

AZERBAIJAN REPUBLIC

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ABSTRACT

Of the dissertation for the degree of Doctor of Philosophy

**MARKET OF DERIVATIVE SECURITIES
AND ITS DEVELOPMENT PROSPECTS IN AZERBAIJAN**

Speciality: 5301.01 Internal fiscal policy and public finance

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GENERAL CHARACTERISTICS OF THE WORK

Relevance and Degree of Processing of the Topic: Recent research has explored various financial mechanisms and the impact of speculative trading activities on spot markets and price volatility. However, there has been insufficient focus on the conditions governing the issuance of derivative securities, trade attributes, and changes in regulatory frameworks. This study aims to fill this gap by concentrating on the fundamental and operational foundations of financial markets.

Empirically, derivatives market serves three main economic functions. Firstly, it protects spot market participants from the price volatility risks. Secondly, by playing a significant role in price discovery in spot markets, they help traders to conduct valuations based on market prices of underlying assets. Thirdly, derivative financial instruments markets reduce transaction costs, ensuring operational efficiency.

Based on the experiences of examined countries, the creation of adaptive regulatory mechanisms is of particular importance in managing system risks.

In the last decade, there has been a fundamental change in the financing mechanism of commodity markets, especially in the principles of price formation in commodity markets. Currently, the process of converting commodities from physical assets to financial assets through derivative financial instruments is being observed.

Azerbaijan's economic policy aimed at diversifying economy and focusing on the private sector, sets conditions for the establishment and development of new financial market institutions, tools, and services.

In terms of managing risks and diversifying financial flows in Azerbaijan, there is a natural need and fundamental basis for derivatives' trading.

According to the Civil Code of the Republic of Azerbaijan, a derivative financial instrument - is defined as a contract that grants the right to purchase, sell, or exchange any underlying asset. This category includes futures, options, and swaps. Despite the regulation of the derivative financial instruments market falling under the capital markets' regulation, the trading of underlying assets is not legislatively bound by

the same framework and can occur outside the scope of the financial market regulations.

The effective operation of the derivatives market primarily depends on ensuring information transparency in markets, where underlying assets are traded, especially in the stock market by eliminating information asymmetry.

One of the main factors influencing the formation of derivative financial instruments, is ensuring adequate financial literacy within the target population.

According to the conducted research, derivative financial instruments have a positive correlation with economic growth. This relationship is particularly evident in the promotion of investments in the country and the expansion of foreign trade relations.

Research indicates that the degree of use of derivative instruments in the banking sector is mainly derived from pure interest rates, banking concentration, and institutional strength. Additionally, banks operating in developing markets can reduce sectoral instability by using derivative financial instruments.

Theoretical aspects of the research have been extensively covered in the works of various scholars, including but not limited to Z.F. Mamedov, Sh.A. Abdullayev, E.M. Sadiqov, E.N. Valiyev, S.M.Mammadov, J.M. Keynes, A. Smith, F.S. Mishkin, N. Kaldor, R.W. Kolb, J.A. Overdahl, N.C. Schofield, A.P. Prabha, C. Wihlborga, A. Bernardi, D. Lema, M. Grandes, J. Tvedt, K. Shafi, N. Latif, Sh.A. Shad, S. Nam, S. Oh, H. Kim, S. Bartram, F. Fehle, D. Ryu, H. Yang, T. Kokholm, O. İbhagui, R. Demirer, D. Gabauer, R. Gupta, F. Tata, Y. Hsiao, W. Tsai, A. Botta, E. Caverzasi, A. Russo, J. Bazih, D. Vanwalleghem, Z. Adams, S. Collot, M. Kartsakli, M. Azzone, R. Baviera, M. Tomas, I. Mastromatteo, M. Benzaquen, H. An, R. Yang, X. Ma, A. Musa, S. Salisu, V. Aliyu, X. Hao, Q. Sun, F. Xie, R. Cox, A. Kamolsareeratan, R. Kouwenberg, P. Gong, Z. Wen, X. Xiong, A. Gottesman, and R.L. McDonald.

Object and subject of research. The object of the research is the fundamental principles of international and Azerbaijan derivative securities markets. The subject of the research is the study of the macroeconomic foundations of the creation, functioning, and regulation of derivative financial instruments markets, as well as the examination of

the legal, organizational, and technical capabilities necessary for its organization in Azerbaijan.

Research purpose and objectives. Considering the importance of derivative financial instruments markets in the country's economy, the purpose of the dissertation work is to investigate the possibilities of forming a derivative financial instruments market in Azerbaijan that is in line with the existing economic model, through the exploration of the structure and solutions available in the international derivative financial instruments market.

During the research work, the focus is on identifying practical steps that will serve the purpose of the research, including studying the necessary spot markets and their interrelations for the formation of derivative financial instruments, and considering regulatory, fiscal, and infrastructural solutions.

Research methods. The information base of the research includes the decrees and orders of the President of the Republic of Azerbaijan, relevant decisions of the National Assembly, Cabinet of Ministers, laws, normative legal documents on the securities market, currency regulation, derivative financial instruments, and commodity trading, as well as international normative legal acts, reports of international organizations, scientific works related to the problems, research papers, and statistical data related to the research work.

In the dissertation work, methods such as interview, survey, empirical observation, analysis, logic, comparison, statistical grouping, mathematical calculation and others have been used.

The main arguments presented for defense are the achievements obtained based on the results of the research:

- Identification of the factors determining the structure and configuration of the system necessary for the creation of a derivative financial instruments market based on the experiences of various countries.
- Structuring the impact of spot market activities on the formation of prices for derivative securities based on underlying assets in the derivative securities market.
- Determination of the influence of the current situation in Azerbaijan's capital and currency markets on the formation of prices for derivative

securities.

- Identification of opportunities for the use of derivative securities in the organization of the organized commodity market in Azerbaijan.
- Extraction of regulatory issues in the derivative securities market based on the experiences of the United States and the European Union.
- Determination of the directions of the economic impact of the derivative securities market.
- Discovery of problems related to the taxation of derivative securities.

Scientific novelty of the research. As a result of the research work, comprehensive results have been obtained by generalizing approaches encountered in world experience regarding the creation and organization of trade with derivative financial instruments. The practical application of these results aims to shape a derivative financial instruments market in Azerbaijan that is in line with the existing economic model. The results have been systematized into derivatives based on shares, currency, and commodities.

The theoretical and practical significance of the research lies in the potential utilization of research materials, generalized results, academic investigations, and theoretical knowledge. The results of the research, including the steps taken towards the creation of necessary infrastructure, institutionalization, and the direct development of new tools for organizing the derivative financial instruments market in Azerbaijan, can be practically applied by relevant state and private institutions.

Implementation and application of the research: The main points of the dissertation, its theoretical-methodological results, and scientifically grounded recommendations have been published by the author in 14 scientific articles and theses in various languages. The key aspects of the dissertation have been presented in 5 local and international scientific-practical conferences between 2012 and 2021, and the reflections of the dissertation have been found in the published materials of these conferences.

The name of the organization where the dissertation work was carried out is the “Finance and Audit” department of Azerbaijan State University of Economics.

The structure and volume of the dissertation are as follows: The

dissertation consists of an introduction (15320 symbols), three chapters (chapter I – 39873 symbols, chapter II – 92040 symbols, chapter III – 40069 symbols), conclusion (15435 symbols) and a list of references in 127 names, 9 tables, 7 diagrams, 6 graphs and It is reflected in 12 images. The total volume of the work consists of 202737 symbols, excluding tables, graphs, pictures and the bibliography.

The contents of the dissertation work

Introduction

I Chapter. Formation Features of the Securities Market with a Focus on Treasury Securities

- 1.1. Basics of the Formation of the Modern Securities Market
- 1.2. Characteristics of Treasury Securities
- 1.3. Impact of the Primary Market on the Formation of Prices for Treasury Securities

II Chapter. Current State of Organization of the Treasury Securities Market

- 2.1. Contemporary Problems in the Formation of the Infrastructure of the Treasury Securities Market
- 2.2. Impact of the Existing State of Capital Markets in Azerbaijan on the Formation of Treasury Securities
- 2.3. Factors Influencing the Formation of Currency-Based Treasury Financial Instruments in Azerbaijan
- 2.4. Use of Treasury Securities in the Organization of the Corporate Securities Market in Azerbaijan
- 2.5. Current Status of the Application of Alternative Financing Instruments in the Treasury Securities Market

III Chapter. Perspectives on the Regulation of the Treasury Securities Market

- 3.1. Ways to Manage Risks in the Treasury Securities Market
- 3.2. Directions of the Economic Impact of the Treasury Securities Market
- 3.3. Perspectives on the Regulation of the Treasury Securities Market
- 3.4. Tax Collection Issues in Trade with Treasury Securities

Conclusion

List of used literature

THE MAIN SCIENTIFIC POINTS PRESENTED IN DEFENSE

1. Determining the necessary structural and conceptual factors of the system based on the experiences of various countries for the creation of a structured market for treasury financial instruments.

Modern financial markets are shaped and developed under the influence of regulatory, competitive, and technological factors. The globalization of financial markets leads to the centralization of financial services and institutions to ensure stronger competitiveness on a global scale. New players with advanced technologies define the fundamental rules in an increasingly competitive environment.

The full digitization of the value chain plays a critical role in the implementation of solutions such as High-Frequency Trading (HFT), algorithmic trading, Straight Through Processing (STP) of real-time information, cloud technologies, and blockchain technologies.

Treasury financial instruments refer to financial instruments determined based on the value of another instrument - the underlying asset. Examples of underlying assets include stocks, bonds, currency exchange rates, interest rates, credit ratings, indices, commodities, and other treasury instruments. Options, futures, and swaps are examples of treasury financial instruments. In practice, the market indicators for treasury instruments are formed based on the indicators of the underlying asset.

Drawing on the theory of Franco Modigliani and Merton Miller (Modigliani and Miller, 1958), the creation of new financial instruments touches upon the following aspects of modern financial engineering:

- The final settlement value of the instrument;
- The possibility of creating synthetic yields on underlying assets;
- The potential issuer and buyer of the instrument;
- The problem the instrument aims to address.

The creation of treasury financial instruments can be justified by the presence of the following factors:

- Risk management.
- Speculative operations.
- Hedging operations.

Treasury financial instruments are classified based on payment terms such as forwards, futures, options, and swaps.

For the structuring of treasury securities and the analysis of the markets where they are traded, it is crucial to study the characteristics of the underlying assets on which these instruments are based and the markets where they are traded. Taking these considerations into account, treasury financial instruments in Azerbaijan can be classified as follows:

- 1) Equity-based treasury financial instruments.
- 2) Interest rate-based treasury financial instruments.
- 3) Currency-based treasury financial instruments.
- 4) Credit-based treasury financial instruments.
- 5) Commodity-based treasury financial instruments.

During the research, the treasury financial instruments market is generally divided into the exchange (regulated) and over the counter markets (Table 1). Instruments traded on the exchange are standardized, and centralized clearing is applied. In over the counter markets, on the other hand, instrument characteristics and settlement terms are mainly determined between the parties involved.

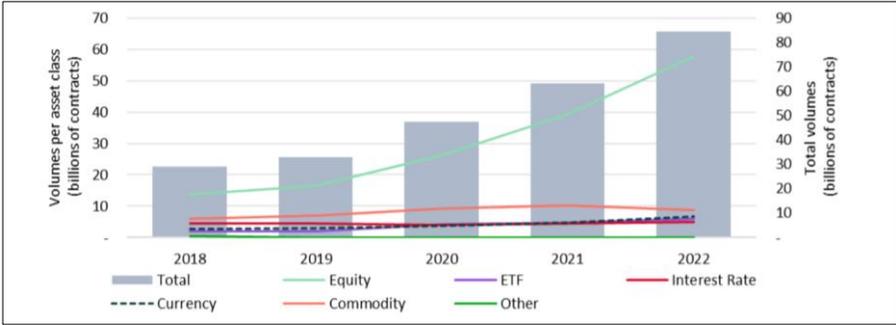
Table 1.
Forms of Derivatives Markets

	Stock Exchange	Over the counter (OTC)
Contracts	Trading marketplace/electronic	There is no trading marketplace
Transparency	High	Low
Counterparty Risk	Low	High
Standardization of Contracts	High	Low (based on a mutual agreement)
Types of Contracts	Futures, options	Forward, swap, option
Flexibility	Low	High
Clearing	Centralized risk management mechanism	-
Liquidity	High	Lower than the stock markets

The comparative analysis of the turnover volumes of the exchange traded and over the counter markets (OTC), shows that the OTC markets have a higher growth rate and turnover volume.

Based on the analysis of the information published by the World Federation of Exchanges (WFE), commodity-based derivatives show an outstanding dynamic (excluding equity based derivatives) among the other

asset classes (Graph 1).



Graph 1 Volume of outstanding contracts in the derivatives market (in billion, based on the number of contracts sold)

Source: World Federation of Exchanges (WFE)

As a result of the research, the infrastructure of the derivatives market has been generalized as shown in Figure 1.

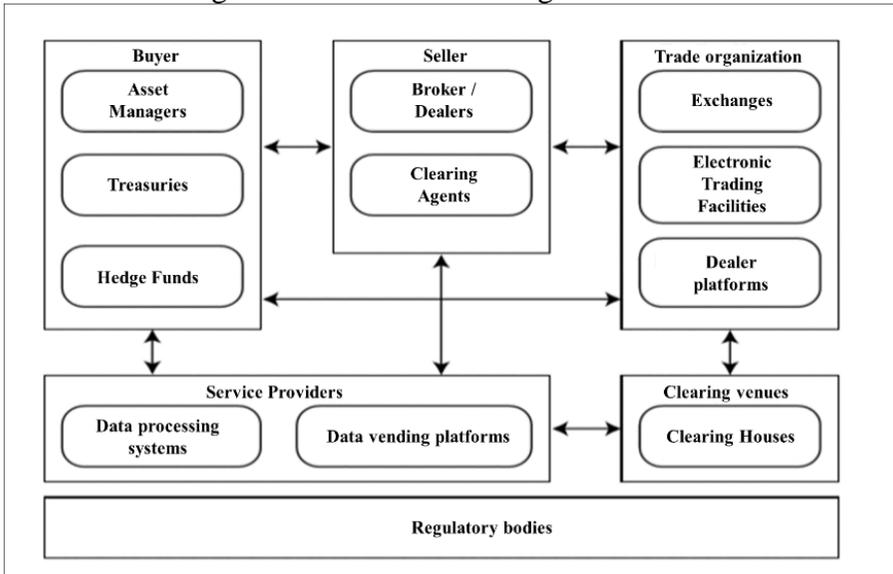


Figure 1. Infrastructure of the derivatives market

2. Structuring the impact of spot market based on underlying assets on the formation of prices for derivative securities.

One of the key factors influencing the formation of market prices

for derivative instruments is the direct dependence on changes in the market price of the underlying asset. The degree of this dependence can vary based on the characteristics of the market, the level of regulation, and other macroeconomic and economic factors.

The economic efficiency of agricultural financial instruments will be significantly influenced by how accurately the activity of the spot market, where the underlying asset is traded, is reflected. The analysis of successful and effective agricultural financial instrument markets indicates that the market where the underlying asset is traded needs to respond to certain indicators for the economic usefulness of the agricultural financial instruments prepared based on them to be high. These indicators include the following:

- The market for the underlying asset must exhibit prior activity in the agricultural financial instrument market.
- The underlying asset should be widely distributed among a large number of market participants in the market.
- There should be a sufficient availability of the underlying asset with economically viable prices in the spot market for the delivery date of the agricultural financial instrument.
- To attract hedgers and speculators, price risk should be associated with the spot market.

The relationship between spot markets and agricultural instrument markets has been extensively studied by many experts. Observations indicate that when non-participants in the spot markets for any underlying asset join trading operations in agricultural financial instruments created based on these underlying assets with the aim of obtaining operational margins, the connection between spot and agricultural financial instrument markets strengthens. As this connection increases, a phenomenon is observed where the dependence on the classic supply-demand factor in price formation decreases in the spot market. Thus, agricultural financial instruments influence the fundamentals of price formation for their underlying assets, thereby influencing price volatility in spot markets (especially in commodity markets) dependent on financial markets.

The trend initiated in the past century and currently observed indicates a shift towards the use of agricultural financial instruments in the hedging tool segment in spot markets. This suggests that the

relationship between spot and agricultural financial instrument markets should be considered during market formation.

During the harmonization of markets, agricultural financial instruments bring to the forefront two key macroeconomic issues: the degree of sensitivity of the futures price to the spot price at the time of delivery of the underlying asset (basis risk factor) and the degree of convergence (approximation) of the spot market price to the futures price. Research has determined the impact of futures markets on price changes in spot markets.

The structuring and trading of agricultural financial instruments are crucial for measuring its sensitivity to changes in the underlying asset's price volatility, interest rates, and changes occurring during the term.

3. Determining the impact of the current situation in the Azerbaijani capital and currency markets on the formation of agricultural securities

According to the Civil Code of the Republic of Azerbaijan, an agricultural financial instrument (previously referred to as "agricultural securities") is a contract that determines the right to buy, sell, or exchange any underlying asset. The underlying asset may involve securities, currency, interest rates, profitability, agricultural financial instruments, commodities, financial indices, credit risk, etc. Agricultural financial instruments include futures, options, and swaps.

The market of agricultural financial instruments is regulated within the legal framework of the capital market by the Central Bank of the Republic of Azerbaijan (CBA). The main institutions of the Azerbaijani capital market are provided in Figure 2.

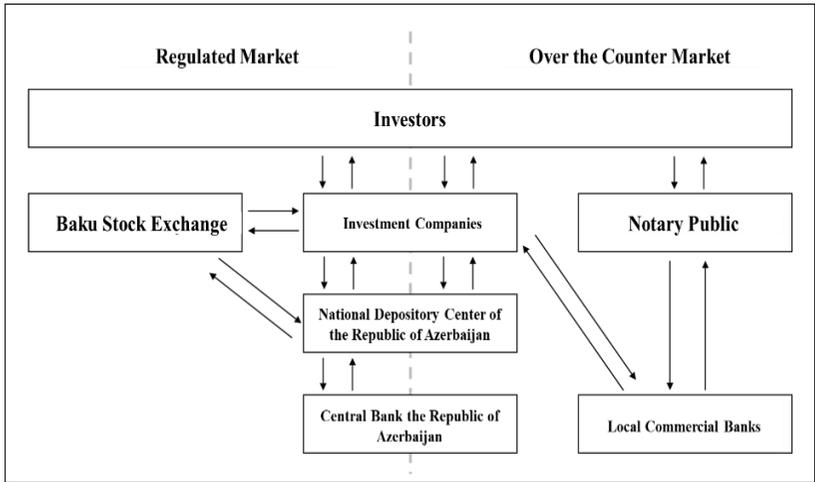


Figure 2. Trading architecture of the Azerbaijani capital market

Source: Author

In the trading turnover of the Baku Stock Exchange, the bond market holds significant importance, including state securities issued by the Ministry of Finance of the Republic of Azerbaijan, notes issued by the Central Bank of Azerbaijan, and bonds issued by the Mortgage and Credit Guarantee Fund of the Republic of Azerbaijan.

The period of privatization of state property covering the years 1996-2001 played a significant role in determining the characteristics of the formation of the Azerbaijani securities market and its development directions up to the present day. Nevertheless, the stock market in the fund exchange is observed to have relatively weak development compared to other markets (as of 2022, the total turnover of approximately 15 billion manats accounts for only 0.43% of the stock market share).

In the early stages of privatization and the development of the capital market in Azerbaijan, there was a weak correlation between the strategies. The subsequent formation of the stock market in later periods led to the initial and repeat markets for securities developing in parallel without significant intersection (Diagram 1).

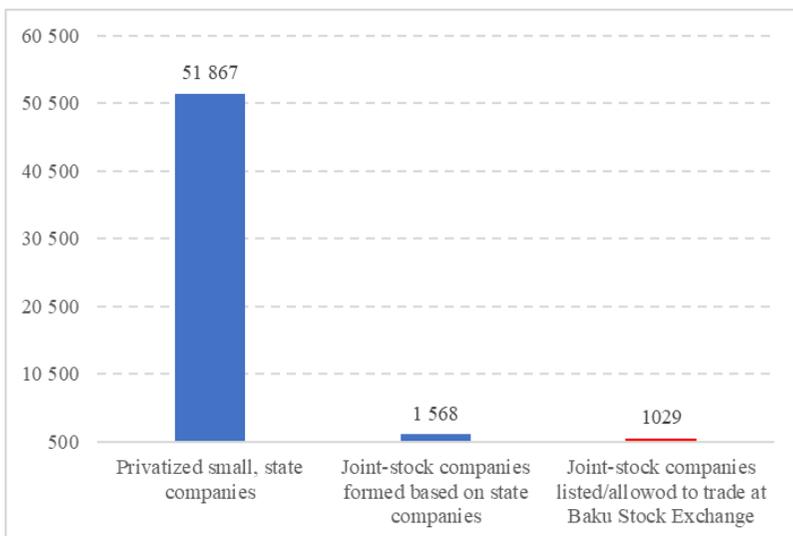


Diagram 1. Comparison of the number of privatized small state enterprises in Azerbaijan and traded joint-stock companies on the stock exchange for the years 1996-2018

Source: www.bfb.az, www.stat.gov.az

According to the results of surveys conducted among market participants, one of the main problems of the secondary market is the lack of technical functionality for individual investors, who are retail market participants, to monitor and trade market information. Another interesting point is the absence of price changes in the market (stocks are often traded at their nominal value).

Furthermore, the limited number of listed stocks results in a weak representation of the respective sector traded on the exchange. Due to this reason, there are no fund indices representing the stock market and, consequently, it complicates the formation of the stock portfolio that agricultural financial instruments would rely on.

For these reasons, agricultural financial instruments on stocks are not available in Azerbaijan. The experience of countries like Korea, Turkey, Kazakhstan, Russia, and others shows that agricultural financial instruments on stocks should be established after the fundamental basis of the stock market is solidified.

The analysis of the current state and development trends of the market suggests that the formation of the mentioned market can be

achieved gradually in Azerbaijan. The upcoming tasks should encompass legal, technical, regulatory, promotional, and educational directions as follows:

1. Increasing the trading volume of the fund market. Analyses indicate that there is a need for securities that accurately represent changes in the markets for hedging in the fund market.
2. Ensuring continuous price discovery in the stock market. Operations for hedging require alignment over continuous prices.
3. Strengthening the reliability of market infrastructure. Large market players actively participating in the market are needed for this purpose.

As a result of the research, the development of the stock market is identified as a preliminary condition for the formation of agricultural financial instruments on stocks. Alternatively, attention can be given to creating cross-products consisting of single-stock agricultural financial instruments or other instruments traded on other exchanges.

In Azerbaijan, the currency market is significantly dependent on the inflows of foreign currency resulting from oil exports (Graph 2). Research conducted indicates that changes in oil prices directly impact the exchange rate of the Azerbaijani manat and the volume of currency reserves that play a buffering role to maintain this exchange rate (Diagram 2).



Graph 2. Global oil prices and the exchange rate of the Azerbaijani manat

Source: www.macrotrends.com; www.cbar.az

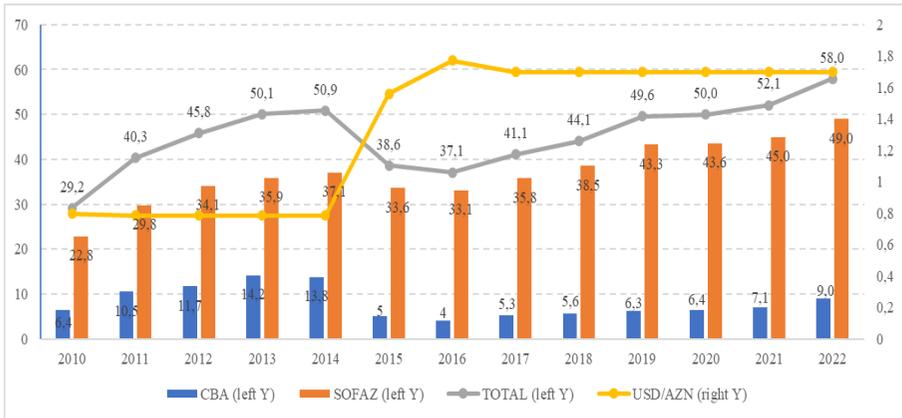


Diagram 2. Azerbaijan's currency reserves and USD/AZN exchange rate for the years 2010-2019

Source: www.macrotrends.com; www.cbar.az

The role of currency interventions by the Central Bank of Azerbaijan (CBA), particularly through the State Oil Fund of Azerbaijan (SOFAZ), is crucial in maintaining the stability of the exchange rate. Research has revealed that, despite the technical ability of any participant to carry out sales of the U.S. dollar based on their preferred format, the sales are predominantly conducted by the CBA and, mainly, by SOFAZ. Therefore, the amount to be transferred to the state budget by SOFAZ is converted into manats through the currency interventions conducted by the CBA.

The consistent full coverage of the demand by the CBA has prevented market participants from joining the price competition, and as a result, the exchange rate has remained stable. Simultaneously, institutional, and functional limitations have been applied to currency exchange in the retail foreign exchange market to reduce volatility.

Observations show that, the full coverage of the U.S. dollar demand at the currency market has led to the stability of the USD/AZN exchange rate at the indication of 1.7000 mark (Diagram 3).

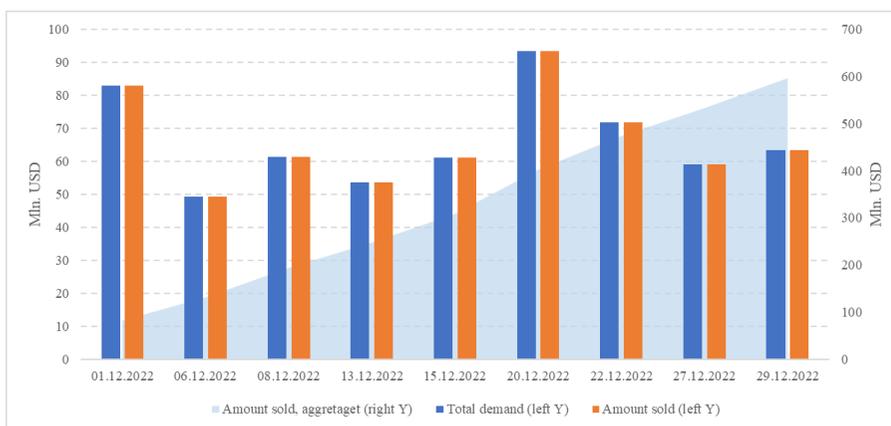


Diagram 3. CBA currency interventions, December 2022 (million USD)

Source: www.cbr.az

Azerbaijan's currency market is structured into two segments: the cash currency market and the non-cash currency market. Both markets operate outside the exchange, and there is no centralized institution (currency exchange) for organizing trades.

The overall volume of currency trading in Azerbaijan consists of the amount sold by the Central Bank to correspondent banks, interbank foreign exchange sales, and physical cash currency exchange operations.

The currency market is formed by four main participant groups. The first group of participants includes institutions (CBA, State Oil Fund of Azerbaijan, and Ministry of Finance), who are mainly in charge of market liquidity, primarily in terms of currency positions and regulatory functions. The second group includes commercial banks, the third group comprises investment companies, and the fourth group consists of import and export companies.

Due to the high margin level, there is a growing interest among local banks towards the relatively new market of currency forwards. Forwards are mainly offered by banks to individual customers for hedging currency positions.

Investment companies mainly engage in forward contracts for cash settlements, while the interbank market is forming around more deliverable forward transactions. Research indicates that approximately 90-95% of the contracts are based on U.S. dollar.

There is no currency futures market in Azerbaijan.

Although, while interviewing banks, results show some indications of specific agreements on options (the mechanism for disclosing market statistics is not available), it is challenging to say that they are significant in terms of the volume and number of operations.

As an alternative, the market for contracts for difference (CFD), which is the subject of margin trading, has formed. While CFDs on currency provide a convenient hedging tool for market participants, the absence of actual assets in circulation means that this market has no impact on the formation of currency exchange rates within the country.

In Azerbaijan, currency swaps are traded as agricultural financial instruments. The trade is conducted between banks in a bilateral format through Bloomberg terminals or via the SWIFT platform. Official statistics on swap operations, including the currency swaps conducted by the CBA with correspondent banks, is not available. Given the stability of the AZN/USD exchange rate since the second quarter of 2017, there is a little probability of currency swap operations to be in place due to the lack of an economic need.

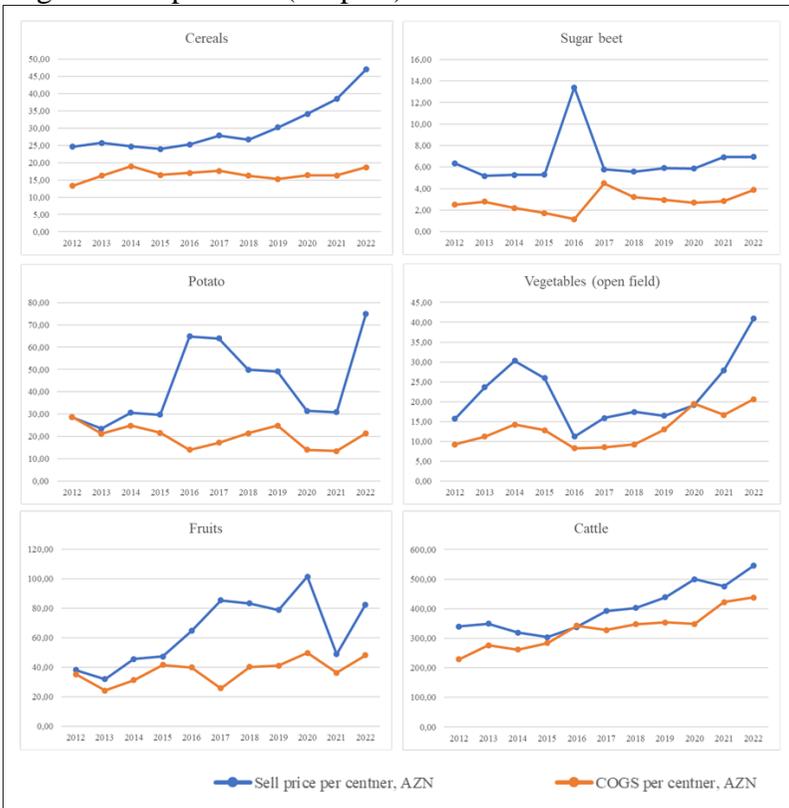
Cosidering the above, including practical insights of Korea, Turkey, and Kazakhstan, the conditions for the formation of currency-based agricultural financial instruments in Azerbaijan can be generalized as follows:

- 1st step: Full transition to an open market and a regulated floating exchange rate regime for the spot currency market (with the attraction of additional liquidity sources);
- 2nd step: Creation of a mechanism for disclosing market information for the formation of reference prices for underlying assets;
- 3rd step: Improvement of the regulatory framework for the currency market;
- 4th step: Formation of trading and post-trading infrastructure for trading with agricultural financial instruments on the exchange.

The initial condition for activating trade with currency-based derivative financial instruments is to ensure a stable connection between the spot currency market and forward currency markets.

4. Evaluating the possibilities of applications of derivatives for the formation of an organized commodity markets.

As the research focuses on the local commodity market, agricultural products have been considered in the section of tradable commodities. In the direction of creating derivative instruments, the establishment of fair and transparent trade in spot markets, risk management, and the creation of an organized commodity trading platform in the country hold special importance in terms of financialization. According to the information from the State Statistics Committee for the years 2012-2022 in Azerbaijan, except for industrial plants, there has been a reverse correlation observed between the selling price and the value of yeast for main agricultural products (Graph 3).



Graph 3. Selling price and yeast value (in manat) of one ton of main products in agricultural enterprises in the Republic of Azerbaijan

Source: Developed by the author based on information of SSCAR

Negative correlation has manifested itself since 2015. Reforms in the sector, including innovative solutions and increasing productivity through intensive production, have influenced the decrease in yeast value, but an increase in the value of manufactured products has been observed. Although the ratio between selling prices and yeast value has a positive impact on the profitability of local farmers, including the profitability of the production of main agricultural products, it raises questions from a consumer perspective about the principles of fair value formation.

The research conducted in other countries demonstrates that the formation of an organized spot trading and ensuring synchronization between these two markets is of particular importance for the trading of derivative financial instruments. In turn, infrastructure (warehouses, logistics, quality control, etc.) and mechanisms (grading standards, commodity-based collateral, physical settlement, etc.) serving the physical trading of commodities must be in place for the organization of spot trading. In Azerbaijan, the Turkish model appears suitable for the organization of the spot market, while the Turkish, Belarusian, and Uzbek models seem appropriate for the organization of the market for commodity-based derivative instruments.

From a legal perspective, the commodity exchange is an organization established based on the voluntary association of legal and/or physical persons pursuing the goal of organizing a wholesale trading market implemented in a predetermined location and time in the form of pre-determined mass gatherings according to the exchange rules specified by the “Law of the Republic of Azerbaijan on the Commodity Exchange”.

The creation of a trading platform for local derivative instruments in Azerbaijan can provide an alternative mechanism for the movement of free funds and capital within financial institutions, contrary to traditional banking channels. In the initial stage, creating standardized options for grain and oilseed-based derivative instruments with broader standardization opportunities and production volume can be considered. Additionally, in comparison with global production volumes, the formation of a local insurance tool against market risks faced by small-scale producers who do not enter the global derivatives market can be envisaged (based on the experience of Brazil, India, China, and South

African countries). However, the existence of an organized spot market, including the warehouse receipt mechanism, is a prerequisite for the creation of derivative instruments. Therefore, the state support for the creation of regulatory mechanisms and necessary institutions is of particular importance.

The organization of trade in commodities based on derivative instruments relies on the foundation of the spot market for commodities. This involves addressing issues such as standardization, storage, delivery, quality control, and collateral for commodities. To achieve these objectives, the use of warehouse receipt systems is employed in practice.

5. Based on the experiences of the United States and the European Union, the regulation of the derivatives securities market involves addressing various issues such as standardization, storage, delivery, quality control, and collateral.

During periods when financial market regulation is relaxed, a parallel system that forms in the background of systemic risks creates a basis for financial crises.

Global debates continue the regulation of the commodity derivatives market with a focus on increasing transparency and regulating the market for effective operation:

- Creation of a trade repository for the registration of over the counter derivatives in accordance with previous decisions adopted at the 2009 G20 Summit in Pittsburgh;
- Utilization of limits on speculative positions in futures contracts on commodities;
- Application of daily price change limits to reduce volatility;
- Implementation of restrictions on the volume of reserves held in delivery warehouses by non-commercial entities to limit market manipulation opportunities;
- Inclusion of measures related to large-volume and high-frequency trading operations within the scope of regulation;
- Achieving equal adoption of new regulatory measures by all exchanges and countries to prevent regulatory arbitrage and the flow of participants to other markets.

The legislative framework of the European Union financial markets is

built on two main regulatory pillars: the European Market Infrastructure Regulation (EMIR) and the Markets in Financial Instruments Directive (MiFID). In addition to this, the research has also considered the last two new legislative documents: the Markets in Financial Instruments Directive II (MiFID II) and its supplement, the Markets in Financial Instruments Regulation (MiFIR).

The regulatory framework for financial markets in the United States is primarily built upon the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act or Volcker Rule). The measures for both regulatory directions can be generalized as follows:

Legislation of the European Union	Legislation of the US
<ul style="list-style-type: none"> ○ Mandatory trading of commodity financial instruments traded over the counter in the EU or third countries on organized trading platforms (exchanges/regulated markets). ○ Centralized clearing requirement for over the counter commodity financial instruments. ○ Disclosure of trade operations information to the public. ○ Disclosure of trade information to regulatory authorities for monitoring and control. ○ Removal of borders between entities providing trading and clearing services to ensure competitiveness. ○ Specific control measures regarding positions in financial instruments and commodity financial instruments. 	<ul style="list-style-type: none"> ▪ Financial stability. Requirements for banks to strengthen their capitalization and focus more on traditional banking activities with the goal of providing consumer loans and safeguarding deposits. ▪ Transparency in financial markets. ▪ Transparent trading of commodity financial instruments on exchanges or trading platforms where commodity financial instruments are standardized and traded through centralized clearing systems and relevant margin mechanisms. ▪ Consumer protection. • Implementation of stricter lending conditions and regulation of potentially risky financial products and services that could pose financial risks to consumers.

Generally, the significant portion of regulatory reforms during the first half of 2020 is attributed to interventions in financial markets and central banks ensuring necessary liquidity due to the impact of the COVID-19 pandemic, disrupting normal operations in global financial markets. Despite facing volatility and liquidity pressures alongside the cash market during this period, no substantial issues have been identified in published research related to the commodity derivatives market.

The changing regulatory frameworks for commodity derivatives are currently witnessing the following trends in large global markets:

- Increased adoption of centralized clearing;
- Rising margin requirements for non-cleared commodity derivatives;
- Increased capital requirements;
- Transition to specialized trading platforms;
- Disclosure of trade information and transparency.

6. The determination of the impact of the derivatives market on economic development directions.

The obtained results on the investigation of the relationship between the agricultural tools market and economic growth can be divided into two parts: 1) observations of positive correlation between the development of the agricultural tools market and economic growth, and 2) observations of decreasing or zero correlation. In countries where positive correlation is observed, developing countries are mainly included.

Effective trade should ensure continuous monitoring of market prices and provide information transparency with the aim of regulating and controlling. While this information is available in exchanges, obtaining analogous information from markets outside the exchange is not possible. In practice, regulatory frameworks for both the exchange and over the counter (OTC) markets in agricultural financial instruments are mainly implemented by financial market regulatory bodies.

The success of agricultural financial instruments markets depends on factors such as a standardized money market, enough hedging and speculative players willing to trade with base assets, a mutual functioning financial system, and a functional legal framework. In this regard, the organization of agricultural financial instruments that protect against spot market risks seems promising.

The successful operation of the derivatives market allows companies to implement higher-risk projects through effective sharing of risks and, consequently, contributes to economic growth. At the same time, economic entities, including investors, consumers, and producers, can use the derivatives market as a reference source during the implementation of relevant operations, reflecting balanced values, which in turn can have a positive impact on economic growth.

The generalized results of the investigation into the relationship between derivative financial instruments and economic growth are as follows:

- The use of derivative instruments is statistically related to the development of increased investment and trade relationships.
- In developing countries, the development of the derivative instruments market has a positive impact on long-term economic growth.
- After reaching a certain level of economic development, profitability in the derivative instruments market moves along a decreasing trend line.

7. Identification of Issues in the Taxation of Derivative Financial Instruments. In many countries, the taxation of derivative instruments is governed by general tax principles, as there are no specific provisions in tax legislation regarding the taxation of these instruments. In such cases, the main challenge is determining the income, profit, or losses subject to taxation. Another issue is the differentiation between trading income and overall profit.

According to the tax legislation of the Republic of Azerbaijan, income derived from securities is considered as income outside of sales and is subject to the corresponding tax. The analysis of the tax legislation of Azerbaijan indicates that income (profit) obtained from the trading of derivative instruments by both legal and natural persons is considered a subject of taxation, considering general principles.

The tax legislation of Azerbaijan does not impose value-added tax (VAT) on transactions with derivative financial instruments accounted for by financial services. However, operations related to the circulation of securities, including shares and bonds (excluding cases of VAT

exemption), are considered subject to VAT as they are not related to financial services.

It can be concluded from this that while VAT is applied during the trade of the underlying asset itself, it is not applied when trading derivative financial instruments based on that underlying asset. Although such a situation may have a stimulating effect for market participants, it can be considered a gap in terms of fiscal policy due to the potential release from taxation. For example, if delivery is intended in the futures market, the actual gain or loss from the contract for future periods will be exempt from capital gains tax.

Considering the above, it is crucial for the taxation approach applied to derivative financial instruments and the underlying asset to complement and harmonize with each other in tax policy.

MAIN CONCLUSIONS

Based on the scientific findings obtained, the organization of a successful derivatives financial instruments market primarily relies on developed and sustainable spot markets. The characteristics of derivative financial instruments vary depending on the specific features of the underlying asset. In cases where there is no spot market, derivative instruments are often used for speculative purposes, which may not play a significant role in macroeconomic development.

Considering the contributions of derivative financial instruments to economic development globally, research results on the formalization and development of this market in Azerbaijan present new challenges to the national economic science. Particularly, the application of organized spot markets based on supply-demand principles, involving substantial futures and currency options, is validated both scientifically and practically.

Based on the scientific conclusions obtained because of the research, the creation of derivative financial instruments becomes difficult when the market for the underlying asset of these instruments is underdeveloped. Simultaneously, the application of derivative financial instruments in the hedging tool segment is important for ensuring the dynamic development of spot markets, such as the commodity market in Azerbaijan or the capital market and attracting additional investments. Theoretical as it is, the spot currency market serves as a reference point for economic development through financial markets, providing a foundation for the development of derivative instruments in all cases.

Taking these considerations into account, the research on derivative financial instruments emphasizes the investigation of spot markets where the underlying asset is traded, along with the capital market. It highlights the exploration of fundamental solutions in spot markets, such as the commodity market, securities market, and currency market, from a scientific perspective.

1. In the global context, the primary purposes of using derivative financial instruments include hedging against risks associated with market uncertainty (hedging), ensuring continuous financing based on future cash flows, and gaining profit from speculative funds;
2. In addition to the market where the derivative financial instrument

itself is traded, it requires a connection to the market where the underlying asset is traded, demanding more sophisticated and comprehensive control and regulatory mechanisms.

3. The organization of a successful derivative financial instruments market primarily relies on developed and stable spot markets;
4. The characteristics of derivative financial instruments vary depending on the characteristics of the underlying asset. In examples where there is no spot market, derivatives are usually used for speculative purposes, which may not play a significant role in macroeconomic development;
5. The inability of complete liberalization of the currency market in Azerbaijan, coupled with the reliance on the stock market, poses a fundamental challenge for the creation of derivative financial instruments based on the mentioned underlying assets. The research results suggest the necessity of addressing problems in the following directions:
 - Stimulating supply in the stock market - privatization of state-owned institutions through capital markets, addressing organizational issues hindering issuers' entry into the market, de facto implementation of an open shareholder society concept, and application of tax incentives.
 - Stimulating demand - establishing reference interest rates, attracting foreign investors, applying tax incentives, differentiating portfolios by including listed securities from other securities portfolios based on high listing requirements for mandatory capital reserves of companies, forming an institutional investor class.
 - Advancing infrastructure and completing institutionalization - creating opportunities for investment company clients to access capital markets directly, establishing spot and derivative currency market instruments adhering to open market principles, creating a seamless settlement/clearing and collateral mechanism ensuring stability and continuity of trade, establishing independent rating agencies, and creating a market entry and financing mechanism from local capital markets for small and medium-sized enterprises.
6. The current level of development of the agricultural sector in Azerbaijan, along with the provision of required infrastructure and

institutionalization, allows for the possibility of creating financial instruments in this direction. Essential institutions for organizing the trade of agricultural instruments are the warehouse system (issuance and registration of warehouse receipts), commodity exchange (organization of spot trading), and the establishment of a clearinghouse for settlement activities. In this field, the state's support is considered crucial, following the principles of public-private partnership.

7. The implementation of a centralized warehouse receipt system in Azerbaijan can facilitate the trade of agricultural products, especially streamlining the trading of agricultural products from rural areas and creating alternative financing mechanisms. It is important to establish a reference price level and collateral base, which are essential conditions for creating agricultural financial instruments.
8. The application of tax approaches specific to the agricultural financial instrument must complement and harmonize with the base asset of the financial instrument. The harmonization of tax policies should be an integral part of the overall tax policy applied to the agricultural financial instrument.
9. In developing countries with emerging capital markets, the role of the government in creating agricultural financial instruments should focus on defining the framework of the system, implementing initial incentives, and subsequently applying mechanisms to protect the market.

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