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DOI: https://doi.org/10.30525/978-9934-26-717-8-28

USE OF CRYPTO ASSETS AS COLLATERAL IN UKRAINIAN BANKING PRACTICE

The digital transformation of the financial system has intensified the issue of integrating crypto assets into banking practice, where they are increasingly regarded as a full-fledged component of financial infrastructure. For Ukraine, which seeks integration into the global financial space, the establishment of legal and economic conditions for the use of crypto assets in banking activities constitutes a strategic objective [1, p. 312].

The use of crypto assets as collateral opens new opportunities for lending, as it expands access to financial resources for businesses and individuals who possess digital assets but lack traditional forms of security. This fosters the development of innovative financial products, such as credit lines backed by stablecoins or tokenized assets, and enhances the competitiveness of Ukrainian banks [2, p. 117; 3, p. 32].

Alongside potential advantages, the use of crypto assets as collateral entails significant risks, foremost among them volatility: sharp fluctuations in cryptocurrency prices may lead to devaluation of collateral and jeopardize the stability of credit relations. Another challenge is regulatory uncertainty: excessive regulation may stimulate capital outflow abroad, while insufficient oversight poses threats to financial security. Financial monitoring requirements (AML/KYC) remain crucial, as banks must verify the legality of assets' origin, thereby increasing administrative burdens [4, p. 47; 5, p. 52].

An important step in this direction was the submission of Draft Law of Ukraine No. 10225-d, which provides for the use of crypto assets as collateral and their integration into banking practice. The document strengthens financial monitoring by obliging banks to verify the origin of digital assets and the compliance of transactions with anti-money laundering requirements, thereby combining innovation with transparency and legality [6].

The use of crypto assets as collateral requires the development of specific procedures for assessing their value and liquidity. Unlike real estate or securities, digital assets are highly volatile, complicating the determination of their actual collateral value. To mitigate risks, banks must employ additional protective mechanisms, including margin requirements and dynamic adjustment of collateral value [7, p. 263; 8, p. 58]. Equally important is the issue of custody: crypto assets must be stored in licensed custodial services that ensure security and access control [9, p. 89].

A special place in the discussion is occupied by the use of crypto assets by the National Bank of Ukraine. At present, the NBU does not employ crypto assets in its refinancing or collateral mechanisms, relying instead on traditional instruments such as government securities, deposits, and other assets. In the future, crypto assets may become part of its toolkit, contributing to asset diversification, sending a positive signal to international financial markets, and stimulating the domestic digital asset market [10, p. 41]. However, practical implementation of such an approach may involve considerable risks, requiring additional regulatory measures and clear risk management mechanisms.

Further development of the practice of using crypto assets as collateral in banking activities necessitates systematic improvement of the regulatory framework. This concerns not only specialized legislation on virtual assets but also fundamental laws governing the functioning of the banking system. Above all, it is necessary to enshrine the legal status of crypto assets in the Laws of Ukraine "On Banks and Banking Activity" and "On the National Bank of Ukraine," recognizing them as a distinct class of property eligible for collateral use. Another essential step is the development of a methodology for assessing digital assets, taking into account their volatility, liquidity, and market risks. Equally significant is the enhancement of financial monitoring systems: harmonization of national regulations with international standards will ensure transparency of crypto asset origins, reduce risks of illicit use, and create conditions for strengthening trust in new financial instruments [11, p. 681].

In this context, it is crucial to establish legislative requirements for custodial services that guarantee the secure storage of digital assets used as collateral. Particular attention should be paid to defining the role of the NBU as regulator: its powers should be expanded to include provisions enabling it to set rules for the use of crypto assets in the banking system, including their acceptance as collateral in refinancing mechanisms [12, p. 25]. Another important direction is the harmonization of Ukrainian

legislation with the European MiCA regulation, ensuring compatibility with the EU legal framework.

Analysis of international experience allows identification of models for implementing crypto assets as collateral and evaluation of their effectiveness. In the United States, fintech companies and specialized crypto banks offer loans secured by Bitcoin and Ethereum, integrating them into custodial systems. In the EU, the adoption of the MiCA regulation has created legal conditions for the use of stablecoins as collateral in financial operations; banks in Germany and Switzerland experiment with credit products based on tokenized assets. In Singapore and Hong Kong, regulators permit the acceptance of crypto assets as collateral provided AML/KYC requirements are met and licensed custodial services are used. Switzerland, as a leader in crypto finance, integrates loans backed by digital assets into traditional financial products, fostering the development of an innovative market [13].

The conducted research demonstrates that the use of crypto assets as collateral in banking activities should be regarded as a strategic stage in the modernization of the financial system, the successful implementation of which requires a comprehensive approach combining legal regulation, economic feasibility, and effective risk management. The most productive path is the gradual introduction of regulatory mechanisms that build trust in the banking system and stimulate innovation. In the long term, crypto assets as collateral may become a key factor in expanding access to credit resources, developing new financial products, and integrating Ukraine into the global financial space, thereby enhancing the competitiveness of domestic banks.

References:

1. 1. Naumenkova S. V., Mishchenko V. I., Mishchenko S. V. (2018) Digital currencies in the context of public trust to money. *Financial and credit activity-problems of theory and practice*, vol. 2, no. 25, pp. 305–316. DOI: https://doi.org/10.18371/fcaptp.v2i25.136869

2. Mishchenko V., Naumenkova S., Mishchenko S., Tishchenko I. (2025) Formation and Functioning of Financial Metaverse Platforms. *Financial and credit activities: problems of theory & practice*, vol. 1, no. 60, pp. 111–122. DOI: https://doi.org/10.55643/fcaptp.1.60.2025.4689

3. Krychevska T. (2026) Steyblkoiny: modeli stabilizatsii ta mezhi pryvatnoi hroshovoi emisii [Stablecoins: stabilization models and limits of private money issuance]. *Economic Theory*, no. 2, pp. 5–40. DOI: https://doi.org/ 10.15407/etet2026.02.005

4. Mishchenko V. I., Shapovalov A. V., Yurchuk G. V. (2003) Elektronnyi biznes na rynku finansovykh posluh: monohrafiia [E-business in the financial services market: monograph]. Kyiv : Znannya, pp. 27–123.

5. Mishchenko V. I., Naumenkova S. V., Mishchenko S. V. (2022) Teoretychni zasady ta praktychni aspekty vprovadzhennja i vykoryatannja tsyfrovykh hroshey [Theoretical foundations and practical aspects of implementing and using digital money]. *Economic Theory*, no. 2, pp. 37–57. DOI: https://doi.org/10.15407/etet2022.02.044

6. Verkhovna Rada of Ukraine. (2025) pro vnesennja zmin do Podatkovoho kodeksu Ukrainy ta dejakykh zakonodavchykh aktiv Ukrainy shchodo vrehulyuvannja oborotu virtualnykh aktyviv v Ukraini [On Amendments to the Tax Code of Ukraine and Some Other Legislative Acts of Ukraine Regarding the Regulation of Virtual Assets Turnover in Ukraine]. Draft Law of Ukraine no. 10225-d from 24.04.2025. Available at: https://itd.rada.gov.ua/billInfo/Bills/Card/10225-d

7. Mishchenko V., Naumenkova S., Ivanov V., Tishchenko I. (2018) Special aspects of using hybrid financial tools for project risk management in Ukraine. *Investment Management and Financial*, vol. 15, no. 2, pp. 257–266. DOI: http://dx.doi.org/10.21511/imfi.15(2).2018.23

8. Mishchenko V., Naumenkova S., Mishchenko S. (2021) Assessing the efficiency of the monetary transmission mechanism channels in Ukraine. *Banks and Bank Systems*, vol. 16, no. 3, pp. 48–62. DOI: http://dx.doi.org/10.21511/bbs.16(3).2021.05

9. Tishchenko I. (2025) The Impact of Digitalization on Changing the Forms of Economic Relations. *Three Seas Journal*, vol. 6, no. 1, pp. 86–91. DOI: https://doi.org/10.30525/2661-5150/2025-1-13

10. Mishchenko V. I., Naumenkova S. V., Mishchenko S. V. (2021) Tsyfrovi hroshi tsentralnykh bankiv: maybutne instytutsiynykh zmin u bankivskomu sektori [Central Bank Digital Money: The Future of Institutional Changes in the Banking Sector]. *Finance of Ukraine*, no. 2, pp. 26–48. Available at: https://finukr.org.ua/docs/FU_21_02_026_uk.pdf

11. Mishchenko V., Naumenkova S., Mishchenko S., Tishchenko I. (2026) An Integrated Approach to Data Center Efficiency Assessment: The Ukrainian Context. *Problems and Perspectives*, vol. 24, no. 2, pp. 670–685. DOI: http://dx.doi.org/10.21511/ppm.24(2).2026.46

12. Mishchenko V. I. (2026) Tsyfrovyi suverenitet Ukrainy v umovakh hlobalnoi tsyfrovoi transformatsii [Ukraine's digital sovereignty in the context of global digital transformation]. *Scientific Bulletin of Odessa National Economic University*, no. 5. pp. 17–28. DOI: https://doi.org/10.32680/2409-9260-2026-5-342-17-28

13. European Parliament and Council. (2023) Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on Markets in Crypto-Assets (MiCA). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32023R1114