## **REVIEW**

of the official reviewer for the thesis by Kalizhan Sagatbekovich Kaliyev on the topic "Analysis of Bank Risk and Performance across Transition Economies", seeking for the Doctor of Philosophy (PhD) degree in the specialty "6D050900- Finance".

№ u/p	Criteria	Compliance with the criteria (you must mark one of the answer options)	Justification of the official reviewer's position
1.	The topic of the thesis (as of the date of its approval) corresponds to the directions of science	1.1 Compliance with priority directions of science development or state programs:	The research topic corresponds to the priority direction of science development and has strategical importance for regional financial market (banking sector) as well as empirical meaning for Kazakhstani state programs development, for example, i) Concept of financial sector development till 2030 (issued in 2014); ii) issues stated for the upcoming/renewing eponymous strategy; iii) Development Strategy of the Republic of Kazakhstan till 2050, and other related programs and decrees devoted to the development of financial sector
	development and / or state programs	1) The thesis was completed within the framework of a project or target program financed from the state budget (indicate the name and number of the project or program)  2) The thesis was completed within the framework of another state program (indicate the name of the program)  3) The thesis corresponds to the priority direction of science development, approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan (indicate the direction)	The thesis corresponds to the priority direction of science development as well as to the Concept of financial sector development till 2030 (Government decree #954 issued on August 27, 2014), Rules for formation of risk management and internal control system for second-tier banks (Resolution by the Board of the National Bank of the Republic of Kazakhstan No. 188 issued on November 12, 2019), State Program "Digital Kazakhstan" (December, 12, 2017), etc.
2.	Importance for	The work <u>makes</u> / does not make a	The thesis makes a contribution to science, and the researcher tried to disclose its
	science	significant contribution to science, and its importance is well disclosed / not disclosed	importance.  The thesis topic and research sphere relate to implementation of existing ""Generalized Methods of Moments" (hereinafter – GMM), however it is not fully stated in the thesis that GMM has comparative advantages under other alternative models. The researcher pays much attention to above mentioned model targeting on use panel data assessment with dynamic nature of values.
3.	The principle of	Self-reliance level:	The work was written independently at a <u>high</u> level. Author experienced his research

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	independence	1) High; 2) Medium; 3) Low; 4) There is no independence	basing on the theoretical and methodological pillars targeted on banking sector analysis and risk assessment including macro- and microlevels of data estimations.
4.	The principle of internal unity	<ul><li>4.1 Proof of for the relevance of the thesis:</li><li>1) Justified;</li><li>2) Partially justified;</li><li>3) Not substantiated.</li></ul>	The topic of the thesis is partly <u>relevant</u> and partly <u>justified</u> . Meaning and importance of banking sphere is very high for any economy, so rising economies and dynamic societies experience the same – crediting economy, redistributing finance, and supporting market.  Expert related research investigate that risks in banking sector of emerging markets are multiplied by different conditions. Nevertheless, thesis' coverage (in most cases) excludes important critical periods (i.e. before 2007 and after 2017 - rather critical for the region). It seems that the paper and the topic's relevance (stated in the introduction and in the core itself) would gain if those issues would be incorporated accordingly.
		<ul><li>4.2 The thesis content reflects the thesis topic:</li><li>1) <u>Reflects;</u></li><li>2) Partially reflects;</li><li>3) Does not reflect</li></ul>	The thesis content <u>reflects</u> its topic. Applied GMM model is targeted on topic issues and helps to design related recommendations for the purpose of the research.
		<ul> <li>4.3. The purpose and objectives correspond to the thesis topic:</li> <li>1) correspond;</li> <li>2) partially correspond;</li> <li>3) do not match</li> </ul>	The purpose and objectives <u>correspond</u> to the topic.  Applied research and findings correspond to the main idea of the thesis, i.e. risk assessment for banking sector in emerging markets via GMM model
		4.4 All thesis sections and provisions of the are logically interconnected:  1) are fully interconnected; 2) the relationship is partial; 3) there is no relationship	All sections and provisions of the thesis are logically <u>interconnected</u> .  General structure corresponds to general requirements for the research paper, its content logically matches thesis methodology, framework, and date analysis
		<ul> <li>4.5 The new solutions proposed by the author (principles, methods) are argued and evaluated in comparison with the known solutions:</li> <li>1) there is a critical analysis;</li> <li>2) partial analysis;</li> <li>3) the analysis is not one's own opinions,</li> </ul>	There is a <u>partial analysis</u> , new solutions proposed by the author (principles, methods) are reasoned and evaluated in comparison with known solutions. Important critical periods (i.e. before 2007 and after 2017) — have not been fully considered and analyzed, as well as how these data would adjust findings and results. So, some statements could be improved for future scientific activity.  The use of GMM model employing panel data regressions over 17 different transitional economies during, and after the crisis period of 2008 through to 2019

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		but quotes from other authors	permits to have a good foundation for the application of new methods and combinations of diversified accounting approaches as author indicates. In example, seven different combinations were applied for the profitability measures of Return on Assets, Net Interest Margin, and Risk score for the full sample of transition economies; separate regressions were run for the four sub-samples allocated in regions of Eastern European, Central European, Balkan and Caucasus countries applying the methodology from general to specific in the selection of variables in line with the study of Klomp and De Haan (2012). The results for the robustness of the findings were checked utilizing five different regional samples with different banking industry specifications.
5.	The principle of scientific novelty	5.1 Are scientific results and statements new? 1) completely new; 2) partially new (25-75% are new); 3) not new (less than 25% are new)	Scientific novelty is reflected in the formulation, theoretical justification, and practical solution of a complex of methodological and scientific and practical issues, related to the improvement of financial intermediary processes in economies of transition.  Scientific results and provisions are relatively new — since the author's vision of the essence of regulation, ownership and overall bank specific factors' effect was taken under deeper review in the thesis, classification of the composition of processes of financial intermediation, which allow to substantiate the need to take it into account was obtained on the basis of studies of the works of foreign and domestic scientists.
		5.2 Are the conclusions of the thesis new? 1) completely new; 2) partially new (25-75% are new); 3) not new (less than 25% are new)	The conclusions of the thesis are relatively <u>new</u> .  The conclusions of the thesis are new since the author's methodology for assessing the value of performance and risk was approached by the methodology of GMM that takes into account the dynamic nature of the data that is the most frequent problem with the data in banking model examination.  The study is aimed at developing a methodology that is considering the fact that the adjustments to the perfect modeling can otherwise negatively affect the findings and result in the biased conclusions. Therefore, the approach taken by the author can be categorized as new conclusion findings especially in the sense that author applies a framework of transition economies in emerging markets.
		<ul> <li>5.3 Technical, technological, economic or management decisions are new and well-founded:</li> <li>1) completely new;</li> <li>2) partially new (25-75% are new);</li> <li>3) not new (less than 25% are new)</li> </ul>	Technical, technological, economic or managerial decisions are <u>new</u> and <u>well-founded</u> : the author proposed a GMM methodology for the examination of bank business performance under transition category. The approach helps tackle the problems of endogenous variable, dispersion of the error terms and simultaneous causality effect that is causing the problem of biased findings.

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6.	Validity of the main conclusions	All key findings are <u>based</u> /not based on scientifically sound evidence, or <u>well-founded</u> (for qualitative research and arts and humanities courses)	Scientific results, conclusions and recommendations of the thesis are well-founded and rather evidenced via compliance with the requirements for scientific research is determined by the use of general scientific research methods, using the works of foreign and domestic scientists who have made a great contribution to theory and practice of the problem under consideration, publications of the main provisions.  The validity and reliability of the results obtained is confirmed by:  1. The results obtained through the application of GMM.  2. The result of substantial liquidity portion as the only part of the business model that could have effect on both financial stability and performance measures of banks in transition.  3. The result of whether ownership structure of banks has a direct effect on performance of financial institutions in transitional economies.  4. The negative result of effect of concentration of both political and economic power, which slows down transmission from planned to market economy.  The research methods used confirm the scientific significance and the value of a thesis.
7.	Basic provisions for defense	The following questions need to be answered for each position separately: 7.1 Is the position proven? 1) proven; 2) rather proven; 3) rather unproven; 4) not proven 7.2 Is it trivial? 1) yes; 2) no 7.3 Is it new? 1) yes; 2) no 7.4 Level to apply: 1) narrow; 2) medium; 3) wide 7.5 Is it proven in the article? 1) yes; 2) no	Provision 1 The result of liquidity portion as the only part of the business model that has significant effect on both financial stability and performance measures of banks in transition.  7.1 Is the position proven? Yes, it has been proven, because the essence was analyzed via the sophisticated tooling of instrumental model of GMM for dynamic patterns of variables.  7.2 Is it trivial? No, it is not trivial, the author added interpretation of the concept of "transition economies" from the point of view of financial intermediary process.  7.3 Is it new? Yes, it is new, the author kept records of separate examination of transition economies from overall emerging markets as the application can be significantly different taking into account the specific features of recently switched to free market economies of transition.  7.4 Level to apply: medium – banks today are defined the main financial institution in emerging economies, acting in VUCA and BANI realities.  7.5 Is it proven in the article? Yes, proven based on published scientific articles.  "So called "Private" Ownership Structure in Kazakhstani Banking Business Model. Industry Performance Evaluation", (2019), June, News of the National Academy of Sciences of the Republic of Kazakhstan, Series of Social and Human Science, ISSN - 2224-5294, Volume 6, Number 328 (2019), 139-154.  "Bank Regulation in the Economies in Transition". Volume: 11 issue: 4, Article first

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			published online: November 29, 2021; Issue published: October 1, 2021, Sage Open. 2021.  Provision 2 The result of whether ownership structure of banks has a direct effect on performance of financial institutions in transitional economies.  7.1 Is the position proven? Yes, proven with the application of the approach from general to specific following the fundamental study of Klomp and De Haan (2012).  7.2 Is it trivial? No, not trivial, effective. The GMM system reasonably reflects the need to use both conceptual and empirical points of the problem.  7.3 Is it new? Yes, it is new, because substantiated the value and role of financial intermediation on effective mode of banking modeling establishment in economies in transition.  7.4 Level for application: narrow, for banking financial institutions.  7.5 Is it proven in the article? Yes, proven in published scientific articles.  1 "Bank Risk Evaluation through Z-score Measure and its Effect on Financial Health of the Industry of Transitional Economy of Kazakhstan"(2020), Bulletin of Kazakhstan National University.  2 "Kazakhstani Banking Industry Performance Overview in the Post Financial Crisis Decade", (2020), January, Central Asian Economic Review, vol. 4(127), 40-50, ISSN - 2224-5561.  Provision 3 The results utilizing the GMM methodology indicating the Reserve Requirements regulatory norms as the only significant effect factor that could improve the profitability and diminishes the risk of financial instability in the banking sectors of transitional economies across a large sample of countries.  7.1 Is the position proven? Yes, it is relatively proved, the author's method proposed assessing the value of risk in different subsamples with seven different combinations of modeling.  7.2 Is it trivial? No, it is not trivial, because author's technique demonstrates the relationship between the financial results of performance and risk for banks in economies in transition.  7.3 Is it new? Yes, it is relatively new; the author has tried to estimate the operational c

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8.	The principle of certainty Reliability of sources and information	8.1 Choice of methodology - justified or methodology described in sufficient detail 1) yes; 2) no	1 "Bank Regulation in the Economies in Transition". Volume: 11 issue: 4, Article first published online: November 29, 2021; Issue published: October 1, 2021, Sage Open, 2021.  2 "Bank regulation in the economies in transition", (2020), October, 33rd EBES Conference, Madrid, Spain.  3 "Financial Stability of Banking Industry in Kazakhstan aftermath the World financial Crisis", (2020), April, Turan University Press.  The choice of methodology is relatively justified: methods of economic analysis as GMM is used (comparison and analysis), approaches, methods and models for assessing dynamic nature of bank specific factors.
	provided	8.2 The results of the thesis work were obtained using modern methods of scientific research and methods for processing and interpreting data using computer technologies:  1) yes; 2) no	The results of the thesis work were obtained using modern methods of scientific research and methods of processing and interpreting data using computer technology: Using the Eviews combined with sophisticated modeling of GMM and shown in Appendix.
		8.3 Theoretical conclusions, models, identified relationships and patterns are proven and confirmed by experimental research (for areas of training in pedagogical sciences, the results are proven on the basis of a pedagogical experiment):  1) yes; 2) no	Theoretical conclusions, models, identified relationships and patterns are relatively proven and confirmed by practical work in the financial institution as JSC Altyn Bank. Moreover, author conducts interviews with top management of financial institutions, practitioners from the field that is channeled through the YouTube that is an effective tool to cross compare and what is most important discuss the findings and open up new fertile lands for the further researches.
		8.4 Important statements are <u>supported</u> / partially confirmed / not supported by references to relevant and reliable scientific literature	Important statements are supported by references to a current and reliable scientific literature. The list of references contains 249 sources - references, borrowings, citations, and polemics are given in the thesis. An approach the author uses can be traced both in the theoretical and methodological study of financial intermediation processes for overall banking.
		8.5 Used literature sources are <u>sufficient</u> / not sufficient for a literature review	The literature sources used are rather sufficient for a literature review. The literature review presents a comparison of the points of view of several authors on the problem of financial intermediation in specific layer of banking in transition economies;

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			carried out a detailed analysis of the fundamental works as Arrelano and Bond (1991).
9	Principle of practical value	9.1 The thesis has a theoretical value: 1) yes; 2) no	The thesis has a theoretical value: it should be noted that giving of such importance to financial intermediation entails new approaches to the old existing problems of cream skimming in overall development of economies in transition. That is why it has an importance to categorize the framework of examination, take a narrow view, and do not combine the whole lot of banks in emerging markets into one category. As author mentioned, the fundamental study of Jimenez (2008) pointed that banks in transition tend to be the prime source of economic development of the whole country.
		9.2 The thesis is of practical importance and there is a high probability of applying the results obtained in practice:  1) yes; 2) no	The thesis is of alternative practical importance and there is a probability of application of the results obtained in practice: the conclusions and results of the work can be used in any country that is just recently switched from planned economy standards to a free market economy.
		<ul> <li>9.3 Are the suggestions for practice new?</li> <li>1) completely new;</li> <li>2) partially new (25-75% are new);</li> <li>3) not new (less than 25% are new)</li> </ul>	The practice offerings are <u>new</u> . Research results can be used in the process of examination of the new layer of emerging markets economies that author addresses as the transition economies.
10.	Quality of writing and design	Quality of academic writing:  1) high; 2) average; 3) below average; 4) low.	The quality of academic writing is high. The author tries to express and justify his thoughts through a short, yet sufficiently convincing scientific text, presents the results of his own research. In addition to the facts, the thesis contains logical reasoning and comprehension of the effective part. In work, citations and references to the works of other scientists are widely used.

The content of the thesis corresponds to the goals and objectives of the study. The work was performed in accordance with the requirements and criteria for thesiss of applicants for the degree of Doctor of Philosophy (PhD) of the Ministry of Education of the Republic of Kazakhstan. The scope of the study is extensive with complete list of relevant literature reviews. The findings and results can be an important addition to the existing previous studies. The author may deserve the degree of Doctor of Philosophy (PhD) in the specialty "6D050900- Finance".

## Official reviewer:

PhD (candidate of economic sciences), Assoc. Professor, Director of International Cooperation Department, Almaty Management University, Almaty



Assel M. Nurgazina