## A.O. Zhagyparova, Ye.M. Zhussupov, A.S. Bekbolsynova

L.N. Gumilyov Eurasian National University, Astana, Kazakhstan (Email: zhagyparova\_aida@mail.ru, y.zhus@yandex.ru, bekas.ast@mail.ru)

# Qualitative and quantitative analysis of the state of the financial market of Kazakhstan

**Abstract.** The relevance of the financial market, stability and efficiency of operation in the context of the need to ensure socio-economic development is increasing in the context of growing geopolitical and geo-economic changes in the world. The financial market plays an important role in ensuring the high quality of socio-economic development of any state, regardless of the degree of its development.

Of particular importance at the current stage of Kazakhstan's development are the issues of ensuring favorable conditions for increasing the level of competitiveness of Kazakhstan's economy, deeper diversification of the structure of the national economy, which should ultimately affect the improvement of the quality of life of the population.

The article considers the current state of the securities market of the Republic of Kazakhstan, financial performance of brokers, dealers and investment portfolio managers, methods of forecasting the dynamics of value dynamics of technical analysis tools: fundamental and technical analysis. Special attention is paid to forecasting prices on the financial market using the latter approach. The reasons for underdevelopment and inefficiency of the stock market and ways to realize further development of the securities market in Kazakhstan are given.

**Key words:** Financial market, stock market, securities market, price forecasting methods, financial assets.

DOI: https://doi.org/10.32523/2789-4320-2023-4-265-277

**Introduction.** Of particular importance at the current stage of Kazakhstan's development are the issues of ensuring favorable conditions for increasing the level of competitiveness of Kazakhstan's economy, deeper diversification of the structure of the national economy, which should ultimately affect the improvement of the quality of life of the population.

This means that the domestic system of state regulation requires significant modernization, when not only the benefits and interests of financial and credit institutions focused on the extraction of commercial profit will be put at the center of attention, but also the interests of the state, business and society will be simultaneously taken into account (for the state: promotion of uninterrupted capital flow at the macro, meso and micro level, revival and development of the innovation sector, increasing the competitiveness of the Kazakhstani economy and economic growth; for the state: promotion of uninterrupted capital flow at the macro, meso and micro level, revival and development of the innovation sector, increasing the competitiveness of the Kazakhstani economy and its growth; for population and business – maximum accessibility and satisfaction with the quality of financial services).

Today, within the framework of implementation of the «Zhana Kazakhstan» Concept, the beginning of improvement of the institutional environment has been laid: the Concept of development of public administration in the Republic of Kazakhstan until 2030, the Concept of new budget policy until 2030, the State Planning System and updating of the National Development Plan of the country until 2025 have been approved, transformation of state programs

into National Projects has been carried out, the Concept of development of the financial market until 2030 is planned to be approved.

**Research methods.** In this paper the authors used the following general scientific research methods: generalization, statistical methods, comparative analysis, as well as the method of forecasting.

In 2022, the situation in the external market was characterized by high uncertainty and the presence of increased volatility. The geopolitical conflict between Russia and Ukraine was the main reason for a large number of unprecedented sanctions against Russia, worsening supply problems, which provoked a global general increase in prices, including energy prices. This intensified the observed inflationary pressures in the global economy.

The liquidity surplus in the money market slightly increased. Excess liquidity was withdrawn through short-term notes, deposit auctions and NBRK deposits. Interest rates in the repo market were mainly formed at the lower boundary of the corridor, except for tax weeks and periods of high uncertainty, which caused an increased demand for tenge liquidity. The overnight repo market in terms of liquidity placement became more highly concentrated, as it remains in terms of attraction.

The foreign exchange market was characterized by high volatility amid growing uncertainty. In particular, the exchange rate dynamics was influenced by changes in the cost of energy resources, geopolitical situation, tightening of monetary conditions in developed countries and strengthening of the US dollar against the currencies of other countries. The increase in the norm of compulsory sale of foreign exchange earnings by quasi-governmental sector entities contributed to the growth of foreign exchange sales by them. After sharp rate hikes in the first half of 2022, in the second half of the year the foreign exchange market was characterized by a more balanced supply and demand, as well as moderate volatility.

**Results.** As of today, Kazakhstan has a full-fledged securities market and an infrastructure that provides market participants with the necessary tools to perform a full cycle of trading and PIC trading operations. In particular, the domestic stock market assumes realization of the concept «from Start-up to Blue chips», as a result of which the companies of different sizes, forms of ownership and levels of development have created conditions for attraction of equity and debt financing through securities market instruments.

Since October 2020, the possibility of remote conclusion of brokerage contracts through biometric identification using mobile applications of brokers, as well as the provision of a full range of brokerage services by banks has been implemented. This allowed for an active growth in the number of retail investors in the market, the number of which increased by 56% over the past year to 198 thousand.

As of 01.01.2023, the securities market of the Republic of Kazakhstan is represented by 38 brokers and (or) dealers (15 banks and 23 non-bank organizations), 10 custodian banks, 20 investment portfolio managers, 3 transfer-agents, as well as 2 infrastructural organizations: JSC «Kazakhstan Stock Exchange» and JSC «Central Securities Depository» (hereinafter - the Central Depository), which also performs the functions of a single registrar and trade repository (Table 1). In addition, a central counterparty functions on the basis of Kazakhstan Stock Exchange JSC [1].

As of 01.01.2023, the number of issued licenses to carry out activities on the securities market is 74 pcs.

Table 1 – Structure of the securities market

	01.01.21	01.01.22	01.12.22	01.01.23
Total broker-dealers,	38	38	38	38
including:				
Banks	18	16	15	15
of which category 1	15	13	12	12
non-banking organizations	20	22	23	23
of which category 1	20	22	23	23
Custodians	9	9	9	10
Investment portfolio	19	19	20	20
managers				
Transfer agents	2	3	3	3
Securities trading organizer	1	1	1	1
Clearing activities on trades	1	1	1	1
in financial instruments at				
the SBM				
Central Securities Depository	1	1	1	1
Total	71	72	73	74

In the accounting system of the Central Securities Depository 550 21710 sub-accounts of clients of depositors are opened (Figure 1), of which 519 790 (94.5%) sub-accounts belong to clients of 4 depositors: JSC «Freedom Finance», JSC «DO NBK «Halyk Finance», JSC «Kazpost», JSC «First Heartland Jusan Invest». In December 2022, the number of sub-accounts increased by 4.6% (for 2022 growth by 149.9%) mainly due to an increase in the client base of «First Heartland Jusan Invest» JSC.

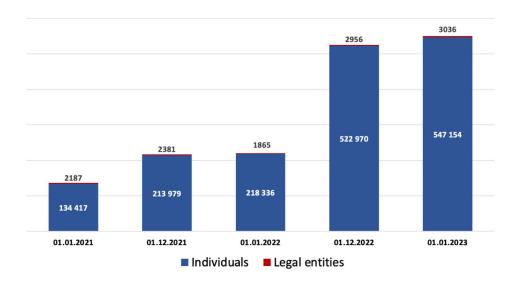


Figure 1. Number of sub-accounts in the nominal holding accounting system

Total assets of brokers and (or) dealers and investment portfolio managers for December 2022 increased by 6.8% (46.2 billion KZT) to 579.1 billion KZT (14.6% growth for 2022) (Figure 3.10). In the structure of assets of brokers and (or) dealers and investment portfolio managers as of 01.01.2023, the main share is securities portfolio - 66,6% or KZT 385,8 bln (Figure 3.11). The share of non-government securities of the RK issuers is 54.5%, government securities of the RK - 17.4%, securities of international financial organizations - 8.2%.

Securities portfolio for December 2022 increased by 7.5%, for 2022 the growth amounted to 10.9% mainly as a result of increase in the volume of government securities of the RK (by 46.5% or 21.3 billion KZT), non-government securities of the RK issuers (by 32.9% or 51.9 billion KZT) and government securities of foreign issuers (by 12.8 billion KZT or 2.7 times).

Total liabilities for December 2022 increased by 14.2% (KZT 21.5 billion) to KZT 173.4 billion (Figure 3.10) as a result of an increase in repo liabilities (KZT 27.8 billion).

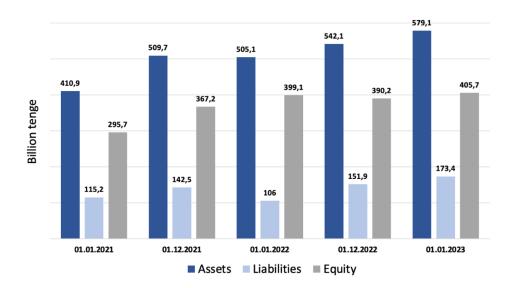


Figure 2. Financial indicators of brokers and (or) dealers and investment portfolio managers

Equity capital of brokers and (or) dealers and investment portfolio managers increased by 3.9% (KZT 15.5 billion) to KZT 405.7 billion for December 2022.

For 2022, the aggregate profit of brokers and (or) dealers and investment portfolio managers amounted to 9.4 billion tenge.

The pandemic has accelerated a number of global trends, most notably the widespread growth of the retail investor base, the accelerated shift to a green agenda and digitalization.

Systematic work is also carried out in terms of liberalization of legislation on investment funds. Thus, in 2018, the requirements for their minimum asset size and the number of unit holders were excluded. In 2020, risk investment units were admitted to circulation in the trading system of the Kazakhstan Stock Exchange (KASE) for qualified investors. Amendments were made to the Tax Code of the Republic of Kazakhstan, according to which, starting from 2025, income from the increase in the value of units will be excluded from the income of individuals subject to taxation. In 2020, the regulator launched a major effort to provide brokerage companies with the possibility of remote provision of services and remote identification of clients. The initiative was quickly picked up by professional market participants - currently 10 out of 20 Kazakh brokerage organizations provide their mobile applications for retail investors, with some implementing this service through the infrastructure of parent banks. In September 2021, Kazakhstan's government bonds were included in the Frontier Emerging Markets Government

Bond Index (FTSE). To date, the task of attracting small and medium-sized companies to lend on the stock market. KASE together with development institutions - Damu Fund and Kazakhstan Institute of Standardization and Metrology (KISM), ARDF and the Ministry of National Economy (MNE) has developed a program of SME financing with the help of stock market instruments since 2022 [40].

Since the end of the last year a sharp inflow of retail investors has been observed on the local market. Among the positive trends can be highlighted: growth in the number of daily transactions taking place on KASE in 2.4 times; the number of active accounts - in 2.9 times; the daily volume of transactions on the stock market reached 1.8 thousand with an average volume of one transaction of KZT0.5 mln. Based on the successful experience of stock exchanges in other countries, since November 2021 trades in foreign shares have been launched in the new sector of KASE Global, where more than 40 most liquid shares of foreign companies are currently traded. Shares of 6 names were especially popular among retail investors: Moderna, Tesla, Pfizer, Citi, Boeing and Salesforce.

At the same time, there was a delisting of shares of Kazminerals JSC, whose securities over the past few years were one of the main drivers of growth. This, however, has not prevented the capitalization of the stock market to grow by 58% since the beginning of 2021, supported by shares of Kazatomprom JSC and representatives of the banking sector (Bank CenterCredit JSC, Halyk Bank JSC and Kaspi.kz JSC). According to available estimates, the share of shares offered for sale in our country is 15-20% of their issue. It is lower than in other countries. Besides, out of tens thousands shares of Kazakhstan joint stock companies, shares of about 300 issuers are traded at stock exchanges, and about 90% of exchange's turnover falls on deals with shares of about 100 issuers. Deals with shares of many of them have occasional character, and volumes of deals are rather insignificant

AIFC exchange was determined as the main platform for placement of corporate and government securities. The Ministry of Finance of the Republic of Kazakhstan (Minfin RK) plans to issue and float government securities already on the new exchange. It remains unclear how the two exchanges will function simultaneously. Advantages of AIFC are technological equipment of the exchange (Nasdaq Matching Engine system), variety of financial instruments (ETF, «green bonds», sukuk) and increased interest of international investors. These factors may deprive KASE of its status as the main domestic platform for attracting capital. Kazakhstan Stock Exchange risks becoming an instrument only for making deals on currency and money markets. KASE shareholder structure. The National Bank owns the largest stake of shares - 50.1%. The second-tier banks have 25.45%. Another 23.68% belong to legal entities, including subsidiaries of banks. The share of individuals is only 0.77% [41].

An interesting trend was the entry of microfinance organizations into the capital market. In 2020, the ARDF allowed microfinance companies to raise debt financing on the stock market, and the KASE simplified procedures for SMEs to list on its platform. Already by the end of November 2021, 16 issues of 12 microfinance organizations, including two issues denominated in dollars, were placed on KASE. By the way, the ability to issue securities denominated in foreign currencies on KASE is also one of the innovations of 2021, and microfinance organization «Credit Time» was the first to use this opportunity.

**Discussion**. Among the new trends, ESG -bonds. It continued to grow in 2021. However, so far only international financial organizations and national development institutions participate in the placement of this type of bonds, but in general we see that the trend is positive. In 2021, the Asian Development Bank placed gender bonds on KASE, Damu Fund - social bonds, Eurasian Development Bank - one issue each of gender and social bonds for a record KZT40 bln. Securities from the ESG sector are mainly popular for their high credit ratings and stable financial indicators.

On the derivatives market KASE launched a new trading and clearing system SPECTRA in 2021. At the moment, it holds trades in non-deliverable futures on four underlying assets: U.S. dollar to tenge rate, common shares of Halyk Bank and Kazatomprom and KASE index. It is also planned to launch three-month futures on some shares on dollar. Volumes of trades in this sector

are still modest, for its development it needs big liquidity and high level of professionalism of participants. KASE is now working on the program of market-making in this segment.

The reasons for the underdeveloped and inefficient stock market, which cannot still ensure fair pricing, free access of investors to the securities market and protection of their interests, are:

- low financial literacy of the population (in terms of operations with securities, types of securities, their advantages and disadvantages) and their lack of involvement in operations with securities;
- deductive approach to the formation and development of stock exchanges in the country (in other words, non-development of stock exchange operations in the regions where substantial financial resources of industrial enterprises and population are concentrated in thesaurus as potential sources of investment in securities);
- lack of a transparent country-level mechanism of capital spillover at the meso and macro levels that would facilitate the effective transformation of savings into investments;
- unattractiveness and lack of demand for the proposed financial instruments for potential investors:
- the practice of minimizing the authorized capital in order to prevent control over the company, which facilitates the issuance of no more than 30% of the issued shares from their total volume (more often no more than 10%), will not solve any financing problems due to the modest percentage of the authorized capital both for the enterprises of the real sector and for the population;
- the current legislation does not take into account all aspects of investors' and exchange participants' work (cases of infringement of the rights of small shareholders (minority shareholders) and non-resident shareholders as a result of actions of large holders of shares (majority shareholders), significant costs in buying and selling shares, re-registration of the rights of owners, primarily of illiquid instruments;
- underdevelopment of insurance instruments in financial risk management; 8) low shareholder (dividend) culture (joint stock companies often have a short history, do not have a clear dividend policy (frequent non-payment, not high dividend amount, acquired not as a result of dividend increase, but as a result of exchange rate difference growth, which indicates their speculative rather than investment nature);
- non-competitiveness of debt financial instruments (corporate bonds) compared to bank loans;
- lack of public confidence in the financial market as a whole (real estate and foreign currency deposits are more preferable investment objects for the population, while the world practice shows that the stability of the stock market largely depends on the presence of private investors and the volume of their investments in equity and investment funds);
- underdevelopment of the derivatives market (in world practice, the set of derivatives offered is more extensive, and interest rate derivatives have long been the leader, while in our country the overwhelming share of transactions falls on stock and currency derivatives) and others;
- many participants of the stock exchange do not fully understand the possibilities of concluding transactions in different ways, have a poor understanding of the types of transactions on the stock market, as well as participants of transactions have a low investment culture;
- impossibility to manage financial risks European stock exchanges have a kind of insurance companies on the stock market and all risks of transactions are not significant. Often a special mechanism of transactions becomes a guarantor of absence of risk, as the culture of the population and investors allows to make this system more fine-tuned;
- lack of a clear government long-term policy with regard to the securities market, which would facilitate the transformation of savings into investments. The stock market is not efficient enough due to the fact that it cannot ensure fair pricing, free access of investors to the market and protection of investors' interests. This is manifested in the infringement of the rights of small shareholders and non-resident shareholders as a result of the actions of large holders of shares,

in the high costs of buying and selling shares and re-registration of owners' rights, especially when it comes to small volumes of transactions of not very liquid shares;

- extremely small number of derivative instruments. In the world practice, the set of derivative financial instruments offered is more extensive and interest rate derivatives have long been the leader, while in our country the overwhelming share of transactions falls on stock and currency derivatives. The degree of public confidence in the financial market is important for the development of the stock market. The experience of developed countries shows that the stability of the stock market largely depends on the presence of private investors. And the real way of participation of small and medium investors is their investments in joint-stock and investment funds;
  - mistrust of counterparties in the OTC market;
- lack of exchange-traded derivatives market tools for efficient management of their portfolios in order to minimize risks through hedging transactions;
- lack of opportunities for stock market participants to create different trading strategies on the exchange market (speculative and arbitrage transactions);
- insufficient legal regulation of operations on the derivatives market (including taxation issues);
- absence of a legally enshrined procedure for liquidation close-out netting in case of counterparty bankruptcy (primarily relevant for banks);
  - impossibility of NPF participation due to the ban on pledging pension assets, etc.

Further development of the securities market in Kazakhstan requires fundamental transformations within the current model of the stock market infrastructure in order to ensure the stability of its functioning and integration into the global economic system while achieving a high level of competitiveness. In order to fulfill this task, it is necessary to have a model of self-regulated securities market infrastructure, within the framework of which realization it is proposed:

- implementation of programs to reduce the level of risks accompanying the professional activities of stock market participants;
- ensuring active participation of professional participants in improving the legislative and regulatory framework;
- development and implementation of unified standards of professional activity for all participants of the Russian securities market, as well as principles of corporate behavior;
- expansion of the range of services provided by professional participants with simultaneous reduction of their cost price (while maintaining high quality of services provided through unification and optimization of operations conducted in the financial market);
- organization of work on standardization of document flow (unification of documents EDM system) of stock market participants, and, first of all, in terms of circulation of documents, the exchange of which is stipulated by regulations;
- reducing the costs of state regulatory authorities for direct supervision of all professional participants of the stock market, licensing and collection of reports;
- ensuring effective state regulation by focusing on the most important problems of securities market regulation;
- modification of software in order to improve the efficiency of professional activities on the securities market;
- improving the quality of consulting services on all issues related to professional activities on the securities market (reporting, attestation, licensing, etc.);
- introduction of the practice of regular professional development of employees of organizations that are active participants of the securities market;
- improving the quality of information support for stock market participants; improving the system of internal monitoring and control in order to increase the level of efficiency of state regulation of the securities market, etc.

In the world practice there is a large number of methods used to forecast prices on financial markets.

The level of forecasting with the help of technical analysis is quite high.

Determination of indicator sensitivity to changes in prices of financial instruments can be tested using correlation and regression analysis.

Let us consider the dependence of the following indicators.

Change in the value of the instrument and change in the indicator:

$$\Delta_{-\text{(indicator prices)}} = b-a, \tag{1}$$

Change in the value of the instrument and change in the indicator by module:

$$|\Delta_{-\text{(indicator prices)}}| = |b-a|, \tag{2}$$

 $|\Delta_{-\text{(indicator prices)}}| = |b-a|,$  Relative change in the value of the instrument and the indicator:

$$I_{\text{-(indicator prices)}} = (b-a)/a$$
 или  $I_{\text{-(indicator prices)}} = ln(b/a),$  (3)

Relative change in the value of the instrument and the indicator by module:

$$|I_{\text{-(indicator prices)}}| = |(b-a)/a|$$
 wan  $|I_{\text{-(indicator prices)}}| = |\ln(b/a)|$ , (4)

where a is the value in period 0, b is the value in period 1.

The listed indicators serve as a basis for correlation analysis. For each indicator of technical analysis correlation was calculated on the basis of data for a trading week (5 days), month and 3 months. Based on the obtained results, the most indicative were the calculations based on the price change and the corresponding indicator change, as well as their modulus change. Thus, the correlation of two technical analysis tools MACD and commodity channel index have a close relationship with the changes of all technical analysis tools. The correlation in this case turned out to be greater than 0.6. The obtained high values of correlation between the data indicate a strong sensitivity of the indicator changes in relation to price changes. Other analyzed indicators did not show a close relationship. It should be noted that the correlation coefficient between the data can vary greatly over time, which is caused by the constant rise and fall in the value of financial market instruments.

A group of minimizing indicators (drawdown, drawdown/gain ratio, etc.):

$$Z_{ij}^{*} = \frac{Z_{ij} - Z_{i \min}}{Z_{i \max} - Z_{i \min}}, K_{ij}^{*} = \frac{K_{ij} - K_{i \min}}{K_{i \max} - K_{i \min}} \quad 0 \le Z_{ij}^{*} \le 1. \quad 0 \le K_{ij}^{*} \le 1.$$
 (5)

Group, maximizing indicators (increment, level of truth, coefficient of determination, etc.):

$$Z_{ij}^* = \frac{Z_{i \max} - Z_{ij}}{Z_{i \max} - Z_{i \min}}, \ 0 \le Z_{ij}^* \le 1.$$
 (6)

where  $Z_{ij}$  - estimated value  $_i$ -th economic efficiency indicator using j-th technical indicator,

 $Z_{ij}^*$  - standardized indicator i-th economic efficiency indicator using *J* -th technical indicator,

 $K_{i \max} K_{i \max} Z_{i \max}$  - highest estimated value <sub>i</sub>-th indicator,

 $K_{i \min} Z_{i \min} K_{i \min}$  - lowest estimated value <sub>i</sub>-th indicator.

To obtain a quantitative comprehensive assessment of the effectiveness of technical indicators, the methodology is supplemented with the calculation of an integral standardized

indicator ( $Z_{complex\ j}$ ). This indicator is calculated as the sum of standardized indicators included in the system of criteria for assessing the effectiveness of the application of technical indicators, including two groups of indicators.

$$Z_{complex \ j}^* = \sum Z_{ij}^* K \quad {}^{*\text{CDЭK}}_{\text{uht.}j} = \sum \qquad K_{ij}^*$$

$$(7)$$

 $Z_{complex\ j}^* = \sum Z_{ij}^* \mathbf{K}_{\mathbf{uht.}j}^{*\mathbf{cnisk}} = \sum K_{ij}^*$  (7)  $\mathbf{K}_{\mathbf{uht.}j}^{*\mathbf{cnisk}} Z_{complex\ j}^*$  - a comprehensive indicator of the efficiency of financial assets management with the help of *j*-th technical indicator.

The lower the value of the integral standardized indicator of the quality of financial assets management with the help of technical indicator  $(Z_{complex j}^*)$ , the more effective its application in exchange trading is. This allows ranking technical indicators by their value  $Z_{complex\ j}^{r}$ .

The use of a technical indicator for a private investor is primarily indicated by the possibility of increasing the total capital. In other words, the results of growth have a greater impact on his interests compared to other indicators. That is why the capital increase has the greatest weight in the calculation of the integral standardized indicator to find the optimal indicator and to build a trading strategy for a private investor with it. Since the drawdown indicator, the ratio of drawdown to growth and the coefficient of determination are of equal interest to the investor, these coefficients are evaluated by the same amount of weight in the final calculation of the indicator's integrated performance indicator.

After all calculations, based on the methodology of rating based on a standardized indicator, the results for each indicator are presented in Table 1.

Table 2 - Standardized indicator of financial assets management quality for analyzed indicators of technical analysis

Technical	Standardized values of indicators characterizing forecast properties of a technical indicator		Standardized values of indicators characterizing the economic efficiency of the technical indicator		Consolidated standardized performance indicator of a technical
indicator	Coefficient of determination	Percentage of truth	Capital gains	Capital drawdown	indicator taking into account the significance of its parameters for a private investor
Bollinger Bands	5,99	7,50	8,03	2,02	6,32
Schaff Trend Cycle Indicator	7,93	10,47	7,38	1,00	6,83
Parabolic SAR	8,00	8,29	8,00	2,13	6,89

MACD	10,08	8,06	8,84	1,10	7,38
Commodity					
channel index					
(CCI)	9,95	11,66	11,63	3,24	9,62
Alligator	8,24	9,75	8,14	3,37	7,53
Chaikin					
Volatility					
Indicator	5,60	7,83	15,16	3,97	9,54
ATR	6,41	9,09	8,65	1,70	6,90

Source: compiled by the author

Financial indicators play a crucial role in investment decisions by providing insight into a company's financial health, operating performance and future growth prospects. Investors use these indicators to compare different investment options and select those that meet their investment objectives.

Thus, a comprehensive understanding and effective application of financial indicators is a key aspect of financial analysis, guiding informed decision-making by investors, lenders, and management alike.

#### Conclusion

Formula for calculating a consolidated standardized performance indicator of a technical indicator, taking into account the significance of its parameters for a private investor:

Summary indicator = 
$$0.2 * Coefficient of determination + 0.2 *$$
  
Percentage of truth +  $0.4 * Capital gains + 0.3 * Capital drawdown$ 
(8)

According to the used methodology, the lowest value of the standardized indicator indicates high efficiency of the technical analysis indicator. Based on this, effective indicators for application in the financial market are Bollinger Bands, Schaff trend cycle indicator and Parabolic SAR.

Based on the evaluation of the indicators' efficiency, a private investor can form an asset management strategy by using an optimal combination of technical analysis tools.

It is commonly believed that technical analysis is used for quick trades and fundamental analysis is used for long-term trades. Therefore, investors with a long planning horizon may ignore technical analysis. If we compare both types of analysis, fundamental analysis is future-oriented, while technical analysis is based solely on the past.

Experienced management companies skillfully combine the two types of analysis. Experienced investors do the same. Beginning participants of the stock market can master both types of forecasts, but on small portfolios. As a rule, it is recommended to allocate the amount that you can afford to lose to practice a new strategy or acquired knowledge.

«This research is being funded by the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan (API 19677311 «Exploring the application of deep artificial intelligence in forecasting the green securities market in Kazakhstan «).

## Список литературы

- 1. Обзор финансового рынка за 2022 год. Отчет Национального банка Республики Казахстан [Электрон. pecypc] -2022. -URL: https://nationalbank.kz/ru/page/obzor-finansovogo-rynka (дата обращения 6.08.2023).
- 2. Данные Бюро национальной статистики Агентства по стратегическому планированию и реформам PK [Электрон. pecypc] -2022. -URL: https://stat.gov.kz/official/industry/14/statistic/8 (дата обращения 6.08.2023).
- 3. Какие законодательные изменения произошли на финансовом рынке. Центр деловой информации Капитал [Электрон. pecypc] -2023. -URL: https://kapital.kz/finance/101588/kakiye-zakonodatel-nyye-izmeneniya-proizoshli-na-finansovom-rynke.html (дата обращения 7.08.2023).
- 4. Обзор рынка ценных бумаг РК за 2022 год. Аналитический центр Ассоциации финансистов Казахстана [Электрон. pecypc] -2023. -URL: https://kapital.kz/info/rynok-tsennykh-bumag (дата обращения 5.08.2023).
- 5. Рынок ценных бумаг и управление пенсионными активами. Агентство Республики Казахстан по регулированию и развитию финансового рынка [Электрон. pecypc] -2023. -URL: https://www.gov.kz/memleket/entities/ardfm/activities/788?lang=ru (дата обращения 5.08.2023).
- 6. О состоянии рынка ценных бумаг Казахстана на 1 июля 2023 года. Агентство Республики Казахстан по регулированию и развитию финансового рынка [Электрон. pecypc] -2023. -URL: https://www.gov.kz/memleket/entities/ardfm/press/news/details/596240?lang=ru (дата обращения 7.08.2023).
- 7. Итоги 2022 года в Казахстане: демонополизация, борьба с теневым оборотом и ростом цен. Официальный информационный ресурс Премьер-Министра Республики Казахстан [Электрон. pecypc] -2022. -URL: https://primeminister.kz/ru/news/reviews/itogi-2022-goda-v-kazahstane-demonopolizaciya-borba-s-tenevym-oborotom-i-rostom-cen-2911486 (дата обращения 7.08.2023).
- 8. Мэрфи Дж. Межрыночный анализ: Принципы взаимодействия финансовых рынков / Дж. Мэрфи; Пер. с англ. Москва: Альпина Паблишер, 2016. 299 с.
- 9. Wang P., Shao L. & Li, H. New method of financial technical analysis based on the perspective of mathematical modeling // Journal of Software Engineering. -2015. –Vol. 9. –Is. 3.–P. 504-519.

#### А.О. Жагыпарова, Е.М. Жусупов, А.С. Бекболсынова

Л.Н. Гумилев атындагы Еуразиялық ұлттық университеті, Астана, Қазақстан

# Қазақстанның қаржы нарығының жай-күйін сапалық және сандық талдау

**Аңдатпа.** Әлемде өсіп келе жатқан геосаяси және геоэкономикалық өзгерістер жағдайында әлеуметтік-экономикалық дамуды қамтамасыз ету қажеттілігі тұрғысынан қаржы нарығының өзектілігі, тұрақтылығы мен жұмыс істеу тиімділігі артып келеді. Қаржы нарығы оның даму дәрежесіне қарамастан кез келген мемлекеттің әлеуметтік-экономикалық дамуының жоғары сапасын қамтамасыз етуде маңызды рөл атқарады.

Нарықтық экономика жолына түскен көптеген елдер сияқты, Қазақстан да бағалы қағаздар нарығын дамытуда елеулі қиындықтарға тап болады. Бұрын мұндай қызмет түрінің болмауы, тиісті мемлекеттік заңнамалық актілерден басқа, оның дамуын мақсатты түрде ынталандыруды, бағалы қағаздар нарығына қатысушылар мен реттеуші органдар арасында кері байланысты қолдауды, халықтың қалың жігі арасында бағалы қағаздармен жұмыс істеу мәдениетін дамытуды, инвестициялауға қызығушылықты оятуды талап етеді.

Қазақстан дамуының қазіргі кезеңінде Қазақстан экономикасының бәсекеге қабілеттілік деңгейін арттыру, Ұлттық экономика құрылымын неғұрлым терең әртараптандыру үшін қолайлы жағдайларды қамтамасыз ету мәселелері ерекше маңызға ие, бұл, сайып келгенде, халықтың өмір сүру сапасын арттыруға әсер етуі тиіс.

Мақалада Қазақстан Республикасының Бағалы қағаздар нарығының ағымдағы жағдайы, брокерлердің, дилерлердің және инвестициялық портфельді басқарушылардың қаржылық көрсеткіштері, құн динамикасын болжау әдістері, техникалық талдау құралдары: іргелі және техникалық-экономикалық талдау қарастырылады. Соңғы тәсілді қолдана отырып, қаржы нарығындағы бағаны болжауға ерекше назар аударылады. Қор нарығының дамымауы мен тиімсіздігінің себептері және Қазақстанда бағалы қағаздар нарығын одан әрі дамытуды іске асыру жолдары келтірілген.

**Түйін сөздер:** Қаржы нарығы, қор нарығы, бағалы қағаздар нарығы, бағаны болжау әдістері, қаржы активтері.

#### А.О. Жагыпарова, Е.М. Жусупов, А.С. Бекболсынова

Евразийский национальный университет имени Л.Н. Гумилева, Астана, Казахстан

# Качественный и количественный анализ состояния финансового рынка Казахстана

**Аннотация.** Актуальность финансового рынка, стабильность и эффективность функционирования в контексте необходимости обеспечения социально-экономического развития возрастает вусловиях растущих геополитических и геоэкономических изменений в мире. Финансовый рынок играет важную роль в обеспечении высокого качества социально-экономического развития любого государства, независимо от степени его развитости.

Как и многие страны, вставшие на путь рыночной экономики, Казахстан сталкивается со значительными трудностями в развитии рынка ценных бумаг. Отсутствие данного вида деятельности в прошлом, в дополнение к соответствующим государственным законодательным актам, требует целенаправленного стимулирования его развития, поддержания обратной связи между участниками рынка ценных бумаг и регулирующими органами, развития культуры обращения с ценными бумагами среди широких слоев населения, привития интереса к инвестированию.

Особое значение на современном этапе развития Казахстана имеют вопросы обеспечения благоприятных условий для повышения уровня конкурентоспособности казахстанской экономики, более глубокой диверсификации структуры национальной экономики, что в конечном итоге должно сказаться на повышении качества жизни населения.

В статье рассматривается текущее состояние рынка ценных бумаг Республики Казахстан, финансовые показатели брокеров, дилеров и управляющих инвестиционными портфелями, методы прогнозирования динамики стоимости, инструменты технического анализа: фундаментальный и технико-экономический анализа. Особое внимание уделяется прогнозированию цен на финансовом рынке с использованием последнего подхода. Приведены причины неразвитости и неэффективности фондового рынка и пути реализации дальнейшего развития рынка ценных бумаг в Казахстане.

**Ключевые слова:** Финансовый рынок, фондовый рынок, рынок ценных бумаг, методы прогнозирования цен, финансовые активы.

#### References

- 1. Obzor finansovogo rynka za 2022 god. Otchet Nacional'nogo banka Respubliki Kazahstan. [Financial Market Overview for 2022. Report of the National Bank of the Republic of Kazakhstan]. 2022. Available at: https://nationalbank.kz/ru/page/obzor-finansovogo-rynka [in Russian] (accessed 6.08.2023).
- 2. Dannye Byuro nacional'noj statistiki Agentstva po strategicheskomu planirovaniyu i reformam RK. [Data from the Bureau of National Statistics of the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan] 2022. Available at: https://stat.gov.kz/official/industry/14/statistic/8 [in Russian] (accessed 6.08.2023).
- 3. Kakie zakonodatel'nye izmeneniya proizoshli na finansovom rynke. Centr delovoj informacii Kapital. [What legislative changes have taken place in the financial market. Capital Business Information Center] 2023. Available at: https://kapital.kz/finance/101588/kakiye-zakonodatel-nyye-izmeneniya-proizoshli-na-finansovom-rynke.html [in Russian] (accessed 7.08.2023).
- 4. Obzor rynka cennyh bumag RK za 2022 god. Analiticheskij centr Associacii finansistov Kazahstana. [Review of the securities market of the Republic of Kazakhstan for 2022. Analytical Center of the Association of Financiers of Kazakhstan]. 2023. Available at: https://kapital.kz/info/rynok-tsennykh-bumag [in Russian] (accessed 5.08.2023).
- 5. Rynok cennyh bumag i upravlenie pensionnymi aktivami. Agentstvo Respubliki Kazahstan po regulirovaniyu i razvitiyu finansovogo rynka. [Securities market and pension asset management. Agency of the Republic of Kazakhstan for Regulation and Development of the Financial Market]. 2023. Available at: https://www.gov.kz/memleket/entities/ardfm/activities/788?lang=ru [in Russian] (accessed 5.08.2023).
- 6. O sostoyanii rynka cennyh bumag Kazahstana na 1 iyulya 2023 goda. Agentstvo Respubliki Kazahstan po regulirovaniyu i razvitiyu finansovogo rynka [On the state of the securities market of Kazakhstan as of July 1, 2023. Agency of the Republic of Kazakhstan for Regulation and Development

of the Financial Market] 2023. Available at: https://www.gov.kz/memleket/entities/ardfm/press/news/details/596240?lang=ru [in Russian] (acessed 7.08.2023).

7. Itogi 2022 goda v Kazahstane: demonopolizaciya, bor'ba s tenevym oborotom i rostom cen. Oficial'nyj informacionnyj resurs Prem'er-Ministra Respubliki Kazahstan

[The results of 2022 in Kazakhstan: demonopolization, the fight against shadow turnover and rising prices. Official information resource of the Prime Minister of the Republic of Kazakhstan]. 2022. Available at: https://primeminister.kz/ru/news/reviews/itogi-2022-goda-v-kazahstane-demonopolizaciya-borba-stenevym-oborotom-i-rostom-cen-2911486 [in Russian] (accessed 7.08.2023).

- 8. Merfi Dzh. Mezhrynochnyj analiz: Principy vzaimodejstviya finansovyh rynkov [Inter-market analysis: Principles of interaction of financial markets] (Alpina Publisher, Moscow, 2016, 299 p.) [in Russian]
- 9. Wang P., Shao L. & Li, H. New method of financial technical analysis based on the perspective of mathematical modeling. Journal of Software Engineering. 9 (3):504-519(2015).

#### Information about the authors:

**Zhagyparova A.O.** – Ph.D. in Economics, Associate Professor, Dean of the Faculty of Economics of L.N. Gumilyov ENU, Astana, Kazakhstan

**Zhussupov Ye.M.** – PhD student of the Department of Computer Science and Software, L.N. Gumilyov Eurasian National University, developer of interfaces of Yandex.Kazakhstan LLP, Astana, Kazakhstan

Bekbolsynova A.S. – Senior Lecturer of the Department «State Audit» of L.N. Gumilyov ENU, Astana, Kazakhstan.

**Жағыпарова А.О.** – э.ғ.к., қауымдастырылған профессор, Л.Н. Гумилев атындағы ЕҰУ экономика факультетінің деканы, Астана, Қазақстан

**Жусупов Е.** – Л.Н.Гумилев атындағы Еуразия ұлттық университеті «Есептеу техникасы және бағдарламалық қамтамасыз ету» кафедрасының докторанты, «Яндекс.Қазақстан» ЖШС интерфейс әзірлеушісі, Астана, Қазақстан

*Бекболсынова А.С.* –  $\Lambda$ .Н. Гумилев атындағы ЕҰУ «Мемлекеттік аудит» кафедрасының аға оқытушысы, Астана, Қазақстан.



**Copyright:** © 2023 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY NC) license (https://creativecommons.org/licenses/by-nc/4.0/).