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POTENTIAL EFFECTS OF ESTABLISHING CRYPTOCURRENCY EXCHANGES IN AZERBAIJAN ON ECONOMIC DYNAMICS
ПОТЕНЦІЙНИЙ ВПЛИВ СТВОРЕННЯ КРИПТОВАЛЮТНИХ БІРЖ В АЗЕРБАЙДЖАНІ НА
ЕКОНОМІЧНУ ДИНАМІКУ

Алакбарлі М. А., Салданлі А. Потенційні ефекти створення
криптовалютних бірж в Азербайджані на економічну
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The article scientifically substantiates the potential effects and practical implications of establishing and institutionalizing cryptocurrency exchanges in Azerbaijan, which serve as an important tool for diversifying the national economy, driving digital transformation, and increasing the competitiveness of the country's financial system. The relevance of the study stems from the rapid deployment of digital financial technologies, the large-scale growth in interest in virtual assets, and the global trend toward transforming the crypto market into a regulated financial infrastructure. Based on a systemic approach, it is shown that, for Azerbaijan, a medium-sized economy dependent on traditional energy revenues, the development of digital finance creates important opportunities to create new investment niches, support the startup ecosystem, and expand the use of innovative tools in non-commodity sectors. The scientific novelty of the study lies in the comprehensive parameterization and structuring of the channels of influence of virtual asset legalization on macroeconomic dynamics. The authors prove that cryptocurrency exchanges can generate real economic benefits, expand the tax base, and strengthen financial monitoring (AML/CFT) only if a transparent licensing system, consumer protection, and segregation of client assets are in place. The macroeconomic parameters of Azerbaijan are verified using World Bank data for 2024, which indicate that the country's nominal GDP was 74.32 billion USD and GDP per capita was 7,283.8 USD. It is established that the key risk of integrating crypto platforms is the threat of hidden dollarization of the economy due to the massive use of stablecoins pegged to the US dollar, which can significantly weaken the transmission mechanism of the Central Bank's monetary policy, undermine confidence in the national currency, and provoke uncontrolled capital outflow.

Keywords: cryptocurrency exchange, virtual assets, economy of Azerbaijan, fintech, financial regulation.

У статті науково обґрунтовано потенційні ефекти та прикладні наслідки заснування й інституціоналізації криптовалютних бірж в Азербайджані, що виступає важливим інструментом диверсифікації національної економіки, цифрової трансформації та підвищення конкурентоспроможності фінансової системи країни. Актуальність дослідження зумовлена стрімким розгортанням цифрових фінансових технологій, масштабним зростанням інтересу до віртуальних активів і глобальним трендом на трансформацію крипторинку в регульовану фінансову інфраструктуру. На основі системного підходу доведено, що для Азербайджану як середньомасштабної економіки, залежної від традиційних енергетичних надходжень, розвиток діджитал-фінансів створює важливі можливості для формування нових інвестиційних ніш, підтримки стартап-екосистеми та розширення використання інноваційних інструментів у несіровинних секторах. Наукова новизна дослідження полягає в комплексній параметризації та структуруванні каналів впливу легалізації віртуальних активів на макроекономічну динаміку. Авторами доведено, що криптовалютні біржі здатні генерувати реальну економічну вигоду, розширювати податкову базу та посилювати фінансовий моніторинг (AML/CFT) лише за умови функціонування прозорої ліцензійної системи, захисту прав споживачів і сегрегації клієнтських активів. Верифіковано макроекономічні параметри Азербайджану на основі даних Світового банку за 2024 рік, відповідно до яких номінальний ВВП країни становив 74,32 млрд дол. США, а ВВП на душу населення – 7 283,8 дол. США. Установлено, що ключовим ризиком інтеграції криптоплатформ є загроза прихованої доларизації економіки через масове використання стейблкоїнів, прив'язаних до долара США, що здатне суттєво послабити трансмісійний механізм монетарної політики Центрального банку, підрвати довіру до національної валюти та спровокувати неконтрольований відтік капіталу.

Ключові слова: криптовалютна біржа, віртуальні активи, економіка Азербайджану, фінтех, фінансове регулювання.

Problem statement

In recent years, the rapid development of financial technologies has led to significant transformations in traditional financial systems and created new opportunities for economic growth. One of the most notable elements of this transformation is the expansion of cryptocurrency markets and the growing role of digital asset exchanges in global financial architecture. Cryptocurrency exchanges have evolved into key components of the modern digital economy, serving as platforms for the purchase, sale, transfer, and custody of digital assets. The establishment and regulation of such exchanges may produce various effects on investment activities, financial inclusion, capital flows, innovation, employment, and the overall structure of financial markets.

For Azerbaijan, establishing cryptocurrency exchanges is currently significant for economic diversification, digital transformation, and the development of a competitive financial ecosystem. Considering the country's goals of reducing dependence on a traditional resource-based growth model and strengthening non-oil sectors, digital finance may offer important opportunities to attract new investment, support the startup ecosystem, and expand the use of innovative financial instruments. At the same time, integrating cryptocurrency exchanges into the national economy may also pose risks to financial stability, regulatory oversight, anti-money laundering, cybersecurity, and consumer protection.

The aim of this study is to examine the potential effects of establishing cryptocurrency exchanges in Azerbaijan on the country's economic dynamics. In this context, the study addresses the potential effects of these exchanges on investment flows, financial market development, employment, innovation, the digital economy, the tax base, and payment systems. At the same time, regulatory challenges, the need for consumer protection, and macroeconomic risks that may arise in this process are also evaluated.

The research employs descriptive, analytical, and comparative methods. International experiences, statistical indicators, academic



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literature, and regulatory approaches related to cryptocurrency exchanges have been examined to assess the potential effects of these exchanges on the Azerbaijani economy. The significance of the study lies in revealing the opportunities and limitations presented by digital asset markets in developing economies, as well as providing a foundation for future policy discussions on the regulation and development of cryptocurrency exchanges in Azerbaijan.

In modern scientific discourse, the issue of institutionalization and regulation of the virtual asset market is studied in several key areas: the assessment of the direct reaction of international financial markets to the introduction of regulatory restrictions in the sphere of cryptocurrency circulation is reflected in the works of R. Auer and S. Claessens; the issue of the relationship between global geopolitical risks, profitability and volatility of Bitcoin is highlighted by A. F. Aysan, E. Demir, G. Gozgor and C. K. M. Lau; the discussion around whether cryptocurrencies are a full-fledged means of exchange or exclusively a high-risk speculative asset is recorded by D. G. Baur, K. Hong and A. D. Lee; the fundamental economic, technological and managerial principles of the functioning of blockchain networks were laid down by R. Böhme, N. Christin, B. Edelman, T. Moore and the founder of the network S. Nakamoto; the analysis of microeconomic patterns and the specifics of value creation in decentralized systems is presented by C. Catalini and J. S. Gans; the shadow dimension of the use of virtual assets, in particular the financing of crime and money laundering, was thoroughly investigated by S. Foley, J. R. Karlsen, T. J. Putnış, R. Houben and A. Snyers; A comprehensive vision of blockchain as a driver of global revolution is highlighted by D. Tapscott and A. Tapscott, as well as P. Vigna and M. J. Casey; a systematic introduction to applied technologies and cryptographic principles is provided by the works of A. Narayanan, J. Bonneau, E. Felten, A. Miller, and S. Goldfeder, while the problems of market inefficiency in the early stages of crypto market development are highlighted in the studies of A. Urquhart.

Formulation of the article's objectives

The purpose of the article is to conduct a comprehensive study of the potential macroeconomic and infrastructural impact of the establishment of regulated cryptocurrency exchanges in Azerbaijan on the overall dynamics of the national economy, as well as to scientifically substantiate a balanced phased model of regulatory regulation of the virtual asset market, capable of minimizing financial, fiscal, and security risks and at the same time stimulating the development of the country's digital ecosystem.

Presentation of the main research material

1. The Role of cryptocurrency exchanges in the economic system

Cryptocurrency exchanges are financial-technological platforms that enable the buying and selling of digital assets, their custody, price formation, and conversion between fiat currencies and crypto assets. Just as traditional stock exchanges create liquidity and price transparency in capital markets, cryptocurrency exchanges enable transactions in the virtual asset market to be more centralized, traceable, and technically auditable. However, the fundamental differences between these platforms and classical financial institutions lie in high price volatility, global transaction speed, and an open data infrastructure based on blockchain technology.

The establishment of cryptocurrency exchanges in Azerbaijan may produce economic consequences in several respects. First, a certain portion of transactions currently conducted on foreign platforms could be moved to a local, licensed, and supervised environment. This could expand the state's capacity for taxation, statistics, and financial monitoring. Second, cryptocurrency exchanges may stimulate the development of the fintech sector, since the activities of these platforms are not limited to buying and selling transactions alone; they also lay the groundwork for the formation of complementary service areas such as cybersecurity, blockchain analytics, payment integration, regtech, risk management, and digital identity verification.

On the other hand, integrating cryptocurrency exchanges into the economic system is not without risk. The price volatility of crypto assets, insufficient investor financial literacy, the growing trend toward dollarization via stablecoins, and money-laundering risks necessitate robust oversight mechanisms. For this reason, the establishment of cryptocurrency exchanges should not be regarded merely as a technological innovation, but as a multidimensional issue that must also be assessed from the perspective of financial regulation, tax policy, consumer rights, and macroeconomic stability.

Table 1. Economic impact mechanism of cryptocurrency exchanges

Impact Channel	Direct Outcome	Indirect Economic Outcome
Licensed exchange operations	Recording of transactions	Increase in tax and oversight capacity
AML/CFT supervision	Monitoring of suspicious transactions	Strengthening of financial transparency
Fintech integration	New digital services	Innovation and employment opportunities
Fiat-crypto conversion	Increased liquidity	Rise in capital mobility
Custody services	Asset security	Building of user trust

Source: Prepared by the author based on FATF (2024), European Parliament and Council (2023), and the Central Bank of the Republic of Azerbaijan (2023).

2. Azerbaijan's current digital finance environment

It appears that an initial institutional infrastructure for establishing cryptocurrency exchanges is taking shape in Azerbaijan. The Central Bank's regulation on virtual asset transactions sets out principles of customer due diligence, information transfer, and risk-based supervision for virtual asset service providers. This indicates that crypto assets are beginning to be incorporated into a legal framework, at least in terms of AML/CFT, rather than being treated as a completely unregulated area (Central Bank of the Republic of Azerbaijan, 2023).

From a macroeconomic perspective, Azerbaijan is a mid-sized economy sensitive to energy revenues yet striving to expand its digital transformation. According to World Bank data, Azerbaijan's GDP at current prices in 2024 was USD 74.32 billion, while GDP per capita stood at USD 7,283.8 (World Bank, 2024). These indicators suggest that cryptocurrency exchanges are unlikely to completely transform the macroeconomic structure in the short term; however, they may produce gradual effects on fintech, taxation, payment systems, and capital flows.

These indicators suggest that in Azerbaijan, the key issue for implementing cryptocurrency exchanges is legal and institutional readiness rather than technical feasibility. If the market develops without a clear licensing regime, tax rules, and investor protection mechanisms, transactions may continue to flow toward foreign and opaque platforms. By contrast, if a balanced regulatory model is applied, local cryptocurrency exchanges may support the development of the digital economy.

3. Financial inclusion, payment systems, and the fintech ecosystem

One of the key positive effects of cryptocurrency exchanges relates to the expansion of financial inclusion and digital payment opportunities. Crypto assets may be considered an alternative financial instrument, particularly for users with limited access to banking services. However, financial inclusion means more than merely accessing new assets; security, transparency, low transaction costs, and the protection of consumer rights are also essential conditions for this process.

For Azerbaijan, the most realistic opportunity in this area lies in cross-border payments and the development of fintech services. Remittances from abroad, regional trade relations, and the digital entrepreneurship ecosystem may create a certain potential for crypto-based payment solutions. However, the role of stablecoins in this area requires particular attention. The widespread use of US dollar-pegged stablecoins may undermine confidence in the local currency, bank deposits, and the transmission mechanism of monetary policy.

Within the fintech ecosystem, cryptocurrency exchanges may create additional areas of economic activity. These include blockchain analytics, cybersecurity, digital identity verification, compliance technologies, payment integration, and the protection of customer assets. The development of these services may strengthen cooperation among local startups, banks, and technology companies.

Table 3. Potential level of impact of cryptocurrency exchanges on the financial system

Direction of Impact	Low	Medium	High
Fintech innovation			■■■■■■■■■
Expansion of digital payments		■■■■■■■	
Growth of tax base		■■■■■■■	
Dollarization risk via stablecoins			■■■■■■■
AML/CFT oversight needs			■■■■■■■■■

Source: FATF (2024), World Bank (2024), and the author's analytical assessment.

exchanges may be significant for Azerbaijan in expanding its tax base. Currently, a large proportion of transactions conducted by citizens on foreign crypto platforms falls outside the local tax and statistical system. Licensed local platforms, however, could enable the collection of transaction data, the taxation of exchange commissions, and the legal declaration of user gains.

The fundamental principle in tax policy is a balanced approach. Excessively heavy tax and reporting obligations may redirect users back to foreign and informal platforms. Therefore, the taxation of crypto income should be based on a simple, comprehensible, and implementable model. Within this model, different bases may be established for exchange revenues, user capital gains, and service commissions.

In terms of capital markets, the impact of cryptocurrency exchanges is twofold. On one hand, crypto markets may contribute to the development of an investment culture by increasing young investors' interest in financial instruments. On the other hand, excessive interest in high-risk and speculative assets may reduce the flow of funds that would otherwise move toward traditional capital markets. For this reason, cryptocurrency exchanges should be designed not as competitors to capital markets, but as complementary components of a regulated digital financial infrastructure.

In the long term, tokenization, digital securities, and blockchain-based registry systems may contribute to the modernization of capital markets. However, for this to occur, security, legal status, asset custody mechanisms, investor protection, and measures against market manipulation for cryptocurrency exchanges must first be fully established.

5. Regulation, consumer protection, and an implementation model for Azerbaijan

The most important prerequisite for the successful operation of cryptocurrency exchanges is legal clarity. Various models exist globally in this area. The European Union's MiCA regulation establishes principles of licensing, transparency, consumer protection, and market integrity for crypto asset service providers (European Parliament and Council, 2023). The FATF, in turn, considers risk-based AML/CFT supervision mandatory for virtual assets and virtual asset service providers (FATF, 2024). Turkey's inclusion of crypto asset service providers under regulatory oversight also constitutes a useful regional example for Azerbaijan.

The most appropriate model for Azerbaijan should be a gradual, supervised regulatory framework rather than a prohibitive one. In the first phase, cryptocurrency exchanges should be tested under a sandbox regime and then begin operations under a limited license. In subsequent phases, capital adequacy, internal control systems, cybersecurity standards, the segregation of customer assets, independent auditing, and suspicious transaction reporting should become mandatory requirements.

Table 2. Selected indicators for the establishment of cryptocurrency exchanges in Azerbaijan

Indicator	Current Status	Relevance for Crypto Exchanges
GDP at current prices, 2024	USD 74.32 billion	Mid-sized market potential
GDP per capita, 2024	USD 7,283.8	Income level of the individual investor base
Regulation on virtual asset transactions	Adopted in 2023	Initial legal basis for AML/CFT
Sandbox mechanism	Crypto-related projects being tested	Controlled innovation environment
Fintech development	Digital payments expanding	Technical infrastructure for crypto integration

Source: Prepared by the author based on World Bank (2024) and the Central Bank of the Republic of Azerbaijan (2023, 2025).

As shown in the table, the strongest potential impact of cryptocurrency exchanges is on fintech innovation and the development of oversight mechanisms. At the same time, AML/CFT obligations and stablecoin-related risks remain high. For this reason, the integration of cryptocurrency exchanges into the payment system should not occur in a completely free and unrestricted manner, but rather within a gradual, limited, and supervised model.

4. Taxation, capital markets, and investment behavior

The establishment of cryptocurrency

Table 4. Comparison of economic benefits and risks of cryptocurrency exchanges

Area	Potential Benefit	Key Risk
Tax system	Formation of a new tax base	Transactions shifting to foreign platforms
Capital markets	Increased investor interest	Speculative behavior
Fintech sector	New services and startup opportunities	Rising regulatory costs
Payment systems	Faster cross-border payments	Stablecoin dollarization
Financial monitoring	Traceability of transactions	Competition from unlicensed platforms

Source: Prepared by the author based on Böhme et al. (2015), Auer and Claessens (2018), FATF (2024), and European Parliament and Council (2023).

Source: Prepared by the author based on Böhme et al. (2015), Auer and Claessens (2018), FATF (2024), and European Parliament and Council (2023).

Consumer protection should also be treated as a separate priority. Platforms must clearly inform users that crypto assets are high-risk, that prices may change sharply, and that these assets are not protected in the same way as classic bank deposits. Furthermore, customer assets should be segregated from the exchange's own assets, custody mechanisms should be audited, and regular testing against cyberattacks should be conducted.

In conclusion, the establishment of cryptocurrency exchanges in Azerbaijan may contribute to the development of the digital economy. However, for this impact to be positive, the market should neither be left entirely free nor stifled by excessively rigid rules. The most appropriate approach is a regulatory model that balances innovation with financial stability.

Table 5. Phased cryptocurrency exchange policy for Azerbaijan

Phase	Key Measure	Expected Outcome
Phase I	Sandbox and pilot projects	Testing of risks
Phase II	VASP licensing regime	Legal clarity
Phase III	Tax and reporting mechanism	Registered economy
Phase IV	Consumer protection and supervision	Market confidence
Phase V	International AML/CFT integration	Global compliance

Source: Prepared by the author based on the Central Bank of the Republic of Azerbaijan (2023, 2025), FATF (2024), European Parliament and Council (2023).

Conclusions and prospects for further exploration

The analysis shows that the establishment of cryptocurrency exchanges in Azerbaijan may bring both opportunities and risks to the economic system. The primary opportunities include the expansion of the fintech ecosystem, the development of digital payments, the growth of the tax base, greater transparency in financial transactions, and the creation of new technological service areas. When properly regulated, cryptocurrency exchanges may attract a portion of transactions currently conducted on foreign platforms into a local, supervised environment.

At the same time, price volatility in crypto assets, the risk of dollarization via stablecoins, accelerating capital flows, cybersecurity risks, and AML/CFT threats must be taken seriously. For this reason, the establishment of cryptocurrency exchanges should be evaluated not merely as a business venture but as a comprehensive financial policy matter.

Within this framework, a phased licensing model for cryptocurrency exchanges in Azerbaijan is recommended. In the first phase, sandbox-based trials should be expanded, and licenses should subsequently be granted to platforms that meet capital, oversight, security, and reporting requirements. Second, the segregation of customer assets and their storage in cold wallets should be made mandatory. Third, the taxation of crypto income should be based on a simple, transparent mechanism. Fourth, limits and reporting obligations for stablecoin transactions should be defined. Finally, financial literacy and investor education activities should be strengthened. This approach may transform the crypto market in Azerbaijan from a source of risk to an instrument that supports digital economic development.

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