-inflation environment.

It is assumed that the situation in Greece will be resolved in a positive manner and that there will be no contagion like in 2010 or 2011–12. Euro area economies are stronger than in the earlier phase of the crisis, and the European Stability Mechanism and the ECB's Outright Monetary Transactions have contributed to a more robust firewall to keep the crisis from spreading. It is, however, difficult to assess the impacts of a possible renewed crisis situation.

Overall, the risks to the forecasts for growth and inflation are broadly balanced for the global economy, while for the EU22 upside risks prevail. The positive impact on growth and inflation in the EU22 from low oil prices and long-term interest rates and from the depreciation of the euro could potentially outweigh the downside risks from low inflation, wage and price rigidities and the geopolitical situation.

Tags

- forecast
- inflation
- risks

Monetary policy supports euro area recovery from the crisis

18 MAY 2015 1:00 PM • BANK OF FINLAND BULLETIN 1/2015 • MONETARY POLICY

The decision by the ECB Governing Council to ease monetary policy through an expanded asset purchase programme will boost demand and accelerate inflation via a number of different channels. Completion of the comprehensive assessment of banks allied to the steps taken by the ECB will improve monetary policy transmission to the real economy via bank lending. More relaxed financing conditions for non-financial corporations and the reasonable level of indebtedness in the euro area's corporate sector provide fertile ground for recovery in investment. Households' large debt-servicing costs and low net assets will sustain the pressures in many euro area countries for a reduction in debt levels and weaken household demand. Although the exceptionally accommodative monetary policy is justified in order to safeguard price stability, negative side-effects cannot be entirely ruled out. The channelling of the accommodative monetary policy into fixed investment rather than the housing market can be supported through macroprudential policy.

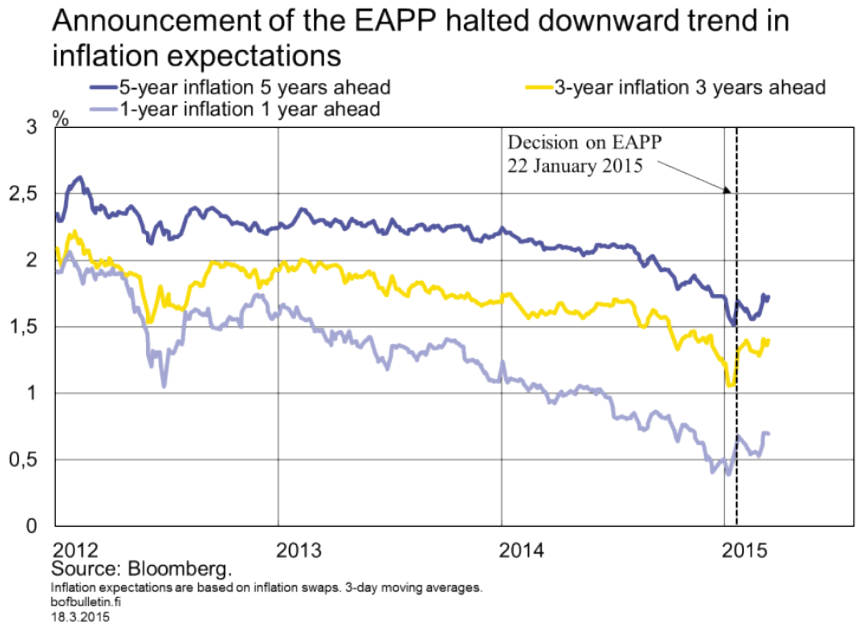
The new purchases will be continued until the price stability objective has been achieved

In January, the Governing Council of the ECB decided on an expanded asset purchase programme (EAPP). Purchases will be continued until inflation is sustainably on a path leading to a level close to 2%. Through the EAPP, the Eurosystem will extend its purchases to also cover bonds issued by euro area governments, government agencies and European institutions. The purchases of private securities (banks' covered bonds and asset-backed securities) that commenced in October/November are still ongoing. Securities will be purchased to a total value of EUR 60 billion per month as from March 2015 until at least September 2016. Thus, the total value of purchases will be a minimum of EUR 1,140 billion, with the majority being euro area government bonds.

Forward guidance indicating the Governing Council's commitment to securities purchases in order to drive inflation into alignment with the price stability objective is a

key component of January's monetary policy decisions. During the current phase of slow inflation there is a danger that inflation expectations will begin to diverge from their medium-term anchor. With monetary policy interest rates already at the zero lower bound, fading inflation expectations would push up real interest rates, effectively tightening monetary policy. In January 2015, the Governing Council judged that there was a need for an additional easing of the monetary policy stance, as the inflation outlook had weakened further. Extensive securities purchases allow a substantial relaxation of monetary policy in a situation where there is no longer any room for standard reductions in interest rates.

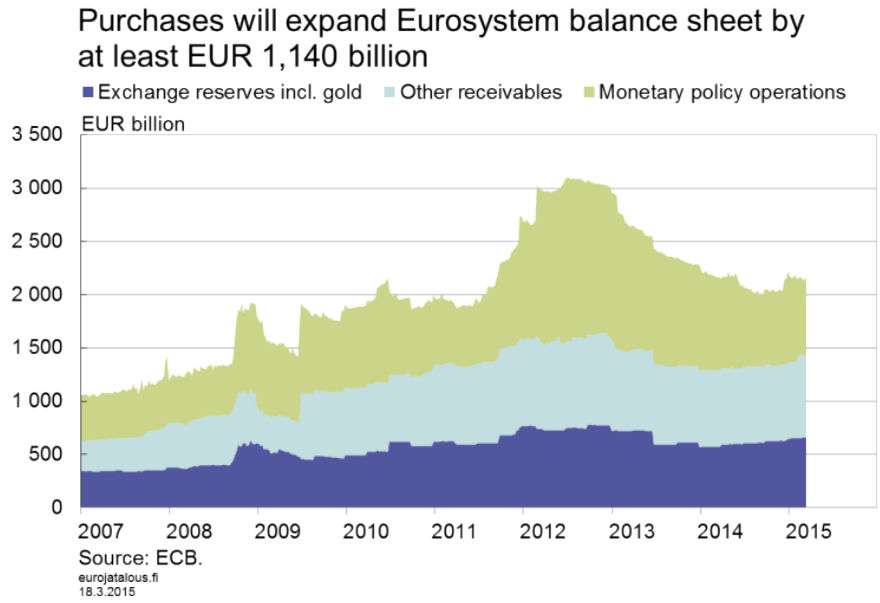
Chart 1.



The additional easing of euro area monetary policy through the purchase of government bonds differs from the actions taken by other major central banks in that, in the euro area, the bonds to be purchased are from more than one country. Euro area government bonds are to be purchased on the secondary market in amounts relative to the size of the country (the capital key). Purchases will focus on euro-denominated investment-grade government bonds with a maturity of 2–30 years. Bonds of governments implementing EU/IMF debt adjustment programmes that are not investment grade are subject to slightly tighter eligibility criteria, and purchases will be suspended while the programme is assessed. Moreover, purchases will be limited so that the Eurosystem will have in its possession at most 33% of each issuer's bonds and at most 25% of each issue.

The Governing Council also decided that any possible credit losses from purchases of the bonds of international and supranational institutions (with their 12% share of all new-type purchases) will be shared. Moreover, the ECB's share of purchases is 8%, whereby 20% new-type purchases will involve risk-sharing arrangements.

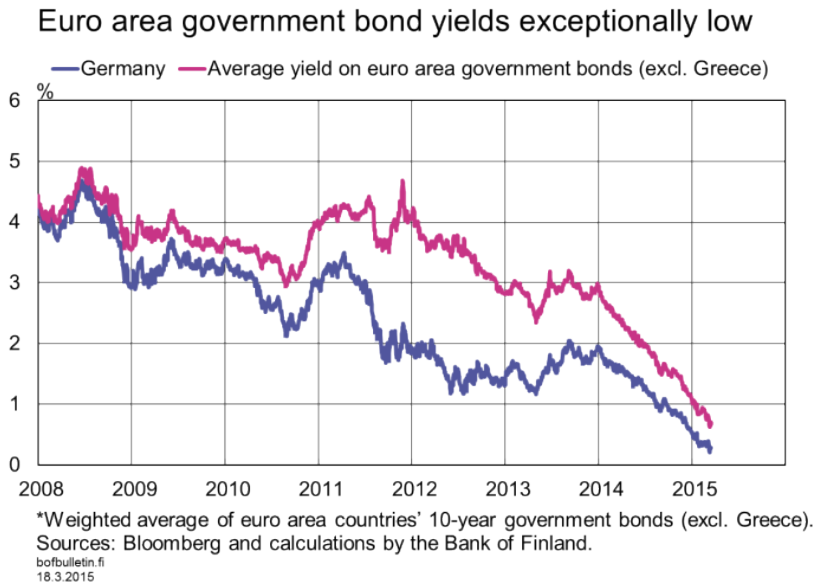
Chart 2.



Expanded purchase programme will stimulate both demand and inflation via a number of channels

The EAPP will lead to lower interest rates, more relaxed financial conditions for non-financial corporations and households (lower interest on loans and improved access to finance) and higher securities prices. Monetary policy easing with the help of a purchase programme linked to the inflation outlook will raise inflation expectations, thereby lowering the real interest rate. The drop in the real interest rate and general relaxation in financial conditions will impact the economy in such a way as to boost demand and drive faster inflation. The overall effects of quantitative easing on the economy will operate largely via the same channels as a normal cut in interest rates.

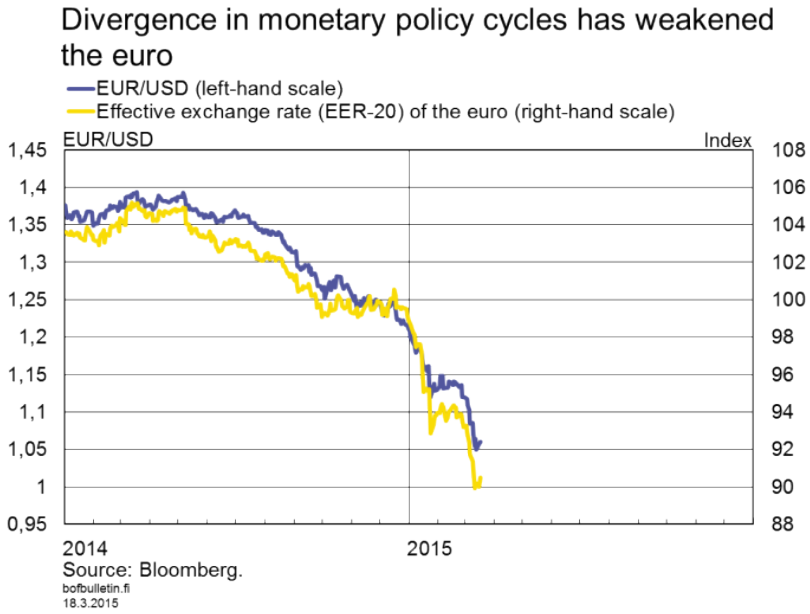
Chart 3.



The central banks of the United States, United Kingdom and Japan have experience of extensive programmes of securities purchases, and we already have information available on the effects of the programmes in these countries. Research estimates vary regarding the scale of impact these programmes have had, but it is clear that monetary policy forward guidance relating to the purchase programme will play a considerable role in the overall impact. The inflation impact of the monetary policy measures will, however, be apparent only later, and the drop in the price of oil that has already occurred could keep euro area inflation negative for several months ahead.

In the United States, the impacts of the first two purchase programmes (in 2008 and 2010) were possibly amplified by the fact that government bond yields at the outset were higher than they are in the euro area at the present moment. In the euro area, government bond yields declined substantially in 2014 as confidence in the management of public finances in the area remained strong and expectations over ECB purchases of government bonds strengthened towards the end of the year. In early 2015, 10-year government bond yields have stabilised at a very low level, and in many countries yields on the shortest government bonds have even entered negative territory.

Chart 4.



In the United States and the United Kingdom, the economic situation and the outlook have both improved, and the markets expect the US Federal Reserve, in particular, to begin raising interest rates already during the course of 2015. In such a situation, the Eurosystem decision for additional easing of monetary policy will weaken the external value of the euro.

The Eurosystem decision to expand its securities purchases has been reflected in the euro area's near neighbours. A few days before the Governing Council decision, the Swiss National Bank had already decided to suspend the lower threshold it had set for the value of the Swiss franc relative to the euro. It has also lowered the interest on its deposit facility to -0.75%. Meanwhile, in order to dampen pressures for a revaluation of the krone, the Danish central bank has also been forced to lower the interest on its deposit facility to -0.75%. The Swedish Riksbank has in two steps lowered its key policy rate into negative territory, at -0.25%, while also indicating its intention to purchase Swedish government bonds to a total value of SEK 30 billion.

Macroprudential tools can be deployed to counteract negative side-effects of monetary policy measures

Although an exceptionally accommodative monetary policy is justified in the current economic situation in the euro area, it could also have unwelcome side-effects. These could include increased risks to financial stability or effects on income distribution.

Prolonged low policy interest rates and the additional relaxation from the securities purchases could in some euro area countries or in some sectors of the economy accelerate the pace of debt accumulation and also increase other risks to financial stability.

The Eurosystem's primary objective is to maintain price stability, and monetary policy decisions are based on assessments of the risks to price stability in the euro area. Higher risks to financial stability should be met primarily through macroprudential policy in order to prevent significant growth in risk.

From the perspective of macroprudential policy, the euro area is now in a substantially better position than a few years ago. With the launch of single banking supervision in November 2014, the European Central Bank received new macroprudential powers, and the requirement for a counter-cyclical capital buffer will have to be introduced in all euro area countries by the beginning of 2016 at the latest. The ECB has the right to tighten the counter-cyclical capital buffers of individual countries and other macroprudential tools provided in the Capital Requirements Directive and Regulation in excess of the levels set by national authorities.[1]

A significant part of the euro area's macroprudential policy is, however, still the responsibility of national authorities. In the operating environment of the single monetary policy, euro area countries can use a robust national macroprudential policy to underpin the stability of both their own economy and the entire euro area economy, and to enhance the capacity of the financial system to withstand a crisis. It is important that member countries make comprehensive use of macroprudential tools in accordance with their own national interests to target macroprudential measures optimally. There is a need for both effective tools to moderate lending growth and an understanding of the risks involved in excessive lending growth, if macroprudential policy is not to be overly passive.

The prolonged period of low interest rates combined with non-standard monetary policy measures has raised the question of the possible effects of the extremely accommodative monetary policy on the distribution of income and wealth. Monetary policy can affect the distribution of income and wealth in several ways, of which some can increase and some reduce the differences. Research outcomes suggest that extensive securities purchases may increase income and wealth differences. As high-income households typically own more securities and a greater proportion of their income is capital income, a rise in securities prices benefits them more than low-income households. On the other hand, low-income and indebted households benefit from low interest rates. Moreover, the demand-stimulating effect of accommodative monetary policy can boost employment more in low-pay than in high-pay sectors of the economy.

Monetary policy transmission via bank lending is improving

In 2014, the ECB conducted a comprehensive assessment of the balance sheets of banks in the euro area. Immediately prior to this assessment, and particularly at the end of 2013, euro area banks reduced the level of risk on their balance sheets both by reducing their size and by improving their capital adequacy. According to the comprehensive

1. Other macroprudential tools that can be imposed by the ECB include the setting of additional capital requirements on MFIs that are systemically important to a national financial system (O-SII requirements) and minimum risk weightings for housing and real estate-mortgaged credits in banks' capital adequacy calculations.

assessment, which was completed in October 2014, most of the significant banks in the euro area are strong enough to withstand serious shocks from the international financial markets or the real economy.

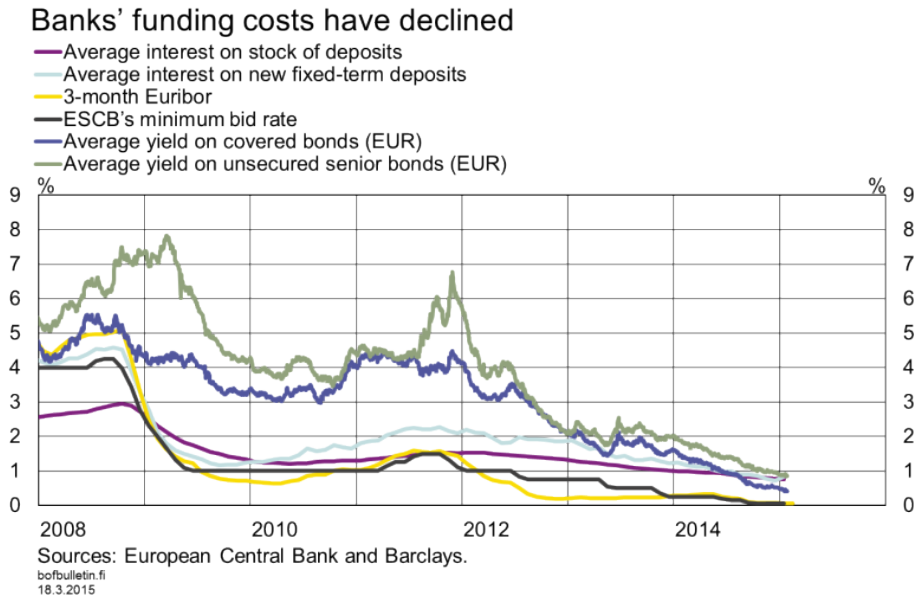
It is of key importance to the stability of the financial system that banks be adequately equipped to deal with risks. However, monetary policy transmission via the banks additionally requires that banks have sufficient capital to increase their lending, and hence risk-taking. Statistics for 2014 would seem to indicate that balance sheet consolidation at aggregate level has come to an end. The aggregate risk-weighted assets of euro area banks has begun to rise, which is positive from the angle of monetary policy transmission. This has not, however, weakened banks' capital adequacy, which has remained more or less unchanged.

Although the condition of the banks has improved, their operating environment remains challenging. The biggest problem for the euro area banking sector remains weak profitability. Profitability is undermined by the weak performance of the economy as a whole and the consequent large amount of impairment losses, the poor quality and development of credit and a flat interest curve, which is a problem for the pricing of credit.[2] Moreover, the profitability of individual large banks is burdened by an increase in legal costs and sanctions imposed by the authorities.

The weakness of the economy means banks are also suffering large credit risks, particularly in the countries of southern Europe. Growing geopolitical risks and their negative effects on the real economy have also increased the vulnerability of those banks with significant operations in many countries of eastern and central Europe and other emerging economies, such as those in Latin America. In addition, the rapid appreciation of the Swiss franc in January 2015, when the Swiss National Bank unpegged the franc from the euro, could increase loan losses in countries where loans are to a significant degree tied to the Swiss franc.

2. A bank's net interest income consists of the difference between the interest it receives from (long-term) loans and the interest it pays on (short-term) deposits.

Chart 5.



Banks could still avoid increasing high-risk corporate lending

The ECB's monetary policy measures will enhance financial intermediation in a number of ways. The targeted longer-term refinancing operations (TLTROs) and the purchase programmes for banks' covered bonds will lower funding costs for banks and hence the costs of lending, while boosting the volume of lending. Moreover, the EAPP, which was launched in March 2015 and involves the purchase of public sector bonds, is aimed at channelling the additional liquidity provided through ECB bond purchases from the banks into the real economy via a growth in lending.

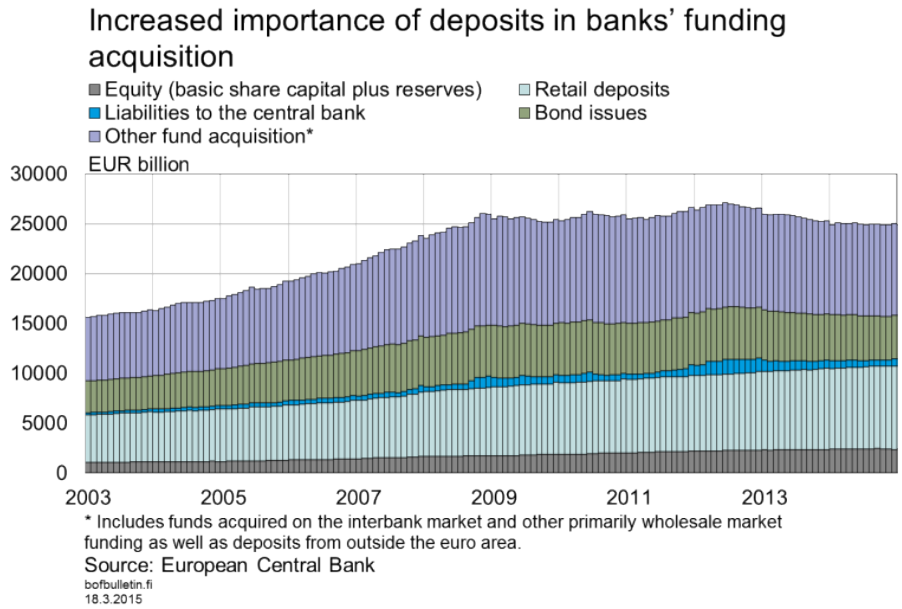
Monetary policy transmission via the banks is, however, still beset with challenges. Although the need to reduce the risks on bank balance sheets has for the most part been met, it is by no means clear that the banks are significantly more ready to take on more risk in the near future. As well as monetary policy measures, banks' ability and readiness to take on risk are also influenced by regulatory reforms and the prevailing situation in the economy.

Banks require low-risk bonds as collateral in central bank operations and other activities. Regulatory reforms will compel banks in future to also maintain larger liquidity buffers. Increased higher-risk lending will similarly require additional capital, the acquisition of which in a time of weak profitability could prove problematical. Moreover, the direct effects on the banking sector of the Eurosystem's government bond purchases will differ between countries, as the amount of government bonds on banks' balance sheets varies.

The impact of lower funding costs as a channel for monetary policy transmission could be limited. It will be eroded by factors such as a general reduction in the need for funds due to shrinking balance sheets and the pressure from regulatory reforms to increase the share of deposits in funding acquisition. Increased investor responsibility will also serve

to increase banks' funding costs. On the other hand, although the average funding costs of euro area banks have already fallen to a low level, in some countries there is still room for a further reduction.

Chart 6.



Banks will also benefit from the ECB's measures indirectly, via the positive impacts on the real economy. An improving real economy will be reflected in the banks in expanding balance sheets and improved profitability, as, for example, the share of non-performing loans in the loan stock declines. At the same time, banks' credit risks will decline, making it easier for them to increase their lending.

Over the longer term, it is conceivable that the structure of the euro area banking sector will change. If banking profitability remains weak for a prolonged period, this will force banks to increase efficiency and develop new business models. It could also increase the importance of market funding for non-financial corporations in the euro area financial system.

Accommodative monetary policy will support investment in the euro area

The financing conditions for non-financial corporations in the euro area became considerably easier during the course of 2014. The ECB's measures to support lending and the EAPP launched in March 2015 are expected to further reduce both the interest non-financial corporations pay on their bank loans and the costs of their future acquisition of funding on the capital markets.

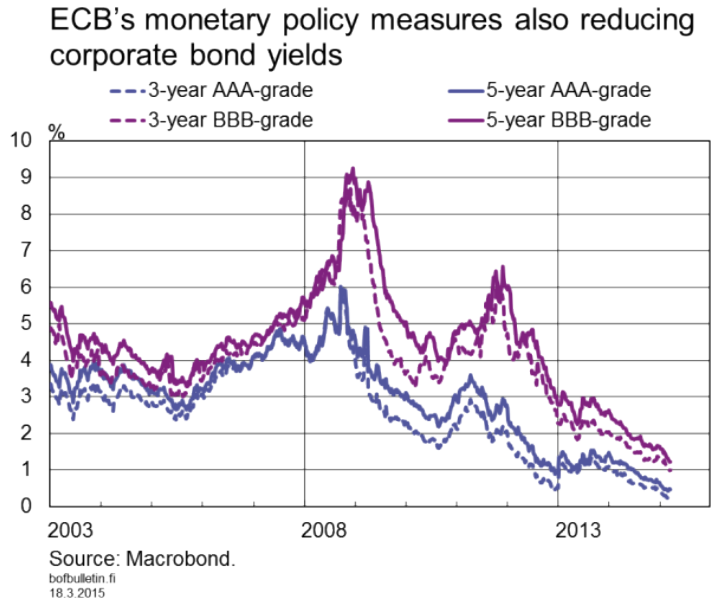
The availability and costs of corporate funding are monitored through both the ECB's Survey on the Access to Finance of Enterprises (SAFE) and the Eurosystem's Bank Lending Survey (BLS). According to the SAFE survey, non-financial corporations in the euro area estimate that access to funding was already less of a problem in the half-year

period ending in September 2014, while according to the BLS, corporate demand for credit picked up in the final quarter of 2014 and credit terms were eased, particularly via a decline in margins. Businesses estimate their own capital positions have improved. Banks, too, see the economic position of borrowers in the final quarter of 2014 as having contributed positively to the easing of credit terms.

The credit terms for both SMEs and large corporations have eased, and the differences between countries have become less evident. Besides the narrowing of margins, credit terms have also been eased by lengthening the average duration of loans and increasing their size. Moreover, collateral requirements have been eased and companies have been given more opportunities to run overdrafts. The change has been less with regard to more risky loans, suggesting banks are still very cautious in taking on additional risk. There are, however, positive signs in the development of the corporate loan stock, as the prolonged contraction appears to be slowly coming to an end.

The share of market funding in the loan stock for large non-financial corporations has grown at the same time as costs have fallen to a record low. MFIs' share of large corporations' external funding has declined, while the share of market funding in aggregate debt has grown in the euro area by an average 5 percentage points since 2008 and in the third quarter of 2014 stood at around 12%. The growth in the share of market funding is also partly explainable by the fall in the cost. The yield requirements on corporate bonds reached a record low in the euro area in early 2015. The EAPP supports the corporate bond markets in that investors selling government bonds are expected to switch to higher-risk investments such as corporate bonds.

Chart 7.



Although corporate emissions have partially compensated for the decline in bank lending in the case of large corporations, SMEs do not have the same alternative sources of funding and are therefore still highly dependent on bank lending. Moreover, market funding's share of corporate funding differs greatly between countries. For example, in Spain and Ireland issues of corporate bonds have remained very low even during the

crisis relative to bank lending, whereas in France and Portugal the relative share of market funding has traditionally been larger and has also grown during the crisis.

Euro area corporate sector debt not a significant brake on investment

The improved availability and lower costs of funding are not yet reflected in investment growth. Fixed investment in the euro area is still around 10% lower than in 2008, and the GDP share has contracted by around 4 percentage points. There are, however, clear signs of a revival in corporate credit demand. According to the Bank Lending Survey, there was a clear quickening of euro area demand for corporate loans at the end of 2014, and the trend is expected to remain positive in the early months of 2015.

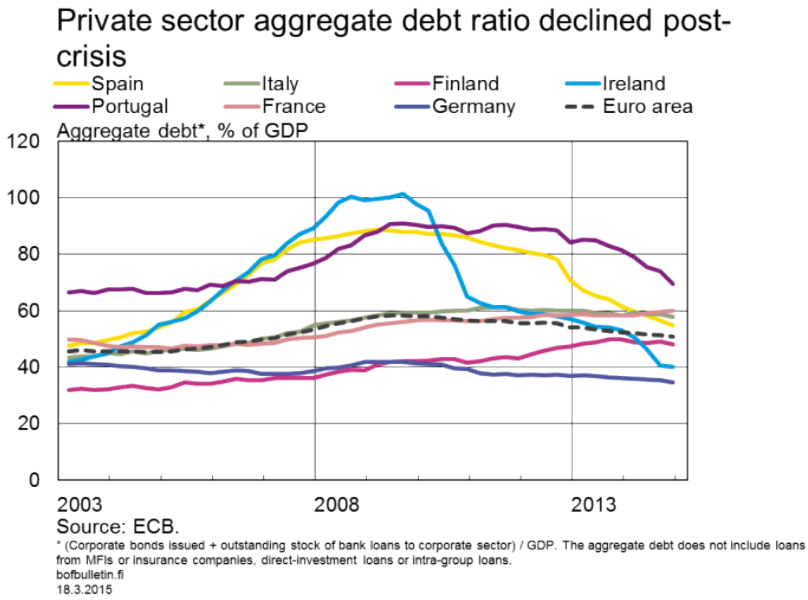
Research suggests that improved terms of credit and growth in credit demand anticipate growth in the real economy 3–4 quarters ahead. Thus the recent easing of financial conditions means we should expect a start to investment growth sometime in 2015.

Another factor underlying the weak trend in investment could be uncertainty over the future course of the economy and a consequent reduction in the appetite for risk among non-financial corporations. Euro area confidence indicators do, however, suggest heightened expectations for the economy, and the most recent statistical data on the real economy have been better than the market expectations.

The accommodative monetary policy could boost corporations' willingness to invest indirectly, too, as the EAPP will probably also push up share prices. As these rise, so will the market value of the corporations, while their funding costs will decline further. This will make it more worthwhile for corporations to issue new capital, which will be reflected ultimately in a growth in their investment opportunities. Share prices have in fact moved in parallel with investment developments in both the United States and the euro area.

On the other hand, the low price or improved availability of credit will be insufficient to restore more vigour to the economy if overindebted corporations opt to reduce their debt instead of investing. The debt ratio of non-financial corporations in the euro area (aggregate debt relative to GDP) has come down from the heights of 2009, albeit there are very large differences between countries.

Chart 8.



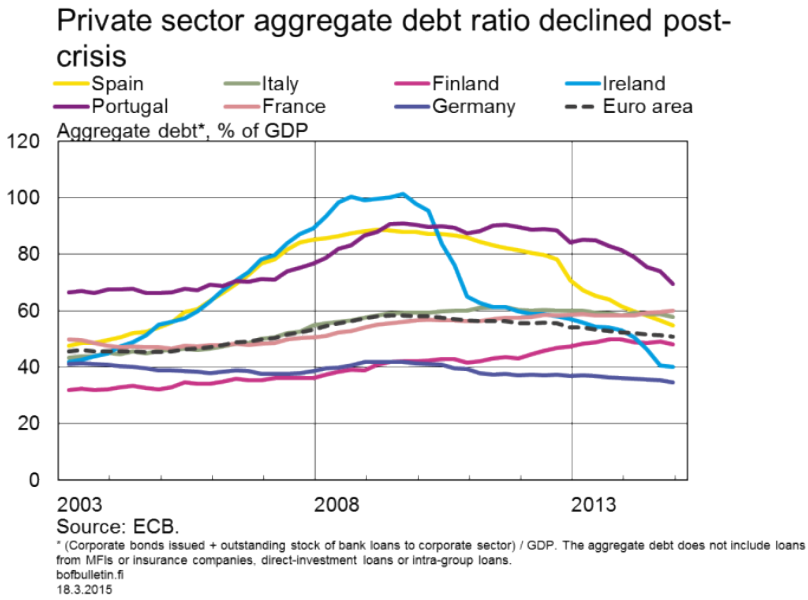
For example, in Germany the aggregate debt ratio of the corporate sector has over the past 15 years been well below the euro area average, whereas in Ireland and Spain the debt ratio grew rapidly until the outbreak of the crisis. Over the past couple of years, however, non-financial corporations in the latter countries have significantly reduced their debt ratio, and the euro area corporate sector in general cannot be considered to be particularly indebted. Even so, higher-than-average debt ratios in some countries may still be a partial cause of the weak developments in corporate borrowing and investment.

Process of reducing household debt burden hampering consumption in euro area

From the perspective of achieving price stability it is vital that monetary policy measures have a positive effect not just on investment, but also on consumption. By the third quarter of 2014, private consumption in the euro area had risen more or less to the level prevailing prior to the financial crisis. It is also important that the measures taken do not cause any new financial imbalances, such as a housing bubble. The risk of this is nevertheless fairly slight at the moment, as housing prices have fallen in most euro area countries since the financial crisis.

The new monetary policy measures are also expected to further reduce interest rates on household loans. The Euribor rates typically used as reference rates for housing loans declined throughout 2014 under the influence of falling monetary policy rates. The impact on the average interest on new housing loans has been more moderate. There are, however, differences between countries in how much housing loan interest rates can come down.

Chart 9.



Euro area households are still fairly heavily indebted. Household debt ratios (debt relative to income) are more or less at the same levels as before the global financial crisis. This could hamper monetary policy transmission to the real economy, as demand for new credit will remain subdued if households continue to consolidate their balance sheets. The fall in real house prices of approximately 15% between the early phase of the financial crisis and the present lends further support to this view.

An over-simplistic focus on the debt ratio could, however, be misleading, as in many countries the household sector debt ratio relative to e.g. GDP has been growing for over 30 years. This makes it hard to assess what level of debt ratio is a sign of over-indebtedness, and what is not.

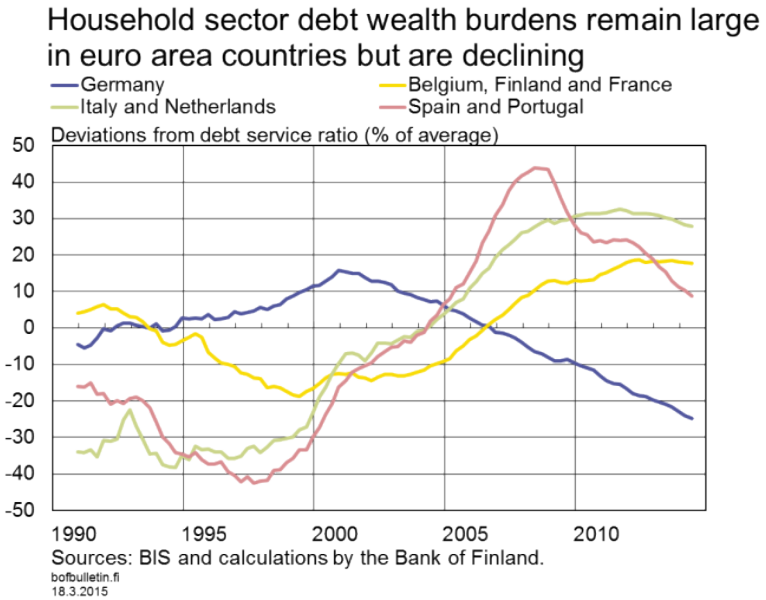
We can get a more precise picture of the current level of household indebtedness by looking at the debt service ratio, i.e. the costs of debt-servicing (interest payments and repayment of principal) divided by net income. This indicator does not grow over time, and deviations from the long-term average are inversely related to growth in private consumption.[3] However, deviations in the debt service ratio do not tell the whole story, as it is possible to bear large debt-servicing costs – at least for some time – by taking out additional loans. This is possible for as long as households' net wealth remains substantial. Correspondingly, when net wealth is low, households lack collateral for new loans and are forced to reduce their stock of debt. Thus deviations of net wealth from the long-term average generate a picture of households' tendency to increase or reduce their debt burden.

Household debt service ratios are well above their long-term average in all large euro area countries with the exception of Germany. Net wealth is, in contrast, below average.

3. Drehmann, Mathias – Juselius, Mikael (2012) Do debt service costs affect macroeconomic and financial stability? BIS Quarterly Review. September 2012.

Taken together, these factors will probably weaken household demand going forward and generate pressure for reducing the amount of debt.

Chart 10.

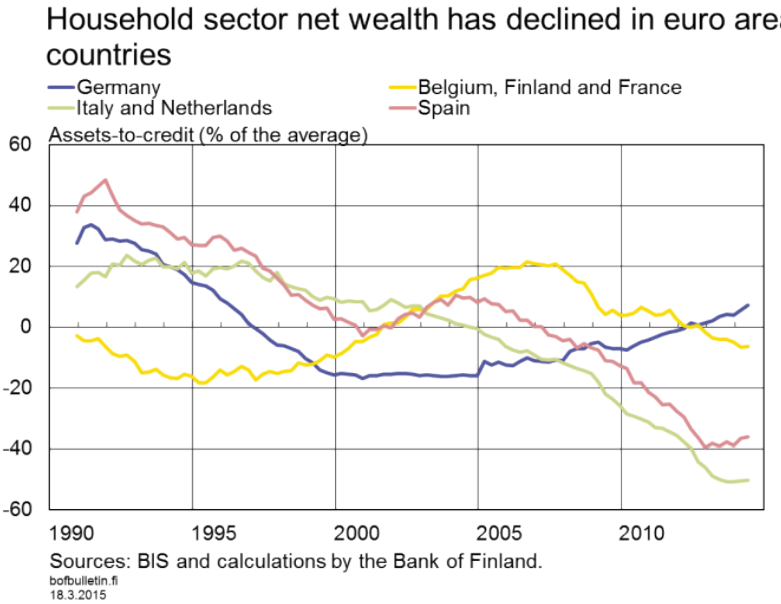


The accommodative monetary policy stance can help with unravelling household debt. Insofar as the measures reduce debt-servicing costs, they can in a best-case scenario assist balance sheet adjustment. The average interest on the euro area loan stock has already come down to around 3%, but it can be expected to fall somewhat further still. On the other hand, in a worst-case scenario, the new measures could artificially bolster asset prices, thereby slowing the natural adjustment of balance sheets.

Household demand for new loans is likely to remain subdued over the short to medium term. On one hand, this will hamper monetary policy transmission into private consumption, but at the same time prevent the relaxed monetary policy from strongly affecting the housing market. This means that the accelerating effect of the measures on consumer price inflation could be less than expected, while on the other hand there is unlikely to be a strong rise in house prices.

There are, however, large differences between euro area countries in the transmission of monetary policy via households to the real economy. One contributory factor is the level of household indebtedness, which varies greatly from one country to another. In this respect, euro area countries can be roughly divided into four groups.

Chart 11.



The first group contains countries that experienced a violent domestic financial boom and systemic crisis in connection with the global financial crisis. The affected countries include Spain and Portugal.[4] Rapid debt accumulation in these countries pushed the debt service ratio to a record high just before the crisis. In the post-crisis environment, these countries have, however, managed to reduce their debt burden. The single most important factor in this respect has been a collapse in house prices, which also led to a collapse in net wealth and hence a rapid contraction in the supply of credit. The decline in interest rates also eased debt-servicing pressures, thereby improving households' ability to repay their loans.

The second group consists of Italy and the Netherlands. In these countries, households' debt-servicing pressures prior to the crisis grew in almost the same manner as in Spain and Portugal, if not quite as strongly. The upward trend in debt-servicing pressures has been prolonged in these countries, and there has been a decline in net wealth. This unfavourable trend has only recently begun to turn around. A reduction in the amount of debt will presumably take a long time still, and recovery will be slow.

The third group contains countries that experienced a short period of recovery after the financial crisis, but where there are currently clear signs that increasing debt-servicing pressures are undermining economic growth (Belgium, France and Finland). House prices in these countries did not collapse in the same way as in the other groups, so net wealth remained high and households continued to accumulate debt. This trend was further fuelled by the reduction in loan interest rates in response to the accommodative monetary policy. Net wealth in these countries has recently turned negative, which suggests that a long phase of debt reduction lies ahead, during which economic growth will be slow.

4. Ireland also belongs to this group, but the statistical data needed to calculate the debt service ratio and deviations in net wealth is not available.

The only significant exception in household debt trends in the euro area is Germany, which on its own forms the fourth group. In Germany, real house prices were falling for a prolonged period before the financial crisis, keeping net wealth low. As a consequence, German households reduced their debt burden, meaning the debt service ratio is currently below average. The deviations in net wealth have also turned positive recently as a consequence of a recovery in house prices. Against this background, we can expect an improvement in the growth figures for private consumption in Germany in the near future.

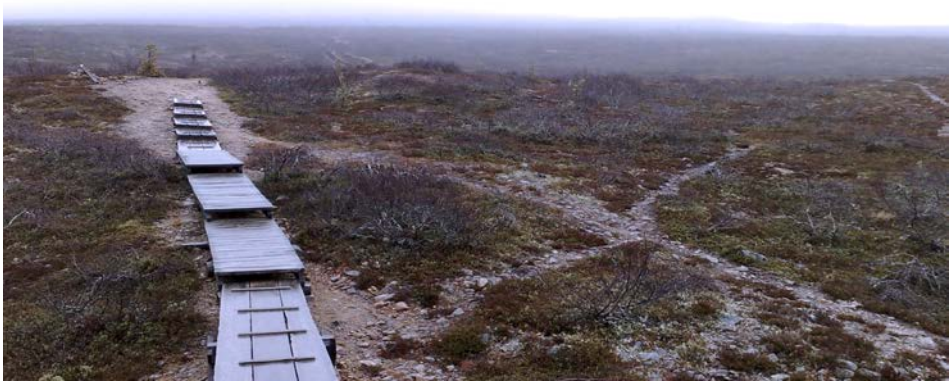
Tags

- macroprudential policy
- euro area
- monetary policy

Is the euro area at risk of Japanese-style deflation?

18 MAY 2015 1:00 PM • BANK OF FINLAND BULLETIN 1/2015 • MONETARY POLICY •
TOMI KORTELA

Euro area inflation has long been below the European Central Bank's objective for price stability and has continued to slow in recent months. This has given rise to heightened concerns that the euro area could soon be facing a prolonged period of deflation, as recently in Japan. The case of the United States shows, however, that the Japanese experience can be avoided. The key would seem to be the anchoring of inflation expectations. In the euro area, new measures of monetary accommodation have contributed to reducing the risk of Japanese-style deflation.



What determines inflation?

The objective of the ECB is to maintain inflation at below, but close to, 2% over the medium term. For this target to be achievable, the central bank must be able to use monetary policy to control inflation. This is made possible by the central bank's monopoly over the creation of money, which allows it to control the price and quantity of said money. Central banks typically use their key interest rates to control the price of money, which also sets the level of interest for the economy as a whole. There is a sound theoretical basis for achieving the inflation target through changes to the key interest rate if the changes are according to the Taylor principle. That means, the change to the key interest rate should be greater than the deviation of inflation from the target.

Rate changes based on this principle are aimed at influencing the level of nominal interest rates and thereby pushing real interest rates – the difference between nominal rates and inflation – in the desired direction. Changes in real interest rates are key, as they influence consumption and investment decisions in the economy. In other words, if inflation is higher than its target level, raising real interest rates will curb economic activity and thereby decrease the inflation rate. If inflation is lower than its target level, lowering real interest rates will boost economic activity and increase the inflation rate. A

credible monetary policy will enable inflation expectations to be anchored: there will be no reason to expect any deviation from the inflation target beyond some short-term volatility. Anchoring inflation expectations is key for reaching the inflation target, as expected inflation has an impact on actual inflation.[1]

Over the longer term, real interest rates are not controlled by the central bank, but are such that an equilibrium exists in the market for goods, i.e. demand equals supply in the market.[2] The nominal interest rate is then determined as the sum of this equilibrium real interest rate and the (expected) rate of inflation determined by the central bank. This relationship is better known as the Fisher equation: $i = r + \pi$. In this equation, i denotes the nominal interest rate, r denotes the real interest rate and π stands for expected inflation. The Taylor principle and the link captured by the Fisher equation guarantee that the central bank can keep the economy balanced. Inflation remains in line with the central bank's inflation target and real interest rates are at a level where the goods market is at equilibrium.

The literature does, however, suggest the possibility of another equilibrium.[3] This equilibrium can be deemed undesirable, as here price developments deviate from the central bank's target and could have a deflationary effect. A considerable negative disinflationary shock could result in a scenario where, following the Taylor principle, the central bank would bring nominal interest rates down to zero. This is commonly known as the liquidity trap. At the zero lower bound of interest rates, the Taylor principle can no longer be followed by changing the key interest rate, and, as a result, inflation can leave the path consistent with the central bank's objective. An undesirable equilibrium value of inflation is determined by the level of real interest rates where the goods market is at equilibrium, i.e. inflation adjusts to match the negative market-clearing real interest rate.[4]

One example of undesirable equilibrium might be Japan.[5] One could argue that the undesirable state of equilibrium in Japan has now lasted 20 years, during which time price developments have been deflationary. And if Japan is considered to have been in a state of undesirable equilibrium, such a state is conceivable also for other advanced economies such as the United States or the euro area.

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1. For the determination of price level in typical models of monetary policy see Cochrane (2011), Woodford (2003, Chapter 2) and Eusepi (2007).
2. Here the term equilibrium refers to a steady state or, more precisely, a long-term equilibrium in the model. In the literature the term is commonly used in the context of equilibrium values (or equilibrium solutions) that satisfy the conditions in the model. The real interest rate at which supply and demand in the market for goods are at equilibrium is also known as the Wicksellian natural rate of interest.
3. See Benhabib et al. (2001).
4. The real interest rate is defined by the Fisher equation as the difference between nominal rates and (expected) inflation: $r = i - \pi$. At the liquidity trap, nominal interest rates are at zero: $i = 0$ when, in an undesirable equilibrium, inflation has to be the negative of the market-clearing real rate of interest: $r = -\pi$.
5. For example, Eggertson and Woodford (2003) mention the possibility of Japan being in a state of undesirable equilibrium as discussed by Benhabib et al. (2001). See also Evans – Honkapohja (2005) and Evans – Guse – Honkapohja (2008).

The possibility of the United States facing a similar situation as Japan has also been considered.[6] In the spring of 2010, inflation continued to fall in the United States even though interest rates were already at their zero lower bound. There were obvious parallels with the situation in Japan. In the euro area, the zero lower bound was reached in the autumn of 2014, with inflation continuing to fall. The situation in the euro area now is quite similar to that in the United States in the spring of 2010. Concerns about the euro area potentially facing a similar state of undesirable equilibrium and deflationary price developments as in Japan are thus well founded.[7] This article reviews those concerns.

The review is conducted on the same premise as the Bullard study that similarly reviewed the US economy. In addition, the article examines why Japan ended up in an undesirable equilibrium but the United States did not. On the basis of experiences from both the United States and Japan, the new expanded asset purchase programme of the Eurosystem considerably reduces the risk of the euro area facing similar deflationary developments as in Japan.

The peril of the Taylor principle: Japan and the euro area

The idea of two kinds of equilibria is illustrated in Chart 1, which depicts the relationship between the key interest rate and core inflation in Japan and the euro area. The dashed line in Chart 1 represents the Fisher equation, i.e. combinations of inflation and nominal interest rates where the real interest rate produces an equilibrium in the market for goods. If the combination of nominal rates and inflation is not in line with the Fisher equation, households and firms will expect inflation to change. Changes in inflation lead to nominal rate changes according to the central bank's monetary policy rule (solid line).Where the lines cross, inflation is at a level determined by the central bank and real interest rates are at levels where the goods market is at equilibrium. At these points, inflation and nominal rates no longer change, i.e. the economy is at equilibrium.

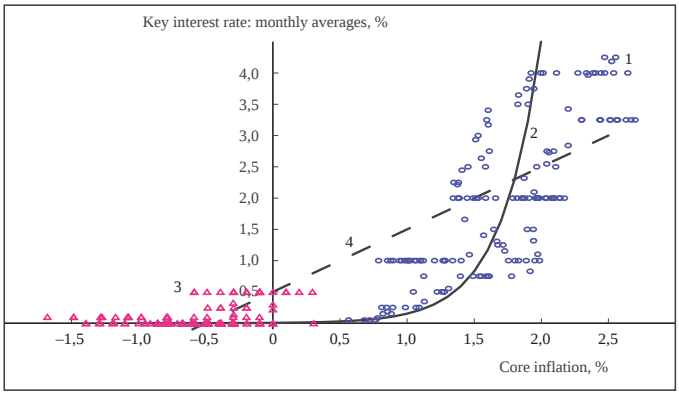
6. See Bullard (2010).

7. For example Lawrence Summers claimed at the World Economic Forum in Davos that the euro area was on its way to being 'the new Japan' (see http://www.bloomberg.com/news/videos/2015-01-21/europe-on-its-way-to-being-the-new-japan-summers).

Chart 1.

Key interest rate and inflation in Japan and the euro area

1. Euro area 1/2002–1/2015
2. Monetary policy rule
3. Japan 1/2002–10/2013
4. Fisher equation



Source: Macrobond.

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The intersection at the top right is the equilibrium the central bank is aiming for, and observations from the euro area are clustered around that equilibrium. The monetary policy rule will produce large changes in the key interest rate to keep inflation close to the target level in line with the Taylor principle. At the lower end of the chart, the zero lower bound of nominal interest rates restricts the applicability of the monetary policy rule. Changes in inflation thus lead to increasingly small changes in the key interest rate, i.e. the Taylor principle cannot be observed. Monetary policy using the key interest rate can be considered active and in line with the Taylor principle at inflation levels just over 1%.

The second intersection of the Fisher equation and the monetary policy rule is at the level of very low inflation and represents the undesirable equilibrium where inflation is considerably below levels that the central bank is aiming for. The Japanese economy seems to have remained close to the undesirable equilibrium for a prolonged period. It is important to note that here changes in inflation do not result in a change in the key interest rate (the line representing the monetary policy rule is almost horizontal). This state is reached when inflation falls below 1%. Monetary policy becomes passive for two reasons. Firstly, the zero lower bound for nominal interest rates makes it impossible to lower the key interest rate further when inflation slows. Secondly, the central bank's target level for inflation is distant, which allows inflation to increase for a prolonged period of time without exceeding the inflation target. In other words, monetary policy becomes passive because the zero lower bound prevents rate cuts and there is no need for rate hikes when inflation is low.

What we should notice about Chart 1 is that the sets of observations from the euro area and Japan never intersect. An economy commonly experiences some fluctuation while always seeking to return to a state of equilibrium. Both the euro area and Japan have stayed close to their respective equilibria. In other words, observations from the euro

area and Japan would seem to support the existence of desirable and undesirable equilibria.

While the latest observations from the euro area have been closer to observations from Japan than ever before – key interest rate at 0.05% and core inflation at 0.6% – this does not, however, represent a state of equilibrium. Active monetary policy would bring inflation back to a desirable equilibrium, while passive policy could lead to the kind of equilibrium experienced in Japan. The euro area has been following the Taylor principle in lowering the key interest rate, but at the zero lower bound active monetary policy through interest rate cuts is no longer possible. Monetary policy using the key interest rate becomes passive and could lead to an undesirable equilibrium, were unconventional measures not available.

The main reason why economies end up in undesirable equilibrium is the conduct of the Taylor principle in monetary policy. Around desirable equilibrium, the Taylor principle will contain inflation, and under such circumstances it is a good guideline for monetary policy. However, when the inflation target of the central bank is no longer close, the Taylor principle will lead to a liquidity trap for the economy, and monetary policy using key interest rates becomes passive. Passive monetary policy paves the way for undesirable equilibrium. In other words, the Taylor principle is a good monetary policy rule only around a desirable equilibrium and otherwise may lead the economy into an undesirable equilibrium. This condition is the peril of the Taylor principle. According to Chart 1, for the euro area the 'peril' is more likely to materialise than ever before.

The euro area is not alone in having come close to a Japanese-style liquidity trap or undesirable equilibrium. The United States may also have come close.[8] We now know that the United States was able to avoid prolonged deflation. An examination of the United States and Japan at the zero lower bound provides a solid basis for asking what makes an economy end up in undesirable equilibrium and how this can be avoided.

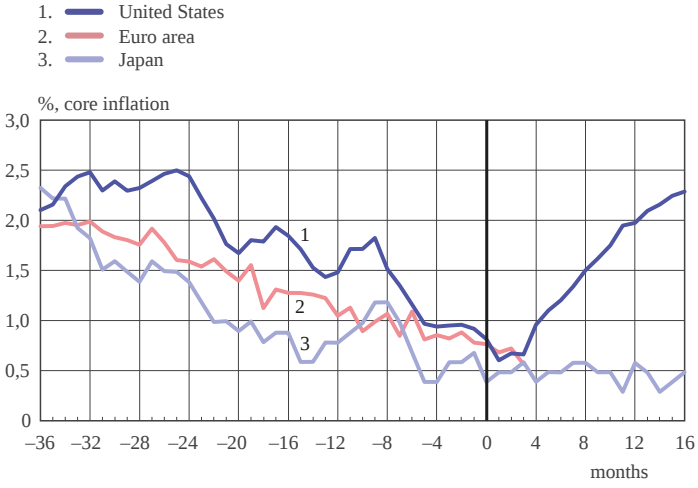
Can Japanese-style deflation be avoided?

Inflation and key interest rate developments in the euro area over the past few years have parallels with those in the United States and Japan. Charts 2 and 3 show the development of core inflation and key interest rates in the United States, Japan and the euro area in a situation in which inflation is low and the economies have reached the zero lower bound of nominal interest rates. In essence, this is the situation described in previous chapter: monetary policy based on changing the key interest rate becomes passive, and the risk of undesirable equilibrium grows. We now know that the United States was able to avoid Japanese-style deflation. For the euro area, the key question is why Japan ended up in an undesirable equilibrium but the United States did not.

8. See Bullard (2010).

Chart 2.

Inflation before and after nominal interest hit the zero lower bound combined with low inflation



The moment 0 depicts the moment when each economic region hit the zero lower bound of nominal interest combined with low inflation. For the United States, this was 9/2010, for Japan 9/1995 and for the euro area 10/2014.

Source: Macrobond.

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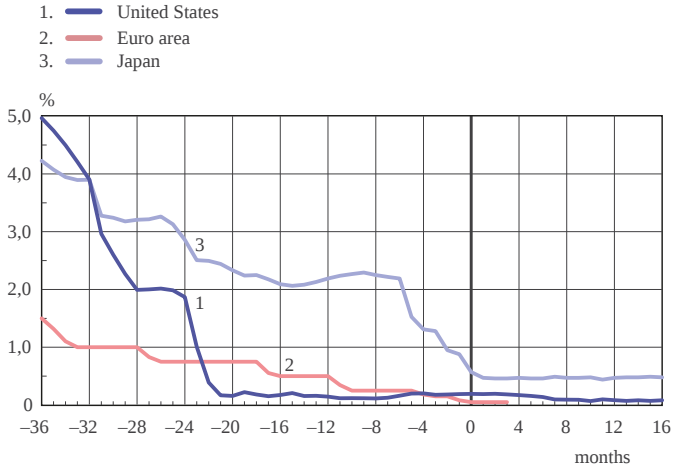
Chart 3.

Key interest rates before and after the combination of zero lower bound and low inflation



The moment 0 depicts the moment when each economic region hit the zero lower bound of nominal interest combined with low inflation. For the United States, this was 9/2010, for Japan 9/1995 and for the euro area 10/2014.

Source: Macrobond.

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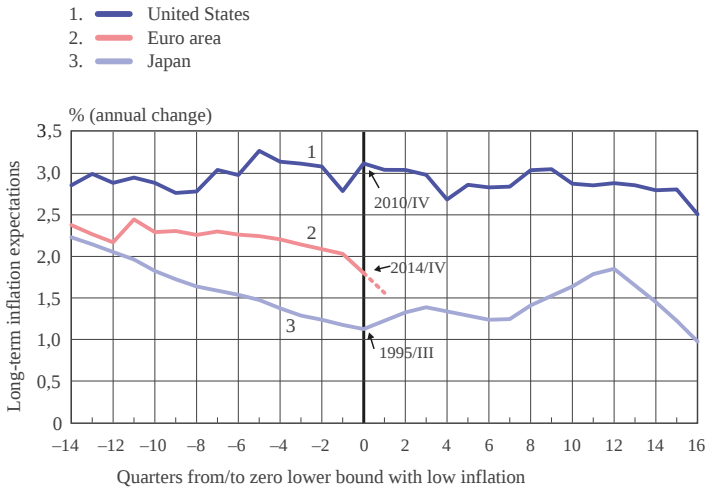
The risk of Japanese-style undesirable equilibrium in the United States after the developments in 2010 have also been under scrutiny.[9] The study came to the conclusion

that the probability of undesirable equilibrium was heightened but remained small. The results were interpreted as showing that inflation expectations basically determine the equilibrium the economy finally achieves. A change in the equilibrium would thus require a simultaneous (or coordinated) swing in economic agents' expectations from the equilibrium desired by the central bank to an undesirable equilibrium. Some evidence from the United States and Japan points to this conclusion, as long-term inflation expectations behave differently in the two economies (see Chart 4).

Chart 4.

Long-term inflation expectations



Long-term inflation expectations for the United States and euro area are for 5 years' average inflation 5 years ahead. Japan's inflation expectation is the consensus inflation forecast for 10 years.

Sources: Auroba et al. and Bloomberg.

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Long-term inflation expectations in the United States and Japan differed greatly at the time the economies hit the zero lower bound of nominal interest rates under conditions of falling inflation (time 0 in Chart 4). In the United States, inflation expectations remained stable and close to 2.8% even though inflation rates had already fallen considerably (see Chart 2). In Japan, by contrast, long-term inflation expectations fell by nearly 1.5 percentage points from approximately 2.5%. By 2003, long-term inflation expectations in Japan had fallen to 0.3%. In the United States, expectations remained anchored, unlike in Japan, where they were pointing to prolonged low inflation that also materialised. Of the two, the United States was able to avoid undesirable equilibrium.

In the euro area, inflation expectations remained stable until the beginning of 2014 (time -4 in Chart 4). Since then, they have fallen from 2.3% to 1.8%. In the first three weeks of 2015, observed inflation expectations averaged 1.6% (dotted line in Chart 4). If inflation expectations continue to fall, developments in the euro area could begin to mirror those in Japan and move away from the US path of anchored inflation expectations. This would augment the risk of undesirable equilibrium in the euro area. A particular risk for the

9. Aruoba et al. (2014).

euro area arises from the considerable fall in oil prices, which turned inflation rates negative in December. Falling inflation allows the inflation expectations of economic agents to diverge from the inflation target of the ECB. The decline in inflation due to the fall in oil prices must not be allowed to filter into inflation expectations in the euro area, because a change in expectations can lead to undesirable equilibrium.

The anchoring of inflation expectations is one of the key objectives of monetary policy, as inflation expectations can become self-fulfilling and lead to price developments that are no longer in line with the objective. The study concludes that the main reason why the United States avoided undesirable equilibrium and Japan did not was the difference in their monetary policy.[10] In other words, Japanese-style deflationary developments can be avoided with an active monetary policy. By examining the monetary policy in both countries at the zero lower bound we can find elements that can help monetary policy avoid prolonged deflation.

How can monetary policy help avoid Japanese-style deflation?

Apparently, on the basis of experiences in the United States and Japan, the anchoring of inflation expectations to levels consistent with the central bank's objective is key to reducing the risk of undesirable equilibrium. At the zero lower bound, it is no longer possible to use the key interest rate to increase inflation expectations, and the central bank must resort to unconventional measures. Quantitative easing (QE) was employed in both the United States and Japan to increase monetary accommodation, but the Federal Reserve also backed up its actions with forward guidance.

Quantitative easing can be understood as the central bank increasing the money base at the zero lower bound beyond levels required for conventional interest rate steering. Quantitative easing can take the form of e.g. purchases of long-term government bonds. The impact of such monetary policy on inflation expectations is three-fold.[11]

Firstly, purchases of government bonds or other securities can increase the price of such assets and bring down their yields. This could decrease the level of interest rates in the economy more generally. Lower interest rates boost consumption and investment in the economy and increase both actual and expected inflation. This transmission channel is known as the portfolio balance effect. The effectiveness of this channel has yet to be proven conclusively, and empirical studies differ.[12]

A second transmission channel is the signalling channel, where the central bank indicates its commitment on forward guidance of low interest rates through quantitative easing.[13] Quantitative easing tied to an objective ensures that rates can stay low even when typical monetary policy rules would indicate a rate hike. The new monetary policy

10. Aruoba et al. (2014).
11. This is a coarse simplification on potential transmission channels. For a more detailed discussion see Krishnamurthy – Vissing-Jorgenssen (2011).
12. For a critical summary of the empirical research see Thornton (2014).
13. See Woodford (2012).

measure of quantitative easing shows economic agents that interest rates no longer necessarily follow the old, familiar path. The new lower path of interest rates leads to higher consumption and investments which, in turn, strengthen inflation expectations.

The third channel can be called the expectations channel. This uses the combined effect of monetary and fiscal policies to deter expectations of deflationary developments.[14] Quantitative easing systematically increases the money base to maintain price stability in line with a predefined objective, allowing the exclusion of price and money growth that would have to occur in the economy for deflationary developments to be possible. There are several workable combinations of monetary and fiscal policies. For example, for deflationary developments to be possible in the economy, the money base would eventually have to decrease in practical terms. By continuously increasing the money base (potentially for a very long time) the central bank signals to economic agents that a deflationary equilibrium can be ruled out.[15] This prevents the forming of expectations according to an undesirable equilibrium, allowing it to be avoided.

For the last two channels to function, quantitative easing must be credible. Merely expanding the money base will not in itself change economic agents' expectations of future inflation and interest rate developments. This is because expanding the money base is reversible. In Japan, quantitative easing began in 2001 and the money base expanded considerably, but after 2006 the money base returned close to its earlier levels. The economic agents in Japan never changed their views on future interest rate and inflation developments, probably because they felt that the monetary policy was not credible in its commitment to raising the price level. Eventually the expectations of economic agents prevailed and the central bank allowed the money base to return to levels consistent with deflationary developments.[16]

In Japan, economic agents had several reasons to question the credibility of quantitative easing. The central bank's communication did not fully support the policy, and the Bank of Japan was more concerned about rising inflation than about deflation.[17] It has been claimed that the Bank of Japan suffered a credibility problem, in particular in 1998–2003, when it tried to implement quantitative easing.[18] Because of the central bank's communication – or lack of it – quantitative easing was not expected to continue and its aims were not properly understood. Economic agents thus had no reason to change their expectations about future interest rate developments or inflation. By contrast, the quantitative easing implemented in the United States in 2010 does appear to have raised inflation expectations (see Chart 4).[19]

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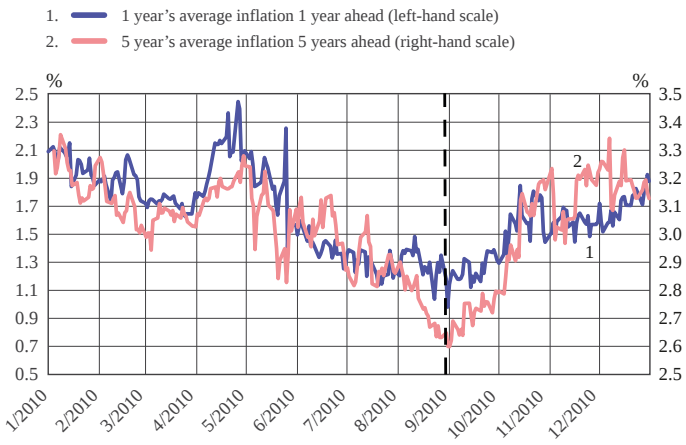
14. Eggertsson – Woodford (2003) pp. 193–198.
15. Strictly speaking, the condition is that the expectation of the total nominal government liabilities must be changed from the path expected before quantitative easing began. The total nominal government liabilities consist of public debt and the money base.
16. Woodford (2012, Chapter 2) describes in detail the reasons why quantitative easing failed in Japan in 2001–2006. The key conclusion is that quantitative easing based on the quantity theory of money will not increase inflation unless it is deemed permanent.
17. See e.g. a 1999 speech by the Bank of Japan's then Governor Masaru Hayami.
18. Ito – Mishkin (2006, p. 165).

Chart 5.

Short and long-term inflation expectationsin the United States in 2010



Inflation expectations according to inflation swaps. The vertical broken line indicates the time the Fed Chairman gave the speech on possible additional purchases of government bonds. The decision on bond purchases was taken on 3 November 2010.

Source: Bloomberg.

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It is difficult to ascertain the final cause for the different impacts of quantitative easing in Japan and the United States. It can, however, be postulated that the differences in the implementation of quantitative easing led to different outcomes. In the United States, quantitative easing was backed up by strong forward guidance, whereas in Japan the aims and goals of the programme were not made explicit.[20]

Forward guidance enhanced the credibility of quantitative easing in the United States and led to a change in economic agents' views on future interest rate developments and inflation.[21] As a result, inflation expectations remained anchored (see Charts 3 and 4) and core inflation also eventually increased (see Chart 2). In Japan, the central bank's forward guidance and other communication did not convince economic agents of its commitment to a change in monetary policy. Hence they had no reason to change their expectations of future interest rate and inflation developments. Such circumstances make it increasingly unlikely for monetary policy to be able to stop the economy from sliding into undesirable equilibrium.

19. For a comprehensive analysis of the impact of quantitative easing on inflation expectations, as illustrated in Chart 4, see e.g. Krishnamurthy – Vissing-Jorgenssen (2011).
20. The Federal Open Market Committee (FOMC) has used forward guidance since December 2008. For a good example of the aims and transmission channels of quantitative easing see Bernanke (2010). For a summary of the communications of the Bank of Japan see Ito – Mishkin (2006).
21. Getler – Karadi (2014) suggest that forward guidance has been a key element behind the effectiveness of monetary policy in the United States.

Monetary policy purchase programmes reduce risk of deflation in euro area

The kind of deflationary developments experienced in Japan are also possible in other economic areas where inflation is low and the zero lower bound limits the usefulness of key interest rates in monetary policy. Monetary policy using the key interest rate becomes passive, opening up the possibility of prolonged deflation in the economy. The likelihood of prolonged deflation grows if inflation expectations are not properly anchored. In the euro area, the likelihood of deflationary developments was higher than ever before at the end of 2014 and the start of 2015. Inflation was low, the key interest rate was at the zero lower bound and inflation expectations were waning.

The situation was similar to that in the United States in 2010. Then, the Federal Reserve deployed quantitative easing based on purchasing long-term government bonds. Japan used the same instrument in the early years of the new millennium, but with very different results. In the United States inflation rose, while in Japan it remained low.

An examination of the quantitative easing employed in the United States shows that it has the potential to reduce the risk of deflationary developments in an economy. For quantitative easing to have the desired impact on inflation and inflation expectations, however, it must be credible. The central bank must convince economic agents that it will not allow money and price developments consistent with a deflationary trend. It seems that, in Japan, quantitative easing did not bring about a sufficient change in economic agents' beliefs about future interest rate developments or inflation. It also seems conceivable that, in the United States, quantitative easing produced the desired results because the central bank was able to convince economic agents that it was prepared to do whatever it took in order to avoid deflationary developments. In this, forward guidance is an important tool.

In the euro area, a decision on quantitative easing was made in January 2015, when the Governing Council of the ECB decided on an expanded asset purchase programme. This quantitative easing also includes forward guidance on its aims and implementation.[22] Elements related to forward guidance make quantitative easing in the euro area similar to that in the United States, and unlike the quantitative easing implemented in Japan in the early years of the new millennium. The United States avoided Japan's path mainly because of quantitative easing. In the euro area, too, current monetary policy measures are making a significant contribution to reducing the risk of Japanese-style deflationary developments.

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Tags

- euro area
- Japan
- inflation
- monetary policy
- deflation
- Taylor principle

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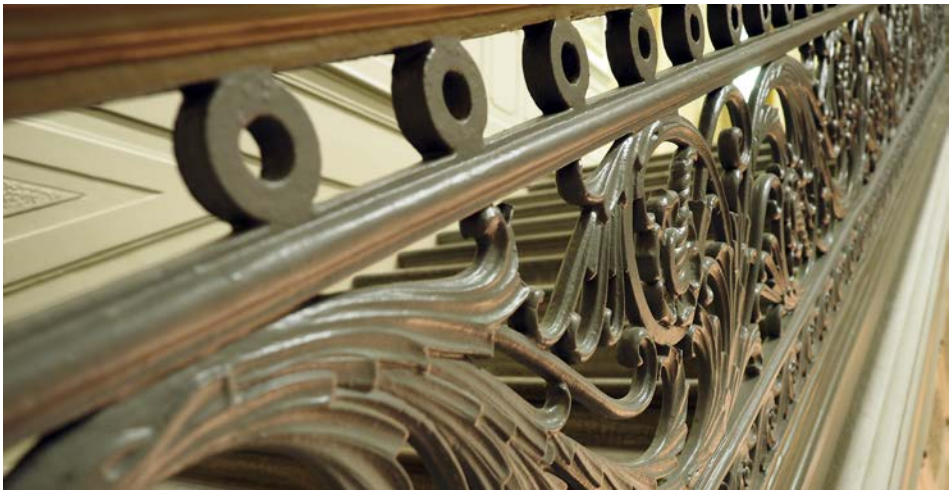
The financial crisis changed the instruments but not the objectives of monetary policy

18 MAY 2015 1:00 PM • BANK OF FINLAND BULLETIN 1/2015 • MONETARY POLICY •
JARMO KONTULAINEN, TUOMAS VÄLIMÄKI

Central banks have acted forcefully to provide monetary accommodation. With little room for manoeuvre for standard interest rate policy, unconventional measures have been adopted. Committing to monetary accommodation gains importance as interest rates go down and inflation expectations increasingly deviate from the target; the expectations channel of monetary policy transmission becomes key when the aim is to raise inflation expectations and improve confidence. One example of the new monetary policy instruments is the Eurosystem's expanded asset purchase programme, which demonstrates the determination of the Governing Council to return price developments to a path in line with its price stability objective.



Monetary accommodation at the start of the financial crisis

The US economy began to falter in 2007 and 2008. At first, the Federal Reserve responded by gradually lowering the federal funds rate. With the collapse of Lehman Brothers in the autumn of 2008 uncertainty grew to levels where banks were no longer willing to lend to each other. Money market rates rose significantly higher than key interest rates in the major economic regions. Central banks were forced to apply unconventional measures.

The Eurosystem adopted a full allotment policy in its liquidity provision to the money market: the central bank sets a fixed interest rate and accepts all bids from the banks at this rate. The monetary policy stance became even more geared to controlling the price of

central bank money rather than monetary developments. The fixed rate full allotment policy has since been applied in all monetary policy credit operations, and as a result the size of the Eurosystem balance sheet has since 2008 been determined more by the demand for central bank money than by Eurosystem decisions. At the same time, the Eurosystem has kept money market rates tightly under control.

A new phase in monetary policy began internationally when the zero lower bound of policy rates was reached. Economies were still suffering, which meant that all normal rules guiding the monetary policy stance (e.g. the Taylor rule[1]) were still pointing to a need for further easing. At the zero lower bound for nominal interest rates, however, real interest rates could no longer be pushed down by lowering the short-term lending rate of the central bank.[2]

Central banks had to come up with new unconventional instruments for monetary accommodation, such as exceptionally large purchases of securities, credit operations with very long maturities, accepting an even wider range of banks' assets as collateral in central bank refinancing operations as well as forward guidance on monetary policy paired with an active commitment to accommodation.

Unconventional monetary policy measures tend to change the focus from controlling short-term interest rates to controlling longer-term interest rates. Normally central banks effectively set the level of risk-free short-term interest rates with their own key interest rate, whereas longer-term interest rates are the sum of expectations about future central bank interest rates and various kinds of risk premia. As short-term interest rates cannot be lowered below zero, monetary policy accommodation has to take the form of directly influencing expectations about the future level of short-term interest rates or outright purchases of instruments with longer maturities.

In 2008–2011, monetary policy instruments for lowering longer-term interest rates differed considerably from one currency area to the next. In the euro area, banks play an important role in financial intermediation, and the major policy measures were consequently a lengthening of maturities in credit operations and an easing of the eligibility criteria for assets accepted as collateral. In addition, the Eurosystem sought to support the functioning of banks' market-based financing by purchasing covered bonds issued by banks on the secondary market. Central bank financing with longer maturities and covered bond purchase programmes reduced banks' financing costs over the longer term and consequently lowered the level of interest rates more generally in the euro area. Another objective of these measures was to reduce the increasing inter-country differences in the transmission of the single monetary policy.

In the United States, capital markets play a more central role in financial intermediation than bank financing, and the US Federal Reserve (Fed) thus launched large-scale purchases of securities at an early stage. The purchases of e.g. mortgage-backed

1. According to the Taylor rule, changes to the key interest rate are determined by the deviation of actual inflation and output from their desired paths, where the desired inflation rate is the price stability objective of the central bank and the desired output is potential output.
2. In practice, central banks cannot lower their lending rates significantly below zero without turning cash money into an investment with a risk-free real yield.

securities guaranteed by government-sponsored agencies contributed greatly to easing financing conditions and supported waning consumption and investment demand. There were also determined efforts to improve solvency in the banking system and the functioning of the financial system. In the euro area, the link between the financial positions of banks and sovereigns dampened lending especially in stressed countries for a prolonged period. Only with the establishment of banking union in 2014 did the feedback loops between banks and sovereigns begin to weaken.

At the same time, central banks sought to convince the markets and economic agents that the accommodative monetary policy would continue for longer than expected. The Fed began to issue forward guidance in December 2008 by communicating that rates were likely to remain at their exceptionally low levels for some time. In December 2012 the Fed switched from calendar-based to threshold-based forward guidance by making its intention to maintain the federal funds rate at its prevailing level conditional on explicit quantitative thresholds for economic conditions such as inflation and the unemployment rate.[3]

Central banks use forward guidance to, on one hand, provide insight into their views on economic developments over the longer term and, on the other, into how they will react to changes in the outlook. Central banks continuously refine their reaction function and seek to influence the expectations of economic agents regarding future monetary policy.

Other major central banks followed the example of the Fed in their monetary policy communication. The ECB began to communicate more explicitly about its future monetary policy in June 2013, at a time when interest rates in the euro area were starting to rise in the wake of US rate developments, contrary to the monetary policy stance of the Eurosystem. The ECB's announcement produced the desired reaction, and euro interest rates began to move away from dollar rates.[4]

Debt crisis in euro area leads to tailor-made central bank measures

In the first half of 2010, the sovereign debt crisis broke out in a number of euro area countries.[5] In the first decade of the euro area, financial markets had priced euro area government bonds relatively homogeneously. During the crisis, however, country differences in economic developments and especially in government debt levels and debt sustainability started to become apparent. Market reaction was a swing from one extreme to the other. Formerly minimal differences in risk premia expanded across the board, putting further strain on the public sector. As a result, average financing conditions in the euro area tightened considerably in a situation where the economy was not yet ripe for such a tightening.

In order to safeguard the independence of monetary policy, central banks in the European Union are not allowed to finance the public sector. The prohibition on

3. Williams, J. C. (2013) Will Policy Be the New Normal? FRBSF Economic Letter 2013-29, 7 October.
4. ECB Monthly Bulletin (April 2014) The ECB's Forward Guidance.
5. The worst hit were the so called GIIPS countries, i.e. Greece, Ireland, Italy, Portugal and Spain.

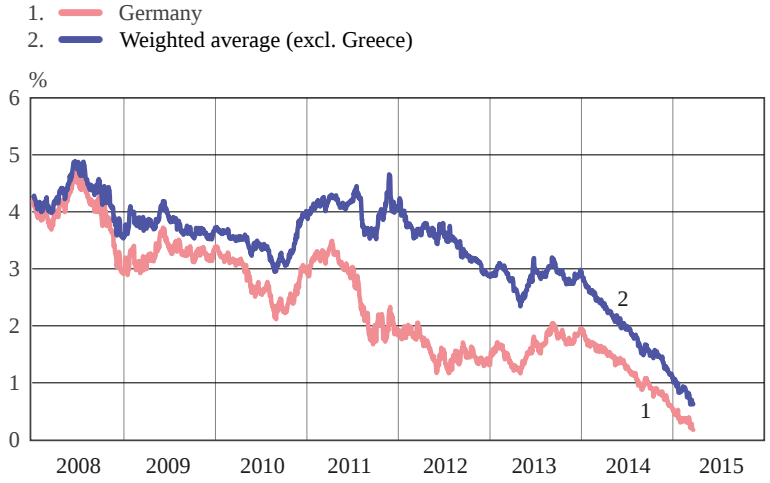
monetary financing serves to reinforce the responsibility of euro area countries for their own finances and prevents the ECB from providing emergency funds to euro area governments. A key role in managing the acute crises of euro area sovereigns was reserved for European Commission and IMF consolidation programmes.

In the most acute phase of the crisis in summer 2012, the markets began to question the sustainability of the Eurosystem as a whole. In response, the Governing Council of the ECB launched a programme of outright monetary transactions (OMT) with a view to preventing unfounded fears about the reversibility of the euro from distorting risk premia and adversely affecting the functioning of the single monetary policy.

The fragmentation of financing conditions across the euro area was greatly reduced by the actions of the stressed countries, financial support granted by euro area countries and the OMT programme, which has proven effective without even making a single purchase (see Chart 1). In addition, the long-term refinancing operations of the Eurosystem, the consolidation efforts in the banking sector and the forward guidance had the desired effect. As a result of all these measures, the financing conditions of the euro area banking system stabilised and long-term interest rates fell to very low levels. Nevertheless, economic activity in the euro area failed to strengthen as hoped and, as both actual inflation and inflation expectations in the euro area declined sharply over the past two years, the likelihood of deflationary developments generated a great deal of concern.

Chart 1.

10-year government bond yield spreads in the euro area 2008–2014



Sources: Bloomberg and calculations by the Bank of Finland.

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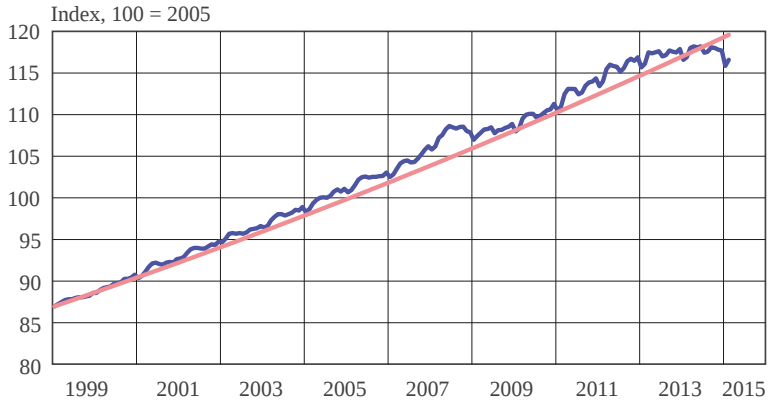
Expanded purchase programme in response to waning inflation expectations

The stated objective of monetary policy in the euro area is to keep annual HICP inflation below, but close to, 2% in the medium term. A secondary objective is to support the EU's general economic policies without prejudice to the objective of price stability.

Over the long term, the Eurosystem has met its price stability objective commendably. Average inflation rates have stayed below, but close to, 2% since the introduction of the euro. The price level in the euro area has never deviated more than a few index points from the path that would have resulted from constant inflation at 2% (see Chart 2). In the short term, however, inflation has at times expressed high volatility around the price stability objective. This was especially the case just before the financial crisis in 2008, when inflation peaked at over 4%, and again only approximately one year later, when global economic growth stalled in the wake of the collapse of Lehman Brothers and inflation bottomed out below zero (see Chart 3).

Chart 2.

Price stability trend



Sources: Eurostat and calculations by the Bank of Finland.

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Chart 3.

Actual HICP inflation

Source: Eurostat.

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Recent times have been difficult from the point of view of price stability. Inflation has remained below 1% for over a year and is forecast to remain below target levels for at least two more years. There are both internal and external reasons for the slowing pace of inflation in the euro area. Overindebtedness and the resulting persistently weak demand have reduced price pressures and prevented non-financial corporations from fully reflecting cost increases in their pricing. Competitiveness issues have reduced wage pressures in several countries, and in some euro area countries wages and salaries have even gone down, especially in the public sector. In addition, falling global commodity and energy prices have significantly dampened global price developments, with both fuel prices and food production costs falling simultaneously.

Towards the end of 2014 the outlook for prices in the euro area weakened further. This trend was underlined by negative inflation rates in December as the result of a major decline in the price of oil, which has a significant weighting in the price basket. However, even core inflation (excluding food and energy prices) has been exceptionally low and following a falling trend in recent times, which points to a more broadly based weakening of price developments (see Chart 3).

Central banks are prepared to use all the means at their disposal in order to prevent a generalised self-reinforcing cycle of falling prices, i.e. deflation. Although prices have declined in some euro area countries, the euro area as a whole has not experienced broadly based deflation. A temporary decline in prices in a limited group of products (e.g. oil) does not constitute detrimental deflation. Nevertheless, signs of highly dangerous price developments increased towards the end of 2014. One example can be seen in the IMF forecast of autumn 2014, where the probability of deflation for the euro area has increased to close to 30%.

From the point of view of forward-looking monetary policy and price stability it is more important to look at the inflation outlook than at actual inflation. There are two reasons for the significance attached to inflation expectations. Firstly, as the implementation of monetary policy is market-based, the transmission of policy changes to current prices is not immediate. Under normal circumstances, the transmission lag of monetary policy is approximately 18–24 months. This delay and random price variation are the main reasons why the ECB aims to maintain price stability in the medium term.

Secondly, economic agents seek to project future price developments when making financial decisions. This channel is particularly important when financial agreements are made for longer periods. When e.g. wage agreements are made for a number of years, inflation expectations become key in assessing their real impact. High expected inflation leads to higher wage demands, and high wage demands drive inflation. Because of this self-fulfilling quality of inflation expectations, anchoring them to levels consistent with price stability is of key importance to monetary policy.

Even if actual inflation falls close to zero, central banks need not be concerned as long as the underlying factors are of a temporary nature, as a fall in oil prices tends to be. The inflationary impact of changes in relative prices tends to be temporary; they have no impact on inflation expectations and central banks would, in any case, not be able to react in time because of the transmission lag.[6] However, a weakening economic outlook, persistent very low inflation rates and monetary policy at the zero lower bound have been dampening both short and long-term inflation expectations in the euro area for several months already. Low levels of inflation were no longer considered a temporary phenomenon. Towards the end of 2014, markets began to price in negative inflation for the following year. In addition, various inflation forecasts from different sources saw inflation remaining below levels consistent with the price stability objective for a prolonged time, which began to drag even on long-term inflation expectations derived from market information.

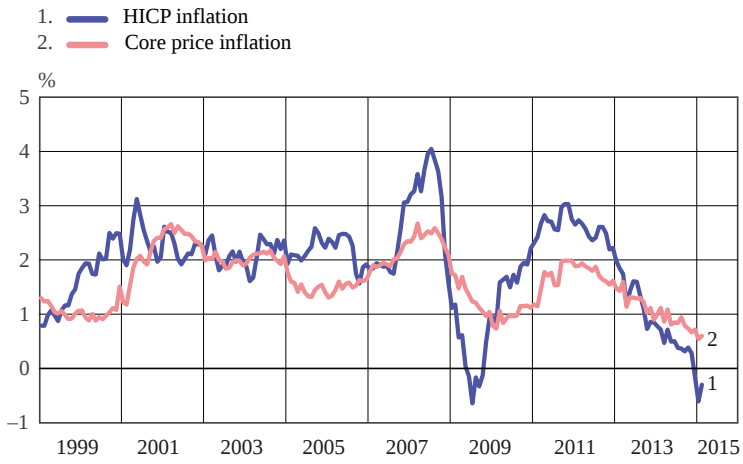
Despite the uncertainty in measurements of inflation expectations, this was particularly problematic from the monetary policy perspective, as inflation expectations derived from three to five-year market prices also plummeted after the summer of 2014. This was interpreted as markets no longer believing that inflation would return to levels consistent with price stability even after the fading away of the direct and indirect impacts of past oil price cuts on annual inflation.

A decline in longer-term inflation expectations signalled to the Governing Council of the ECB that the price stability objective was at risk. Earlier monetary policy measures aimed at supporting credit markets were now complemented with an expanded asset purchase programme in response to apparently persistent very low inflation and the risk of deflationary developments.

6. Changes in relative prices can, however, lead to a more persistent inflationary cycle, for example when they are compensated for in wage negotiations.

Chart 4.

Actual HICP inflation and core price inflation
(HICP excl. energy and processed foods)



Source: Eurostat.

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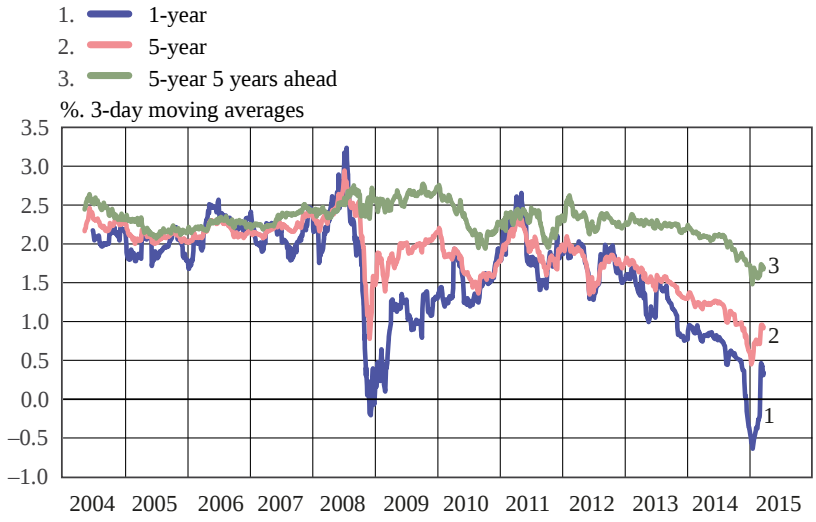
Chart 5.

Market-implied inflation expectations in 2010–2014



Source: Bloomberg.

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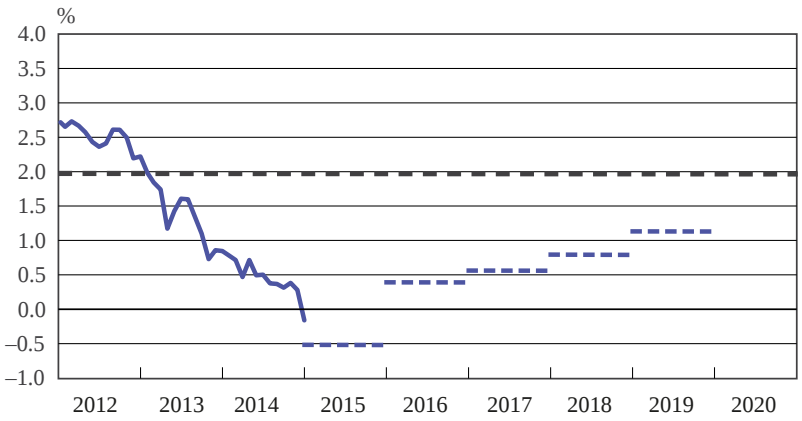
Chart 6.

Market-implied expected inflation as at 1 January 2015



Sources: Eurostat, Bloomberg and calculations by the Bank of Finland.

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Price stability through monetary growth

The asymmetry of the interest rate instrument could introduce a downward bias in the price stability objective: average inflation rates may remain below target levels if central banks are only able to raise interest rates and slow down inflation but – because of the zero lower bound – not to lower the rates and boost inflation. In principle, central banks could counteract this effect e.g. by committing to an accommodative monetary policy for a sufficiently long period and allowing inflation to exceed average target levels for a time. Implementing such a policy would not be easy, however, as it would move the focus of the central bank's monetary policy strategy from inflation targeting towards price level targeting.[7]

The zero lower bound can, however, lead to a prolonged period of very low inflation even without a broadly based deflationary cycle of falling prices and wages. Breaking out of such a situation may prove difficult, especially if inflation expectations are clearly below the central bank's target level. Preventing a deflationary cycle is in principle a simple matter: monetary policy needs to commit to unlimited accommodative measures to achieve price stability and raise inflation expectations back to levels consistent with the strategic objective. One such measure is to increase the amount of central bank money by purchasing assets with (electronic) money that is created for this very purpose. The expansion of central bank balance sheets through asset purchases for monetary policy purposes does not constitute a money-printing scheme, also known as helicopter money.[8] In addition to increasing the amount of money in circulation, it would be

7. See Kilponen, J. – Kontulainen, J. – Suvanto, A. (2013) Financial crises and monetary policy targets. Bank of Finland Bulletin 1/2013.
8. See Bernanke, B. S. (2002) Deflation: Making Sure "It" Doesn't Happen Here. Remark before the National Economists Club. Washington, DC. November 21.

important to boost domestic lending, and fiscal policies should support demand growth where possible.

In practice, such policy actions are not easy to implement. Central banks do not easily commit to unlimited operations, as prolonged overly accommodative monetary policies can result in e.g. rapid, unfounded asset price increases. Measures to increase credit demand are dampened when a significant share of economic agents are overindebted. Problems related to overindebtedness could weaken the central bank's ability to tighten monetary policy at a sufficient pace when the time comes. Fiscal policies supporting demand might be neither feasible nor prudent if central government budgets have been in deficit for an extended period, tax rates are high and long-term growth prospects are weak. Indeed, structural reforms to enhance the growth potential of national economies have gained importance especially in countries where there is limited scope for improving public sector demand.

The ECB's main refinancing rate has been 0.05% since June 2014. In September 2014 the central bank also changed the lower bound of its interest rate corridor, lowering the rate on the deposit facility to -0.20%. The Eurosystem had reached the zero lower bound for monetary policy. In addition, in the months from June to September the ECB decided on a number of measures to support bank lending and expand the Eurosystem balance sheet. Even with these measures in place, loan demand remained subdued and inflation expectations continued to fall towards the end of the year.

In a bid to achieve its balance sheet objective and safeguard price stability, the Governing Council decided on 22 January to significantly expand the asset purchases introduced in the autumn of 2014 and to also include bonds issued by euro area central governments, government agencies and European institutions. In the earlier purchasing programmes the ECB has been buying covered bank bonds and asset-backed securities. The combined monthly purchases were announced to amount to EUR 60 billion from March 2015 to the end of September 2016, bringing the total cumulative purchases to EUR 1,140 billion. In addition, the Governing Council announced that it would be prepared to continue the programme until it sees a sustained adjustment in the path of inflation that is consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term. This constituted a clear step, in terms of both the monetary policy stance and communication, from setting the price of money to manipulating the money supply.

Monetary policy toolkit not exhausted

Expanding the Eurosystem balance sheet is not an end in itself; it has real economic goals besides price stability. The purchases increase the amount of money in circulation, which will eventually manifest itself as improved financing conditions and a better availability of financing for the euro area real economy.

The economic impact of an increased money supply is felt through several channels. The measures lower the yields on the bonds being purchased, which translates to lower financing costs for the issuer. Central government bond yields are commonly used as reference rates on the financial markets, so an impact on the rates is felt much more widely than just in central government finances. This transmission channel is reinforced by what is called the portfolio effect, which occurs when the sellers of assets invest the

money received in payment from the central bank in other assets, thus pushing up prices and again lowering financing costs. In addition, price increases on bonds increase the wealth of their holders and raise the collateral value of the assets. The purchases will also have wealth effects and improve the availability of liquidity to agents with impaired access.

Monetary growth will increase the supply of the currency vis-à-vis other currencies, thus in principle weakening it. The euro is a freely floating currency whose value is determined by the markets. The monetary policies of other countries influence its value alongside the monetary policy of the Eurosystem. Expectations of a tightening of monetary policy in the United States, implying higher dollar rates in the future, have influenced the exchange rate of the euro against the dollar, the euro depreciating and the dollar appreciating. The impact of monetary easing on the exchange rate will depend crucially on how monetary policy measures change the views of domestic and foreign investors as regards future yields on securities issued in the euro area and denominated in euro.

A weaker exchange rate should enhance the competitiveness of goods and services produced in the currency area, strengthening exports. In addition, import prices will rise as a result of the depreciation, accelerating inflation.

The combined effect of all current Eurosystem decisions should strengthen demand, consumption and investment, raise the capacity utilisation rate and support the growth of money and credit, thus contributing to bringing inflation closer to 2%. In this way, monetary policy in the euro area supports economic recovery and the return of inflation rates to levels consistent with the set objective over the medium term. The objective can be reached faster if the expectations of economic agents develop positively and other economic policies provide support to the measures taken by the European Central Bank.

Although the impact of the asset purchases has been beneficial, it is too early to assess how strong the impact will eventually be, e.g. how the different rates will go down and which assets will see strongest demand growth. The answers will depend, to a great extent, on decisions made outside the central banks: from which balance sheets assets will be sold and what the sellers will do with the money they receive.

The January decisions of the Governing Council were explicitly about safeguarding the objective of price stability. The Governing Council is committed to continuing its accommodative monetary policy until it sees a sustainable adjustment in the path of inflation to levels consistent with the objective, i.e. below, but close to, 2%. This should raise inflation expectations, which of course is the one way a central bank acting under the zero lower bound can lower the real interest rates in the economy.

A commitment to unlimited monetary accommodation gains importance and is more effective in an environment of low interest rates with inflation expectations deviating considerably from the objective. In the situation prevailing in the euro area in recent months, the expectation channel of monetary policy transmission has gained increasing importance in raising inflation expectations and bringing about a more broadly based improvement in economic agents' confidence levels. Forward guidance in the form of a commitment to monetary accommodation can be considered as the key component in

the January monetary policy decisions. The expanded asset purchase programme is a novel measure for the Eurosystem and, as such, proof of the Eurosystem's determination to bring price developments back in line with the objective. Still, it is important to understand that the monetary policy-makers have not exhausted their toolkit. If the decisions made in January are not sufficient to achieve price stability, the ECB will use additional instruments within its mandate.

Tags

- euro area
- quantitative easing
- unconventional monetary policy measures
- monetary policy
- inflation

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