

4. Dyllick, T., & Muff, K. (2016). Clarifying the Meaning of Sustainable Business: A Descriptive and Analytical Framework. *Business Strategy and the Environment*, 25(8), 535-546.
5. Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Capstone Publishing.
6. Lysenko, L.G., & Zhuravel, D.M. (2019). Corporate Strategy in Sustainable Development: Theoretical Aspects and Practical Recommendations. *Economics and Business Management*, 32, 45-59.
7. Hart, S. L., & Milstein, M. B. (2003). Creating Sustainable Value. *Academy of Management Perspectives*, 17(2), 56-67.
8. Porter, M. E., & Kramer, M. R. (2011). Creating Shared Value. *Harvard Business Review*, 89(1-2), 62-77.
9. Serafeim, G. (2015). Corporate Social Responsibility and Financial Performance. Harvard Business School Working Paper.

REAL ESTATE TOKENIZATION IN UKRAINE: A CONTEMPORARY APPROACH TO ECONOMIC AND FINANCIAL DEVELOPMENT

ILLIA PROKOPIEV, PhD Student

DARIA O. SERYOHINA, Associate Professor, PhD in Economics, Scientific Adviser

OLENA L. ILIENKO, Professor, Doctor of Science in Education, Language Adviser

O. M. Beketov National University of Urban Economy in Kharkiv

Real estate in Ukraine has traditionally represented both a stable store of wealth and a source of steady returns. Recent studies, including those by Riabokin and Kotukh (2024) [7] and Obushnyi et al. (2024) [5], have highlighted an alternative financial strategy: the tokenization of real estate through blockchain-based platforms. Real-world asset (RWA) tokenization is the conversion of tangible properties — such as real estate or commodities — into secure digital tokens recorded on a blockchain. In global markets, real-world asset tokenization is projected to range from approximately USD 10 trillion to USD 16 trillion by 2030 (BCG, 2023) [1]; (Roland Berger, 2023) [8], and real estate constitutes a principal component of that total. According to data from Custom Market Insights (2024) [2], tokenized real-estate volumes around the world stand at about USD 3.5 billion in 2024 and may exceed USD 19.4 billion by 2033, reflecting an annual growth rate of around 21 percent. Europe, estimated at USD 1.23 billion for 2024, could see expansion to USD 8.4 billion in tokenized property by 2034 (Prophecy Market Insights, 2024) [6], indicating a similar growth trajectory of over 20 percent per year.

Systematic risks affect the entire economy and can escalate investors' required yields. Idiosyncratic risks arise from specific circumstances that affect only certain assets. In Ukraine, systematic risks originate from conflict-related uncertainties, regulatory complexities, and possible currency fluctuations. Tokenization has been proposed as a way to attract external financing for

reconstruction, but the cost of capital remains sensitive to perceived macro-level instability. When investors assess tokenized Ukrainian real estate, the expected yield may need to surpass local bank lending rates or government bond yields. The scale of projected tokenized inflows must therefore remain attractive enough to justify the risk premiums imposed by Ukraine's circumstances.

Recent analyses indicate that global real-estate tokenization stands at USD 3.5 billion in 2024, with estimates reaching USD 19.4 billion by 2033 at a 21 percent CAGR (Custom Market Insights, 2024) [2]. Europe's share may rise from USD 1.23 billion in 2024 to USD 8.4 billion by 2034 (Prophecy Market Insights, 2024) [6]. At the global level, real-world asset (RWA) tokenization overall could approach USD 10 trillion or more by 2030 (Roland Berger, 2023) [4], with real estate often cited as the largest contributor (BCG, 2023) [1].

Ukraine's nominal GDP is approximated near USD 200 billion for 2025; this figure is aligned with new EBRD data indicating that a 19.4 percent budget deficit (USD 38.4 billion in external inflows) implies a nominal GDP of around USD 198 billion [3]. Before the full-scale war, the real estate sector made up a mid-single-digit portion of Ukraine's economy. For example, in 2021 "Real estate activities" accounted for about 5.8% of GDP [9]. The real estate market is rebounding but remains below pre-war highs. In 2023, notaries registered 172,628 sale contracts for apartments/houses and 231,881 for land plots [10]. That total (404,509 transactions) is about 65–70% of the pre-war 2021 volume (when over 320k housing and 301k land sale contracts were executed). By the first 11 months of 2024, the number of property sale deals was reported to be around 70% of 2021 levels [4]. If we assume the value of transactions has rebounded in line with the number of deals (roughly 70% of the 2021 level), then the 2024 real estate transaction volume would be on the order of 4–5% of GDP.

Meanwhile, the Europe tokenized real estate was at 0.013 percent of transactions in 2024 (USD 1.23 billion out of ~9.44 trillion) and 0.089 percent by 2034 (USD 8.4 billion out of 9.44 trillion) [6] — a rise of 0.076 percentage points over that decade. If Ukraine follows a similar path — starting near zero — this implies the tokenized share of real-estate deals could reach 0.08–0.10 percent by the early 2030s. Given that Ukraine's real-estate transactions in 2024 are estimated at 4–5% of GDP, or USD 8–10 billion (assuming a 70% recovery from 2021 levels), applying this 0.08–0.10% tokenization ratio suggests an initial USD 6–10 million in tokenized property assets. If GDP expands at 3.5–5.0% annually [3], and regulatory advancements bring Ukraine closer to mature European tokenization markets, cumulative tokenized investments could exceed USD 100–150 million over the next 10 years.

References:

1. BCG. On-Chain Asset Tokenization / BCG. Boston: Boston Consulting Group, 2023. 36 p. Available at: <https://web-assets.bcg.com/1e/a2/5b5f2b7e42dfad2cb3113a291222/on-chain-asset-tokenization.pdf>.
2. Custom Market Insights. Real Estate Tokenization Market / Custom Market Insights. Scottsdale : Custom Market Insights, 2024. 50 p. Available at: <https://www.custommarketinsights.com/report/real-estate-tokenization-market/>.

3. EBRD. [Regional Economic Prospects, February 2025] / EBRD. London: European Bank for Reconstruction and Development, 2025. 40 p. Available at: <https://www.ebrd.com/rep-february-2025.pdf>.
4. Financial Stability Report 2024-H2 // National Bank of Ukraine. – December 2024. – Available at: https://bank.gov.ua/admin_uploads/article/FSR_2024-H2.pdf.
5. Obushnyi S., Virovets D., Zhytar M., Zhdanova Y. Unlocking the Economic Potential of Real Estate Tokenization in Ukraine / S. Obushnyi, D. Virovets, M. Zhytar, Y. Zhdanova. Kyiv: CEUR Workshop Proceedings, 2024. pp. 79–87. Available at: https://elibrary.kubg.edu.ua/id/eprint/48772/1/S_Obushnyi_D_Virovets_M_Zhytar_Y_%20Zhdanova_DECaT2024_3665.pdf.
6. Prophecy Market Insights. Europe Real Estate Tokenization Market / Prophecy Market Insights. India: Prophecy Market Insights, 2024. Available at: https://www.prophecymarketinsights.com/market_insight/europe-real-estate-tokenization-market-5463.
7. Riabokin M., Kotukh Y. RWA-TOKENIZATION AS A TOOL FOR ATTRACTING INVESTMENTS AND DEVELOPING POST-WAR UKRAINE / M. Riabokin, Y. Kotukh. Kyiv: GSAR Publishers, 2024. Vol. 3, Issue 11. pp. 64–77. Available at: <https://gsarpublishers.com/wp-content/uploads/2024/11/GSARJEBM2192024-Gelary-script.pdf>.
8. Roland Berger. Tokenization of Real-World Assets: Unlocking a New Era of Ownership & Trading / Roland Berger. Munich : Roland Berger, 2023. 38 p. Available at: <https://www.rolandberger.com/en/Insights/Publications/Tokenization-of-real-world-assets-unlocking-a-new-era-of-ownership-trading.html>.
9. State Statistics Service of Ukraine. Available at: https://ukrstat.gov.ua/druk/publicat/kat_u/2023/zb/11/year_22_e.pdf#:~:text=Information%20and%20communication%20%2C0%20%2C6,1%2C2%20Public%20administration%20and%20defence.
10. Ukraine's Real Estate Market Has Become More Active: The Number of Transactions Has Increased by 70% in a Year // UBN News. – 2024. – Available at: <https://ubn.news/ukraines-real-estate-market-has-become-more-active-the-number-of-transactions-has-increased-by-70-in-a-year/>.

ARTIFICIAL INTELLIGENCE AS A CRITICAL TOOL FOR ENTREPRENEURSHIP RESILIENCE AND STRATEGIC ADAPTATION IN TURBULENT ECONOMIC CONDITIONS

MYKHAILO RYSCHENKO, PhD student

YEVHENII KYSELHOF, PhD student

VLADYSLAV HAYLO, PhD student

OKSANA ROMANENKO, Senior Teacher

VALENTYNA PRASOL, Associate Professor, Scientific Adviser

OLENA V. DYMCHENKO, Professor, Doctor of Science in Economics,
Scientific Adviser

O. M. Beketov National University of Urban Economy in Kharkiv

Upon reviewing the available literature, several sources discuss the impact of Artificial Intelligence (AI) on business strategy, particularly during periods of economic uncertainty. Source [1] highlights AI's role in enhancing decision-making and automation, both of which are essential in a volatile economic