

Evaluation of the rationale for the potential introduction of central bank digital currency in Poland

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Narodowy Bank Polski (NBP) has been monitoring the analytical work, research and pilot tests carried out by other central banks on CBDC issuance for retail and high-value payments for four years. Discussions on this issue in various international forums, including the European Union, are also monitored.² Moreover, the functioning of the Polish payment system is analysed in the context of its needs and the challenges it faces. So far, the reasons prompting other central banks to embark on in-depth theoretical analysis and pilot tests on CBDC issuance have not been reflected in Polish conditions.

The use of cash in everyday transactions is still high, even though its share in retail payments shows a downward trend. In 2020,³ 46% of all retail transactions were carried out using cash, compared with 54% in 2019⁴ and 57% at the end of 2018.⁵ Recent legislation has made acceptance of cash obligatory in retail payments⁶ (with only a few exceptions), which guarantees that central bank money will continue to be widely accepted as a payment method.

Additionally, the value of cash in circulation has been increasing for many years, which proves that cash still plays an important role in the Polish economy. The nominal value of cash in circulation (besides banks' cash registers) at the end of December 2020 amounted to PLN 306.7 billion (for comparison, it stood at PLN 203 billion at the end of December 2018 and PLN 224 billion at the end of December 2019), maintaining a high share of cash in circulation in the M1 money supply (20.0%

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² Information on this subject is presented periodically to the NBP Management Board (currently every two months).

³ See Narodowy Bank Polski, *Payment habits in Poland in 2020: Key results of the survey*, a payment habits study carried out by NBP. Selected results are available at:
www.nbp.pl/homen.aspx?f=/en/system_platniczy/Payment-habits-in-Poland.html.

⁴ See POLASIK RESEARCH, *Payment habits of Poles in 2019*, ordered by the Polska Bezgotówkowa Foundation. The main findings of the study are presented in "Special report: cashless Poland", *Miesięcznik Finansowy Bank*, July 2020.

⁵ See POLASIK RESEARCH, *Payment attitudes and the development of card acceptance networks in Poland: Consumer Survey 2018*. Selected results of the survey are available in the article: "Polacy zwolennikami płatności bezgotówkowych" ("Poles are in favour of cashless payments"), www.rp.pl/Finanse/306069931-Polacy-zwolennikami-platnosci-bezgotowkowych.html.

⁶ The new law came into force on 5 November 2021.

at the end of December 2020, 20.1% at the end of December 2018 and 19.4% at the end of December 2019).⁷

NBP does not face problems related to the issuance and management of banknotes and coins, even during periods of high demand, such as at the beginning of 2020 during the first phase of the Covid-19 pandemic. The streamlining measures carried out recently and planned for the near future have been and are aimed at, among others, modernising banknotes and reducing coin production costs and improving the effectiveness of cash management, as well as optimising and standardising the process of banknote and coin circulation and movement across the chain, including ensuring electronic exchange of information according to a uniform standard. In addition, the National Strategy for Cash Circulation Security, prepared by NBP in cooperation with public institutions and authorities as well as market players and adopted by the NBP Management Board in November 2021, will contribute to increasing the security of cash circulation in Poland and to improving its effectiveness in the future.⁸

In addition to the efficient handling of cash, the Polish system of wholesale payments, SORBNET2, in which RTGS (real-time gross settlement) interbank settlement is carried out for payments in zloty, enables an efficient and effective flow of money in the economy. Work planned by NBP for the coming years will modernise the existing solutions (eg by introducing ISO 20022-compliant messages) and enhance the effectiveness of the system. Retail payments in Poland can be handled through four traditional or two instant payment systems (BlueCash and Express Elixir). The latter are steadily gaining in popularity and importance.

Poland also has a relatively high level of financial inclusion; in 2020, 89% of people aged over 18 had a payment account.⁹ From the perspective of place of residence, distribution of account ownership in Poland was at similar levels, proving that lack of physical access to financial services does not directly inhibit financial inclusion. The most commonly cited reasons for not using a bank account were lack of need (81%), preference to keep money in cash (30%), but also the perception that the related costs are too high (21%) as well as lack of trust in financial institutions (18%).

A variety of financial institutions are active on the market: domestic commercial banks (30), cooperative banks (533), branches of credit institutions (34), as well as numerous domestic non-bank service providers (account information service providers, small payment institutions, domestic payment institutions), all of which offer a wide range of financial services and products.¹⁰ Several international challenger banks or fintechs (eg Revolut) also offer their payment services to Polish customers.

⁷ See Narodowy Bank Polski, *Assessment of the Polish payment system functioning in the second half of 2020*, April 2021. The summary is available at: www.nbp.pl/en/system_platniczy/Assessment_summary-2-2020.pdf.

⁸ Preparation of the Strategy was the responsibility of the Cash Council, a consultative and advisory body established by the NBP Management Board. A summary of the Strategy is available (in Polish) at: www.nbp.pl/home.aspx?f=/banknoty_i_monety/rada-ds-obrotu-gotowkowego.html.

⁹ See Narodowy Bank Polski, *Payment habits in Poland in 2020: Key results of the survey*, a payment habits study carried out by NBP. Selected results are available at: www.nbp.pl/homen.aspx?f=/en/system_platniczy/Payment-habits-in-Poland.html.

¹⁰ All numbers as of December 2020.

Due to, among others, competition between the above-mentioned market participants, retail payment systems and schemes operating in Poland are highly innovative and provide a variety of payment options, while customers are quite eager to adopt new instruments. Contactless payments were implemented in Poland in 2009; at the end of 2018 all payment terminals had been adapted to support such payments. According to the data for the first half of 2021, 88.5% of all payment cards issued in Poland were equipped with the contactless function, and 95.8% of all card payments were carried out by this method. Card-based mobile payments were implemented in Poland for the first time in 2012. According to the most recent data, almost 7 million cards have been added to Apple Pay or Google Pay;¹¹ other solutions such as Garmin Pay are also present but less widespread. Several merchants operating in Poland have started to implement their own payment-enabling applications, based on tokenisation of cards (eg ORLEN Pay (2018), Lidl Pay (April 2020) or Żappka Pay (May 2020)).¹² Among non-card-based payment solutions, the most popular scheme is BLIK (launched in 2015), a Polish mobile payments system and payment scheme embedded in banking applications and covered by all major Polish banks. BLIK offers code-based payments online and code and contactless payments in store (contactless addition active since 2021), as well as ATM withdrawals and telephone number-based P2P transactions. In 2019, BLIK transactions became a more popular online payment method in Poland than payment cards. Other non-card-based solutions are available, such as Autopay, mPay or SkyCash, but they focus mainly on market niches, such as city and intercity transport tickets or parking fees. Finally, the “buy now pay later” offer has recently gained presence on the market, both in e-commerce and for in-store purchases. The ecosystem described above ensures that the payment options available are highly differentiated, suit various use cases and are used by customers according to their needs and preferences, with central bank money – cash – still playing an important role within the system.

Analytical work on the concept of CBDC issuance is not as advanced in Poland as it is in other EU countries, such as Sweden. However, the general assumptions regarding the future CBDC system are fully in line with the outcomes of international discussions. NBP views digital currency as a public good. Its issuance should address deficiencies, solve problems or remove failure that is market- or system-based and does not correspond to particular business activity. CBDC should also correspond to the real needs of Polish consumers. So far, no specific social purpose has been identified that the issuance of digital zloty would serve, and neither have cases of possible use of CBDC in situations that have not yet been satisfied by payment service providers in Poland.

CBDC as a digital form of central bank money, accessible to all (like banknotes and coins), could become the central bank’s response to the demands of today’s increasingly digitised world. As people start to change their payment habits and use non-cash instruments much more often than cash as their main means of payment, CBDC could maintain public access and full usability of central bank money, especially when cash usage falls below a certain, critical threshold. Therefore, the direction of

¹¹ See J Uryniuk, *Apple Pay i Google Pay trafiły pod strzechy. Klienci z Polski dodali do tych usług już prawie 7 mln kart*, 9 November 2021, www.cashless.pl/10914-apple-pay-google-pay-liczba-uzytkownikow-3-kw-2021-r.

¹² See Narodowy Bank Polski, *PayTech – innowacyjne rozwiązania płatnicze na rynku polskim*, 2020, a report on innovative payment solutions prepared by NBP, available at PayTech-innovative-payment-solutions.pdf (nbp.pl).

market changes in the country and the international situation require careful monitoring. Further involvement in the concept of CBDC issuance in Poland could also be justified by the development of alternative digital payment instruments, like foreign CBDCs and stablecoins, or by the risk of market monopolisation, especially by “big tech” companies. CBDC could also be launched in Poland as a backup solution to existing retail payment systems to be used in the event of a long-term failure (technical or other).

The potential risks resulting from the introduction of digital currency by NBP should be carefully considered as it is difficult to identify obvious benefits for the introduction of CBDC in Poland at the current stage of development of the Polish payment system. Digital zloty could support cash in playing its important role as a legal tender and a main means of payment for the unbanked or underserved and in the case of elderly people. It is, however, doubtful that it could increase financial inclusion. It is also unlikely that CBDC can compete with other non-cash payment instruments in Poland. There is no clear evidence that the introduction of CBDC will be a more efficient and cheaper solution than the current ones (eg with respect to the time and cost of settling payments and securities). This refers to wholesale but also to retail payment systems.

Depending on design and adoption, CBDC could have broad effects on the financial market. It should be expected that widely available digital currency (especially interest-bearing CBDC) would provide an alternative to commercial bank deposits. It would therefore affect the size of the deposit base in the banking sector, which is the main source of acquiring cheap and stable funds to finance lending activities. The issuance of a publicly available CBDC would lead to increased operating costs for commercial banks. Large-scale use of such a CBDC could result in structural change in the financial intermediation model by infringing the two-tier banking system. The introduction of a publicly available and interest-bearing CBDC would also bring about significant changes in liquidity and activity in the interbank market. The issuance of CBDC could lead to higher short-term money market interest rates. Moreover, in the case of financial market tensions, even a non-interest bearing CBDC, as a risk-free store of value, could pose a threat to financial stability. Should confidence in the banking sector decline, one would expect a rapid and large-scale transfer of deposits from commercial banks towards CBDC. This could threaten the functioning of individual banks and even the entire traditional banking system. As a consequence, it could become necessary for the central bank to grant refinancing loans to some banks.

CBDC could pose many challenges in terms of governance and the smooth functioning of a retail payment system operated by the central bank; new risks could emerge (eg to reputation) or some existing risks could significantly increase (cyber security). Due to the role to be played by the CBDC and the importance of the issuer as an institution of the highest public trust, the CBDC system must be designed with special care, maintaining safety standards and involving all stakeholders. The system introduced must operate effectively. Its introduction will be preceded by assessment of the benefits and costs of using digital currency in the context of the achievable balance between competitiveness, innovation, security and privacy. Once a positive decision is taken, the creation of a legal foundation for its issuance by the central bank will be required. It is necessary to exclude full anonymity in a future CBDC system for reasons of security as well as prevention of tax evasion, money laundering and terrorist financing. If introduced, CBDC will most likely be distributed through a public-private partnership. It is assumed that the central bank would provide the

critical infrastructure of the CBDC system, while the private sector would support further development of the system by offering innovative user-friendly payment solutions. This model makes it possible to preserve the two-tier banking system and the role of commercial banks as the main financial intermediaries in the economy. In order to achieve an easy flow of funds to and from other payment systems and arrangements, the CBDC system would need to be domestically interoperable. It would thus contribute to broader accessibility, resilience and increased payments diversity.

Widely available CBDC would be introduced in Poland as a payment instrument additional to banknotes and coins, not with the aim of replacing them, but as an alternative to existing cashless payment methods. The activities NBP has undertaken so far are aimed at making it possible for the consumer to decide on the form of payment, ie based on available options to indicate the form of payment preferred (taking into account, among others, habits, costs incurred, convenience, speed, trust). It should be clearly indicated that the introduction of innovative payment solutions, especially with the status of legal tender as in the case of CBDC, must not lead to an increase in the financial (and technological) exclusion of certain social groups (mainly the elderly or persons with various disabilities). NBP's aim is and should be to ensure conditions for the undisturbed use of central bank money (cash, and in the future maybe also the CBDC), while creating legal guarantees of its common acceptability.

NBP takes a prudent approach to the possibility of introducing digital zloty and does not currently choose to issue it, in the absence of any convincing justification. Prior to making a decision to embark on issuing a CBDC, NBP would need to assess the value of opportunities to further pursue its objectives, balanced against any risks. NBP's current position regarding the issuance of digital zloty may be modified if factors justifying such a change arise. NBP will closely monitor domestic and international developments in order to be ready to take action when required.