PROSPECTS FOR NATIONAL DIGITAL CURRENCIES: DIGITAL YUAN, DIGITAL RUBLE AND DIGITAL SUM IN THE GLOBAL FINANCIAL SYSTEM

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Abstract
The introduction of central bank digital currencies (CBDC) in various countries is emerging as a strategic step toward shaping a new model of global financial relations. This paper explores the specific features of the digital yuan (e-CNY), the digital ruble, and the prospective digital sum. It analyzes the impact of these currencies on cross-border transactions, national economic resilience, digital transformation, and the global financial system. By employing a comparative analysis and reviewing regulatory frameworks, the study identifies key advantages and risks associated with integrating CBDCs into the world economy.

Keywords: Central bank digital currencies, digital yuan, digital ruble, digital sum, cross-border payments, financial sovereignty, CBDC.

Introduction
National Digital Currencies (CBDCs) are a new form of money issued electronically by central banks. Against the backdrop of global digitalization, economic competition and geopolitical tensions, such currencies are becoming a tool for ensuring financial sovereignty, increasing transparency, and developing cross-border settlements without the participation of Western infrastructures (for example, SWIFT). Uzbekistan).

2. Methodology
The methodological base of the study includes:
1. Comparative analysis of the architecture of digital currencies according to the following criteria:

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level of development, implementation model, goals, expected effects;
2. content analysis of regulatory documents: strategies of central banks, BIS and IMF reports, official statements;
3. qualitative review of literature and expert opinions (2020–2025).The study is theoretical and analytical in nature and is based on open sources of information.

3. Results of the study

3.1. Digital Yuan (e-CNY)

China was one of the first states to start piloting the introduction of a digital currency. Since 2020, e-CNY has been tested in more than 20 regions of the country. A two-tier model is used: the Central Bank → commercial banks → users. The digital yuan is able to replace cash (M0) and participates in international payment initiatives such as the mBridge project.[1]

3.2. Digital ruble

In Russia, the first stage of the introduction of the digital ruble has begun in 2023. The Central Bank of the Russian Federation provides direct emission and access through digital wallets. The main goals are resistance to sanctions, the development of programmable smart contracts, and the implementation of offline payments. It is planned to integrate with the systems of public services and the EAEU.[2]

3.3. Digital sum

The digital sum is still at the stage of conceptual analysis. The Central Bank of Uzbekistan is considering opportunities to increase the transparency of government payments, expand financial inclusion and interact with Islamic financial platforms.[3]

Table 1. Comparative Analysis of Digital Currencies (As of 2024)

Criterion	Digital Yuan (e-CNY)	Digital ruble	Digital Sum
Implementation status	Pilot projects, used	Stage 1 of implementation (2023)	Research stage
Technological model	Two-tier (Central Bank → bank → client)	The Central Bank directly to customers	Not defined
Main objectives	Transaction acceleration, M0 substitution	Sanctions resistance, offline payments	Financial transparency, Islamic finance
Cross-border payments	Platform mBridge	Planned	Potentially through the SCO/Turkic Council
Legal regulation	Official White Paper (2021)	Concept of the Central Bank of the Russian Federation (2023)	Preliminary documents of the Central Bank of the Republic of Uzbekistan (2024)
Level of digitalization	Taut	Medium/High	Average

[1] People's Bank of China. (2021). Progress of Research & Development of E-CNY in China.
[2] The Central Bank of the Russian Federation. (2023). The Concept of the Digital Ruble.
[3] Central Bank of the Republic of Uzbekistan. (2024). Research on the implementation of the digital sum.

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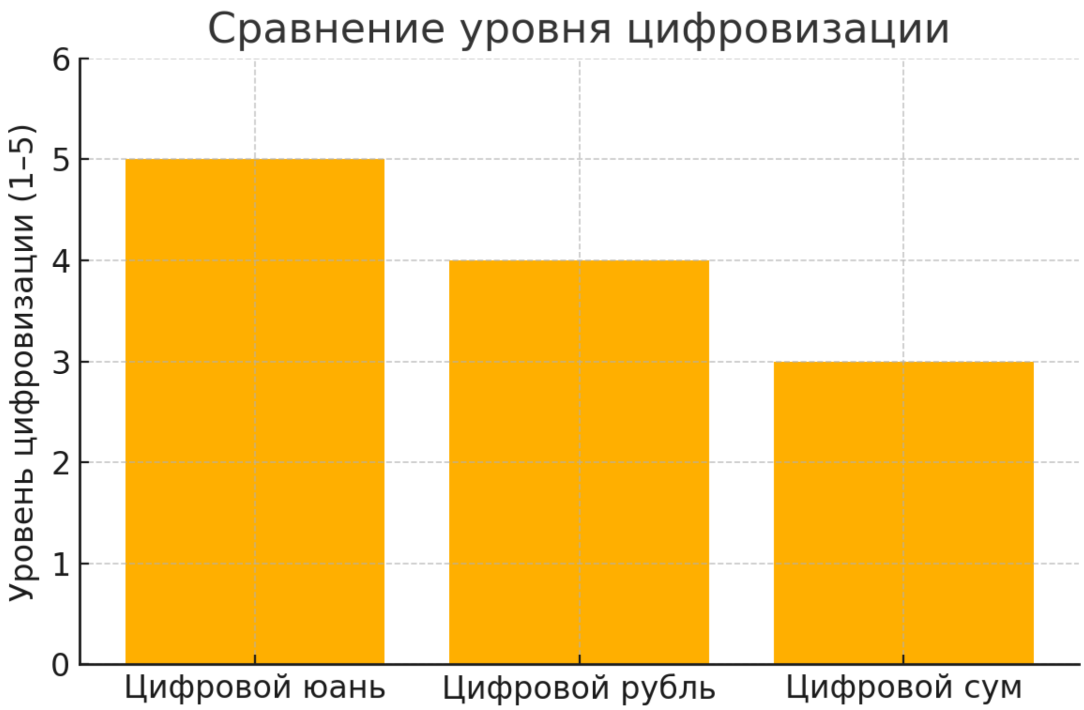

Figure 1. Comparison of the level of digitalization of digital currencies

4. Discussion

National digital currencies are not just electronic money, but a new form of economic sovereignty and political influence. The digital yuan claims to be a regional reserve currency; the digital ruble is an attempt to create an autonomous payment system in conditions of economic isolation; However, the challenges are great: a high degree of cybersecurity is needed; loss of user privacy is possible; Risks of pressure on traditional banking models.

5. Conclusion

National digital currencies are becoming an integral part of the new financial era. China, Russia, and Uzbekistan are moving towards digital sovereignty through their own CBDC projects. Their implementation promises the development of new channels for cross-border trade, an increase in the effectiveness of monetary policy, and a reduction in the shadow economy. The success of these projects depends on regulatory flexibility, technological maturity, as well as international cooperation.

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