Monitoring centrálních bank - březen 2015

Česká národní banka
2015

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CENTRAL BANK MONITORING – MARCH

2015

Monetary and Statistics Department
Monetary Policy and Fiscal Analyses Division

CZECH NATIONAL BANK

In this issue

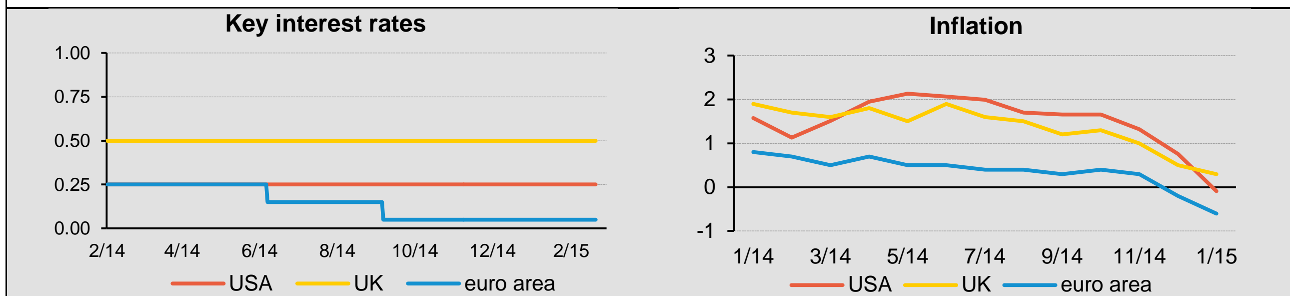
The past quarter was marked by a number of major events. The Swiss central bank astounded the world by discontinuing its exchange rate commitment, while the ECB and the Riksbank started to purchase government bonds. In addition, the SNB and the Danish central bank lowered selected interest rates further into negative territory, and the Riksbank, faced with deflation, took the same action. Prices are also falling in some Central European countries. In January, they went down by 1.4% in Hungary and by 1.3% in Poland. The MNB did not ease monetary conditions, but the NBP cut its rate by 0.50 pp in March. The Fed and the BoE made no changes to their monetary policy settings either, even though they too are facing falling inflation. Spotlight *focuses on the economic consequences of the sharp fall in global oil prices and the related monetary policy responses in selected countries. Our* Selected Speech *is by SNB Chairman Thomas Jordan, who, among other things, explains the reasons for the SNB discontinuing the minimum exchange rate of the Swiss franc against the euro.*

1. LATEST MONETARY POLICY DEVELOPMENTS AT SELECTED CENTRAL BANKS

Key central banks of the Euro-Atlantic area

	Euro area (ECB)	USA (Fed)	United Kingdom (BoE)
Inflation target	< 2%[1]	< 2%[2]	2%
MP meetings (rate changes)	8 Jan (0.00) 5 Feb (0.00) 5 Mar (0.00)	16–17 Dec (0.00) 27–28 Jan (0.00)	7–8 Jan (0.00) 4–5 Feb (0.00) 4–5 Mar (0.00)
Current basic rate	0.05%	0–0.25%	0.50%
Latest inflation	-0.3% (Feb 2015)[3]	-0.1% (Jan 2015)	0.3% (Jan 2015)
Expected MP meetings	2 Apr 7 May 3 Jun	17–18 Mar 28–29 Apr 16–17 Jun	8–9 Apr 8–11 May 3–4 Jun
Other expected events	3 Jun: publication of forecast	15 Apr: publication of Beige Book	13 May: publication of Inflation Report
Expected rate movements[4]	→	→	→

[1] ECB definition of price stability; [2] January 2012 definition of inflation target; [3] flash estimate; [4] direction of expected change in rates in coming quarter taken from Consensus Forecast survey.



The **ECB** kept its interest rates unchanged. On 9 March 2015, however, it will start purchasing public sector securities in the secondary market. The combined monthly purchases will amount to EUR 60 billion (see *News*). Inflation has been negative since December, largely due to falling oil prices. Inflation is expected to remain very low or negative in the months ahead. According to the ECB, the price level will start rising gradually later this year. The forecast foresees inflation at 0.0% in 2015 and 1.5% in 2016. The outlook for economic growth has been revised upwards, reflecting the expected favourable impact of lower oil prices, the weaker effective exchange rate of the euro and the ECB's recent monetary policy measures.

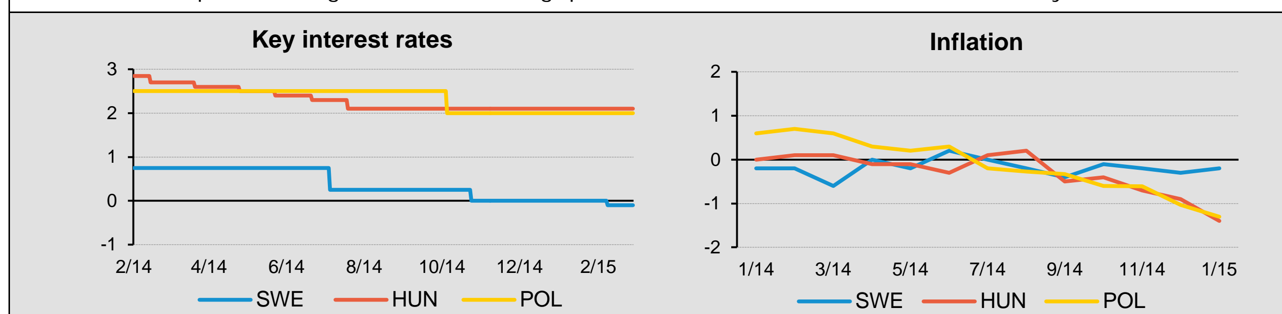
The **Fed** is continuing to keep interest rates in the range of 0.0% and 0.25% and to reinvest principal payments from its holdings of agency debt and agency mortgage-backed securities. Maturing Treasury securities are being rolled over. Thanks to solid job gains, underutilisation of labour resources is gradually diminishing and the unemployment rate is falling. Household consumption is rising moderately and the recent fall in energy prices has increased the purchasing power of households. The FOMC currently anticipates that, even after employment and inflation are near the Fed's objectives, economic conditions may, for some time, warrant keeping the target federal funds rate below levels the FOMC views as normal in the longer run.

The **BoE** left its key interest rate at 0.50% and also maintained the size of its securities holdings. GDP growth was 2.7% in 2014 and domestic demand remains robust amid a continuing decline in unemployment. Inflation dropped further to 0.3%, mainly because of falling fuel prices and lower food prices due to competition between retail chains. The BoE expects inflation to turn negative for a short time in the spring months.

Selected central banks of inflation-targeting EU countries

	Sweden (Riksbank)	Hungary (MNB)	Poland (NBP)
Inflation target	2%	3%	2.5%
MP meetings (rate changes)	27 Oct (-0.25) 15 Dec (0.00) 11 Feb (-0.10)	16 Dec (0.00) 27 Jan (0.00) 24 Feb (0.00)	13–14 Jan (0.00) 3–4 Feb (0.00) 3–4 Mar (-0.50)
Current basic rate	-0.10%	2.10%	1.50%
Latest inflation	-0.2% (Jan 2015)	-1.4 % (Jan 2015)	-1.3% (Jan 2015)
Expected MP meetings	28 Apr	21 Apr 26 May 23 Jun	14–15 Apr 5–6 May 2–3 Jun
Other expected events	29 Mar: publication of Monetary Policy Report	24 Mar: publication of Quarterly Report on Inflation	mid-Jun: publication of Inflation Report
Expected rate movements[1]	→	→	→

[1] Direction of expected change in rates in coming quarter taken from Consensus Forecast survey.



Although the Swedish economy is relatively strong, low current inflation and a fall in the inflation outlook and inflation expectations caused the **Riksbank** to cut its main monetary policy rate (the repo rate) to negative figures (-0.10%). According to the Riksbank, the rate will remain at this level until CPIF inflation (i.e. consumer price inflation with a fixed mortgage interest rate) is close to 2%. The current Riksbank forecast expects this to happen in the second half of 2016. The Riksbank also decided to make purchases of government bonds with maturities from 1 year up to 5 years for SEK 10 billion and said it was ready to use additional instruments to ease the monetary conditions. It mentioned the following possibilities: further repo rate cuts, postponing the first repo rate increase, increasing the purchases of government bonds and introducing a programme of loans to companies via banks.

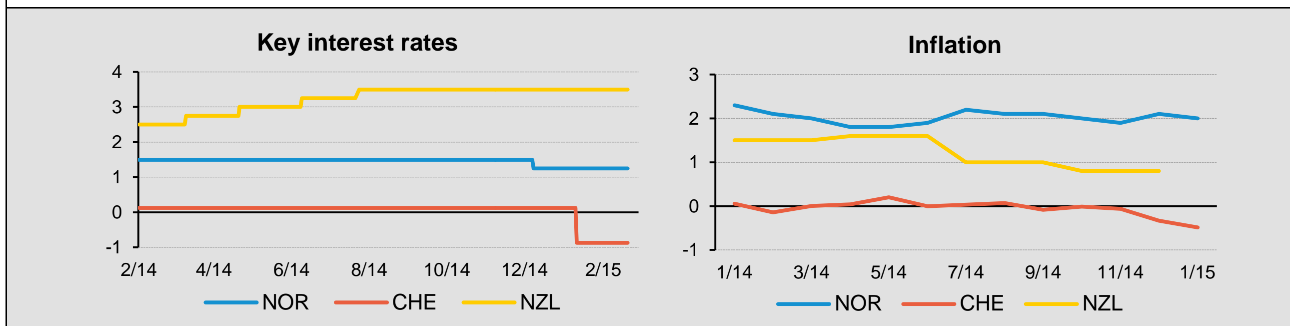
The **MNB** left its monetary policy rate unchanged at 2.10% in the past quarter. While the pace of economic activity is strengthening, output remains below potential. The MNB expects the domestic real economy to continue to have a disinflationary impact, albeit to a diminishing extent. Unemployment in Hungary is still falling, but remains above the natural rate. Inflationary pressures are likely to remain moderate or even subdued for an extended period. Inflation was strongly negative in January (-1.4%). Prices are being affected by persistently low inflation in external markets, global commodity prices and import prices, the degree of unused capacity in the economy and a moderation in inflation expectations.

At its March meeting the **NBP** lowered its key interest rate by 0.50 pp to 1.50%, adding that this decision concludes the monetary easing cycle. Deflation in Poland is getting more prolonged and is deepening due to moderate wage growth, the fall in global commodity prices and no demand pressures. Inflation expectations of enterprises and households remain very low. The risk of inflation remaining below the target in the medium term has increased significantly. The NBP substantially lowered its inflation forecast, expecting inflation between -1.0% and 0.0% this year and between -0.1% and 1.8% in 2016. Another argument for easing monetary policy was the risk of the zloty appreciating due to the launch of the ECB's QE. Despite slowing slightly, economic growth stayed close to 3% in 2014 Q4.

Other selected inflation-targeting countries

	Norway (NB)	Switzerland (SNB)	New Zealand (RBNZ)
Inflation target	2.5%	0–2%	2%
MP meetings (rate changes)	11 Dec (-0.25)	11 Dec (0.00) 15 Jan (reduction in range)	11 Dec (0.00) 29 Jan (0.00)
Current basic rate	1.25%	from -1.25% to -0.25%[1]	3.50%
Latest inflation	2.0% (Jan 2015)	-0.5% (Jan 2015)	0.8% (2014 Q4)
Expected MP meetings	19 Mar 7 May	19 Mar	12 Mar 30 Apr
Other expected events	19 Mar: publication of Monetary Policy Report	19 Mar: publication of Monetary Policy Report	12 Mar: publication of Monetary Policy Statement
Expected rate movements[2]	→	→	→

[1] Chart displays centre of band; [2] direction of expected change in rates in coming quarter taken from Consensus Forecast survey or, in the case of New Zealand, from RBNZ survey.



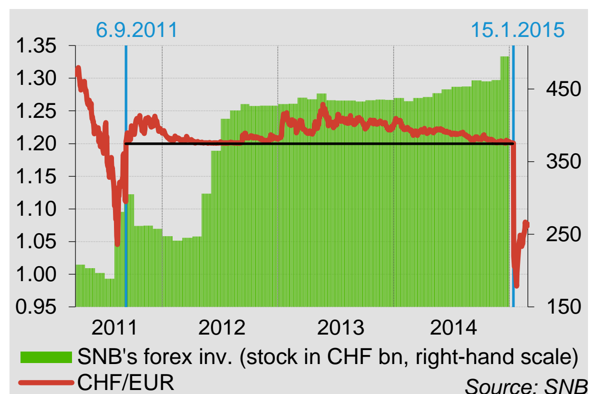
The **NB** lowered its interest rate by 0.25 pp to 1.25%, as it attaches importance to countering the risk of a pronounced downturn in the economy. The rate can be expected to remain at 1.25% until the end of 2016. The NB expects domestic economic growth to slow, mainly because of softening activity and lower investment in the petroleum industry. In this context, the NB also expects unemployment to rise because of reported staff and cost cutbacks. The Norwegian krone has depreciated, which is helping to dampen the adverse effects of lower oil prices and to support export industries. Residential mortgage lending rates saw a further decrease.

The **SNB** discontinued its exchange rate commitment (CHF 1.20 per euro) and lowered interest rates into negative territory. The target range for the key monetary policy rate (3M LIBOR) was lowered from between -0.75% and 0.25% to between -1.25% and -0.25%. The interest rate on sight deposit account balances was cut by 0.5 pp to -0.75%. These balances are held with the SNB by financial institutions (banks, insurance corporations and central banks) and the negative interest applies to them only if they exceed a threshold of CHF 10 million. According to the SNB, the target range for the key monetary policy rate was moved further into negative territory to ensure that the discontinuation of the minimum exchange rate does not lead to an inappropriate tightening of monetary conditions.

The **RBNZ** left its key monetary policy interest rate unchanged at 3.50%. Economic growth is running above 3% thanks to rising construction output and household income. The New Zealand dollar weakened slightly, but it remains overvalued and the RBNZ expects it to depreciate further. According to the RBNZ, the lower oil prices will have a significant impact on prices. The initial effect will be through fuel prices. This will then boost households' purchasing power and lower the cost of doing business.

2. NEWS

SNB discontinues minimum exchange rate



The Swiss National Bank astounded the markets in mid-January when it discontinued its minimum exchange rate of CHF 1.20 per euro, which had been in place for more than three years. At a press conference, the central bank justified its decision by citing divergences between the monetary policies of the US and the Eurozone. The euro has depreciated considerably against the US dollar, making the Swiss franc weaker against the dollar. After the announcement, the Swiss franc appreciated sharply and then adjusted moderately. At the end of February, the exchange rate was around CHF 1.07 to the euro. In order to keep the Swiss franc above the declared level the SNB had bought a massive amount of foreign currencies (especially in the first half of 2012). At the beginning of this year, a further enormous increase in foreign reserves – and thus in the central bank's balance sheet (the largest in the world as a percentage of GDP) – was imminent. More details about the reasons for the January decision are given in our *Selected Speech* by SNB Governor Thomas Jordan.

ECB launches expanded asset purchase programme…

The European Central Bank expanded its purchases to include bonds issued by euro area central governments, agencies and European institutions. The combined asset purchases (encompassing the ABSPP and CBPP3 programmes) are to amount to EUR 60 billion monthly and will be carried out until at least September 2016. The purchases of securities will be allocated across issuers from the various euro area countries on the basis of the ECB's capital key. Limits have been set – for example, not more than 33% of each issuer's debt will be bought. The ECB will hold 8% of the total purchases, while the rest will be apportioned to the national central banks. One-fifth will be subject to a regime of risk sharing, while for four-fifths the risk will be borne solely by the NCBs.

…and begins publishing accounts of monetary policy discussions

The ECB is publishing accounts of Governing Council monetary policy discussions starting from January 2015. The accounts offer a fair and balanced reflection of policy deliberations in an unattributed form. They are to be released four weeks after each meeting. The first account, depicting the January policy discussion, was published in February.

At the same time, a new Economic Bulletin replaced the Monthly Bulletin. It will be published two weeks after each meeting.

Lithuania becomes 19th member of euro area

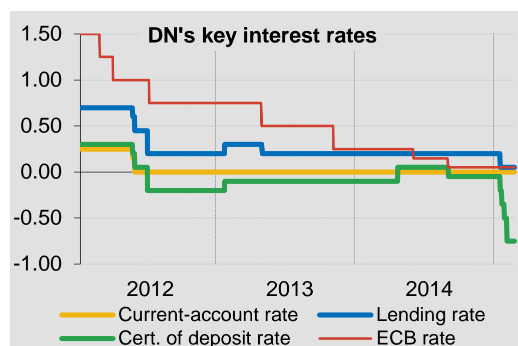
Lithuanians started using the euro on 1 January this year. The changeover went smoothly. Lietuvos bankas has thus become a member of the Eurosystem. Lithuania also joined the Single Supervisory Mechanism, which brings bigger banks under ECB supervision.

BoE announces measures to bolster transparency

The Bank of England announced the following changes to its practices to further bolster its transparency:

- publication of both the minutes and the Inflation Report at the same time as its policy decisions, starting in August 2015;
- publication of written transcripts of the meeting with an 8-year lag;
- alteration of the 2016 schedule to provide scope to move to eight policy meetings a year;
- plan to hold four joint meetings between the MPC and FPC in 2016.

Danish central bank faces krone appreciation pressures



The Danish krone came under strong market pressures following the SNB's decision to discontinue the minimum exchange rate and the ECB's announcement of massive bond purchases. With the main objective of keeping the currency in a narrow band (7.4 DKK/EUR ± 2.25%), the Danmarks Nationalbank (DN) usually follows the ECB's interest rate changes. At the beginning of this year it was forced to intervene in the forex market and lowered its deposit rate four times in just two weeks, by a total of 70 bp to -0.75%. The central bank's foreign currency reserves increased by DKK 106.6 billion to DKK 564.1 billion in January and by a further DKK 172.9 billion at the start of February. At the DN's recommendation, the Ministry of Finance decided to suspend the issuance of bonds.

3. SPOTLIGHT: CENTRAL BANKS' RESPONSE TO THE OIL PRICE DECLINE

The recent sharp fall in oil prices should significantly bolster global economic growth. While oil-importing countries will mainly feel positive economic impacts, for exporters the consequences may be very painful. At the same time, most economies will experience large anti-inflationary effects, which may be intensified by an appreciating domestic currency. By contrast, exchange rate depreciation may dampen those effects. In economies whose monetary policy rates are currently close to zero or even negative, with some of them using unconventional instruments already, central banks will have to consider further measures to ease monetary conditions.

The price of oil has dropped by more than one-half since last June. This should bolster overall global economic growth, but it will have very uneven impacts across economies. Low oil prices will be reflected in lower costs of firms, while households will save on energy and will thus be able to increase consumption. However, the price slump may have dramatic negative consequences for oil producers and oil industry companies and their investors. This in turn will reduce investment in the energy sector.

The resulting impacts on economic growth in individual countries will vary depending on the structure of the economy and especially on whether the country is an oil exporter (and how large a share oil production has in GDP or how much the state budget depends on oil revenues) or a net importer (and how high its import and energy intensity is). The exchange rate of the national currency against the dollar may either dampen or intensify the fall in oil prices and its impacts on the economy (depreciation against the dollar implies a smaller drop in the domestic currency price of oil).

The direct effects on inflation are generally downward, the first-round effects going via prices of oil products and the second-round effects via lower costs of production and distribution of other goods. In the longer run, conversely, a pick-up in demand and economic growth will foster renewed growth in inflation in the case of importers, while for exporters the anti-inflationary pressures will increase further due to slower economic activity. Exchange rate changes may affect inflation in the two groups of countries in the opposite direction than economic activity. As the oil price decreases, the current accounts of net exporters deteriorate, exerting downward pressure on the domestic currency (unless the exchange rate is fixed) and causing inflation to rise. On the other hand, the currencies of net importers may tend to appreciate as a result of an improving current account balance, thus potentially continuing to foster lower prices. In this situation, central banks should try to ease the monetary conditions, but many of them already have their policy rates set at zero or even negative levels or are using unconventional instruments. Some central banks will thus be forced to consider other ways of easing monetary policy, especially if inflation expectations decrease.

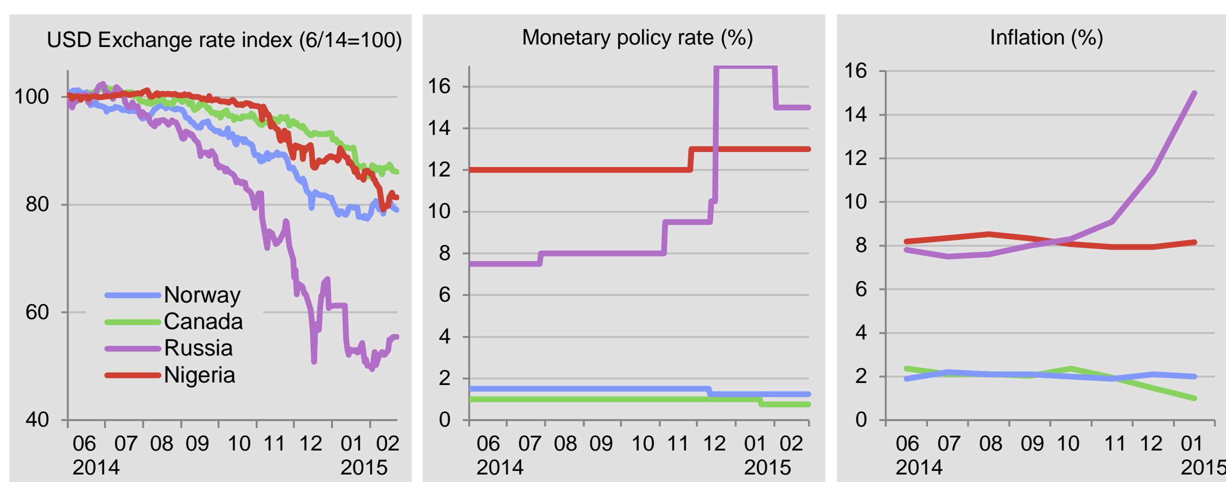
Oil exporters		Oil importers	
Saudi Arabia	18.4	United States	21.9
Russia	11.8	China	13.3
Nigeria	6.1	India	9.2
Iraq	5.9	Japan	8.9
UAE	5.8	Korea	6.3
Kuwait	5.1	Germany	4.6
Venezuela	4.6	Italy	3.7
Canada	4.5	Spain	3.0
Angola	4.2	Netherlands	2.8
Mexico	3.3	France	2.8

Net exports/imports; share in global net oil exports/imports in %, 2012.
Source: IEA.

There is quite a wide variety of ***oil-exporting countries***. The economies most at risk include those which are underdiversified, those where oil revenues account for a large part of GDP and state budget revenues and those which have failed to create sufficient financial reserves in the past. For example, Bahrain, Angola, Venezuela and Nigeria may face severe consequences. By contrast, although Saudi Arabia and Kuwait, for example, are also relatively narrowly focused, they have large budget reserves at their disposal. In Russia, which, as a major exporter, is also hit hard, the economic situation is further complicated by political factors. The major exporters also include Canada and Norway. These inflation-targeting countries will be examined first in the text below.

Although **Norway** with its 2% share of global oil production does not rank among the largest exporters, it is the most important oil and gas producer in Europe and has a high level of oil extraction per capita. Oil and natural gas account for more than one-fifth of GDP and two-thirds of exports in the Norwegian economy. Very soon after its oil reserves were discovered this Scandinavian country opted for a model approach involving the development of strategies to avoid the Dutch disease and preserve its wealth for future generations. Norway's investment fund, in which the central bank manages oil industry revenues, is today one of the largest sovereign funds in the world. However, with the oil price decreasing, transfers to the fund are falling to zero and, according to the central bank governor, Norway is approaching the point where some of the fund's returns will have to be used to cover the budget deficit. He also believes that the size of the fund measured as a share of GDP may have peaked.

Despite Norway's responsible approach, its economy will have to cope with the plunge in oil prices, which is worsening the outlook for economic activity. There is a risk of growing unemployment, as around one job in nine is related to the oil industry. However, the situation is being mitigated by gradual depreciation of the Norwegian krone, which has lost one-fifth of its value against the dollar since June. The central bank lowered the monetary policy rate by 0.25 pp to 1.25% in December. Unlike in many European economies, Norwegian monetary policy still has considerable room for manoeuvre. The next monetary policy decision will be made in March. The price of oil has meanwhile dropped further compared to December 2014.



Data source: Datastream

In January, the markets were surprised by a monetary policy easing in **Canada**, where the energy sector accounts for 10% of GDP and 25% of exports. The impacts of the oil price fall are clearly negative for the Canadian economy, even though they are being partly offset by positive effects on consumers and especially by the boost to growth of the U.S. economy, with which Canada has strong links. The falling oil prices are already being reflected in inflation, which dropped to 1.0% in January. The Bank of Canada (BoC) expects inflation to fall further and bottom out just above zero in Q2, but does not rule out a dip into negative territory. The

BoC considers the lowering of its key rate by 0.25 pp to 0.75% to be insurance against the downside risks, supporting sectoral adjustment of the economy and the return of inflation to the target at the end of 2016. It should also keep inflation expectations firmly anchored.

Russia is the second largest global exporter of oil, extracting about 13% of total global production and ranking first in exports of natural gas and oil products. The energy sector accounts for one-quarter of GDP, almost three-quarters of total exports and around one-half of state budget revenues. At the end of last year, the Russian central bank abolished the rouble's fluctuation band and sharply hiked its interest rates (to 17%) to stop the sharp depreciation of the currency, which is pushing prices up, together with restrictions on goods imports. Annual inflation rose to 15% in January and inflation pressures remain high. The central bank nonetheless cut the rate by 2 pp. It announced a switch to inflation targeting with the start of this year, in order to bring inflation down to 4% in 2017.

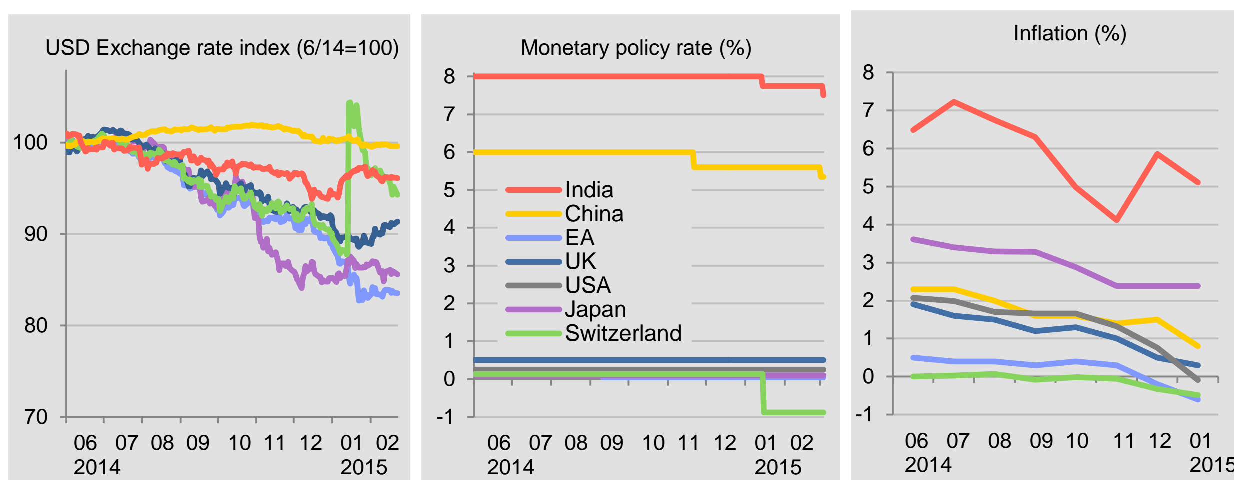
Nigeria accounts for "only" 3% of global production but ranks second among net exporters. Oil plays an important role in its economy, making up around 94% of all exports and 70% of state budget revenues. The central bank (which, however, is not fully independent) has tried to maintain the declared exchange rate of the local currency (the naira). In November it raised its key interest rate from 12% to 13%, but it is no longer able to maintain exchange rate stability with forex reserves fast disappearing. Inflation stood at 8.2% in January. The government has set up a special oil revenue fund, but it has dropped in value from USD 21 billion in 2008 to only USD 3 billion. The room for fiscal expansion is thus very limited. Government organisations are working to increase revenues from non-oil sources.

The oil shock is impacting strongly on socialist **Venezuela**, where oil accounts for 94% of exports and almost one-half of state budget revenues. This South American economy is facing crisis: the country is suffering from shortages of basic goods, shelves are empty, long queues are forming in shops from the early morning hours and there are regular outbreaks of unrest. The monetary system offers three exchange rates: 6.3 bolivar to the dollar for food and medicine and two others (called Sicad I and Sicad II) at 12 and 52 bolivar. In these conditions, however, dollar purchases are subject to many barriers and delays. According to unofficial information, the black market rate is around 190 bolivar to the dollar. As a result of strong pressures, the third exchange rate mentioned above was replaced by a "more market-based" Simadi system in February, whose rate stood at 172 bolivar to the dollar at the end of the month. Inflation was 68.5% in 2014, with prices rising by 5.3% month on month in December alone.

It is obvious that the economic impacts on ***oil-importing countries*** will be far more positive than those on exporters. The sharp fall in oil prices, which is a positive cost shock, should significantly bolster economic activity in countries dependent on oil imports. For some central bankers, however, the anti-inflationary effect may be more disturbing than ever before, as inflation is very low or even negative in many economies and monetary policy interest rates have reached their lower bound. This particularly applies to the **euro area**, which consumes almost 15% of global oil production. **Japan** also depends heavily on oil imports. Its inflation rate rebounded from zero last year, but this was partly due to an increase in taxes and the plunge in oil prices may undermine the Bank of Japan's efforts to anchor inflation expectations at its 2% target. The situation in both economies is being made easier by depreciation of their currencies. However, the threat of deflation is still present.

Much more favourable outlooks are seen for the **USA** and the **UK**, where voices calling for tighter monetary conditions started to be heard as early as last year. However, a decline in prices of energy commodities can now be seen here as well. While two members of the Bank of England Monetary Policy Committee voted for a rise in interest rates at the end of last year, there has been unanimous agreement this year that rates should be kept at the current level. Given the current anti-inflationary risks, the rise in rates is likely to be postponed.

Cheap oil should also boost growth in **China**, the second largest consumer in the world, but the impacts will not be evenly spread. Although China is a net importer, it is one of the largest oil producers and the drop in oil prices will have an adverse effect on a significant part of its economy. However, the direct impacts on households and corporations are being offset by state interventions in prices. Overall growth in consumer prices in the economy is very low. Annual inflation dropped to 0.8% in January.



Note: Monetary policy rate in China – 1Y loan rate.
Data source: Datastream

India ranks fourth in terms of global oil consumption and will benefit significantly from the price developments. Declining costs of total imports will help reduce its current account deficit and budget deficit, which is burdened with subsidies on fuels for households. The falling inflation pressures are gradually passing through to inflation, which has been high in recent months. The Reserve Bank of India has therefore lowered its monetary policy rate twice this year, a move which should further support economic growth in India. Moreover, in February it set a target of reducing inflation below 6% by January 2016, as well as introducing an inflation target of 4% with a tolerance band of ± 2 pp for financial year 2016–2017 and beyond.

4. SELECTED SPEECH: BETWEEN INDEPENDENCE AND INTERDEPENDENCE

Thomas Jordan, Chairman of the Governing Board of the Swiss National Bank (SNB), gave a speech on 17 February clarifying the SNB's decision to discontinue its exchange rate commitment, explaining the causes and consequences of the commitment, and pointing at the ability of the Swiss economy to adjust well to the current exchange rate appreciation.

The Swiss currency plays a much bigger role in the international financial system than the size of the economy would imply. This is due to its role as a safe haven. Switzerland's decision to preserve its political autonomy and conduct an independent monetary policy results at times in major exchange rate shocks. The first appreciation of the Swiss franc that Jordan mentions in his speech started in August 2007 with the onset of the US subprime crisis. The collapse of Lehman Brothers and the ensuing Great Recession put the franc under further upward pressure. The situation worsened in 2010 and 2011. From August 2007 until August 2011, the Swiss currency appreciated by about 40% in real effective terms. With monetary policy rates already at the zero lower bound and the global economic outlook rapidly deteriorating, the SNB introduced a minimum exchange rate of CHF 1.20 per euro on 6 September 2011 to avoid an extreme tightening of monetary policy conditions. By setting a cap on exchange rate appreciation, the SNB provided some relief to businesses so they could adopt measures to reduce costs and improve productivity. However, the minimum exchange rate, as Jordan notes, was an exceptional and temporary measure.

The SNB surprised the markets by abandoning the commitment on 15 January 2015. No pre-emptive guidance was possible, as it would have invited speculative attacks. The franc appreciated massively right after the announcement. Despite correcting slightly since then, it is still significantly overvalued. According to Jordan, the commitment was abandoned because the Fed and ECB monetary policies were evidently going to diverge. With the clear prospect of a significant QE programme in the euro area, the pressure on the minimum exchange rate intensified hugely at the beginning of 2015 and the commitment became unsustainable. Maintaining it for longer would have caused the SNB's balance sheet to grow significantly and the costs of maintaining the floor would have been out of all proportion to the benefits.

The strong appreciation, however, implies a new challenge for the Swiss economy. Jordan believes that Switzerland will deal well with this difficult situation. He speaks highly of the structural factors that have helped Switzerland to recover faster than the euro area following the crisis. Switzerland is highly innovative and its economy is diversified well beyond banks, watches and chocolates. The share in total value added of the manufacturing sector has increased since 1990 and is currently well above the EU average. The importance of the pharmaceutical and chemical industry has grown significantly. Swiss investment in research and development is among the largest in the world. Trade has become more and more diversified and Swiss exporters have increased their focus on the US, China and other emerging economies. However, the EU market still absorbs more than half of Swiss goods exports. Labour market flexibility supports the resilience of the economy. It is characterised by little layoff protection with a fairly generous unemployment insurance system. Strikes are rare, and collective labour agreements are typically the result of consensus-oriented negotiations with very limited government intervention. Another important institution is short-time working. The final factor that Jordan mentions is a stringent fiscal rule, which has been strictly respected. A debt brake mechanism, introduced in the early 2000s, links expenditure to the amount of cyclically adjusted revenue. It aims at a balanced structural budget over the medium term. Fiscal policy maintains a countercyclical profile through the mechanism of automatic stabilisers. Budget surpluses in the boom years preceding the global crisis helped significantly during the crisis. No tax increases or austerity measures were needed.

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