PEER REVIEW

by **Prof. Dr. Margarita Nikolaeva Atanassova**, University of National and World Economy – Sofia, Department "Human Resources and Social Protection", professional field 3.8 "Economy", member of Scientific Jury in the competition for academic position "PROFESSOR", approved by a decision of the Scientific Council minutes No 3 on 20.03.2019, and by an order of the Director No 78 on 25.03.2019, announced by Economic Research Institute at Bulgarian Academy of Sciences, SG, issue 8 on 25/01/2019

Candidate: Assoc. Prof. Dr. Irena Kirilova Zareva-Zafirova

I. Short biography of the candidate

The academic career of Assoc. Prof. Irena Zareva-Zafirova has begun more than 30 years ago - since 1988 she has been working at the Economic Research Institute at the Bulgarian Academy of Sciences. In 2009 she obtained an educational and scientific degree "Doctor", and since 2012 she has held the academic position of Assoc. Prof. at Economic Research Institute at the Bulgarian Academy of Sciences (Minutes No 6 of 28.03.2012). The professional development of Assoc. Prof. Irena Zareva-Zafirova after the first habilitation is characterized by a successful accomplishment of challenging research tasks in the field of education, human capital and migration in the conditions of dynamic social-economic changes in the national, European and world context, as well as with active participation in project and educational initiatives, which are a significant part of the activity of ERI-BAS. Through the past period, Assoc. Prof. Dr. Zareva has been the chairman and participant in a number of committees and initiatives for developing and updating of strategic programs and plans of national significance (including Chairman of commissions on developing statements regarding strategic programs for development of scientific studies in the Republic of Bulgaria) and a member of organizational and program committees in international scientific forums (presented in details in the documentation attached to this competition). After 2012 Assoc. Prof. I. Zareva implements also various responsible tasks as scientific secretary of ERI-BAS and as a member of the Scientific Council and the Attestation Commission. Since 2017 she is Deputy Director of Economic Research Institute at BAS.

II. General characteristics of the scientific and applied work of the candidate

1. General description of the submitted materials

The presented materials cover 21 publications included in: List of NACID of Contemporary Bulgarian Scientific Publications (among which for the purposes of this review are outlined 4 studies referenced and indexed in SCOPUS and Web of Science); NACID National Reference List; National register of books published in Bulgaria. The documentation on the competition includes a separate list of publications (4 items) related to the defence of educational and scientific degree "Doctor", and a list of publications (22 items) for the competition for Associate Professor. The subject of review does not include publication №4, which is in the section published book on the basis of a defended dissertation thesis for obtaining an educational and scientific degree "Doctor". The publications that are the subject of this review do not duplicate those submitted for obtaining an educational and scientific degree "Doctor" and for the academic position "Associate Professor". The scientific works, included in the

documentation for this competition, are duly numbered and meet the required identification parameters.

The scientific publications presented for the purposes of this competition show that after the first habilitation, Assoc. Prof. Dr. Zareva deepens her research studies in a number of areas, among which are – the educational system and territorial movements of the population and the labor force as social-economic processes, which form the environment for development of human capital in the current conditions. The educational system in our country in the last years has undergone significant transformations (included as part of the European Education Area), which should be thoroughly known and which are the focus of a considerable part of the scientific work (publications № 1, 2, 3, 7, 11, 14, 16, 17, 20) presented in this competition. In the conditions of modern globalization and increasing territorial mobility, certain part of scientific publications of Assoc. Prof. Dr. I. Zareva (publications № 5, 6, 8, 9, 10, 15, 17, 18, 19, 21) are dedicated to migration movements and their impact on the quantitative and qualitative parameters of the human capital. The processes of developing and using human capital in Bulgaria as an EU member state are related to the state and dynamics of a number of policies and regulations in the field of employment, education and regional development, which is a significant perspective in some of the publications presented in this competition (publications N_2 1, 2, 3, 7, 12, 13) with a clear orientation to searching for options for finding optimal solutions in these fields in the context of the contemporary dynamics of the demographic processes, including the mechanical movements of the population and the labor force.

The reviewed scientific works in their content fully meet the topic of the announced competition – human capital, education, migration. The analyses and empirical studies in the submitted scientific works are largely the result of original author's studies of Assoc. Prof. Dr. I. Zareva as a member of scientific teams in projects, stated in details further in the review.

2. General characteristics of the scientific, applied and teaching activity of the candidate

The scientific works presented for this competition reflect the lasting interests of Assoc. Prof. Dr. I. Zareva in the social-economic dimensions of the human capital in a diverse sectoral and regional context in the context in the conditions of the contemporary globalization and European integration. A leading role in the list of submitted publications has the habilitation work - the scientific study "Human capital in the education system", which is author's part (125 standard pages) of the collective monograph "Preservation and development of human capital in education and science in Bulgaria". (2012). Sofia: Academic Publishing House "Prof. Marin Drinov". The study analyzes and evaluates the main characteristics of the human capital in the education system, on the basis of which are identified problem areas and are formulated basic directions to overcome them. The results of the carried out empirical study provide a number of conclusions, among which are: drop in the quantitative parameters and aging of the teaching staff in the studied period (a process characteristic of all educational levels); negative tendencies in the social status and public attitude to the teaching profession, discrepancies between demand and supply of pedagogical specialists, problems in the system for continuing professional development of the teaching staff, etc. A valuable focus of the conducted study are the conclusions from the analysis of the financing of the education system (including by type and source) and its impact on the quantitative and qualitative characteristics of the human capital. In the context of the EU membership of Bulgaria, the conducted study includes a number of comparative analyses of the development of the human capital in education in Bulgaria in quantitative and qualitative terms. The analysis and

evaluation of the environment (financial, material-technical, normative, institutional), where the human capital in education functions, is the basis for the systematization of a number of functional deficits. It outlines the conclusion that in future the policies for improving the professional competences and the increase of the qualification of the teachers should be combined with purposeful changes in the management, stimulation, organization and normative regulations of their work. Significant focus in the publications presented by Assoc. Prof. Irena Zareva-Zafirova are two specialized studies: "Higher education in Bulgaria – reality and perspectives" (author's part of 207 standard pages from collective monograph "Higher education and science in Bulgaria – economic, social and gender dimensions", 2014, Sofia: Academic Publishing House "Prof. Marin Drinov") and "Bulgaria in the educational area of Southeast Europe" (author's part of 123 standard pages from collective monograph "Bulgaria in the educational and research area of Southeast Europe", 2017, Sofia, ERI-BAS). The main goal of the scientific study "Higher Education in Bulgaria – Reality and Perspectives" (2014) is to make a social-economic evaluation of the current state of higher education and to outline the changes that have occurred since the accession of Bulgaria to the EU, to identify current problems and to determine the more important directions for future development with a view to creating a knowledge-based economy and successful integration into the European Education Area. In the context of pan-European guidelines, policies and goals for the development of higher education, the conducted empirical study is basically a comprehensive evaluation of the higher education in some directions - resource ensuring (financial, human resources, material); quantitative and qualitative dimensions of the educational product; normative and institutional framework of functioning. An evaluation of the competitiveness of higher education, from the standpoint of the degree of compliance with European criteria and standards, has been formulated. Prioritized main problems and factors that determine them are related to the financial ensuring of the system, the adequacy of its development policy, the stimulating of the academic staff, the quality and adequacy of the educational preparation, the teaching methods, the material and technical base. On the basis of the formulated evaluation of the quality of higher education as a whole and of its individual parameters (teaching staff, methodological system, modern technologies, quality control, etc.), key factors for improving the quality of higher education have been outlined, including: improving the quality of previous educational levels (primary and secondary education), improving the teaching methods and the educational environment; improving the financial and normative framework; reforms of the institutional structure and governance; improving the professional development of the academic staff, and others. The scientific study of Assoc. Prof. Dr. I. Zareva-Zafirova "Bulgaria in the educational area of Southeast Europe" (2017) covers the results of an in-depth study on original author's methodology of the state and the main tendencies in the development of the higher education in Southeast Europe, the place of Bulgaria in the regional area of higher education and the development of the regional cooperation in this area. The developed characteristics and evaluations of the higher education systems in Southeast European countries outline their common features and specifics, with particular attention to funding, forming academic institutions and development of academic staff. The empirical study shows a relatively low (compare to EU average) relative share of public expenditures for higher education in the region. A methodology for comparative analysis and evaluation of the state of higher education of the individual countries in the SEE region has been developed and implemented. Their place in the regional higher education area has been determined, emphasizing that most of the studied countries are characterized by an improvement in their quantitative indicators, with certain drop in the qualitative ones. The results of the conducted study give grounds to concrete proposals for future policies and measures for improving the positions of higher

education in Bulgaria in the region and activating the role of our country as an initiator and coordinator of regional cooperation in the field of higher education.

The information presented for the competition shows that the main focuses in the teaching activity of Assoc. Prof. Dr. Ir. Zareva-Zafirova are related to the development of the research competences of Ph.D. students (including Ph.D. seminars in the period 2012-2013 on the issues of economic activity, education and demographic development), as well as to participation in procedures for internal defense of dissertation theses and a member of scientific jury for obtaining the educational and scientific degree "Doctor". Sofia University "St. Kliment Ohridski" and University of Economics – Varna have provided information about scientific publications of Assoc. Prof. Dr. Ir. Zareva-Zafirova, which are used in the training of students.

The documentation for this competition provides detailed information on the active participation of Assoc. Prof. Irena Zareva-Zafirova in research teams of research projects (outside the research program of ERI-BAS), among which are: research project "Returning migrants: segmentation and stratification of the economic mobility", 2016-2019, ERI-BAS, Science Fund; research project "Measures to overcome the demographic crisis in the Republic of Bulgaria", 2017-2018; research project "Migration and transnationalism between Switzerland and Bulgaria: an evaluation of the social inequalities and regional disparities in the context of the changing policies", 2013-2016, ERI-BAS, University of Freiburg (Switzerland); research project "Bulgarian diaspora in Western Europe: cross-border mobility, national identity and development", 2012-2013, ERI-BAS, Science Fund.

III. Quantitative characteristics of the candidate's scientific work

The detailed information, attached to this competition, on meeting the minimum sciencemetric national requirements and the requirements of the Regulations of ERI-BAS for the academic position "Professor" in the area 3. Social, economic and legal sciences, professional field, 3.8. Economy, has systematized detailed information about 21 scientific publications (16 in Bulgarian and 5 in English) by Assoc. Prof. Dr. I. Zareva, which can be systematized in the following main areas: a) habilitation work (equivalent publication) – chapter of collective monograph with author's text of 125 standard pages; b) published monographs not presented as a main habilitation work (equivalent publication) – 2 items in collective monographs with author's text respectively 207 and 123 standard pages; c) published book on the basis of a defended dissertation thesis for obtaining the educational and scientific degree "doctor" - 1 item with author's text of 386 standard pages; d) studies published in scientific journals, referenced and indexed in world-renowned scientific information databases (SCOPUS and Web of Science) – 4 items; e) articles and reports published in non-referenced scientific peerreviewed journals or published in collective volumes - 2 scientific reports; f) studies published in non-referenced peer-reviewed journals or published in edited collective volumes - 6 studies; g) published chapters of collective monographs - 5 items, one of which was published abroad (Richter, M., P. Ruspini, D. Mihailov, V. Mintchev (eds.). (2017). Migration and transnationalism between Switzerland and Bulgaria. Switzerland: Springer International Publishing).

The presented detailed information on the main parameters of the scientific publications proves that the application of Assoc. Prof. Irena Zareva is characterized by research production with a quantitative assessment of 1722.5 points and significantly exceeds the required threshold of 650 points – according to the minimum science-metric national requirements and the requirements of the Regulations of ERI-BAS. In the total volume of this quantitative assessment, the main focus is on publications of studies and citations in

scientific information world databases, which is proved by the level of the respective indicators – 657.5 points for studies published in scientific publications, referenced and indexed in world-famous scientific information databases and 775 points for citations, of which more than 1/3 are in scientific publications, referenced and indexed in world-famous scientific information databases.

IV. Evaluation of the results and scientific contribution of the candidate

The scientific interests of Assoc. Prof. Irena Zareva are focused on the study of the dynamic environment and the factors that influence the formation and development of the human capital and the labor force. The subject of the presented publications includes various aspects of theoretical concepts, as well as proposals for policies and solutions in the field of education and migration processes at the present stage. The peer-reviewed scientific publications of Assoc. Prof. Dr. Zareva outline a number of scientific and applied achievements related to the enrichment of theory in the field of human capital development through conceptual generalizations and new rationalizations about essential aspects of the studied phenomena and processes in the basis of effective methodological approaches to analyze contemporary changes in education and territorial mobility of the labor force and to design targeted changes, strategies and policies for improving key parameters and the institutional framework of the educational system and migration policy in Bulgaria, including as part of the EU. The achieved scientific results, characterized as enrichment and development of the existing knowledge, are grouped in three main thematic directions: education and human capital; development and use of human capital; migration processes and human capital.

In the field of education and human capital, a number of scientific contributions are outlined in the scientific publications of Assoc. Prof. Dr. Zareva, which can be summarized in the following main directions:

- Theoretical and methodological approaches have been developed, identified and applied to study the relations and dependencies between the parameters of the educational system and the formation and development of the human capital in the conditions of globalization and European integration, which presents methodological solutions for complex evaluation of the human capital in education in Bulgaria and outlining the imbalances between demand and supply on the labor market − including those related to inefficient use of the human capital in education (publications № 1, 2, 11, 16).
- Further developed and enriched are theoretical statements about the essential characteristics of the educational system, about the principles, priorities and approaches to its organization, management and financing, including in the European context of the set common goals for the development of education and the education as a key goal in the Europe 2020 Strategic Program (publications № 1, 2, 3, 20).
- Enriched is the discussion of the main term apparatus in the field of human capital development from the point of view of the theoretical nature, scope and policies in the field of education and territorial mobility of the labor force in the context of the wide application of the principle of free movement of workers in the EU. The binding of education and employment policies to competitiveness, labor productivity and long-term economic growth has been analyzed (publications № 1, 3, 11, 16, 17, 20).
- Developed and applied are methodological instruments for assessing the competitiveness
 of Bulgarian higher education in the context of the European Education Area. The
 presented assessment of the quality of the Bulgarian higher education as a whole and of its
 individual parameters is related to the degree of correspondence between educational

preparation and labor market needs. Identified are internal and external to the educational system factors, determining the quality of education, outlining effects on the parameters of human capital and the successful integration into employment and the labor market (publications N_{2} 1, 2, 3, 7, 12, 13).

• The proposed set of measures and actions to improve the management and financing of the educational system is reasoned with the results of empirical studies and findings on problems in the effectiveness of the applied strategies and policies in education and their financial, economic and institutional parameters (publications N_2 1, 2, 3, 11, 14, 17, 20).

In the field of development and use of human capital, the scientific publications of Assoc. Prof. Dr. I. Zareva cover a number of scientific results that enrich the scientific knowledge, among which for the purposes of this review can be outlined:

- The developed and applied instruments for analysis, evaluation and reasoned presentation, with evidential facts and current empirical information, of the new challenges to the use of the human capital on the labor market in Bulgaria as a basis for: arguing and proving the thesis about the inadequate use of human capital in the country. The main factors leading to the found inconsistencies are determined. Systematized are the opportunities for an adequate realization of the specialists on the labor market in Bulgaria, and outlined is the need for the country to attract talents internationally. Specific proposals are formulated to overcome the negative effects, and measures and actions are determined to improve the realization of the young groups of the active population (publications № 2, 3, 12, 13).
- The in-depth comparative analysis of the practices in the SEE countries concerning the state, sustainability, financial organization and perspective of the higher education development is a key factor for qualitative changes in the human capital. Identified and argued is the relation between the changes in the social-economic conditions and in the international environment (including Bologna Process and European Higher Education Area) and the changes in the normative and institutional framework of higher education as a premise for improving the human capital in the region (publications № 2, 3, 12, 13).
- Analyzed and proven are the current manifestations of the cause and effect relations of the formation and development of the human capital, the transformations of the educational system and the changes in the economy and the demand for labor force, outlining the role of education and employment policies (publications № 1, 2, 3, 7, 12, 20).
- Identified are the main factors for development of the human capital in Bulgaria and the SEE countries with emphasis on the natural and mechanical movement of the population, territorial labor mobility and employment dynamics. Based on a comparative analysis is made a complex evaluation of the state and the changes in the regional higher education area (financing, academic institutions, staff potential, performance) as a key component of the environment for the short- and long-term development of the human capital (publications № 3, 7, 12, 20).

Significant part of the scientific achievements of Assoc. Prof. Dr. I. Zareva is associated with studies in the field of migration processes and territorial mobility as a factor for changes in the human capital and labor force at the present stage of social-economic development. The scientific contributions in this field can be summarized in the following directions:

• Established and applied is a methodological framework for the study of migration movements and their relation with the specifics of the institutional framework in the EU and the Member States. On this basis is evaluated the impact of migration policies on: the decision of Bulgarians to migrate, the profile of potential migrants is analyzed (including

the dynamics of migrant structures by gender, age, education, activity, income), as well as key parameters of the integration of migrants in the receiving country. The factors that determine the migration processes, motives and goals of migration behavior are systematized (publications N_2 8, 15, 18, 21).

- Analyzed and revealed are the effects of the external migration on the human capital in Bulgaria, assessing the impact of the Bulgarian migration on the economic activity of the population and the labor force in Bulgaria, as well as the effects of the external migration on the labor market in Bulgaria (effects of leaving and returning of Bulgarian migrants) and the potential opportunities for changes in the quantitative and qualitative parameters of the human capital, which is the basis for identifying main problems to the implementation of the migrants on the labor market in the country and formulating policies and measures for (re)integration of the returning migrants (publications № 5, 6, 8, 17, 18, 21).
- Identified and determined are the cause and effect relations between social inequalities (nationally and regionally) and external migration. Argued is the thesis that social-economic inequalities are a main determinant of the external migration attitudes and flows (publications № 5, 8, 17, 18).
- Systematized are the main emphases of the Bulgarian migration policy, outlining the changes in the approaches and the institutional framework for the implementation of the adopted strategies and decisions. The presented assessment of the Bulgarian state's policy regarding the return of the Bulgarian migrants has been done on the basis of a thorough study of the regulations in this field, which resulted in the development of a concept for updating and formulating a policy for keeping in the country and for promoting the return of the Bulgarian migrants from abroad (publications № 9, 10, 15, 17, 18, 21).

In summary, it should be pointed out that the scientific results presented in the peer-reviewed scientific works of Assoc. Prof. Dr. Zareva-Zafirova contribute to the enrichment of the knowledge about the current dynamics of the human capital in the context of the changes in the educational system, globalization and the increasing territorial mobility of the population and the labor force.

Systematized scientific contributions, which prove the depth of the conducted analyses and the practical applicability of the empirical results, are a significant argument for a fully positive evaluation of the peer-reviewed scientific publications and research competencies of Assoc. Prof. Dr. I. Zareva as a candidate for this competition.

1. Coverage of the scientific publications of the candidate in our and foreign literature (according to candidate's data)

In the documentation on this competition, Assoc. Prof. I. Zareva presented evidence of 88 citations (775 points) of her scientific works in international and national publications (including 7 citations by foreign authors), with 18 citations (270 points) in scientific publications, referenced and indexed in world-known scientific information databases, or in monographs and collective volumes (SCOPUS and Web of Science). These specific data are a definite indicator for the high degree of distribution of the scientific results achieved by Assoc. Prof. Dr. I. Zareva, as well as for the qualities and currency of the conducted scientific studies.

2. Significance of the contributions to science and practice

By its nature, the scientific production of Assoc. Prof. Dr. I. Zareva concerns current problems of social-economic development and covers specific conclusions, recommendations and proposals for improving the legal framework and policies in the field of education, employment and migration, which is reflected in this review. Acknowledgment of the competencies and achievements of Assoc. Prof. Dr. I. Zareva as an established researcher in the field of human capital and its development in the context of the current changes in the education and territorial movements of the labor force (including within the EU and SEE) is in the basis of her expert commitments (and as a member of inter-department working groups) that she has implemented since 2012 in preparing statements and proposals for the forming and updating legislative and policy decisions in the field of employment, demographic development, scientific studies, etc. The documentation on the competition provides evidence that the research findings of Assoc. Prof. Dr. Irena Zareva have been used and cited in the preparation of studies concerning the formation of policies and strategies in the field of employment, education and migrations within the EU (EUROPEAN COMMISSION, Directorate General for Employment, Social Affairs and Inclusion (2012). EEO Review: Employment policies to promote active age.; EUROPEAN COMMISSION, Directorate DG Employment, Social Affairs and Inclusion. (2015). EEPO Review Spring (2015). : Upskilling unemployed adults. The organization, profiling and targeting of training provision.)

The scientific achievements of Assoc. Prof. Dr. I. Zareva were awarded with two prestigious scientific awards: Jubilee Diploma (2014) of the Competition for high excellence in BAS, dedicated to the 145th anniversary of the Academy, in scientific field "Man and Society" for the collective monograph: Kirova, A., Zareva, I., Matev, M. Preservation and development of human capital in education and science in Bulgaria. Sofia: Academic Publishing House "Prof. Marin Drinov"/2012, and Certificate of Scientific Applied Contribution (2015) of the Competition for high scientific excellence of the Union of Scientists in Bulgaria for the collective monographs: Kirova, A., Zareva, I., Matev, M. (2012). Preservation and development of human capital in education and science in Bulgaria. Sofia: Academic Publishing House "Prof. Marin Drinov", and Zareva, I., M. Matev, A. Kirova. (2014). Higher education and science in Bulgaria. Economic, social and gender dimensions. Sofia: Academic Publishing House "Prof. Marin Drinov".

The presented conclusions and evaluations of the scientific achievements of Assoc. Prof. Dr. I. Zareva-Zafirova prove that she possesses established qualities of a researcher and her scientific production covers theoretical, methodological and practically applied scientific contributions in the thematic field of the current competition human capital-education-migration.

V. Assessment of the originality of the presented works and the reliability of the presented scientific data

The scientific works of Assoc. Prof. Dr. Zareva-Zafirova presented for this competition are the result of original author's research, the leading part of which have been the subject of scientific discussion and review in the past years in procedures and institutional structures (including Scientific Council of ERI-BAS) before publication. For the purposes of this review, I confirm that the peer-reviewed publications do not contain plagiarism. The scientific data provided by Assoc. Prof. Irena Zareva-Zafirova are reliable, and the parameters of the scientific publications have been made publicly available through the relevant registration procedures at NACID.

VI. Critical notes and recommendations

1. Critical notes of the reviewer on the presented works

В контекста на високата степен на дискусионност на теоретико-методическата рамка (вкл. и на понятийния апарат и на институционалната база) на изследванията в областта на образованието, човешкия капитал и миграционните процеси, могат да се систематизират редица сектори и изводи в изследванията на доц.д-р Ир.Зарева с потенциал за дискусии с разнообразни ракурси, което е извън целите на настоящата рецензия. Тук считам за полезно да формулирам препоръка към доц.д-р Ир.Зарева да продължи все така задълбочено и добросъвестно да твори в тази област (традиционно поле на дебати, отразяващи и позиции на редица заинтересовани страни и институции в България, ЕС и света) и чрез по-активно участие в обучението на докторанти да разпространява своя дългогодишен опит и научни компетенции сред млади изследователи в бъдеще.

2. Personal impressions of the reviewer on the candidate and other data not mentioned in the previous data

In the past years, as a member of review teams in procedures for discussing and approving developed research topics (part of the Research Program of ERI-BAS), I had the opportunity to know the main stages and focuses of the scientific results and achievements of Assoc. Prof. Dr. I. Zareva, who was a participant in the respective research teams. In this period, Assoc. Prof. Dr. I. Zareva successfully completed challenging and complex tasks, the results of which have a significant contribution to confirming her reputation and popularity as a thorough and erudite researcher both in the academic circles and in the institutions responsible for the formation and implementation of policies in the fields of education, science, employment. A significant factor for the achievements of Assoc. Prof. Dr. I. Zareva is her high motivation and capacity for in-depth studies of the dynamic environment (in national and European plan) in which human capital is formed and developed, as well as acquired abilities for constructive cooperation with researchers from other fields of science, which is extremely important for the quality of contemporary interdisciplinary in their thematic scope studies.

VII. Conclusion

The application of Assoc. Prof. Irena Zareva-Zafirova fully meets the requirements of Law on Development of Academic Staff and the conditions for occupying an academic position Professor, which are regulated in the Regulations for acquisition of academic degrees and occupation of academic positions at ERI-BAS (Art. 89, par. 1). Based on the above conclusions, I give my positive assessment and propose Assoc. Prof. Dr. Irena Zareva-Zafirova to be elected a "Professor" at Economic Research Institute of BAS in the professional field 3.8 "Economy".

Date: 30 April 2019	
	Member of jury:
	(Prof. Dr. M. Atanassova)