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# PENSION SECTOR INVESTMENT RESOURCES FOR KAZAKHSTAN ECONOMY DEVELOPMENT

## **Abstract**

The article discusses the current investment trends of the UAPF of Kazakhstan. The results of the study confirm the particular importance of the investment resources of the pension sector, which are of a long-term nature and the ever-growing volume of pension savings. With rational and science-based regulation, the investment mechanism of the pension fund can act as a driver of growth and development of the national economy. The direct dependence of the funded pension system should be noted on many macroeconomic parameters of the development of Kazakhstan and the state regulatory system. The tightening of investment limits for UAPF pension assets, on the one hand, has contributed to the reduction of risky financial instruments in its investment portfolio, but on the other hand, has led to a restriction of access to its long-term resources of entities in the real sector of the economy. Such an investment of pension assets does not bring benefits to the domestic economy, especially in the absence of long-term investment resources. Based on the analysis and modelling, the authors identified the main trends in the participation of the pension sector in the financing of economic entities, as well as the impact of pension assets investment instruments on the amount of UAPF investment income.

Key words: investment portfolio, pension fund, investment potential, securities, investment strategies, pension assets, financial instruments.

In modern conditions, in many countries, pension savings are considered as a source of financing state development programs, the construction of infrastructure facilities, and the implementation of large-scale investment projects. The pension assets can be the determining factor in increasing financial flows, aimed at achieving sustainable growth, infrastructure development and production modernization.

In last decade, we can see an increase in pension savings in Kazakhstan, which are accumulated by the Unified Accumulative Pension Fund (UAPF), which amounted to 10,800.5 billion tenge as of 01.01.2020 [1]. Such a volume of pension assets makes it possible for the UAPF to actively participate as an institutional investor in the global and national financial markets [2]. Considering some indicators of the development of the pension sector, we can notice a significant increase in pension savings, pension contributions and investment income of UAPF for 2015–2019. The ratio jf pension assets to GDP at the beginning of 2020 was 15.7% versus 11.7% as of January 1, 2015, the ratio of pension constributions to GDP was 11.1%, an increase of 1.6%, and the ratio of investment income to GDP was 6.3%, an increase of 3.7% (Table 1, p. 173).

In accordance with these indicators, we can notice a positive trend. This confirms the increase in the investment potential of the pension sector of Kazakhstan.

To find out the role of the pension sector in investing in the economy, we analyze the structure of the UAPF investment portfolio for the period 2017–2019 (Table 2. p. 173).

It is known that the main parameters and limits of UAPF investment activity are regulated by the UAPF Investment Declaration [3]. The strategic goal of the established limits is to ensure the safety of citizens' pension savings and to achieve profitability as a result of their investment (above the inflation rate in the country).

Table 1 – The indicators of the development of the pension sector of Kazakhstan

Indicators	01.01. 2015	01.01. 2016	01.01. 2017	01.01. 2018	01.01. 2019	01.01.2020
GDP, billion tenge	38 624,4	41 307,6	46 971,2	51 566,8	58 785,7	68 639,5
Retirement ratio savings to GDP, %	11,7	14,1	15,1	15,1	15,9	15,7
Retirement ratio contributions to GDP, %	9,5	10,6	11,1	11,0	11,1	10,9
The ratio of investment income to GDP, %	2,6	4,2	5,0	5,4	6,3	6,3
Note – Calculated based on statistical data of the NBRK [1].						

Table 2 – The UAPF investment portfolio structure

Indicators	01.01.2017		01.01.2018		01.01.2019		01.01.2020	
	billion tenge	share %						
Kazakhstan's Government								
securutues	2910,8	43,6	3587,6	46,1	4058,0	43,3	4368,0	40,4
GS of foreign states	365,0	5,5	948,8	12,2	1191,9	12,7	1235,1	11,4
Securities of international organizations	86,6	1,3	172,5	2,2	170,9	1,8	361,7	3,3
Bonds of Kazakhstan issuers	84,0	1,3	58,3	0,7	42,1	0,4	28,5	0,3
Bonds of quasi-state organizations of the Republic of Kazakhstan	900,2	13,5	791,7	10,2	1299,9	13,9	1604,9	14,8
Bonds of Kazakhstan	1450.2	21.7	1246.5	16.0	1264.0	12.5	1102.2	10.0
banks	1450,2	21,7	1246,5	16,0	1264,8	13,5	1183,3	10,9
Bonds of foreign issuers	137,9	2,1	62,7	0,8	8,9	0,1	232,5	2,2
PPN (structural notes)	31,6	0,5	35,0	0,4	33,9	0,4	30,8	0,3
Shares of Kazakhstan issuers	127,5	1,9	184,1	2,4	224,4	2,4	239,4	2,2
Shares of foreign issuers	18,3	0,3	23,7	0,3	20,4	0,2	29,0	0,3
Deposits in the NB RK and STB RK	399,9	5,9	325,8	4,2	431,7	4,5	392,9	3,6
Deposits in foreign banks	_	_	277,4	3,6	343,2	3,7	328,4	3,0
Cash in investment								
accounts	151,8	2,3	20,9	0,2	126,7	1,3	510,7	4,7
Other assets	16,2	0,2	28,6	0,4	160,8	1,7	264,0	2,4
Total pension assets	6680,1	100,0	7774,8	100,0	9377,6	100,0	10809,2	100,0
Note – Compiled according to UAPF [4].								

From the results of an analytical study of the investment potential of the pension sector, the following main problems can be distinguished.

Firstly, with a rather significant amount of pension savings (over 10.8 trillion tenge as of 01.01.2020), these assets are practically not used to finance the economy of Kazakhstan. A conservative strategy for managing UAPF investment resources has developed, when the bulk of pension assets is invested in government securities of the Republic of Kazakhstan (more than 40% of the UAPF investment portfolio). A significant amount of UAPF funds is invested in government securities of foreign countries, deposits in foreign banks and securities of international financial organizations, bonds of foreign issuers of the quasi-public sector (in total more than 19.5% of the UAPF investment portfolio). These resources are invested in the economies of foreign countries.

Secondly, the participation of pension assets in the formation of the resource base of second-tier banks in the Republic of Kazakhstan is also very insignificant. A tendency to reduce the investment of pension assets in deposits and bonds of Kazakhstan banks to 1.5 trillion tenge, or 14.5% of the UAPF investment portfolio. These funds make up less than 6% of the total assets of the banking sector. At the same time, pension assets are quite expensive funding for Kazakhstan banks.

Thirdly, the pension assets are held in trast by the National Bank of Kazakhstan and are invested in accordance with the UAPF Investment Declaration. The UAPF investment portfolio structure is rather conservative and inefficient from the point of view of the need to invest in the national economy.

To confirm the hypothesis about the significant role of pension assets in the development of the economy, the influence of the volume of pension assets on the GDP of Kazakhstan was analyzed based on economic and mathematical modelling. To build the equation of paired linear regression, the following indicators were introduced:

 $y_t$  – GDP of Kazakhstan (million tenge);

 $x_t$  – amount of pension assets (million tenge);

t – time parameter.

For the model, the dana of the National Bank of Kazakhstan for 2003–2018 were used.

Based on the approximation of the entered data, we obtained the following regression education:

$$y_t = -430433,638 + 2498,893x_t + 2247427,972t, \quad R^2 = 0,992$$
(-0,381) (5,155) (7,818)

The correlation coefficient is equal R = 0.996, which indicates a close relationship between the resulting trait with factor signs. The coefficient of determination is equal  $R^2 = 0.992$ , i.e 99,2 variation of the dependent variable is explained by the regression obtained. The observed value of the Fisher test is more than critical (F var = 821,307 > Fcrit = 4,667), which indicates the statistical significance and reliability of the regression equation as a whole with a probability of 95%. Comparing the absolute values of the observed values of t-statistics (indicated in brackets under the equation) with the critical value tcrit = 2,160 we can conclude that with a probability of 95%, the regression coefficients are statistically significant and reliable.

The interpretation of the parameters of the resulting equation is as follows: with an increase in the number of pension assets by 1 million tenge, the gross domestic product increases by an average of 2,498.893 million tenge in the presence of an unchanging trend.

The least-squares method was used to assess the impact of the UAPF investment portfolio structure on the UAPF net investment income. The following factors were included in the model: government securities of the Republic of Kazakhstan, corporate securities of issuers of the Republic of Kazakhstan according to the National Bank of the Republic of Kazakhstan for the period from 2003 to 2018. There is no multicollinearity between these factors and there is a significant relationship with the resulting trait.

The results of data approximation are following (Table 3).

Table 3 – The results of the assessment of the equation of the net investment income of UAPF (APF)

Variables				
R	0,972***			
$R^2$	0,945***			
		The aggregate average coefficient of elasticity		
Net investment income (billion tenge) – dependent variable				
government securities of the Republic	0,603**	0,863%		
of Kazakhstan (billion tenge)				
corporate securities of issuers of the Republic	0,300*	0,329%		
of Kazakhstan (billion tenge)				
* p<0,1; ** p<0,05; *** p<0,01				

Analysis of the results allows us to draw the following conclusions:

- 1) there is a close relationship between the resulting trait and two-factor traits at the same time; 2) 94.5% of the variation of the dependent variable is explained by the regression obtained;
- 3) the regression equation as a whole, as well as the regression coefficients, at least with a probability of 90%, are statistically significant and reliable.

The obtained regression coefficients and aggregate average elasticity coefficients can be interpreted as follows:

- with an increase in the amount of money invested in government securities of the Republic of Kazakhstan by 1 billion tenge, net investment income will increase by an average of 0.603 billion tenge;
- with an increase in the amount of money invested in corporate securities of issuers of the Republic of Kazakhstan by 1 billion tenge, net investment income will increase by an average of 0.300 billion tenge;
- with an increase in the amount of money invested in government securities of the Republic of Kazakhstan by 1% of the average level, investment income will increase by an average of 0.863% of its average level with a constant amount of money invested in non-government securities of issuers of the Republic of Kazakhstan;
- with an increase in the volume of cash invested in corporate securities of issuers of the Republic of Kazakhstan by 1% of the average level, investment income will increase by an average of 0.239% of its average level with a constant amount of cash invested in government securities of the Republic of Kazakhstan.

Thus, the largest impact on obtaining net investment income, both in absolute and relative terms, is exerted by the amount of money invested in government securities of the Republic of Kazakhstan.

To increase the role of pension assets in the development of the domestic economy, it is necessary to develop mechanisms for transforming pension savings into investment resources aimed at developing priority sectors.

In the recent period, a wider spread of investment has been received in real estate and the issuance of mortgages. These operations allow for a long-term loan, which will allow reducing the risks of the portfolio of the pension fund, which consists of "long" money. Investments in the housing sector can take on a variety of forms. Personal funds can issue mortgage loans themselves. The recent experience was implemented in Jordan, where a part of the funds of the fund was sent to issue mortgage loans at a low-interest rate for families with a lower salary.

Another way to participate in the accumulation of personal funds in the development of the economy could be the purchase and sale of immovable property. For example, a personal fund acquires for its account any kind of object or housing, and then it requires a customer for a short term. With this, you need to widely use leasing relationships. That is, to carry out a gradual transfer of rights to the property from the creditor to the borrower.

The investment of active assets in the area of health, health, leisure, which is the main activity and the good performance, is very good. These investments have an indirect effect on a small potential – an important factor in the increase in economic growth and increase. About the role of intelligent investments in the formation of competitive economic structure witnesses the experience of Ireland. In this country, three-year social programs were frozen. All available resources have been allocated to the development of computer technology and the development of software for electronic business. As a result, the country, from which some specialists fled in search of work in other parts of the world, was sent to second place in the world for the execution of the program. People's life has improved, and specialities have begun to grow backwards.

In connection with the above, in general, the important thing is that the growth of investment in fixed assets is very high, and it is very weak. This direction is important to increase the competitiveness of the Kazakh products on the domestic and international markets.

#### LIST OF LITERATURE

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# Аңдатпа

Мақалада Қазақстан Республикасының Бірыңғай жинақтаушы зейнетақы қорының инвестициялық қызметінің қазіргі заманғы тенденциялары қарастырылады. Жүргізілген зерттеу нәтижелерімен зейнетақы секторының ұзақ мерзімді сипаты бар инвестициялық ресурстарының және зейнетақы жинақтарының тұрақты өсіп келе жатқан көлемінің ерекше маңыздылығы расталады. Ұтымды және ғылыми негізделген реттеу кезінде зейнетақы қорының инвестициялық тетігі ұлттық экономиканың өсуі мен дамуының драйвері бола алады. Жинақтаушы зейнетақы жүйесінің Қазақстанды дамытудың көптеген макроэкономикалық параметрлеріне және мемлекеттік реттеу жүйесіне тікелей тәуелділігін атап өту қажет. БЖЗҚ зейнетақы активтерін инвестициялау лимиттерін қатандату бір жағынан, тәуекелдік қаржы құралдарының оның инвестициялық портфелінде азаюына ықпал етті, бірақ екінші жағынан, экономиканың нақты секторы субъектілерінің оның ұзақ мерзімді ресурстарына қол жеткізуін шектеуге әкеп соқты. Зейнетақы активтерін мұндай салым, әсіресе ұзақ мерзімді инвестициялық ресурстардың жетіспеуі жағдайында отандық экономикаға пайда әкелмейді. Жүргізілген талдау мен модельдеу негізінде авторлар зейнетақы секторының экономика субъектілерін қаржыландыруға қатысуының негізгі үрдістерін, сондай-ақ зейнетақы активтерін салымдардың БЖЗҚ инвестициялық кіріс мөлшеріне әсерін анықтады.

Тірек сөздер: инвестициялық портфель, зейнетақы қоры, инвестициялық әлеует, бағалы қағаздар, инвестициялық стратегиялар, зейнетақы активтері, қаржы құралдары.

## Аннотация

В статье рассматриваются современные тенденции инвестиционной деятельности Единого накопительного пенсионного фонда Республики Казахстан. Результатами проведенного исследования подтверждается особая важность инвестиционных ресурсов пенсионного сектора, имеющих долгосрочный характер, и постоянно растущий объем пенсионных накоплений. При рациональном и научнообоснованном регулировании инвестиционный механизм пенсионного фонда способен выступить драйвером роста и развития национальной экономики. Необходимо отметить прямую зависимость накопительной пенсионной системы от многих макроэкономических параметров развития Казахстана и системы государственного регулирования. Ужесточение лимитов инвестирования пенсионных активов ЕНПФ, с одной стороны, способствовало уменьшению рисковых финансовых инструментов в его инвестиционном портфеле, но, с другой стороны, повлекло ограничение доступа к его долгосрочным ресурсам субъектов реального сектора экономики. Такое вложение пенсионных активов не приносит пользы отечественной экономике, тем более в условиях недостатка долгосрочных инвестиционных ресурсов. На основе проведенного анализа и моделирования авторами выявлены основные тенденции участия пенсионного сектора в финансировании субъектов экономики, а также влияние инструментов вложения пенсионных активов на размер инвестиционного дохода ЕНПФ.

Ключевые слова: инвестиционный портфель, пенсионный фонд, инвестиционный потенциал, ценные бумаги, инвестиционные стратегии, пенсионные активы, финансовые инструменты.