## ҚАЗАҚСТАН РЕСПУБЛИКАСЫ ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ

# ХАБАРШЫСЫ

## **ВЕСТНИК**

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК РЕСПУБЛИКИ КАЗАХСТАН

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## KAZAKHSTANI FINANCIAL SECTOR PERFORMANCE FEATURES UNDER CURRENT CONDITIONS

Abstract. The financial sector is one of the most, if not the most significant economic sector in modern societies. In advanced countries, it employs more people than major manufacturing industries combined and accounts for a high percentage of the Gross Domestic Product. But the financial services sector also plays a large indirect role in national economies. The financial sector mobilizes savings and allocates credit across space and time, and enables firms and households to cope with uncertainties by hedging, pooling, sharing and pricing risks. This ultimately improves the quantity and quality of real investments and increases income per capita and raises standards of living. Today financial institutions are experiencing unprecedented change in a competitive global environment. The existing model of the financial system of Kazakhstan requires modernization in order to increase the possibilities to finance strategically important areas in the economy and society. In turn, the state should change its policy of active financing to the policy of active stimulation.

The purpose of writing this article and making research was to justify a model of an investment and financial system with a financial center, capable for the formation of a knowledge-based economy and the creation of an infrastructure of intellectual modernization of society. We highlighted the existing conceptual approaches to the financial support of a knowledge-based economy and social and intellectual modernization of society in the article. The analysis of the banking and insurance sectors of the economy, the insurance market and the stock market was carried out, and the positive aspects and advantages of creating a financial center - AIFC were highlighted. In addition, the work revealed the peculiarities of the participation of the financial system of Kazakhstan in the development of knowledge-intensive sectors of the economy and the intellectual renewal of society, and also highlighted the factors and conditions for restarting the financial system of Kazakhstan and determining the model of investment and financial system. The world experience in the use of tools and methods for financing high-tech industries has been studied, which made it possible to determine the general principles for financing a knowledge-intensive economy.

**Keywords:** Kazakhstan, Knowledge-based economy, Economy, Intellectual and Spiritual modernization, Knowledge-intensive industry, Financing.

**Introduction.** The financial system is the most important component of a market economy. Any system consists of elements that interact with each other in the process and, specifically, complement each other. Thus, the economy maintains the necessary proportions, which ensures the stability of the entire economy. The system consists of several subsystems. The financial system of Kazakhstan includes the banking system, the insurance system, the stock market, the pension system. The banking system should consist of sufficient number of banks of various types, non-banking institutions, etc. In practice, the banking system should be seamlessly integrated into economic processes. Under the conditions of economy digitalization, the close interaction of the elements of a system or subsystem becomes obvious and effective. Thus, the banking system, working closely with the fiscal system, can significantly improve the efficiency of the systems and their users.

**Methods.** The development of the financial system of a new quality provides for the harmonious development of all its segments based on the optimal rational and efficient use of the resource potential

and competitive advantages of all subsystems. The article examines all aspects of the development of the financial system from the position of the methodology of generalization and system analysis. In particular, through the synthesis and analysis of modern theories of sustainable development, the development of mechanisms for the implementation of government documents adopted in the course of reforming the economy of Kazakhstan and its financial system, the possibility of forming a model of financial support for a knowledge-based economy and the creation of an infrastructure of intellectual renewal of society are justified. The use of a system analysis in the article proved the factors and conditions that determine the model of the investment and financial system.

System analysis suggests:

- analysis of the banking, insurance sector of the economy, insurance market and stock,
- identification of positive aspects and advantages of creating a financial center AIFC
- analysis of world experience in the use of tools and methods for financing knowledge-intensive industries.

#### Results and discussion.

1. The theoretical underpinning of the modern approach to ensure the development of the economy of Kazakhstan. The current goals of achieving results in a knowledge-based economy building are not possible without a social and intellectual renewal of society. This is due to the fact that the social sphere is a relationship, arising at the emergence of human life and man as a social creation. Therefore, this concept itself has several meanings. In philosophy and sociology, it is part of the existence of a society that consists of various social groups and their interconnections. In economics, it's total of organizational institutions (industries, organizations and enterprises) that provide growth in living standards. These include health care, education, social welfare, public services, culture, sports, etc.

The spiritual sphere of society is that sphere of human activity and society, which embraces the wealth of human feelings and achievements of the mind, combines both the assimilation of accumulated spiritual values and the creation of new ones. At the same time, the spiritual life of society encompasses various forms and levels of social consciousness: moral, scientific, aesthetic, religious consciousness. Accordingly, its elements are morality, science, art, religion and law. In the spiritual sphere of society, various cultural, artistic, and moral needs of people appear and become realized. At the same time, many ideas that are created in it are intended for practical use. For example, information technologies and computer programs are created due to mental work, that is, in the spiritual sphere, but they are consumed in the economy, political, social and other fields. From this perspective it seems to us that development of any country in high-tech, highly industrial economy requires the unity of the economic and socio-spiritual spheres of society.

The formation of new economy trends and reaching high rates of development are possible under the risk minimization: administrative, fiscal, customs, legal impact, etc. It is especially important to provide sources of financing: an effective financial system, inflow of foreign investments, a rise in the savings rate, a reduction in capital outflow, etc. For Kazakhstan, it is important to build a progressive financial system, as well as a stimulating investment climate, addressed to the development of advanced sectors of the economy. The modern understanding of the essence of the financial system is not limited to the forms of accumulation, distribution and redistribution of financial flows. The financial system has become a mechanism for transforming savings into investments.

2. Analysis of the financial sector of Kazakhstan as a source of financial resources to ensure industrialization and social modernization of the economy. The modern investment system in Kazakhstan is characterized by the active role of the state and the financial support of the economy is carried out by the state with the participation of the financial sector. That means that, the state is the main source for the implementation of important investment projects of an innovative, industrial nature. In terms of output, we mean not only material, but also spiritual output, as well as the production of services in the socio-cultural sphere. In order to find out why the financial sector represented by private banks, insurance companies and the stock market remain outside the requirements of modern economic development and the need to create new areas and new industries, the financial sector of Kazakhstan will be analyzed.

The National Bank of the Republic of Kazakhstan is the central bank of the state and in accordance with the Law of the Republic of Kazakhstan "On the National Bank of the Republic of Kazakhstan" represents the top level of the banking system and is the issuing, cash settlement, reserve center of the

country, implements monetary and exchange rate policies, implements control and rule-making function, and is also the lender of banks. The National Bank of the Republic of Kazakhstan is an economically and politically independent body, is accountable only to the President and the Parliament of the Republic of Kazakhstan and is not responsible for the obligations of the state.

Commercial banks carry out a wide range of banking operations: lending, deposit, foreign exchange and investment operations, non-cash payments, transfers and other banking operations. In fact, they are all universal and it gives them the opportunity to provide a wide range of services, to produce new products for the population and enterprises, as well as to manage risks. In the market of banking services, there are also specialized banks that perform only a few banking operations or serve one area of the economy. These include state-owned banks, Development Bank of Kazakhstan and House Construction Savings Bank of Kazakhstan.

Kazakhstani banking system is notable for its mobility. This is due to the state of its development, as well as to external factors that require constant action to ensure sustainability. Over the past decade, the number of banks has decreased significantly, due to bankruptcy, merger, or transition to another level of the system. So, at the beginning of 2018, 32 banks and 6 organizations were operating in the country, carrying out certain types of banking operations, including 2 mortgage organizations. But by the middle of the year, the situation had changed somewhat due to the merger of two large banks - Qazkom and the Halyk Bank of Kazakhstan. In addition, a new mortgage organization "Baspana" has appeared, created to implement the new program "7-20-25."

To begin with, the modern banking system of Kazakhstan is at the stage of development. Above all, banks are trying to react quickly to changes in the global market of banking services related to digital technologies. But, we associate the developing state with its sensitivity to various fluctuations outside the national economy. Moreover, the banking system is characterized by moderate indicators. Thus, in 2017, the assets in the banking sector decreased by 5.5% and amounted to KZT 24.2 trillion. The loan portfolio of banks fell by more than 12.2% and amounted to KZT 13.6 trillion.

Years	Assets of second-tier banks		Liabilities of second-tier banks,	Loan portfolio of second-tier banks	
	KZT trillion	As % of GDP	as % of assets	KZT trillion	as % of assets
2013	15,5	45,3	86,6	13,3	85,8
2014	18,2	45,9	87,1	14,2	78,1
2015	23,8	58,2	89,5	15,6	65,5
2016	25,6	55,4	88,7	15,5	60,5
2017	24,2	44,1	87,2	13,6	56,2
<i>Note</i> . Compiled by the authors according to the data of the National Bank of the Republic of Kazakhstan.					

Table 1 – Dynamics of assets, liabilities and loan portfolio of second-tier banks

In 2016, the growth in issuing new loans to large and medium-sized businesses averaged -4.5%, and in 2017 there is already a growth of 4.5%, thus the logarithmic trend of lending to large and medium business in the country was transformed from negative to positive. Interestingly, the opposite trend has developed with the process of issuing new loans to small businesses in the country. If in 2016, lending to SMEs grew by an average of 10.2% compared with the previous year, then in 2017 the growth in issuing loans for the development of small businesses went to a minus (-6.2%).

In 2017, long-term loans increased by 2.9% to KZT 10.8 trillion, short-term loans decreased by 14% to KZT 1.9 trillion. The share of long-term loans in the structure of the loan portfolio amounted to 85% (in December 2016 - 82.6%).

We will conduct a more detailed analysis of the industrial breakdown of the loan portfolio of STB RK (second tier banks of the Republic of Kazakhstan), table 2.

In the Industrial breakdown, the most significant amount of bank loans is accounted for trade, which is an average for 2014–2017 amounts to 29%, services - 24%, construction - 21%, manufacturing industry - 13%, agriculture - 7%, production, including mining, electricity and water supply - 6%.

Economic sector		Years				
Economic sector	2014	2015	2016	2017		
Manufacturing industry	11	12	13	15		
Trade	28	31	30	26		
Construction	29	18	19	19		
Services	22	25	24	25		
Agriculture	5	7	8	8		
Draduation	5	7	6	7		

Table 2 – Industrial breakdown of the loan portfolio of STB RK, as %

Note. Compiled by the authors according to the data of the National Bank of the Republic of Kazakhstan.

The reasons for the low lending activity of the industry include the fact that enterprises in the industry are more in need of long-term financial resources for modernization and structural changes. Banks are focused on a more short-term and highly profitable non-manufacturing sector.

This leads to the conclusion that it is necessary to continue systemic measures aimed at stabilizing the banking sector of the country, identifying mechanisms for their activation in the innovative-industrial development of the country. It was mentioned in Address to the nation made by N. Nazarbayev. As part of the sixth task "Restarting" the financial sector, the President gave a task to the National Bank of Kazakhstan and Government to resolve the issue of providing long-term business lending at rates that take into account real profitability in sectors of the economy. It is necessary to strengthen the interaction of banks and enterprises of the real sector of the economy in order to strengthen banking participation in the economic development of the republic. For this purpose, it will be interesting to look over the experience in the countries, where measures are also being taken to increase the activity of the banking system in the process of crediting and financing knowledge-based industries. Thus, in many countries there is an extended network of specialized state credit institutions: Construction bank (Spain), Industrial Bank (Korea), Agrarian Bank (China). In the banking activities of some countries, there can be noticed a pronounced diversification across industries and regions. For example, in Germany, Deutsche Bank, which heads the country's leading financial and industrial group, specializes in certain sectors of the economy: electrical engineering, nuclear, mining and metallurgical industries, heavy engineering [1].

Unfortunately, the statistics of the National Bank do not reflect the focus of borrowed funds, and we cannot trace whether there are loans in the loan portfolio aimed at developing production through innovation and the use of new high-tech technologies.

But, on the other hand, the policy of providing the population with housing, initiated by the state and implemented through the banking sector, is quite actively promoted. This is reflected in lending to individuals. The share of loans to individuals increased from 31,8% to 35,7% [2]. In the structure of loans to individuals, consumer and mortgage loans occupy the largest share. The growth in mortgage lending is associated with the implementation of the Mortgage Housing Loan / Mortgage Refinancing Program. The National Bank allocated KZT 130 billion to refinance loans with the remaining debt from 2004 to 2009 for the implementation of the program. It should be noted that during the implementation of the program, meetings of public organizations, borrowers and banks were held to find ways to pay off problem loans. The problems of debt arising were related to the fact that most of them were issued in foreign currency, as well as to the fact that the socially vulnerable segments of the population turned out to be borrowers. The refinancing program was implemented with the assistance of the Kazakhstan Mortgage Company. By now, 23,600 applications have been refunded for a sum of more than KZT 146 billion. Since April 2018, it has been transferred to the Problem Loans Fund.

In the structure of banks' liabilities, the main share is represented by deposits of individuals and legal entities. The reduction in liabilities may also be associated with a decrease in the deposit base of banks due to decrease in the level of household savings and decrease of confidence in banks. So, only in 2017, deposits of residents decreased by 3.0%, reaching KZT 17.5 trillion, whereas in 2016 there was an increase of 13.6%. The reduction was due to a decrease in deposits of legal entities.

As you can see, in recent years there has been a tendency to reduce assets, liabilities and the loan portfolio of second-tier banks. The volume of assets of the banking system of Kazakhstan is rather modest in contrast to countries with developed banking systems. Thus, the share of total assets of the banking sector in the gross product of developed countries is 100-300%, and developing - about 50-120%. It is clear that such indicators somewhat narrow the possibilities of crediting the economy in the required volume.

The rather difficult situation in the banking system of Kazakhstan in recent years highlights the priorities of regulation by the National Bank in the direction of ensuring financial stability and improving the banking sector. Banks have practically ceased to fulfill their main function of redistributing money by lending to the economy. The deterioration of the situation in banks was due to problems that had been accumulating over the years and could not be solved. The high level of problem loans, which in 2013 reached 33% of the total loan portfolio of the banking system, required comprehensive solutions [3]. In this regard, the regulator has set the task of improving the loan portfolio of banks through the implementation of a phased plan. Thus, in 2017, a diagnosis of the real state of credit portfolios was carried out, which revealed non-performing loans through the assessment of regulatory provisions for the loan portfolio. Further, the National Bank has developed a program to improve the financial sustainability of the banking sector [4]. According to the Program, systemic banks with a significant social component are subject to recovery. At the same time, support measures will be applicable only for banks, whose shareholders will also take steps to recapitalize and guarantee the repayment of state funds.

Thus, KZT 653 billion was allocated from the state to support ATF bank, the Eurasian Bank, Bank Center Credit and bank RBK. At the same time, banks have liabilities for five years to pay half of this amount in cash to their banks in order to write off a large amount of non-performing loans. This is about KZT 1.2 trillion. These are loans that have been issued to banks over the past 10 years, they are bad, unserviceable. And they do not allow these banks to normally lend the economy. Banks must return them within 15 years, and during this time begin to actively lend to the economy. As of April 1, 2018, banks have already issued loans, taking into account the restructuring of borrowers in the amount of KZT 865 billion. Including small and medium businesses – KZT 315 billion, corporate business – KZT 329 billion, physical persons – KZT 222 billion. The sum of KZT 2 trillion was previously also sent to the country's banking sector. For this amount, assets of Kazkommertsbank were repurchased by the Problem Loan Fund to carry out further work on improving the portfolio.

Thus, the own capital of banks was increased and the stability of the banking sector was ensured. According to the regulator, such measures will expand the ability of banks to lend to the economy in the future. In the meantime, banks are trying to adhere to a rather conservative credit policy, which is reflected in Table 2. In addition, restraining the process of lending to the economy is connected with the tightening of the requirements of the banks themselves to potential borrowers on the quality of collateral. However, the desire to attract a solvent borrower in a highly competitive environment contributed to lower interest rates on loans. In the sectoral breakdown, the most significant amount of bank loans to the economy accounted for trade - 15.9%, industry - 15.6%, construction - 7.2%, agriculture - 5.5%. Lending to small sized businesses in 2017 decreased by 7.1% to KZT 2.8 trillion, which is 21.9% of the total loans to the economy.

The accumulative pension system has recently been centralized by the state, and corporate governance is now underway. Investment management is carried out by the National Bank of the Republic of Kazakhstan. Currently, the number of individual retirement accounts is 10.22 million units, of which 95% are accounts for obligatory pension contributions, 4.5% for obligatory professional pension contributions and 0.5% for voluntary pension contributions. The amount of pension savings get to the sum of KZT 8.57 trillion. Pension payments amounted to KZT 110.93 billion.

In order to ensure a stable level of profitability, the National Bank follows the strategy of a diversified investment portfolio. Therefore, 47.48% of pension assets are invested in Kazakhstan government securities, 18.49% in financial instruments of second-tier banks (bonds, shares and depositary receipts of issuers, deposits), 11.25% in government securities of foreign countries, 15% - in quasi-public sector bonds. 67. 62% of investments were invested in KZT assets, 31.93% - in assets in US dollars and 0.35% - in Russian rubles.

The return on pension assets since the beginning of 2018 was 5.3%, while inflation was 2.7%. In annual terms, the profitability of pension assets was 8.9% with inflation of 5.9%. It should be noted that investment income may vary from period to period. The amount of net investment income accrued on individual retirement accounts of investors since the beginning of 2018 amounted to KZT 423.07 billion, which is 42% more than in the same period last year [5]

Thus, it turns out that about 50% of the assets of the pension fund, which are in the government securities, are actively directed towards the release of state programs through distribution through the state budget. Over the past 5 years, budget expenditures have increased by 2 times, that is, by KZT 6.2 trillion. In the insurance sector of Kazakhstan there are 32 insurance organizations, 16 insurance brokers and 59 actuaries. Key performance indicators of insurance organizations in the Republic of Kazakhstan for the period from 2013 to 2017 are reflected in table 3.

Table 3 – The main indicators of insurance organizations performance in the Republic of Kazakhstan for 2013-2017, KZT billion

The index	years				
The index	2013	2014	2015	2016	2017
Total assets	523,4	612,9	825,7	856,5	926,7
Total net worth	254,6	286,9	406,4	402,3	413,0
Amount of liabilities Insurance reserves Total insurance premiums The total amount of insurance payments	268,8	326,0	419,3	454,2	513,7
Amount of liabilities Insurance reserves Total insurance premiums The total amount of insurance payments	240,3	298,4	376,9	412,3	460,5
Amount of liabilities Insurance reserves Total insurance premiums The total amount of insurance payments	279,0	266,0	288,0	357,0	370,2
Amount of liabilities Insurance reserves Total insurance premiums The total amount of insurance payments	52,0	62,0	67,0	83,0	73,0

Over the past five years, there has been a quantitative growth in the main indicators of the development of insurance organizations in the country. Thus, the total volume of assets of insurance organizations in 2017 increased by 1.7 times compared with 2013 and amounted to KZT 926.7 billion. The total equity capital for 2017 increased by 7.2% than on the same date in 2016 and amounted to KZT 413.0 billion. In 2013, the amount of liabilities of insurance organizations amounted to KZT 268.8 billion, and in 2017 this figure increased by almost 2 times and amounted to KZT 513.7 billion. The amount of insurance reserves amounted to KZT 240.3 billion or 89.4% of the total liabilities, which is 37.9% more than the same indicator as of January 1, 2013. In 2017, KZT 460.5 billion amounted to reserve indicators of insurance organizations, which is about 90.0% of the total liabilities. In comparison with 2016, this is an increase of 11.6%. If we analyze the data on the total amount of insurance premiums, then from 2013 this parameter also increased from 279.0 billion to KZT 370.2 billion, but in 2014 due to the adoption of a moratorium on concluding pension annuity contracts (Resolution of the Board of the National Bank February 2014 No. 32 "On approval of the Rules for transferring pension savings to an insurance organization under a pension annuity contract"), which was valid from July 1, 2013 to May 5, 2014, the amount of insurance premiums decreased. As we remember, in that period a new stage began in reforming the existing pension system of the country, initiated by the President of the Republic of Kazakhstan N. Nazarbayev. The dynamics of the indicator "total insurance payments" also shows an increase from KZT 52.0 billion in 2013 to KZT 73.0 billion in 2017.

The structure of the investment portfolio of insurance companies in Kazakhstan is not highly differentiated. Up to 90% of the insurance fund is placed in classic financial instruments - deposits and securities. Such tool as the issuance of loans, which is actively used by insurance companies of European countries, in Kazakhstan can only be used by insurance companies licensed in the life insurance class. Its share does not exceed 0.1% of the total investment portfolio. Over the past 3 years, insurance companies have not invested in other instruments, including refined precious metals and metal deposits.

According to expert estimates, in 2017 insurance organizations will invest in the economy of Kazakhstan about KZT 39 billion, and in general the investment portfolio will total about KZT 705 billion [6]. Unfortunately, we do not have data on the structure of the securities portfolio of insurance companies. If we take into account that this securities portfolio consists of securities listed exclusively on the Kazakhstan Stock Exchange, then, taking into account a rough estimate, the share of investments of insurance organizations in the economy will be about 22% of the total securities market traded at KASE.

As of January 1, 2018, the securities market of the Republic of Kazakhstan was represented by 45 brokers and (or) dealers, 10 custodian banks, 21 investment portfolio managers, 2 transfer agents. The following 3 infrastructure organizations also operate on the securities market: Kazakhstan Stock Exchange JSC, which carries out securities trading and other financial instruments trading activities and deals for clearing financial instruments on the securities market, Central Securities Depository Papers JSC and United Registrar of Securities JSC, carrying out exceptional professional activities in the securities market without a license [7].

Let us pay attention to the corporate bond market, as they are the main type of securities with which the real sector enterprises could raise money for the development of their own production, table 4.

Index	Years						
muex	2013	2014	2015	2016	2017		
Stock market							
Emitters	81	79	90	102	110		
Instruments	103	100	113	120	127		
New listings	8	10	20	18	11		
Corporate bond market							
Emitters	72	74	72	65	66		
Instruments	246	275	278	267	262		
New listings	40	55	54	32	37		
Note. Compiled by the authors according to the data of the KASE [https://kase.kz/ru/].							

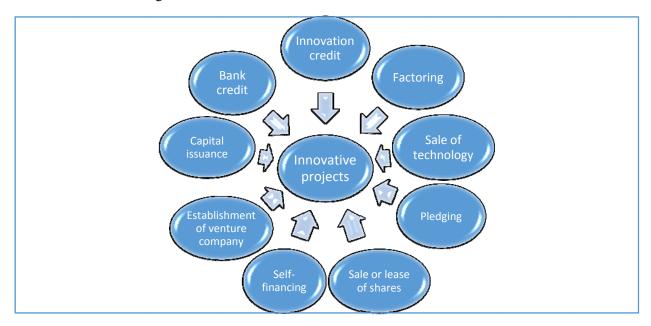
Table 4 – Indicators of the development of stock markets and corporate bonds of Kazakhstan

Starting from 2014, the number of issuers on the exchange-based corporate bond market has decreased from 74 to 66. There has been a decline in instruments on the market from 275 in 2014 to 262 in 2017, the number of new listings on the market has also decreased from 55 to 37, during the reporting period. For the first half of 2018 on the KASE stock exchange trading volume amounted to KZT 74.5 trillion. This is 24.5%, or KZT 24.1 trillion, less than in the same period last year. At the same time, the activity fell asleep in the securities market, the volume of trading in which fell by 64.2%. This is primarily due to the contraction of the volume of trading in government securities by more than 77.2% or KZT 792.6 billion. In our opinion, this is due to the growing interest in the money market. The main factor in reducing investors' attention was the low level of business interest in funding and attracting money in the securities market. Entrepreneurship and business, as before, are trying to survive at their own expense and, as a last resort, at the expense of bank loans.

In general, according to the National Bank of Kazakhstan, the capitalization of the market for corporate securities listed on the official list of Kazakhstan Stock Exchange JSC increased by 15.4% in 2017 and amounted to KZT 26.0 trillion [NB RK Report 2017], while in 2013, this figure was KZT 9.9 trillion, an increase of 2.6 times. The ratio of the capitalization rate of Kazakhstan companies of the organized market to the gross domestic product remains for the analyzed period at the level of indicators

of developing markets, that is, about 25%. The capitalization to GDP by year was as follows: 2013 - 15%, 2014 - 15%, 2015 - 26%, 2016 - 25%, 2017 - 27%. In international comparison, these are quite low indicators, for example, in the UK - 107%, in the USA - 103%, in Russia - 62%, in Germany - 33%.

3. Methods of financing knowledge based projects and objects of social and intellectual sphere. World experience shows that the system of financing innovative projects includes the following sources and methods of financing.



Note. Compiled by the authors.

Figure 2 – Sources and forms of financing innovative projects

In the United States and Southeast Asia, the dominant role in financing innovative programs is given to loans from banks and other financial structures, issuing securities and domestic sources (retained earnings and depreciation deductions). It means that due to extra budgetary sources of investment financing the main part of investments in the national economy is provided [8].

For the development of venture financing in Kazakhstan, the government represented by development institutions, various innovation funds provide financial support for innovative projects using such financial instruments as innovative grants, project and venture financing and a grant for targeted technology programs, table 5.

As can be seen from the financial instruments of the quasi-state support of the development of knowledge-intensive high-tech sectors of the economy of Kazakhstan that we systematized, today, the width of the portfolio of financing instruments of NATD JSC, in particular, is 2 and the depth is 3 positions.

As you can see, many methods that are actively used in developed countries do not find application in Kazakhstan, which is due to the following reasons:

- Insufficient domestic sources of long-term financing. The lending market in Kazakhstan is rather narrow and focused mainly on mortgage and consumer lending products. In addition, market loans do not have the financial resources to finance science-intensive and, most often capital-intensive projects with a long maturity. Banks lack experience and knowledge of risk assessment and decision-making on innovative and knowledge-intensive projects;
- the need to improve the legal framework in the area of risk distribution, the provision of guarantees and other forms of financing high-tech projects. Also important is the direction of improving legislation, such as ensuring legislative stability;
- the need for human resources capable of the most qualified assessment of the costs of high-tech projects and to build financial models with regard to risks and forecasts.

Table 5 – Financial instruments to support innovative projects of JSC "NATD"

Financial instrument	Aim	Terms of financing			
Innovative grants for technological development of industries	The solution of technological problems in the industry through the acquisition, adaptation and implementation of foreign technologies in enterprises whose products and services have a significant impact on the technological development of existing industries or create the basis for the emergence of new high-tech industries.	70% for the purchase of a license agreement; 50% for the purchase of equipment; 85% of the cost of improving technological competence, but not more than KZT 500 million.			
Innovative grants for technological development of existing enterprises	The solution of technological problems of enterprises through the transfer of technology to the priority areas.	70% for the purchase of a license agreement, 50% for the purchase of equipment, but not more than KZT 400 million.			
Innovative grants for technology commercialization	Introduction (use) of the results of scientific and (or) technological activities in their own production, intended to obtain a positive economic effect.	50% of the applicant's own funds / 50% of the grant funds, but not more than KZT 200 million			
Business incubation	Development of the Business incubation ecosystem, support of technological entrepreneurship.	Business incubators receive co- financing of expenses in the amount of up to 50%, but not more than KZT 35,000,000 within 12 months from the date of execution of the contract.			
Project and Venture Financing	Investments to the ownership capital of developing enterprises that are engaged (or are going to engage in) the development of high-tech projects.	This funding has been suspended.			
Note. Compiled by the authors according to the data of the National Agency of Technological Development JSC.					

According to the available statistics, within the framework of grant financing, the Agency concluded in the period from 2011 to 2016, 328 contracts totaling KZT 12,195 million, including: in 2014 - 38 projects worth KZT 641.1 million; in 2015 - 51 projects in the amount of KZT 1 623.5 million; in 2016 - 66 projects in the amount of KZT 1 995.7 million [9].

In general, the volume of innovation grants depends on the size of funds allocated from the republican budget, as well as the terms and conditions defined in the Rules for the provision of innovative grants. The main task of the Agency is the reception of applications, their consideration and examination, and at the end this issue of grants.

Project and venture financing is currently suspended due to deteriorating economic conditions and their inefficiency. Currently, there is an anti-crisis policy, the return of investments. As of July 1, 2017, KZT 4.185 billion is the sum of the Agency's investment portfolio, focused on 3 domestic and 3 foreign venture funds and 5 project companies.

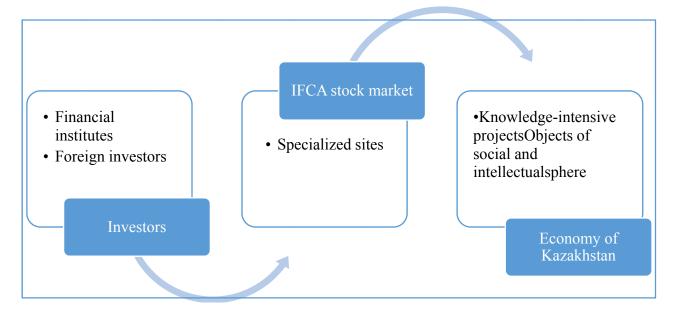
For the development of the innovation market infrastructure, including business incubators, the role of the Agency is only to develop proposals for the creation of conditions (benefits, subsidies, joint programs, special grants).

Thus, the investment strategy of quasi-state institutions for the support and development of high-tech and knowledge-intensive sectors of the economy of Kazakhstan in the current conditions cannot be named active, and most likely, as the strategy of the banking sector is anti-crisis. The investment portfolio of JSC "NATD" was subjected to measures of a "health-improving" nature and, until 2020, anti-crisis measures were taken to exit the projects and return on investments. Developed a new development strategy of JSC "National Agency of Technological Development" for 2014-2023 [9].

The modern investment system in Kazakhstan is characterized by the active role of the state and the financial support of the economy is carried out by the state with the participation of the financial sector. That means that the state is the main source for the implementation of important investment projects of an innovative, industrial, production nature. In terms of production, we mean not only material, but also intellectual production, as well as the production of services in the socio-cultural sphere. It is also necessary to support social projects and invest in the infrastructure of intellectual renewal of society. The loss of moral guidelines can lead to intellectual crisis. However, an analysis of the approaches of the banking and

quasi-state mechanisms for financing the knowledge-intensive economy and the intellectual development of society shows that "band aid approach" is occurring. The state allocates numerous funds from the budget, the National Fund and the UAPF funds to support the banking sector, thereby increasing the dependency attitudes among banks and businesses. At the stage of transition to a new technological order, rational use of financial resources, effective financial support of important tasks demanded by special programs and business plans of the Strategy - 2025 acquire special significance.

The socio-spiritual component becomes a factor that determines not only the full value of human existence, but also reveals the potential of its capabilities. The level of social and spiritual condition of the people determines the measure of the socio-economic, cultural and industrial development of the country's society. From the point of view of sustainable and stable growth, the social and spiritual industry is urged to ensure accessibility, timeliness, quality and continuity of social, spiritual and cultural services, the welfare of the population is one of the main priorities of the Republic. The peculiarity of the modern stage of solving the tasks set by the Government on the formation of a knowledge-based economy and the spiritual renewal of society is that these areas are closely interrelated. We conclude that the relationship is also present in the methods of financing these areas. As well as the social and spiritual sphere, the sphere of innovation and knowledge-intensive industries is financed mostly by the state. It is clear that the methods and mechanisms of financing can be quite comparable and close, with the exception of certain points. Taking into account the current legislation and the level of development of economic structures, in our opinion, the model of the investment and financial system with a hub is quite applicable. The implementation of such projects can be supported by the stock market of the International Financial Center Astana (figure 2).



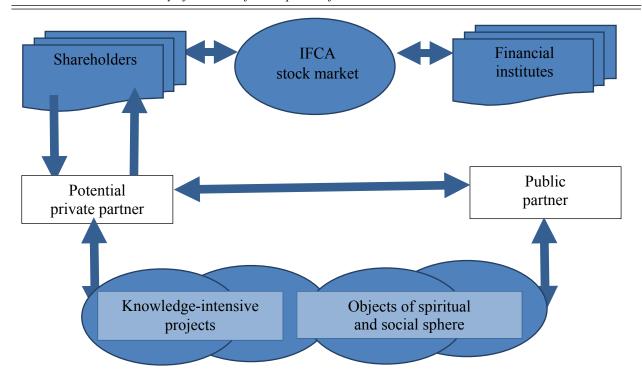
Note. Compiled by the authors.

Figure 2 – The scheme of financial support for the growth of knowledge-intensive industries in the economy of Kazakhstan and the intellectual (spiritual) modernization of society

It seems to us that one of the most possible mechanisms for investing in industries with a high content of scientific components and social and spiritual renewal of society can be the concept of public-private partnership.

We propose a scheme for financing high-tech and socially significant facilities, based on the concept of public-private partnership (further - P3) (figure 3).

We also believe that financial institutions of the republic can be involved in this concept, which will revitalize the entire financial market not only of the country, but also of the region, including the countries of Central and Southeast Asia, Africa and Europe. The relevance of this concept in the framework of



Note. Compiled by the authors.

Figure 3 – The scheme of participation of financial institutions in the financing of knowledge-intensive projects and objects of the social and spiritual sphere through the stock market on the principles of public-private partnership

achieving the goals set is becoming increasingly important for Kazakhstan. In the future, the concept of PPP will be the main approach for the period of transition from public to private financing of knowledge-intensive industries and the production of spiritual goods. In Kazakhstan, despite institutional achievements in the field of PPP, there is still a need to further improve the mechanism for attracting financial institutions to implement similar projects in strategically important sectors of the country's economy, including the social sphere (education, health, tourism, etc.). The PPP mechanism, in our opinion, is promising from the point of view of the development of the infrastructure of the spiritual renewal of Kazakhstan's society: sports and tourism, including medical, health care and education as an alternative to budget spending. Through PPP through fiduciary and privatization mechanisms, it is necessary to activate private sector resources. The Head of State in the framework of the annual Message to the people of Kazakhstan dated January 31, 2017 "The Third Modernization of Kazakhstan: Global Competitiveness" noted the need to update the infrastructure "using all possible types and forms of PPP: state property trust management, service contracts and others. At the same time, all approval procedures should be simplified and accelerated as much as possible, especially for small projects. PPP should be the main mechanism for the development of infrastructure, including social".

One of the advantages of implementing project on public-private partnership is the use of new technologies and innovations based on the experience of the private sector. The gain is in efficiency, as private operators enter into a life cycle contract in order to obtain the maximum possible profit, which is achieved mainly by improving the efficiency of investment and operating activities. If a PPP project is structured in such a way as to allow a private investor to pursue these related objectives, then efficiency improvements in infrastructure services can be realized.

Additional increase in efficiency is achieved due to better coordination between the two main functions performed during the PPP project: modernization of the facility and operation (maintenance) of equipment. If the project is implemented only from a state-owned source, there is a risk of lack of interest of contractors in the supply of quality equipment, due to the lack of further operation and completion of obligations after the commissioning of the object. The interest of the private partner, who will be responsible for the opening and operation of the facility in the long term, in upgrading the facility will make it

possible to economically use the funds while optimizing costs when purchasing the necessary equipment and property.

Successful implementation of a socially significant project by attracting private financing will send a powerful signal to private investors that the state is "open" for their entry and successful activity in the domestic market of the country. This approach would improve the vision of Kazakhstani economy and help finance future projects.

In addition, project financing from the state budget is a significant burden in the short term and may, potentially, mean that other projects will not be implemented. This may carry real value for the state.

While PPPs allow the state to transfer operational functions to a more efficient private sector, at the same time focusing on key responsibilities, such as sectoral regulation and supervision. If it is properly structured, such an approach should result in lower government spending, and provide consumers with cheaper, but better-quality, services. In addition, this approach simplifies the administrative process for the state. The load on the republican budget is reduced, since state expenditures are "stretched" for the entire duration of a life cycle contract.

The implementation of the project under the PPP scheme allows the government to distribute the risk of not completing the Project on time in a more efficient way - a unilateral distribution of risk. All risks of technical equipment, operation and maintenance fall on the private partner and are managed by him. Unilateral liability eliminates the need for interaction between different performers, often leading to errors and mutual claims in case of defects. With one-sided responsibility, management of such interaction is carried out by a private partner who can better perform an economic function than the public sector. Moreover, the Private Partner will want to start operating earlier in order to start earning income from a public source and raise the rate of profit, and, accordingly, can complete construction earlier than the established deadlines [10].

Financing from the state budget involves the material and technical equipment of the object through the supply and installation of funds from the republican budget. Funds from the budget are distributed during the period of technical equipment, which will be a fairly large burden on the budget, taking into account the cost of the high-tech project. Upon completion of the equipment installation period, the period of operation and maintenance of the PPP facility begins. There are risks of delayed financing of the modernization of the facility from the budget, which would entail risks of not completing the modernization on time, and also lead to an increase in the value of the facility; the lack of adequate funding for the maintenance will affect the functional state and entail rapid depreciation of equipment, restrictions on activities.

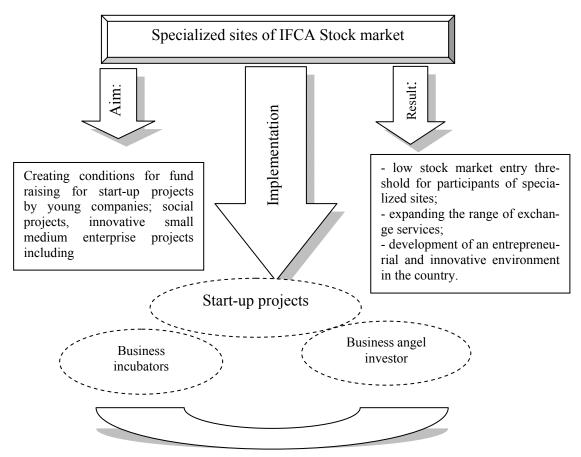
The implementation of such a scheme becomes real due to the fact that over the years, in our previous studies, we talked about the problem of access of business entities to (exchange) market-financing instruments. It should be noted that in 2017 in this regard, the regulator was taken measures aimed at structural changes in the Kazakhstan Stock Exchange, where there were three exchange platforms: the main, alternative and mixed.

The creation of an alternative platform was aimed at attracting small and medium-sized enterprises interested in investing in the stock market. There are minimum requirements for participants, lower tariffs compared to the main platform, there is no supervision over the manipulation of transactions, that is, conditions created to popularize the attraction and allocation of capital in the stock market. In our opinion, such a listing transformation will contribute to the strategy of attracting new issuers and investors to build a knowledge-based economy. Also, the initiative to create a new platform for startup projects is worthy of approval. The main essence of a segmented stock exchange model is outlined in figure 4.

Innovative companies and projects in the field of E-commerce, Fin Tech, Bio Tech and others will be allowed to enter new sites. At the same time, new conditions for the development of the national and world economies required the development of a new joint action plan between the Government and the National Bank for the development of the national stock market for 2018-2021. The plan is aimed at creating an efficient and competitive securities market, contributing to increased business activity, further institutional development of the financial sector, financing priority sectors of the economy, and overall long-term economic growth.

To achieve this goal, it is important to solve problems in the following areas:

- improving the infrastructure and regulation of the stock market;



Note. Compiled by the authors according to the data of the National Bank of the Republic of Kazakhstan.

Figure 4 – Segmented platform of the IFCA stock market

- stimulation of supply and demand in the stock market; expansion of international cooperation;
- improving the regulatory system for financial institutions;
- creation of a system for encouraging access to specialized platforms of the stock exchange;
- increase of investment activity in the country;
- creation of an attractive investment climate, etc.

In general, government support for innovation activity is not limited to the allocation, redistribution and control of financial investments in high-tech technologies. The role of the state also lies in the need to create the "right atmosphere", that is, conditions to stimulate innovation, new technologies, the emergence of new knowledge and constructive in terms of its high-quality and effective, socially oriented implementation. It is also necessary to increase the degree of confidence of the corporate sector, the scientific community, innovators, and investors in the policies and institutions of the financial system implemented in the country.

Conclusion. Thus, an analysis of the mechanisms for financing a knowledge-based economy shows that science and the social sphere in Kazakhstan are funded almost on a residual basis. At the same time, multi-billion funds, mainly from the state treasury and its reserves, went to the second-tier banks without previously agreed public conditions and obligations for their intended use. As for the structure of the loan portfolio of banks, the objects of lending related to the strategic objectives of the state are financed by the state itself. This applies to both housing mortgage financing, and various loans for the agro-industrial complex and SMEs. There is no objective information of the National Bank (regulator of the banking system of Kazakhstan) on the targeted use of allocated funds in support of the STB of the RK.

In Kazakhstan, the state is the main implementer of its strategies and programs in the field of science, culture, art and social spheres. Financial support for high-tech and knowledge-intensive projects is provided by the state in the form of direct and indirect support methods.

At the same time, the phase of transition to a higher level of technological structure requires a rational approach to the use of financial resources and the effectiveness of financial funding of state programs within the framework of the Strategy - 2025 will depend on it. economy. In this regard, great importance should be given to the development of promising methods of investing in a knowledge-based economy: venture financing, Islamic finance, leasing schemes and other methods. The practice of implementing various types of projects in the field of technological equipment and material and technical strengthening, the construction of infrastructure facilities of a knowledge-intensive economy shows the effectiveness of mixed investment methods.

The existing model of the financial system of Kazakhstan requires modernization in order to increase the possibilities to finance strategically important areas in the economy and society. In turn, the state should change its policy of active financing to the policy of active stimulation.

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#### ҚАЗАҚСТАННЫҢ ҚАРЖЫ СЕКТОРЫНЫҢ ЗАМАНАУИ ШАРТТАРДАҒЫ ЕРЕКШЕЛІКТЕРІ

Аннотация. Қазіргі кезде қоғамдағы ең маңызды секторлардың бірі қаржы секторы болып табылады. Дамыған мемлекеттерде осы салада өңдеу өнеркәсібінде еңбек ететін адамдардың санынан көп адамдар жұмыспен қамтылған, және осы сала жалпы ішкі өнім үлесінде жоғарғы пайызға ие. оған қоса, қаржы қызметтері секторы ұлттық экономикаларда үлкен жанама рөл ойнайды. Қаржы секторы жинақтарды мобилді етеді, несиелерді кеңістікте және уақыт аралықтарына бөлістіреді, сондай ақ фирмалар мен үй шаруашылықтарына тәуекелдерін хеджирлеу, бірыңғайластыру, бөлістіру және бағалау арқылы белгісіздікпен күресуге мүмкіндік береді. Нәтижесінде шынайы инвестициялардың сапасы мен саны жақсарады, жан басына шаққандағы табыс көлемін ұлғайтады және өмір сүру деңгейін жоғарылатады. Бүгін қаржылық институттар жаһандық бәсекелестік ортада бұрын болмаған өзгерістерге тап болуда. Қазақстандағы қолданыстағы қаржы жүйесінің үлгісі жаңғыртуды қажет етеді, бұл экономика мен қоғамның стратегиялық маңызы бар аумақтарын қаржыландыруға мүмкіндіктерді кеңейту үшін керек. Өз кезегінде, мемлекет белсенді қаржаландыру саясатын белсенді ынталандыру саясатына өзгертуі тиіс.

Мақаланың мақсаты ғылыми сыйымды экономиканы қалыптастыруға және қоғамның рухани жаңғыруын қамтамасыз ететін орталығы бар инвестициялық-қаржы жүйесінің үлгісін негіздеу болып табылады. Мақалада ғылыми сыйымды экономиканы және қоғамның әлеуметтік-рухани жаңғыруын қаржылық қамтамасыз етудің қолданыстағы тұжырымдамалық тәсілдері бөліп көрсетілген. Экономиканың банк, сақтандыру секторлары, сақтандыру және қор нарықтары талданып, Астана халықаралық қаржы орталығын құрудың артықшылықтары мен оңтайлы жақтары көрсетілген. Оған қоса, қоғамның экономикалық және рухани жаңаруын дамытуға Қазақстанның қаржы жүйесінің қатысу ерекшеліктері анықталған, сондай-ақ қаржы жүйесін қайта құрудың және инвестициялық-инвестициялық жүйе үлгісін анықтайтын факторлар мен шарттар белгіленген. Экономиканың ғылыми сыйымды салаларын қаржыландыру құралдары мен әдістерін пайдаланудағы әлемдік тәжірибе зерттелді, ол ғылыми сыйымды экономиканы қаржыландырудың жалпы қағидадалын анықтауға мүмкіндік берді.

**Түйін сөздер:** Қазақстан, білім экономикасы, экономика, интеллектуалды және рухани жаңғыру, ғылыми сыйымды сала, қаржыландыру.

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#### ОСОБЕННОСТИ ФИНАНСОВОГО СЕКТОРА КАЗАХСТАНА В СОВРЕМЕННЫХ УСЛОВИЯХ

**Аннотация.** Финансовый сектор является одним из самых, если не самым значительным сектором экономики в современных обществах. В развитых странах в нем занято больше людей, чем в основных отраслях обрабатывающей промышленности, и на него приходится высокий процент валового внутреннего продукта. Но сектор финансовых услуг также играет большую косвенную роль в национальных экономиках. Финансовый сектор мобилизует сбережения и распределяет кредиты в пространстве и времени, а также позволяет фирмам и домашним хозяйствам справляться с неопределенностью путем хеджирования, объеди-

нения, распределения и оценки рисков. Это в конечном итоге улучшает количество и качество реальных инвестиций, увеличивает доход на душу населения и повышает уровень жизни. Сегодня финансовые институты испытывают беспрецедентные изменения в конкурентной глобальной среде. Существующая модель финансовой системы Казахстана требует модернизации, чтобы расширить возможности для финансирования стратегически важных областей экономики и общества. В свою очередь, государство должно изменить свою политику активного финансирования на политику активного стимулирования.

Целью статьи является обоснование модели инвестиционно-финансовой системы с центром, способным обеспечить формирование наукоемкой экономики и создание инфраструктуры духовного обновления общества. В статье выделены существующие концептуальные подходы к финансовому обеспечению наукоемкой экономики и социально-духовного обновления общества. Проведен анализ банковского, страхового сектора экономики, рынка страхования и фондового рынка и выделены положительные стороны и преимущества создания финансового центра — МФЦА. Кроме того, в работе выявлены особенности участия финансовой системы Казахстана в развитии наукоемких отраслей экономики и духовного обновления общества, а также выделены факторы и условия перезагрузки финансовой системы Казахстана и определяющие модель инвестиционно-финансовой системы. Изучен мировой опыт использования инструментов и методов финансирования наукоемких отраслей экономики, что позволило определить общие принципы финансирования наукоемкой экономики.

**Ключевые слова:** Казахстан, экономика знаний, экономика, интеллектуальная и духовная модернизация, наукоемкая отрасль, финансирование.

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