

Central Bank Monitoring

II/2022



Czech National Bank — Central Bank Monitoring — II/2022

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In this issue

The central banks we monitor and their economies are facing enormous inflation pressure. The economic impacts of the war in Ukraine constitute another strong inflationary shock amid already dynamic price growth. Many central banks have revised their monetary policies towards much faster tightening than previously expected. With the exception of the Swiss central bank and the ECB, all the banks under review have now responded by raising their monetary policy rates (in a few cases by more than the standard quarter of a percentage point) and some of them, including the Fed, have started quantitative tightening (where they were previously using quantitative easing). Central banks are now seeking the optimum degree of tightening to rein in the high inflation successfully while not cooling economic growth more than is necessary.

The latest *Spotlight* describes monetary policy in Japan, looking at both the long-term trend and the current situation. For a long time, the Bank of Japan pursued accommodative monetary policy in an effort to tackle deflationary pressures, and the current global surge in inflation has not affected Japan too much either. In our *Selected Speech*, Sveriges Riksbank Deputy Governor Henry Ohlsson discusses the inflationary impacts of wars. Based on his study of several times of war in the last century, Ohlsson looks for lessons we can learn to cope with the current situation.

This publication aims to provide economists and other specialists with information on the latest monetary policy developments, strategies and communications at selected central banks.

Current and past issues can be downloaded free from the Monetary policy section of the CNB website: <https://www.cnb.cz/en/monetary-policy/monitoring/>, where you can also download a file containing a list of all the thematic articles and speeches.

The publication is produced by the Monetary Policy and Fiscal Analyses Division of the Czech National Bank's Monetary Department and is freely distributable. Authors: Vojtěch Molnár (editor), Petr Kaštánek and Ivana Kubicová.

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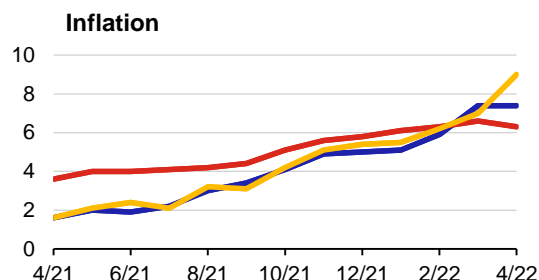
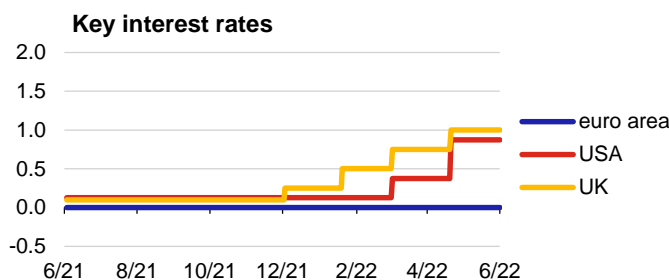
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I. LATEST MONETARY POLICY DEVELOPMENTS AT SELECTED CENTRAL BANKS

I.1 KEY CENTRAL BANKS OF THE EURO-ATLANTIC AREA

	<u>Euro area (ECB)</u>	<u>USA (Fed)</u>	<u>United Kingdom (BoE)</u>
Inflation target	2%	2% ¹	2%
MP meetings (rate changes)	14 Apr (0.00) 9 Jun (0.00)	15–16 Mar (+0.25) 3–4 May (+0.50)	17 Mar (+0.25) 5 May (+0.25)
Current basic rate	0.00%; -0.50% ²	0.75–1% ³	1%
Latest inflation	8.1% (May 2022) ⁴	6.3% (Apr 2022) ⁵	9% (Apr 2022)
Expected MP meetings	21 Jul 8 Sep	14–15 Jun ⁶ 26–27 Jul	16 Jun 4 Aug
Other expected events	8 Sep: publication of forecast	13 Jul: publication of Beige Book	4 Aug: publication of Monetary Policy Report
Expected rate movements⁷	↑	↑	↑

Note: ¹ long-term average (the August 2020 definition) as measured by PCE (Personal Consumption Expenditures) index; ² deposit rate; ³ chart shows centre of band; ⁴ flash estimate; ⁵ PCE index; ⁶ meeting associated with summary of FOMC economic forecasts; ⁷ direction of expected change in rates in next three months taken from Consensus Forecasts.



The **ECB** left interest rates unchanged in April and June but intends to raise them by 25 bp in July. The size of the hike at the September meeting will depend on the medium-term inflation outlook. If the outlook persists or deteriorates, an increment of more than 25 bp will be appropriate. The ECB will end net asset purchases under the APP on 1 July 2022 and intends to reinvest, in full, the principal payments from maturing securities for an extended period of time past the date when it starts raising interest rates and, in any case, for as long as necessary to maintain ample liquidity conditions and an appropriate monetary policy stance. The ECB will reinvest the principal payments from maturing securities under the PEPP until at least the end of 2024. The new inflation forecast was revised up again, to 6.8% (previously 5.1%) this year, 3.5% (2.1%) in 2023 and 2.1% (1.9%) in 2024. Inflation will thus remain undesirably elevated for some time and will be slightly above the target at the end of the forecast. The forecast expects real GDP in the euro area to grow by 2.8% (previously 3.7%) this year, 2.1% (2.8%) in 2023 and 2.1% (1.6%) in 2024.

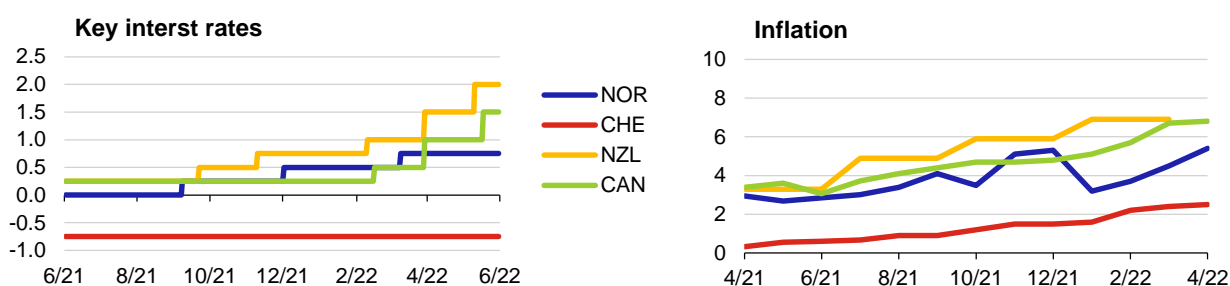
The **Fed** raised the federal funds rate twice in a row – by 75 bp overall – to a range of 0.75%–1%. According to Fed Chair Jerome Powell, further increases, possibly of 50 bp, can be expected to come at the next couple of policy meetings. The Fed has been reducing the [size of its balance sheet](#) through reinvestment caps on maturing assets since 1 June. Its government and agency bond holdings will start to shrink at a maximum monthly pace of USD 47.5 billion, stepping up after three months to USD 95 billion. According to Powell, the US economy is very strong and ready to handle tighter monetary policy despite a downturn in Q1. The latest FOMC forecast was published on 16 March 2022 (the previous December forecast is shown in brackets for comparison). According to the [median projections of the FOMC members](#), real GDP can be expected to grow by 2.8% (4.0%) this year, 2.2% (2.2%) in 2023 and 2.0% (2.0%) in 2024. The unemployment rate will be close to 3.5% this year and for the next two years. According to the median projections, PCE inflation will be 4.3% (2.6%) in 2022, 2.7% (2.3%) in 2023 and 2.3% (2.1%) in 2024. The interest rate (midpoint) is forecasted at 1.9% (0.9%) this year, 2.8% (1.6%) in 2023 and 2.8% (2.1%) in 2024.

The **BoE** further raised its key interest rate – by 25 bp twice – to 1% in order to return inflation sustainably to the 2% target. Three of the nine MPC members voted to increase the rate by 50 bp in May. The BoE is reducing its government and corporate bond holdings by ceasing to reinvest maturing assets. The BoE has yet to commence active sales of government bonds from its portfolio, but staff are working on a sales strategy, and an update will be provided at the August meeting. According to the May forecast, inflation will peak at around 10% in the autumn, more than 2 pp higher than the February forecast. The forecast also signals a slight decline in the UK economy of 0.25% next year and only weak growth in 2024.

I.2 SELECTED INFLATION-TARGETING NON-EU COUNTRIES

	Norway (NB)	Switzerland (SNB)	New Zealand (RBNZ)	Canada (BoC)
Inflation target	2%	0–2%	2%	2%
MP meetings (rate changes)	24 Mar (+0.25) 5 May (0.00)	24 Mar (0.00)	13 Apr (+0.5) 25 May (+0.5)	13 Apr (+0.5) 1 Jun (+0.5)
Current basic rate	0.75%	-0.75%	2%	1.5%
Latest inflation	5.4% (Apr 2022)	2.5% (Apr 2022)	6.9% (2022 Q1)	6.8% (Apr 2022)
Expected MP meetings	23 Jun 18 Aug	16 Jun	13 Jul 17 Aug	13 Jul 7 Sep
Other expected events	23 Jun: publication of Monetary Policy Report	22 Jun: publication of Quarterly Bulletin	17 Aug: publication of Monetary Policy Statement	13 Jul: publication of Monetary Policy Report
Expected rate movements¹	↑	→	↑	↑

Note: ¹ direction of expected change in rates in next three months is taken from Consensus Forecasts or, in the case of New Zealand, from RBNZ survey, and, in the case of Norges Bank, from forecast.



In line with expectations, the **NB** raised its policy rate by 25 bp to 0.75% in March. It left the rate unchanged at its May meeting but will probably raise it again in June. According to the NB's March forecast, the policy rate will rise to around 2.5% by the end of 2023, implying faster growth in rates than the December 2021 forecast. This is due to higher projected capacity utilisation and higher price and wage inflation than expected earlier. The NB also raised the [countercyclical capital buffer rate](#) to 2.5% with effect from 31 March 2023.

The **SNB** kept its interest rate at -0.75% and remains willing to intervene in the foreign exchange market to counter appreciation of the Swiss franc. Annual inflation rose to 2.5% in April, due mainly to higher import prices (for oil products and goods affected by supply bottlenecks). The tight situation with regard to these products is likely to persist in the coming months because of the war in Ukraine. The SNB raised the inflation estimate for this year to 2.1% in its March forecast. It expects inflation at 0.9% in 2023 and 2024. It also lowered the domestic GDP growth forecast for this year from 3% to 2.5%.

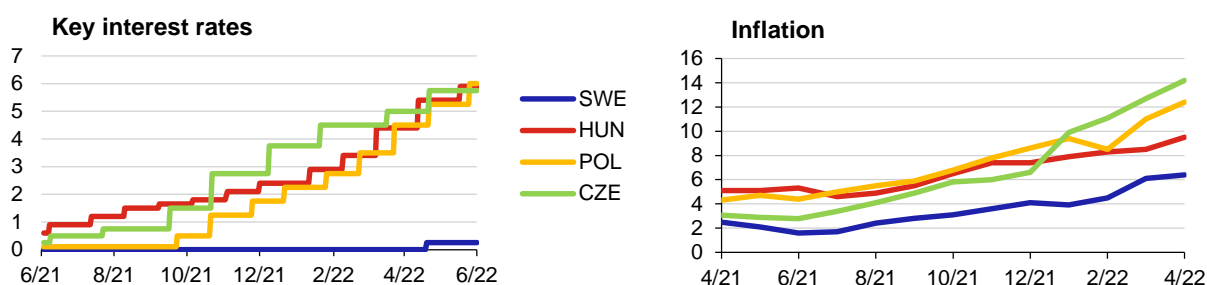
The **RBNZ** increased its key interest rate twice in a row in the spring, by 50 bp each time to 2%. The tightening was thus larger and earlier than initially expected. According to the RBNZ, these steps reduce the risk of inflation becoming persistent, while also providing more policy flexibility ahead in light of the highly uncertain global economic environment. New Zealand's economy remains strong, supported by a tight labour market (employment remains high and unemployment very low). Here too, though, high inflation and global economic uncertainty are dampening consumer confidence. New Zealand's inflation rate reflects a relatively similar contribution of imported and domestic price pressures. A key factor contributing to the domestic inflation pressure is housing, including the cost of constructing and operating dwellings.

The **BoC** increased its key interest rate twice in a row – by 50 bp each time – to 1.5% and expects it to rise further. It also began quantitative tightening in April. Inflation reached 6.8% in April and the BoC expects it to move even higher in the near term. Inflation will thus average just below 6% in the first half of 2022 and remain well above the control range throughout this year. The BoC expects it to ease to 2.5% in the second half of 2023 and return to the 2% target in 2024. Canadian economic activity is strong and the economy is clearly operating in excess demand. GDP rose by 3.1% year on year in 2022 Q1. Job vacancies are elevated, companies are reporting widespread labour shortages, and wage growth has been picking up and broadening across sectors. With consumer spending in Canada remaining robust and exports anticipated to strengthen, growth in Q2 is likely to be solid. The BoC April forecast expects GDP growth of 4.25% this year, slowing to 3.25% in 2023 and 2.25% in 2024.

I.3 SELECTED CENTRAL BANKS OF INFLATION-TARGETING EU COUNTRIES

	Sweden (Riksbank)	Hungary (MNB)	Poland (NBP)	Czech Republic (CNB)
Inflation target	2% ¹	3%	2.5%	2%
MP meetings (rate changes)	27 Apr (+0.25)	22 Mar (+1.00) 26 Apr (+1.00) 31 May (+0.50)	6 Apr (+1.00) 5 May (+0.75) 8 Jun (+0.75)	31 Mar (+0.50) 5 May (+0.75)
Current basic rate	0.25%; 0.15% ²	5.9%	6%	5.75%
Latest inflation	6.4% (Apr 2022)	9.5% (Apr 2022)	13.9% (May 2022)	16% (May 2022)
Expected MP meetings	29 Jun	28 Jun 26 Jul 30 Aug	7 Jul 23 Aug 7 Sep	22 Jun 4 Aug
Other expected events	30 Jun: publication of Monetary Policy Report	28 Jun: publication of Inflation Report	15 Jul: publication of Inflation Report	12 Aug: publication of Monetary Policy Report
Expected rate movements³	↑	↑	↑	↑

Note: ¹ CPIF – consumer price index including fixed interest rate; ² deposit rate; ³ direction of expected change in rates in next three months taken from Consensus Forecasts or, in the case of the CNB, from central bank's forecast.



The **Riksbank** raised its repo rate by 25 bp to 0.25% and its deposit rate to 0.15% in April. The increase in rates came much earlier than previously expected (see *News*). The Riksbank forecasts that the repo rate will be raised a further two to three times this year and gradually rise to 1.8% over the next three years. The current forecast projects inflation (CPIF) of 5.5% in 2022, 3.3% in 2023 and 2.0% in 2024. GDP rose by 3.0% in 2022 Q1. It will grow by 2.8% this year, 1.4% in 2023 and 1.4% in 2024. The Riksbank will buy bonds for SEK 37 billion during the second half of 2022. This is less than the amount that matures during this period, so its balance sheet will start to shrink.

The **MNB** raised its key rate three times in a row – by 250 bp overall to 5.9% – in order to anchor inflation expectations and mitigate second-round inflation risks. The O/N deposit rate is at the same level and the collateralised lending rate (lombard) is 8.9%. This asymmetrical corridor towards higher rates is contributing to monetary policy tightening. The MNB expects strong negative supply effects to raise headline and core inflation further in the coming months (the headline rate was 9.5% in April). Rises in food prices are likely to play a central role in the increase. Inflation will decline gradually from the autumn months. The labour market remains tight and the unemployment rate low. Hungarian GDP rose by 8.2% in 2022 Q1 on a year earlier. The MNB remains ready to intervene in the foreign exchange market if necessary.

The **NBP** raised interest rates sharply again, this time by 250 bp overall to 6%. The continued tightening is led by a strong need to reduce inflation back to the target and by an effort to curb inflation expectations. According to a preliminary estimate, GDP grew by 8.5% year on year in 2022 Q1. Conditions for economic growth will remain favourable in Q2. After the outbreak of the war, the NBP intervened in the foreign exchange market to counter depreciation of the zloty, and, according to a June statement, it may do so again. According to the March forecast (a new projection will be available in July), GDP will grow by 4.4% in 2022 and 3.0% in 2023. Inflation is forecasted at 10.8% this year and 9.0% in 2023.

The **CNB** continued to raise its key interest rates in spring – by 125 bp overall to 5.75% – in response to exceptionally strong price pressures from the domestic and foreign economies. Consistent with its May forecast is a further sharp rise in market interest rates until mid-2022, followed by a gradual decline from autumn 2022. GDP grew by 4.8% year on year in 2022 Q1, but the growth will slow considerably this year, with economic activity even contracting slightly year on year in the second half of 2022. This will be due largely to subdued household consumption, fixed investment and exports. Economic growth will recover next year (0.8% in 2022, 3.6% in 2023). At an extraordinary monetary policy meeting in May, the CNB launched interventions in the foreign exchange market in response to the previous sizeable depreciation of the koruna. The goal is to prevent a longer-term weakening of the koruna in a situation of high inflation.

II. NEWS OVER THE LAST THREE MONTHS

Turnarounds in Riksbank and RBA monetary policy

At its April meeting, the Swedish Riksbank raised the repo rate from 0% to 0.25% and expects it to gradually increase further to just under 2% over the next few years. In addition, the board of the Swedish central bank decided to reduce the reinvestment of principal repayments of asset holdings during the second half of the year, which will lead to a gradual reduction in the size of the central bank's balance sheet. The objective of these measures is to prevent the current high inflation (which, calculated using the Riksbank's preferred CPIF index, is at its highest level since the early 1990s – 6.5% in April; the last known figure at the time of the monetary policy meeting was 6.1% in March) from becoming entrenched in price-setting and wage formation. Back in February, the Riksbank had considered the high inflation to be solely the result of high energy prices, which were not expected to increase further, and inflation had thus been projected to fall without any monetary policy reaction. The Riksbank's February outlook had therefore expected the first repo rate increase to come in the second half of 2024 and the size of the central bank's balance sheet to remain stable during the current year and not to start declining until next year.

A similar shift has also occurred at the Australian RBA, which was still relatively reserved about raising interest rates in the first few months of this year but raised its main monetary policy rate from 0.1% to 0.35% at its May meeting and by another 50 bp to 0.85% in June and expects to increase it further. The RBA will also stop reinvesting principal payments from securities purchased under its previous yield curve control (YCC) programme and hence expects its balance sheet to decline significantly over the next couple of years. While Australia has faced less severe inflationary pressures compared with most other advanced economies, even there the inflation rate is well above the target range of 2%–3%, having reached 5.1% year-on-year in the first quarter of this year.

Convergence reports open door for Croatia to join euro area

In June, the [European Commission](#) and the [ECB](#) published their Convergence Reports (each institution publishes its own Convergence Report; these are therefore two separate documents, although they are usually published simultaneously and the two institutions consult each other in their preparation). The Convergence Reports assess the readiness of EU countries outside the euro area to join the monetary union every two years (with the exception of Denmark, which has negotiated a permanent derogation from the euro and is therefore not assessed).

This year's Convergence Reports put particular emphasis on Croatia, which has repeatedly expressed its interest in joining the monetary union in January 2023. Both reports conclude that Croatia is ready for euro adoption and meets the required criteria. Its actual entry into the euro area still needs to be approved by the Council of the EU (after other European institutions have given their views). It is expected to issue its decision in July. However, the positive assessments by the European Commission and the ECB represent a key step on Croatia's path towards the single European currency.

Croatia joined the ERM II exchange rate system (successful participation in which for at least two years is one of the entry conditions) in July 2020 together with Bulgaria, which, however, does not currently meet the price stability criterion and the requirements in the area of legal compatibility (similarly, the other countries assessed do not meet all the Maastricht accession criteria). Bulgaria aspires to join the euro area in January 2024. The entry of the two countries into ERM II and the Convergence Reports in general have previously been the subject of a *Spotlight* article in the [September 2020 Central Bank Monitoring](#).

RBNZ released details of securities sales

New Zealand's RBNZ decided in February to start reducing its asset holdings acquired under the LSAP programme (that is, to begin quantitative tightening). In June, it published details of its approach: in July this year it will commence sales at a rate of NZD 5 billion per year, beginning with bonds of the longest maturity. Shorter-maturity bonds will mature without reinvestment or sales. This is expected to continue gradually until LSAP bond holdings have reduced to zero, expected to be in mid-2027.

Filling of Fed's top management is becoming clearer

The current personnel turnover in the Fed's Board of Governors is coming to an end. In previous months, Republican senators have blocked votes on three vacancies in the Board because of strong opposition to the appointment of Sarah Bloom Raskin, one of President Biden's nominees. After one Democratic senator expressed his intention not to support Raskin either, Raskin renounced her nomination. Republican senators subsequently allowed votes on two other names,

and the Senate then approved the nominations of Philip Jefferson and Lisa Cook. The Senate also confirmed Jerome Powell as Fed Chair for a second four-year term and Lael Brainard as Fed Vice Chair. This leaves one last vacancy in the seven-member Board of Governors, for which the US president has already nominated Michael Barr, who would be in charge of banking supervision and who is still awaiting Senate confirmation.

The seven-member Board of Governors leads the Federal Reserve System, which is also made up of twelve regional Federal Reserve Banks. The members of the Board of Governors, along with the selected (and rotating over time) presidents of the regional Reserve Banks, comprise the twelve-member Federal Open Market Committee (FOMC), which decides on the Fed's monetary policy.

Stoltenberg will not join Norwegian central bank, which will be headed by Ida Wolden Bache instead

Following the resignation of Øystein Olsen as governor of Norges Bank in February 2022, the Norwegian government had previously selected the current NATO Secretary General Jens Stoltenberg as his successor. He was supposed to take over as governor at the end of this year, after his NATO mandate was scheduled to expire in September; until then, at that time Deputy Governor Ida Wolden Bache was to have led Norges Bank. However, in view of the ongoing war in Ukraine, NATO countries did not want to change their leadership in the uncertain and strained security situation and extended Stoltenberg's mandate by a year. The NATO chief therefore announced that he would not be joining Norges Bank, and the country's government instead appointed Ida Wolden Bache as governor for a full six-year term.

CNB awaits changes in Bank Board

Czech president Miloš Zeman has appointed Aleš Michl, an incumbent member of the Bank Board, as the new governor of the Czech National Bank. The president also appointed three new Bank Board members: Eva Zamrazilová (who will be deputy governor), Jan Frait and Karina Kubelková. All the appointees will take up their new positions on 1 July after the mandates of the present governor Jiří Rusnok, deputy governor Tomáš Nidetzký and Bank Board member Vojtěch Benda expire at the end of June.

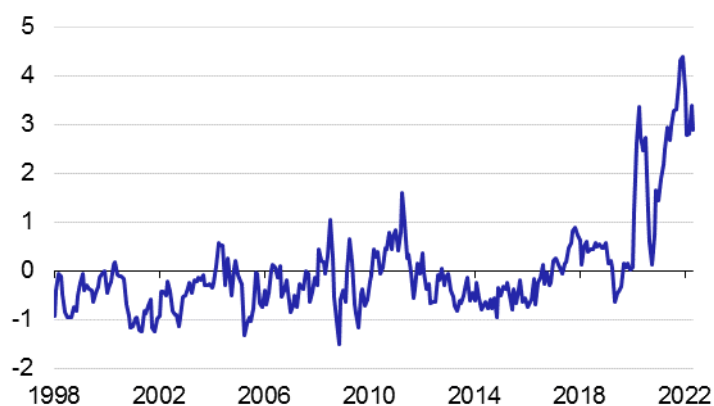
Independent organisation criticises SNB for lack of transparency

The SNB Observatory, an organisation analysing the monetary policy of the Swiss SNB, has issued a [publication](#) in which it gives an unfavourable assessment of the SNB's transparency and governance. The independence of the central bank requires a high degree of accountability and transparent communication in order to maintain public trust. According to the authors, the SNB lags substantially behind other central banks in terms of transparency. Monetary policy meetings are held only four times a year, little information is made public about them and the reasons for the decisions taken are not sufficiently explained, and press conferences are held only twice a year. In addition, the board of the SNB has only three members (which may encourage group-think) and its members can be reappointed without a limit on the number of mandates. The authors thus propose, among other things, expanding the board and limiting the number of possible reappointments. The SNB Observatory is composed of a trio of economists Stefan Gerlach, Yvan Lengwiler and Charles Wyplosz.

New York Fed publishes index capturing pressures in global supply chains

Researchers at the New York Fed have created an index that measures the congestion in global supply chains, which is playing a significant role in the current global inflationary pressures, based on a number of underlying indicators. The [Global Supply Chain Pressure Index](#) (GSCPI) is measured as the distance (number of standard deviations) from the long-term average. The index peaked last December at almost 4.5 standard deviations. Its most recent value is 2.9 in May. The authors update the index once a month.

Congestion in global supply chains – GSCPI index



Source: NY Fed.

III. SPOTLIGHT: BANK OF JAPAN: THORNY ROAD TO THE INFLATION TARGET

The Japanese economy has a number of specific features, both from the long-term perspective and in terms of developments over recent months. Japan has been grappling with deflation, or at least the threat of deflation, for the last 30 years. In an effort to tackle this problem, the Bank of Japan (BoJ) has long been a pioneer of unconventional monetary policy instruments. Although Japan is one of the world's largest economies, its GDP and wage growth have been subdued in recent decades. Demographics are often mentioned as a factor in the Japanese economy. Even today, Japan is something of an outlier, as it is one of the few countries yet to face a significant surge in inflation. Although inflation is edging up, it remains close to the 2% target for now, amid persisting weak domestic demand. The BoJ is therefore still maintaining very accommodative monetary policy.

This article begins by describing Japan's macroeconomic and monetary policy developments in recent decades. It goes on to discuss in greater detail the possible reasons for the country's markedly lower inflation compared with the rest of the world, and then examines Japan's current monetary policy dilemmas.

The Bank of Japan's 30-year battle with deflationary pressures¹

The start of the prolonged period of very low inflation/deflation dates back to the early 1990s, when a collapse in asset prices led to an economic slump and stagnation lasting several years. The situation was exacerbated a few years later by the Asian crisis. The 1990s are therefore referred to as Japan's "Lost Decade". The ratio of government debt to GDP started to climb rapidly during the crisis of the 1990s (and now stands at more than 250%, making Japan one of the most heavily indebted countries in the world²).

The BoJ was under the Ministry of Finance at the time and did not formally gain independence from the government until 1998. This happened as part of a larger package of reforms introduced in response to the poor macroeconomic situation and a series of scandals and controversies that had hit the Ministry of Finance. In 1999, shortly after gaining independence, and in a still adverse economic environment, the BoJ introduced a zero interest rate policy. Although there was one interest rate increase the following year, rates returned to zero in 2001 and the BoJ simultaneously launched a quantitative easing (QE) programme. It was therefore the first central bank to use this unconventional tool (QE was introduced in other countries after the outbreak of the global financial and economic crisis). The BoJ bought Japanese government bonds. The operating target was the total reserves held by commercial banks at the BoJ.

QE was ended in 2006 amid an economic recovery and positive – though still low – inflation. Interest rates were also hiked twice, reaching 0.5% in 2007. However, after the subsequent onset of the Global Financial Crisis and the recession that followed, the BoJ again cut interest rates close to zero and in 2010 launched a new comprehensive monetary easing (CME) programme, consisting largely of further purchases of securities (the BoJ bought a wider range of assets under this programme than in the first phase of QE).

It was not until 2012 that Japan's central bank [explicitly adopted inflation targeting](#), defining price stability as a positive rate of inflation of 2% or lower, with the specific goal set at 1%. One year later, the BoJ [increased its inflation target to the current level of 2%](#).

Given the persisting very low inflation (and for a long time even deflation), the BoJ also gradually increased its asset purchases. In 2013, under new governor Haruhiko Kuroda, it launched a new quantitative and qualitative easing (QQE) programme. This assumed a doubling of the monetary base (which became the operating target) in two years and a significant extension of the average maturity of asset holdings. QQE involved purchases of government bonds, exchange-traded funds (ETFs) and real estate investment funds. It was meant to reduce long-term interest rates (with short-term rates already around zero) and act through the asset price channel, but it was mainly intended to break the long-running very low inflation expectations and move them up to the 2% inflation target. QQE was part of a wider set of economic policies introduced by the Japanese prime minister Shinzo Abe (after whom these policies are collectively referred to as Abenomics) in order to lift the Japanese economy out of long-term stagnation and deflationary pressures. In addition to monetary policy measures, Abenomics included expansionary fiscal policy and structural reforms aimed at increasing the competitiveness of the Japanese economy.

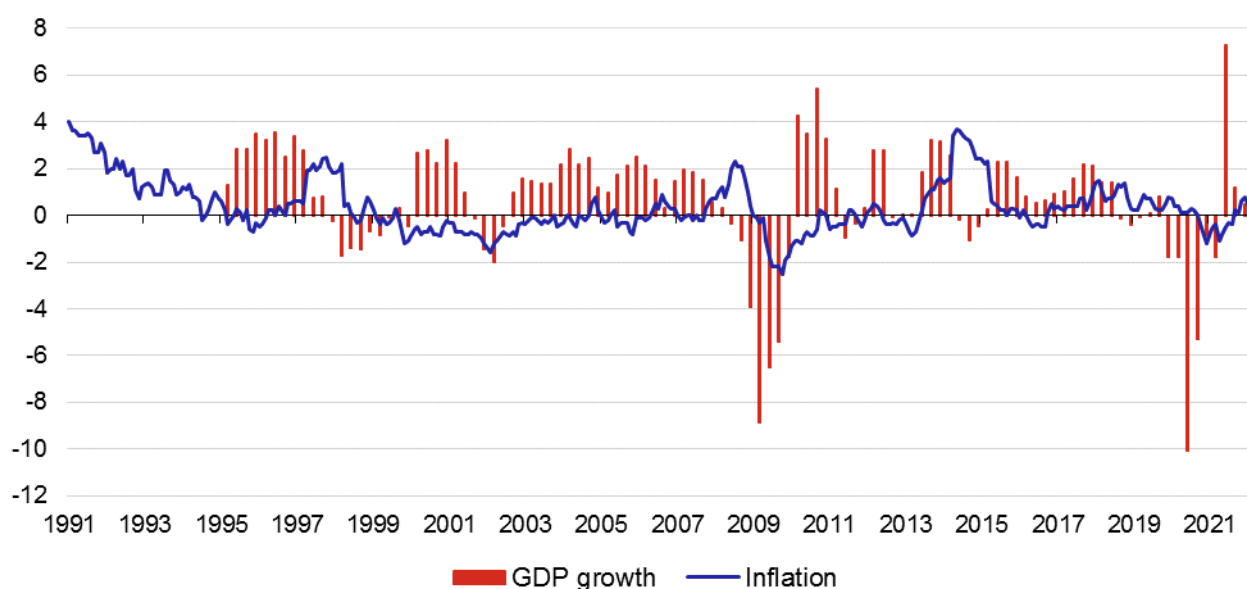
¹ Japan's monetary policy history since the 1970s was described in more detail in *Spotlight* in [the March 2013 issue of Central Bank Monitoring](#). Governor Shirakawa's speech on the strategy for overcoming deflation at the time was described in [the March 2012 issue](#).

² On the other hand, much of the debt is held by the BoJ and Japanese households, which reduces the country's dependence on foreign creditors.

The measures partially boosted economic performance and inflation expectations but were not sufficient to achieve the inflation target in the long term (probably due in part to insufficient implementation of planned structural reforms). Therefore, in 2016, the BoJ initially introduced a negative interest rate of -0.1% (which applies to this day) and subsequently launched a yield curve control (YCC) programme. Whereas until then the BoJ had purchased a set amount of government bonds (and other securities), it now focused on their price and announced that it would keep ten-year government bond yields close to zero. The BoJ also undertook to overshoot the 2% target.

The BoJ has maintained this monetary policy of “[quantitative and qualitative monetary easing with yield curve control](#)” from 2016 to the present and works to achieve its inflation target within this framework. After the outbreak of the pandemic in 2020, the BoJ also introduced programmes to support lending to firms and increased its purchases of corporate bonds, ETFs and real estate funds. It then further modified its monetary policy measures as part of a review of its monetary policy in the first half of 2021, when, among other things, it widened the tolerated fluctuation of ten-year government bond yields to ± 0.25 pp around zero and introduced new lending incentives for banks. Despite these measures, inflation was below the target from 2015 until April 2022, when it reached 2.5% (inflation excluding fresh food prices monitored by the central bank was 2.1%). Figure 1 shows inflation and GDP growth over the last three decades.

Figure 1: Japanese inflation and real GDP growth



Note: Annual headline inflation; monthly data.
Annual real GDP growth; quarterly data (from 1995).
Source: FRED.

Deflation factors in the Japanese economy

There is no one specific explanation for the three decades of very low inflation/deflation. It is due rather to a combination of different factors on which there is no clear consensus. In the first part of that period, the BoJ faced criticism for pursuing insufficiently accommodative monetary policy (see the discussion in Hoshi and Kashyap, 2020). However, it is difficult to criticise the BoJ not being aggressive enough in its actions, at least since Governor Kuroda took office in 2013, even though inflation has stayed well below the target on average.

Demographics are often mentioned as a factor in Japan’s long-running deflationary pressures. Japan has an ageing population, with the combination of a low birth rate and high life expectancy making it the country with practically the highest median age in the world.³ In addition, its total population has started to fall in recent years and is highly likely to continue to do so.

It should be noted, however, that the impact of an ageing and shrinking population on inflation is not clear-cut. A smaller labour force reduces the production capacity of the economy and thus aggregate supply, while lower labour supply leads to upward pressure on wages. Both of these are anti-inflationary factors. The tendency of pensioners to spend their savings (accumulated during their working lives) has the same effect.⁴ In line with this, Juselius and Takáts (2018) – based on an

³ In terms of population age, Japan is second behind Monaco, which, however, is specific due to its very small population (around 40,000). Japan has a median age of 48.6 (according to *The World Factbook, CIA*).

⁴ In economic theory, this phenomenon is described by the life-cycle hypothesis.

empirical analysis using a long time series for more than 20 countries – assert that a decline in the working-age population leads to inflationary pressures.

On the other hand, according to Anderson et al. (2014), the tendency of the elderly in Japan to dissave is more than offset by the fact that if these savings are in foreign currencies, converting them into domestic currency leads to real exchange rate appreciation and thus has an anti-inflationary effect. Falling land prices owing to an ageing and shrinking population also have an anti-inflationary effect. Former BoJ governor Masaaki Shirakawa also described an expectations channel whereby people who are aware of population ageing expect lower economic growth in the future, which leads to efforts to reduce current consumption (to ensure sufficient financial security) and also generates anti-inflationary pressures. Liu and Westelius (2016) conducted an empirical analysis on regional differences in Japan in 1990–2007 and extrapolated their results to subsequent years based on expected demographic trends. According to the authors, demographics did not have a significant impact in the 1990s. However, the ageing and declining population started to play an increasing role in Japan's deflationary pressures after 2000 and will remain a significant factor going forward.

The labour market may be another driver of Japan's sustained low inflation. Hoshi and Kashyap (2020) show that the impact of Japan's tight labour market on average wage growth weakened noticeably after 1998. The authors link this to structural characteristics of the labour market (related, among other things, to the role of part-time work). They also show that the relationship between wage growth and inflation itself also weakened. However, they do not offer a sufficient explanation for this.

With regard to the long-run neutrality of money, not all the above arguments should be of great importance – the central bank should be able to offset all the structural phenomena in the economy and guide inflation to its target with sufficient use of its tools. On the other hand, this may be complicated in practice by the lower bound on nominal interest rates, which limits the options for stimulating the economy and increasing inflation to the target. The BoJ has been close to the lower bound since the 1990s. This may be due in part to demographics. As shown by Han (2019), demographic change is fostering a decline in the natural rate of interest in Japan by reducing the labour force, slowing productivity growth and lowering potential growth.⁵ According to this article, Japan's natural real rate is negative (it fell to zero at the end of the 1990s and has been fluctuating slightly below that level since then; it was around -1% in 2018).⁶ In this situation, the room for cutting interest rates below the neutral level to fend off deflationary pressures is all the more limited.

The impact of inflation expectations is also worth noting. The prolonged period of very low inflation (or deflation) and flat wages has become entrenched in the thinking of people and firms, and even the subsequent highly accommodative monetary policy has not shifted inflation expectations towards the inflation target, making it even more difficult to achieve the target. Employees are not used to asking for pay rises and consumers are highly sensitive to changes in the prices of goods and services. Firms are therefore afraid to reflect growth in costs in their end prices and prefer to cut their margins or save on wage costs. One might also speculate about how much the Japanese culture of moderation is contributing to this mindset.

Current monetary policy, interventions to support YCC and a weakening yen

The above factors are reflected in the present situation where the current surge in inflation has not yet manifested itself significantly in Japan. As mentioned above, inflation did not move above the target until April this year and, at 2.5%, is substantially lower than in most countries. At the same time, it is not the level of inflation the central bank has been trying to achieve for many years – domestic demand remains weak and the current inflation is being caused mainly by rising import prices, which are leading to a reduction in the living standards of the population.

[In its April outlook](#), the BoJ does not consider the current price growth to be sustainable and expects inflation to fall below 2% next year. Given the growth in energy prices, the BoJ regards the risks to prices as skewed to the upside for the time being. It is not currently considering tightening; on the contrary, it is talking about being prepared to ease monetary policy even further if necessary. The current moderately rising inflation expectations are not a problem for the Japanese central bank. Rather, they represent more of a welcome shift towards the inflation target.

The BoJ has had to face some investor distrust in recent months as the rhetoric of the world's major central banks has shifted to a need to tighten, because investors have started to speculate on Japan tightening as well. This has put upward pressure on Japanese government bond yields. The BoJ therefore announced in February that it was prepared to buy an unlimited amount of ten-year government bonds in order to cap their yield at 0.25% (the upper limit of the yield tolerated

⁵ This mechanism corresponds to the secular stagnation hypothesis, which received considerable attention in the last decade, when many other major economies in addition to Japan faced near-zero interest rates.

⁶ In the article, the author uses multiple approaches to estimate the natural real rate. The estimates differ slightly but are all broadly in line with the trend described. Japanese demographics are not the only reason for the decline but have long been a contributory factor.

under YCC). Similarly, in the months that followed, the BoJ repeatedly declared its commitment to keeping the yield at or below this level at all costs and made extraordinary bond purchases to this end.

The widening of the interest rate differential (both actual and expected) caused by the BoJ's still accommodative monetary policy and the rate hikes by the Fed and other central banks then led to significant depreciation of the yen.⁷ Since January, the yen has weakened by more than 10% against the dollar (see Figure 2). On the one hand, this has further eased monetary conditions and thus strengthened the BoJ's current policy. On the other hand, from the short-term perspective the weaker yen is increasing the already high import prices, including prices of energy and other commodities, which is negatively affecting Japanese households' purchasing power. New speculation has therefore emerged regarding possible interventions to prop up the yen. In Japan, moreover, the Japanese Ministry of Finance decides on exchange rate interventions (although the interventions themselves are conducted by the central bank on the instruction of the ministry). Given the upcoming elections to the upper house of parliament, the rising costs for households are bad for the government. However, a decision by the Ministry of Finance to intervene in the yen's favour set against efforts by the central bank to maintain the current yield curve control would mean a rather inconsistent and difficult-to-understand economic policy mix. The Japanese government has therefore so far been reluctant to make any interventions.

Conclusion

The Japanese economy is characterised by a number of specific features and (not always welcome) firsts. Although many countries have faced deflationary pressures and nominal interest rates at their lower bound over the last ten years, these trends have been even stronger in Japan than elsewhere. In addition, the country has been operating in this environment for the last 30 years. Japan has practically the oldest population in the world and a very high government debt-to-GDP ratio. It was also the first country to introduce quantitative easing.⁸

At present, Japan is largely protected from the current global surge in inflation. Japanese inflation has also risen, but it has not markedly exceeded the 2% target so far, so Japan is currently in a better situation than most countries. The flip side of the coin is 30 years of virtually flat wages, lacklustre GDP growth and constantly weak domestic demand. In the coming months, it will certainly be interesting to see whether the long-term trend will prevail and Japan, after a brief episode of higher inflation, will again grapple with deflationary pressures, whether the current higher inflation will help raise inflation expectations commensurately, kick-start wage growth and allow the country to achieve the inflation target sustainability for the first time in years, or whether the high inflation will reach Japan at some point and the BoJ – like other major central banks in recent months – will have to reconsider its position and quickly tighten monetary policy in an effort to curb inflation. It is not easy to predict which of the above will materialise. The quote by famous economist Willem Buiter captures the specific nature of the Japanese economy:⁹

“Japan is the hardest economy in the world to understand. If this were physics, then gravity wouldn't work in Japan.”

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Figure 2: Yen-dollar exchange rate (JPY/USD)



Note: A higher value means a weaker yen against the dollar.
Source: Bank of Japan.

⁷ In addition, the correlation between the yen-dollar rate and the ten-year US government bond yield has increased considerably in recent months.

⁸ Other distinctive characteristics of the Japanese economy not covered in detail in this article for the sake of brevity include the long-term trend in property prices (which declined steadily in 1991–2009; they have been rising moderately since 2010, but they have not come even close to the peak seen in the early 1990s) and a long stagnating equity market (which has been on an upward trend since the crisis-related crash in 2008 but has yet to equal the all-time high it reached in 1989).

⁹ Cited from <https://foreignpolicy.com/2022/04/25/inflation-japan-deflation-economy/>.

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IV. SELECTED SPEECH: Henry Ohlsson: Monetary policy and inflation in times of war

In his May speech at Uppsala University, Sveriges Riksbank Deputy Governor Henry Ohlsson discussed the economic consequences of the wars in the 20th century and what we can learn from historical experience to cope with the current situation.

The fact that war and inflation often go hand in hand has been known for a very long time. In the distant past, inflation increased especially in places where armies were, because soldiers' suddenly increased demand for necessities exceeded the local supply. However, the sharp increase in public expenditure resulting from rearmament increases the use of productive capacity and leads to higher inflation in the economy as a whole.

Ohlsson adds that war can also cause inflation to increase in countries not directly involved. The war itself can generate increased demand on the world market for various products such as oil and certain metals. War can also trigger a refugee crisis, which requires increased government expenditure in the countries where the refugees arrive. Furthermore, it can also increase geopolitical risks, and even those countries that are not directly involved in the war may decide to increase public spending on defence. However, increased uncertainty may also reduce private investment and increase precautionary saving. There are thus counteracting effects on aggregate demand and thereby on inflation.

Four periods of high inflation in Sweden in the 20th century

Using the Swedish economy as an example, Henry Ohlsson points out that since 1900, inflation in Sweden has only been above 10% when there has been war or some other type of conflict. By far the highest inflation in Sweden was during the First World War, when it peaked in 1918 at 47%. This period was also unique in that the high inflation was followed by severe deflation, as the Riksbank's monetary policy was more restrictive than in other European countries and the USA. The tightening caused real interest rates to rise sharply and the Swedish economy to enter a recession.

During the Second World War, policy-makers were determined not to repeat the economic-political mistakes of the First World War, and extensive regulations were introduced early on to dampen expectations of soaring inflation. Nevertheless, inflation rose quite a lot during the first years of the war. Therefore, in Sweden, an emergency commission for price stabilisation was additionally appointed. The most important means of doing this was a general price and wage freeze. The range of measures adopted made economic policy much more successful than during the First World War, as there was no post-war recession, and the peak in inflation was short-lived and not followed by any appreciable deflation. Similar developments were observed during the Korean War in 1950–1953.

Deputy Governor Ohlsson also points out that the link between the period of increased inflation in the 1970s and war may not be so obvious, but it is definitely there. The Yom Kippur War in 1973 preceded the first oil shock. The second oil shock is linked to the revolution in Iran in 1979 and the outbreak of war between Iraq and Iran in 1980. Too expansionary monetary policy also played a significant role. The "Volcker disinflation" – the tight monetary policy conducted by the then head of the Federal Reserve Paul Volcker after he took office in 1979 – is usually regarded as the end of the period of high inflation. However, Sweden continued to face serious economic problems. The main concern was the adverse inflation trend, accompanied by a price-wage spiral. This ultimately forced the Riksbank to abandon the fixed exchange rate and introduce inflation targeting in the early 1990s.

Implications for the current situation

The economic impacts of the current war in Ukraine and the preceding pandemic can be described as negative supply shocks similar to those in the 1970s. For monetary policy decision-makers, supply shocks are more difficult to deal with than demand shocks. If people assume that the high inflation is transitory, the central bank can simply wait until inflation falls back again. But there is a risk that price impulses will spread to other prices and start to raise inflation expectations. This puts monetary policy in a difficult situation. On the one hand, it is necessary to maintain public confidence in the inflation target and prevent inflation from becoming entrenched at high levels. On the other hand, it is essential to avoid pursuing a monetary policy so tight that the economy falls into a deep recession, as it did after the First World War.

According to Ohlsson, the current conditions for coping with this situation in Sweden are better than in the 1970s. He gives three reasons for this: (i) the inflation target is a credible nominal anchor for long-term inflation expectations, (ii) wage formation is entirely different from that in the 1970s and 1980s, and (iii) a strict and robust fiscal policy framework was introduced in the early 1990s, and this has contributed to public finances now being in a much better shape than before.

Ohlsson concludes that in many periods of high inflation caused by war, the effects of monetary policy have been heavily dependent on the expectations of companies and households regarding future economic developments. The price increases seen in Sweden in recent months are not something that Riksbank monetary policy can affect. But the high inflation risks setting off a wage-price spiral, so it is essential to ward off these tendencies in time and change the direction of monetary policy.

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