

Central Bank Monitoring

IV/2020



Czech National Bank — Central Bank Monitoring — IV/2020

In this issue

Economies partly began to breathe again in the third quarter after the first wave of the coronavirus pandemic subsided. This was reflected in smaller declines in economic performance. Governments and central banks are continuing to pursue expansionary policies. Unemployment in individual countries is rising and can be expected to peak next year. The room for conventional monetary policy in the form of interest rate cuts has been used up almost entirely by most of the central banks under review, and many economies are being stimulated by means of unconventional monetary policy tools.

The latest *Spotlight* focuses on central bank digital currency. In our *Selected Speech*, Deutsche Bundesbank President Jens Weidmann reflects on the special relationship between monetary and fiscal policy, in particular the possible risk of fiscal dominance, which the European Central Bank's ongoing monetary policy strategy review will also address.

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

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

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

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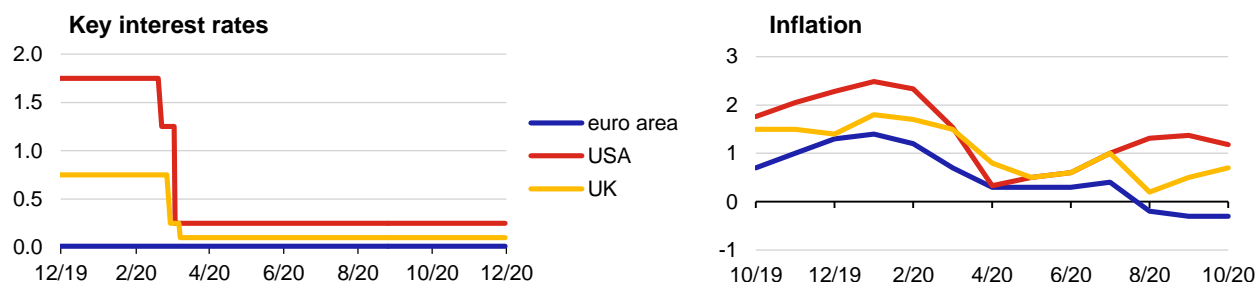
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I. LATEST MONETARY POLICY DEVELOPMENTS AT SELECTED CENTRAL BANKS

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

	<u>Euro area (ECB)</u>	<u>USA (Fed)</u>	<u>United Kingdom (BoE)</u>
Inflation target	<2% ¹	2% ²	2%
MP meetings (rate changes)	29 Oct (0.0);(0.0) ³ 10 Dec (0.0);(0.0) ³	15–16 Sep (0.00) 4–5 Nov (0.00)	17 Sep (0.00) 5 Nov (0.00)
Current basic rate	0.00%; -0.50% ³	0–0.25% ⁴	0.1%
Latest inflation	-0.3% (Nov 2020) ⁵	1.2% (Oct 2020)	0.7% (Oct 2020)
Expected MP meetings	21 Jan 11 Mar	15–16 Dec ⁶ 26–27 Jan	17 Dec
Other expected events	11 Mar: publication of forecast	Feb 2021: publication of Monetary Policy Report	17 Dec: publication of Monetary Policy Report
Expected rate movements⁷	→	→	→

Note: ¹ ECB definition of price stability “below but close to 2%”; ² long-term average, according to August 2020 definition; ³ deposit rate; ⁴ chart shows upper boundary of band; ⁵ flash estimate; ⁶ meeting associated with summary of FOMC economic forecasts; ⁷ direction of expected change in rates in next three months taken from Consensus Forecasts.



The **ECB** left rates unchanged and will keep them at the present level or lower until it has seen inflation robustly converge to a level sufficiently close to, but below, 2%. The ECB expanded its stimulus measures in response to the economic impacts of the pandemic. It increased the envelope of the pandemic emergency purchase programme (PEPP) by EUR 500 billion to EUR 1,850 billion and extended its net asset purchases until at least the end of March 2022. Net asset purchases under the APP will continue at a monthly pace of EUR 20 billion; the ECB will end them shortly before it starts raising interest rates. Favourable liquidity provision under TLTRO III was extended until June 2022 (see *News*). In 2021, the ECB will offer four additional pandemic longer-term refinancing operations (PELTROs). The ECB expects GDP to fall by 7.3% this year (as against the 8.0% it forecasted in September). It predicts GDP growth of 3.9% in 2021 (as against 5.0%), 4.2% in 2022 (as against 3.2%) and 2.1% in 2023. It expects inflation of 0.2% in 2020 (as against the 0.3% predicted in September), 1.0% in 2021, 1.1% in 2022 and 1.4% in 2023.

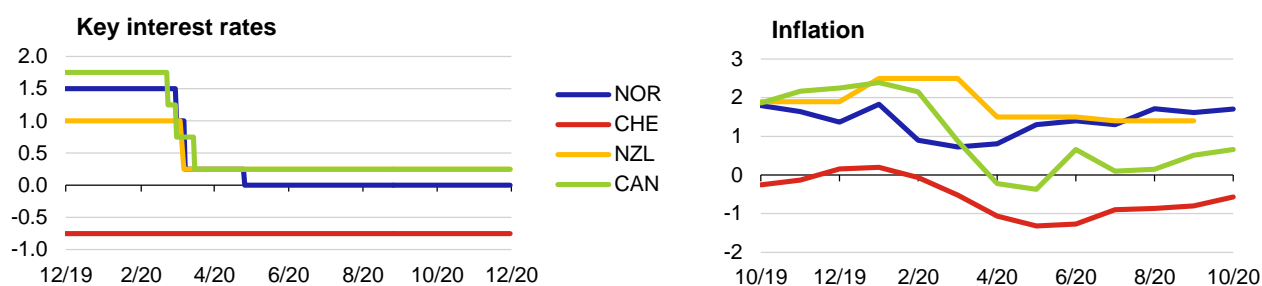
The **Fed** left its key federal funds rate unchanged. According to the FOMC, interest rates will remain at their current level or lower until the FOMC is confident that the economy has weathered the impacts of the coronavirus pandemic; in the opposite case, the Fed is ready to use all the tools at its disposal. As expected, the parameters of the asset purchase programme were left unchanged at the previous meetings, but there was a debate among the FOMC members about possible changes. According to J. Powell, the pace of recovery has moderated and the outlook is highly uncertain. The federal government’s support measures have helped household consumption to recover. The minutes of the November Fed meeting contained a discussion among the FOMC members on the options for adjusting the bond purchase programme to provide greater support to financial markets and the economy. In its September forecast, the FOMC was expecting GDP to drop by 3.7% this year and grow by 4.0% in 2021 (the median of FOMC members’ forecasts).

The **BoE** kept its key rate unchanged at 0.1% but increased the target stock of purchased assets by GBP 150 billion to GBP 895 billion. It will continue to buy government bonds until the end of 2021. According to the BoE, the economic outlook remains very uncertain given the measures taken to contain the coronavirus and the uncertainty surrounding Brexit. In its November forecast, the BoE projects a sharper fall in GDP (11.0% y/y) than in the August forecast (9.5% y/y). It is also now expecting a full recovery from the coronavirus shock to occur a quarter later – in 2022 Q1. No new information has been published on negative interest rate policy. The BoE governor merely said that the bank is considering negative rates. The BoE expects inflation to remain well below the inflation target in the period ahead and reach 2% in two years’ time. Unemployment has increased and is projected to peak at around 7.75% in 2021 Q2.

I.2 SELECTED INFLATION-TARGETING NON-EU COUNTRIES

	Norway (NB)	Switzerland (SNB)	New Zealand (RBNZ)	Canada (BoC)
Inflation target	2%	0–2%	2%	2%
MP meetings (rate changes)	24 Sep (0.00) 5 Nov (0.00)	24 Sep (0.00)	23 Sep (0.00) 11 Nov (0.00)	28 Oct (0.00) 9 Dec (0.00)
Current basic rate	0%	-0.75%	0.25%	0.25%
Latest inflation	1.7% (Oct 2020)	-0.6% (Oct 2020)	1.4% (2020 Q3)	0.7% (Oct 2020)
Expected MP meetings	17 Dec 21 Jan	17 Dec 25 Mar	24 Feb	20 Jan
Other expected events	17 Dec: publication of Monetary Policy Report	23 Dec: publication of Quarterly Bulletin	24 Feb: publication of Monetary Policy Statement	20 Jan: publication of Monetary Policy Report
Expected rate movements²	→	→	→	→

Note: ¹ direction of expected change in rates in next three months is taken from Consensus Forecast survey or, in the case of New Zealand, from RBNZ survey).



The **NB** kept its policy rate unchanged at zero and expects it to remain at this level until there are clear signs that economic conditions are normalising (the forecast sees rates as stable over the next couple of years, followed by a gradual rise). The latest quarter-on-quarter GDP data for Q3 (excluding the oil industry) show buoyant growth of 5.2%. Inflation increased to 1.7% in October. Next year, it will rise well above 2% and briefly exceed 3%. House price growth in Norway accelerated slightly above 5%. The NB continues to provide banks with additional liquidity in the form of “F-loans” (with one-week to 12-month maturity).

The **SNB** kept its base rate at -0.75% and continues to use its refinancing facility (the SNB COVID-19 CRF) to provide the banking system with additional liquidity. The SNB’s September forecast predicts negative inflation of -0.6% in 2020 but positive inflation for the following two years (0.1% and 0.2%). GDP grew by 7.2% quarter on quarter in 2020 Q3 but is set to shrink by around 5% this year, the strongest decline since the crisis in the mid-1970s.

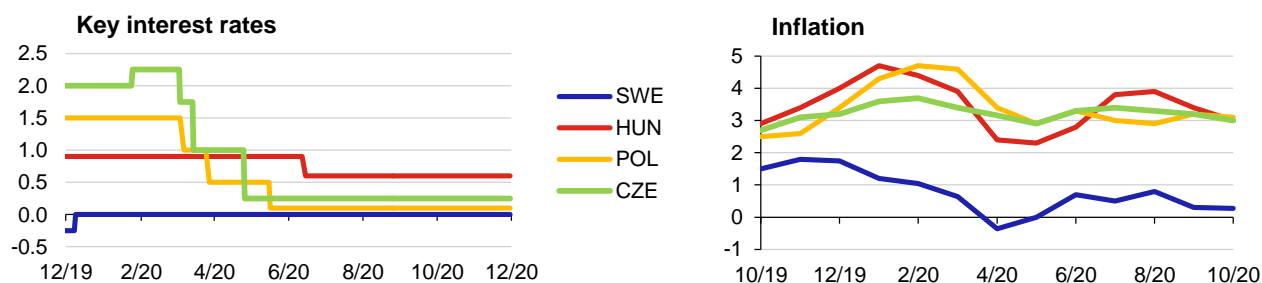
The **RBNZ** left its key interest rate unchanged at 0.25%. The size of the LSAP asset purchase programme remained the same (a maximum of NZD 100 billion by June 2022) and is expected to be fully used. The LSAP has helped reduce bond yields by around 0.6–1.0 pp along the entire yield curve. The RBNZ is providing banks with secured 12-month loans and loans for up to three years to support the government programme to fund small enterprises (TLF). In December the RBNZ launched a Funding for Lending Programme (FLP) to ease monetary conditions further. It expects the FLP to reduce banks’ funding costs, which in turn will lower interest rates on loans to households and non-financial corporations. GDP declined by 12.4% year on year in Q2 (data for Q3 will become available on 17 December, i.e. after the publication of this issue).

The **BoC** left its key rate unchanged at 0.25% and will maintain it at the effective lower bound until economic slack is absorbed so that the 2% inflation target is sustainably achieved. In the October projection, this does not happen until into 2023. The BoC is buying government bonds at a reduced weekly pace (of at least CAD 4 billion, formerly CAD 5 billion). In addition, it has shifted its bond purchases to longer maturities to have more influence over borrowing rates for businesses and households. Term repo operations are continuing and the BoC is supplying liquidity to the market using its CTRF and SLTF facilities. Canada’s GDP grew by 8.9% quarter on quarter in 2020 Q3. In its October forecast, the BoC was expecting GDP to shrink by 5.5% this year. GDP growth will average 4% over the next two years. Inflation picked up to 0.7% in October and will stay outside the 1–3% target range until early next year, largely due to low energy prices. Measures of core inflation are between 1.6% and 1.9%.

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

	<u>Sweden (Riksbank)</u>	<u>Hungary (MNB)</u>	<u>Poland (NBP)</u>	<u>Czech Republic (CNB)</u>
Inflation target	2% ¹	3%	2.5%	2%
MP meetings (rate changes)	21 Sep (0.00) 25 Nov (0.00)	22 Sep (0.00) 20 Oct (0.00) 17 Nov (0.00)	15 Sep (0.00) 7 Oct (0.00) 4 Nov (0.00) 2 Dec (0.00)	23 Sep (0.00) 5 Nov (0.00)
Current basic rate	0%; -0.1% ²	0.6%; -0.05% ²	0.10%	0.25%
Latest inflation	0.3% (Oct 2020)	3% (Oct 2020)	3.1% (Oct 2020)	2.9% (Oct 2020)
Expected MP meetings	10 Feb ³	15 Dec ³ 26 Jan 23 Feb	8 Mar	17 Dec 4 Feb ³
Other expected events	11 Feb: publication of Monetary Policy Report	17 Dec: publication of Inflation Report	8 Mar: publication of Inflation Report	11 Feb: publication of Monetary Policy Report
Expected rate movements⁴	→	→	→	→

Note: ¹ CPIF – consumer price index including fixed interest rate; ² deposit rate; ³ publication of new forecast; ⁴ direction of expected change in rates in next three months taken from Consensus Forecast survey.



The **Riksbank** left its key rate at 0%. The deposit rate is also unchanged at a slightly negative level (-0.1%). The current forecast expects the key rate to remain at 0% until the end of 2023. The Riksbank expanded the envelope for its bond purchases by SEK 200 billion to SEK 700 billion and extended the programme until the end of 2021. It also decided to increase the pace of the purchases in 2021 Q1 relative to 2020 Q4. The CPIF inflation outlook is 0.4% for this year, 0.9% for next year and 1.2% for 2022. Inflation will not get close to the central bank's target until 2023 (1.7%). GDP is projected to decline by 4% this year and grow by 2.6% in 2021 (as against 3.7% in the September forecast) and 5.0% in 2022 (as against 3.7%).

The **MNB** kept its base rate at 0.6%. The deposit rate is negative at -0.05%. The MNB continues to support liquidity and access of economic agents to funding using specific programmes. The MNB decided to raise its FGS GO! support facility for SMEs by a further HUF 1,000 billion. Corporate bond issues under the Bond Funding for Growth Scheme amounted to HUF 680 billion at the end of October; the MNB is sterilising the surplus liquidity resulting from this scheme. The MNB is also purchasing government bonds with maturities of over 15 years. Hungary's GDP fell by 4.6% year on year in Q3. The September forecast expects GDP to decline by 5.1–6.8% this year and grow by 4.4–6.8% in 2021. According to the MNB forecast, inflation will be between 3.2% and 3.3% this year and the next and at 3.0% in 2022.

The **NBP** kept its interest rate at 0.1% and is buying government bonds and government-guaranteed debt securities. A programme to refinance loans granted to firms is also in place. The year-on-year decline in Polish GDP moderated to 1.8% in 2020 Q3. The November forecast expects inflation of 3.4% in 2020, 2.6% in 2021 and 2.7% in 2022. According to this projection, GDP will decline by 3.5% this year, which is less than was forecasted in July (5.4%). GDP will grow by 3.1% (4.9%) and 5.7% (3.7%) in the following two years.

The **CNB** left its 2W repo rate at 0.25% and expects rates to increase gradually next year. The Czech economy partly began to breathe again in the summer (GDP grew by almost 7% quarter on quarter in Q3), but the second wave of the pandemic and the measures reintroduced to contain it are causing GDP to decline again at the year-end. The negative economic impacts of the second wave of the pandemic are expected to subside in 2021 H1, when the economy will return to growth amid recovering external demand. According to the CNB's November forecast, GDP will decline by more than 7% this year and grow by almost 2% next year; in 2022, the growth will pick up to 4.2%. Inflation will decrease into the tolerance band around the 2% target in 2020 Q4 and approach the target at the end of 2021. The decline in headline inflation will be due in part to the anti-inflationary demand effects of the second wave of the pandemic.

II. NEWS OVER THE LAST THREE MONTHS

ECB strengthens its support instruments in view of continuing pandemic

In view of the economic fallout from the resurgence of the pandemic, the ECB in December [recalibrated](#) its support instruments. It increased the envelope of the pandemic emergency purchase programme (PEPP) by EUR 500 million and extended the horizon for net purchases (see the previous section of MCB). It also extended the period over which it will provide banks with liquidity under very favourable terms through the third series of targeted longer-term refinancing operations (TLTRO III) by 12 months to June 2022. Three additional operations will also be conducted between June and December 2021. The ECB also raised the total amount that counterparties will be entitled to borrow in TLTRO III operations from 50% to 55% of their stock of eligible loans. The recalibrated TLTRO III borrowing conditions will be made available only to banks that sustain the current level of bank lending to firms and households. The Eurosystem repo facility for central banks (EUREP) and all temporary swap and repo lines with non-euro area central banks will be extended until March 2022.

SNB publishes data on its transactions more frequently

In October, the SNB started [publishing](#) more detailed data on its monetary policy-related transactions (monthly) and foreign exchange market operations (quarterly instead of yearly) on its [data portal](#).

Discussion between Fed and US Treasury on duration of lending facilities ends...

The Fed in November [announced](#) an extension of four of its lending facilities supporting short-term financing from the end of this year as originally announced to the end of March 2021. The extension of these facilities was requested in a [letter](#) from the US Treasury Secretary Steven T. Mnuchin. He also asked the Fed to return the unused federal funds from five other Fed emergency facilities supporting the private sector and municipalities, which are scheduled to expire in late December. The Treasury request for the return of the funds caused a short-lived market shock, which, however, quickly subsided, as the programmes had not been fully used and this measure should not significantly change the total amount of liquidity supplied by the Fed. After an initial appeal to extend the full suite of emergency facilities, the Fed [agreed](#) to return the unused funds and end the five facilities.

...but discussion is set to continue under leadership of new Treasury Secretary Janet Yellen

The possible renewal of the emergency facilities will be decided by the incoming administration of the US president-elect Joe Biden, who will take office in January. Mr Biden has chosen Janet Yellen, a former Fed chair, as Treasury secretary. She will be the first woman in the job.

Central bank of Turkey raises rates sharply after change of governor

The central bank of Turkey (CBRT) in November [raised](#) its main policy rate by 4.75 pp to 15% in an effort to tame double-digit inflation and bolster the Turkish lira. The increase took place at the first rate-setting meeting chaired by new central bank governor Naci Agbal, a former Turkish finance minister (2015–2018). The Turkish president appointed Agbal to the helm of the CBRT after suddenly dismissing the previous governor Murat Uysal. Governor Uysal's dismissal was followed the very next day by the resignation of the finance minister (and president's son-in-law) Berat Albayrak, under whose tenure inflation had risen unchecked and the value of the Turkish currency had plummeted. Lutfi Elvan, a former transport minister and development minister, was appointed as the new finance minister. For more information on developments at the CBRT, see the [September 2019](#) and [September 2018](#) issues of MCB.

ECB publishes report on digital euro and launches public consultation

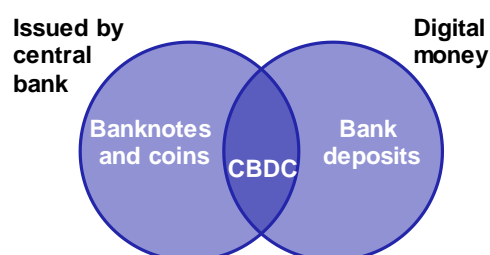
The ECB in October [published](#) a [Report on a digital euro](#), in which it among other things identified possible scenarios that would require the issuance of a digital euro. These scenarios include increased demand for electronic payments in the euro area that would require a European risk-free digital means of payment, a significant decline in the use of cash as a means of payment in the euro area, the launch of global private means of payment that might raise regulatory concerns and pose risks for financial stability and consumer protection, and a broad take-up of digital currencies issued by foreign central banks. The ECB also [launched](#) a public consultation on this topic and expects to hear the views of the public by January 2021. The topic of central bank digital currencies (CBDCs) is covered in detail in the current *Spotlight*.

III. SPOTLIGHT: CENTRAL BANK DIGITAL CURRENCIES

Central Bank Digital Currency (CBDC) has become a major preoccupation of many central banks in recent years. Most CBDCs are at the theoretical research or pilot testing stage, but one has recently been launched for the first time ever. This article discusses the main features of CBDC, its potential implications, and the approaches of selected central banks.

Currently, households and businesses can hold their liquid funds either physically as cash, which, from the accounting perspective, is a liability of the central bank, or electronically as bank deposits, which are a liability of the relevant commercial bank. CBDC offers the potential for users to hold money that is a central bank liability, but in electronic form. The debate about CBDC was inspired by the development of cryptoassets, Bitcoin being the best known. However, the two concepts differ greatly. Unlike cryptoassets, CBDCs would be denominated in the official currency of the state concerned, would be legal tender and would be convertible at par with other forms of money (cash and bank deposits). The use of distributed ledger technology (DLT), which is typical of cryptoassets, is not a necessary condition for implementing CBDC and represents just one possible technological way of doing so (for details see the discussion in BoE, 2020).¹

CBDC's position among forms of money



Source: BoE (2020).

Main features of CBDC

CBDC is a potential payment system innovation. The aim is to offer a fast, efficient, reliable and resilient payment infrastructure in an environment of increasing digitisation of the economy. From the central bank's perspective, CBDC could constitute a response to the declining importance of cash in some countries.² If cash were to become marginalised, CBDC would allow economic agents to hold part of their funds as an entirely risk-free claim on the central bank while simultaneously offering the advantages of electronic payments, which cash lacks. CBDC might boost financial inclusion in developing countries, offering a solution to the current problem of unequal access to the standard services of commercial banks among a large proportion of the population. However, the system would have to be designed to address the very causes of this issue. Coordinated adoption of CBDC by the majority of advanced countries could speed up and simplify cross-border payments, which are currently much more complicated and, as a result, slower and more costly than national payments (BIS, 2020).

CBDC cannot be seen as a clearly defined concept with clearly defined detailed characteristics. Quite the opposite, the whole concept covers a host of suggestions and options that could potentially be implemented. Although central banks are gradually converging to a consensus on its core principles, many questions remain open. Complete agreement on the parameters of CBDC cannot be expected even in the future, as the optimum design of the system depends on the specific features of each economy and on the specific motivation for adopting CBDC in each country. The substantial design flexibility implies many opportunities but also numerous risks and obstacles, which must be weighed carefully before a CBDC is implemented.

The main variants of CBDC are wholesale and retail; only the latter would be accessible to all. This article will focus mainly on the retail version, which implies a greater potential intervention in the payment and economic system. Retail CBDC is also of great interest to most central banks.

The introduction of CBDC would not necessarily mean the whole system having to be operated by the central bank. BoE (2020) offers a model in which the central bank operates the key infrastructure but users use the CBDC system through private payment service providers, which may also offer ancillary services.

The remuneration of CBDC is another important issue. Unremunerated CBDC is a closer substitute for cash, but remuneration would give the central bank greater flexibility and open up new monetary policy possibilities. However, the greater attractiveness of CBDC due to remuneration would also increase the risk to financial stability (see the discussion

¹ CBDC is closer to the new class of cryptoassets called stablecoins than to the first cryptoassets. This topic was discussed in detail in a [thematic article in the March 2020 issue of the CNB's Global Economic Outlook](#). The present article, however, will only cover CBDC.

² The downward trend in demand for cash is typical mainly of Scandinavian countries and is by no means observed everywhere. Long-term trends in the use of cash and their determinants were discussed in a [thematic article in the March 2019 issue of the CNB's Global Economic Outlook](#). The role of cash in eleven countries is also explored by Khaionarong and Humphrey (2019) using a variety of measures.

of macroeconomic implications below). A related option is to apply limits to CBDC accounts (caps on the total funds on the account or the size of individual transactions) so that the instrument is used for making payments but does not crowd out bank deposits.³

Although there is no single generally accepted CBDC model, interested central banks have defined at least the basic principles the system should meet (see, for example, BoE, 2020, BIS, 2020, and ECB, 2020). They include a high level of security and resilience to technical failures and cyberattacks, continuous availability, speed and efficiency, simplicity (so that the system can be used by those with low technological skills) and flexibility with regard to future technological developments. The system should also be able to manage potential increasing payment volumes, be compatible with other payment systems, and divide the related duties between the central bank and private entities so that the expertise of the two sectors is used efficiently. Ideally, the system should also enable offline payments to some extent. The system should prevent money laundering and the financing of terrorism, but also provide the highest possible degree of anonymity. Some of these principles conflict with each other to some extent, so it is unrealistic to meet them all simultaneously and in full. The number of principles and the related unanswered questions indicates how much work central banks still face before they can implement CBDCs, especially in countries whose current payment systems are relatively advanced and therefore represent quite a high bar for CBDCs. Another issue is the enactment of CBDCs, as many central banks are currently prevented by law from issuing CBDCs (because the legislation is usually older than the concept of CBDC).

Macroeconomic implications

A key aspect requiring detailed research is the effect of CBDC on financial stability. On the one hand, CBDC might enhance financial stability by potentially making the payment system more resilient. On the other hand, one of the main disadvantages of CBDC is the risk of it crowding out bank deposits. If a CBDC offered consumers comparable benefits to bank deposits but – as a liability of the central bank – was considered fully risk-free, consumers would convert their deposits at commercial banks into CBDC.⁴ Banks might respond to the outflow of funds by increasing the interest rates they offer to depositors, or they might look for alternative sources of funding. Either way, their costs would increase. This might result in limited and more expensive lending to economic agents. If the conversion of bank deposits to CBDC occurred abruptly, for example shortly after the implementation of the CBDC or in the event of increased uncertainty or a financial crisis, it might result in a run on banks and jeopardise the stability of the banking sector. An overly attractive CBDC might paradoxically have negative economic effects. On the other hand, however, if CBDCs are to benefit users, some degree of conversion of deposits to CBDC is unavoidable. It is hence a real challenge to create a CBDC in a form that will make it useful yet not put the stability of the banking sector at risk.

As regards monetary policy, CBDC might lead to a situation where changes to monetary policy rates have a direct effect on households and businesses. This might result in faster and stronger monetary policy transmission. This, however, would depend on the specific design of the CBDC remuneration system. At the same time, a shift from bank deposits to CBDC (and a resulting reduction in the availability, and/or an increase in the cost, of credit) would be likely to have important consequences for both aggregate supply and demand and might ultimately greatly complicate monetary policy implementation (BoE, 2020).

CBDC might also open up new monetary policy possibilities.⁵ In the hypothetical event of CBDC fully replacing cash, it would help overcome the problem of the lower bound on interest rates. Cash is a zero-interest alternative to negative-interest account balances, and this in turn limits the decline in monetary policy rates deeper into negative territory. However, central banks are declaring that they will support cash as long as there is societal demand for it (BIS, 2020).

Hampel and Havránek (2018) see CBDC as a way of implementing another theoretical unconventional monetary policy tool, namely direct support for consumption, or the helicopter money drop as proposed by Milton Friedman. In a recession, and under its price stability mandate, the central bank could assign a specified sum of “digital cash” to each citizen and incentivise them to consume rather than save it. The use of CBDC would allow the central bank to apply this instrument without the need to coordinate with fiscal policy, so there would be no danger of its independence being constrained.

³ The above CBDC configuration options in no way represent an exhaustive list of all the open questions regarding the design of the system, but cover just a few selected points. For example, a discussion of the technological design of the system (including the role of DLT) goes beyond the scope of this article. We refer the interested reader to Auer and Böhme (2020) and Auer et al. (2020) for more details.

⁴ This phenomenon might be at least partially offset by the fact that bank accounts commonly offer ancillary services (such as short-term loans in the form of credit card payments), which makes them more attractive.

⁵ For example, Barrdear and Kumhof (2016).

The approach of individual central banks to CBDC

In a survey conducted by the Bank for International Settlements (BIS) in 2019,⁶ more than 80% of the respondents had engaged, or were going to engage, in at least theoretical research on CBDC. About 10% of central banks (although none from an advanced country) were at the pilot project stage. The central banks quoted the above-mentioned increased payments efficiency and safety and, in the case of developing countries, also financial inclusion as their main motivations for issuing a CBDC. Other motivations across both developed and developing countries included financial stability and, to a lesser extent, monetary policy implementation. However, more than 70% of central banks currently either do not have the legal authority to issue a CBDC, or are uncertain whether they have such authority (i.e. this issue is not clearly defined by law in these countries). Nonetheless, 10% of central banks (all from emerging market economies) considered it likely that they would issue a CBDC in the near future and 20% in the medium term (four to six years). However, more than 60% of the respondents said they were unlikely to issue a CBDC even in the medium term.⁷ The question remains to what extent these central banks' preferences have been changed by this year's coronavirus pandemic.

In October 2020, seven major central banks⁸ issued a report under the auspices of the BIS (BIS, 2020) in which they sum up the basic principles and features they believe a CBDC should meet, along with open questions for further research, which the banks are committed to coordinating. The most important features of CBDC are consistency with central banks' price and financial stability mandates, the above-mentioned support for cash as long as there is societal demand for it, and the provision of innovation and efficiency for end users.

One of the most active central banks in the CBDC area is Sweden's Riksbank, which has long had to deal with a declining role of cash in its economy. This motivated it to launch an e-krona project in 2017.⁹ A pilot project examining the DLT-based technical solution will run until February 2021. However, no decision has yet been made on the implementation and exact design of the e-krona.

Norway, too, is seeing a decline in the importance of cash. Norges Bank is therefore also researching CBDC and has issued three reports discussing progress in this area over the last three years. According to a recent [speech](#) by Norges Bank Deputy Ida Wolden Bache, the NB will decide how it will proceed in the first half of next year.

The Bank of England is also active in CBDC research. Its findings are summarised in BoE (2020), which also sets out questions for further research and aims to begin a dialogue with other relevant parties. The main motivation in the case of the UK is to make payments more efficient. No pilot project has been launched yet, nor has any decision been made to introduce a CBDC.

In October 2020, the European Central Bank issued a report on the digital euro, in which it discusses the main features and variants of its concept (ECB 2020). The report is also intended to start a public debate. The ECB is planning to decide in 2021 whether to launch a project to prepare a specific version of CBDC. This project would probably take several years to bring to fruition. The implementation of a CBDC would require coordination with other EU authorities

CBDC is also a relevant issue for the Fed, which, however, is treading quite carefully. At a recent ECB [Forum on Central Banking](#), Fed Chair Jerome Powell expressed his institution's will to be at the frontier of research on CBDC, but added that the dollar's status as the global reserve currency meant it was critical to "get it right as opposed to trying to be the first".

The Bank of Canada (BoC) in February 2020 [published a plan](#) to build the capacity to issue a CBDC should the need to implement one arise, but it currently has no plans to launch a CBDC. In 2019, the Swiss SNB together with the SIX Digital Exchange launched a [project for the use of a wholesale CBDC](#) for DLT-based trading between financial market participants. By contrast, the SNB is rather [reticent](#) about retail CBDCs, but is still engaging in research and discussions on the topic (see its involvement in the BIS report discussed earlier). The Reserve Bank of New Zealand is also [monitoring and researching CBDCs but has no imminent plans to issue one](#). As for the other central banks regularly monitored in Central Bank Monitoring, Hungary's MNB and Poland's NBP are engaging only marginally with the issue of CBDC.¹⁰ Similarly, the Czech National Bank is following the CBDC debate with interest but is not likely to implement a

⁶ In 2019, the BIS conducted a survey of central banks' opinions of CBDC. The responses of a total of 66 central banks, 21 of them from developed economies and 45 from emerging market economies, are presented in Boar et al. (2020).

⁷ The survey also differentiates between widely accessible (retail) and wholesale CBDCs. Central banks have declared a greater interest in widely accessible CBDCs.

⁸ The Bank of Canada, the European Central Bank, the Bank of Japan, the Riksbank, the Swiss National Bank, the Bank of England and the Federal Reserve.

⁹ The motivation for launching the e-krona project was explained by Riksbank Governor Stefan Ingves in a [speech](#) described the [March 2018 issue of Central Bank Monitoring](#). Progress with, and specific aspects of, the project are discussed in Sveriges Riksbank (2020).

¹⁰ However, even these banks are reflecting on the issue in one form or another; see, for example, [here](#) for the MNB and [here](#) for the NBP.

CBDC in the next few years, as the Czech Republic is not seeing any decline in the use of cash, financial inclusion is not an issue, and its current electronic payment system is operating reliably.

Turning to other central banks, the development of a CBDC is at a very advanced stage in the Chinese PBoC, which this year conducted several rounds of pilot testing of its [digital yuan](#). China wants its CBDC to replace cash, not just complement it. The rapid roll-out is also motivated by an effort to increase the global importance of the yuan.

A CBDC was introduced for the first time in the Bahamas in October 2020. After a successful pilot, the Central Bank of the Bahamas launched a [sand dollar](#). The currency is generally accessible (i.e. retail payments are enabled) and unremunerated and there are upper limits on account balances and on transaction size.¹¹ The main motivation in the case of the Bahamas is to improve financial inclusion (the fragmentation of the state into many islands makes the availability of banking services limited). However, it is too early yet to assess the effects of this CBDC.

Conclusion

CBDC is a very topical issue, one that most central banks are addressing at least theoretically. It can be expected to continue to play an important role in both discussions and research. The wide range of potential effects of CBDC on the payment system and macroeconomic conditions offers great opportunities but also entails many risks. A CBDC has been launched in the Bahamas, and the projects in China and Sweden are at an advanced stage. In most countries, however, caution prevails as regards the implementation of CBDC, because there are currently more questions than answers regarding this instrument. Whether and when a CBDC will be adopted in an advanced country remains one of them.

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¹¹ Users may use the CBDC in larger amounts only if they meet stringent identification and documentation requirements.

IV. SELECTED SPEECH: Jens Weidmann: Too close for comfort? The relationship between monetary and fiscal policy

Jens Weidmann, president of the Deutsche Bundesbank, in his [speech](#) at a virtual panel of the Official Monetary and Financial Institutions Forum (OMFIF) in November, reflected on the special relationship between monetary and fiscal policy, in particular the possible risk of fiscal dominance, which the Eurosystem's ongoing monetary policy strategy review will also address.

The problem of time inconsistency, with policymakers deviating from a previously announced course of action, has caused higher inflation in the past and has been resolved by delegating the price stability objective to independent central banks. Although the debate seems to lie far back in time, according to Jens Weidmann the problem is still relevant. Even with independent central banks, monetary and fiscal policy still interact. They cannot ignore each other, but if they get too close, things can become turbulent. This subject has been gaining attention again owing to the extensive measures adopted by monetary and fiscal policymakers to cope with the coronavirus crisis. It is important that monetary policy remains expansionary, as the economic slump is weighing on the inflation outlook and a lack of liquidity might dangerously aggravate the crisis. However, fiscal policy has rightly taken the lead. It has both the legitimacy and the instruments for heavy interventions and, unlike monetary policy, can substitute lost income with transfers.

Monetary policy has been expansionary through low interest rates and large-scale bond purchases. Government bond purchases can be a legitimate and effective monetary policy tool, but they blur the line between fiscal and monetary policy. The problems are particularly pronounced in a monetary union with fiscally autonomous member states. Here, such purchases involve the fundamental risk of mutualising sovereign liability risks through the central banks' balance sheets. Decisions on the redistribution of liability risks should be taken – if at all – by parliaments and governments, not by central banks. Nevertheless, even before the current crisis, the Eurosystem central banks had become the Member States' biggest creditors. For the part of sovereign debt that is on central banks' books, funding costs are decoupled from the capital market. The interest on those bonds flows to central banks, which distribute them back to their treasuries as part of their profit. That weakens the disciplining role of markets. Thus, the incentives for sound budgeting diminish.

The combination of unsound public finances and a persistently highly accommodative monetary policy harbours risks for monetary policy. If cheap money is seen as the normal state, even high debt burdens may appear sustainable to governments. However, the conditions may change. The ability of monetary policy to accommodate high levels of public debt is thus more of a curse than a blessing, as it can lead to political pressures to keep interest rates lower than the rationale of price stability would call for. That would be nothing other than fiscal dominance as described by economist Michael Woodford. According to him, instead of direct assignment of a seigniorage target to the central bank, fiscal dominance manifests itself through pressure on the central bank to use monetary policy to maintain the market value of government debt. If monetary policy gives in, fiscal policy might suddenly be left calling the shots. The impact on inflation might not be felt immediately. If policymakers deviate from the regime of monetary dominance, private agents may expect that they will return to it soon enough to preserve price stability. But over time, if agents become more and more convinced that the deviation is not short-lived, inflation may accelerate. The drift in beliefs might hardly be detectable initially, but can gain momentum later and might appear, to an external observer, to have come out of the blue.

As both economic theory and historical experience show, to safeguard price stability in the long term, monetary policy relies on a sound fiscal policy. A further building block is monetary policy independence. At present, monetary and fiscal policy are working in harmony, but this will not be so forever. Central banks must not lose the ability to do the opposite when necessary, for example when inflation rises. This could occur in the medium term. Central bankers must not ignore the potential inflationary pressures and need to make it clear that monetary policy will not serve fiscal policy. If they create a different impression, they risk jeopardising their independence and credibility. It is also important to keep one's distance. One of the secrets of success of an independent monetary policy is recognising and respecting one's own limitations. That includes a narrow interpretation of one's mandate and keeping the required distance from fiscal policy.

Given large central bank holdings of sovereign bonds and elevated government debt, the monetary-fiscal interaction has become a strategic issue and will be addressed in the Eurosystem's monetary policy strategy review. The outcome of this process cannot be prejudged. However, what is fixed is the primary objective of maintaining price stability in the euro area. The question is how best to fulfil it. At the end of his speech, Weidmann outlined three issues in the ongoing debate: the definition of price stability and policy aim, the implications of possible average inflation targeting, and the issue of measuring inflation. According to Weidmann, those elements of the strategy which have proven their worth in the past should be preserved. These include the medium-term orientation of monetary policy, which helps central banks to take account of risks that may manifest themselves with a considerable lag. At the same time, monetary policy must take financial stability into account by considering its unintended side effects and constantly weighing up benefits and costs.

Issued by:
CZECH NATIONAL BANK
Na Příkopě 28
115 03 Praha 1
Czech Republic

Contact:
COMMUNICATIONS DIVISION
GENERAL SECRETARIAT
Tel.: +420 224 413 112
Fax: +420 224 412 179
www.cnb.cz