# GLOBAL ECONOMIC OUTLOOK – NOVEMBER

2012

Monetary and Statistics Department
External Economic Relations Division

CZECH NATIONAL BANK

# CONTENTS



| | | |
|---|---|---|
| Authors: | Oxana Babecká | II. |
| | Milan Klíma | III. |
| | Soňa Benecká | IV., V. |
| | Jan Hošek | VI. |
| | Jan Hošek | Summary |
| | Luboš Komárek | Focus |
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The November issue of Global Economic Outlook presents regular overview of recent and expected developments in selected territories, focusing on key economic variables such as GDP, inflation, leading indicators, interest rates, exchange rates and commodity prices. Our regular in-depth analysis (section VII *Focus*) looks at the autumn meeting of the Institute for International Finance (IIF) held on 11–13 October 2012 in Tokyo. Many of the presentations naturally dealt with the state of the Japanese economy. Others focused on the development and integration of Asian financial markets, the implementation of Basel standards and sovereign debt restructuring. The size of financial institutions was also discussed and a daily inflation statistics project was presented. As usual, IIF economists also presented their global economic and financial outlook.

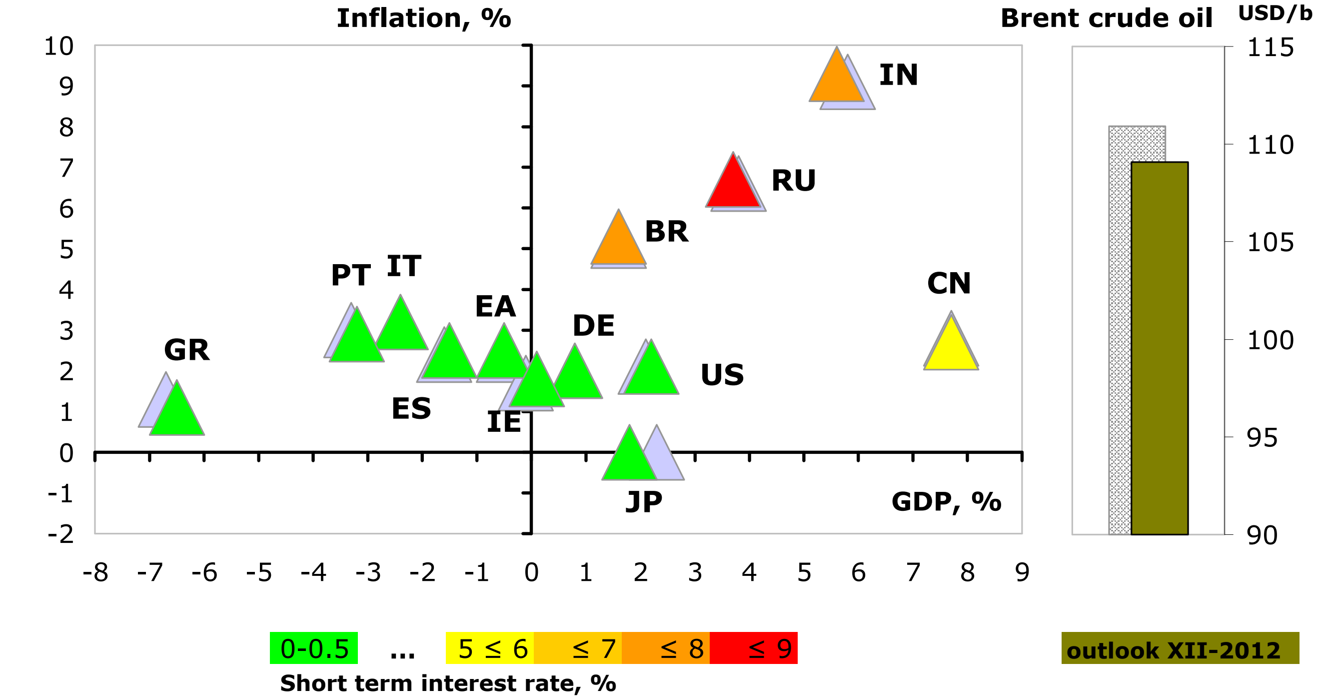
The USA is experiencing growing uncertainty in the form of the fiscal cliff (i.e. the effect of a number of laws which – if not changed – will result in tax increases, government spending cuts and a reduction in the US budget deficit beginning in 2013). In Europe, the effect of the debt crisis is spreading further from the periphery to the core of the monetary union. According to the November CF, the outlooks for GDP growth in the USA and inflation in the euro area for this year rose only marginally. Leading indicators are also signalling a slight improvement in the economic outlook in the USA and China and, conversely, continued economic contraction in the euro area.

Increased risk aversion on financial markets resulted in renewed interest in safe assets. This led to a further appreciation of the dollar and a decline in yields on government bonds of safe countries back to near the historical lows recorded in July 2012. While the CF expects a correction and a gradual rise in German and US bond yields at the one-year horizon, the dollar is expected to continue to appreciate against both the euro and the yen (and to be unchanged against the pound).

The price pressures on the oil market are weakening as fundamentals such as lower growth in demand, rising supply (especially in non-OPEC countries) and growing commercial stocks in OECD countries push the geopolitical risks in the Middle East into the background. Inflation is also benefiting from prices of non-energy commodities, as both food and industrial commodity prices recorded declines.

Money market interest rates in the USA and especially in the euro area stopped falling in November. Short-term rates in particular have virtually no room to decline any further.

**Economic outlook for selected countries in 2012**



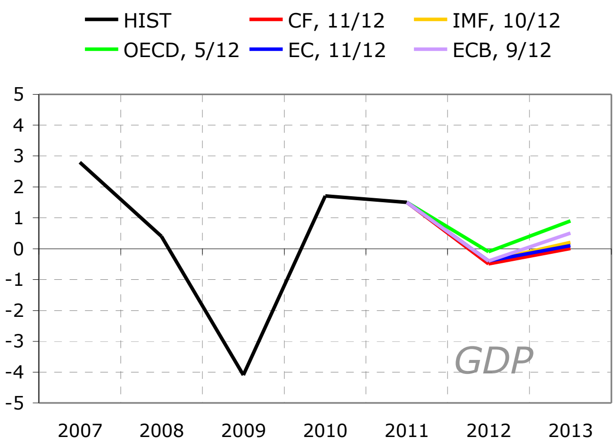

Note: EA – euro area, DE – Germany, US – United States, JP – Japan, CN – China, IN – India, BR – Brazil, RU – Russia, GR – Greece, IE – Ireland, IT – Italy, PT – Portugal, ES – Spain. The points are coloured according to the short-term interest rate level in 2012. The grey colour is the CF forecast (GDP, inflation) or Bloomberg survey (oil price) from the previous month. [Cut-off date for data: 16 November 2012]
Source: CNB calculation using Bloomberg, Consensus Economics and IEA.

## II.1 GDP

The global economic outlook is being obscured to a large extent by uncertainty about developments in advanced countries. Fiscal policy in the USA – especially the disagreement over the "fiscal cliff" (even after the presidential elections) – poses a major risk to the future economic situation of this country. Economic growth in the euro area as a whole may be negatively affected by a worsening of the situation in the countries on the southern periphery (especially Greece) and, over the short term, by the risk of slower growth in Germany in 2012 H2. According to the new CF and Commission outlooks, GDP in the euro area will decline by 0.4%–0.5% **this year**. Weak growth of about 0.8% will be recorded by Germany. The USA will grow by 2.1% and China by 7.7%.

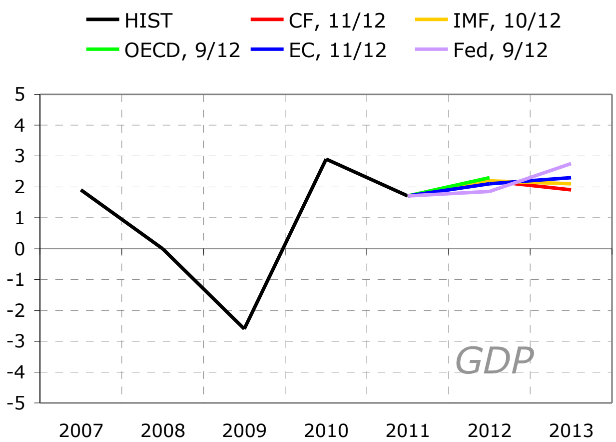
In **2013**, economic growth in the euro area will be zero or slightly positive. According to the new CF and Commission outlooks, growth in Germany will remain at this year's level. According to the new CF, GDP growth in the USA will slow to 1.9%, while the Commission expects stronger growth at 2.3%. The Chinese economy will grow at a rate of 7.7%–8.1%.

**EURO AREA**



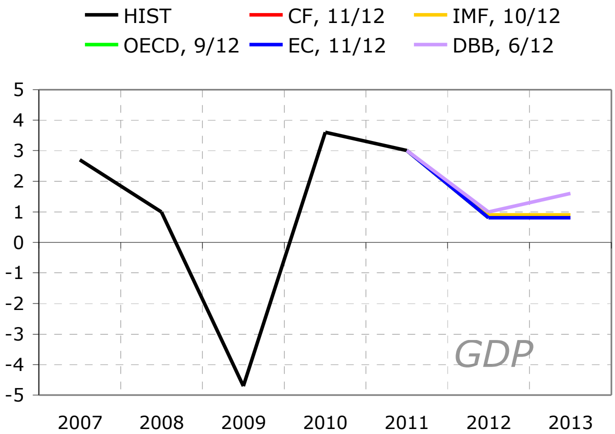

| | HIST | CF | IMF | OECD | EC | ECB |
|---|---|---|---|---|---|---|
| **2011** | 1.5 | | | | | |
| **2012** | | -0.5 | -0.4 | -0.1 | -0.4 | -0.4 |
| **2013** | | 0.0 | 0.2 | 0.9 | 0.1 | 0.5 |

**USA**



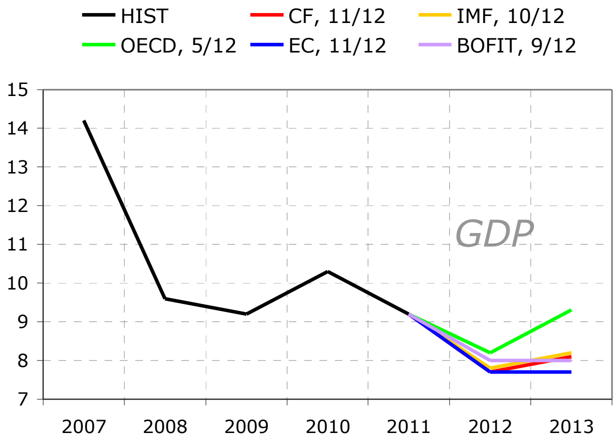

| | HIST | CF | IMF | OECD | EC | Fed |
|---|---|---|---|---|---|---|
| **2011** | 1.7 | | | | | |
| **2012** | | 2.2 | 2.2 | 2.3 | 2.1 | 1.9 |
| **2013** | | 1.9 | 2.1 | | 2.3 | 2.8 |

**GERMANY**




| | HIST | CF | IMF | OECD | EC | DBB |
|---|---|---|---|---|---|---|
| **2011** | 3.0 | | | | | |
| **2012** | | 0.8 | 0.9 | 0.8 | 0.8 | 1.0 |
| **2013** | | 0.8 | 0.9 | | 0.8 | 1.6 |

**CHINA**




| | HIST | CF | IMF | OECD | EC | BOFIT |
|---|---|---|---|---|---|---|
| **2011** | 9.2 | | | | | |
| **2012** | | 7.7 | 7.8 | 8.2 | 7.7 | 8.0 |
| **2013** | | 8.1 | 8.2 | 9.3 | 7.7 | 8.0 |

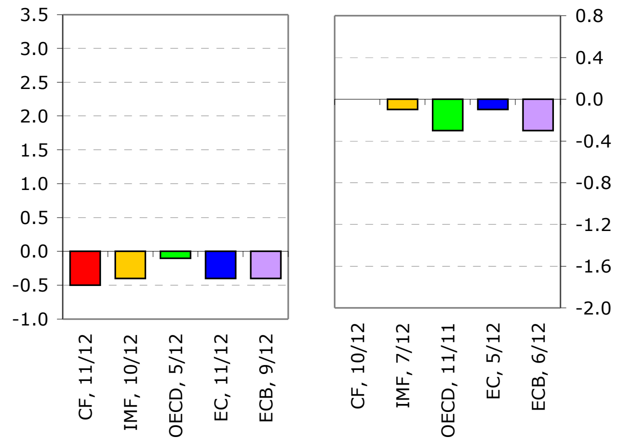
Note: Legend shows latest forecast data in format "Source, month/year of forecast publication". HIST: historical value. ECB and Fed: midpoint of range. [Cut-off date for data: 16 November 2012]
Source: CNB calculation using Eurostat, CF, IMF, OECD, EC, ECB, Fed, DBB and BOFIT databases.

## II.2 Current GDP forecast and change from the previous forecast

The November CF increased the outlook for GDP in the USA **this year** by 0.1 pp. The CF outlook for the other economies under review was unchanged from October. Compared to the May outlook, the Commission expects 0.1 pp higher growth in Germany and the USA. Of all the economies under review, the outlook for China was lowered the most – by 0.7 pp compared to the previous outlook.

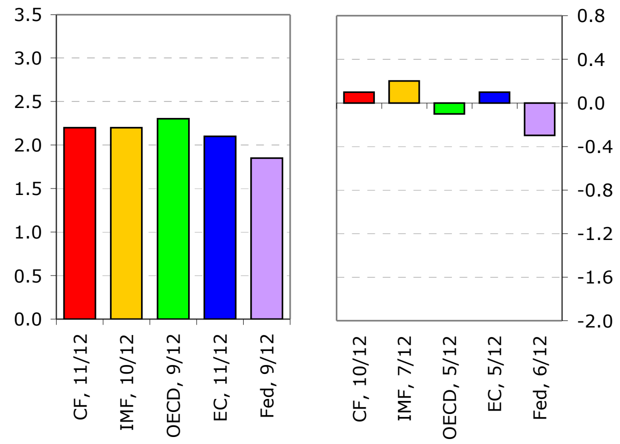
**EURO AREA**

Forecast for 2012 | Change from previous forecast




**USA**

Forecast for 2012 | Change from previous forecast

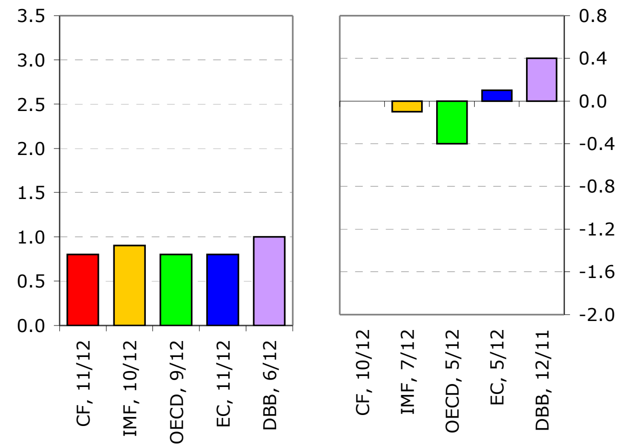



| | 2011 | CF | IMF | OECD | EC | ECB |
|---|---|---|---|---|---|---|
| **Forecast** | 1.5 | -0.5 | -0.4 | -0.1 | -0.4 | -0.4 |
| **Change** | | 0.0 | -0.1 | -0.3 | -0.1 | -0.3 |

| | 2011 | CF | IMF | OECD | EC | Fed |
|---|---|---|---|---|---|---|
| **Forecast** | 1.7 | 2.2 | 2.2 | 2.3 | 2.1 | 1.9 |
| **Change** | | 0.1 | 0.2 | -0.1 | 0.1 | -0.3 |

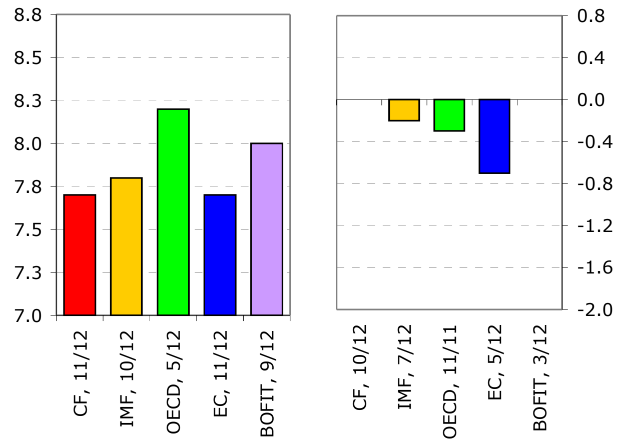
**GERMANY**

Forecast for 2012 | Change from previous forecast




**CHINA**

Forecast for 2012 | Change from previous forecast




| | 2011 | CF | IMF | OECD | EC | DBB |
|---|---|---|---|---|---|---|
| **Forecast** | 3.0 | 0.8 | 0.9 | 0.8 | 0.8 | 1.0 |
| **Change** | | 0.0 | -0.1 | -0.4 | 0.1 | 0.4 |

| | 2011 | CF | IMF | OECD | EC | BOFIT |
|---|---|---|---|---|---|---|
| **Forecast** | 9.2 | 7.7 | 7.8 | 8.2 | 7.7 | 8.0 |
| **Change** | | 0.0 | -0.2 | -0.3 | -0.7 | 0.0 |

Note: Horizontal axis of left-hand (right-hand) chart shows latest (previous) forecast data in format "Source, month/year of forecast publication". HIST: historical value. ECB and Fed: midpoint of range.
[Cut-off date for data: 16 November 2012]

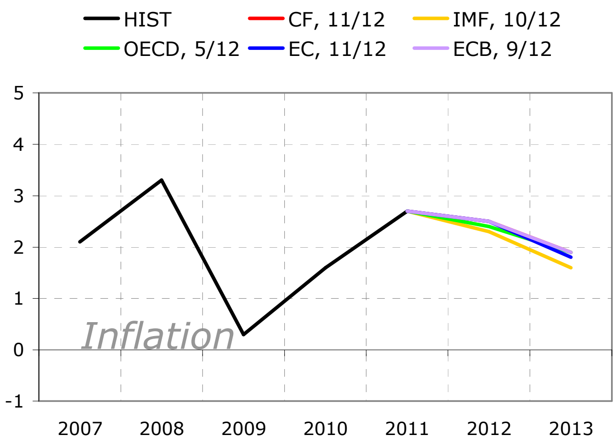
Source: CNB calculation using Eurostat, CF, IMF, OECD, EC, ECB, Fed, DBB and BOFIT databases.

## II.3 Inflation

According to the new Commission outlook, the effect of high commodity prices and indirect taxes on inflation in the euro area (and also the EU) will gradually decline over the next two years. However, renewed economic growth and wage growth will create slight inflation pressures. The CF and the Commission expect inflation in the euro area to be 2.5% **in 2012**. Inflation in Germany and the USA will reach 2.0%–2.1% (CF and Commission). Inflation in China will be at 2.7% according to the November CF.

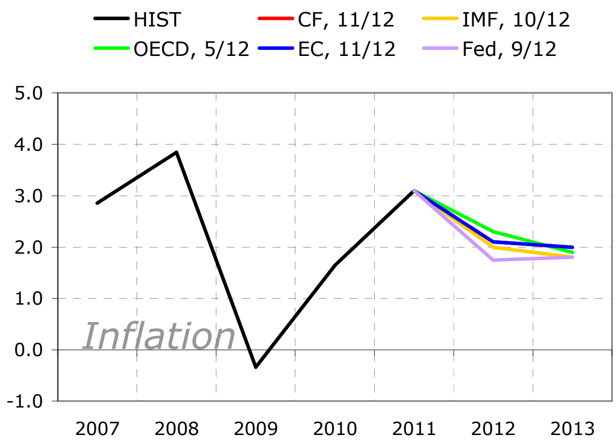
A slight slowdown in inflation is expected in advanced economies **next year** compared to this year. Inflation in the euro area will drop to 1.8%–1.9% (CF and Commission). Consumer prices in Germany and the USA will grow at a rate of 1.9% and 2% respectively. By contrast, inflation in China will rise slightly to 3.3% in 2013.

**EURO AREA**



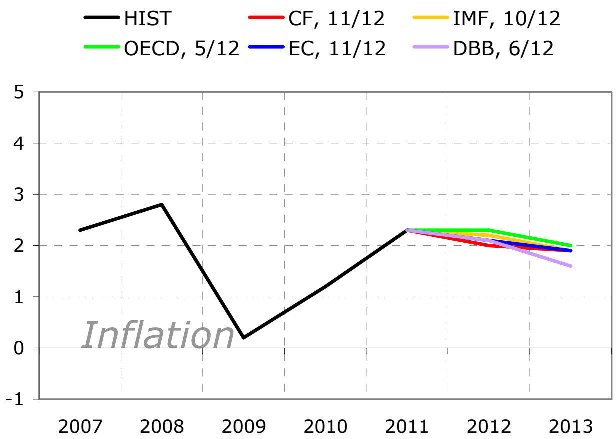

| | HIST | CF | IMF | OECD | EC | ECB |
|---|---|---|---|---|---|---|
| **2011** | 2.7 | | | | | |
| **2012** | | 2.5 | 2.3 | 2.4 | 2.5 | 2.5 |
| **2013** | | 1.9 | 1.6 | 1.9 | 1.8 | 1.9 |

**USA**



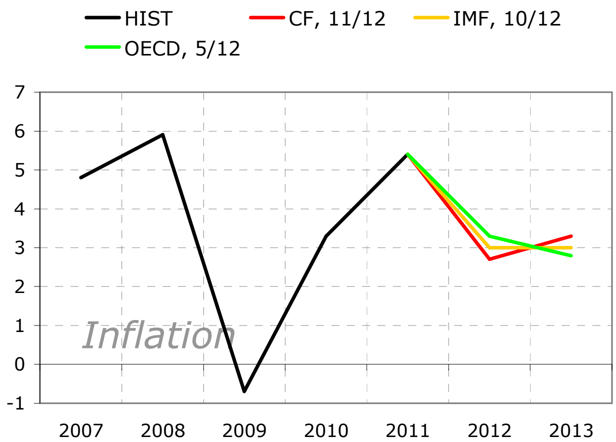

| | HIST | CF | IMF | OECD | EC | Fed |
|---|---|---|---|---|---|---|
| **2011** | 3.1 | | | | | |
| **2012** | | 2.1 | 2.0 | 2.3 | 2.1 | 1.8 |
| **2013** | | 2.0 | 1.8 | 1.9 | 2.0 | 1.8 |

**GERMANY**




| | HIST | CF | IMF | OECD | EC | DBB |
|---|---|---|---|---|---|---|
| **2011** | 2.3 | | | | | |
| **2012** | | 2.0 | 2.2 | 2.3 | 2.1 | 2.1 |
| **2013** | | 1.9 | 1.9 | 2.0 | 1.9 | 1.6 |

**CHINA**



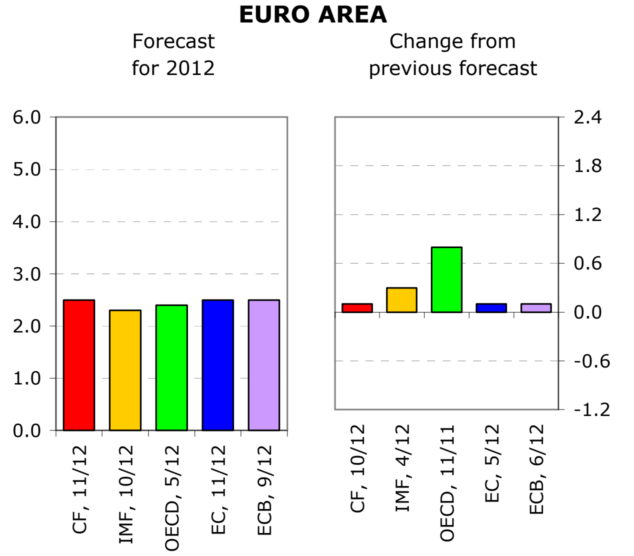

| | HIST | CF | IMF | OECD |
|---|---|---|---|---|
| **2011** | 5.4 | | | |
| **2012** | | 2.7 | 3.0 | 3.3 |
| **2013** | | 3.3 | 3.0 | 2.8 |

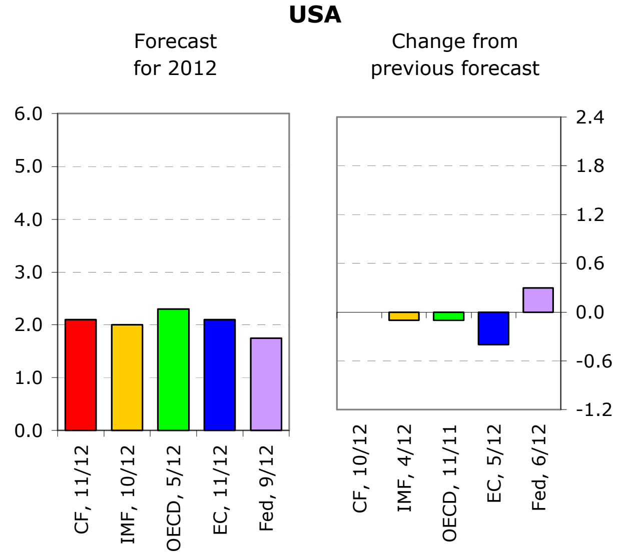
Note: Legend shows latest forecast data in format "Source, month/year of forecast publication". HIST: historical value. ECB and Fed: midpoint of range. [Cut-off date for data: 16 November 2012]

Source: CNB calculation using Eurostat, CF, IMF, OECD, EC, ECB, Fed, DBB and BOFIT databases.

## II.4 Inflation forecast and change from the previous forecast

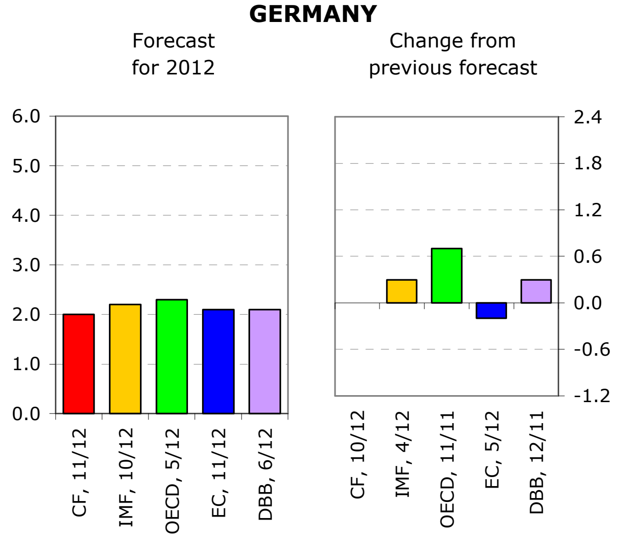
The new CF and Commission forecasts revised their outlooks for inflation in the euro area **this year** upwards by 0.1 pp. The CF outlooks for Germany and the USA were unchanged. The Commission expects inflation in Germany and the USA to be 0.2 pp and 0.4 pp weaker respectively compared to its May outlook. According to CF, inflation in China will be 0.1 pp weaker compared to last month's forecast.

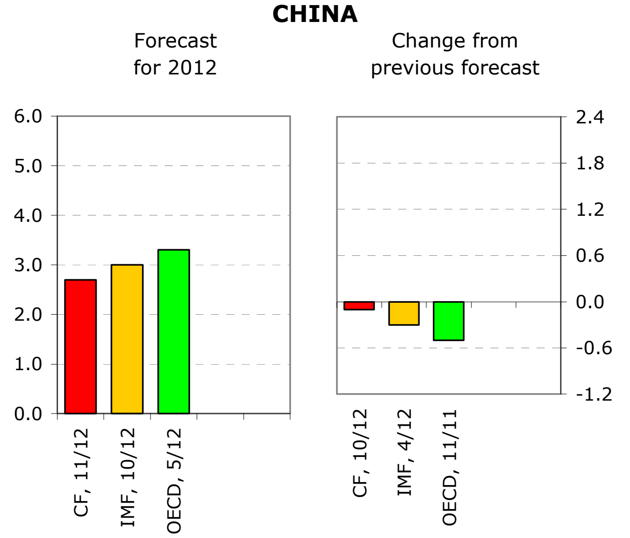



| | 2011 | CF | IMF | OECD | EC | ECB |
|---|---|---|---|---|---|---|
| **Forecast** | 2.7 | 2.5 | 2.3 | 2.4 | 2.5 | 2.5 |
| **Change** | | 0.1 | 0.3 | 0.8 | 0.1 | 0.1 |

| | 2011 | CF | IMF | OECD | EC | Fed |
|---|---|---|---|---|---|---|
| **Forecast** | 3.1 | 2.1 | 2.0 | 2.3 | 2.1 | 1.8 |
| **Change** | | 0.0 | -0.1 | -0.1 | -0.4 | 0.3 |




| | 2011 | CF | IMF | OECD | EC | DBB |
|---|---|---|---|---|---|---|
| **Forecast** | 2.3 | 2.0 | 2.2 | 2.3 | 2.1 | 2.1 |
| **Change** | | 0.0 | 0.3 | 0.7 | -0.2 | 0.3 |

| | 2011 | CF | IMF | OECD |
|---|---|---|---|---|
| **Forecast** | 5.4 | 2.7 | 3.0 | 3.3 |
| **Change** | | -0.1 | -0.3 | -0.5 |

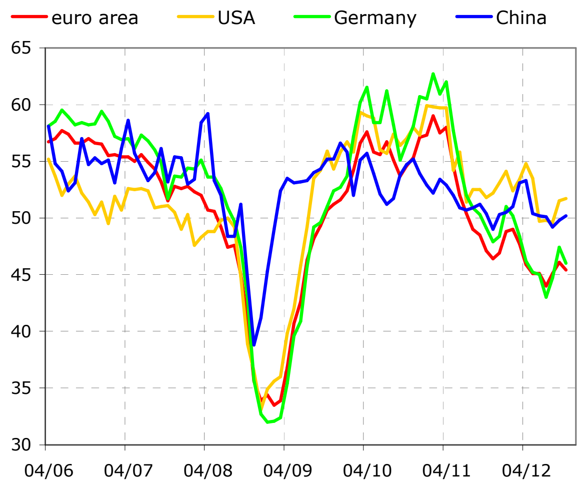
Note: Horizontal axis of left-hand (right-hand) chart shows latest (previous) forecast data in format "Source, month/year of forecast publication". HIST: historical value. ECB and Fed: midpoint of range.

[Cut-off date for data: 16 November 2012]

Source: CNB calculation using Eurostat, CF, IMF, OECD, EC, ECB, Fed, DBB and BOFIT databases.

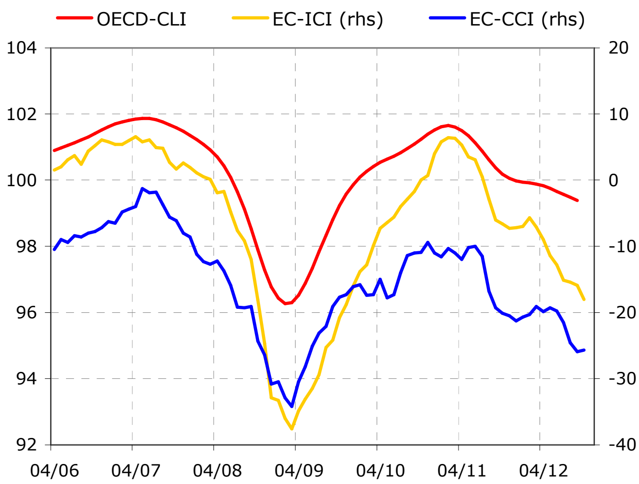
The trend observed in September continued into October: according to the Purchasing Managers' Index (PMI) the economic outlook in industry improved further in the USA and China (exceeding 50% in both countries). However, following a previous increase, the PMI declined again in the euro area and Germany (to 45.4% and 46% respectively), thus remaining well below 50%. In addition to the PMI, all the other monitored leading indicators increased in the USA. The biggest improvement was recorded by consumer confidence, probably reflecting the favourable trend on the labour market (strong employment growth). In the euro area, by contrast, confidence in industry fell again and consumer confidence was flat. The economic outlook for the German economy remains noticeably better. Although business confidence and the aggregate leading economic index decreased, both monitored consumer confidence indices improved.

**PMI IN MANUFACTURING**



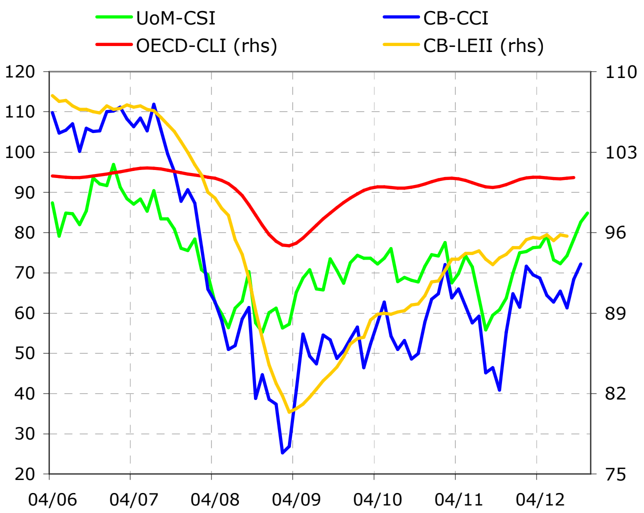

| | EA | US | DE | CN |
|---|---|---|---|---|
| **8/12** | 45.1 | 49.6 | 44.7 | 49.2 |
| **9/12** | 46.1 | 51.5 | 47.4 | 49.8 |
| **10/12** | 45.4 | 51.7 | 46.0 | 50.2 |

**EURO AREA**



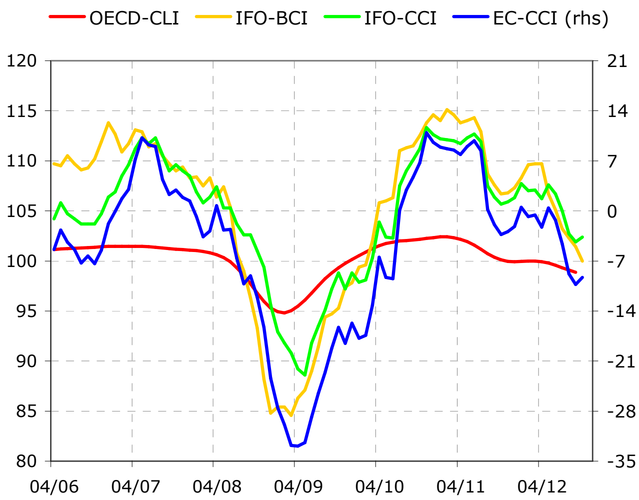

| | OECD-CLI | EC-ICI | EC-CCI |
|---|---|---|---|
| **8/12** | 99.5 | -15.4 | -24.6 |
| **9/12** | 99.4 | -15.9 | -25.9 |
| **10/12** | | -18.0 | -25.7 |

**USA**




| | OECD-CLI | CB-LEII | UoM-CSI | CB-CCI |
|---|---|---|---|---|
| **8/12** | 100.7 | 95.7 | 74.3 | 61.3 |
| **9/12** | 100.8 | | 78.3 | 68.4 |
| **10/12** | | | 82.6 | 72.2 |

**GERMANY**




| | OECD-CLI | IFO-BCI | IFO-CCI | EC-CCI |
|---|---|---|---|---|
| **8/12** | 99.1 | 102.3 | 102.7 | -8.8 |
| **9/12** | 98.9 | 101.4 | 101.9 | -10.3 |
| **10/12** | | 100.0 | 102.4 | -9.3 |

Note: OECD-CLI stands for OECD Composite Leading Indicator, EC-ICI (right-hand scale) for European Commission Industrial Confidence Indicator, EC-CCI (right-hand scale) for EC Consumer Confidence Indicator, CB-LEII for Conference Board Leading Economic Indicator Index, CB-CCI for CB Consumer Confidence Index, UoM-CSI for University of Michigan Consumer Sentiment Index, IFO-BCI for Institute for Economic Research – Business Climate Index, and IFO-CCI for IFO Consumer Confidence Index. [Cut-off date for data: 16 November 2012]

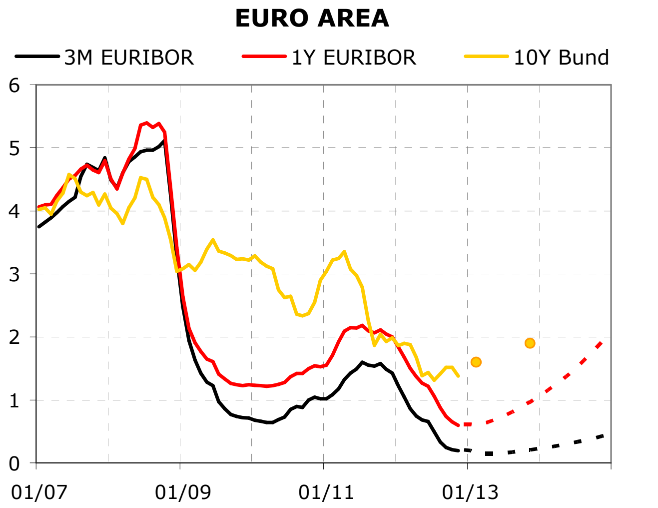
Source: CNB calculation using OECD, EC, IFO and UoM databases.

## IV.1 Outlook for short-term and long-term interest rates: Euro area

The fall in interbank 3M and 1Y EURIBOR rates slowed considerably in October and virtually halted at 0.2% for 3M maturity and 0.6% for 1Y maturity in mid-November. As expected, the ECB did not change its key interest rate. In its view, the risks to growth are on the downside and the inflation risks are balanced. Risk premia were also flat for both maturities at the end of the period under review.

The forecast based on implied rates again shifted downwards compared to the previous month, mainly for the 1Y rate. The CF outlook for the 3M rate was unchanged; this rate is expected to rise to 0.4% at the one-year horizon.

Newly published data for the euro area confirm a significant slowdown. The situation in Spain and Greece also fostered an increase in risk aversion. For this reason, German 10Y government bond yields fell further. The CF outlook was unchanged from last month and a slight increase in rates is still expected at the 1Y horizon.




| | 10/12 | 11/12 | 06/13 | 12/13 | 06/14 | 12/14 |
|---|---|---|---|---|---|---|
| **3M EURIBOR** | 0.21 | 0.19 | 0.15 | 0.22 | 0.32 | 0.45 |
| **1Y EURIBOR** | 0.65 | 0.60 | 0.72 | 1.03 | 1.45 | 2.03 |
| | **10/12** | **11/12** | **02/13** | **11/13** | | |
| **10Y Bund** | 1.52 | 1.38 | 1.60 | 1.90 | | |

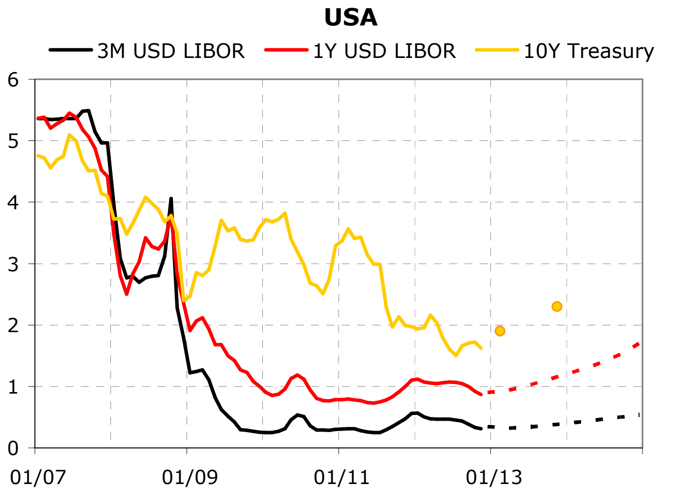
Note: Forecast for EURIBOR rates is based on implied rates from interbank market yield curve (FRA rates are used from 4M to 15M and adjusted IRS rates for longer horizons). Forecast for German government bond yield (10Y Bund) is taken from CF. Dashed lines and points represent outlook. [Cut-off date for data: 16 November 2012]

Sources: Thomson Reuters (Datastream), Bloomberg, CNB calculations.

## IV.2 Outlook for short-term and long-term interest rates: USA

The 3M and 1Y USD LIBOR rates also continued to fall in October, halting at 0.3% and 0.86% respectively in November. The outlook based on implied rates moved downwards compared to the previous month (more significantly so for the 1Y rate). The 3M LIBOR will thus remain below 0.5% until mid-2014.

US bond rates were affected mainly by the results of the presidential elections. The extension of President Obama's mandate means that the Fed's current policy will continue, primarily with further asset purchases. The 10Y government bond yield reached 1.6% in mid-November. However, the new CF shifted the rate outlook 0.1 pp upwards at both the 3M and 1Y horizons.

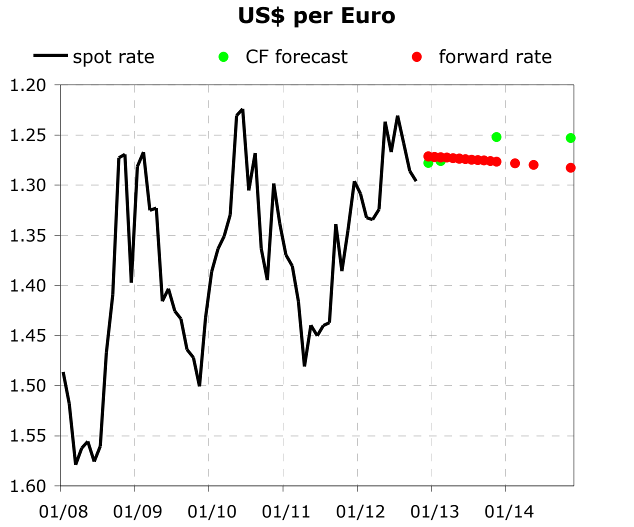


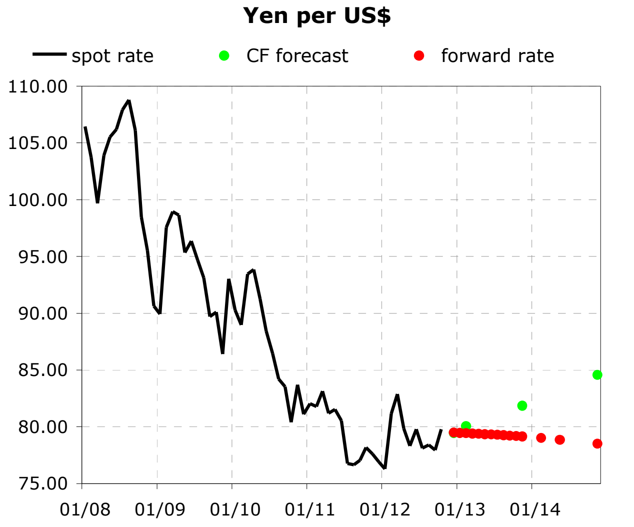

| | 10/12 | 11/12 | 06/13 | 12/13 | 06/14 | 12/14 |
|---|---|---|---|---|---|---|
| **3M USD LIBOR** | 0.33 | 0.31 | 0.33 | 0.39 | 0.46 | 0.54 |
| **1Y USD LIBOR** | 0.92 | 0.87 | 1.00 | 1.18 | 1.39 | 1.70 |
| | **10/12** | **11/12** | **02/13** | **11/13** | | |
| **10Y Treasury** | 1.72 | 1.62 | 1.90 | 2.30 | | |

Note: Implied LIBOR rates are derived from London interbank market yield curve. Forecast for 10Y Treasury yield is taken from CF. Dashed lines and points represent outlook. [Cut-off date for data: 16 November 2012]

Sources: Thomson Reuters, Bloomberg, CNB calculations.

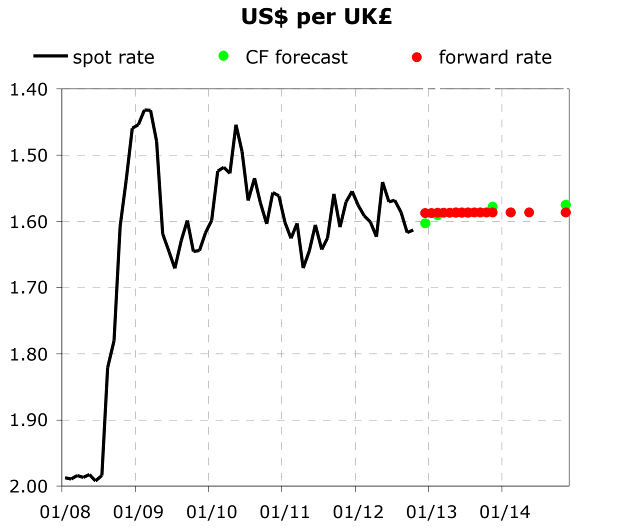
The dollar has been appreciating against the euro since mid-October despite growing concerns about the impacts of the fiscal cliff. Interest in safe currencies was renewed as risk aversion rose. The outlook for the euro area did not improve and the effects of the debt crisis are starting to be felt throughout the monetary union. The new forecast thus continues to expect the euro to depreciate against the dollar by 1.5% at the 1Y horizon. The dollar also appreciated against the yen, with new data from the domestic economy leading to the commencement of further asset purchases by the central bank and the announcement of emergency fiscal measures. According to the November CF, the dollar will continue to appreciate against the yen over the next two years. By contrast, the outlook for the dollar against the pound remains stable. The UK economy is showing signs of a slight recovery, leading the central bank to decide not to further expand its quantitative easing programme. The exchange rate of the Swiss franc against the euro returned to the official ceiling in October and according to CF will stay close to this level in 2013.

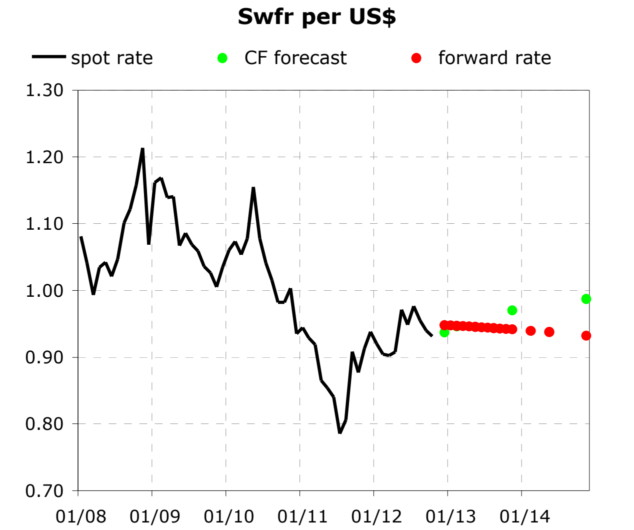



| | 12/11/12 | 12/12 | 02/13 | 11/13 | 11/14 |
|---|---|---|---|---|---|
| **spot rate** | 1.271 | | | | |
| **CF forecast** | | 1.278 | 1.276 | 1.252 | 1.253 |
| **forward rate** | | 1.271 | 1.272 | 1.277 | 1.283 |

| | 12/11/12 | 12/12 | 02/13 | 11/13 | 11/14 |
|---|---|---|---|---|---|
| **spot rate** | 79.50 | | | | |
| **CF forecast** | | 79.45 | 80.05 | 81.84 | 84.56 |
| **forward rate** | | 79.48 | 79.42 | 79.14 | 78.50 |




| | 12/11/12 | 12/12 | 02/13 | 11/13 | 11/14 |
|---|---|---|---|---|---|
| **spot rate** | 1.588 | | | | |
| **CF forecast** | | 1.603 | 1.591 | 1.578 | 1.575 |
| **forward rate** | | 1.588 | 1.587 | 1.587 | 1.587 |

| | 12/11/12 | 12/12 | 02/13 | 11/13 | 11/14 |
|---|---|---|---|---|---|
| **spot rate** | 0.948 | | | | |
| **CF forecast** | | 0.937 | 0.946 | 0.970 | 0.987 |
| **forward rate** | | 0.948 | 0.947 | 0.941 | 0.932 |

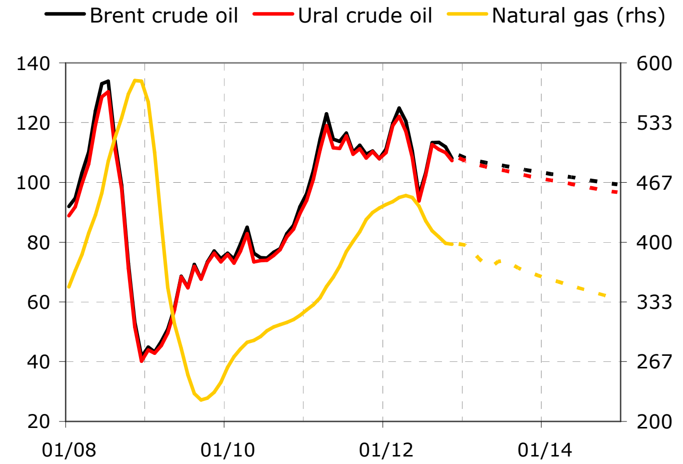
Note: Increase in currency pair represents appreciation of US dollar; data as of the last day of the month. Forward rate does not represent outlook; it is based on covered interest parity, i.e. currency of country with higher interest rate is depreciating. Forward rate represents current (as of cut-off date) possibilities for securing future exchange rate. [Cut-off date for data: 16 November 2012] CNB calculation using Bloomberg and Consensus Forecasts databases.

## VI.1 Oil and natural gas

The price of Brent oil has been fluctuating between USD 105 and USD 117 a barrel since August along a gradual downward trend. The futures-based forecast is falling at roughly the same rate. The outlook was almost unchanged from the previous month and is still signalling a fall from the current USD 109 a barrel to just below USD 100 at the end of 2014.

The relatively calm development is in line with current market fundamentals. The IEA reduced its future demand outlook again, due mainly to the bad economic situation in Europe and, in the short term, also to hurricane Sandy in the USA. Conversely, the expected supply of oil is rising, especially in the USA and Canada. This is reducing the pressure on future production growth in OPEC countries, whose current extraction dropped to a 9-month low (even though the decline in extraction in Iran halted). Total commercial stocks of oil and oil products in OECD countries grew again in September (despite the expected seasonal decline) and according to preliminary figures the growth continued into October. The level of stocks was revised upwards to 59.6 days of future consumption.

**OUTLOOK FOR PRICES OF OIL AND NATURAL GAS**




| | 11/12 | 06/13 | 12/13 | 06/14 | 12/14 |
|---|---|---|---|---|---|
| **Brent crude oil** | 108.0 | 105.9 | 103.5 | 101.4 | 99.3 |
| **Ural crude oil** | 107.3 | 104.4 | 101.5 | 99.0 | 96.7 |
| **Natural gas** | 397.6 | 378.3 | 362.7 | 349.2 | 336.6 |

Note: Brent oil price in USD/barrel (ICE quotation). Price of Russian natural gas at German border in USD/1,000 cubic m (IMF database). Future oil prices are derived from oil prices. Dashed line represents outlook.

[Cut-off date for data: 16 November 2012]

Source: Bloomberg, IMF, CNB calculations.

## VI.2 Other commodities

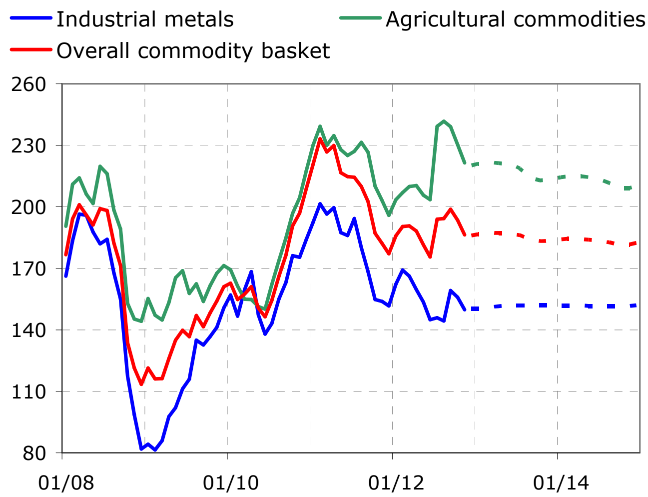
While the outlook for energy commodity prices was virtually unchanged, the forecast for the overall non-energy commodity index shifted quite significantly downwards.

The food commodity index fell for the second consecutive month, mainly due to soy, maize (whose prices should continue to fall), coffee, cocoa and orange concentrate. Following a surge in June and July, the price of wheat stabilised at high levels, where it should remain until mid-2014. Prices of meat went in opposite direction. The price of beef was again close to an all-time high and the outlook was pointing well above it.

The industrial metal index also contributed to the decline in the overall index, with virtually all of its components more or less correcting the growth they recorded in September.

Carbon steel prices fell further to their lowest level since January 2010. Conversely, the drop in stainless steel prices halted and prices edged up in October. Electricity prices also rose slightly, while the coal price decline halted.

**OUTLOOK FOR OTHER COMMODITY PRICES**




| | 11/12 | 06/13 | 12/13 | 06/14 | 12/14 |
|---|---|---|---|---|---|
| **Industrial metals** | 149.8 | 152.0 | 151.9 | 151.7 | 152.0 |
| **Agricultural commodities** | 221.6 | 220.4 | 213.7 | 213.9 | 210.1 |
| **Overall commodity basket** | 186.3 | 186.9 | 183.8 | 183.6 | 182.4 |

Note: Chart shows price indices, year 2005 = 100. Dashed line represents outlook based on futures.

[Cut-off date for data: 16 November 2012]

Source: Bloomberg, outlooks based on futures.

## A LOOK BACK AT THE 2012 IIF ANNUAL MEMBERSHIP MEETING[1]

*This year's annual meeting of the Institute of International Finance (IIF)[2] was held on 11–13 October in Tokyo, simultaneously, as usual, with the annual meeting of the International Monetary Fund and the World Bank. The first day of the meeting began with sessions on the development and financial integration of Asian financial markets, the implementation of Basel standards and sovereign debt restructuring. Attention then turned to the Japanese economy, first from the perspective of the reconstruction efforts after the natural disaster in March 2011, and then from the point of view of the present and future role of Japan in the global economy. The second day of the meeting started with presentations by IIF economists on the economic and financial outlook for mature and emerging economies. One inspiring presentation focused on the creation of economic indicators from on-line data (inflation in particular). The agenda also included a debate on the size of financial institutions (i.e. the well-known "too big to fail" phenomenon). On the final day, discussion forums were held on the challenges stemming from the current euro area crisis and the opportunities and challenges for Asian economies. Some of the above topics are described in more detail below.*

### 1. Japan in the global economy

Given the location of the annual meeting of the IIF (and of the International Monetary Fund and the World Bank), the Japanese economy was mentioned frequently and in various contexts, for example from the perspective of the economic condition of this economic power (including in the context of the still vivid memories of the tsunami and the subsequent disaster at the Fukushima nuclear power station) and from the perspective of the economic and political measures it has taken to combat deflation.

Japan is currently the third-strongest economy in the world (behind the USA and China), annually producing goods and services worth USD 5.9 trillion. Japan is also the third-biggest car producer in the world, has one of the most advanced consumer electronics sectors and is often ranked among the most innovative countries. However, Japan is also associated with such terms as the lost decades, quantitative easing and the aforementioned deflation. In his speech, Paul Sheard (Chief Global Economist and Head of Global Economics and Research at Standard & Poor's Ratings Services) focused on the last-mentioned phenomenon. He began by pointing to the still – albeit gradually – decreasing rate of decline of the Japanese GDP deflator, which has been following this trend since 1997. He then made three comments on the deflationary environment in Japan and on deflation itself.

The first was that deflation is no good for any economy and should be strongly avoided by economic policy-makers. Mr Sheard briefly explained that deflation *de facto* makes real wage adjustment in the economy impossible, causes problems in financial intermediation and makes it very difficult for central banks to conduct monetary policy when monetary policy rates hit zero. In addition, the Japanese experience with deflation has revealed a relationship between a fall in the general price level and a decline in prices of assets (equity and real estate). According to Mr Sheard, this makes economic

[1] Written by Luboš Komárek (lubos.komarek@cnb.cz). The opinions expressed in this issue are those of the author and do not necessarily reflect the official position of the Czech National Bank.

[2] The IIF (www.iif.com) is a global association of financial institutions (mainly large ones) created in 1983 in response to the international debt crisis. Members include most of the world's largest commercial banks and investment banks, insurance companies and investment management firms.

agents generally more risk averse, in turn affecting the behaviour of the Japanese authorities (government and central bank).

Mr Sheard's second comment concerned the inevitability of deflation in the Japanese environment and the Bank of Japan's struggle to combat it over the past two decades. Mr Sheard said that to manage deflation one needs to influence inflation expectations and – as the central bank – be sufficiently aggressive (with conventional and later also unconventional policy). According to Mr Sheard, the Bank of Japan has never adopted a really aggressive unconventional policy, as evidenced by the relatively low growth in its balance sheet total (which rose by just 32% in the two waves of quantitative easing) compared to the unconventional instruments applied by the Fed and the ECB, whose balance sheet totals increased by 210% and 110% respectively over a much shorter time scale.[3]

The third comment related to the relationship between deflation and the fiscal situation, which has very readable features in the Japanese case. In a situation of deflation and falling nominal GDP, tax revenues (direct and indirect) go down and the pressure to use fiscal stimuli (expansive fiscal policy) goes up. However, there are not enough funds to pursue such policy. The link between deflation and fiscal problems is also visible from an analysis of the relationship between savings and investment. Japan's government deficit is roughly 10% of GDP, which, given a 2% current account surplus, leads to a 12% surplus of private savings. The government debt generated is thus a demanded asset of Japanese households, who – in a situation of persisting uncertainty – increase their saving rate by purchasing this debt.

Mrs Janet L. Yellen, Vice Chair of the Board of Governors of the Federal Reserve, followed up on the above presentation. She noted that the Japanese economy faces a similar challenge as other advanced countries, namely population ageing. Demographic effects are thus directly affecting the fiscal area. Japan's public debt is expected to reach almost 240% of GDP this year. This is the highest debt level of all the advanced economies (even though it consists primarily of internal debt) and raises a question about public finance sustainability in Japan. However, the savings of Japanese households and firms are still well able to finance this fiscal burden. Unlike most other advanced countries, the Japanese economy will record robust growth this year (although a relatively significant decline is expected in the next two years), supported by the strong export capacity of the Japanese economy. Mrs Yellen therefore believes that Japan will continue to play a leading role in Asia and the global economy.

**2. PriceStats – daily inflation statistics based on on-line data**

The presentation by Robert Rigobon from the Massachusetts Institute of Technology (MIT) on alternative creation of economic indicators from on-line data, focusing mainly on daily measures of consumer price inflation, greatly interested the IIF audience. Mr Rigobon began by outlining the origination and main stages of the PriceStats data collection process.[4] This approach was developed by Argentine economist Alberto Cavallo at Harvard University and published in his 2009 doctoral thesis "Scraped Data and Sticky Prices: Frequency, Hazards, and Synchronization".[5] Practical data collection started as part of the "Billion Prices Project", an academic initiative launched by Alberto

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[3] The balance sheet total of the Bank of England grew by a full 320%.

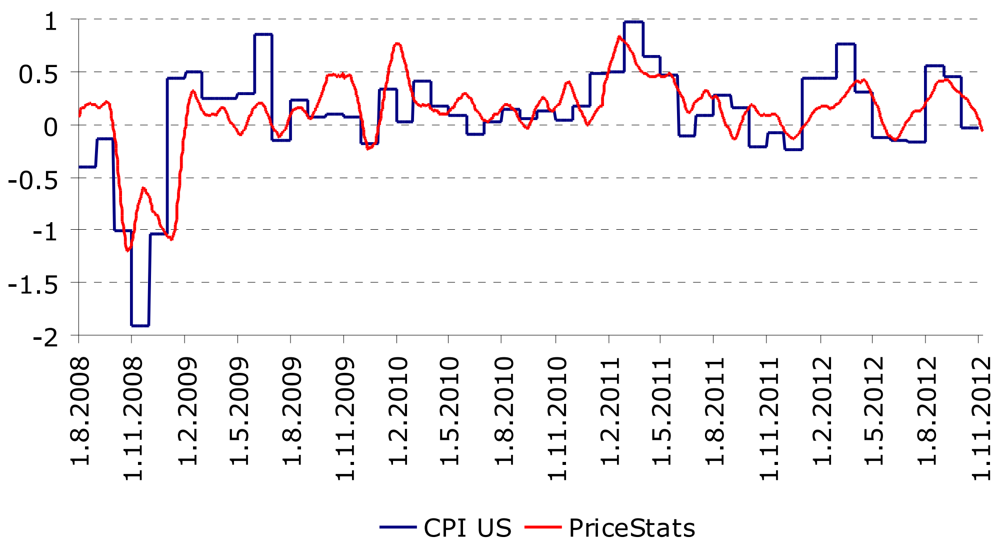
[4] See http://www.pricestats.com/.

[5] http://isites.harvard.edu/fs/docs/icb.topic643207.files/09_0915_Cavallo.pdf

Cavallo and Robert Rigobon at MIT. The project currently covers on-line data from about 50 countries. Compared to standard consumer price indices, PriceStats has the following advantages: (i) it obtains information on a far larger number of products, which (ii) are monitored at a higher frequency (daily as opposed to monthly for CPIs), and (iii) the results are available sooner (within three days, as compared to around ten days for standard national CPIs[6]). The disadvantage of PriceStats compared to standard consumer price indices is that it does not cover the prices of typical services[7] (PriceStats covers roughly 60% of the standard CPI consumer basket). However, it does cover key categories such as food, clothing, electronics, furniture and energy.

Mr Rigobon went on to explain that the PriceStats price index is based on automated, i.e. computer-performed, daily monitoring of a vast number of internet retail prices, which he then compared with the traditional method of price index determination by statistics offices, i.e. the definition of a representative basket of goods followed by monthly on-site monitoring of their prices. PriceStats collects information on prices from almost 900 retailers across more than 70 countries. PriceStats has been publishing indices for almost 20 advanced and emerging countries since 2007–2008. The PriceStats data collection process is divided into four stages: (i) automated collection of information from the internet ("scraping"),[8] (ii) identification of the most suitable on-line retailers for measuring inflation (an effort is made to cover major retailers with relevant market coverage in relevant cities and which sell both on-line and off-line), (iii) data processing, i.e. conversion of the data obtained from retailers (in various data formats) into standardised form, and (iv) calculation of the final PriceStats inflation statistics.

**Figure VII-1:** PriceStats and CPI inflation for the USA (m-o-m growth rates in %)




Note: CPI US – consumer price inflation rate in USA, PriceStats – inflation rate from on-line data.
Source: http://statestreetglobalmarkets.com/research/pricestats/index.html

Figure VII-1 compares the month-on-month PriceStats inflation rate with the month-on-month inflation rate calculated using the standard CPI for the USA. The comparison of these time series reveals a period of up to half a year in which PriceStats inflation differed quite considerably from the monthly CPI inflation calculated by the statistics

[6] For the Harmonised Index of Consumer Prices (HICP) published by Eurostat, the lag is about 45 days.
[7] However, this is not a big problem if the main goal is to estimate fundamental changes in inflation trends. Prices of services are usually relatively stable. They are not the main source of volatility and can be monitored indirectly through products with similar price behaviour.
[8] Information is collected from websites by converting unstructured data (usually in HTML format) into structured data files that can be saved and analysed.

bureau. Mr Rigobon then showed that so far in 2012 annual PriceStats inflation for the USA has been below the standard annual inflation rate for much longer. The opposite is true of Japan, where PriceStats inflation has exceeded standard Japanese consumer price inflation quite considerably (with a deviation of roughly 0.5–1.5 percentage point).

### 3. The IIF global economic outlook

As usual, a global outlook for economic activity and inflation was presented by IIF Chief Economist Phillip Suttle (see Table VII-1). According to the current IIF forecast, the world economy will perform slightly better amid marginally higher inflation next year by comparison with the results expected for this year. However, the three most advanced economies will show mixed trends in the period ahead. In Japan, lower economic growth and positive consumer price inflation is expected next year. The US economy will record a slight decrease in performance in 2013, but show solid growth of 2.4% in 2014. Following a decline in economic activity this year, the euro area economy will record positive growth next year, strengthening further to 1.5% in 2014. The US inflation rate will rise very gradually over the coming two years to just over the 2% level. In the euro area, by contrast, it will fall towards 1.5% in 2014.

**Table VII-1:** Outlook for global economic activity and inflation

| Country | Real GDP (y-o-y, %) | | | Inflation (y-o-y, %) | | |
|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2012 | 2013 | 2014 |
| **Advanced economies** | 1.1 | 1.3 | -- | 1.8 | 1.7 | -- |
| USA | 2.0 | 1.8 | 2.4 | 1.7 | 1.9 | 2.2 |
| Euro area | -0.4 | 0.5 | 1.5 | 2.5 | 1.7 | 1.5 |
| Japan | 2.1 | 0.8 | 0.9 | -0.1 | 0.2 | -- |
| **Emerging economies** | 4.8 | 5.4 | -- | 4.9 | 5.1 | -- |
| Latin America | 2.7 | 4.0 | -- | 7.4 | 8.8 | -- |
| Emerging Europe | 2.5 | 2.6 | -- | 6.2 | 5.4 | -- |
| Emerging Asia | 6.6 | 6.9 | -- | 3.3 | 3.5 | -- |
| Africa and Middle East | 3.8 | 4.3 | -- | 5.0 | 5.7 | -- |
| **World total** | 2.4 | 2.8 | -- | 2.9 | 3.0 | -- |

Source: Institute of International Finance.

Emerging economies should grow at a stronger pace in 2013 compared to the results expected for this year. Latin America will record the largest improvement and the highest rate of consumer price inflation. Emerging Asia will remain the fastest-growing region. Overall, therefore, the emerging economies will continue to drive global economic growth in 2013. The remaining presentations examined past and expected economic developments in individual continents.

| | |
|---|---|
| BOFIT | Bank of Finland Institute for Economies in Transition |
| BR | Brazil |
| BRIC | Brazil, Russia, India and China |
| CB-CCI | Conference Board Consumer Confidence Index |
| CB-LEII | Conference Board Leading Economic Indicator Index |
| CBOT | Chicago Board of Trade |
| CF | Consensus Forecasts |
| CN | China |
| CNB | Czech National Bank |
| DBB | Deutsche Bundesbank |
| DE | Germany |
| EA | euro area |
| EC | European Commission |
| ECB | European Central Bank |
| EC-CCI | European Commission Consumer Confidence Indicator |
| EC-ICI | European Commission Industrial Confidence Indicator |
| EIU | The Economist Intelligence Unit database |
| ES | Spain |
| EU | European Union |
| EUR | euro |
| EURIBOR | Euro Interbank Offered Rate |
| Fed | Federal Reserve System (the US central bank) |
| FRA | forward rate agreement |
| GBP | pound sterling |
| GDP | gross domestic product |
| GR | Greece |
| CHF | Swiss franc |
| ICE | Intercontinental Exchange |
| IE | Ireland |
| IFO | Institute for Economic Research |
| IFO-BCI | IFO – Business Climate Index |
| IFO-CCI | IFO – Consumer Confidence Index |
| IMF | International Monetary Fund |
| IN | India |
| IRS | Interest rate swap |
| IT | Italy |
| JP | Japan |
| JPY | Japanese yen |
| LIBOR | London Interbank Offered Rate |
| N/A | not available |
| OECD | Organisation for Economic Co-operation and Development |
| OECD-CLI | OECD Composite Leading Indicator |
| PT | Portugal |
| RU | Russia |
| UoM | University of Michigan |
| UoM-CSI | University of Michigan Consumer Sentiment Index |
| US | United States |
| USD | US dollar |

## 2012

| | Issue |
|---|---|
| Liquidity risk in the euro area money market and ECB operations (Soňa Benecká) | 2012-1 |
| The euro area bond market during the debt crisis (Tomáš Adam and Soňa Benecká) | 2012-2 |
| A macrofinancial view of asset price misalignment (Luboš Komárek) | 2012-3 |
| Property price misalignment around the world (Michal Hlaváček and Luboš Komárek) | 2012-4 |
| An overview of the world’s most frequently used commodity indices (Jan Hošek) | 2012-5 |
| A look back at the IIF spring membership meeting (Filip Novotný) | 2012-6 |
| Annual assessment of the forecasts included in the GEO (Filip Novotný) | 2012-7 |
| Changes in the Czech Republic’s balance of payments caused by the global financial crisis (Vladimír Žďárský) | 2012-8 |
| US holdings of foreign securities versus foreign holdings of securities in the US: What is the trend? (Narcisa Kadlčáková) | 2012-9 |
| The relationship between the oil price and key macroeconomic variables (Jan Hošek, Luboš Komárek and Martin Motl) | 2012-10 |
| A look back at the 2012 IIF annual membership meeting (Luboš Komárek) | 2012-11 |

## 2011

| | Issue |
|---|---|
| International integration of the Chinese stock market (Jan Babecký, Luboš Komárek and Zlatuše Komárková) | 2011-1 |
| The link between the Brent crude oil price and the US dollar exchange rate (Filip Novotný) | 2011-2 |
| A look back at the IIF spring membership meeting (Jan Hošek) | 2011-3 |
| Monetary policy of the People’s Bank of China (Soňa Benecká) | 2011-4 |
| Winners and losers of the economic crisis in the eyes of European investors (Alexis Derviz) | 2011-5 |
| How have global imbalances changed during the crisis? (Vladimír Žďárský) | 2011-6 |
| Assessment of the forecasts monitored in the GEO (Filip Novotný) | 2011-7 |

| | Issue |
|---|---|
| Eurodollar markets (Narcisa Kadlčáková) | 2011-8 |
| Increased uncertainty in euro area financial markets (Tomáš Adam and Soňa Benecká) | 2011-8 |
| Monetary policy of the central bank of the Russian Federation (Oxana Babecká) | 2011-9 |
| Where to look for a safe haven currency (Soňa Benecká) | 2011-9 |
| A look back at the IIF annual membership meeting (Luboš Komárek) | 2011-10 |
| The widening spread between prices of North Sea Brent crude oil and US WTI crude oil (Jan Hošek and Filip Novotný) | 2011-11 |
| An empirical analysis of monetary policy transmission in the Russian Federation (Oxana Babecká) | 2011-12 |