Central Bank Monitoring

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CNB CZECH NATIONAL BANK

In this issue

In the monitored countries, inflation is already close to the individual central banks' inflation targets, although in the majority of cases it is still slightly above the targets. After the July pause, in September the ECB cut its interest rates again and the majority of the other central banks under review also made reductions. Only the Norwegian NB, Polish NBP and US Fed left rates unchanged in the last three months, although the last-named institution announced they would soon be reduced. Japan is gradually tightening its still loose monetary policy, as the Bank of Japan is raising rates and also reducing the volume of government bonds purchases. The ECB and European Commission issued their Convergence Reports – according to them Bulgaria, which wants to enter the euro area, does not meet the Maastricht price stability criterion, so the euro area will not yet be expanded.

Spotlight is about the Israeli central bank, which has been facing the economic consequences of Israel's war with Hamas since last October. In addition to the steps taken by the central bank itself in the last few months, the article examines long-term trends in the Israeli monetary policy framework and the Bank of Israel's responses to the Covid pandemic and the recent wave of inflation. In *Selected speech*, New York Fed President John C. Williams looks at the natural rate of interest, r*, and discusses whether it has gone up in recent years based on available model estimates.

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 list of all thematic articles and speeches.

This 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 Josef Simpartl.

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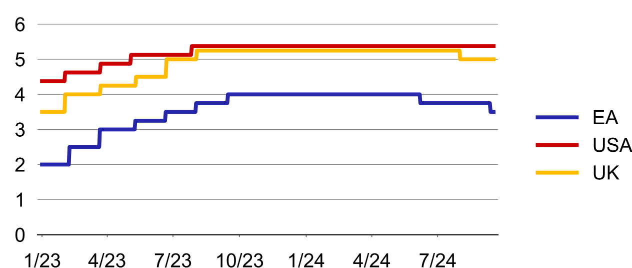
I. LATEST MONETARY POLICY DEVELOPMENTS AT SELECTED CENTRAL BANKS

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

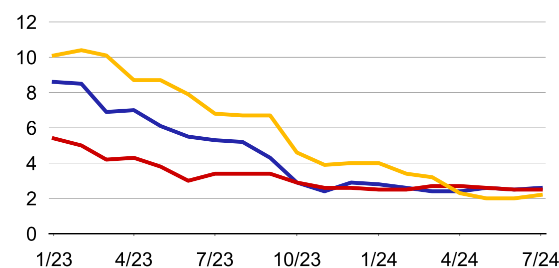
	euro area (ECB)	**USA** (Fed)	**United Kingdom** (BoE)
inflation target	2% (HICP)	2% (PCE)[1]	2% (CPI)
latest inflation	**2.2%** (8/2024, flash)	**2.5%** (7/2024)[1]	**2.2%** (7/2024)
current basic rate	**3.50%**	**5.25–5.50%**[2]	**5.00%**
publication of MP decision (rate changes)	18 July (0.00) 12 September (-0.25)	12 June (0.00) 31 July (0.00)	20 June (0.00) 1 August (-0.25)
expected MP decisions	17 October 12 December	17–18 September 6–7 November	19 September 7 November

Note: [1] PCE (Personal Consumption Expenditures) index; [2] graph shows band centre.

Key interest rates



Inflation



In September, the **ECB** decreased its interest rates by 25 bp to 3.50% in the case of the deposit rate and declared its intention to maintain rates at a sufficiently restrictive level for as long as necessary to achieve the 2% target. As previously announced, effective from 18 September there will be a decrease in the spread between the key deposit rate and the main refinancing operation (MRO) rate to 15 bp. According to preliminary forecasts, inflation in August reached 2.2%, though it is expected to rise again at the end of this year because last year's drop in energy prices will drop out of the year-on-year comparison. Wages continue to increase at an elevated rate, even though the labour market tightness is decreasing and the profits of companies are easing, due to a certain extent by the rapid rise in wages. Compared to June, the ECB's inflation forecast remains unchanged, expecting inflation to amount to 2.5% this year on average, 2.2% next year and 1.9% in 2026. The forecast for core inflation, however, increased slightly and should amount to 2.9% this year and gradually drop to 2% in the coming years. Due to the weaker-than-expected contribution of domestic demand, the estimated economic growth in the euro area was lowered to 0.8% this year, 1.3% next year and 1.5% in 2026. The Eurosystem is no longer reinvesting all the principal repayments of maturing securities as part of the PEPP programme and continues to reduce its PEPP portfolio at an average rate of EUR 7.5 billion per month. At the end of this year, the reinvestments will be completely finished.

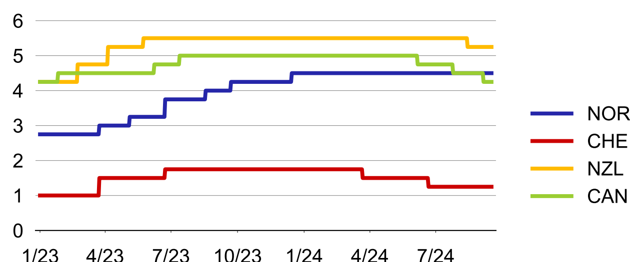
At its last two meetings, the **Fed** left the range for its key interest rate at 5.25–5.50%. Fed Chairman Jerome Powell said in his August speech in Jackson Hole that the time had come for a change to monetary policy, among other things in the context of information regarding the cooling of the US labour market. In addition, the Fed is continuing to reduce the volume of its balance sheet. In the second quarter of this year, the US economy increased its growth rate to 3%. Unemployment increased not due to greater redundancies, but due to a marked increase in the supply of workers. In recent months, inflation fell to July's 2.5%. According to the June forecast of the FOMC, real GDP will rise by 2.1% this year, PCE inflation will be 2.6% and core prices will rise by 2.8%.

In August, the **BoE** reduced its key interest rate by 25 bp to 5%. According to the BoE, it is appropriate to slightly reduce the tightness of its monetary policy, as the impact of earlier external shocks has faded and the risks related to inflation persistence have fallen. Although GDP growth was stronger than expected, the restrictive monetary policy stance is still holding back activity in the real economy, leading to a looser labour market and reductions in inflationary pressures. Inflation was exactly on target in May and June. However, the BoE expects that in the second half of the year it will rise to around 2.8%, as last year's fall in energy prices will drop out of the year-on-year inflation calculation, which will more clearly reveal persistent domestic inflationary pressures.

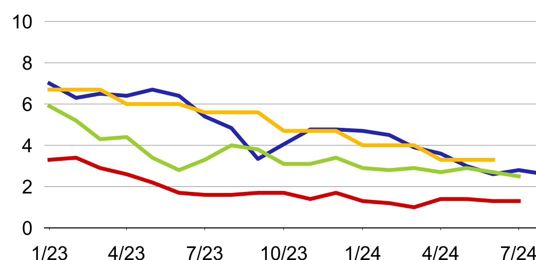
I.2 SELECTED NON-EU CENTRAL BANKS WITH INFLATION-TARGETING REGIMES

	Norway (NB)	**Switzerland** (SNB)	**New Zealand** (RBNZ)	**Canada** (BoC)
inflation target	2% (CPI)	0–2% (CPI)	2% (CPI)	2% (CPI)
latest inflation	**2.6%** (8/2024)	**1.3%** (7/2024)	**3.3%** (2024 2Q)	**2.5%** (7/2024)
current basic rate	**4.50%**	**1.25%**	**5.25%**	**4.25%**
publication of MP decision (rate changes)	20 June (0.00) 15 August (0.00)	20 June (-0.25)	10 July (0.00) 14 August (-0.25)	24 July (-0.25) 4 September (-0.25)
expected MP decisions	19 September 7 November	26 September 12 December	9 October 27 November	23 October 11 December

Key interest rates



Inflation



The **NB** left interest rates unchanged at 4.5% and at its last meeting in August communicated that it would keep rates at this level in the near future. The increased interest rates have contributed to the cooling of the economy, whose growth is now weak. Inflation in Norway reached 2.6% in August, but any further fall will be slowed by increasing corporate costs. The construction industry expects a continuing decline in activity. Sales of new homes have rebounded from low levels, but it will probably take some time before investment in housing starts to increase again. Property prices on the secondary market rose and were higher than expected.

At its June meeting, the **SNB** again lowered its key interest rate by 0.25 pp to 1.25%. If necessary, the SNB is still willing to be active on the foreign exchange market. Inflation rose slightly in the second quarter, which was due to increases in rental prices, tourist services and petroleum products. Overall, inflation in Switzerland is driven primarily by the growth of prices of domestic services. According to the current (June) forecast, inflation this year and the next will be slightly over 1% and growth in Swiss GDP will reach 1% this year. In this environment, unemployment will continue to rise gradually and production capacity utilisation will fall slightly. In the medium term, economic activity will improve gradually due to stronger external demand.

In August, the **RBNZ** reduced its key interest rate by 25 bp to 5.25%. Inflation in New Zealand fell to 3.3% in the second quarter and is expected to fall to near the middle of the target range of 1–3% in the third quarter and stay there for the foreseeable future. The fall in inflation is due, in particular, to lower inflation in the tradable goods segment. The committee, however, is not certain about the persistence of domestic inflation, just like the outlook for potential output due to low productivity growth, which may dampen pressures for a fall in inflation.

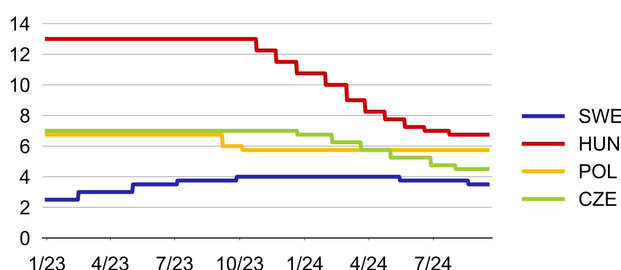
At its meetings in July and September, the **BoC** reduced its interest rate by a total of 50 bp to 4.25%. Inflation is being pulled down by excess supply and the overall weakness in the Canadian economy, but price increases in the housing sector and some other services sectors are pushing in the opposite direction, although these price pressures have recently eased slightly. In the second quarter, the Canadian economy grew a little more faster than the July BoC forecast had expected, in particular due to the contributions of government spending and corporate investment. Unemployment last year rose to 6.4% and is concentrated among young people and workers newly arrived from other countries. The BoC expects that the loose labour market will slow down wage growth, which so far remains high in relation to productivity growth. Inflation will fall in the coming months. As inflation approaches the target, the BoC will have to take more account of the risk that the economy will be too weak and inflation will fall too much.

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

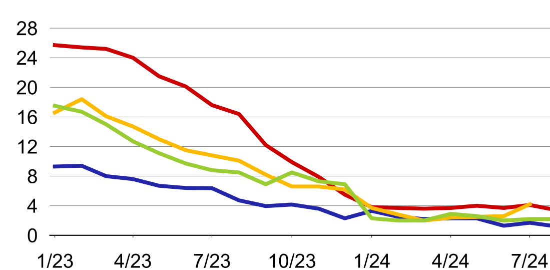
	Sweden (Riksbank)	**Hungary** (MNB)	**Poland** (NBP)	**Czech Republic** (ČNB)
inflation target	2% (CPIF)[1]	3% (CPI)	2.5% (CPI)	2% (CPI)
latest inflation	**1.2%** (8/2024) [1]	**3.4%** (8/2024)	**4.2%** (7/2024)	**2.2%** (8/2024)
current basic rate	**3.50%**	**6.75%**	**5.75%**	**4.5%**
publication of MP decision (rate changes)	27 June (0.00) 20 August (-0.25)	18 June (-0.25) 23 July (-0.25) 27 August (0.00)	3 July (0.00) 4 September (0.00)	27 June (-0.50) 1 August (-0.25)
expected MP decisions	25 September 7 November	24 September 22 October 19 November	1–2 October 5–6 November 3–4 December	25 September 7 November

Note: [1] CPIF (Consumer Price Index with a Fixed Interest Rate).

Key interest rates



Inflation



In August, the **Riksbank** reduced its interest rate by 25 bp to 3.50%. Inflation is continuing to fall, long-term inflation expectations are signalling strong confidence in the inflation target and wage growth is moderate. Indicators such as the producer price index or companies' pricing plans further imply that price pressures are in line with the inflation target. In addition, new information indicates that the outlook for economic growth in Sweden is somewhat lower than indicated in the last forecast published in June. With regard to these circumstances, at its August meeting the Executive Board admitted that the interest rate could be reduced more quickly than had been assumed in the June forecast. If the inflation outlook remains the same, the key interest rate may be reduced two or three times more this year.

In June and July, the **MNB** cut its base interest rate by 50 bp to 6.75%, in August it left rates unchanged. Inflation returned to the tolerance band at 3.4% in August, particularly due to the slowdown in fuel price dynamics, reflecting the effect of a higher comparison base last August. Core inflation decreased slightly to 4.6%. Disinflation in the services sector remains slow, so the central bank is paying more attention to this sector. Households' inflation expectations fell slightly compared to the previous month, but remain elevated. The MNB expects inflation to fluctuate close to the upper limit of the tolerance band in the next few months, whereas core inflation will temporarily rise to 5% at the end of the year.

The **NBP** left its reference interest rate unchanged at 5.75%. A gradual economic recovery continues in Poland. GDP growth was positively affected by growth in consumer demand, but a decline in construction and assembly production acted in the opposite direction. Unemployment remains low and the number of workers high, though employment in the corporate sector was lower in July on a year-on-year basis. Wage growth continues to be higher. Inflation rose in July due to growth in administered energy transfer prices, which should influence inflation in the next few months, and to rises in food and soft drink prices. When these influences expire, inflation should return to the medium-term target. According to the NBP, the overall price pressures are relatively low despite the economic recovery and growth in consumer prices is dampened by the strengthening of the zloty. Despite this, the bank sees certain inflationary pressures in marked wage growth, including in the public sector.

The **CNB** reduced its 2W repo rate in June and August by a total of 75 bp to 4.50%. The CNB's summer forecast implies a slight fall in short-term market rates. It also expects inflation to remain close to the 2% target over the entire forecast horizon, i.e. until the end of 2026. According to the forecast, core inflation will also remain close to the inflation target. Tensions on the domestic labour market are easing only slowly and brisk growth in nominal and real wages is leading to a recovery in employees' purchasing power, which was suppressed by past inflation. GDP growth this year will be 1.2% on average and will continue to accelerate to 2.8% next year and 2.4% in 2026. This will be aided by household consumption supported by brisk growth in real wages and renewed growth in total investment. By contrast, growth in economic activity will be dampened by net exports.

II. NEWS OVER THE LAST THREE MONTHS

Bank of Japan increases rates and restricts purchases of government bonds

At its July meeting, the BoJ increased its main monetary policy rate from the 0–0.1% band to 0.25%, which is the highest level since 2008. After two meetings without a rate change, it has now followed on from the first rate increase in March this year. The BoJ announced that if the July forecast materialises, it will continue to raise rates. At its July meeting, the central bank also announced the details for the plan to limit purchases of Japanese government bonds. Until then, it was buying them at a pace of JPY 6 trillion a month, but it will progressively reduce this volume at a speed of approximately JPY 400 billion every quarter and in the first quarter of 2026 the monthly volume of purchases should therefore be approximately JPY 3 trillion. The BoJ will evaluate the tapering process at its meeting in June next year, when, if it is necessary, it could adjust its current plan and should also announce its bond purchase plan for the period from 2026 Q2 onwards. Despite this partial tightening, however, Japanese monetary policy remains accommodative.

BoE prepares instrument to support non-banking institutions in case of bond market non-functionality

The Bank of England presented an instrument through which it can provide non-banking financial institutions – specifically pension funds, insurance companies and LDI (*liability-driven investment*) funds – with short-term financing against collateral in the form of government bonds (gilts). The instrument will be ready from the fourth quarter of this year. It will not be available automatically, but only after its activation by the BoE in case of serious damage to the bond market's functioning. By taking this step the central bank is responding to events from the autumn of 2022, when, in connection with a liquidity crunch on the gilts market, pension and LDI funds found themselves in trouble and this threatened the stability of the financial system in the United Kingdom (for more details see Spotlight in the December 2022 issue of Central Bank Monitoring).

Conclusions of Convergence Reports not yet letting Bulgaria into euro area

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

This year's reports are affected by the echoes of the recent inflation wave, as a consequence of which most countries evaluated are still not in compliance with the price stability criterion. This year's reports from the two institutions differ in their approach to setting the reference value for evaluating this criterion. The reference value is based on the average of inflation in the three EU countries with the best results in terms of price stability – they are regarded as being the countries with the lowest inflation, after excluding outliers, which are countries that have significantly lower inflation than other Member States and whose price trends are significantly affected by extraordinary factors. Whereas the EC in this year's report includes Denmark, Finland and Belgium among the outliers, in the case of the ECB report it is only Finland. This leads to a higher reference value in the EC report, thanks to which Sweden met the price stability criterion, whereas according to the ECB report, inflation exceeded the reference value in all the countries assessed.

As regards the other criteria, the European Commission proposed starting an excessive deficit procedure (which is due to non-compliance with criteria relevant to public finances) for Hungary and Poland, while Romania has been subject to the procedure since 2020. There have also been long-term interest rates exceeding the set benchmark in the same three countries. The only country participating in the ERM II mechanism was Bulgaria, which met the exchange rate criterion according to the EC evaluation. Bulgaria is the only country where there was a positive evaluation of the compatibility of legal regulations. Bulgaria is also the only one of the countries evaluated that is currently actively seeking to join the euro area – but with regard to its failure to meet the price stability criterion, it must postpone its entry for the moment.

Swiss SNB will see management changes

The Swiss central bank has announced that the new Chairman of the Governing Board will be Martin Schlegel, its current Vice Chairman. From 1 October, he will therefore replace Thomas Jordan, who earlier announced his resignation from the position, which he has held for 12 years. Current Governing Board member Antoine Martin will move to the position of Vice Chairman and the remaining position in the three-member Governing Board will be taken by Petra Tschudin (née Gerlach), currently a member of the SNB's wider leadership team.

Chinese PBC reforms its monetary policy framework

Governor of the Chinese central bank Pan Gongsheng announced changes to China's monetary policy framework in his June speech. The PBC wants to gradually reduce its focus on volume instruments and indicators and prefer price instruments more. Among them, the importance of the seven-day reverse repo rate as the PBC's main monetary policy rate should be emphasised, whereas the role of other rates should decline. The PBC governor also indicated the narrowing of the currently fairly wide interest rate corridor for short-term rates. The PBC's monetary policy instruments now include purchases and sales of Chinese government bonds on the secondary market, although this is not quantitative easing in its view. The central bank also plans to pay attention to perfecting targeted structural instruments. In addition, the PBC wants to focus on increases in transparency and improvements in monetary policy communication. In the period following the Governor's speech, the PBC has already started to gradually implement some of the announced changes. For example, it introduced overnight repo and reverse repo operations, which are derived from the aforementioned seven-day reverse repo rate in a narrower band than the previous interest rate corridor. The central bank has also already started to trade in government bonds – in August it purchased short-dated bonds and sold long-dated bonds, with total net purchases in a volume of RMB 100 billion (approx. USD 14.1 billion) . On the contrary, the Chinese governor's speech did not indicate material changes in the use of two of the PBC's significant tools – the exchange rate and window guidance (for an overview of the current monetary policy framework and monetary policy instruments in China see Spotlight in the December 2023 issue of Central Bank Monitoring).

III. SPOTLIGHT: ISRAELI MONETARY POLICY – PAST AND PRESENT

Since its creation in 1948, Israel has gone through many turbulent episodes. The Bank of Israel (BOI), which has faced several challenges in recent years, played an important role in them. During the pandemic, it responded to a fall in economic activity through wide-ranging stimulation measures, including foreign exchange interventions against the strengthening of the shekel. It subsequently resisted the inflationary wave, although it had a relatively mild course in comparison with other countries. In 2023, the Israeli economy again found itself under pressure, this time because of judicial reform and, in particular, the start of war with Hamas in October. The central bank immediately responded to the urgent situation and, using targeted measures, helped the war-hit economy to stabilise. This article first looks at the Bank of Israel's journey to its inflation targeting and describes its current monetary policy. It then focuses on developments in the Israeli economy during the pandemic and the recent inflation wave. Last but not least, it looks at the economic impact of the ongoing war and examines the measures taken by the central bank to stabilise the financial markets and mitigate the immediate effects of the war.

Journey from hyperinflation to inflation targeting

Since Israel's formation in 1948, its economy has faced the impacts of several wars. Particularly significant was the Yom Kippur War in October 1973, which started a period of slow economic growth, high budget deficits and rapidly rising inflation lasting more than a decade. It reached its peak in 1984, when the year-on-year figure was almost 500%. In response to these developments, the Israeli government introduced a comprehensive reform programme (the Economic Stabilisation Plan) at the start of July 1985, including a range of fiscal and monetary measures aimed at stabilising economic trends.[1] Thanks to these steps, year-on-year inflation fell below 20% in the second half of 1986, with only a slight increase in the unemployment rate.

As summarised by Elkayam (2003), the programme included stabilisation of the Israeli shekel, the exchange rate of which was pegged in 1986 to a basket of global currencies in accordance with their shares in foreign trade. The exchange rate therefore became a key nominal anchor in the fight against high inflation. Despite this, inflation remained high in comparison with other countries, which required frequent devaluations of the exchange rate. However, this weakened the exchange rate's ability to serve as a nominal anchor and led to speculative capital flows. With the aim of increasing the flexibility of the exchange rate, a fluctuation band was introduced in 1989 and was changed to a crawling band in 1992 that enabled gradual depreciation. Together with this, the first inflation target of 14–15% was announced. The importance of the exchange rate as a monetary policy anchor has gradually fallen since then. In 1997, the fluctuation band was significantly expanded, and the Bank of Israel no longer had to keep intervening to defend it.[2] The exchange rate started to be determined by market forces, which meant that the inflation target became the key monetary policy anchor and the interest rate is the main tool for achieving it.

The inflation target fell over time. In some years it was defined as a point target and in others as a target range of one to three percentage points (Bank of Israel, 2007). The gradual reduction of the inflation target was part of the disinflation process and, to a certain extent, represented an opportunistic approach where the announced target for the following year was usually set close to the level of observed inflation at the time the target was set. This meant that gradual disinflation was followed by the gradual reduction of inflation targets, which were mostly set only for the next year. It was not until 2000 that the Israeli government decided in advance on a further reduction of the inflation target for 2001 and 2002, and from 2003 onwards a target range of 1–3% was set for year-on-year changes in the Consumer Price Index (CPI). Since then, there has been ongoing evaluation of compliance with the inflation target every month, in contrast to the earlier evaluation for a whole calendar year.

In March 2008, after a pause of more than ten years, the Bank of Israel again started to intervene to weaken the shekel. The decision was taken as a consequence of its sharp appreciation, unsupported by fundamentals, which started in the second half of 2007. This provided the central bank with an opportunity to increase foreign exchange reserves, whose share of GDP was at a low level. The central bank stated it planned to increase foreign exchange reserves by USD 10 billion over two years through regular purchases with an average volume of USD 25 million per trading day, which was later increased to USD 100 million. The commitment was terminated in August 2009, when foreign exchange reserves reached USD 54 billion (30% of GDP). The central bank remained present on the foreign exchange market, but decided

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1 For more details on the causes of hyperinflation and the stabilisation measures see, for example, Kreis (1989).

2 The exchange rate fluctuation band was formally cancelled in June 2005. Until then, it had been gradually expanded and had become so wide that the Bank of Israel did not have to intervene to defend it, so the band stopped being important.

on interventions at its discretion. Another intervention programme was launched in May 2013 to even out appreciation pressures resulting from the start of natural gas extraction. In particular as a consequence of intervention activities, the volume of foreign exchange reserves increased from USD 29.5 billion in March 2008 to USD 213 billion in December 2021, when they peaked. In relation to GDP in this period, it was an increase in foreign exchange reserves from 15% to 47% of GDP.

Current monetary policy stance

A significant milestone for the central bank's operations was a new act on the Bank of Israel, which came into force in June 2010. The act defines care for price stability as the BOI's main task. The other objectives are to support the government's economic policies, in particular in the area of economic growth, support for employment and reducing social disparities, and to ensure the stability and proper functioning of the financial system. All the secondary objectives are set provided that there is no threat to price stability over time.[3] In accordance with the act, the bank has also had a Monetary Committee, which decides on monetary policy and measures to achieve the central bank's objectives, since October 2011. The committee has a total of six members – the BOI Governor (who is also the Chair), the Vice Governor and a Governor appointed by the Bank of Israel's employees. The other three members are external representatives of the professional public who are appointed by the government. Decisions are taken by a majority of votes and, in the event of a tie, the Governor has the casting vote.

An inflation target of 1–3% has been valid from 2003 to the present and the central bank uses a number of tools to achieve it, where the main tool in the interest rate. Its set level is achieved through open market operations – deposit and credit tenders. As a part of them, the BOI enables banking entities to deposit excess liquidity for a period of one day or one week or to borrow liquidity from the central bank for such periods. In addition to this, the BOI provides a one-day deposit and lending facility, the interest rates of which create a band around the basic interest rate.

The Bank of Israel also issues short-term bonds, MAKAM, which serve to absorb excess funds from the public and steer economic activity, where the principle of their operation can be compared to a short-term bank deposit. These securities are intended for the general public, are issued every month and can be traded on the Tel Aviv stock market. Moreover, their yields serve as an indicator of inflation expectations for a period of up to one year and therefore help decisions about monetary policy.

In addition to these tools, the central bank can use the foreign exchange interventions discussed above, which it has historically engaged in, in particular, to mitigate the negative impacts of a strong shekel on inflation and economic growth. In the past, the BOI also purchased government bonds during extraordinary periods. It made such purchases for the first time during the 2008–2009 financial crisis and then again during the Covid-19 pandemic.

Bank of Israel's Monetary Policy during the Pandemic[4]

In the pre-Covid period, the Israeli economy was in good condition, but the outbreak of the pandemic shook it badly, just like the rest of the world. Due to measures adopted to stop the infection from spreading, there was a sharp fall in GDP, which was primarily caused by a marked fall in household consumption. Compared to this, exports, in particular in high-tech services, helped mitigate the economic damage. As a consequence of the reduction in economic activity, the price level fell by 0.7% in 2020. The Israeli economy received significant support from both main economic policies – monetary and fiscal. The base interest rate was 0.25% at the start of the crisis, which meant the central bank had only limited scope to stimulate the economy through its main instrument. The Bank of Israel therefore had to use other measures. It first focused on ensuring the proper functioning of the bond market and, for the first time since 2009, started a programme to purchase government bonds, provide the market with liquidity and ease medium- and long-term credit conditions. In April 2020, the BOI reduced the key interest rate from 0.25% to 0.1% and started a programme for providing loans to banks at extraordinarily low interest rates, which was to support lending to small businesses. Subsequently, in July the central bank started, for the first time in its history, a programme for purchasing corporate bonds on the secondary market. During the year, the BOI intervened on the foreign exchange market, to dampen the strengthening of the shekel and prevent its unfavourable impacts on economic activity. The volume of interventions for 2020 reached USD 21.2 billion.

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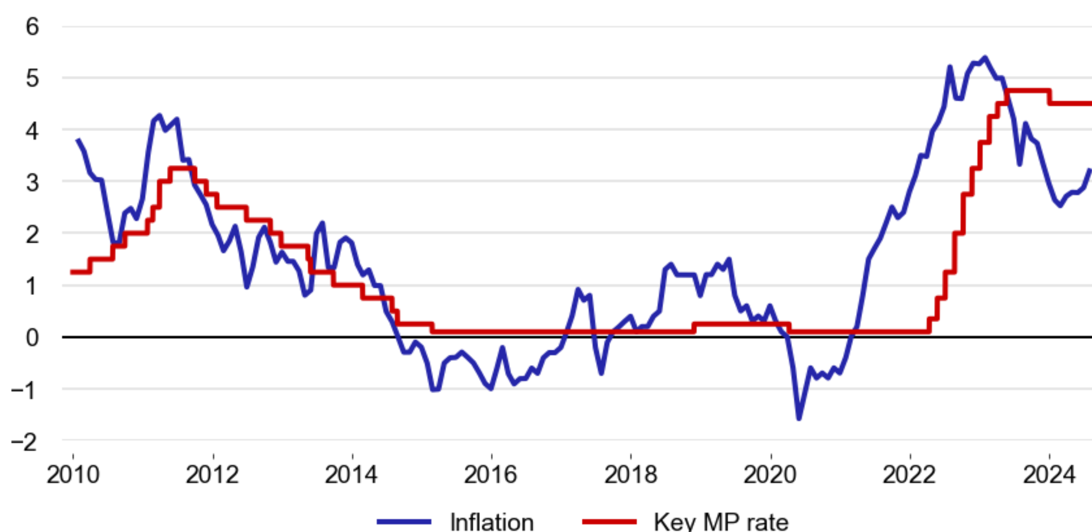
3 "Price stability over time" means a situation in which the Monetary Committee, based on the monetary policy stance, expects the inflation rate to remain in the target range or to return to it within a period not longer than two years. The inflation target is determined by the Israeli government after consultation with the central bank Governor.

4 The following part of the text is based on annual reports issued by the Bank of Israel for 2020–2022.

Chart 1: Trends in key interest rate and inflation in Israel (%, inflation year on year)



Source: Bank of Israel

The rapid revival of economic activity in 2021 enabled the central bank to gradually shutter the extraordinary programmes launched in response to the pandemic. Inflation markedly accelerated from the start of 2021, in particular due to the revival in domestic demand and an increase in global inflationary pressures. However, in an effort to support the economy and in the belief that the rise in price levels was partly driven by temporary factors, the Monetary Committee left the key rate unchanged throughout the year. In addition, the central bank continued to purchase government bonds until the end of the year and continued to intervene against the shekel's appreciation. The volume of foreign exchange interventions for the whole year reached USD 35 billion (almost 8% of GDP), which was the highest since the BOI's re-entry to the foreign exchange market in 2008.

In 2022, inflation continued to rise and exceeded 5% in the last quarter. Previous supply and demand inflationary pressures were worsened at the start of the year by problems with energy and food supplies due to the outbreak of war in Ukraine. As a response to inflation trends, the Monetary Committee decided to gradually tighten monetary policy and increased the key interest rate from 0.1% to 3.25% between April and the end of the year.[5] In addition, the central bank was not active on the foreign exchange market for the first time since 2012; the Israeli shekel weakened by around 10% against the US dollar due to purchases of foreign currencies by institutional investors and the growing negative interest rate differential compared to dollar rates.

2023: Inflation returns to target, judicial reform and start of war with Hamas[6]

In the first half of 2023, the BOI continued to increase the base interest rate, which rose to 4.75%. At the start of the year, inflation reached a peak of 5.4% and then started to progressively fall towards the upper boundary of the target range. Israel therefore ranked among the countries that were only moderately affected by higher inflation compared to other OECD countries, primarily thanks to a less marked rise in energy prices. This was the result of higher energy independence, the longer-term fixation of contracts between electricity producers and natural gas suppliers and a temporary fall in excise duties on fuels and coal.

The legislative changes to the judicial system proposed by the government had a significant influence on economic trends in Israel from the start of the last year. Financial markets perceived the reform as a threat to the independence of judicial institutions, which led to an increase in uncertainty and put pressure on a weakening of the Israeli shekel. It weakened by approximately 10% against the US dollar between January and September 2023, which slowed the return of inflation to the target range. Despite this, the Israeli economy experienced a "smooth landing" when in an environment of strict monetary policy, it grew at a moderate pace with gradually falling inflation. In addition, the economy was characterised by

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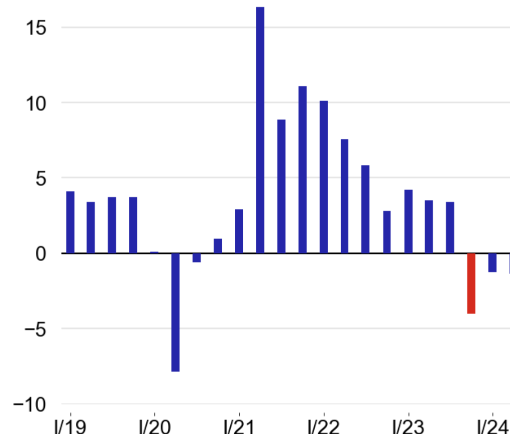
5 Year-on-year inflation was above the upper boundary of the 1–3% target range from January 2022, but the Monetary Committee raised the interest rate for the first time in April 2022. There were several reasons for this. At the start of the year, the Committee assessed that the economy had not yet fully recovered from the pandemic. The coronavirus variant omicron was spreading in Israel at this time and could have caused a fall in economic activity in the first quarter. Another reason was the belief that the increase in inflation was only temporary, caused by failures in global supply chains and growth in commodity prices. Last but not least, there were fears that an increase in the interest rate before key central banks (in particular the US Fed) also did so could lead to undesirable appreciation of the shekel.

6 The text about the events from 2023 and 2024 draws on the Bank of Israel Annual Report 2023 and Monetary Policy Report First Half of 2024.

a low public debt-to-GDP ratio, high foreign exchange reserves, a surplus on the current account, full employment and a strong high-tech industry.

The turning point of the year was an attack by the terrorist organisation Hamas on Israel on 7 October 2023, which interrupted economic trends, favourable until then. GDP in the fourth quarter fell by 4% year on year (see Chart 2), as a consequence of a sharp fall in investment and private consumption. The war also had an immediate impact on the labour market, as the wide-ranging mobilisation of military reserves, closure of schools and evacuation of people led to a marked fall in labour supply.[7] The construction sector was also significantly affected, with approximately 100,000 Palestinian workers, who account for up to a third of the workforce in construction, unable to enter Israel due to the conflict. The outbreak of the war also led to a sharp increase in tension on Israeli financial markets, which caused a jump in the risk premium and a sell-off of the shekel. The overall response by markets was very negative, even in comparison with previous clashes between Israel and Hamas in the last 20 years.

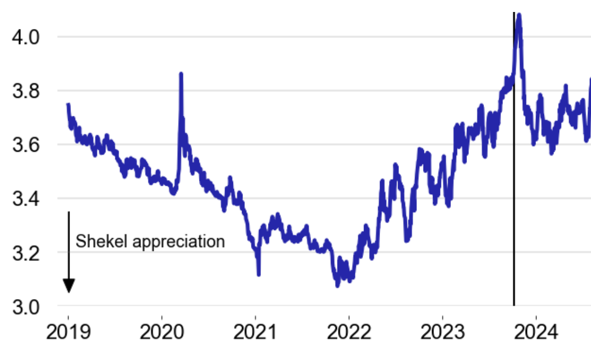
Chart 2: Growth in Israel's real GDP (year-on-year changes in %)



Note: The year-on-year fall in economic activity in the fourth quarter of 2023 as a consequence of the outbreak of war is marked in red. In a quarter-on-quarter comparison, GDP therefore fell by 5.6%.
Source: Trading Economics

The Bank of Israel immediately responded to the situation and, even before the start of the first trading day, announced a plan to sell up to USD 30 billion of foreign reserves[8] with the aim of dampening volatility in the shekel's exchange rate and ensuring liquidity for the regular operation of markets (in this period the central bank intervened in the opposite – appreciation – direction to that usual in its previous interventions). At the same time, the BOI decided to provide the foreign exchange market with further liquidity through swaps with a volume of USD 15 billion. The weakening of the shekel turned around at the end of October, when it reached its weakest values against the US dollar since March 2015. The shekel then started gradually appreciating and in the second half of November it even strengthened to just under the pre-war level (see Chart 3). This trend was a result of the BOI's intervention, and in October and November defending the shekel cost it a total of USD 8.5 billion. The calming of the financial markets also had an influence, when they saw that the war would probably not spread to other areas.

Chart 3: Trends in Israeli shekel/US dollar exchange rate (ILS/USD)



Note: The vertical line indicates the start of Israel's war with Hamas in October 2023.
Source: Bank of Israel

In addition to measures on the foreign exchange market, the Bank of Israel focused on assistance for businesses and, in cooperation with banks, launched a programme to alleviate their credit burdens. Pre-defined groups of debtors were enabled to defer the repayment of a loan by three months without an increase in interest and charges. A similar measure was later applied to help credit card holders. With regard to the ongoing war, both programmes were expanded in November to include additional groups of people from the north of Israel. By the end of 2023, the repayment of more than 300,000 loans had been deferred. The bank programme to reduce the loan burden was subsequently extended and expanded to additional debtors in December and March.

The Monetary Committee also activated a repo operations programme in October with the aim of providing shekel liquidity to institutional entities and unit trusts. It was possible to use corporate or government bonds as collateral.

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7 Approximately five weeks after the outbreak of the conflict, the Bank of Israel's research department tried to calculate the conflict's impacts on the supply side of the labour market. In the analysis, they estimated that the costs arising due to the absence of workers would reach up to ILS 2.3 billion a week (approximately 6% of weekly GDP).

8 At the end of September 2023, the volume of foreign exchange reserves was almost USD 200 billion, which corresponded to 38.1% of Israeli GDP.

At the start of November, this measure was supplemented by a targeted programme focused on relaxing loan conditions for small and micro businesses affected by the war with a volume of up to ILS 10 billion (approximately USD 2.6 billion). Companies whose turnover fell as a consequence of the war by 25% or more could therefore obtain bank loans under more favourable conditions. The loans were offered by the central bank against loans that commercial banks provided to affected businesses. The repayment period was set at a maximum of 2 years with a variable interest rate, which was 1.5 percentage points lower than the BOI key interest rate. In November, the programme was expanded to non-bank loan providers and the repayment period was extended to 3 years.

After the start of the war, the Monetary Committee also discussed a possible reduction in the key interest rate, which had remained at 4.75% since May. The sharp fall in economic activity and risk of business failures were good reasons to relax monetary policy. On the other hand, there were fears that a reduction in the interest rate could accelerate inflation as a consequence of the further weakening of the shekel. At the October and November meetings, the Committee decided to focus primarily on stabilising the markets and reducing uncertainty, and left the key interest rate unchanged. In October, the Committee emphasised that monetary policy could focus on supporting economic activity after stability was strengthened on the financial markets and inflation continued to move towards the target band.

Thanks to previously adopted measures, volatility on the financial markets moderated towards the end of 2023. There was also a gradual fall in inflation, and inflationary expectations from various sources indicated that it would return to the target band in the first quarter of 2024. Trends in the shekel's exchange rate were also positive and after November it appreciated significantly, reaching stronger values than before the outbreak of the war. The Monetary Committee therefore decided at the start of 2024 to reduce interest rates by 0.25 percentage point to 4.5%.

At other meetings from February to August of this year, the Committee left the key interest rate unchanged, in particular because of the growing geopolitical uncertainty. It increased due to adverse developments in the conflict, particularly the involvement of Iran and the extension of the war to the north of Israel, where the Lebanese Hezbollah movement became a threat. The Committee therefore continued with its strategy adopted after the war broke out and concentrated primarily on stabilising financial markets and reducing uncertainty. The decision to keep the interest rate at 4.5% was also due to inflation, which, after a minor slowdown at the start of the year, had been rising since March and had reached 3.2% in July, therefore returning above the target band's upper boundary.

Ceasefire agreements between Israel and Hamas are still not signed and the end of the war is not in sight. It is now clear that this conflict is of a quite different extent to previous clashes in the last two decades, which means the Israeli economy faces marked challenges. There will probably be a change to the perception of the security situation, which will lead to a marked and permanent increase in the defence budget. There will also be changes on the labour market, where the extension of compulsory military service will reduce the supply of labour. In addition to this, there could be a long-term increase in the risk premium, which would lead to higher costs of financing government and private investments. On the other hand, wide-ranging investment in military technology could, with regard to the increase in geopolitical tension also in other parts of the world, increase future exports and, on the contrary, support the Israeli economy. The war will certainly also have an impact on other areas, depending on what happens in the future.

Conclusion

The Israeli economy went through a period of hyperinflation during the 1970s and 1980s, which was stopped only thanks to a comprehensive economic reform plan, which included exchange rate stabilisation. In 1992, the Bank of Israel became one of the first central banks that started to execute its monetary policy in an inflation targeting regime. Since 2003, the inflation target has been set at 1–3%. Although the main instrument for its implementation is the key interest rate, the Israeli central bank has historically very often resorted to foreign exchange interventions, to alleviate the negative effects of a strengthening shekel on economic activity.

The last few years were extraordinarily demanding for the Israeli economy. The central bank had to – like the majority of countries in the world – deal with the challenges of the pandemic and the subsequent increase in inflation. The year 2023 brought another difficult test for the economy, as it first faced increased uncertainty as a result of the government's proposed judicial reform, and later in October a conflict erupted in what became an event unprecedented in the last twenty years. At the beginning, the war had a strong negative impact on economic activity, in particular the labour market, increased geopolitical tension and led to a sell-off of the shekel. The Bank of Israel immediately responded by launching foreign exchange interventions to mitigate exchange rate volatility and introduced targeted programmes to support affected households and small business. In its decisions, it focused primarily on stabilising markets and reducing uncertainty. The immediate impacts of the conflict were mitigated during the first months, partly thanks to the monetary policy and other stabilisation measures adopted. However, the war is still ongoing and, despite some improvement in macroeconomic trends, the Israeli economy and society have a long journey to return to normal functioning.

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IV. SELECTED SPEECH: John C. Williams: r* – A Global Perspective

President of the New York Fed John C. Williams focuses on the long-term natural interest rate and its possible growth after falling for decades in a speech given in July.

In the introduction to his speech, President Williams thinks about why the natural interest rate r* – a concept that is at the very centre of monetary theory – is so hard to quantify. Recently, r* has returned to the glare of the spotlight.

Three approaches

Williams describes three common approaches for estimating r* from data – using a statistical method to extract a longer-term trend, basing it on financial market or survey data or looking at r*'s effects on economic data. Every approach brings useful information, but each also represents a significant challenge. Univariate statistical methods do not adequately control for economic factors that influence interest rates. And these estimates can be overly influenced by large macroeconomic disturbances, such as the inflation of the 1970s. Financial market and survey data are subject to measurement issues and tell us what people are thinking about r*, rather than acting as an independent source of information on r*.

For this reason, Williams focuses on estimates of r* gleaned from macroeconomic models that do not rely on financial market or survey data—in particular, the Holston-Laubach-Williams (HLW) model, which infers the natural rate of interest through the behaviour of interest rates, inflation, and GDP.

A global supply and demand for savings and the long-term decline of r*

Estimates of r* in the euro area and the United States fell dramatically over the quarter century leading up to the Covid-19 pandemic, and they are currently near the estimates from prior to the pandemic. According to the HLW model, the estimate of r* in the euro area is 0.5 percent in 2023, essentially in line with analysis by ECB economists.

The sizeable decline in estimates of r* during the decades prior to the pandemic is common to many advanced and emerging economies and reflects developments related to the global supply and demand for savings. These include falling birth rates and relatively low productivity growth that both reduce demand for savings, as well as increases in longevity and wealth inequality that increase the supply of savings. Williams emphasises the word “global”, because in a world of open capital markets, one should expect r* to be highly correlated across countries The role of common and idiosyncratic factors is seen by comparing the estimates for the euro area to those for the United States. Although the two sets of estimates display some shorter-term wiggles, the dominant shared feature is the sustained two-percentage-point decline in r* over the past 30 years. Hence, according to these estimates, the low r* regime endures.

Is r* rising again?

Recent commentary, however, suggests that r* has risen due to recent yet persistent changes in the balance between the supply and demand for savings. These are related to higher investment in AI and renewable energy, as well as larger government debt. In fact, some measures of r* have risen to levels well above those directly prior to the pandemic. For example, market-based measures of five-year, five-year-forward real rates for the euro area and the United States have risen well above the HLW estimates

With regard to this, however, J.C. Williams points to two facts. First, until recently, far-forward real rates displayed a broadly similar pattern of decline as the model estimates of r*. Second, the market-based measures of the natural interest rate are volatile. In the years before the recent rise, they had fallen to very low levels, well below the corresponding HLW model estimates. This points to a significant time-varying risk premium, which guides us to cautiously interpret what markets are telling us about their perceptions of r*.

Although the value of r* is always highly uncertain, the case for a sizeable increase in r* has yet to meet two important tests. First, owing to the interconnectedness of r* across countries, individual factors pushing up r* on a sustained basis are likely to be global in nature. Here Williams highlights a tension between the evidence from Europe that r* is still very low and arguments in the United States that r* is now closer to levels seen 20 years ago. Second, any increase in r* must overcome the forces that have been pushing r* down for decades. In this regard, recent data reinforce the continuation of pre-pandemic trends in global demographics and weak productivity growth. Some arguments for a higher r* should go hand in hand with higher potential output growth. However, the HLW estimates of euro area and US trend potential GDP growth in 2023 are nearly unchanged from their respective 2019 values, which is consistent with other estimates of potential GDP growth for the euro area and the United States.

r* and monetary policy

Williams ends with a brief comment on the usefulness of estimates of r*. First, r* is either explicitly or implicitly at the core of any macroeconomic model or framework. It is important that we do our best to understand the factors that affect r* and the uncertainties related to it, so that we have the best understanding possible of the forces affecting the longer-term evolution of the economy. Second, the high degree of uncertainty about r* means that one should not overly rely on estimates of r* in determining the appropriate setting of monetary policy at a given point in time.

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