DEVELOPMENT OF CENTRAL BANK DIGITAL CURRENCIES: PROSPECTS AND CHALLENGES

Apsilyam N.M.,
Tashkent State University of Economics
n.apsilyam@tsue.uz
Yakhshiboyev R.E.
Associate professor, Tashkent State University of Economics
r.yaxshiboyev@tsue.uz

Abstract - this article explores the development of Central Bank Digital Currencies - (CBDCs), highlighting their key prospects and the challenges they pose to the global financial system. The paper begins by defining the significance of CBDCs as a new tool in financial policy and emphasizes the relevance of this topic in light of global changes, such as the digitalization of the economy and the growing use of cryptocurrencies. The section on prospects details the potential benefits for national economies, such as improving the efficiency of money transfers, enhancing financial inclusivity, and simplifying monetary mass regulation.

Additionally, the article examines the impact of CBDCs on financial stability and monetary policy, analyzing how the digitalization of currencies may affect inflation control and reduce transaction costs. However, alongside optimistic expectations, the paper addresses the serious challenges associated with the implementation of CBDCs. In particular, the risks of cyber threats, data security, and user privacy concerns are discussed. A critical issue is the effect of CBDCs on traditional banking structures, where the integration of new currency mechanisms into existing financial systems presents challenges.

The conclusion emphasizes the need for a comprehensive approach to the development and implementation of central bank digital currencies. It is expected that, considering all risks and advantages, CBDCs could play a significant role in the future financial world, contributing to the modernization of the global financial infrastructure and enhancing economic stability.

Introduction

Central Bank Digital Currencies (CBDCs) are one of the most promising and debated elements of the modern financial system. In the context of global digitalization of the economy and the growing popularity of cryptocurrencies, central banks worldwide are considering issuing their own digital currencies, which could function as an official payment instrument. These currencies, created and regulated by government bodies, offer several advantages, including the enhancement of payment system efficiency, improved accessibility to financial services, and the possibility of stricter control over the money supply.

One of the reasons for the interest in digital currencies is the desire of states to adapt to technological changes and the need to ensure security, transparency, and resilience in financial operations amid the rising number of cyber threats and financial crimes. CBDCs could become a crucial tool for more efficient monetary circulation, reducing transaction costs, and improving access to financial services for a broad segment of the population, including groups that traditionally lacked access to banking services.

At the same time, the implementation of central bank digital currencies comes with significant challenges. Apart from technical issues related to security, critical concerns include data protection, user privacy, and the potential impact on existing financial institutions and the banking system as a whole. The uncertainty surrounding regulation, the lack of a unified approach

at the international level, and concerns about the effect of CBDCs on traditional monetary mechanisms require thorough and comprehensive analysis.

This article aims to explore the prospects of CBDC development, examine their benefits for the economy and the financial system, and identify the key risks and challenges that may arise during their implementation. The paper will analyze both the positive and negative aspects associated with the introduction of CBDCs, providing an assessment of their potential impact on the future of global financial infrastructure and the economy at large.

Prospects for the Development of Central Bank Digital Currencies (CBDCs)

The development of Central Bank Digital Currencies (CBDCs) opens new horizons for the global economy and financial systems. While traditional currencies maintain their role in monetary circulation, CBDCs are poised to become an essential tool in the modernization of financial mechanisms at both the national and global levels. The prospects of these digital currencies can be viewed through the lens of multiple factors that could significantly alter current financial landscapes, improve the efficiency of monetary operations, and enhance the accessibility of financial services.

Benefits for National Economies. Central Bank Digital Currencies have the potential to provide substantial benefits for national economies, particularly in the context of globalization and the rapid development of digital technologies. One of the most notable advantages is the ability to accelerate payment processes. CBDCs can offer faster, cheaper, and more efficient transactions both domestically and internationally, reducing costs for businesses and contributing to a more favorable business climate.

Digitalizing the money supply also allows central banks to monitor monetary flows and inflation levels more accurately. CBDCs could become a tool for more precise regulation of money supply and, in turn, ensure financial stability, which is especially important during economic crises. Furthermore, digital currencies will reduce dependence on physical cash circulation, leading to lower costs associated with the production, transportation, and storage of cash.

Another crucial benefit is the ability to minimize the shadow economy. The use of CBDCs would improve oversight of financial flows, making illegal transactions more difficult and reducing the potential for money laundering. This would also enhance the trust in the national currency as a stable and reliable payment instrument.

Impact on Financial Systems and Monetary Policy. Central Bank Digital Currencies could significantly change the structure and functioning of national financial systems. First and foremost, CBDCs could alter the role of central banks in monetary policy by providing new tools for influencing the economy. For instance, central banks could directly affect the supply and demand for money, as well as manage interest rates more flexibly and promptly, offering financial institutions opportunities to respond more effectively to economic changes.

Moreover, the implementation of CBDCs could enhance the functioning of national payment systems, increasing their accessibility and security. Payments using digital currencies will be faster, with lower fees and minimal risks, which will strengthen user confidence in the financial system. This is particularly important for developing economies, where access to banking services may be limited.

Equally important is the impact on the banking system as a whole. In the event of successful CBDC implementation, the role of traditional commercial banks could change. For example, banks may take on a more specialized role, providing only credit services and handling more complex financial transactions, while basic functions such as currency exchange and money transfers would be transferred to digital platforms. This would result in a shift in the competitive model and provide a boost to the development of new business models.

Potential for Improving Financial Inclusion

One of the most significant and socially important aspects of the development of Central Bank Digital Currencies (CBDCs) is their potential to improve financial inclusion. In countries with developed financial systems, most people already have access to banks and financial services.

However, in many developing countries, large segments of the population remain outside the financial system, without access to bank accounts or credit.

CBDCs can play an important role in addressing this issue by providing affordable and accessible financial services to all segments of the population. Since digital currencies can be used even via mobile phones and other devices, they offer the opportunity for people in remote or hard-to-reach areas to access financial tools without the need for physical presence in a bank. This, in turn, can stimulate the development of small and medium-sized businesses, improve living standards, and increase economic activity in these regions.

Digital currencies can also simplify the process of obtaining loans and savings for low-income groups by providing alternative mechanisms for savings and investment, as well as accelerating access to credit. This will significantly enhance financial inclusion, enabling more people to participate in economic life, even if they do not have access to traditional banking services.

Thus, the prospects for the development of CBDCs significantly impact national economies and financial systems. Benefits such as reduced costs, increased transparency and security, and improved financial inclusion make CBDCs a powerful tool for economic modernization. However, it is important to consider the challenges related to their implementation, such as data security concerns and the need to adapt financial systems. Ultimately, the successful implementation of CBDCs will require coordinated efforts at both the national and international regulatory levels.

Challenges and Risks of Implementing Central Bank Digital Currencies (CBDCs). While Central Bank Digital Currencies (CBDCs) represent a significant innovation in financial systems, their implementation is associated with a number of substantial challenges and risks that must be considered for their successful integration into the global economy. The main risks facing countries considering the issuance of CBDCs involve issues of security, data privacy, and the impact on traditional banking structures.

Conclusion

The introduction of Central Bank Digital Currencies (CBDCs) will lead to significant changes within the traditional banking system. Commercial banks may face the need to adapt to new conditions as CBDCs provide a direct way of conducting transactions without intermediaries. This could lead to a shift in business models and potentially even alter the role of commercial banks. However, rather than replacing traditional banks, CBDCs could serve as a foundation for new business models where banks would focus on more specialized functions, such as offering loans and working with more complex financial instruments.

CBDCs represent a significant step forward in the evolution of global financial systems. They hold enormous potential to enhance the efficiency of financial transactions, improve financial inclusion, and provide greater control over money flows. At the same time, the implementation of CBDCs comes with a range of challenges, including concerns about security, data protection, and the impact on traditional financial structures.

The future of central bank digital currencies promises to be dynamic and multifaceted. They could become not only a tool for modernizing financial systems but also an important element of global economic integration. However, to realize all their advantages, careful consideration must be given to the mechanisms for their implementation, regulation, and security. Ultimately, the success of CBDC implementation will depend on the ability of countries and financial institutions to effectively address the challenges they face in an ever-evolving financial landscape.

References

1. Cheng P. Decoding the rise of Central Bank Digital Currency in China: designs, problems, and prospects //Journal of Banking Regulation. – 2023. – T. 24. – №. 2. – C. 156-170.
2. Raskin M., Yermack D. Digital currencies, decentralized ledgers and the future of central banking //Research handbook on central banking. – Edward Elgar Publishing, 2018. – C. 474-486.

3. Prodan S. et al. The rise in popularity of central bank digital currencies. A systematic review //Heliyon. – 2024. – Т. 10. – №. 9.
4. Andryushin S. A. Digital currency of the central bank as the third form of money of the state //Russ. J. Econ. & L. – 2021. – С. 54.
5. Sakharov D. M. Central bank digital currencies: Key aspects and impact on the financial system //Finance: Theory and Practice. – 2021. – Т. 25. – №. 5. – С. 133-149.
6. Jitaru C. Central Bank Digital Currencies and The New Economy. – Constantin Jitaru, 2024.
7. Yamaoka H. Digital currencies and the future of money //The future of financial systems in the digital age: Perspectives from europe and Japan. – Singapore : Springer Singapore, 2022. – С. 49-73.
8. Khutorna M., Zaporozhets S., Tkachenko Y. CENTRAL BANKS'DIGITAL CURRENCIES: WORLD TRENDS AND PROSPECTS IN UKRAINE //Social economics. – 2021. – №. 61. – С. 123-134.
9. Ашрапова Л. У., Яхшибоев Р. Э. ИННОВАЦИОННЫЕ ПОДХОДЫ И ИНВЕСТИЦИОННЫЕ СРАТЕГИИ В УСЛОВИЯХ ЦИФРОВИЗАЦИИ ЗЕЛЕНОЙ ЭКОНОМИКИ: ПЕРСПЕКТИВЫ УСТОЙЧИВОГО РАЗВИТИЯ //Innovations in Science and Technologies. – 2024. – Т. 1. – №. 8. – С. 55-66.
10. Ашрапова Л. У., Яхшибоев Р. Э. БЛОКЧЕЙН В ЦИФРОВОЙ ЭКОНОМИКЕ: ПОТЕНЦИАЛ ДЛЯ ПОВЫШЕНИЯ ПРОЗРАЧНОСТИ И ДОВЕРИЯ //Innovations in Science and Technologies. – 2024. – Т. 1. – №. 7. – С. 121-136.
11. Ашрапова Л., Яхшибоев Р., Атаджанов Ш. ЦИФРОВИЗАЦИЯ И УСТОЙЧИВОЕ РАЗВИТИЕ: КАК ТЕХНОЛОГИИ МОГУТ СОДЕЙСТВОВАТЬ ЭКОЛОГИЧЕСКОЙ ЭКОНОМИКЕ //Innovations in Science and Technologies. – 2024. – Т. 1. – №. 7. – С. 83-94.
12. Karlibaeva R., Yakhshiboyev R. INNOVATIVE APPROACHES TO SUSTAINABLE BUSINESS DEVELOPMENT IN THE ERA OF DIGITAL TRANSFORMATION //Innovative economics and management. – 2024. – Т. 11. – №. 2. – С. 101-108.