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WAYS TO IMPROVE THE EFFECTIVENESS OF MONETARY POLICY IN THE CONTEXT OF ORGANIZING ELECTRONIC MONEY CIRCULATION

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Abstract. This thesis analyzes ways to improve monetary policy effectiveness under the expansion of electronic money and digital payment services. It distinguishes electronic money from bank deposits and central bank digital currency, explains interest-rate and liquidity transmission mechanisms, identifies operational and financial-stability challenges, and proposes institutional measures for Uzbekistan. A qualitative review of international research and regulatory principles indicates that electronic money can support financial inclusion and strengthen transmission when issuers cooperate with supervised banks, customer balances are safeguarded, and monetary statistics remain reliable. Conversely, fragmented oversight and weak redemption mechanisms can create liquidity risks. The study recommends a coordinated framework combining regulation, payment interoperability, data integration, cybersecurity and empirical evaluation.

Keywords: electronic money, monetary policy, digital payments, financial inclusion, interest-rate transmission, liquidity, Uzbekistan.

INTRODUCTION

The digitalization of finance changes how households and businesses hold and transfer monetary value. Electronic wallets, mobile applications and payment platforms reduce transaction costs and enable near-instant transfers. For monetary authorities, however, this structural transformation raises questions about the stability of payment balances, the relationship between policy rates and retail financial conditions, and the statistical coverage of instruments issued by nonbank providers. Accordingly, the expansion of electronic money should be viewed both as a financial innovation and as a challenge for the operation of monetary policy.

Electronic money generally denotes monetary value stored electronically and issued against the receipt of funds for payment use. Unlike a standard commercial bank deposit, its legal form and safeguards depend on the issuer and applicable regulation. Unlike a central bank digital currency (CBDC), privately issued electronic money is ordinarily a liability of the issuing institution. These distinctions determine its risks and macroeconomic effects (Bank for International Settlements [BIS], 2021). This thesis uses comparative analysis and a review of international publications to identify practical priorities for Uzbekistan; it does not claim original quantitative estimation.

MAIN PART

1. Electronic money and monetary transmission

The effectiveness of conventional monetary policy is commonly assessed by how changes in the central bank policy rate influence money-market rates, bank funding costs, lending and deposit rates, aggregate demand and ultimately inflation. Payment innovation may modify these channels without eliminating them. If electronic-money

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issuers deposit safeguarded funds in regulated banks, wallet expansion can encourage previously unbanked customers to enter formal finance and increase intermediated resources. Evidence reported by Huang et al. (2024), based on cross-country observations, associates e-money development with stronger monetary-policy interest-rate transmission, growing bank deposits and narrower intermediation spreads. This is not a universal causal guarantee: effects depend on institutional conditions, regulation and the availability of competing savings instruments.

Electronic transactions should not automatically be interpreted as new money creation. Moving an amount from a bank account into a wallet may change the composition of liabilities while leaving the underlying resources within the banking system. Monetary statisticians must therefore identify wallet liabilities and their backing funds consistently to avoid double counting. If electronic payment providers operate through several settlement banks, differences between transaction timing and end-of-day balances can also complicate short-term liquidity forecasting (Kahn et al., 2022).

2. Institutional opportunities and associated risks

Digital wallets can reduce travel and processing costs, support small businesses, improve transaction traceability and offer payment access to individuals without convenient bank branches. These channels can promote financial inclusion. The World Bank (2022) emphasizes the important role of digital payments in expanding account use, although meaningful inclusion also requires affordable services, consumer confidence and accessible grievance mechanisms. Wider use of formal financial services may improve the reach of macroeconomic policy, provided interest-rate changes remain relevant to household and business decisions.

Risks arise from cyberattacks, fraud, operational outages, concentration in large payment platforms and uncertainty about safeguarding or redemption. Mass withdrawals from wallets can transmit liquidity pressures to settlement banks. Nonbank service providers may introduce information gaps if reporting requirements are incomplete. Proportional supervision, clear segregation of customer assets, reliable recovery arrangements and interoperability standards help mitigate these risks (Financial Stability Board, 2020). In addition, payment-system operators should perform resilience testing and establish incident disclosure procedures to maintain public confidence.

3. Central bank digital currency and conventional electronic money

CBDC requires separate treatment because its potential direct central-bank liability differs from privately issued wallet balances. Design features such as holding ceilings, remuneration, offline access and convertibility determine whether CBDC complements or competes with commercial bank deposits. Das et al. (2023) distinguish the immediate effect of CBDC introduction on financial conditions from changes to monetary-policy transmission over time. Accordingly, introduction of a new digital monetary instrument should be justified through careful cost-benefit assessment rather than an assumption that digital form itself improves monetary control.

4. Measures to improve effectiveness in Uzbekistan

First, policymakers should maintain clear classifications of electronic money, deposit products, payment services and any future CBDC arrangements. Legislation should specify issuer authorization, client-fund safeguarding, redemption at par,

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operational governance and supervisory accountability. Uzbekistan's Law on Payments and Payment Systems provides a domestic legal foundation for examining these requirements (Republic of Uzbekistan, 2019). International guidelines should be adapted to local banking structure, financial literacy and technological capacity instead of copied mechanically.

Second, the Central Bank should enhance integrated monitoring of payments and monetary statistics. Authorized issuers could report outstanding wallet liabilities, issuance and redemption flows, placement of backing funds, volumes of transactions, failed settlements and operational incidents in standardized formats. A coherent statistical reconciliation between payment platforms and bank balance sheets would improve monetary-aggregate quality and forecasts of banking-system liquidity. The importance of reliable reporting is consistent with central bank communication and statistical responsibilities (Central Bank of the Republic of Uzbekistan, 2024).

Third, the interest-rate channel should remain the operational anchor. Effective liquidity management, a credible policy-rate signal, transparent open-market operations and competitive deposit and credit markets are necessary. Payment platforms should enjoy fair access to suitable banking and settlement services without weakening prudential safeguards. Monetary authorities should assess the responsiveness of deposit and lending rates to policy decisions; higher electronic transaction volumes alone cannot establish stronger monetary transmission (Huang et al., 2024).

Fourth, technical interoperability, cyber resilience and consumer protection should be treated as monetary-policy complements. Standardized interfaces can lower merchant costs and reduce fragmentation, while stress testing and recovery plans preserve settlement continuity. Risk-based identity verification, fraud monitoring, privacy safeguards and transparent fees can improve confidence in formally regulated digital services. Public education should explain that digital wallet balances, bank deposits and central-bank liabilities may carry different forms of legal protection (BIS, 2020).

5. Sequencing and performance evaluation

Implementation can proceed in stages. The immediate stage should focus on mapping payment flows, harmonizing reporting definitions and reviewing issuer safeguards. The medium-term stage should establish interoperable technical standards, supervisory dashboards and coordinated incident response. A longer-term phase may consider more advanced instruments only after evaluating demonstrable market needs and implications for bank intermediation. This staged approach reduces operational uncertainty and allows regulatory learning.

A useful set of performance indicators includes policy-rate pass-through to bank lending and deposit rates, short-term liquidity forecast errors, redemption speed and reliability, the proportion of wallet value adequately safeguarded, user complaint resolution, payment concentration, and financial inclusion among underserved populations. Econometric tests and comparison over multiple periods are needed before claiming that particular reforms caused better inflation outcomes. This avoids confusing technological expansion with the ultimate objectives of monetary policy (International Monetary Fund, 2024).

CONCLUSION

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Electronic money can improve the payment environment and widen participation in formal finance, but its contribution to monetary-policy effectiveness is conditional. The strongest potential gains emerge when electronic-money issuers are prudently supervised, their liabilities are safely backed, the banking system remains responsive to policy rates and reliable payment data are integrated into monetary analysis. Conversely, insufficient reporting, operational disruption and fragmented regulation can weaken confidence and complicate liquidity management.

For Uzbekistan, a balanced policy package should combine robust legal safeguards, accurate digital-money statistics, interbank liquidity monitoring, interoperable infrastructure, cyber-risk management and empirical evaluation of interest-rate transmission. The strategic goal is not to replace established monetary instruments with technology, but to ensure that technological modernization makes price-stability policy more transparent, inclusive and effective.

REFERENCES:

1. Bank for International Settlements. (2020). Enhancing cross-border payments: Building blocks of a global roadmap. https://www.bis.org/cpmi/publ/d193.htm
2. Bank for International Settlements. (2021). Central bank digital currencies: Financial stability implications. https://www.bis.org/publ/othp42_fin_stab.pdf
3. Central Bank of the Republic of Uzbekistan. (2024). Annual report. https://cbu.uz/en/
4. Das, M., Mancini-Griffoli, T., Nakamura, F., Otten, J., Soderberg, G., Sole, J., & Tan, B. J. (2023). Implications of central bank digital currencies for monetary policy transmission. International Monetary Fund. https://www.imf.org/en/publications/fintech-notes/issues/2023/09/15/implications-of-central-bank-digital-currencies-for-monetary-policy-transmission-538517
5. Financial Stability Board. (2020). Enhancing cross-border payments: Stage 3 roadmap. https://www.fsb.org/2020/10/enhancing-cross-border-payments-stage-3-roadmap/
6. Huang, Z., Lahreche, A., Saito, M., & Wiriadinata, U. (2024). E-money and monetary policy transmission (IMF Working Paper No. 2024/069). https://doi.org/10.5089/9798400270543.001
7. International Monetary Fund. (2024). E-money and monetary policy transmission (Working Paper No. 2024/069). https://www.imf.org/en/publications/wp/issues/2024/03/29/e-money-and-monetary-policy-transmission-546926
8. Kahn, C. M., et al. (2022). Digital money and central bank operations (IMF Working Paper No. 2022/085). International Monetary Fund. https://www.elibrary.imf.org/view/journals/001/2022/085/001.2022.issue-085-en.xml
9. Republic of Uzbekistan. (2019). Law on Payments and Payment Systems (No. ZRU-578). https://lex.uz/
10. World Bank. (2022). The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19. https://doi.org/10.1596/978-1-4648-1897-4