

Cryptocurrency and Financial Market Volatility: A Comparative Analysis

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Abstract. This study investigates the relationship between cryptocurrency markets and financial market volatility. It provides a comprehensive analysis of how digital currencies influence traditional financial systems. By examining market data and volatility indices, the article evaluates the impact of cryptocurrencies on market stability. The study also discusses the potential of regulatory measures to mitigate associated risks, offering a balanced perspective on the integration of digital currencies in financial markets.

Keywords: Cryptocurrency, Financial Markets, Volatility, Digital Currencies, Regulation

Introduction

The rise of cryptocurrencies has significantly altered the landscape of financial markets. This article explores the connection between cryptocurrency trading and the volatility observed in traditional financial markets. Through a comparative analysis of various market data, the study highlights the extent to which digital currencies contribute to market fluctuations. Additionally, it examines potential regulatory frameworks that could help stabilize these emerging markets. The insights provided are essential for investors and policymakers aiming to understand and navigate the complexities of this new financial era.

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References

1. Jeyhun, R., Elshan, R., Naila, A., & Aydin, N. (2025). Effectiveness of Internet of Things migration into hybrid economic projects.
2. Rahimov, J., Rahimov, E., Nasirzade, A., & Yusifli, P. (2025). Economic aspects of projects based on the Internet of Things. *Innovation and Sustainability Articles*, 5(4), 31-44.
3. Rahimov, E., Rahimov, C., & Davudova, S. A. Determining the optimal relationship between speed and acceleration of a vehicle to minimize pollutant emissions into the atmosphere.

4. Moraliyska, M. (2025). Reshoring Supply Chains in EU-US Collaboration after COVID: A Case Study Analysis. *Pamukkale Üniversitesi İşletme Araştırmaları Dergisi*, 12(2), 497-521.
5. Talibzade, O. (2022). Organization of expenses in budget management, enterprises and organizations. *Geostrategy*, 71 (5), 112–114.
6. Мошенський, С. (2024). Зародження фінансового капіталізму. Sergei Moshenskyi.
7. Мошенський, С. (2025). Хаос і синергія. Фінансовий світ постіндустріальної епохи. Sergei Moshenskyi.
8. Smuk, I. (2025). Growth hacking as a driver of innovative development of start-ups: Between marketing and product.
9. Maia, P. (2014). The capacity of absorption of the international technology transfer, its limits and the analysis of the possibilities of production of knowledge in developing countries: The case of Republic of Moldova. Available at SSRN 5109921.
10. Pisaniuc, M., & Prodan, V. (2024). Disruptive innovations and their impact on the global economy. In *SW-Us Conference proceedings* (pp. 33-40).
11. Jitaru, D., & Pisaniuc, M. (2022). Gender inequalities across the regions.
12. Pisaniuc, M. (2020). Determining the absorption capacity of innovations In South East European countries: the case of the Republic of Moldova. In *International Conference on Business, Management and Economics* (pp. 207-216).
13. Pisaniuc, M., & Ceban, M. (2021). The Big Data Design-A Modern Challenge in Developing an Innovative Business Model. *ScientificWorld-Net*AkhatAV Lußstr. 13 76227 Karlsruhe, Germany in conjunction with Institute «SE&E».