

ECONOMIC SCIENCES

THE ROLE OF CENTRAL BANK DIGITAL CURRENCIES IN THE TRANSFORMATION OF THE FINANCIAL SYSTEM

Shubina Svitlana Oleksandrivna,

4-d year student,

Kyiv National University of Technologies and Design

Liubymova Natalia Volodymyrivna,

senior lecturer

Introduction.

The topic of central bank digital currencies (CBDCs) is extremely relevant in the context of the rapid digitalization of the global economy and the transformation of financial infrastructure. As an innovative tool that combines technological advantages with trust in government regulators, CBDCs have the potential to radically change approaches to money circulation, increase the efficiency of payment systems, ensure greater transaction security, and expand financial inclusion.

The growing popularity of decentralized cryptocurrencies (in particular, Bitcoin) and the development of stablecoins offered by large technology companies have stimulated central banks to develop their own digital currencies. In response to these challenges, governments are stepping up research into CBDCs, viewing them as a key element of future monetary policy.

An analysis of global experience with CBDC implementation provides a better understanding of how these currencies can contribute to economic stability, increase the flexibility of cash flow management, and become the foundation for sustainable development in the digital economy.

Aim of the work.

The purpose of this research is to analyze the impact of the introduction of central bank digital currencies (CBDCs) on the traditional financial system. In

particular, attention will be focused on studying the potential risks of destabilizing the banking sector, changes in lending and deposit mechanisms, and the redistribution of roles between central and commercial banks.

In addition, an important aspect is the assessment of threats of increased state control over financial transactions, reduced user privacy, and increased cyber threats. The latter requires finding the optimal balance between CBDC innovation, monetary policy effectiveness, and financial data security. To achieve this goal, a comprehensive study of the possible consequences of introducing digital currencies in different economic contexts is necessary.

Materials and methods.

The research uses data from the National Bank of Ukraine, central banks of digital currencies, analytical reports, and scientific publications related to the implementation of CBDCs and their impact on the financial system.

The methods are based on a combination of comparative analysis to study international experience, content analysis to summarize scientific approaches and conclusions, and a systematic approach to assess potential changes in the structure of the financial system.

Results and discussion.

As of early 2025, more than 130 countries around the world are at various stages of developing central bank digital currencies (CBDCs), adapting them to their own economic and social priorities [1]. These currencies are seen not just as a technical innovation, but as a tool for transforming financial systems. The main goals of implementation include improving payment efficiency, reducing the cost of financial services, expanding financial inclusion, reducing the share of cash in circulation, and strengthening monetary sovereignty.

CBDCs have the potential to overcome barriers to access to financial infrastructure, in particular through the absence of minimum balance requirements, low maintenance costs, and simplicity of use [2]. At the same time, the effectiveness of these digital currencies depends not only on technology but also on the level of trust they inspire in the population. Key challenges include digital inequality, limited

internet access, lack of digital skills, and concerns about privacy and state control.

Different countries offer their own implementation models: China is actively introducing e-CNY, using it not only for domestic payments but also for cross-border transactions. The Bahamas has become a pioneer in this field by introducing Sand Dollar, a digital currency that is accessible even in remote regions with limited banking infrastructure.

In Sweden, the eKrona project is being developed with a focus on offline accessibility, which is especially important for rural areas [3]. In Ukraine, the National Bank conducted pilot tests of the e-hryvnia in 2019, as well as in 2022-2023, involving fintech companies and exploring the use of smart contracts for public procurement and social payments [4].

Global experience shows that each country develops its own implementation model: from centralized systems to hybrid models involving commercial banks. In particular, it is important to consider the potential impact of CBDC on the banking sector – competition for customers, possible destabilization of traditional financing models, and the need for new mechanisms to protect financial stability.

Conclusions.

Therefore, the development and implementation of a central bank digital currency requires a comprehensive approach that takes into account not only technological potential, but also socio-economic conditions, the legal environment, the level of digital literacy of the population, and the readiness of the financial system for change. Only with a coordinated combination of these components can digital currency become not just a convenient means of payment, but also an effective tool for the development of the country's financial infrastructure and digital transformation.

LITERATURE

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