#### Abstract

of the dissertation for the degree of Doctor of Philosophy (PhD) in the specialty – 6D051300 "World Economy"

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# World financial crisis and national pension systems : impact assessment and development prospects

**General characteristics of the work.** The dissertation research is devoted to the study of the problems of the financial crisis and pension systems.

Relevance of the research topic. Among the important problems of the organization of human life is financial stability at an incapacitated age. This topic is in demand and relevant. At all times and in all conditions, one of the most basic problems of organizing human life has been and remains financial stability at an incapacitated age. The most important and significant achievement in the social sphere in most states can be considered the provision of a guaranteed income after reaching retirement age and an increase in the period of survival.

This problem was also voiced by the Head of State Kassym-Jomart Tokayev in his Message to the People of Kazakhstan dated 01.09.2021 in paragraph iv. A new stage of social modernization of item 6, where the Head of State noted that it is necessary to pay special attention to the development of the domestic pension system, in which serious problems have accumulated. The modernization of the pension system is also necessary according to the Strategy of Kazakhstan 2050 program.

### The degree of development of the problem.

1. Theoretical and empirical works on the mutual impact of the global financial crisis and the financial stability of pension systems have been published since the 1970s, and the problems of reforming pension systems, including the description of the main measures, plans and scenarios of reform, are widely represented in the economic literature. The most important aspects of pension provision, modern economic theory and financial analysis of the functioning of pension funds are studied in the works of Russian scientists. The theoretical and methodological basis of pension provision was laid by the research of G. Brodsky, L. Degtyar, A. I. Dobrynin, V. D. Kamenev, A. Kievich, V. N. Salina, V. V. Roika, A. Solovyov, Yu. Taranukha, V. V. Torlopova, E. M. Chetyrkina, A. I. Shcherbakova, E. L. Yakusheva, Paramonova. Innovations in the capital market of financial instruments and financial products, methods of accrual and distribution of investment income for pension savings and other problems of pension funds in the capital market are considered in the works of W. F. Sharpe, A. Marshall, P. Diamond, H. Piner, I. Gerard, N. Malyutin.

Modern trends and mechanisms of solving social problems, market reforms in this area, issues of formation and functioning of pension funds as institutional investors, investment management, stock market development, improvement of pension asset management, introduction of new financial instruments are reflected in the works of domestic economists: A. A. Alimbayev, R. A. Alshanov, Ya. A. Aubakirova, S. Akhanova, S. S. Auelbaeva, U. B. Baymuratova, S. H. Beresheva, V. Y. Dodonova, G. N. Dugalova, R. Z.Zhaleleva, E. B. Zhatkanbayeva, A. B. Zeynelgabdina, R. E. Elemesova, A. Esentugelova, T. A. Esirkepova, D. K.Kabdieva, M. B. Kenzheguzina, T. K. Koichueva, A. K. Koshanova, K. E. Kubaeva, M. K. Meldakhanova, T. I. Mukhambetova, A. G. Mukhamedzhanova, K. S. Mukhtarova, N. K. Nurlanova, A. S. Nurseita, M. Ospanova, A. F. Rasuleva, T. P. Pritvorova, T. M. Rogacheva, O. Sabdena, K. A. Sagadieva, G. N. Sanzybayeva, A. N. Sakhanova, M. U. Spanova, L. S. Timoshenko, E. A. Turkebaeva, Yu. Shokamanova, U. K. Shedenova, N. N. Khamitova and other Kazakhstani scientists. The substantiation of the main provisions of the formation of Kazakhstan's accumulative pension system, the study of the realities and problems of the activities of accumulative pension funds are given in the dissertations: G. N. Abdykalikova, B. L. Bekberdieva, A. T. Bekisheva, G. B. Dauletbakov, K. S. Dzhrauva, B. A. Espenbetova, L. E. Ibragimova, N. A. Korzhova, V. G. Li, N. S. Moldakhmetov, A. H. Nurseitova, E. J. Syzdykova. In particular, in the doctoral dissertation of N. A. Korzhova examines the imperatives of pension provision from the point of view of improving the management system, while pension insurance is at the center of scientific developments in this work. G. N. Abdykalikova's dissertation research revealed the current problems of functioning of Kazakhstan NPFs until 2014, capitalization of assets of pension funds. In the dissertation of A. T. Bekesheva, the regularities of the formation and regulation by the state of the accumulative pension system in a transitional economy are investigated. In the dissertation research of Lyazzat Ibragimova, the role of the accumulative pension fund as a system-forming factor of the accumulative system is determined. It should be noted Alimukhambetova N., Alisultanova A., Belgibaeva E., Zhamisheva B., Karagusova G. Zh., Marchenko G. A., Nurmukhambetova E. and others.

2. Despite the broad discussion of the global financial crisis and pension provision issues in general, in particular, separately, the problem of creating a unified methodology for analyzing the mutual influence and interrelation of the "global financial crisis-financial stability of pension systems", combining the dynamics of the population structure and demographic changes taking place in the world, has not yet been considered in the literature.

The purpose and objectives of the study. Analysis of the impact of the world financial crisis on national pension systems and determination of the directions and prospects for the development of the pension system of Kazakhstan in the conditions of economic downturn.

## To achieve this goal, the following tasks are solved in the dissertation research:

- 1. To study the genesis of theoretical models of the relationship between the global financial crisis and the financial stability of pension systems
- 2. To clarify the concepts of pension provision, to conduct a comparative analysis of the main currently existing concepts of reforming pension systems.
- 3. To highlight the features and differences, the rationale for pension reforms in developed and developing countries.
- 4. To develop a methodology for forecasting the main parameters of the pension system until 2030, depending on various demographic forecast scenarios.

**Research hypothesis.** The demographic crisis, when the number of employees is less than the number of pensioners, increases the pension burden on the working population and threatens the financial security of state pension obligations.

The idea of the work. The demographic crisis forces not only Kazakhstan, but also all developed countries of the world to look for ways to optimize their pension systems aimed at protecting the elderly population and promoting economic growth under the influence of the global financial crisis and the COVID-19 pandemic.

Research area. International economy, world economic relations

The object of the study. The object of the study is the national pension systems

**The subject of the study**. The subject of the study is the peculiarities of the development and reform of pension systems in the context of global demographic and economic challenges

# Theoretical and methodological basis of the study.

The dissertation research was conducted on the basis of a structural approach using the following quantitative and qualitative methods: generalization, systematization, comparison, historical and logical - to study the essence of the concept of pension insurance (Chapter 2), analysis of foreign experience (Chapter 2), analysis of the legislative base of Kazakhstan on the use and management of pension assets (Chapter 3);

STATA programs (SPSS, STATISTICA, R, MatLab, Eviews, Microsoft Power BI, Microsoft Excel, etc.) were used to process statistical data.

# The information base of the study. The information base of the dissertation research was primary and secondary data.

Sources of primary data: data expert assessments of experts on the profile of the dissertation. Secondary data sources: statistical data of the Bureau of National Statistics, the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan, analytical reports of the Ministry of Economy of the Republic of Kazakhstan, the World Bank, the Organization for

Economic Cooperation and Development, the United Nations, reports of the Unified Accumulative Pension Fund, etc.

**Scientific novelty.** The scientific novelty of the research consists in the development of a set of models for analyzing the relationship between global financial crises and the stability of pension provision, in particular, taking into account changes in demographic processes at the international level, and their impact on the stability of the system.

In terms of pension systems, the novelty of the study consists in the proposed approaches based on the use of methods for measuring and analyzing the level, components and factors of mortality and health of the population, and standardization of approaches that can be used to assess the state of the pension system in the Republic of Kazakhstan.

# The main results determining scientific novelty and representing the subject of protection include the following:

In the course of the dissertation research, the following scientific results were obtained, determining its scientific novelty:

- 1. The features of pension reforms in developed and developing countries will be highlighted, taking into account the birth rate, the development of financial systems and economies in general; various methodologies for classifying crises in modern conditions will be considered, which contribute to identifying the causes, features, consequences and choosing the right direction of anti-crisis regulation of the spheres of national economies; it is assumed that prerequisites and development factors will be highlighted systems of social protection of old age at the main stages of the formation of pension systems in the countries of the world
- 2. Based on the analysis of world experience, the characteristics of the categories of pension system reforms in some countries of the world will be given, which showed that the reforms mainly concerned distributive pension systems were aimed at reducing state obligations to pensioners. These include raising the retirement age, increasing the minimum length of service required to receive a pension, limiting early retirement (prohibition or reduction of pension) and stimulating late retirement (pension increase).;
- 3. The impact of the financial crisis on the levels of pension systems will be characterized, as well as the common features of the pension systems of developed countries and the types of pension systems of developing countries will be highlighted. Characterization of the features of pension system reform in the conditions of crises in developed and developing countries, including Kazakhstan; analysis of the development of the pension system of Kazakhstan will allow to identify factors of financial stability of the pension system: macroeconomic environment, trends in the global economy, economic growth, development of the corporate sector;
- 4. A scenario for the development of the pension system of the Republic of Kazakhstan for 2020-2030 has been developed as a response to the challenges of the global financial crisis and pandemic.

### The main provisions submitted for protection:

- 1) Identification of the features of pension reforms in developed and developing countries, taking into account the birth rate, the development of financial systems and economies in general
- 2) Determining the factors of financial stability of the pension system: macroeconomic environment, trends in the global economy, economic growth, development of the corporate sector
- 3) Development of a set of models for analyzing the relationship between the global financial crises and the stability of pension provision, in particular, taking into account changes in demographic processes at the international level, and their impact on the financial stability of the pension system
- 4) Development of proposals and recommendations on promising areas of development of the pension system of Kazakhstan, taking into account world experience.

## The connection of this work with other research works.

The dissertation research was carried out within the framework of the scientific and technical program of program-targeted financing "BR05236639 "Kazakhstan's path to a knowledge-based economy based on the third technological modernization: strategy, models and mechanisms of

development" (2018-2020), namely Task 1.6 Model of the investment and financial system in the conditions of the formation of a knowledge-based economy in Kazakhstan.

The structure and scope of the dissertation. The structure of the dissertation work reflects the logic, the order of research and the algorithm for solving the tasks. The dissertation consists of the content, notations and abbreviations, an introduction, three chapters, a conclusion, a list of sources used and an appendix. The volume of the dissertation research is 128 pages of the full text, including 16 tables, 9 figures. The list of sources used includes 82 titles.

**Theoretical significance of the research results.** The results obtained during the dissertation research are important for the development of theoretical and methodological foundations for the study of pension systems in developed and developing countries. In the course of the study, new knowledge was gained about the reforms carried out to modernize the pension system. The results of the dissertation research can become the basis for setting new research tasks.

The practical value of the research results. The practical value of the research results is that the developed proposals for the development of the pension system of the Republic of Kazakhstan can be used by the state to solve one of the most acute socio-economic issues as a social state - building an effective pension system.

**Approbation of the results of the study.** The main provisions of the dissertation were discussed at scientific and methodological seminars at the Institute of Economics of the Committee of Science of the Ministry of Science and Education, at the international scientific and practical conference "Political, legal and economic aspects of the development of modern Kazakhstan in the context of globalization", at the international scientific and practical conference on: "Economic science of Kazakhstan: searches and solutions", dedicated to the 100th anniversary of the birth of academician Ashimbayev Tuimebay Ashimbayevich – Almaty, May 18, 2018, at the round table Strategy of Economic Security and Social Stability of Kazakhstan, where the collective monograph was discussed.

**Publication of research results.** The main provisions and conclusions submitted for defense are reflected in scientific papers, of which 2 are published in a journal with a non-zero impact factor and included in the international information resources Scopus and Web of science, 1 – sections in collective monographs, 4 - in foreign journals and materials of international scientific conferences, 3 - in scientific publications recommended by The Control Committee in Education and Science of the Republic of Kazakhstan.

- 1. A.Yessentay, S.Nurymova, M.Khalitova, Y.Jumabayev, Mohd-Pisal Zainal. Kazakhstani financial sector performance features under current conditions. // «Вестник Национальной академии наук Республики Казахстан». ISSN 2518-1467 (Online), ISSN 1991-3494 (Print). Собственник: РОО «Национальная ISSN 1991-3494. Volume 1, Number 377 (2019), 130 144 <a href="https://doi.org/10.32014/2019.2518-1467.16">https://doi.org/10.32014/2019.2518-1467.16</a>
- 2. A.Yessentay. Emerging trends in times of instability: new challenges and opportunities for social security. // Economics: the strategy and practice. 2018;(2):114-119.
- 3. A.Yessentay, S.Nurymova. Regulation of national economies in terms of the global financial crisis: contradictions and measures of overcoming them // Economics: the strategy and practice N 2018: 31-41
- 4. A.Yessentay, S.Nurymova. Threats to the financial security of the national economies in the Central Asia countries in times of financial crisis // International Journal of Innovative Technologies in Economy, (8(20), 43-51. <a href="https://doi.org/10.31435/rsglobal\_ijite/30112018/6214">https://doi.org/10.31435/rsglobal\_ijite/30112018/6214</a>
- 5. A.Yessentay S.Nurymova. Directions of financial security enforcement in the Central Asia countries // International Journal of Innovative Technologies in Economy, (4(16), 12-15.
- 6. A.Yessentay. International experience in determining the self-employed, their portrait and the culture of pension planning // COLLECTION of materials of the international scientific and practical conference "Political, legal and economic aspects of the development of modern Kazakhstan in the context of globalization", Dedicated to the 50th anniversary of Doctor of Law, Professor, Dean of the Faculty of International Relations of Al-Farabi Kazakh National University Sagyngali Zholamanovich September 22, 2018, pp.199-203

- 7. A.Yessentay. Pension system management: Norway's experience for Kazakhstan // Materials of the international scientific and practical conference on the topic: "Economic science of Kazakhstan: searches and solutions", dedicated to the 100th anniversary of the birth of academician Ashimbayev Tuimebay Ashimbayevich Almaty, May 18, 2018 volume 1 pp. 277-288
- 8. A.Yessentay. Foreign experience in the development of pension systems on a voluntary basis // Strategy of economic security and social stability of Kazakhstan. Ed. Academician of the NAS RK A.A. Satybaldin. Almaty: Institute of Economics KN MES RK, 2019. 740 p. ISBN 978-601-215-184-8. In 2 volumes Almaty: Institute of Economics of the CS MES RK pp. 639-653
- 9. A.Yessentay A.Kireyeva, A.Nurbatsin, N.Bagayeva, Sh.Turdalina. Exploring determinants of innovation potential of enterprises in Kazakhstan // Problems and Perspectives in Management, 19(2), 433-443. (Scopus 0.48 процентиль) //dx.doi.org/10.21511/ppm.19(2).2021.34
- 10. A.Yessentay, A.Kireyeva, M.Khalitova, N.Abilkair . Financing of healthcare facilities in pension system assets of ecologically problematic regions in Kazakhstan // Journal of Asian Finance, Economics and Business 7(7), p. 531-541 DOI:10.13106/jafeb.2020.vol7.no7.531