

REVIEW

of the official reviewer for the dissertation work

Yesentay Aigerim on the topic "The world financial crisis and national pension systems: impact assessment and development prospects", presented for the degree of Doctor of Philosophy (PhD) in the specialty "6D050013 – World Economy".

№	Criteria	Eligibility (it is necessary to mark one of the answer options)	Justification of the position of the official reviewer
1.	The topic of the thesis (as of the date of its approval) corresponds to the directions of scientific development and/or state programs	1.1 Compliance with priority areas of science development or government programs:	<p>The research topic <u>corresponds</u> to the priority direction of the development of science and has both theoretical and practical relevance. In this regard, the study of the theory and mechanisms of pension provision development and the development of directions for the modernization of the pension system of Kazakhstan is of absolute relevance and is directly related to the tasks set in the state development programs of the country, in particular the Strategy "Kazakhstan-2050", the Strategic Development Plan of the Republic of Kazakhstan until 2025, the main objectives of which is to achieve a qualitative and sustainable economic recovery, leading to an increase in the welfare of the population of the republic to the level of the OECD countries.</p>
		<p>1) The dissertation was completed within the framework of a project or target program funded from the state budget (specify the name and number of the project or program)</p> <p>2) The dissertation was completed within the framework of another state program (specify the name of the program)</p> <p>3) The dissertation corresponds to the priority direction of science development approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan (specify the direction)</p>	<p>The dissertation corresponds to the priority direction of science development:</p> <ol style="list-style-type: none"> 1. Strategy "Kazakhstan-2050"; 2. The message of the Head of State K.-Zh.K. Tokayev to the people of Kazakhstan "Unity of the people and systemic reforms – a solid foundation for the prosperity of the country" dated 01.09.2021. IV. A new stage of social modernization of item 6. <p>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.</p>
2.	Importance for science	The work <u>makes</u> /does not make a significant contribution to science, and its	The dissertation work makes a contribution to science, and its importance is

		importance is <u>well disclosed</u> / not disclosed	<p>sufficiently disclosed. In particular:</p> <ul style="list-style-type: none"> - the author has studied the genesis of theoretical models of the relationship between the global financial crisis and the financial stability of pension systems and highlighted the concepts of their reform; - the classification of the impact of crises by coverage, structure, level of impact on the pension system is presented; - based on the study of the evolution of the development of pension systems, the prerequisites, factors and forms of the development of pension systems are identified. <p>In addition, the author has developed a methodology for forecasting the main parameters of the pension system until 2030 - depending on various scenarios of the demographic forecast. Thus, the dissertation research is a scientific qualification work, which contains the solution of priority theoretical, methodological and scientific problems for the analysis of the relationship "world financial crisis - financial stability of pension systems", combining the dynamics of the population structure and demographic changes taking place in the world.</p>
3.	The principle of independence	<p>The level of independence:</p> <ol style="list-style-type: none"> 1) <u>High</u>; 2) Average; 3) Low; 4) There is no independence 	<p>The level of independence of the study is assessed as <u>high</u>. The noted new results reflect the personal contribution of the author. The independence of the research is confirmed not only by the high level of uniqueness, but also by independently drawn conclusions, recommendations and suggestions. The dissertation contains the author's opinion and the author's approach to the problem of pension provision during crises. In addition, the author has published a number of works on the issues being developed.</p>
4.	The principle of inner unity	<p>4.1 Substantiation of the relevance of the dissertation:</p> <ol style="list-style-type: none"> 1) <u>Justified</u>; 2) Partially justified; 3) Not justified. 	<p>The relevance of the study is justified by the fact that for almost the second decade the world economy has been undergoing a number of crises associated with various causes. However, the main force of the impact of crises affects the population of countries, society. The population turns out to be at peak interest. The pension system is aimed at solving the problem of providing for the most vulnerable segments of the population and its importance in a crisis becomes as high as possible and the issue of its stability and stable functioning becomes even more important. From the point of view of the financial stability of pension systems in times of crisis, research is conducted not only by individual scientists. This problem is being developed by whole institutions and States. Meanwhile, the demographic approach is also of no small importance. This study attempts to investigate the impact of crises in terms of changes in the demographic structure of the population, which justifies the relevance of the study.</p>
		<p>4.2 The content of the thesis reflects the topic of the dissertation:</p>	<p>The content of the dissertation reflects the topic of the dissertation, which is expressed by the goals and objectives set, as well as the content of the sections. So, in the work:</p>

		<p>1) Reflects; 2) Partially reflects; 3) Does not reflect</p>	<ul style="list-style-type: none"> - trends in the development of crises in the modern world are considered; - the reasons for the emergence of crises, as well as the main points of their influence on the economic systems of various countries are highlighted; - the stages of development of pension systems in connection with the crisis phenomena in national economies are determined; - the prospects of modernization of the national pension system have been determined. <p>The methodological plan presents a classification of the impact of financial crises on the development of pension systems, which makes it possible to identify areas of contact between crises and the development of pension systems. This classification made it possible to identify the demographic factor as one of the most vulnerable.</p> <p>In addition, the author of the dissertation research analyzes and highlights the features of the development of pension systems of countries with different levels of economic development.</p> <p>In the third chapter, the author attempts to give recommendations on proposals for state regulation of pension systems in crisis conditions and to identify promising areas for their development.</p>
		<p>4.3. The purpose and objectives correspond to the topic of the thesis: 1) <u>correspond to</u>; 2) partially correspond to; 3) do not match</p>	<p>The purpose and objectives of the research correspond to the topic of the dissertation and consists in analyzing the impact of the global financial crisis on national pension systems and determining the directions and prospects for the development of the pension system of Kazakhstan in the conditions of economic downturn. The solution of the set goal was carried out by means of tasks, the essence of which is:</p> <ul style="list-style-type: none"> - highlighting trends in the development of crises; - features of the development of pension systems in different countries; - development of a model for forecasting the main parameters of the pension system depending on various demographic forecast scenarios. <p>purpose and objectives of the research correspond to the topic of the dissertation and consists in analyzing the impact of the global financial crisis on national pension systems and determining the directions and prospects for the development of the pension system of Kazakhstan in the conditions of economic downturn.</p> <p>The solution of the set goal was carried out by means of tasks, the essence of which is:</p> <ul style="list-style-type: none"> - highlighting trends in the development of crises; - features of the development of pension systems in different countries; - development of a model for forecasting the main parameters of the pension

		<p>4.4 All sections and provisions of the dissertation are logically interrelated:</p> <ol style="list-style-type: none"> 1) <u>completely interconnected</u>; 2) the relationship is partial; 3) there is no relationship 	<p>system depending on various demographic forecast scenarios.</p> <p>All sections and provisions of the dissertation <u>are logically completely interconnected</u>, corresponds to the set goals and objectives, consistently reveal the topic of research. In the work, both chronological and thematic principles of presentation of the material are absolutely justifiably used. In particular, the characteristic features of the formation of pension systems in developed and developing countries are considered, taking into account the socio-economic heterogeneity and uneven economic development of these states, the peculiarities of the birth rate, the development of financial systems and economies in general. The study of various classifications of crises in modern conditions has revealed the specifics and consequences of their impact on social protection systems, taking into account different levels of pension systems. The features of reforming pension systems in the conditions of crises in developed and developing countries, including Kazakhstan, are characterized.</p>
		<p>4.5 The new solutions proposed by the author (principles, methods) are reasoned and evaluated in comparison with the known solutions:</p> <ol style="list-style-type: none"> 1) <u>there is a critical analysis</u>; 2) partial analysis; 3) the analysis is not your own opinions, but quotes from other authors 	<p>In this thesis, the author offers an interdisciplinary approach to the consideration of the problems of pension systems in the context of the development of crises. In particular, considering financial crises, most authors investigate their impact on the investment aspect, profitability, formation of the investment portfolio, financial stability, quality of pension provision. Meanwhile, the approach of the author of this dissertation work consists in highlighting the demographic component through the prism of financial crises, which determines the originality of the author's approach to the problems put forward.</p> <p>From this point of view, the principles and methods in the work are reasoned and obtained within the framework of the author's fixed foundations and are based on a sufficient source base. The results obtained are justified, the analyses and conclusions made by the author during the study are clear and informative.</p>
5.	The principle of scientific novelty	<p>5.1 Are the scientific results and provisions new?</p> <ol style="list-style-type: none"> 1) completely new; 2) <u>partially new (25-75% are new)</u>; 3) not new (less than 25% are new) 	<p>Scientific results and provisions <u>are partially new</u>;</p> <p>The first result - the features of pension reforms in developed and developing countries are highlighted, taking into account the birth rate, the development of financial systems and economies in general; the prerequisites and factors for the development of the social protection system of old age at the main stages of the formation of pension systems in the countries of the world are highlighted - <u>it has elements of novelty</u>.</p> <p>The second result is that various methodologies for classifying crises in modern conditions are considered with the identification of their causes, features, consequences leading to the choice of the optimal direction of anti-crisis regulation, such as, in</p>

		<p>particular, raising the retirement age, increasing the minimum length of service required to receive a pension, limiting early retirement (prohibition or reduction of pension) and stimulation of late retirement (pension increase) - <u>has elements of novelty</u>.</p> <p>The third result is characterized by the impact of the financial crisis on various levels of pension systems. The features of reforming pension systems in the conditions of crises in developed and developing countries, including Kazakhstan, are characterized; the analysis of the development of the pension system in Kazakhstan allowed us to identify factors of financial stability of the pension system: the macroeconomic environment, trends in the global economy, economic growth, development of the corporate sector. The result is <u>partially new</u>.</p> <p>The fourth result – the directions of modernization of the pension system of Kazakhstan have been developed in the conditions of a new economic reality using predictive statistical models - <u>can be considered new</u>.</p>
	5.2 Are the conclusions of the dissertation new? 1) completely new; 2) <u>partially new (25-75% are new)</u> ; 3) not new (less than 25% are new)	The conclusions made in the dissertation work according to the conducted research are partially new and justified.
	5.3 Technical, technological, economic or managerial decisions are new and justified: 1) completely new; 2) <u>partially new (25-75% are new)</u> ; 3) not new (less than 25% are new)	Technical, technological, economic or managerial decisions used to achieve the goals and objectives are partially new and justified – based on the analysis, a methodology for forecasting the main parameters of the pension system until 2030 has been developed, depending on various demographic forecast scenarios. The noted results reflect the author's contribution to the development of the foundations for the development and reform of pension systems in the context of global demographic and economic challenges.
6.	Validity of the main conclusions	<p>All the main conclusions are <u>based/not based</u> on scientifically significant evidence or are sufficiently well-founded (for qualitative research and areas of training in the arts and humanities)</p> <p>The conclusions made as a result of the study are based on scientifically significant evidence, are substantiated, have a discussion with references to modern research of foreign and domestic science.</p>

7.	The main provisions submitted for defence	<p>It is necessary to answer the following questions for each provision separately:</p> <p>7.1 Is the position proved?</p> <p>1) proved; 2) rather proven; 3) rather not proven; 4) not proven</p> <p>7.2 Is it trivial?</p> <p>1) yes; 2) no</p> <p>7.3 Is it new?</p> <p>1) yes; 2) no</p> <p>7.4 Level for application:</p> <p>1) narrow; 2) average; 3) wide</p> <p>7.5 Is it proved in the article?</p> <p>1) yes; 2) no</p>	<p>The main conclusions and scientific results of the dissertation work are substantiated and convincing.</p> <p>Provision 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.</p> <p>7.1 Is the position proved? <u>Yes, it has been proved</u> and justified the need to take it into account, as obtained on the basis of studies of the works of foreign and domestic scientists.</p> <p>7.2 Is it trivial? <u>No, it is not trivial</u>, since the paper highlights the prerequisites and factors for the development of the social protection system of old age at the main stages of the formation of pension systems in the countries of the world.</p> <p>7.3 Is it new? <u>Yes, it is new</u>, because various methodologies for classifying crises in modern conditions are considered, which contribute to identifying the causes, features, consequences and choosing the right direction for anti-crisis regulation of the spheres of national economies.</p> <p>7.4 Level for application: <u>wide</u> – the developed proposals for the development of the pension system can be used in the development of programs for building an effective pension system.</p> <p>7.5 Is it proved in the article? <u>Yes, it has been proven</u>. (There are publications in conference materials, in journals recommended by the Control Committee in the field of education and science of the Republic of Kazakhstan) confirming the results obtained.</p> <p>Provision 2. Determination of factors of financial stability of the pension system: macroeconomic environment, trends in the global economy, economic growth, development of the corporate sector.</p> <p>7.1 Is the position proved? Yes, the necessity of its accounting <u>has been proved</u> and justified, which is obtained on the basis of studies of the works of foreign and domestic scientists.</p> <p>7.2 Is it trivial? <u>No, it is not trivial</u>, since the paper highlights the factors of financial stability of the pension system: such as: macroeconomic environment, trends in the global economy, economic growth, development of the corporate sector.</p> <p>7.3 Is it new? <u>Yes, it is new</u>, because despite the presence of works devoted to the study of the financial crisis, the problem of financial stability of the pension system and the analysis of the relationship has not yet been considered separately.</p> <p>7.4 Level for application: <u>wide</u> – the developed proposals for the development of</p>
----	---	---	---

			<p>the pension system can be used by government agencies when developing programs for building an effective pension system.</p> <p>7.5 Is it proved in the article? <u>Yes, it has been proven.</u> (There are publications in conference materials, in journals recommended by the Control Committee in the field of education and science of the Republic of Kazakhstan) confirming the results obtained.</p> <p>Provision 3. Development 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 financial stability of the pension system</p> <p>7.1 Is the position proved? <u>Yes, the necessity of its accounting has been proved and justified,</u> which is obtained on the basis of studies of the works of foreign and domestic scientists.</p> <p>7.2 Is it trivial? <u>No, it is not trivial, since</u> the work has developed models for analyzing the relationship between global financial crises and the stability of pension provision.</p> <p>7.3 Is it new? <u>Yes, it is new,</u> because despite the presence of works devoted to the study of pension provision, the problem of the impact of the crisis on pension provision has not yet been considered separately.</p> <p>7.4 Level for application: <u>wide</u> – the developed models can be used by government agencies when developing programs for building an effective pension system.</p> <p>7.5 Is it proved in the article? <u>Yes, it has been proven.</u> (There are publications in conference materials, in journals recommended by the Control Committee in the field of education and science of the Republic of Kazakhstan) confirming the results obtained.</p> <p>Provision 4. Development of proposals and recommendations on promising areas of development of the pension system of Kazakhstan, taking into account world experience</p> <p>7.1 Is the position proved? <u>Yes, the necessity of its accounting has been proved and justified,</u> which is obtained on the basis of studies of the works of foreign and domestic scientists.</p> <p>7.2 Is it trivial? <u>No, it is not trivial, since</u> there are models in operation to analyze the relationship between global financial crises and pension security stability.</p>
--	--	--	--

			<p>7.3 Is it new? Yes, it is new, because the directions of modernization of the pension system of Kazakhstan have been developed in the conditions of a new economic reality using predictive statistical models.</p> <p>7.4 Level for application: wide – the developed models can be used by a Single Accumulative Pension Fund when developing programs for building an effective pension system.</p> <p>7.5 Is it proved in the article? <u>Yes, it has been proven.</u> (There are publications in conference materials, in journals recommended by the Control Committee in the field of education and science of the Republic of Kazakhstan) confirming the results obtained.</p>
8.	The principle of reliability Reliability of sources and information provided	8.1 The choice of methodology is justified or the methodology is described in sufficient detail 1) <u>yes</u> ; 2) no	Yes. The choice of research methodology is justified and described in detail in the relevant section of the dissertation work. The research methods used in the dissertation work are modern and generally accepted in science.
		8 8.2 The results of the dissertation work were obtained using modern methods of scientific research and methods of data processing and interpretation using computer technology: 1) <u>yes</u> ; 2) no	Yes. The results of the dissertation work <u>were obtained</u> using modern methods of scientific research and methods of data processing and interpretation using computer technology. A multivariate regression model was obtained using Ms Excel software, calculations of regression coefficients and multiple correlation were made.
		8.3 Theoretical conclusions, models, identified relationships and patterns are proved and confirmed by experimental research (for areas of training in pedagogical sciences, the results are proved on the basis of pedagogical experiment): 1) <u>yes</u> ; 2) no	Yes. Theoretical conclusions, models, identified relationships and hypotheses are confirmed. The interrelations of the pension burden index with the factors under consideration are <u>considered</u> .

		8.4 Important statements <u>are confirmed</u> /partially confirmed/not confirmed by references to relevant and reliable scientific literature	Important statements <u>are confirmed</u> by references to relevant and reliable scientific literature. The reliability and validity of the results is confirmed by the study and generalization of scientific sources, including the use of state programs of the Republic of Kazakhstan.
		8.5 The literature sources used are <u>sufficient</u> /not sufficient for a literary review	The literature sources used <u>are sufficient</u> for a literary review. The literary review corresponds to the topic of the dissertation. It examines the problem of pension provision quite broadly and deeply. The review is quite well structured, written in scientific language, there is a narrative logic, a dissertation, a list of references and references are correctly designed according to the requirements and State standards.
9	The principle of practical value	9.1 The dissertation has theoretical significance: 1) yes; 2) no	<u>Yes.</u> The dissertation has theoretical significance: the theoretical significance of the study lies in the possibility of effective application of the developed model of pension system development.
		9.2 The dissertation has practical importance and there is a high probability of applying the results obtained in practice: 1) yes; 2) no	<u>Yes.</u> The dissertation has practical importance and there is a possibility of applying the results obtained in practice. The conclusions and results of the work can be used in the development of programs for building an effective pension system.
		9.3 Are the suggestions for practice new? 1) completely new; 2) partially new (25-75% are new); 3) not new (less than 25% are new)	The suggestions for practice are <u>completely new</u> . The results of the study were tested at scientific and methodological seminars of the Institute of Economics of the Committee of Science of the Ministry of Science and Education. The results of the study have been tested: - Act on the implementation of the results of the dissertation research in the "Unified Accumulative Pension Fund" dated 08.10.2021
10.	Quality of writing and design	Quality of academic writing: 1) <u>high</u> ; 2) average; 3) below average; 4) low.	The quality of academic writing is <u>quite high</u> , the presented dissertation work is a completed scientific qualification work.
11	Reviewer's opinion on thesis	Suggestions and comments	Without detracting from the merits of the dissertation, in our opinion, the theoretical and methodological approaches should be reflected in more depth in the dissertation. I would like to see clearer conclusions after each paragraph of the thesis. In addition, not enough attention is paid to the practical analysis of the global

			<p>crisis, its factors and consequences. It would be necessary to highlight the results, author's suggestions and recommendations.</p>
--	--	--	--

The content of the dissertation corresponds to the goals and objectives of the research, is a complete independent study and contains a set of reliable scientific and practical results put forward by the applicant.

The dissertation work on the formulation of a scientific problem and methods of its solution, scientific novelty, content and results obtained meets the requirements for the dissertations of applicants for the degree of Doctor of Philosophy (PhD) by Control Committee in Education and Science of the Republic of Kazakhstan.

Yessentay Aigerim's dissertation research on "The world financial crisis and national pension systems: impact assessment and development prospects" is recommended for public defense, the applicant deserves to be awarded the degree of Doctor of Philosophy (PhD) in the specialty "6D050013 – World Economy".

Official reviewer:
PhD, Associate Professor of the Department
of Management
Gumilev Eurasian National University



Uskelenova T. Assel 30.05.2022 г.

Зобекенов Идрис
Мам Ол Бейли



Усқеленова Т. Ассел