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VIRTUAL ASSETS AND MONETARY POLICY

ABSTRACT

The emergence and spread of virtual assets worldwide are at the center of many researchers' attention. Virtual assets began to be used for settlement, capital accumulation, and speculative income, which creates competition with state fiat money, to the state monopoly of the central bank on money issuance and potentially rise a threat to financial stability.

The purpose of the article is to assess the current state and development potential of both state and non-state virtual assets, their role in money circulation, and the potential impact on the monetary and credit system of Ukraine in the context of the possible launch of the central bank digital currency - the e-hryvnia.

The article presents the main forms of virtual assets and defines their characteristics, evaluates the possibility of their usage for settlements, and the potential for partial or complete replacement of fiat money in cash or non-cash forms.

It is proven that nowadays the main restraining factor for the acquisition of money functions by virtual assets are the insufficient prevalence of technological means for carrying out transactions, the high volatility of their prices, and legislative limits. It is determined that technically some retail virtual assets can acquire all money qualities and conceptually differ only in the issuer and the system of centralization: public or private issuer, centralized or decentralized system.

Furthermore, it has been proven that the introduction of the e-hryvnia into circulation as a monetary policy tool with interest accrual would significantly strengthen the interest channel of monetary transmission, contribute to the achievement of central bank targets, and hence to non-inflationary monetization of the economic growth. At the same time, the introduction of the third form of money would probably give rise to new risks, which are proposed to be mitigated by proper parameterization of the new form of money.

Keywords: cryptocurrency, stablecoin, central bank digital currency, virtual assets, monetary policy, money in circulation, financial inclusion, monetization of the economy

JEL Classification: E42, E51, E52, E58

INTRODUCTION

The development of informational technologies is accompanied by a synergistic synthesis of interdisciplinary concepts and, hence, the emergence of new forms of them. In 2009, a distributed database was emerged, which was named blockchain, and along with it, the world's first cryptocurrency – bitcoin, which can be characterized as a private decentralized digital asset, which essentially was planned to use for performing settlements between economic agents. After the first cryptocurrency started circulating worldwide, similar to Bitcoin categories – altcoins – began to emerge, offering more effective solutions in some aspects. The constantly growing demand for virtual assets from private individuals and businesses and, in some aspects, the potential benefits of blockchain technology for society, along with the presence of numerous risks from the further spread of virtual assets, motivated the governments in some countries and monetary authorities as central banks to start studying the possibility of issuing their own virtual money – central bank digital currency (hereinafter – CBDC), whether on blockchain technology or within alternative technological solutions.

Virtual assets, centralized or decentralized, and particularly cryptocurrencies, can potentially expand financial inclusion, especially in developing countries; reduce transactional costs for consumers and expenses on cash issued by the central bank; increase the efficiency of settlements; contribute to the increase of the monetization of the economy; strengthen the monetary transmission mechanism. At the same time, the usage of virtual assets carries certain risks both for the state's financial stability and for the central bank's mandate. It is expected that the issuance of CBDC and the proper regulation of other non-state virtual assets can generate a sustainable positive impact on economic development. However, the definition of the launch model aspects and the specifics of CBDC functions, as well as the regulation of other non-state-issued virtual assets require further research.

LITERATURE REVIEW

Lots of research performed by Ukrainian and foreign scientists have been devoted to the study of various aspects of the functioning and regulation of both private non-state virtual assets and CBDC.

Merinova S. and Polovenko L. study the functional role of cryptocurrency as a type of virtual assets in the digital economy and evaluate their development prospects, legal status, and risks inherent in their functioning. The research concluded that some countries legalize the possession of cryptocurrencies and give them the status of a means of payment, while other countries prohibit such settlements. The authors emphasize that currently there is no general understanding regarding the further strategy for the development of cryptocurrencies in the world [1].

Arzhevitin S. investigates the monetary aspects of digital currencies' usage, outlining the problems of an absence of regulation on the circulation of virtual assets, the uncertainty of their effect on the money velocity, and the difficulty of assessing the impact of virtual assets on inflationary processes in the medium and long-term perspectives [2].

The study of the prospects of CBDC issuance as a new form of central bank money, the model of its functions, and their potential impact on monetary policy was carried out by V. Kochergin and A. Yangirova, who came to the conclusion that in the case of both existences of cash and CBDC, the central bank would be able to strengthen monetary transmission mechanism and increase the centralization of assets on the balance sheet of the central bank, what simultaneously reduce the amount of credit institutions funding [3].

Bindseil U. examines the possible benefits and risks of CBDC implementation with accessibility to the country's population, where the focus lay down on assessing the risk of structural separation of banks and the centralization of the credit distribution process in the central bank, as well as systemic risk for banks in crisis situations. The author cites the implementation of a two-level system for digital currency as the main measure to limit the risks of CBDC implementation [4]. At the same time, the author compares the implications of CBDC for a financial account with crypto-assets, stablecoins, and digital money in a domestic and international context.

A complex overview of the technical aspects of CBDC functioning is studied by Auer R. and Bohme R., who emphasized the need to start pilot projects before the launch of CBDC for an empirical understanding of the advantages and disadvantages of individual models of their functioning [5]. Completion of the pilot projects, according to the researchers, would form a further basis for discussions on the necessity and technological features of CBDC issuance.

Soderberg G. et al., studying the experience of central banks that launched CBDC pilot projects in some countries, concluded that depending on the environment, jurisdiction, and goals of CBDC implementation, approaches to their implementation should differ. At the same time, according to researchers, the common thing is that central banks are looking for a balance between preserving key aspects of the traditional monetary and financial system and, at the same time, renewing the role of central banks in the digital era [6].

Prospects for the implementation of CBDC without a significant level of decentralization while preserving all its advantages are studied by the example of the PRC in a study by Lee, D. K. C., Yan L., and Wang Y., where a separate implementation model built on a two-level or multi-level model is proposed and ten measures and incentives are defined for successful and mass adoption of CBDC. The authors conclude that CBDC will become the main tool for the development of the future digital economy and propose to classify it as a monetary aggregate M0.5 [7].

A review of the CBDC pilot project in the PRC was additionally carried out by Samek M. and Vlasta M., where the research is aimed at deepening the understanding of legal policy in China in the context of virtual assets and the launch of digital yuan [8].

Adrian T. and Mancini-Griffoli T. identify the benefits and risks and highlight the regulatory challenges that may arise with the wider adoption of stablecoins. The article additionally highlights the risks associated with digital money: the potential

creation of new non-state money-issuing monopolies; threats to weaker non-hard currencies; concerns about the protection of citizens and the financial stability of the state; and the risk of facilitating illegal activity [9].

The study conducted by Norta A., Leiding B. and Lane A., presented a system of international transfers based on the blockchain, which, according to the authors, would allow reducing the barriers to financial accessibility and facilitate the obtaining of financial services by persons who nowadays do not have access to banking services [10].

Giudici P., Leach T. and Pagnottoni P. in an empirical study cite the advantages of a stablecoin, the value of which is determined on the basis of a basket of base currencies over a stablecoin whose value is determined to the value of a single base currency, such as the dollar [11].

At the same time, Grobys K., Junttila J., Kolari J.W. and Sapkota N. investigate the volatility processes of stablecoins and their potential stochastic interdependencies with the volatility of bitcoins [12]. In the paper, the authors of the study conclude that the volatility of Bitcoin is a fundamental factor that drives the volatility of stablecoins.

On the other hand, G. Baur D. and T. Hoang L., on the contrary, draw attention to the fact that given the extreme volatility of Bitcoin, investors may need a reliable and less volatile alternative, such as stablecoins [13]. The results show that Bitcoin investors look for stablecoins when Bitcoin experiences extreme negative price swings. Because stablecoins react to such price changes, they are not always stable.

Most of the research carried out on a certain topic related to technical aspects of the functioning of virtual assets, description of pilot projects in regard of launched by central banks CBDC, or disclosure of the general concept of virtual assets, including cryptocurrencies and stablecoins, whereas the monetary aspects of the use of virtual assets in the context of the potential launch of CBDC and the liberalization of the use of other non-state virtual assets, taking into account their possible impact on the paradigm shift of monetary circulation and the functioning of the financial system, require further research. In addition, the dynamic development of information technologies requires an update on the state of research and the possibility of issuing CBDC into circulation by central banks worldwide.

AIMS AND OBJECTIVES

The purpose of the study is to assess the current general state of the virtual assets market and particularly, the development of CBDC, their role in the development of the digital economy, and the impact on the monetary system of Ukraine in the context of the process of monetization of the economy and the fulfilment of the main central bank goals.

METHODS

Conducting the research required the usage of a set of scientific methods: a comparative analysis – for comparison of different types of virtual assets and central banks' approach to CBDC research and development; graphic – for visualization of key findings; abstract-logical – for building-up scenarios on interest rate channel elasticity in monetary transmission mechanism with and without CBDC for Ukraine.

RESULTS

The extensive process of digitization and the relentless development of the digital economy, which intensified in the late 20th and early 21st centuries, required the development of a financial infrastructure capable of meeting the growing consumers' financial services demand. Commercial banks began to implement remote channels with Internet banking integration, and then mobile banking, which contributed to the development of a cashless economy, where cash payments in retail networks began to be replaced cashless payments using bank cards.

The gradual digitization of financial services made possible a reduction in the cost of banking products, which in turn, contributed to increasing the level of financial inclusion and monetization of the economy, primarily in developing countries, in particular Ukraine [14]. At the same time, along with the development of information technologies, digital money in the narrow sense, or virtual assets in the broad sense, appeared. According to Ukrainian legislation, a virtual asset is an intangible good that is the object of civil rights, has a value, and is expressed by a set of data in digital form [15].

Currently, in world practice, there are present non-state issued digital money, the value of which is tied to fiat currencies; digital assets on a decentralized system, i.e. cryptocurrencies, primarily bitcoin and other altcoins (alternative to bitcoin cryptocurrencies); digital assets on a centralized non-state system – stablecoins; government digital assets on a centralized

or decentralized basis – central bank digital currencies – CBDC. Part of such virtual assets that are not issued by the state, although they can formally be used as money, have significant restrictions in most countries. In particular, in Ukraine, it is assumed that a virtual asset, such as a cryptocurrency or a stablecoin, cannot act as a legal means of payment and be an alternative to money, and, accordingly, be used in settlements between economic agents [15].

In contrast, it is assumed that government-issued virtual assets – digital currencies of central banks – can be used in parallel with other forms of fiat money in settlements, be a measure of value, since the value of a unit of CBDC corresponds to the value of a unit of fiat currency as 1 to 1, and act as a means of accumulation, and therefore meet all the characteristics of nowadays money.

Despite the existence of the above-mentioned money in digital forms, which in some aspects are partially or fully introduced in some regions and are used in settlements to one degree or another, traditional fiat money remains dominant for all economic agents. This is additionally confirmed by the fact that the value of stablecoins is tied to the nominal value of world reserve fiat currencies, such as Tether, or USDT, which is positioned as a stablecoin that corresponds to the value of the US dollar as 1 to 1 [16]. The value of Bitcoin, which is the most capitalized cryptocurrency in the world, is foremost linked to the US dollar in countless trading platforms [17]. The value of CBDC, which is either at the stage of a pilot project or launched in some countries, is equal to the denomination of fiat currencies in the respective countries. Therefore, we adhere to the opinion that until non-state digital assets acquire a full-fledged function of a measure of value, separated from other fiat currencies, their role in the global and local financial systems will remain insignificant, and will be used to a greater extent in satisfaction of the highly speculative demand of economic agents for receiving income from revaluation asset over time; additionally, they will be used as a tool for cross-border money transfers and for payment of goods and services in the shadow sector of the economy along with supporting money laundering activity.

Another function of money – a medium of exchange – cannot be covered through non-state digital assets, because the payment infrastructure for this type of asset is not widespread, which means that the general acceptability of such virtual assets remains in question. Settlements between counterparties take place through the transfer of virtual assets between the personal wallets of private individuals. In contrast, such usage by legal entities requires the implementation of changes in legislation, regulation, reporting approaches, and settlement infrastructure setup. Hence, this makes settlements between legal entities or between private individuals and legal entities using non-state-issued virtual assets unrealizable without the above-mentioned measures.

Nevertheless, the potential for acquiring all the functions of money in some digital assets exists, although it will require significant technological progress and the expansion of digitization, because the main barrier to their spread and wide usage, in our opinion, is the limited spread of technological means for settlements. Thus, according to the taxonomy of modern money, retail cryptocurrencies as digital assets can meet such characteristics as general acceptability and the possibility of direct settlements, meant peer-to-peer money transfers, between two economic agents [20]. In turn, the difference between retail cryptocurrencies and retail CBDC according to the taxonomy lies only in the issuer: in the first case, it can be a private decentralized or centralized emission model, while in the case of retail CBDC, the issuer will always be either a central bank or a structure authorized by the central bank.

By definition, wholesale CBDC is similar to modern central bank reserves and correspondent accounts in that they are designed to settle large interbank payments or provide central bank money to settle digital tokenized financial asset settlements in new infrastructures [18].

After conducting pilot projects by the Bank of France, wholesale payments between financial institutions and clearing have been identified as the most effective way to use the central bank's wholesale digital currency. According to researchers, the release of CBDC can facilitate faster, cheaper, more transparent cross-border payments, suggesting that central banks can effectively cooperate in this matter to increase their inclusion in the global financial system [19]. In our opinion, such a form of money, which is not available to the public, would not play a significant role in the performance of the main functions of the central bank, but rather simplify some operational aspects in their functioning.

The motive for a CBDC launch varies depending on the level of development of an individual country – what is important for developing countries is less relevant for developed countries. Generally, the purpose of the launch of retail CBDCs in developed countries is mainly to improve the efficiency of domestic payments, strengthen the security of payments and ensure financial stability. In addition, it should be added that the emergence of stablecoins and other cryptocurrencies has accelerated central banks' research and development of retail CBDC in developed countries. Domestic payments efficiency, payments security, and financial stability are additional important factors defined by central banks for retail CBDC in developing countries. However, their focus on CBDC is primarily driven by the opportunity to enhance financial inclusion. In addition, compared to developed countries, developing countries highlight the conduction of monetary policy through

CBDC as a reason for conducting research or developing CBDC. Another difference between developed and developing countries on this matter is that over the past two years, the efficiency of cross-border payments has become a more important motive for working on retail CBDCs in developing countries, rather the influence of this aspect decreased in developed countries. In turn, the most important driver for the development of wholesale CBDC is the possibility of strengthening cooperation between central banks in making cross-border payments between countries in different currencies [21].

Assessing the dynamics of CBDC development, it should be noted that work on the first digital currencies of central banks began in 2014, and subsequently, attention to CBDC grew. The retail type of CBDC among other models remained a priority for central banks (Fig. 1). As of April 2022, 87 countries, which account for more than 90% of global GDP, were conducting research on CBDC implementation [22].

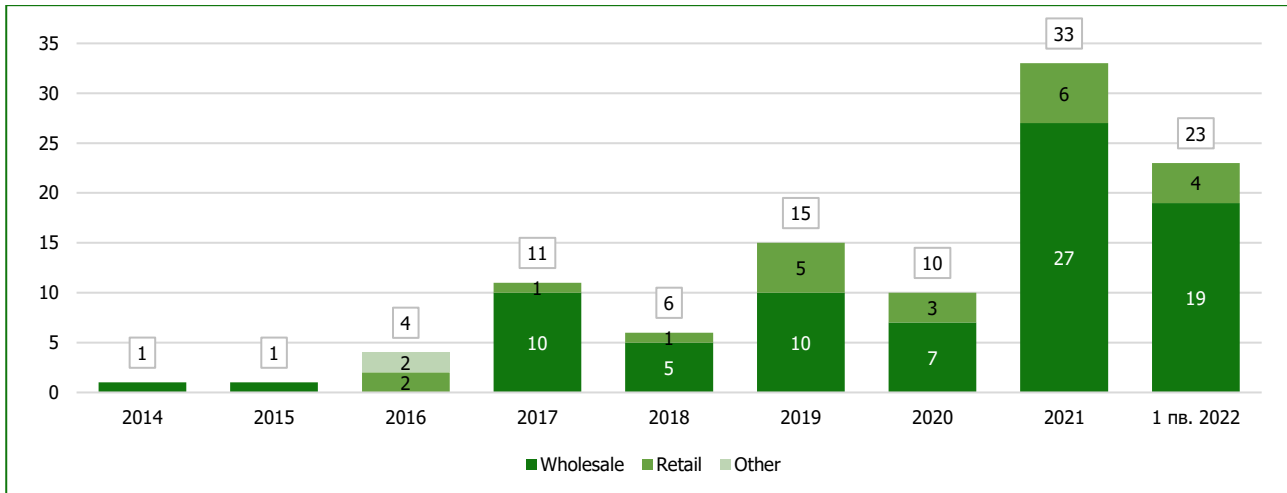


Figure 1. The dynamics of the emergence of new CBDC projects in terms of the usage model for 2014 - the first half of 2022. (Source: [23])

However, as of mid-2022, despite the increase in CBDC research, most of them were in the initial study stage, while 16 central banks have entered the proof of concept stage, and 15 central banks have launched pilot projects. In addition, 7 central banks refused to launch CBDC into circulation after conducting pilot projects or research (Fig. 2). Depending on the level of development of the financial system and the technological development stage of countries, the reasons for CBDC refusal differ: according to the central bank of Denmark, the launch of CBDC can negatively affect the financial sector, because CBDC would create a competition to commercial banks, what then can reduce the effectiveness of the monetary credit channel; while for the Philippines, the launch of CBDC is considered impossible due to the high dependence of the population on cash and the insufficient spread of technology in the country [23].

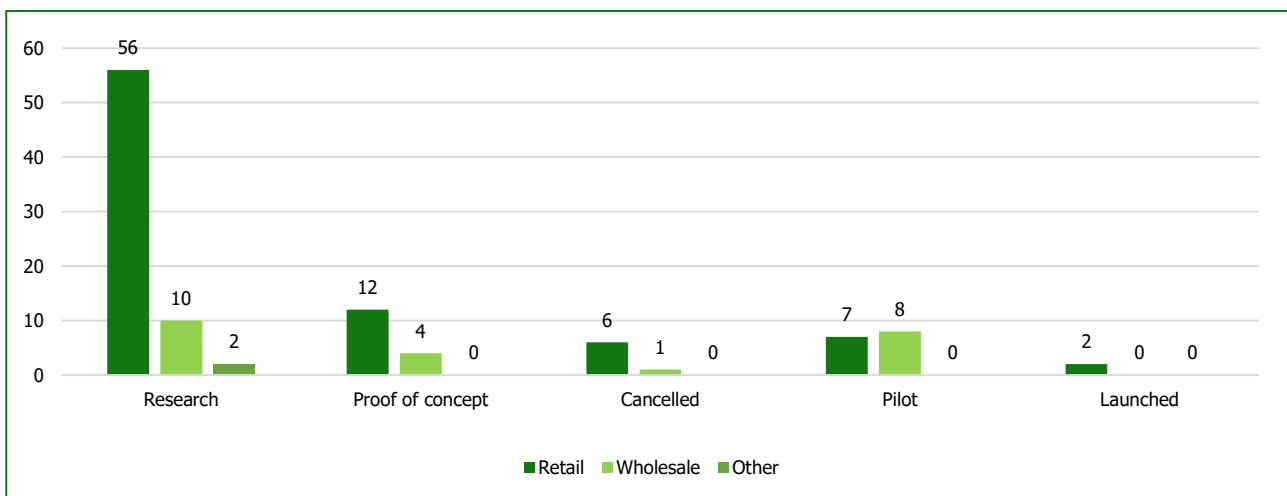


Figure 2. Status of CBDC projects by development stage as of mid-2022. (Source: [23])

The National Bank of Ukraine classifies the national CBDC as a third form of national fiat money alongside the cash and non-cash hryvnia, so it should potentially be converted between other forms of money without restrictions. Thus, theoretically, the maximum amount of e-hryvnia issuance cannot be greater than the monetary aggregate M1 [26, p.28].

Launching the e-hryvnia into wide circulation and using it as a monetary policy tool, in our opinion, would make it possible to strengthen the monetary transmission mechanism by setting interest rates for such forms of money. Nonetheless, the NBU emphasizes that it sees the use of CBDC "as an alternative means (instrument) for making instant payments for small amounts by individuals" and notes that "the e-hryvnia is not an income instrument, therefore, it is a means of payment, not accumulation." [27, p.6]. In contrast, we see that the use of Ukrainian CBDC is exclusively on the terms outlined by the NBU, and would not significantly differ from the use of current accounts by individuals and legal entities in banks, and hence the benefits of its launch is questionable.

In addition, the launch of the e-hryvnia would have a rather limited effect on the financial inclusion of private individuals' increase in Ukraine, which the NBU considers as one of the main goals for the CBDC launch because in order to open a wallet and be able to conduct settlements and payments in the e-hryvnia, one must foremost have access to the Internet and a technical device, such as a smartphone. At the same time, in our opinion, the presence of the Internet and a respective technical device does not limit individuals from opening an account in a convenient commercial bank and then use the non-cash hryvnia, while the absence of such a device or limited access to the Internet is an obstacle both for opening an e-hryvnia wallet and an account in a commercial bank. Therefore, the solution to the problem of expanding financial inclusion is on a different plane, and the launch of CBDC would have a limited effect on its expansion in Ukrainian realities.

Returning to the impact of the national retail CBDC on monetary policy, foremost it should be noted that the effect on the implementation of monetary policy would depend on the share of the e-hryvnia in the structure of the money supply, and therefore in circulation. The greater the share of CBDC, the more elastic the interest rate channel of the monetary transmission mechanism would be, considering that the level of return for CBDC holders would directly rely on the level of the key policy rate. As it is assumed that the change in the key policy rate would contribute to the increase in the elasticity of market interest rates on deposits and loans in the presence of CBDC in circulation, the profitability of which based on our assessment shall respectively depend on the key policy rate.

Our study carries out a scenario analysis of changes in the interest rate environment in Ukraine based on hypothetical data in a 12-month horizon. The estimated dynamics of rates corresponds to the main characteristics of the Ukrainian financial sector in the absence of significant changes and turbulence in the market and can be described as follows:

- the NBU key policy rate, which in the scenarios varies between 6% and 10% inclusive;
- the corridor of interest rates under standard facilities, determined at the level of the key policy rate ± 1 pp, where the passive operations of the NBU to sterilize the money supply correspond to the lower limit, and the active operations of the NBU to expand the money supply through the credit channel correspond to the upper limit;
- average market rate on household deposits;
- average market rate on loans to enterprises;
- there is no cash yield, i.e. which corresponds to 0%;
- the concept of CBDC with profitability at the level of the key policy rate minus 3 p.p. was determined and proposed by the authors (which is 30-50% lower than the key policy rate, depending on its level).

According to our assessment, the transition to a tighter monetary policy by the NBU appears primarily by raising the key policy rate. Thus, in conditions of a liquidity surplus, banks would have the opportunity to place their high-liquid assets in the local currency in the monetary form at a modified (higher) interest rate, and in conditions of a liquidity deficit, current and new refinancing loans received to become more expensive, where interest for banks is charged at a modified (higher) interest rate. As a result, banks begin to gradually raise interest rates on deposits in order to obtain additional liquidity for placing it on NBU deposit certificates in conditions of liquidity surplus and primarily to raise interest rates on loans to compensate for their higher interest expenses in conditions of liquidity deficit.

At the same time, in the current paradigm of managing the interest rate environment, the pace of rate growth is limited, which is related to insufficient elasticity of interest rates due to limited competition against the background of a large concentration of state-owned banks. Thus, from 9 to 18 months should pass from the moment of the change in the key policy rate to the achievement of the goal set by the NBU [28, p.2] (Fig. 4.a).

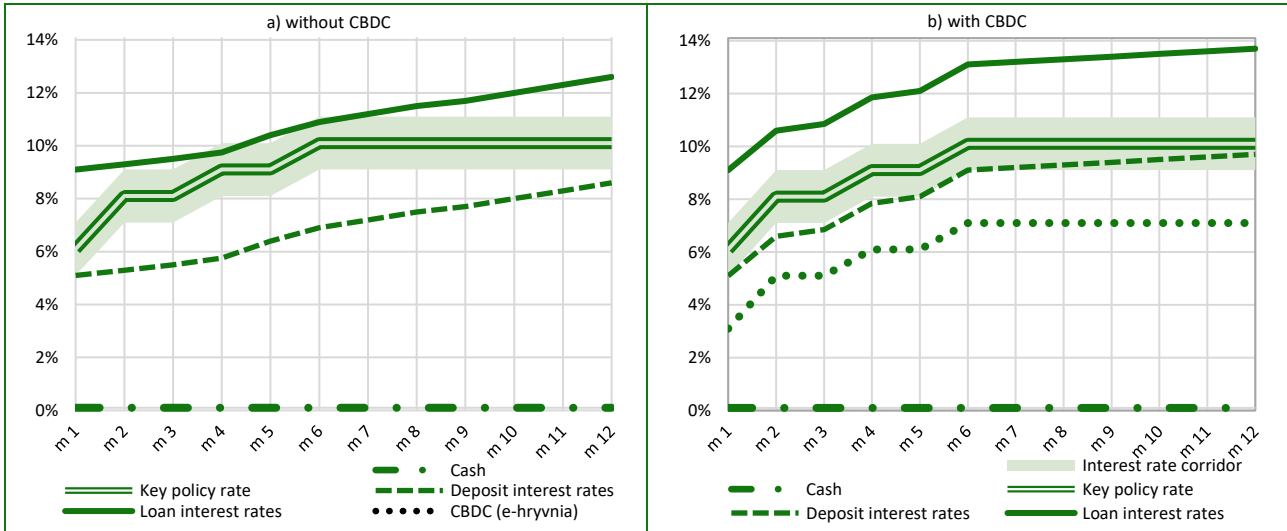


Figure 4. Interest rate environment during the transition to the tight monetary policy including and excluding CBDC in conditions of excess liquidity. (Source: [28, p.2])

Currently, in our opinion, the emergence of an instrument in the form of a CBDC, which would have a sufficient level of impact on the money market due to its high prevalence, and would be directly regulated by the central bank, would be able to significantly speed up the interest rate channel of the monetary transmission mechanism. Thus, by adding to the financial system the e-hryvnia with a predetermined yield, which changes simultaneously with the change in the NBU key policy rate and the interest rate corridor on standard facilities, the reaction of banks to changes in their rates is expected to be much faster. This is expected due to the emergence of competition between banks and the CBDC of the NBU because economic agents who would have the opportunity to freely transform their savings from current accounts into e-hryvnia would do so in order to maximize interest income under the same liquidity conditions. At the same time, the increase in the bank's expenses on liabilities would stimulate a faster revision of interest rates on loans, which would significantly speed up the achievement of the goal set by the NBU (Fig. 4.b).

Easing monetary policy by lowering the NBU key policy rate, on the one hand, leads to a decrease in banks' interest income from the allocation of highly liquid assets in the local currency in monetary form to NBU deposit certificates in conditions of NBU liquidity surplus, and on the other hand, to a reduction in interest expenses from previously received and new refinancing loans in conditions of liquidity deficit. Accordingly, banks primarily react by lowering interest rates on deposits to reduce the price of their liabilities, while market factors put pressure on banks and lead to the need for lower interest rates on loans (Fig. 5.a).

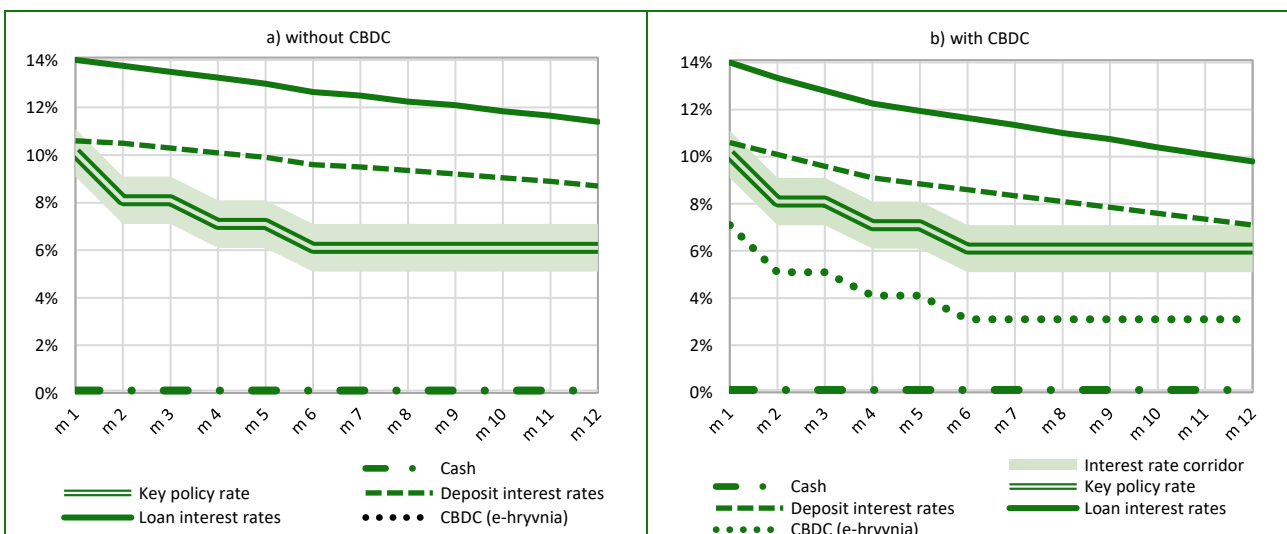


Figure 5. Interest rate environment during the transition to the soft monetary policy including and excluding CBDC under conditions of liquidity shortage. (Source: [28, p.2])

DISCUSSION AND CONCLUSION

In the conditions where the CBDC would exist with the yield tied to the key policy rate, we expect that economic agents would transform savings in the form of e-hryvnia into on-demand accounts with banks to preserve higher interest income, which, against the background of banks' expectations of a decrease in loan yields, would stimulate a faster review of deposit rates. At the same time, a faster decrease in the price of liabilities for banks would allow strengthening of the price competition factors in lending activities, which would generally lead to a faster reduction in the price of loans. Therefore, this would once again contribute to the acceleration of the achievement of the goal set by the NBU (Fig. 5.b).

Despite the benefits to the monetary transmission mechanism under managing monetary policy through a CBDC, the risks to the financial system of launching central bank digital currency into circulation should be assessed. Such risks include the gradual flow of deposits from banks to the CBDC as a more reliable form of money in possible conditions of considerable uncertainty against the backdrop of falling trust in the banking system; reduction of the secondary money issue through the banking system through money multiplication in case of a significant predominance of e-hryvnia over deposits in banks, what would eventually lead to a substantial decrease in the monetization of the economy; the ineffectiveness of CBDC as a monetary policy tool in a negative interest rate environment.

However, the above-mentioned risks can be limited or controlled through additional parameterization of the e-hryvnia. Thus, the conversion of deposits in commercial banks to the CBDC, although it turns out to be probable, remains possible in the traditional monetary system, where the role of the most reliable institution, following the example of the CBDC and the NBU, can be given to a state-owned bank. Taking a full-scale military aggression of Russia against Ukraine as an example, such a flow can be observed during the first months of the war [29]. At the same time, the volume of such spillover remained moderate, which suggests that the realization of the above-mentioned risk remains controlled.

At the same time, the risk of displacing a part of the M1 monetary aggregate (excluding M0) by e-hryvnia remains possible and therefore needs to be limited through the parameterization of the e-hryvnia. Taking into account that the main reason for the flow of on-demand deposits in commercial banks to the CBDC placed with the NBU may be the accrual of higher interest income, such risk can be limited by applying a maximum amount per person or group of persons, on which interest income would be accrued, i.e. interest-bearing amount limit. In addition, by changing only this amount, the NBU would be able to regulate the amount of e-hryvnia as a share of the money supply without changing the key policy rate, stimulating the migration of money between different forms depending on the particular goals of monetary policy at a certain time.

Risks associated with the lack of effectiveness of the CBDC as a monetary policy tool in the environment of negative interest rates do exist, but to a greater extent, in developed countries, while in Ukraine, in the long term perspective, the NBU defines a neutral interest rate at the level of 6%, which provides a significant margin for maneuver in case of the need to soften the monetary policy before entering the environment of negative interest rates. In addition, under the need to transition to a negative interest rate environment, parameterization of the e-hryvnia, namely setting the maximum amount of CBDC per person or group of persons, where the interests would not be charged remain possible.

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ВІРТУАЛЬНІ АКТИВИ ТА МОНЕТАРНА ПОЛІТИКА

Виникнення та поширення віртуальних активів у світі перебуває в центрі уваги дослідників. Віртуальні активи почали використовувати для здійснення розрахунків, накопичення капіталу та отримання спекулятивного доходу, що створює конкуренцію державним фіатним грошам, державній монополії центрального банку на випуск грошей і формує загрозу фінансовій стабільності.

Метою статті є оцінка поточного стану та потенціалу розвитку й державних, і недержавних віртуальних активів, їхньої ролі в грошовому обігу та потенційного впливу на грошово-кредитну систему України в контексті можливого введення в обіг цифрової валюти центрального банку – е-гривні.

У статті названі основні форми віртуальних активів та визначено основні їхні характеристики, оцінено можливість їх використання в розрахунках та потенціал для часткової або повної заміни фіатних грошей у готівковій або безготівковій формі.

Доведено, що на сьогодні основними стримуючим фактором для набуття деякими віртуальними активами функцій грошей є недостатнє поширення технологічних засобів для здійснення транзакцій із такими активами, висока волатильність цін на них та юридичні обмеження в правовому полі. Визначено, що технічно деякі роздрібні віртуальні активи можуть набувати всіх характеристик фіатних грошей і концептуально відрізнятимуться лише емітентом і системою централізації: державний або приватний емітент, централізована або децентралізована система.

Установлено, що введення в обіг е-гривні як інструмента монетарної політики з нарахуванням процентів значно посилить процентний канал монетарної трансмісії та сприятиме досягненню визначених центральним банком цілей і зростанню неінфляційної монетизації економіки. Водночас уведення в обіг третьої форми грошей, імовірно, породило б нові ризики, які пропонується знизити за допомогою належної параметризації нової форми грошей.

Ключові слова: криптовалюта, стейблкоін, цифрова валюта центрального банку, віртуальні активи, монетарна політика, грошовий обіг, фінансова інклюзія, монетизація економіки

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