

# GLOBAL ECONOMIC OUTLOOK – JANUARY

Monetary and Statistics Department  
External Economic Relations Division

2014

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#### Cut-off date for data

13–17 January 2014

#### CF survey date

13 January 2014

#### GEO publication date

24 January 2014

#### Notes to charts

ECB and Fed: midpoint of the range of forecasts.

Forecasts for EURIBOR and LIBOR rates are based on implied rates from interbank market yield curve (FRA rates are used from 4M to 15M and adjusted IRS rates for longer horizons). Forecasts for German and US government bond yields (10Y Bund and 10Y Treasury) are taken from CF.

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II.4 Japan	III.2 India III.4 Brazil	IV. Commodity market developments		

The January issue of Global Economic Outlook presents its regular overview of recent and expected developments in selected territories, focusing on key economic variables: inflation, GDP growth, leading indicators, interest rates, exchange rates and commodity prices. In this year's first issue, we also discuss forward guidance, an increasingly used central bank instrument. This can be described as a central bank communication strategy aimed at providing markets and the public with information about the future implementation of monetary policy, and especially about the future path of the key interest rate or some other monetary policy instrument.

The global economic outlooks for 2014 are more optimistic compared to last year. A gradual recovery from the short-term perspective is also indicated by most of the followed leading indicators (see the charts below). The euro area should emerge from recession this year. This is reflected in positive expectations about the German economy. However, low inflation levels, which in some countries have developed into a real threat of deflation, represent a risk in Europe. A positive outlook can be expected for the US economy, whose growth rate should gradually increase this year to 3% amid subdued inflation outlooks. Japan should maintain its economic performance at the 2013 level thanks to reforms.

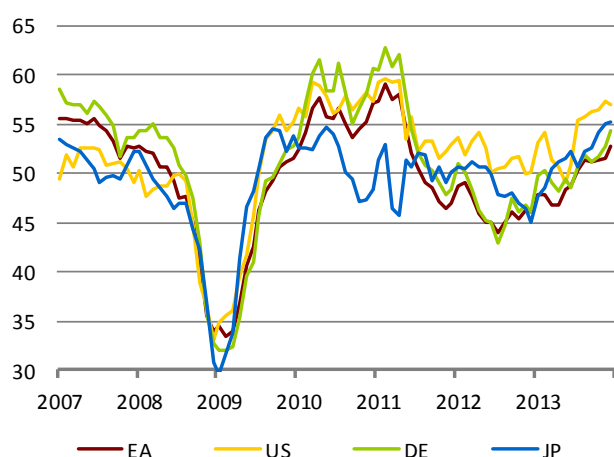
Most emerging economies, including the BRIC countries, are expected to maintain robust growth rates reflected in higher expected inflation rates. The Chinese economy may face a further slowdown in 2014, although leading indicators remain moderately optimistic. The economic growth rates in Russia and Brazil may be higher than last year if conditions develop favourably (in the case of Russia this depends largely on oil prices). Both economies will probably be stimulated by large sport events (the Winter Olympic Games and the football World Cup). After several years of slowdown, year-on-year GDP growth in India is expected to accelerate visibly, with the inflation rate remaining relatively high.

The one-year interest rate outlooks point to a slight rise in both the euro area and the USA. More marked rate increases can be expected in 2015. According to Consensus Forecasts, the US dollar will appreciate against the major currencies of advanced countries (the euro, the yen, the Swiss franc and the British pound). This probably reflects the better results of the US economy. At the one-year horizon, the dollar is expected to strengthen modestly against some emerging economies' currencies (the Brazilian real and the Russian rouble) and to be roughly stable against the Indian rupee. By contrast, it is expected to depreciate moderately against the Chinese currency.

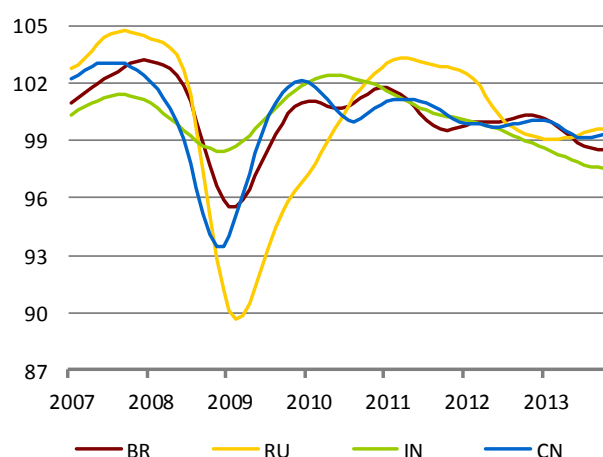
The outlook for dollar prices of oil and natural gas indicates a gradual decline towards the end of this year. Prices of food commodities should fall slightly as well. The forecasts for industrial metals prices are generally flat.

### Available leading indicators for countries monitored in the GEO

PMI in manufacturing - advanced countries



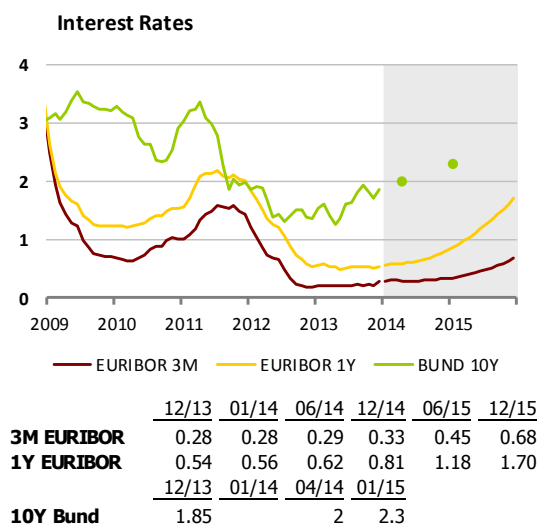
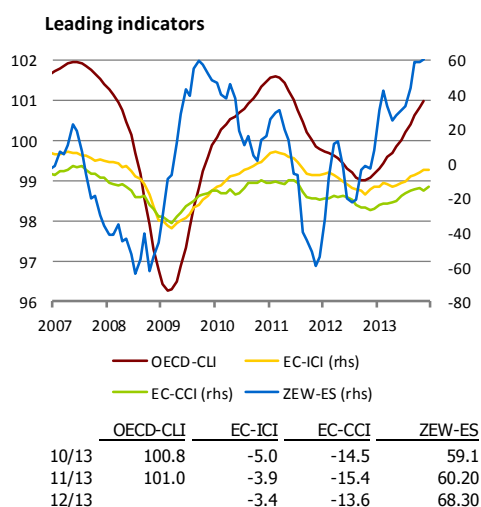
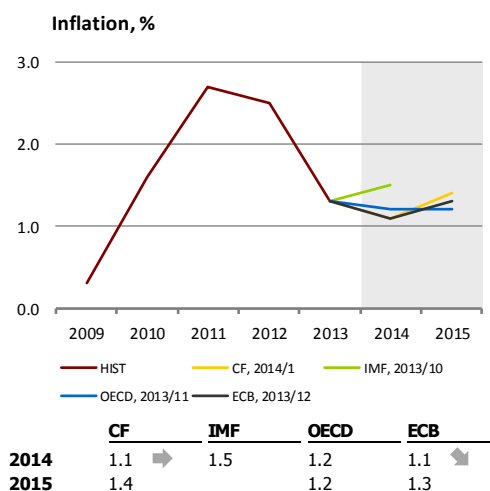
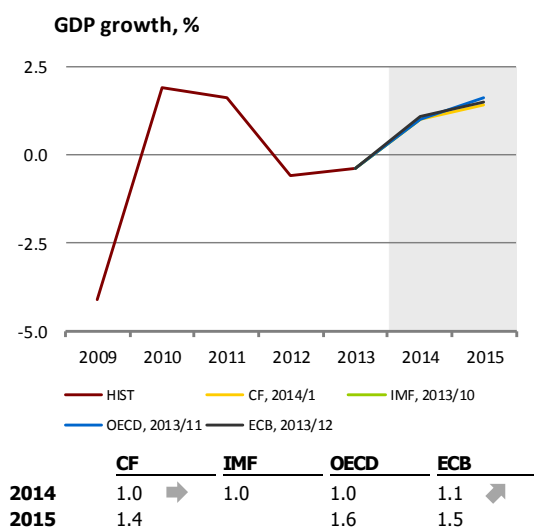
OECD CLI - BRIC countries



## II.1 Euro area

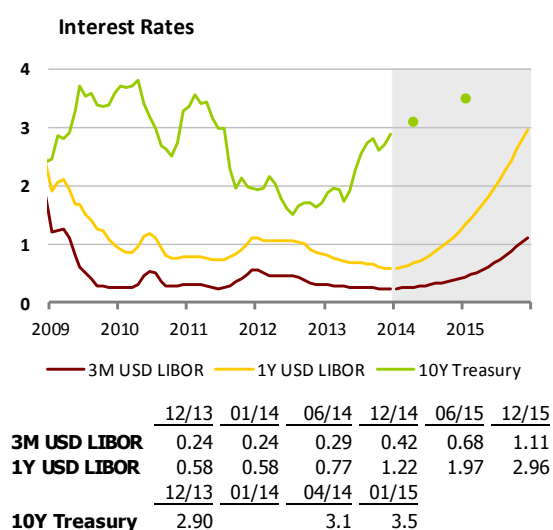
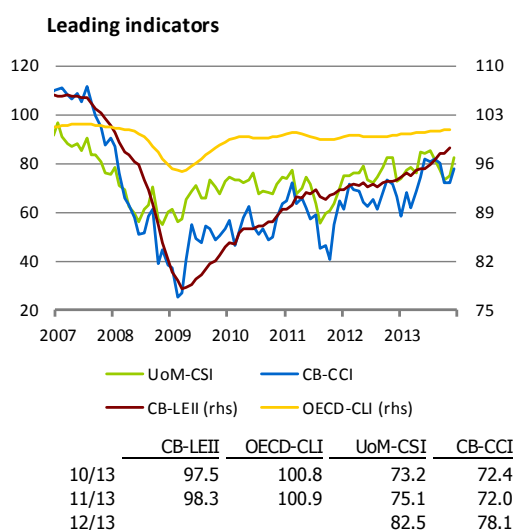
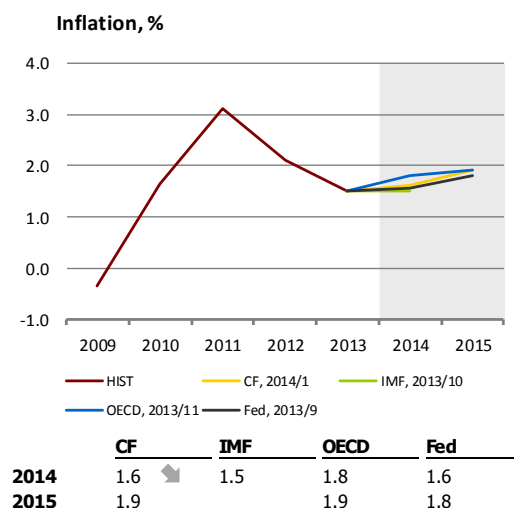
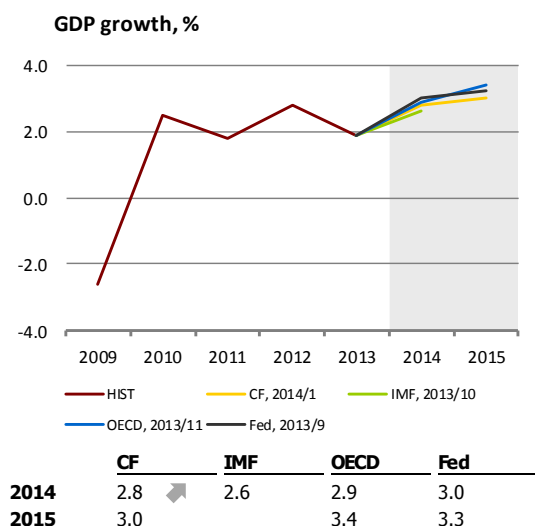
The euro area macroeconomic data from the end of last year and the first half of January suggest a rather modest recovery. On the one hand, the data on retail sales, whose year-on-year growth in November was the highest since February 2008, were surprisingly favourable. Industrial output also went up in November, after two previous declines. Similarly, most leading indicators suggest a continuing recovery, especially the PMI in manufacturing, which reached a 31-month high in December (see the chart in Section I). On the other hand, this apparent recovery is not yet being reflected in unemployment, which remains at record highs in the euro area. Inflation fell to 0.8% in December, but according to the ECB inflation expectations are firmly anchored in the medium term in line with its inflation target. The ECB may, however, react to a continued rise in money market rates, which have been going up in relative terms since the start of December for technical reasons and may thus endanger the speed of the economic recovery, especially in euro area periphery countries.

The outlooks for GDP growth this year and the next are similar across the institutions. The January CF outlook is the same as in December, while the ECB has slightly increased its forecast (to 1.1%). The recovery should then pick up pace by almost 0.5 pp next year. The outlook for inflation this year recorded no major changes and inflation should be almost 1 pp below the ECB's target. According to the outlooks monitored, inflation is not expected to get significantly nearer to this target next year either. The outlooks for the 3M and 1Y EURIBOR and the yield on the 10Y Bund are in line with the December GEO.



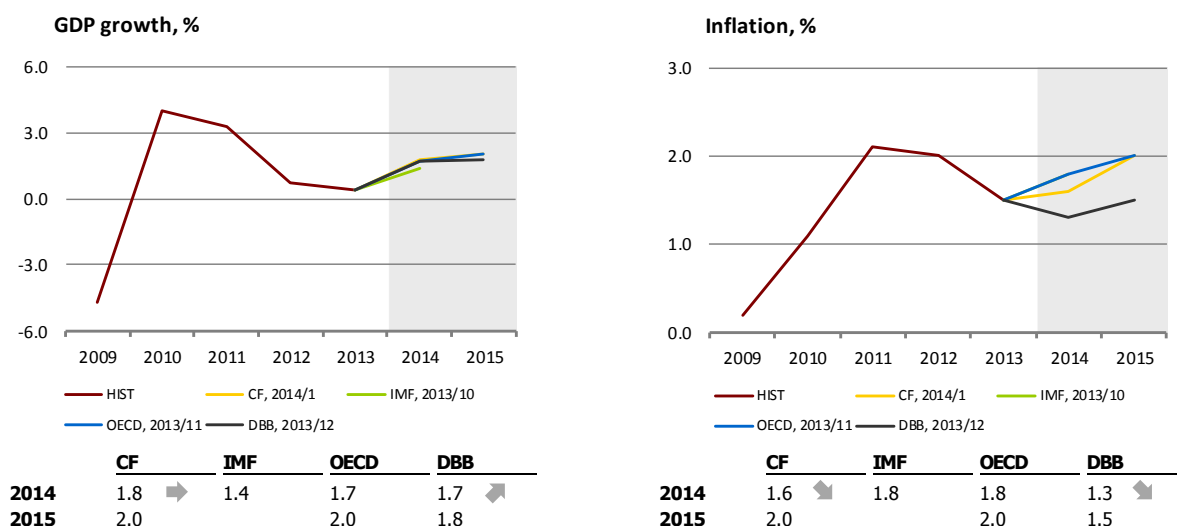
## II.2 United States

Annual GDP growth in the USA rose gradually during 2013 and a further pick-up is expected in Q4. This optimism is in line with growth in the PMI in manufacturing and in industrial production itself in 2013 H2. Consumer confidence also surged in December and the improving economy is being reflected in a continued decline in the unemployment rate. However, GDP growth for 2013 as a whole will be lower than in 2012 due to budget sequestration. According to the estimates of the institutions we monitor, GDP growth should pick up gradually this year and the next to more than 3%. Consumer price inflation was subdued last year and a similar trend is expected this year. Inflation can be expected to rise modestly in 2015, but should not exceed the 2% level. The Fed thus has room for only a gradual exit from its quantitative easing policy. In December, the Fed cut its monthly bond purchases by USD 10 billion and a further reduction is expected at the January meeting (the monthly purchases originally totalled USD 85 billion). This is consistent with a gradually rising outlook for government bond yields, which could reach 3.5% at the one-year horizon. However, short-term interest rates should remain at record lows this year. They are not expected to rise until 2015, when the Fed might – depending on economic developments – raise its key interest rate from the current zero level. Despite having depreciated against the euro at the end of last year, the dollar has better prospects and is expected to strengthen against the euro over the next two years.



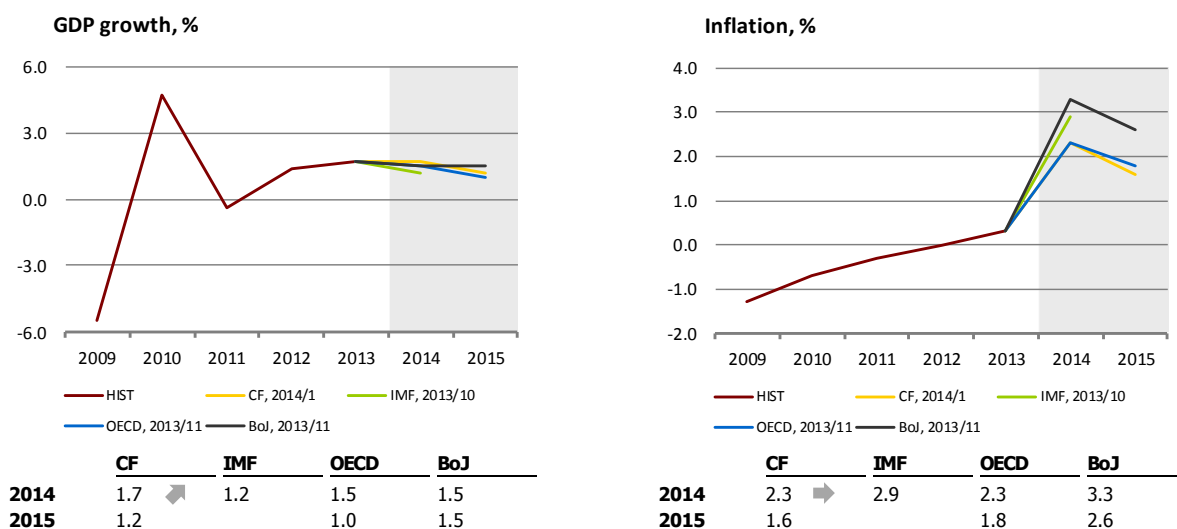
### II.3 Germany

Quarter-on-quarter real GDP growth slowed significantly further in 2013 Q4, averaging 0.4% for last year as a whole. Economic growth is expected to surge to 1.8% this year thanks to a marked increase in domestic demand (investment in particular). The favourable outlook is also supported by an expected improvement in global economic growth, including in the euro area, where 40% of German exports go. The leading indicators are also pointing to higher economic growth. The levels of all the leading indicators under review increased last month, suggesting a robust increase in GDP growth in 2014 H1. German inflation edged up to 1.4% in December 2013. The figure for Q4 was 1.3% and the average for 2013 as a whole was 1.5%. Inflation is expected to rise slightly to 1.6% this year and on to 2% in 2015.



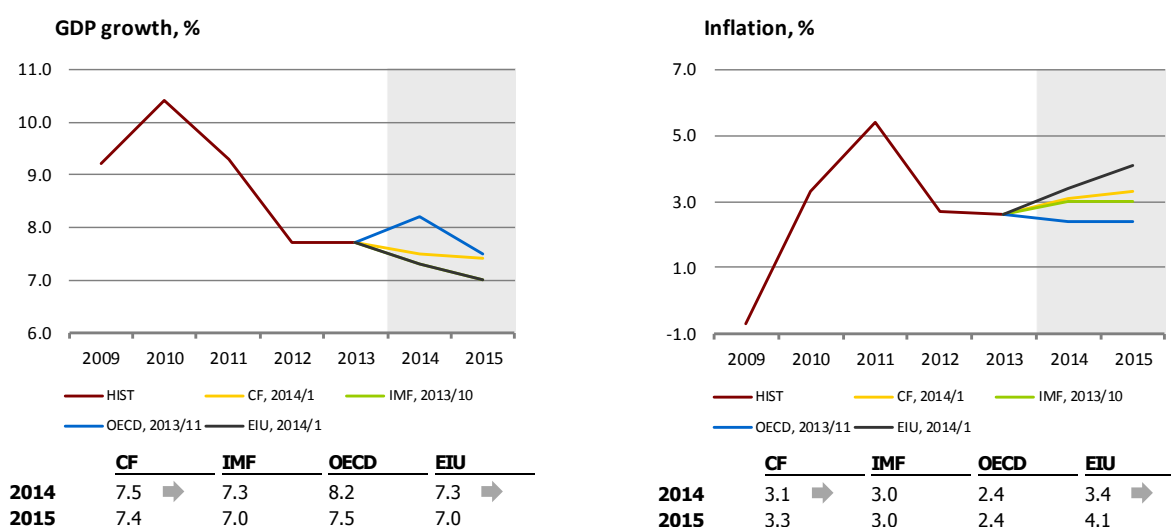
### II.4 Japan

The end of 2013 brought a series of favourable data suggesting that the reform activities of the government and central bank are starting to have an effect on the Japanese economy. Prime Minister Abe's economic programme is aimed at supporting growth in the long stagnating economy and ending deflation. His "three arrows" consist of a massive fiscal stimulus, more aggressive monetary policy easing by the central bank, and structural reforms to enhance competitiveness. Thanks to these measures, industrial output continued rising in November, and retail sales also saw a surprising upswing in growth. In December, the PMI in manufacturing recorded its biggest rise in seven years. Inflation picked up further in November to a five-year high (1.5% year on year) and should reach 2.3% this year according to the January CF. The OECD is of the same opinion, while the IMF and the central bank are more optimistic. CF also increased its GDP growth forecast to 1.7% in 2014.



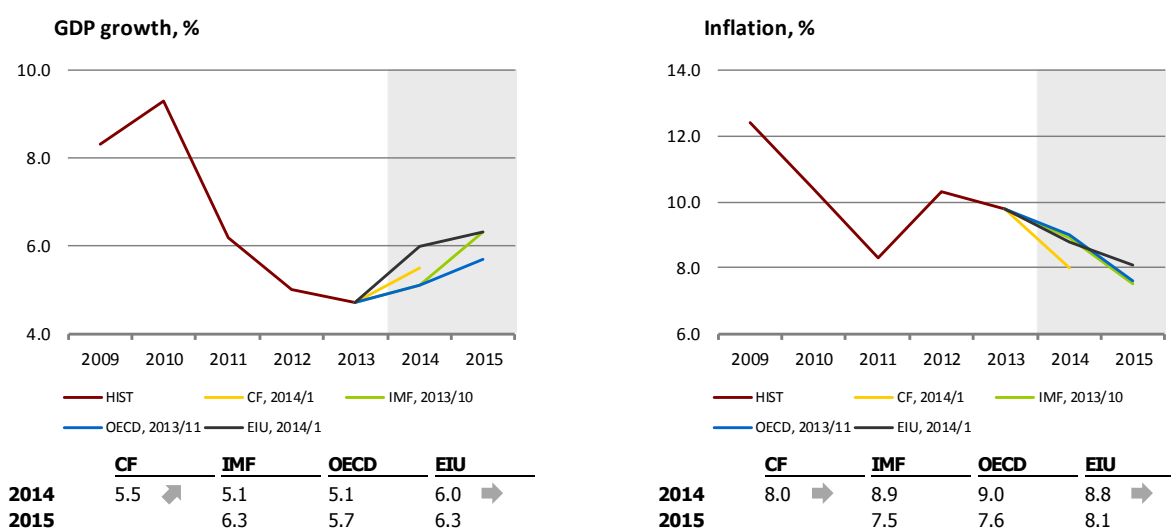
## III.1 China

Although the CF and EIU outlooks were unchanged from December (at 7.5% and 7.3%), the latest macroeconomic developments point to a possible slowdown in economic activity in China. Growth in industrial production and investment slowed in December, but the PMI remains above the 50-point level. According to Bloomberg, analysts expect economic growth to fall to a 24-year low in 2014. The Communist Party regards a slowdown in growth below 7.2% as undesirable. This growth rate would help keep the urban unemployment rate at 4%. However, the new government policy (since March 2013) has slightly reduced the importance of economic growth as an indicator of economic prosperity and focuses more on the debt level and on raising living standards and improving the environmental situation. Despite the slowdown, the Chinese economy will show high growth rates in the years ahead and the Chinese currency will continue to appreciate against the US dollar. A December increase in the short-term interest rate due to a temporary deterioration in the availability of liquidity on the interbank market was not reflected in the exchange rate outlook. Inflation will remain subdued at 3.1%–3.4% in 2014 according to CF and the EIU.



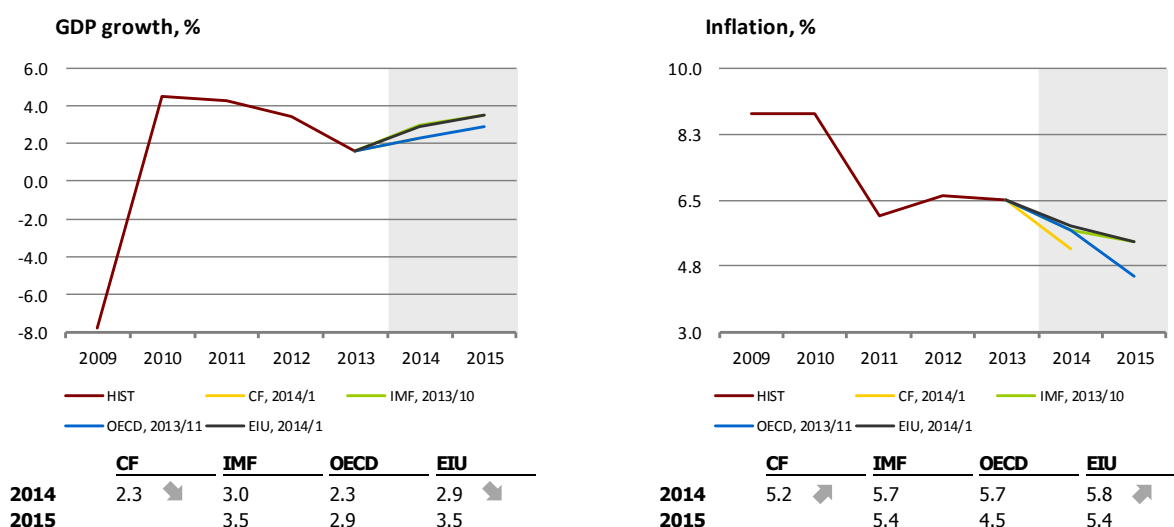
## III.2 India

Following a sharp downturn, economic growth in India will rebound to 5.5%–6% this year according to CF and the EIU. This represents a rise of 0.8–1.1 pp on the preliminary CF and EIU estimates for 2013. Inflation has been falling since 2012 but remains high, with consumers being hit mainly by high growth in food and fuel prices. The central bank raised interest rates at the end of October to curb inflationary pressures generated by exchange rate depreciation. The new CF and EIU outlooks for this year expect consumer price inflation of 8.0%–8.8%. Following large swings in 2013, the Indian currency should stabilise around 62.3 rupees to the US dollar (40% weaker than in 2011).



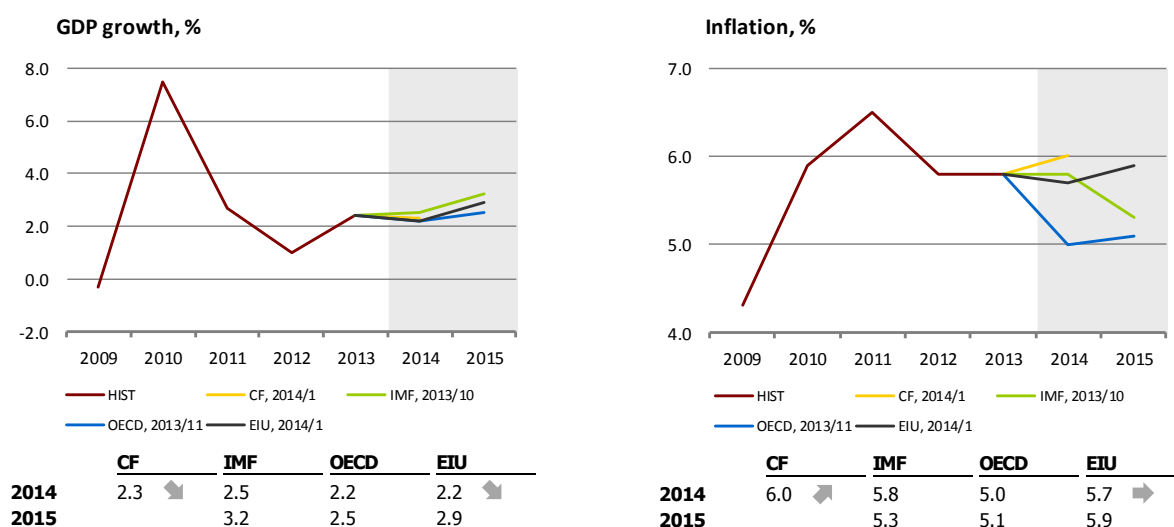
### III.3 Russia

Provided that economic activity recovers rapidly, the Central Bank of Russia (CBR) and the government expect GDP to grow by 3% this year. Depending on oil prices and global economic growth, the CBR forecast expects either a 1% decline in GDP (if the Ural crude oil price falls to USD 76 a barrel) or a rise in GDP growth to 3.5% (if the Ural crude oil price increases to USD 123 a barrel). However, a decrease in industrial output and an only modest rise in investment in November, along with the PMI fluctuating around the 50-point level and a slight fall in oil prices, do not suggest an economic upswing any time soon. The latest CF and EIU outlooks lowered their GDP growth outlooks to 2.3%–2.9%. The World Bank decreased its growth outlook to just 2.2%. An expected decrease in oil prices this year will also lead to depreciation of the rouble. This year, the CBR plans to gradually scale down its interventions and increase the flexibility of the domestic currency. The CBR's aim is to keep inflation at 5.0% ( $\pm 0.5$  pp) this year. The new CF outlook is currently close to the upper boundary of the CBR's target (5.2%) and the EIU expects consumer price inflation in 2014 to be even higher (5.8%).



### III.4 Brazil

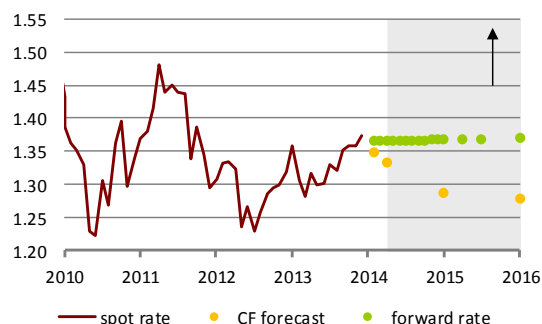
Economic growth in Brazil is still subdued according to the new CF and EIU outlooks. Brazil will thus again be the weakest economic performer of all the BRIC countries, recording GDP growth of 2.2%–2.3% in 2014. The economy should be boosted by this year's football World Cup. By contrast, internal political tensions, which will increase as the October elections draw nearer, will hamper the economy. Inflation remains relatively high (in view of the weak economic growth) and will reach 5.7%–6% this year. The Brazilian real has weakened by 50% since 2011 and should stay at around USD 2.33 this year.





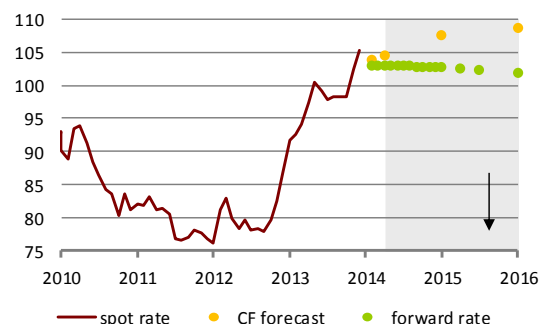
## IV. Outlook of exchange rates vis-à-vis the US dollar

## THE EURO



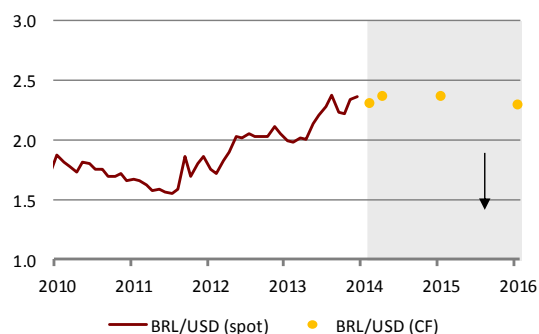
	13/01/14	02/14	04/14	01/15	01/16
<b>spot rate</b>	1.367				
<b>CF forecast</b>		1.348	1.333	1.287	1.278
<b>forward rate</b>		1.367	1.367	1.368	1.371

## THE JAPANESE YEN



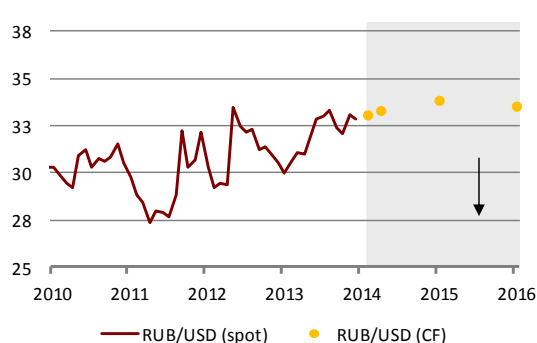
	13/01/14	02/14	04/14	01/15	01/16
<b>spot rate</b>	103.00				
<b>CF forecast</b>		103.90	104.50	107.60	108.60
<b>forward rate</b>		102.98	102.96	102.72	101.86

## THE BRAZILIAN REAL



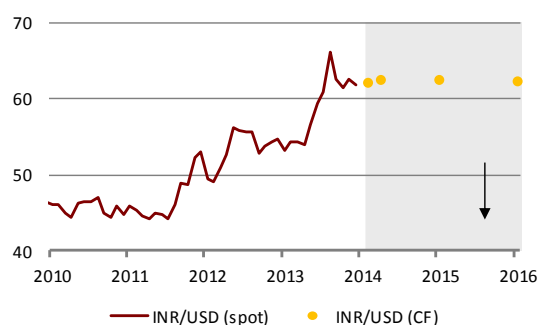
	13/01/14	02/14	04/14	01/15	01/16
<b>spotový kurz</b>	2.35				
<b>předpověď CF</b>		2.31	2.36	2.37	2.30

## THE RUSSIAN ROUBLE



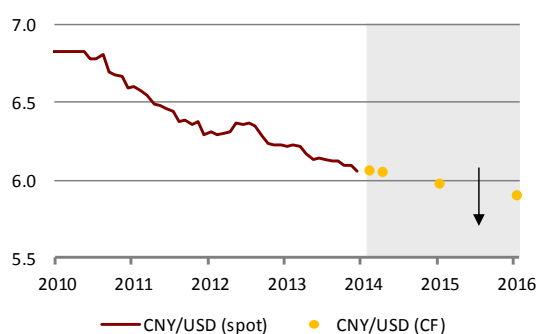
	13/01/14	02/14	04/14	01/15	01/16
<b>spotový kurz</b>	33.27				
<b>předpověď CF</b>		33.02	33.26	33.84	33.53

## THE INDIAN RUPEE



	13/01/14	02/14	04/14	01/15	01/16
<b>spotový kurz</b>	61.58				
<b>předpověď CF</b>		62.16	62.45	62.39	62.20

## THE CHINESE RENMINBI

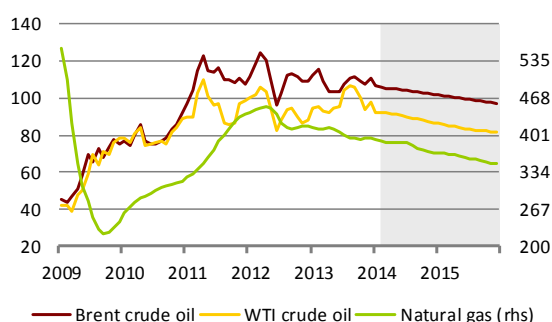


	13/01/14	02/14	04/14	01/15	01/16
<b>spotový kurz</b>	6.04				
<b>předpověď CF</b>		6.06	6.05	5.98	5.90

## V.1 Oil and natural gas

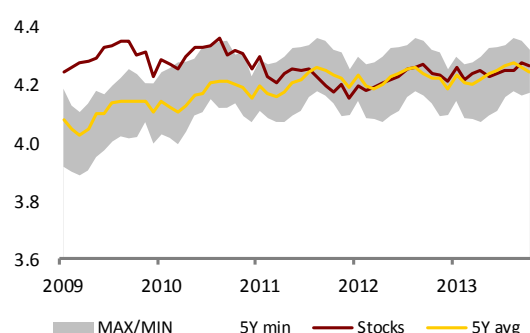
The price of Brent crude oil has been fluctuating around USD 110 a barrel for about six months with no visible trend. Oil prices were quite high in December 2013, averaging USD 110.7 a barrel (a three-month high). However, the price dived to USD 107 a barrel in early January 2014 and stayed around this level in the first half of the month. This decline was due to optimism about the situation in North Africa (the signing of a ceasefire in South Sudan and the relaunch of extraction in some oil fields in Libya) and to appreciation of the US dollar. However, a more marked rise in oil prices in the near future will be hindered by rapid growth in global extraction (in the USA and Canada in particular), which should outpace expected consumption, and by a gradual tapering of the monetary stimulus in the USA, which should be accompanied by further appreciation of the dollar and an outflow of investment from commodity markets. By contrast, a stronger decline in prices is still being prevented by the tense political situation in North Africa and the Middle East. The January CF expects the Brent crude oil price to be flat at the one-year horizon, just below USD 106 a barrel. The current EIA forecast expects the price to fall gradually this year and the next. The average price should reach USD 105 a barrel this year and slip to USD 102 a barrel in 2015. The falling market outlook based on futures contracts is only slightly steeper in 2015, with an average price of USD 99.5 a barrel. Oil consumption should continue rising in emerging countries, albeit at a slower rate than in 2009–2011. By contrast, the biggest falls in consumption are expected in Japan and Europe.

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

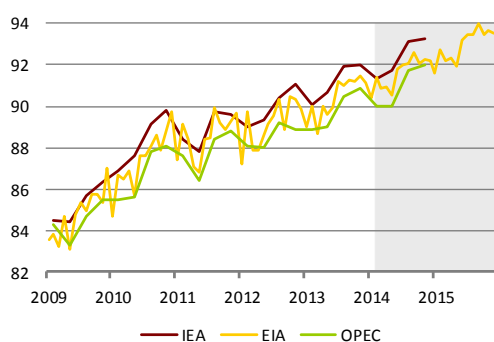


	<b>Brent</b>	<b>WTI</b>	<b>Natural gas</b>
2014	-4.10	-8.12	-5.02
2015	-4.55	-6.99	-6.10

**TOTAL STOCKS OF OIL AND OIL PRODUCTS IN OECD**

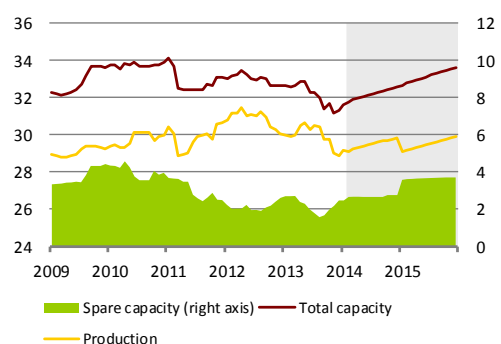


**GLOBAL CONSUMPTION OF OIL AND OIL PRODUCTS**



	<b>IEA</b>	<b>EIA</b>	<b>OPEC</b>
2014	1.31	1.34	1.22
2015		1.50	

**PRODUCTION, TOTAL AND SPARE CAPACITY IN OPEC COUNTRIES**



	<b>Production</b>	<b>Total capacity</b>	<b>Spare capacity</b>
2014	-1.59	-0.01	21.41
2015	0.08	3.16	37.46

Note: Oil price in USD/barrel, price of Russian natural gas at German border in USD/1,000 m<sup>3</sup> (IMF data, smoothed by the HP filter). Future oil prices (grey area) are derived from futures and future gas prices are derived from oil prices using model. Tables show annual percentage changes. Total oil stocks (commercial and strategic) in OECD countries including average, maximum and minimum in past five years in billions of barrels. Global consumption of oil and oil products in millions of barrels a day. Production and extraction capacity of OPEC in million barrels a day (EIA estimate).

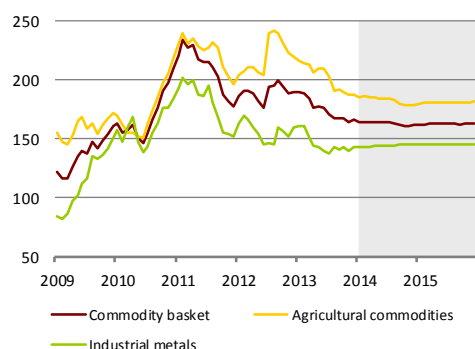
Source: Bloomberg, IEA, EIA, OPEC, CNB calculations

## V.2 Other commodities

The commodity markets recovered in December from their modest November decline, but started falling again in mid-January, although mainly due to energy commodities. The exception was the industrial metals index, which continued to edge up in January. We have recently seen a shift in commodity demand growth from emerging economies to advanced countries. This trend should continue in the near future. However, emerging countries should benefit from the increased demand in OECD countries and their demand for commodities should subsequently rise again.

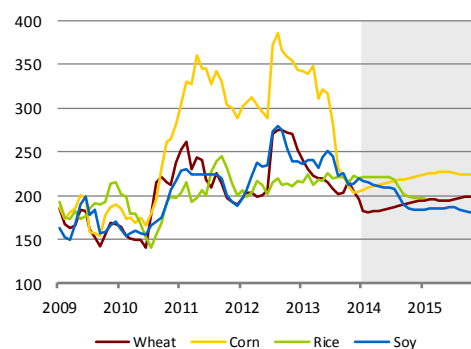
Wheat prices have been falling since the end of October and their decline deepened in January. By contrast, maize prices stabilised after having fallen sharply in November and December. The outlook for both crops is slightly rising. Rice and soy prices were flat in December, but are expected to decrease further in mid-2014. Pork prices saw a seasonal decline, but beef prices are attacking new historical highs. Cotton prices were flat after a November rise, and the price of rubber went down. Price trends in the industrial metals category were mixed, but not dramatic. The forecast for prices of most industrial metals is flat or slightly falling. The exception is aluminium, whose forecast is rising.

PRICES OF NON-ENERGY COMMODITIES



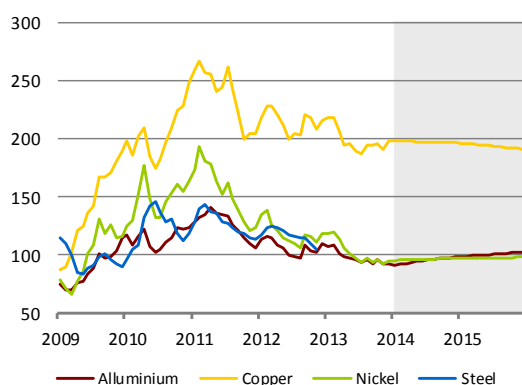
	Overall comm. basket	Agricultural comm.	Industrial metals
2014	-6.5	-9.4	-0.8
2015	-0.4	-1.1	1.0

FOOD COMMODITIES



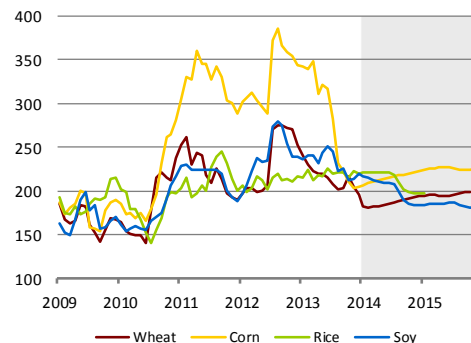
	Wheat	Corn	Rice	Soy
2014	-13.1	-22.4	-3.0	-12.8
2015	5.0	4.6	-7.1	-8.9

METALS



	Aluminium	Copper	Nickel
2014	-2.3	-0.6	-5.4
2015	5.7	-1.9	1.2

FOOD COMMODITIES



	Wheat	Corn	Rice	Soy
2014	-13.1	-22.4	-3.0	-12.8
2015	5.0	4.6	-7.1	-8.9

Note: Structure of non-energy commodity price indices corresponds to composition of The Economist commodity indices. All prices are given as indices, 2005 = 100 (charts) and percentage changes (tables). [Cut-off date for data: 12 December 2013]

Source: Bloomberg, CNB calculations.

## Forward guidance – another central bank instrument?<sup>1</sup>

*The article looks at the genesis of a recent central banking phenomenon – forward guidance (FG). It illustrates both its softer “Delphic” form (a publication of a central bank’s prediction of the path of a monetary policy instrument) and its firmer “Odyssean” form (which means a central bank’s declared commitment regarding the path of a monetary policy instrument), taking several countries as examples. FG in commitment form is used by some central banks when faced with constraints on the future movement of a monetary policy instrument, usually the policy interest rate.*

### 1 The essence of FG

The communication strategy of central banks increasingly features *forward guidance*. This approach, which still lacks a well-established definition, can be described as a *central bank communication strategy aimed at providing markets and the public with information about the future implementation of monetary policy, and especially about the future path of its key interest rate or some other monetary policy instrument.*<sup>2</sup> A central bank (CB) uses FG to try to influence market and public expectations about the future path of its monetary policy instruments. This distinguishes FG from inflation targeting, which involves influencing expectations about future prices.<sup>3</sup>

Central banks can provide the markets and the public with guidance on their future monetary policy in two forms – “Delphic” and “Odyssean”.<sup>4</sup> **Delphic FG** means that the CB publishes its forecast for future monetary policy (usually the monetary policy rate). Rather than a commitment, therefore, it represents only the published predicted path of the policy rate based on the outlook for key economic variables (GDP, unemployment, inflation and others). If the future values of these fundamentals turn out to be different than forecasted by the CB, the monetary policy stance can be expected to be altered accordingly.

**Odyssean FG** means that the CB formulates an explicit commitment (in some cases conditional on a particular path of a key economic variable), i.e. it commits itself to a particular future path of its key rate or some other monetary policy instrument. A combination of a commitment and a condition regarding the path of a key economic variable (e.g. inflation) makes this commitment less rigid, giving the CB some leeway not to fulfil it if macroeconomic conditions turn out differently than was expected at the time the commitment was announced.<sup>5</sup>

<sup>1</sup> Written by Milan Klíma (milan.klima@cnb.cz) and Luboš Komárek (lubos.komarek@cnb.cz). The views expressed in this contribution are those of the authors and do not necessarily reflect the official views of the CNB.

<sup>2</sup> FG has also recently started to be applied in macroprudential policy, with central banks announcing future (in)activity in the implementation of countercyclical capital buffers, for example.

<sup>3</sup> Under inflation targeting, the central bank aims to influence expectations about the future evolution of prices. Under FG, it aims to influence market and public opinions either about the future monetary policy stance (tightening vs. easing) directly, or about the path of one of its monetary policy instruments (usually its key policy rate).

<sup>4</sup> The names of the two forms of FG are derived from the history of Ancient Greece. Delphi was the site of the most famous oracle in Ancient Greece, and Odysseus, when sailing near the Sirens, had himself tied firmly to the mast in order to demonstrate his irrevocable commitment.

<sup>5</sup> An example of this would be a situation where the central bank maintains its key interest rate at no more than 0.5% until the unemployment rate falls below 7%.

A central bank can therefore apply FG in several ways. These differ in the accuracy or strength of the commitment and are ordered here in terms of how binding they are on the CB, i.e.:

- (1) the CB verbally indicates its current opinion on its future monetary policy stance (i.e. without precisely quantifying the future policy rate level) – Delphic FG;
- (2) the CB supplements its current opinion on its future monetary policy stance with a quantitative specification of the path of the key rate – Delphic FG;
- (3) the CB commits itself to a particular future level of its key rate for as long as certain conditions apply (e.g. as long as the unemployment rate remains above 6.5% or internal inflation expectations change, or until the financial stability of the financial system is no longer under threat) – Odyssean FG;
- (4) the CB commits itself to maintaining its policy rate at a particular level (or not raising it above a particular level) for a predetermined period of time; the way in which this time is defined can differ significantly, from very vague (“for an extended period of time”) to very precise (“until the end of 2010 Q2”) – Odyssean FG.

## 2 FG of central banks of small open economies

FG was first used by central banks of small countries with open economies and floating exchange rates. These economies switched first to inflation targeting and then, under this regime, to Delphic FG, which further strengthened greater monetary policy transparency vis-à-vis the markets and the public. This allowed central banks to even better influence and stabilise inflation expectations, which play a key role in inflation targeting. Delphic FG thus started to be used at a time when the policy rates of the central banks of the countries described below were not at or close to zero. The first central bank to deploy Delphic FG was the Reserve Bank of New Zealand in 1997. It was followed by the central banks of Norway (2005), Sweden (2007), the Czech Republic (2008), Canada (2009) and Poland (2013).<sup>6</sup> Some of the above small open economies applying Delphic FG later decided to introduce FG in the form of a commitment either after reaching the zero lower bound on policy interest rates (the Czech Republic) or when faced with deteriorating situation in the real economy despite having non-zero CB rates (Poland).

### New Zealand

In 1990, the central bank of New Zealand (Reserve Bank of New Zealand – RBNZ) confirmed its commitment to achieving greater monetary policy openness by switching to inflation targeting. According to the RBNZ, increasing the amount of information provided to markets and the public would improve the effectiveness of monetary policy-making. The bank switched to Delphic FG in 1997. Ever since then, it has been publishing a Monetary Policy Statement (MPS) containing qualitative and quantitative estimates of the future paths of the most important macroeconomic variables, including an estimated key interest rate path.

The main monetary policy rate at that time was the 90-day rate, a forecast for which was also included in the MPS. In 1999, the overnight rate on deposits with the RBNZ (the Official Cash Rate, or OCRT) was made the key rate. The OCRT is similar to the US central bank’s federal funds rate and the RBNZ decides on it eight times a year. The bank has been applying flexible inflation targeting since 2002.

<sup>6</sup> The central bank applied Delphic FG between December 2003 and June 2004.

## Norway

The central bank of Norway (Norges Bank) also gradually moved towards greater openness to the markets and the public in the 1990s. It started to use implicit inflation targeting in 1999 and announced an explicit inflation target of 2.5% two years later. This came in a period of fast-growing oil prices, when both the government and the central bank were worried about their effect on the domestic price level. Norges Bank's key policy rate is the sight deposit rate (the short-term rate on commercial banks' deposits with the central bank) and the Executive Board of Norges Bank decides on its level six times a year.

In 2004, Norges Bank started publishing short-term forecasts for its key interest rates for the "strategy interval", i.e. the four-month period between the publication of one Monetary Policy Report (Norges Bank's main monetary policy document, published three times a year) and the next. In addition to future interest rates, the report contained forecasts for other major macroeconomic variables – GDP, the output gap and inflation. A year later the forecast horizon was extended to three years, and Norges Bank now presents its forecasts (including that for the key interest rate) as fan charts.

## Sweden

The central bank of Sweden (Riksbank) started to target inflation in 1995, setting its target for annual inflation at 2%. A year later it started publishing an *Inflation Report* containing a "conditional" inflation forecast, i.e. a forecast assuming that its key interest repo rate (the one-week interest rate at which commercial banks can borrow from or deposit at the Riksbank) would remain unchanged over the entire forecast horizon.

In 2005, the Riksbank started publishing its outlook with an assumption that repo rates would move in line with financial market expectations. Two years later it started using Delphic FG and publishing an inflation forecast based on its own estimate of the repo rate path in the Monetary Policy Report, which replaced the Inflation Report. It extended the forecast horizon from two years to three years and, in addition to its own forecast for the key interest rate, included outlooks for major macroeconomic variables (such as GDP and inflation) in the form of fan charts. The Executive Board of the Riksbank decides on rates six times a year and the Monetary Policy Report gives the results of the voting as well as the views of board members dissenting with the majority view. The minutes of the meeting are published 14 days later and the dissenting board members may freely publish their views from then on. Switching to FG has made it easier for the markets and the public to read the Riksbank and hold it accountable.

## Canada

The Bank of Canada (BoC) has been applying inflation targeting to affect the price level since 1991. Its target for consumer price inflation is set at 2%. The Board of Directors decides on the level of the reference rate (the overnight money market rate) eight times a year. The Bank of Canada started to issue Delphic FG in 2009. In April 2009 it switched to Odyssean FG, committing itself to not change its policy rates until the end of 2010 Q2, a commitment that it subsequently met. The BoC does not currently apply Odyssean FG.

## Czech Republic

The Czech National Bank (CNB) started to use a soft form of Delphic FG in January 2008. Instead of providing a verbal description of the expected interest rate path, the CNB started publishing its interest rate forecast in numerical form, as a fan chart. This



move, together with other changes to the inflation-targeting regime (in particular disclosure of the votes cast by the board members on interest rates by name), made the CNB one of the most open inflation-targeting central banks. Subsequently, the CNB Bank Board decided to publish its forecast for the nominal CZK/EUR exchange rate in numerical form as a fan chart starting from January 2009. This step wrote the CNB into the central banking history books, making it the only central bank in the world to publish a forecast for a nominal exchange rate vis-à-vis a specific currency (although a handful of the most advanced inflation-targeting central banks do currently publish effective exchange rate forecasts). The CNB switched to Odyssean FG in November 2012, when it started commenting indirectly on how long it would maintain zero interest rates. On 7 November 2013, the CNB started using the exchange rate as a monetary policy instrument and communicated how long it would need to stay in this regime. The Bank Board decided that the exchange rate of the koruna against the euro would be maintained at a level close to CZK 27 through foreign exchange interventions at least until the start of 2015 and explicitly informed the markets and the public of this fact.

## Poland

The Monetary Policy Council (MPC) of the National Bank of Poland (NBP) is responsible for all important policy decisions, especially those about its reference rate. After repeatedly lowering this rate in March–June 2013, the Council reduced it further in July to a historical low of 2.5%, which has not been changed since. In July, the MPC also announced a commitment to leave its key rate at this level (2.5%) at least until the end of 2013. With this decision, the NBP joined the ranks of central banks using Odyssean FG. The Council repeated this commitment in August, September and October. In November it extended it further, thus moving to a stronger form of FG, as it had not been publishing a future outlook for its policy rate until its decision to introduce FG (although it does publish fan charts for estimated inflation and GDP growth).

## 3 FG of reserve currency central banks

The central banks of the largest advanced economies (the USA, the UK, the euro area and Japan) started to use FG in 2008, after the outbreak of the financial crisis (with the exception of the USA in 2003–2004), in order to resolve problems that have some common features. These central banks decided to deploy FG at a time when their policy rates were very low (0.5% or lower) and the interest rate channel could no longer be used to further ease monetary policy. Under these circumstances, in addition to maintaining low short-term interest rates (which central banks can influence directly) they aimed to ease monetary policy further, among other things, by exerting downward pressure on long-term interest rates through Odyssean FG.<sup>7</sup>

## Japan

The Policy Board of the Bank of Japan (BoJ) decides on all major monetary policy issues. The BoJ has had experience with FG since 1999, when prices fell and the key rate was lowered to zero, although this approach was not called FG at the time. In January 2013, the Policy Board increased the inflation target to 2%, and in April 2013 it decided to try to change the deflation-stagnation climate in the Japanese economy through a programme of Quantitative and Qualitative Monetary Easing (QQE). The aim is to end

<sup>7</sup> An example of this would be a situation where the CB informs the financial markets that its short-term rate will be at a certain low level for a period of two years; it can thus lower the two-year rate in addition to the short-term rate.

the long-running stagnation and deflation and permanently increase inflation to 2%. To ensure success, it is vital to significantly limit the deflation expectations of markets and the public and to anchor their inflation expectations around 2%. FG is thus a central element of QQE.

The April 2013 decision also includes two time features relating to QQE. The BoJ is supposed to reach its 2% inflation target at the earliest possible time, and within two years at the latest. It should also continue with QQE until the 2% target is reached in a stable manner.

According to Sayuri Shirai,<sup>8</sup> a former Policy Board member, there are two sets of FG. The aim of the first is to increase inflation to 2%, to which end the BoJ will conduct extensive monetary transactions (this includes doubling the monetary base and more than doubling the average remaining maturity of Japanese government bond purchases in two years). The aim of the second FG is to increase inflation expectations to 2% and to anchor them at this level in the long term. This may require large purchases of financial assets for a period of possibly more than two years and, in that case, a further increase in the monetary base and larger purchases of government bonds and other financial assets.

## United States

The US central bank (the Federal Reserve, Fed) started using FG in 2003–2004. It provided information about its future monetary policy stance in the form of qualitative statements without giving any quantitative information or stating an exact date. The Fed disclosed its forecast and the expected monetary policy stance to the markets and the public, but did not commit itself to anything. It therefore practised Delphic FG. It returned to FG during the financial crisis, after it had reduced the federal funds rate (FFR) virtually to zero (0–0.25%) in 2008. In December 2008 it announced that it would maintain this exceptionally low FFR level “for some time”, later lengthened to “for an extended period”. In August 2011 it specified an exact date (“at least through mid-2013”), and in January 2012 it pushed this date back further (“at least through late 2014”). In September 2012 the Fed extended the period “probably” further (“for a considerable time after the economic recovery strengthens”). The Fed later continued in this direction, announcing in December 2012 that “a highly accommodative stance of monetary policy...will be appropriate at least as long as unemployment remains above 6.5%”.

Another step towards greater openness was the FOMC’s (Federal Open Market Committee) decision to publish the individual FOMC members’ views on the future evolution of the FFR and key macroeconomic variables (GDP, the output gap, unemployment, inflation and others). The Fed applied Odyssean FG in this period (from 2008 onwards).

## United Kingdom

The British central bank (the Bank of England, BoE) has been using inflation targeting since 1992 and issuing its key monetary policy document, the Inflation Report, on a quarterly basis since 1993. Responsibility for monetary policy management at the BoE falls to the Monetary Policy Committee (MPC). At its meeting in August 2013 it decided to deploy FG in order to maintain the current level of monetary easing and thus support the economic recovery without putting the BoE’s primary mandate – monetary and

<sup>8</sup> Sayuri Shirai: The Bank of Japan’s Current Monetary Easing and Forward Guidance, in Wouter den Haan (ed.): Forward Guidance, Perspectives from Central Bankers, Scholars and Market Participants, A VoxEU.org eBook, 2013.



financial stability – at risk. The Committee made an explicit commitment not to raise its key Bank Rate from the current level of 0.5% and not to sell previously purchased financial assets (while not ruling out further asset purchases) at least until the unemployment rate had fallen to 7%, subject to the following conditions:<sup>9</sup>

- in the MPC's view, it is more likely than not that inflation 18–24 months ahead will remain below 2.5%;
- medium-term inflation expectations remain anchored in line with the BoE's policy objective;
- The Financial Stability Committee (FSC) agrees that the degree of monetary policy easing does not pose a significant threat to financial stability that cannot be contained by the usual regulatory actions.

According to the MPC, the provision of FG will enhance the effectiveness of the current monetary stimulus in three ways:

- it will provide greater clarity about the MPC's view of the appropriate trade-off between how quickly to return CPI inflation to the target and how much support to give to the recovery;
- it will reduce uncertainty about how interest rates will change as the economy recovers;
- it will enable the MPC to continue monetary expansion without putting price stability and financial stability at risk.

## Euro area

The Governing Council, which is the supreme body of the European Central Bank (ECB) and is responsible for the ECB's key monetary policy decisions, decided at its meeting in July 2013 to add Delphic FG to its monetary policy instruments.

The Governing Council announced that "it expects the key ECB interest rates to remain at present or lower levels for an extended period of time".<sup>10</sup> This expectation of the Governing Council was based on the subdued outlook for inflation in the euro area in the medium term, given the broad-based weakness in the real economy and subdued monetary dynamics. The Council's decision to use FG was motivated by an increase in money market interest rates in the months leading up to July 2013. As a result, part of the monetary accommodation that the ECB had repeatedly decided on in the previous period had been withdrawn.

The main aim of the Council's announcement in July was to protect the still very weak economic recovery in the euro area against the threat of monetary tightening. By making this announcement, the Council did not give up the option of easing monetary policy further. A further easing occurred in November 2013, when the Council lowered its key rate by 0.25 pp to 0.25%.

The following table gives an overview of the two forms of FG.

<sup>9</sup> Bank of England: Inflation Report, August 2013.

<sup>10</sup> The press conference given by ECB President Mario Draghi after the meeting of the Governing Council on 4 July 2013, or ECB: Monthly Bulletin, July 2013.

**Table VI-1:** Weaker (Delphic) versus stronger (Odyssean) FG

Country	Central bank	Inflation targeting since	Current inflation target in %	Monetary-policy document used	FG in use since	FG type	Key monetary-policy rate	Level in % at launch of FG	Current level in %
New Zealand	RBNZ	1990	2	Monetary Policy Statement	1997	Delphic	Official Cash Rate OCR	-	2.5
Norway	Norges Bank	1999	2.5	Monetary Policy Report	2005	Delphic	Sight Deposit Rate	2.25	1.5
Sweden	Riksbank	1995	2	Monetary Policy Report	2007	Delphic	Repo Rate	3.25	1
Czech Rep. – I	CNB	1997	2	Inflation Report	2008	Delphic	2W repo rate	3.5	0.05
Czech Rep. – II	CNB	1997	2	Inflation Report	2013	Odyssean	2W repo rate	0.05	0.05
Canada	Bank of Canada	1991	2	Monetary Policy Report	2009	Delphic	Overnight Rate	0.25	1
Poland	National Bank of Poland	1998	2.5	Inflation Report	2013	Odyssean	Reference Rate	2.5	2.5
Japan – I	Bank of Japan	2013	2	Monetary Policy Release	1999	Odyssean	Overnight Call Rate	0.15	0.15
Japan – II	Bank of Japan	2013	2	Monetary Policy Release	2013	Delphic	Overnight Call Rate	0.05	0.05
USA – I	Federal Reserve	2012	2	Monetary Policy Report to the Congress	2003	Delphic	Federal Funds Rate	1	0–0.25
USA – II	Federal Reserve	2012	2	Monetary Policy Report	2008	Delphic, later Odyssean	Federal Funds Rate	0–0.25	0–0.25
UK	Bank of England	1992	2	Inflation Report	2013	Odyssean	Bank Rate	0.5	0.5
Euro area	ECB	-	-	Monthly Bulletin	2013	Delphic	Bid Rate	0.5	0.25

Note: The breakdown of countries by FG (Delphic vs. Odyssean) reflects the view of authors, not an official position of the CNB and national central banks. On 7 November 2013 the CNB decided to maintain the CZK/EUR exchange rate close to CZK 27/EUR.

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Wouter den Haan (ed): „Forward Guidance, Perspectives from Central Bankers, Scholars and Market Participants.“, A VoxEU.org eBook)

## A1. Change in GDP predictions for 2014

	CF		IMF		OECD		CB / EIU	
<b>EA</b>	0.0	2014/1 2013/12	0.1	2013/10 2013/7	-0.1	2013/11 2013/5	0.1	2013/12 2013/9
<b>US</b>	0.2	2014/1 2013/12	-0.1	2013/10 2013/7	0.1	2013/11 2013/5	-0.3	2013/9 2013/6
<b>DE</b>	0.0	2014/1 2013/12	0.1	2013/10 2013/7	-0.2	2013/11 2013/5	0.2	2013/12 2013/6
<b>JP</b>	0.1	2014/1 2013/12	0.0	2013/10 2013/7	0.1	2013/11 2013/5	0.4	2013/11 2013/7
<b>BR</b>	-0.1	2014/1 2013/12	-0.7	2013/10 2013/7	-1.3	2013/11 2013/5	-0.4	2014/1 2013/12
<b>RU</b>	-0.2	2014/1 2013/12	-0.3	2013/10 2013/7	-1.3	2013/11 2013/5	-0.1	2014/1 2013/12
<b>IN</b>	0.1	2014/1 2013/12	-1.2	2013/10 2013/7	-1.3	2013/11 2013/5	0.0	2014/1 2013/12
<b>CN</b>	0.0	2014/1 2013/12	-0.4	2013/10 2013/7	-0.2	2013/11 2013/5	0.0	2014/1 2013/12

## A2. Change in inflation predictions for 2014

	CF		IMF		OECD		CB/EIU	
<b>EA</b>	0.0	2014/1 2013/12	0.0	2013/10 2013/4	0.0	2013/11 2013/5	-0.2	2013/12 2013/9
<b>US</b>	-0.1	2014/1 2013/12	-0.2	2013/10 2013/4	-0.1	2013/11 2013/5	-0.2	2013/9 2013/6
<b>DE</b>	-0.1	2014/1 2013/12	0.1	2013/10 2013/4	-0.2	2013/11 2013/5	-0.2	2013/12 2013/6
<b>JP</b>	0.0	2014/1 2013/12	-0.1	2013/10 2013/4	0.5	2013/11 2013/5	0.1	2013/11 2013/7
<b>BR</b>	0.2	2014/1 2013/12	1.1	2013/10 2013/4	-0.2	2013/11 2013/5	0.0	2014/1 2013/12
<b>RU</b>	0.1	2014/1 2013/12	-0.5	2013/10 2013/4	0.3	2013/11 2013/5	0.3	2014/1 2013/12
<b>IN</b>	0.0	2014/1 2013/12	-1.8	2013/10 2013/4	2.1	2013/11 2013/5	0.0	2014/1 2013/12
<b>CN</b>	0.0	2014/1 2013/12	0.0	2013/10 2013/4	-0.2	2013/11 2013/5	0.0	2014/1 2013/12

## A3. List of abbreviations

<b>BoJ</b>	Bank of Japan	<b>DE</b>	Germany
<b>BR</b>	Brazil	<b>EA</b>	euro area
<b>BRIC</b>	Brazil, Russia, India and China	<b>EC</b>	European Commission
<b>CB-CCI</b>	Conference Board Consumer Confidence Index	<b>ECB</b>	European Central Bank
<b>CB-LEII</b>	Conference Board Leading Economic Indicator Index	<b>EC-CCI</b>	European Commission Consumer Confidence Indicator
<b>CBOT</b>	Chicago Board of Trade	<b>EC-ICI</b>	European Commission Industrial Confidence Indicator
<b>CF</b>	Consensus Forecasts	<b>EIU</b>	The Economist Intelligence Unit database
<b>CN</b>	China	<b>EEA</b>	European Economic Area
<b>CNB</b>	Czech National Bank	<b>ES</b>	Spain
<b>DBB</b>	Deutsche Bundesbank	<b>EU</b>	European Union

<b>EMI</b>	European Monetary Institute	<b>JP</b>	Japan
<b>EURIBOR</b>	Euro Interbank Offered Rate	<b>JPY</b>	Japanese yen
<b>Fed</b>	Federal Reserve System (the US central bank)	<b>LIBOR</b>	London Interbank Offered Rate
<b>FRA</b>	forward rate agreement	<b>N/A</b>	not available
<b>GBP</b>	pound sterling	<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>GDP</b>	gross domestic product	<b>OECD-CLI</b>	OECD Composite Leading Indicator
<b>GR</b>	Greece	<b>PMI</b>	Purchasing Managers' Index
<b>CHF</b>	Swiss franc	<b>PT</b>	Portugal
<b>ICE</b>	Intercontinental Exchange	<b>RU</b>	Russia
<b>IE</b>	Ireland	<b>UoM</b>	University of Michigan
<b>IFO</b>	Institute for Economic Research	<b>UoM-CSI</b>	University of Michigan Consumer Sentiment Index
<b>IFO-BE</b>	IFO Business Expectations	<b>US</b>	United States
<b>IMF</b>	International Monetary Fund	<b>USD</b>	US dollar
<b>IN</b>	India	<b>ZEW-ES</b>	ZEW Economic Sentiment
<b>IRS</b>	interest rate swap		
<b>IT</b>	Italy		

#### A4. List of thematic articles published in the GEO

##### 2014

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Global trends in the services balance 2005–2011 (Ladislav Prokop)	2012-12
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Changes in the Czech Republic's balance of payments caused by the global financial crisis (Vladimír Žďárský)	2012-8
Annual assessment of the forecasts included in the GEO (Filip Novotný)	2012-7
A look back at the IIF spring membership meeting (Filip Novotný)	2012-6
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Property price misalignment around the world (Michal Hlaváček and Luboš Komárek)	2012-4
A macrofinancial view of asset price misalignment (Luboš Komárek)	2012-3
The euro area bond market during the debt crisis (Tomáš Adam and Soňa Benecká)	2012-2
Liquidity risk in the euro area money market and ECB operations (Soňa Benecká)	2012-1

## 2011

	Issue
An empirical analysis of monetary policy transmission in the Russian Federation (Oxana Babecká)	2011-12
The widening spread between prices of North Sea Brent crude oil and US WTI crude oil (Jan Hošek and Filip Novotný)	2011-11
A look back at the IIF annual membership meeting (Luboš Komárek)	2011-10
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Increased uncertainty in euro area financial markets (Tomáš Adam and Soňa Benecká)	2011-8
Eurodollar markets (Narcisa Kadlčáková)	2011-8
Assessment of the forecasts monitored in the GEO (Filip Novotný)	2011-7
How have global imbalances changed during the crisis? (Vladimír Žďárský)	2011-6
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The link between the Brent crude oil price and the US dollar exchange rate (Filip Novotný)	2011-2
International integration of the Chinese stock market (Jan Babecký, Luboš Komárek and Zlatuše Komárková)	2011-1