

# Central Bank Monitoring

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## I/2024



## In this issue

Inflation continues to follow a downward trend, but in all the countries under review except Switzerland remains above the inflation targets of the respective central banks. Most central banks kept their rates unchanged at their recent meetings, but the MNB has continued to cut rates significantly from their previous double-digit levels. The CNB has also lowered rates. The Federal Reserve announced the discontinuation of the liquidity support programme in the banking sector, which it introduced a year ago in response to the collapses of several banks and tensions in the sector. The public debate on the digital pound continues in the UK. The Turkish central bank now has its sixth governor since 2019, and the SNB and the BoE will also be undergoing changes in senior management.

Spotlight focuses on Danish monetary policy and explains the specificities of its approach, with its currency firmly pegged to the euro, which Denmark is not however seeking to adopt. The article also discusses Denmark's membership in the ERM II exchange rate mechanism, possible explanations of the unusually high exchange rate stability of the Danish krone and the portability of the Danish experience to other countries. In our Selected Speech, BoC Governor Tiff Macklem uses the example of Canada in the context of past crises to discuss what monetary policy is capable of and what we should not expect from it.

This publication aims to familiarise experts with recent monetary policy developments, monetary policy strategy, and communication by selected central banks.

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

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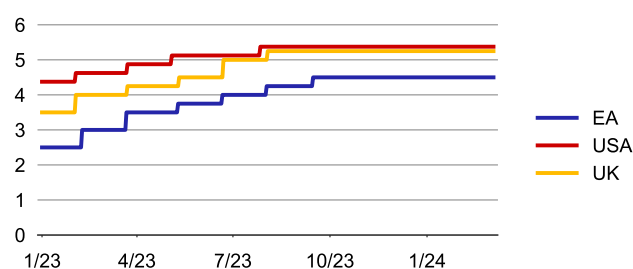
## I. LATEST MONETARY POLICY DEVELOPMENTS AT SELECTED CENTRAL BANKS

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

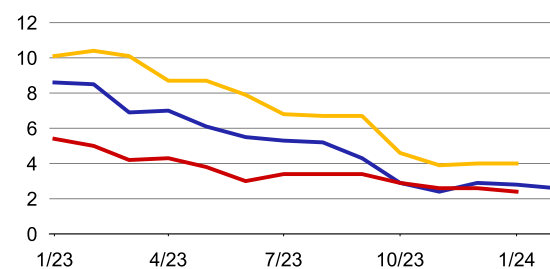
	<b>Euro area (ECB)</b>	<b>USA (Fed)</b>	<b>United Kingdom (BoE)</b>
<b>Inflation target</b>	2% (HICP)	2% (PCE) <sup>1</sup>	2% (CPI)
<b>Latest inflation</b>	<b>2.6%</b> (2/2024, flash)	<b>2.4%</b> (1/2024) <sup>1</sup>	<b>4%</b> (1/2024)
<b>Current basic rate</b>	<b>4.50%</b>	<b>5.25–5.50%</b> <sup>2</sup>	<b>5.25%</b>
<b>MP decision publication (rate changes)</b>	26 January (0.00) 7 March (0.00)	31 January (0.00)	1 February (0.00)
<b>Expected MP decisions</b>	11 April 6 June	19–20 March 30 April – 1 May	21 March 9 May

Note: <sup>1</sup> index PCE (Personal Consumption Expenditures); <sup>2</sup> graph shows band centre.

#### Key interest rates



#### Inflation



The **ECB** left interest rates unchanged at 4.5% and concludes that a sufficiently prolonged stay at this level will contribute significantly to inflation returning to the target. In its March forecast, the ECB revised inflation downwards, especially for 2024, which primarily reflects a lower contribution from energy prices. Inflation is expected to reach an average of 2.3% this year and be at the 2% target in 2025. Though most core inflation indicators have continued to ease, domestic price pressures remain high, partly due to strong wage growth. Financing conditions are restrictive and past interest rate hikes continue to dampen demand, which is helping to reduce inflation. The GDP is expected to grow at 0.6% this year and economic activity will remain subdued in the near term. A recovery will follow and the euro area will grow at around 1.5% over the next two years. This development should initially be supported by consumption and later by investment. Regarding the PEPP portfolio, the ECB is fully reinvesting the principal of maturing securities during the first half of this year, and it intends to reduce the size of the PEPP portfolio by EUR 7.5 billion per month on average from mid-year onwards and plans to stop reinvesting at the end of 2024.

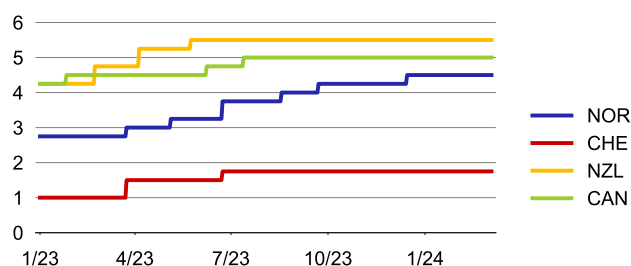
The **Fed**, as expected, left the range for its policy rate at 5.25–5.50% at its January meeting, and is continuing its quantitative tightening, shrinking the balance sheet at a rate of USD 95 billion per month. According to the minutes, a detailed debate about a halt or slowdown in quantitative tightening can be expected in March. Interest rates are probably at their peak in this tightening cycle and, should the economy evolve as expected, it will probably be appropriate according to the wording of the minutes to start reducing them this year. According to Jerome Powell, however, it is unlikely that interest rates will fall back in March, but it will depend on incoming data. Economic activity is growing at a solid pace (GDP grew by 3.1% in 2023). Job growth has moderated since the beginning of last year, but remains robust and the unemployment rate remains low (3.7% in December). Inflation has moderated over the past year but remains high. According to the FOMC's current (December) forecast, real GDP will grow by 1.4% this year, while core inflation and PCE inflation will be 2.4% this year.

The **BoE** left its key interest rate unchanged at 5.25% in February. Six Committee members voted to maintain the interest rate, two to raise it by 25 bp and one to cut it by 25 bp. Headline inflation fell fairly significantly. The restrictive monetary policy stance is weighing on activity in the real economy and leading to an easing of the labour market. The inflation risks in the February BoE forecast are more balanced than in the previous one. Key inflation persistence indicators remain elevated, though service price inflation and wage growth have eased than expected. The Committee will therefore monitor signs of persistent inflationary pressures and, on their basis, determine how long the key interest rate should be kept at its current level. According to the BoE, inflation will temporarily fall towards the 2% target in 2024 Q2 but then rise again in Q3 and Q4. This inflation profile in the second half of the year is due to developments in the direct contribution of energy prices to 12-month inflation, which is becoming less negative. Inflation is projected at 2.3% in two years' time and 1.9% in three years' time.

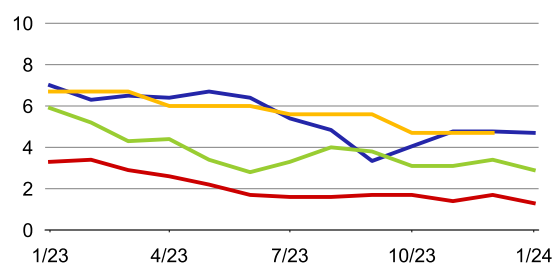
## I.2 SELECTED NON-EU CENTRAL BANKS WITH INFLATION-TARGETING REGIMES

	Norway ( <a href="#">NB</a> )	Switzerland ( <a href="#">SNB</a> )	New Zealand ( <a href="#">RBNZ</a> )	Canada ( <a href="#">BoC</a> )
<b>inflation target</b>	2% (CPI)	0–2% (CPI)	2% (CPI)	2% (CPI)
<b>latest inflation</b>	4.7% (1/2024)	1.3% (1/2024)	4.7% (2023 4Q)	2.9% (1/2024)
<b>current basic rate</b>	4.50%	1.75%	5.50%	5.00%
<b>MP decision publication (rate changes)</b>	25 January (0.00)	No meeting was held	28 February (0.00)	24 January (0.00) 6 March (0.00)
<b>expected MP decisions</b>	21 March 3 May	21 March	10 April 22 May	10 April 5 June

Key interest rates



Inflation



At its January meeting, the **NB** left its policy rate unchanged at 4.5%, in line with its previous communications. Based on the current assessment of the outlook and the NB's balance of risks, the policy rate will likely be kept at this level for some time (the December statement said until autumn 2024). Inflation has fallen further but remains elevated. Unemployment is low but economic growth is weak. For now, both inflation and economic activity have developed broadly in line with the projections in the December 2023 Monetary Policy Report. The Norwegian krone is stronger than expected. The outlook for the Norwegian economy has not changed much since the previous Report. However, there is uncertainty about the future evolution of the Norwegian economy, and the NB communicated its readiness to react to both possible directions of further inflation developments. If inflation remains elevated or the krone weakens again, inflation may remain high for longer than originally expected, in which case the NB stands ready to raise its interest rate again. If the Norwegian economy slows more markedly or if inflation falls faster, the key rate may be lowered earlier than expected in December.

The **SNB** did not have any monetary meeting planned from December, and its key interest rate thus remained at 1.75%. Growth in the Swiss economy in terms of real growth in corporate turnover (i.e. the SNB-monitored [cyclical indicators](#)) was moderate in 2023 Q4. Corporate turnover grew slightly in the services and construction sectors, while activity stagnated in manufacturing. Given the fall in inflation and subdued business activity, corporations expect wage growth to slow to around 2% next year. Staff shortages have eased, but the recruitment of specialised staff continues to require significant efforts. According to the SNB's December forecast, inflation will be below 2% both this year and next. The Swiss economy will grow by between 0.5% and 1% this year. The main risk identified in the December forecast was a more pronounced economic slowdown abroad.

The **RBNZ** left its key interest rate at 5.5% in February and will keep it restrictive to ensure inflation returns to the 1–3% target range. Inflation fell to 4.7% in 2023 Q4, and was thus lower than expected. According to the RBNZ, the recent falls in core inflation and corporate inflation expectations are encouraging, but both remain above 2%. Aggregate demand now better matches the economy's supply capacity. The combination of lower demand and rising supply is reducing domestic inflation. Below-trend global growth and a slight drop in prices for imported goods and services have also helped reduce headline inflation in recent quarters. The RBNZ has also addressed the low rate of productivity growth stemming from the latest GDP data. If productivity growth remained lower, this would contribute to slowing the potential economic growth. This would limit the speed at which the economy can grow in a sustainable manner without generating inflation.

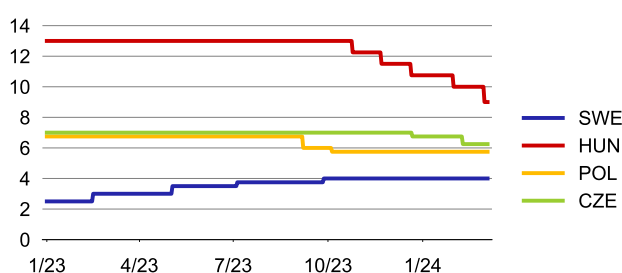
The **BoC** left the interest rate unchanged at 5% in January and March and continues with quantitative tightening. Inflationary pressures persist, with annual and three-month core inflation indicators ranging between 3% and 3.5%. The economy grew more than expected in 2023 Q4, even though the pace of growth remained weak and below its potential. The Governing Council wants to see a further and sustained slowdown in core inflation and continues to focus on the balance between supply and demand in the economy, inflation expectations, wage growth and corporate pricing behaviour. According to the BoC's January forecast, inflation will be close to 3% in the first half of this year and then gradually decrease, returning to the 2% target next year. Canadian GDP will grow by 0.8% this year and by 2.4% in 2025.

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

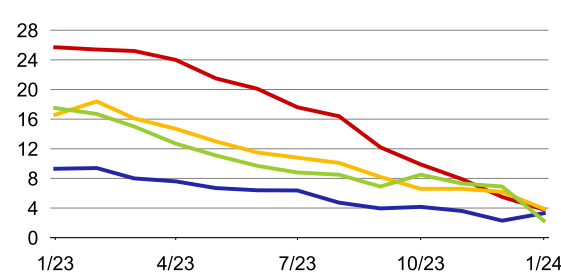
	Sweden ( <u>Riksbank</u> )	Hungary ( <u>MNB</u> )	Poland ( <u>NBP</u> )	Czech Republic ( <u>CNB</u> )
<b>Inflation target</b>	2% (CPIF) <sup>1</sup>	3% (CPI)	2.5% (CPI)	2% (CPI)
<b>Latest inflation</b>	3.3% (1/2024) <sup>1</sup>	3.8% (1/2024)	3.9% (1/2024)	2.0% (2/2024) <sup>2</sup>
<b>Current basic rate</b>	4.00%	9.00%	5.75%	6.25%
<b>MP decision publication (rate changes)</b>	1 February (0.00)	19 December (-0.75) 30 January (-0.75) 27 February (-1.00)	9 January (0.00) 7 February (0.00) 6 March (0.00)	21 December (-0.25) 8 February (-0.50)
<b>Expected MP decisions</b>	27 March 8 May	26 March 23 April 21 May	3–4 April 8–9 May 4–5 June	20 March 2 May

Note: <sup>1</sup> CPIF (Consumer Price Index with a Fixed Interest Rate); <sup>2</sup> the February annual inflation figure for the Czech Republic shown in the table was published after the cut-off date for this issue and is therefore not shown in the chart.

## Key interest rates



## Inflation



The **Riksbank** left its key interest rate unchanged at 4% in February. Such a tighter monetary policy is still needed to stabilise inflation close to target. Nevertheless, the Executive Board assessed that the risk of inflation settling at excessively high levels had decreased. Thus, the key rate may probably be lowered earlier than expected. In its current statement, the Riksbank stated that if the inflation outlook remained favourable, monetary policy rates could be cut in the first half of this year, as inflation has fallen significantly, inflation expectations are close to target, and wages are rising at a moderate pace. As part of the process of normalising its balance sheet, from February the Riksbank will increase the sales of nominal government bonds from SEK 4.2 billion to SEK 5.7 billion per month. This means that the overall rate of asset sales will increase from SEK 5 billion to SEK 6.5 billion per month.

At each of the past three monetary policy meetings, the **MNB** has significantly lowered its base rate, bringing it down by a total of 2.5 pp to 9%. The rate corridor around the base rate has already been reduced symmetrically and to the same extent as the base rate, i.e. the O/N deposit rate is currently at 8% and the O/N collateralised borrowing rate is at 10%. The MNB discontinued its long-term deposit facility with effect from 31 January. Hungarian inflation fell further in January (to 3.8%) and is thus already in the tolerance band. According to the January MNB forecast, inflation will stay close to the upper boundary of the tolerance band and then rise temporarily in the middle of the year due to base effects. The MNB thus expects inflation of between 4% and 5.5% this year and between 2.5% and 3.5% next year. The MNB expects GDP to grow by 2.5% to 3.5% this year and by between 3.5% and 4.5% next year.

At the past three monetary policy meetings, the **NBP** kept the key interest rate at 5.75%. Incoming data indicate low demand and cost pressures in the Polish economy that, with declining price pressures abroad, will support the continuation of a gradual decline in domestic inflation. The NBP believes that the decline in inflation is also supported by the appreciation of the zloty, which is in line with the fundamentals of the Polish economy. According to the NBP's March forecast, inflation will be between 2.8% and 4.3% this year and between 2.2% and 5% in 2025. The current inflation forecast is burdened with considerable uncertainty related to the setting of the government's energy and food price protection measures and the horizon over which they will apply. GDP will grow at a rate of 2.7–4.3% this year and 3.2–5.3% in 2025.

At the last two meetings, the **CNB** cut its 2W repo rate by a total of 75 bp. At its last meeting in February, the rate was cut by 50 bp, with one Board member voting for a decrease of 75 bp. The baseline scenario of the winter forecast expected a rapid fall in rates this year. However, the Board expects rates will fall slower than in the forecast, according to which inflation will stay in the upper half of the tolerance band until the end of 2024 and fall towards the 2% target in 2025. Inflation will reach 2.6% for 2024 as a whole, and 2% in 2025 (though it fell more in January to 2.3%). However, core inflation will be elevated this year, averaging 2.9%. The forecast expects domestic demand to start rising again this year, supported by a recovery in real household income. The forecast expects GDP to grow by 0.6% in 2024 and pick up to 2.4% in 2025.



## II. NEWS OVER THE LAST THREE MONTHS

### The Fed announced the end of the liquidity support program in the banking sector

The US Fed [announced](#) in January that it would stop making new loans to banks under the *Bank Term Funding Program* (BTFP) on 11 March. Meanwhile, the termination comes a year after the Fed introduced the measure in response to the increase in stress in the US banking sector at the time following the collapse of Silicon Valley Bank (SVB) and other smaller banks last March. Under the BTFP, banks could borrow for up to one year from the Fed with only a small interest mark-up against securities that were valued at par.

### The UK continues public debate about CBDC

The Bank of England and HM Treasury have issued a [report](#) responding to the public consultation on the digital pound project that has been running over the past year (the background material for the public consultation was a [paper](#) published last February, which we wrote about last year in *News over the last three months* in the [March Central Bank Monitoring](#)). The consultation received over 50,000 responses from the public, and representatives of businesses and academia. A frequent concern among the responses was the issue of privacy protection or the “programmability” of money. The BoE and Treasury report is therefore mainly focused on these areas, declaring that neither the central bank nor the government would have access to the personal data of CBDC users and that the digital pound would not be programmable (i.e. the central bank and the government would have no control over how users use their funds). The design phase of the digital currency is now underway and is expected to last until around 2025, after which a decision should be made on whether to implement the digital pound into practice or not. This would also need to be preceded by some legislative adjustments.

### The ECB reported a loss for 2023

Last year, for the first time since 2004, [the European Central Bank ended the year with a loss](#) of just under EUR 1.3 billion (after taking into account EUR 6.6 billion released from provisions for financial risks, without which the loss would have been larger). The main reason for this was the increase in interest costs due to rising interest rates. The ECB expects to continue to incur losses for the next few years but is then projected to return to making profits. At the same time, it assures that it is able to fulfil its price stability mandate regardless of the financial result.

### The ECB starts publishing new data on the distribution of wealth among households

The European Central Bank has [introduced a new dataset](#) that should provide more detailed information on the distribution of household wealth in euro area countries. The dataset follows the ECB’s 2021 review of its monetary policy strategy, which concluded (among other things) that the interaction between monetary policy and the distribution of wealth and income should be systematically taken into account. The new data link household survey information with macroeconomic data from the national accounts. They will be compiled quarterly and published five months after the end of the relevant period. The first published data show that over the last 5 years, household net worth has increased by 29% in nominal terms, with a larger increase for homeowners. Inequality has declined slightly over the same period.

### Another change in the leadership of the Turkish central bank

In early February, H. G. Erkan resigned as governor of the Turkish CBRT, a post she had held since last June. The resignation was preceded by media pressure related to allegations that her father had significant informal influence over the running of the central bank and had also arranged a dismissal of one employee. The governor rejected the allegations but decided to leave her post. In this case, the change seems not to have been caused by President Erdogan’s decision (while some of the previous changes in the governor’s post were due to the President’s dissatisfaction with the Turkish Central Bank’s monetary policy moves). Under Erkan’s leadership, the bank has fundamentally changed its approach in combat with high inflation, raising interest rates from 8% to 45% over eight months. The latest increase occurred in January, when the bank also communicated that it was probably already at the interest rate peak. [The new governor is the hitherto deputy governor F. Karahan](#) – the sixth governor since 2019. Analysts do not expect a major change in monetary policy under his leadership compared to the previous eight months. At the first meeting since he took the office in February, the CBRT left rates unchanged in line with previous communication.

### Thomas Jordan to leave SNB, BoE to have a new deputy governor

The chairman of the Swiss central bank’s three-member Governing Board, Thomas Jordan, [announced](#) his resignation at the end of September this year. Jordan joined the SNB in 1999, was appointed a member of the Governing Board in 2007

and its Vice Chairman in 2010. He has served as Chairman of the Governing Board since 2012. His successor has not yet been appointed.

The Bank of England [has announced](#) that Clare Lombardelli will become its new Deputy Governor for monetary policy beginning in July, replacing Ben Broadbent, who will complete his second five-year term at the management of the BoE. Lombardelli is currently the OECD's Chief Economist, she has previously worked at the UK Treasury (as have many other members of the BoE's senior management) and the International Monetary Fund, and she began her career at the BoE.

### **Productivity under the ECB's research focus**

In late February, the ECB published three research papers on the subject of productivity, in the context of [digitalisation](#), [climate change and related policies](#), and the [Covid pandemic and accompanying support measures](#). According to the first study, the development of digital technologies can increase firms' productivity in the medium term, but productivity gains are unevenly distributed across firms, sectors and countries, and European countries are failing to fully exploit the potential of digitalisation. The paper also examines the factors behind the slower-than-expected productivity growth associated with digitalisation – it finds them, for example, in the institutional area or in the skills mismatch in the labour market. According to the second study on climate change, the shift to a low-carbon economy will involve a reallocation of labour and capital both between and within sectors. A paper focusing on the Covid pandemic notes that fewer businesses closed during the pandemic than in previous crises. The pandemic has also changed consumer preferences and working habits of employees, with potential long-term effects on productivity.



### III. SPOTLIGHT: DENMARK'S MONETARY POLICY: PERMANENTLY HALFWAY TO THE EURO?

*Denmark is one of the European Union Member States that are not members of the euro area but use their own currency. Denmark has a negotiated opt-out for the acceptance of the euro, nevertheless the Danish krone is strongly bound to the euro as part of the chosen fixed exchange rate regime with the euro that this country has been using for over 40 years (it was pegged to the German mark before the euro was created). Denmark is also a member of the ERM II exchange rate mechanism. However, Danish monetary policy is best defined as a fixed exchange rate regime rather than ERM II membership, as the exchange rate fluctuates much less than corresponds to the fluctuation band associated with the mechanism. This article describes the Danish choice of exchange rate regime, the instruments used for implementing it, the reasons behind its high stability, and the differences between the fixed exchange rate regime and actual euro area membership. The article concludes that although Denmark has been successfully operating with a fixed exchange rate, its experience is not easily transferable to other countries.*

The mandate of Danmarks Nationalbank (DN), the Danish central bank, is to ensure price stability, a safe payment system and a stable financial system. Although Denmark has its own currency, the Danish krone, it does not use an inflation-targeting regime to fulfil its price stability mandate, but a fixed exchange rate regime against the euro, a relatively unique case among developed countries. As regards financial stability, the Danish central bank has a considerable, though formally only an advisory role.<sup>1,2</sup>

#### Fixed exchange rate and ERM II

Denmark has been operating under its current fixed exchange rate regime since 1982. It was initially pegged to the German mark and, since the creation of the euro in 1999, the single European currency. Despite close integration with the euro area, however, Denmark is not seeking to adopt the euro. On the contrary, it has negotiated a permanent opt-out from it. The roots of this opt-out coincide with the period of negotiations on the Maastricht Treaty, the ratification of which Denmark initially rejected with a small majority in a referendum in 1992. The country then negotiated several opt-outs, among them in relation to entering the euro area after it was established. In this modified form, Danish citizens expressed their consent to the ratification of the Maastricht Treaty in a referendum in 1993 (which came into force throughout the then EU in November of the same year). After the creation of the euro area, Denmark held another referendum in 2000, this time directly on adopting the euro (and thus abolishing the agreed opt-out), but with 53.2% of voters voting against, it was decided to keep the Danish krone.<sup>3</sup>

However, Denmark joined ERM II when it was established in 1999 (it was also in its predecessor, the ERM). Denmark is currently one of the two non-euro-area ERM II member states, Bulgaria being the other. However, while Denmark has long been a member of ERM II with a vision of remaining outside the euro area, Bulgaria joined the mechanism in 2020 with the aim of quickly adopting the euro (at least two years of successful ERM II membership is one of the Maastricht criteria necessary for joining the euro area).

The currencies participating in ERM II have a fixed central rate against the euro, which has a fluctuation band. In the event of pressure to exceed the limit of this band, both the national central bank and the ECB are obliged to intervene to defend the fluctuation band boundaries (although interventions may be suspended in the event of a conflict with the objective of price stability).<sup>4</sup> Although the standard band for exchange rate fluctuation within ERM II is  $\pm 15\%$  from the central rate (parity),<sup>5</sup> Denmark concluded an [agreement](#) with the other participants when it joined to maintain the exchange rate within

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<sup>1</sup> Denmark's major financial stability body is the [Systemic Risk Council](#), headed by the chairman of the three-member Committee of Directors of the central bank (currently Christian Kettel Thomsen) and whose other members include, in addition to the representatives of other institutions, one other representative of the DN. However, the Systemic Risk Council is an advisory body – financial stability measures fall within the remit of the Minister of Industry, Business and Financial Affairs. However, the minister is obliged to provide an explanation of the reasons for not following the Council's recommendations. In addition, the central bank's role in financial stability in the event of a crisis may also lie in providing liquidity to the banking sector.

<sup>2</sup> The DN is also the central bank of Greenland and the Faroe Islands, two autonomous territories of the Kingdom of Denmark whose official currency is also the Danish krone (although the Faroese króna is the official currency of the Faroe Islands, it is actually only a local version of the Danish krone, with which it is exchangeable in a ratio of 1:1). The Faroese króna also does not have its own coins, but uses Danish ones). The DN therefore regularly analyses these two territories.

<sup>3</sup> The referendum of 2000, held in the context of the political and social debate in Denmark at that time, is described in more detail by Marcussen and Zolner (2001).

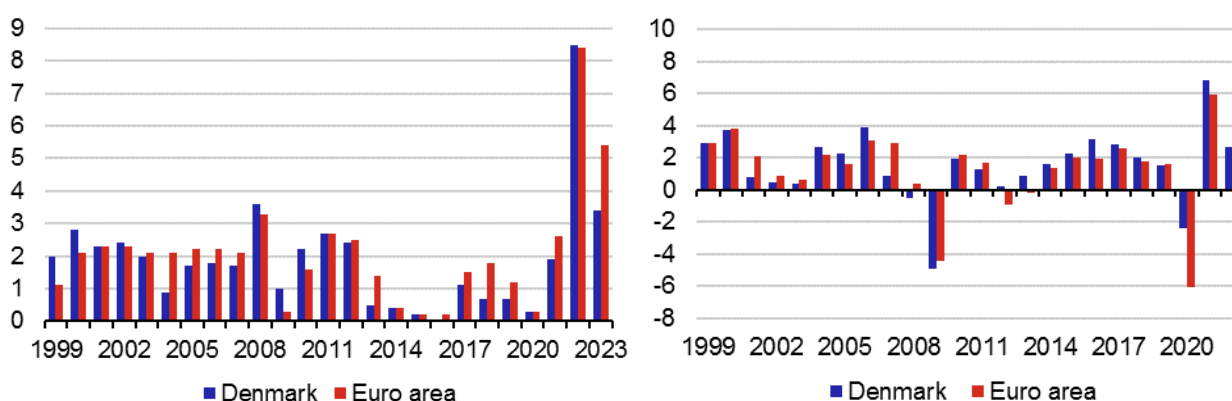
<sup>4</sup> ERM II is described in more detail, for example, in the CNB blog post available [here](#) (only available in Czech).

<sup>5</sup> See the [contract](#) between the ECB and the central banks of the EU countries outside the euro area about ERM II or the [description of the mechanism](#) on the European Commission website.

the narrower band of  $\pm 2.25\%$  from the central rate.<sup>6</sup> With parity set at 7.46038 Danish krone per euro, this would allow the Danish currency to fluctuate between around 7.29 and 7.63 krone per euro. In practice, however, the Danish currency fluctuates significantly less and remains very close to the central rate – since 2010 it has practically never left the range of 7.43 to 7.473.<sup>7</sup> Therefore, rather than ERM II membership, it is the fixed exchange rate regime that best characterises Danish monetary policy.

By using the fixed exchange rate regime conceived in this manner, Denmark has de facto given up on an autonomous monetary policy, effectively delegating the issue of price stability to the European Central Bank. The advantage of this approach is a significant reduction in exchange rate risk and a related facilitation of international trade with euro area countries. The main disadvantage is that it is impossible to react to current developments in the domestic economy and adjust the domestic monetary conditions to the inflation outlook, as well as the impossibility to contribute to decision-making in issues of the ECB's monetary policy. The DN (2022) describes three main factors helping to stabilise the economy in such a regime. First, given its high interdependence and alignment with the euro area, the Danish economy's needs are mostly similar to those of the euro area, and the ECB's monetary policy thus usually helps to stabilise developments in Denmark as well (see Chart 1). However, if the cyclical position of the Danish economy deviates from that of the euro area, two other factors come into play.

**Chart 1: Inflation (left) and GDP growth (right) in Denmark and the euro area**



Note: The average annual inflation rate measured by the HICP index, year-on-year growth of real GDP.

Source: Eurostat.

One of these is adjustment through competitiveness – for example, if there is a greater increase in inflation in Denmark compared to the euro area (which, with a fixed nominal exchange rate, means an appreciation of the real exchange rate), there is a relative increase in the price of goods from Danish producers compared to foreign ones, thus reducing the demand for Danish goods, the profits of Danish companies, and the room for wage increases, leading in turn to a dampening of the economy and a fall in inflation. In a situation of initial lower inflation compared to the euro area, the whole mechanism is, of course, similar, only in the opposite direction. However, this adjustment process takes some time, and there may be different developments in Denmark and the euro area in the meantime. Fiscal policy is the remaining important adjustment mechanism. If conducted appropriately, it can smooth the business cycle and at least partly offset the absence of an autonomous monetary policy. An emphasis on the role of fiscal policy is also apparent from the aforementioned DN article (2022), in which fiscal policy is given considerable attention. The DN also regularly assesses the performance of fiscal policy as part of its economic analyses and publishes recommendations on how restrictive or expansionary it should be. In addition, automatic fiscal stabilisers are more important than in most other countries owing to the design of the tax and transfer system in Denmark.

### Fixed exchange rate maintenance instruments

To keep the Danish krone exchange rate in the immediate vicinity of the set parity, the Danish central bank uses two main instruments – foreign exchange interventions and interest rates.<sup>8</sup> If market developments lead to appreciation pressures

<sup>6</sup> For countries intending to join the euro area, maintaining an exchange rate within the standard band of  $\pm 15\%$  might not be sufficient when the Maastricht criterion for participation in the exchange rate mechanism is assessed. Based on historical experience with the Commission's approach to assessing compliance with the exchange rate stability criterion, it can be stated that on the weakening side, the threshold of 2.25% relative to the central rate can be considered unproblematic. See the article from the previous footnote.

<sup>7</sup> In the first decade of the euro's existence, the exchange rate deviations from central parity were somewhat larger in some periods, but not significantly. Exchange rate volatility was more pronounced when it was pegged to the German mark, especially in connection with the ERM crisis in 1992 and 1993.

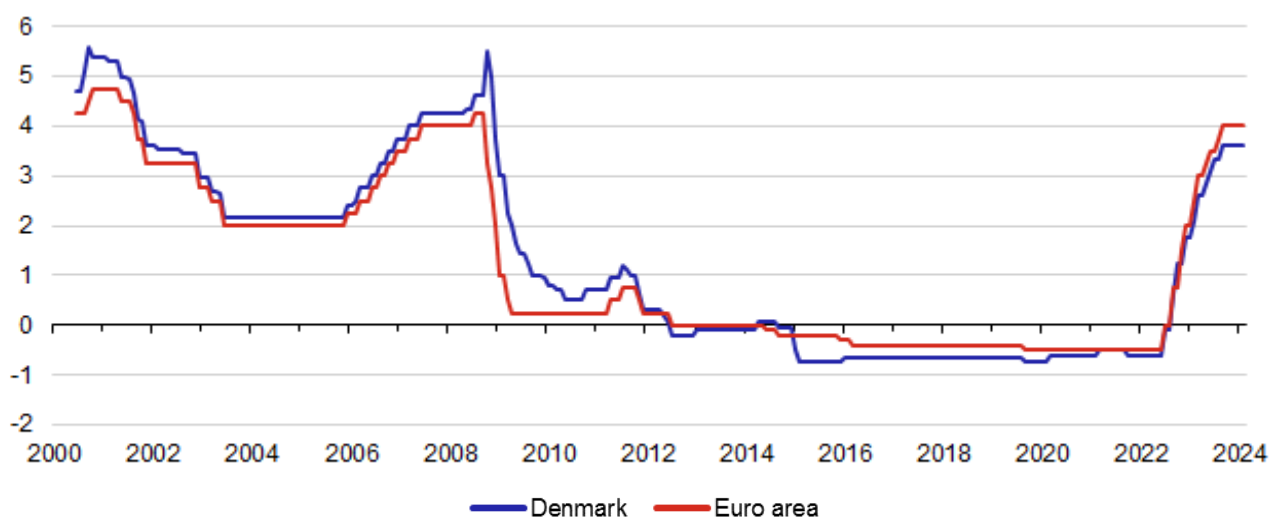
<sup>8</sup> The functioning and effectiveness of foreign exchange interventions in Denmark is discussed in more detail in DN (2016). The DN (2014) discusses the implementation of the interest rate instrument in the environment of the local exchange rate regime.

on the Danish krone, the central bank will first sell krone and buy euros, while if the DN is under downward pressure, it will start selling euro foreign exchange reserves. At the beginning of each month, the DN publishes the volume of interventions performed in the previous month. The relatively large volume of foreign exchange reserves<sup>9</sup> gives the central bank plenty of room to intervene, and also helps it maintain a high level of credibility with financial markets, thus preventing speculative attacks. The DN does not have a specific target for holding foreign exchange reserves, but considers it important to keep their volume high enough.

In order for foreign exchange reserves to serve their primary purpose – namely maintaining a fixed exchange rate – high liquidity is a key aspect for their placement. Making a profit under acceptable risk levels is a secondary goal.<sup>10</sup> Foreign exchange reserves are therefore predominantly deposited in foreign central banks or invested in foreign government bonds, while only a small proportion is invested in potentially more profitable yet riskier assets like equities or corporate bonds.

Interest rates are another instrument available to the DN alongside foreign exchange interventions. Unlike inflation-targeting central banks, however, they are not set according to the current outlook for inflation and cyclical developments in the economy, but with the goal of stabilising the exchange rate. In light of the similarity of the fundamental development of the Danish economy with the euro area, Danish interest rates usually follow ECB rates (see Chart 2) very closely – if the ECB decides to change interest rates at its meeting, the Danish central bank usually announces the same rate change on the same afternoon (for the past decade, Denmark has been one of the countries applying negative interest rates – similar to the euro area). However, if a longer-term appreciation/depreciation trend is apparent on the market, the DN can adjust interest rates unilaterally (i.e. without this step being preceded by a change in ECB rates) in addition to using foreign exchange interventions. Changing the interest rate differential vis-à-vis the euro area increases or decreases the attractiveness of the Danish krone, offsetting the pressures for deviation of the exchange rate from the central parity rate.

**Chart 2: Monetary policy interest rates**



Note: The values as of the last day of the month. For Denmark the interest rate is given for deposit certificates, for the euro area the minimum rate for tenders with a variable rate (which stopped being used in October 2008) is given until September 2008 and the deposit rate from October 2008.

Source: ECB and Danmarks Nationalbank.

### Stability of the exchange rate regime

Eichengreen (2023) denotes the long-term high exchange rate stability of the Danish krone against the euro as exceptional (compared to other fixed exchange rate regimes in other countries). He then analyses several hypotheses that try to explain this unusual stability. He mentions, for example, the high volume of foreign exchange reserves, which gives the central bank enough room for intervention – although the volume of foreign exchange reserves is no longer particularly high relative to the amount of short-term debt. Good conduct of fiscal policy is another hypothesis. Denmark has an unusually low ratio of general government debt to GDP among developed countries (around 30%) and a relatively strict approach to fiscal policy, and thus enjoys high credibility among foreign lenders. According to Eichengreen, on the other hand, in practice there is no indication that Denmark uses fiscal policy more actively than other countries, although active use of

<sup>9</sup> As of January 2024 around [SEK 630 billion](#) (approx. EUR 84.5 billion), or approximately [23% of GDP](#) for 2023.

<sup>10</sup> In 2022, the DN recorded a loss of around [DKK 8.4 billion](#) (approx. EUR 1.1 billion), mainly due to the decrease in the price of bonds held by the bank at that time. As of February 2024, its capital was around [DKK 73 billion](#) (approx. EUR 9.8 billion).

countercyclical fiscal policy is one mechanism through which a country can at least partially compensate for the lack of its own monetary policy in theory, and the central bank itself refers to it (see above).<sup>11</sup>

The Danish labour market could be another reason for the stability of the exchange rate regime. It is known for its model (referred to as *flexicurity*) of high flexibility in hiring and firing employees, a generous safety net in the form of support for laid-off employees, and a sophisticated active labour market policy. In good times, this model leads to lower unemployment compared to the EU average. Low unemployment, meanwhile, limits speculation that the Danish authorities will change the exchange rate regime in an effort to start using monetary policy more actively to support the economy (as could be the case under conditions of high unemployment and recession). However, the post-2008 rise in unemployment was one of the most severe among OECD countries, so we cannot say that this argument is unconditionally valid in the labour market either.

In his article, Eichengreen discusses several other hypotheses (including the banking system, institutional interconnection with the ECB, and the fact that the DN has historically more often faced pressures to appreciate the krone, against which it can intervene indefinitely in principle – while it is limited in the opposite direction by the volume of foreign exchange reserves). To sum up, there are a number of possible reasons for the high stability of the current Danish krone exchange rate regime, but each is subject to certain caveats and none offers a complete explanation. Rather, it is their combination that gives the fixed exchange rate its high degree of credibility.<sup>12</sup>

The duration of the fixed exchange rate regime itself can be one of the key factors. The longer the regime works and the longer the Danish authorities maintain their commitment to a fixed exchange rate, the higher the reputational and economic costs of exit, and the market would have greater confidence that it will be maintained in the future. Of course, this argument alone does not explain the initial stability of the exchange rate regime in the period after its introduction, but its importance has grown over time.<sup>13</sup> The fixed exchange rate regime survived the ERM crisis of 1992 and 1993, the Global Economic Crisis and the subsequent euro area debt crisis, the period after the exit from the Swiss exchange rate commitment in 2015,<sup>14</sup> the Covid pandemic and the subsequent inflationary wave, even though during them it faced pressures to strengthen or weaken the Danish krone from the central parity rate. This increases confidence that the regime will be maintained in the event of future crises.

### Own currency with a fixed exchange rate or the euro?

Denmark is closely linked to the euro area through its choice of monetary policy and consequently its exchange rate regime. It can thus take advantage of some of the benefits of the single European currency (minimisation of exchange rate risk and the related facilitation of international trade), although this is at the cost of giving up its independent monetary policy and a floating exchange rate as a possible stabilisation mechanism. However, some of the benefits of joining the euro area are not present under this regime. There are still transaction costs from currency conversion, and Denmark is not part of the Governing Council of the ECB and has no representative on it. Moreover, there is still some exchange rate risk in the form of a possible exit from the fixed exchange rate regime or an adjustment to the central parity rate (although, given the long-standing high credibility of the current regime, this risk can be considered low). The question is therefore whether it would be better for Denmark to adopt the euro instead of maintaining a fixed exchange rate against the euro.

The effects of potential entry into the euro area compared to a fixed exchange rate regime were analysed, for example, in a report by the Danish Economic Council (2009).<sup>15</sup> The article discusses the individual areas affected by euro adoption and concludes that the economic impact of joining the euro area would probably be small (as Denmark is already getting most of the advantages and disadvantages of the single currency via the fixed exchange rate), but slightly positive overall (as Denmark would start to fully implement the advantages of the euro). Codogno and De Grauwe (2015) also argue that it is not important for Denmark to retain its own currency in a situation where its exchange rate is firmly pegged to the euro and the country refuses to adjust this exchange rate regime in any future circumstances (which is what the Danish

<sup>11</sup> The aforementioned relatively significant automatic fiscal stabilisers may play a certain role, though Eichengreen does not discuss them in his article.

<sup>12</sup> Many of the areas discussed – e.g. fiscal policy and the labour market – are also important adjustment mechanisms for countries that lose their own monetary policy as a result of adopting the euro. Denmark's situation is different in that it is easier to leave a fixed exchange rate regime than to leave the euro area, and thus this regime is by definition more prone to speculation and less stable than the almost irreversible accession to the monetary union. Maintaining its stability thus places higher demands on other areas of economic policy.

<sup>13</sup> There is also empirical support for this argument. For example, Bizuneh (2022) shows, on an analysis of fixed exchange rate regimes since 1970, that with the adoption of a fixed exchange rate regime the probability of exit from that regime initially increases. However, if the regime is maintained and market confidence is built, the likelihood of exit from the regime will start to decrease as time goes on.

<sup>14</sup> Between 2011 and 2015, in response to the previous significant appreciation of the Swiss franc, the Swiss central bank maintained its exchange rate at a minimum of 1.2 to the euro (i.e. it did not allow it to appreciate beyond this level). Following the exit from this policy in 2015, there was speculation that the Danish central bank could also exit its exchange rate regime, which created pressure on the Danish krone to rise, leading the DN to intervene extensively and also to lower its interest rates.

<sup>15</sup> Although this article is 15 years old, most of the arguments presented are relatively timeless and can thus be considered still valid.

authorities communicate). According to the authors, maintaining an own currency with a fixed exchange rate – despite its current stability – may be unnecessarily prone to speculative attacks and, sooner or later, may cause a necessary adjustment of the central parity rate with significant economic costs.

On the other hand, the Danish exchange rate regime continues to operate solidly thanks to its high credibility. It is difficult to find economic arguments in favour of keeping an own currency at the same time as permanently pegging it to the euro, nevertheless there is no indication that Denmark is at a significant economic disadvantage due to this regime. In any event, Denmark does not seem to be giving any indications it is ready to reconsider its position on the euro.

### Denmark as a model?

Denmark is a thriving Western economy closely connected to the euro area and its fixed exchange rate regime can be described as well-functioning. Could it therefore serve as inspiration for other countries (for example for the Czech Republic in the context of the Czech public debate on the euro in recent months)? This question can be divided into two parts – ERM II membership and the fixed exchange rate itself. With regard to ERM II, as discussed above, what defines Denmark's monetary and exchange rate policy is not so much the formal membership of the mechanism itself as the fixed exchange rate regime applied over the long term. If a country were to enter ERM II with the intention of remaining in it for a long time without a credible prospect of quick entry into the euro area, and allowed the exchange rate to fluctuate more significantly than the Danish krone (whether in the  $\pm 15\%$  range from the central parity rate or in the narrower band), it would risk that over time the maintenance of the fluctuation band could become inconsistent with the inflation target. Such a country would thus be gambling with the credibility of its monetary policy. The advantages and disadvantages of individual exchange rate regimes and the sub-optimality of mixed regimes without a clear nominal anchor were discussed in the CNB blog available [here](#) (only available in Czech), while a recent article, among others, by Janis Aliapulios and Eva Zamrazilová [here](#) (only available in Czech) warned against the Czech Republic's entry into ERM II without a specific plan to join the euro.<sup>16</sup>

If we now consider the actual fixed exchange rate regime applied in the Danish manner, this is a more comprehensible monetary policy regime than maintaining a wider fluctuation exchange rate band in the long run. However, even such a regime would first need to build credibility and could be prone to speculative attacks, especially in the initial phase. Changes in monetary policy regimes tend to be costly and should therefore take place only on an exceptional basis and for clear reasons. In the absence of a monetary policy, a fixed exchange rate regime would also place high demands on the remaining economic policies, and Denmark implements them at an above-standard level (i.e. it maintains sufficient fiscal room using a low share of indebtedness of the public sector). Moreover, it has been building the credibility of its fixed exchange rate regime for several decades. Its fixed exchange rate experience cannot therefore be considered simply transferable to other countries.

### Conclusion

The Danish central bank does not conduct an independent monetary policy, but ensures a fixed exchange rate for the Danish krone against the euro over the long term, thus de facto accepting the ECB monetary policy. Denmark has negotiated a permanent opt-out for the adoption of the euro, but has been a member of the ERM II exchange rate mechanism since 1999. Meanwhile, in practice the Danish krone fluctuates in close proximity to the central parity rate, thus it is far from using the standard fluctuation band of  $\pm 15\%$  ensuing from ERM II membership, and not even the narrower  $\pm 2.25\%$  band from the central parity rate that Denmark has agreed with the other members of the mechanism. The central bank uses two main instruments – foreign exchange interventions and interest rates – to ensure a stable exchange rate.

The Danish exchange rate regime has weathered a number of crises without major changes and can be considered highly stable. A number of possible explanations for this stability can be found (e.g. a quality fiscal policy, high stocks of foreign exchange reserves, a flexible labour market...). However, each of these explanations also has its limitations and it is most likely their combination that helps explain the successful operation of the fixed exchange rate regime. Moreover, the increasing period of the existence of this exchange rate regime is further strengthening confidence that it will continue in the future, so exchange rate stability is also aided by a self-fulfilling expectations mechanism. Thus, an economic case for keeping its own currency in a situation where it is firmly and permanently pegged to the euro is difficult to find in the case of Denmark. Nevertheless, Denmark has been operating relatively successfully under this regime for a long time and there is no indication that it plans to reconsider its position on the euro. However, in view of the Danish specificities described,

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<sup>16</sup> In addition to the discussed monetary policy aspect of ERM II membership, we can also mention the question of the banking union. Denmark is not a member of the banking union, although the country's possible entry was discussed before the Covid pandemic. On the other hand, given the experience of Croatia and Bulgaria, potential new candidates for ERM II could be required to join the banking union at the same time, although EU law does not provide for this as a condition for joining ERM II.



the positive experience with a fixed exchange rate regime (and the long-term participation in ERM II) cannot be considered easily transferable to other countries.

### Literature

Bizuneh, M. (2022). "Are We Floating Yet? Duration of Fixed Exchange Rate Regimes," *Eastern Economic Journal*, No. 48, 63–89. ([LINK](#))

Codogno, L., & De Grauwe, P. (2015). "Why Denmark should either abandon its peg to the euro or join the single currency," *London School of Economics Blog*. ([LINK](#))

Danish Economic Council (2009). "Chapter II: Denmark and the EURO," *Danish Economy*, Spring 2009, English Summary. ([LINK](#))

DN (2014). "Fixed Exchange Rate Policy in Denmark," *Monetary Review Q1 2014*, Danmarks Nationalbank, by M. Spange and M. W. Toftdahl. ([LINK](#))

DN (2016). "Effects of Danmarks Nationalbank's Interventions in the Foreign Exchange Market," *Monetary Review Q4 2016*, Danmarks Nationalbank, by M Spange and J. Sorensen. ([LINK](#))

DN (2022). "Monetary and fiscal policy in Denmark," *Danmarks Nationalbank, Analysis No.12, October 2022*, by M. Spange. ([LINK](#))

Eichengreen, B. (2023). "The Danish problem," *Economia Politica*, No. 40, 781-794. ([LINK](#))

Marcussen, M., & Zolner, M. (2001). "The Danish EMU Referendum 2000: Business as Usual," *Government and Opposition*, Vol. 36(3), 379–402. ([LINK](#))



## IV. SELECTED SPEECH: Tiff Macklem: Monetary policy – The right tool for the right job

*In his January [speech](#) at the Montreal Council on Foreign Relations, Tiff Macklem, Governor of the Bank of Canada (BoC) addresses the possibilities and limitations of monetary policy on the example of Canada.*

In the introduction of his speech, Tiff Macklem notes that central banks had been leading the global battle against inflation since the pandemic and their resolve to restore price stability is being rewarded. Inflation has come down – in most countries, it is still too high, but inflation targets are now in sight. Monetary policy works to control inflation – not perfectly, not quickly, and not without pain. But it works. History has shown us that, but it has also taught us that monetary policy cannot do everything. There are many economic forces that affect inflation. Central bankers need to understand these forces, but they cannot address most of them directly.

### What monetary policy does well

Macklem recalls that Canada was the second country to adopt inflation targeting. This regime has been a success, the rate of inflation averaged close to 2% over the 25 years prior to the pandemic and economic activity grew steadily. But that success did not come easily. Canada weathered a series of global shocks over the past few decades, and a quick tour through some of the highs and lows may be instructive.

When the dot-com bubble burst in the summer of 2000, fears of another 1929 stock market crash took hold and many braced for a recession. The terrorist attacks on 11 September 2001 drove fears of recession even higher. The BoC and the US Fed cut their policy rates, thanks to which Canada avoided the recession, and the US economic downturn was short-lived. With the economic recovery, interest rates rose, but not to where they had been. The combination of strong global growth, and relatively low interest rates helped feed a US housing boom and financial risks. In September 2008, Lehman Brothers failed, sparking a global financial crisis. Central banks responded with extraordinary liquidity provision, interest rate cuts, and forward guidance. The crisis sparked a harsh recession in the US, which also pulled the Canadian economy down. It was a severe crisis, but by the second half of 2009, the economic recovery was underway. In 2014–2016, Canada struggled with a significant fall in oil prices – its biggest export. The BoC responded by cutting rates, helping to restore economic growth and stop inflation falling too far.

As per the Canadian bank Governor, this tour through past crises holds a few lessons. Getting monetary policy right is not easy, and central banks cannot get it right all the time. After 9/11, they were too slow to withdraw stimulus. After the global financial crisis, stimulus was withdrawn too fast. But even when the timing was not perfect, the policy decisions proved effective. The pandemic has been the biggest shock so far. But BoC learned from the global financial crisis, cut the policy rates to near zero, launched its first-ever quantitative easing program, used forward guidance, and returned the economy to growth and reduced unemployment. Macklem admits that the BoC could have begun withdrawing stimulus sooner, but that would not have avoided much of the post-pandemic inflation.

### What monetary policy does not do well

Canadians expect the BoC to control inflation. Still, Macklem notes that over the course of history, people have also looked to central banks to fix other problems, like housing affordability and inequality. These issues are important to Canadians, and they also affect the overall economy and inflation. And for this reason, the BoC needs to understand them. That does not mean, however, to try to resolve them using monetary policy.

Sometimes, the economy experiences what central banks call “shocks in relative prices”. These are fluctuations in specific prices, often for energy and food, because of things like geopolitical events, droughts and transportation disruptions. As long as these shocks in relative prices do not broaden into more generalised price changes, they have a temporary effect on inflation. Macklem admits that central banks cannot prevent short-run fluctuations in inflation caused by such price shocks, and they typically look through them. Recognising that this leads to temporary fluctuations in inflation, BoC defines its target as the centre of the 1-3% target band. According to Macklem, housing affordability is also a significant concern – but not one that can be fixed by adjusting interest rates. The housing supply has fallen short of demand for many years. There are many reasons why – zoning restrictions, delays and uncertainties in the approval processes, and shortages of skilled workers. Monetary policy can particularly affect demand in the short run, but it cannot address long-running structural problems on the supply side. As his last argument, Macklem states that the economy works better when inflation is low, stable and predictable. Monetary policy can dampen fluctuations in activity, helping to slow the economy when it is overheating and boost it when it is weakening. But monetary policy can only influence economic growth in the short run. Long-run growth comes from two sources – population growth and productivity growth, which are not significantly affected by interest rates.

Monetary policy is neither all-powerful nor ineffective. Independent central banks with price stability mandates and a medium-term time frame have proven capable of controlling inflation. But monetary policy cannot do everything. Central banks need to avoid the temptation to overload monetary policy by expecting more of it than it can deliver.

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