

REVIEW

by Assoc. Prof. Dr. Victor Ivanov Yotzov,
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of the materials submitted for participation in the competition for the academic position of "Associate Professor" at the Economic Research Institute at BAS
Professorial field: 3.8 "Economics of Financing and Development of Public Services"
announced in the State Gazette, issue 44 of May 19, 2023.

1 Summary of the Received Materials

By Order No. 368 dated July 18, 2023, issued by the Director of the Economic Research Institute (ERI) at the Bulgarian Academy of Sciences (BAS), I have been appointed as a member of the scientific jury for the competition for the academic position of 'Associate Professor' for the needs of the 'Macroeconomics' section at the ERI at BAS. The only candidate to submit documents for participation in the announced competition is Chief Assistant Professor Dr. Dochka Angelova Velkova.

The set of materials submitted by the only candidate complies with the Regulations for the Assessment of Scientific Research Results and the relevant Rules of the Institute of Economic Research at BAS. It includes the following documents:

1. *Application to the Director of the Economic Research Institute at BAS.*
2. *Curriculum Vitae following the European template.*
3. *Certificate of compliance with the minimum requirements (national and institutional).*
4. *Certificate of original scientific contributions.*
5. *List of scientific publications with attached copies and originals.*
6. *Minutes of separation.*
7. *List of citations with supporting evidence.*
8. *Summaries of the publications submitted for review in Bulgarian and English.*
9. *List of other scientific products submitted for obtaining a Ph.D. degree and for the position of 'Assistant Professor'.*

The candidate, Chief Assistant Prof. Dr. Dochka Velkova, has included a total of 11 scientific works, including: 3 independent monographs, one independent study, 5 articles (four of which are co-authored), one scientific report, and one book on the doctoral thesis. Additionally, a list of four titles of other scientific products used by the candidate in previous competitions and procedures for obtaining a scientific degree, which are not subject to review in the current competition, has been attached. A list of scientific projects in which the candidate has participated is also provided.

The publications submitted for review can be summarized in the following table: [Please provide the table for detailed information if needed.]

№	Publications	<u>Independent</u>		<u>Co-authored</u>		<u>Total</u>	
		#	pp.	#	pp.	#	pp.
1	Monographs	3	255			3	255
2	Studies			2	33	2	33
3	Articles	1	9	3	41	4	50
4	Conference papers			1	12	1	12
5	Doctoral thesis book	1	176			1	176
	Total	5	440	6	86	11	526

2 Brief Biographical Information about the Candidate

Chief Ass. Prof. Velkova holds a bachelor's degree in marketing and management from Paisiy Hilendarski University of Plovdiv, and a master's degree in finance from St. St. Cyril and St. Methodius University of Veliko Tarnovo. She completed her doctoral studies as a regular doctoral student at the ERI at BAS, where she defended her doctoral dissertation on the topic "*Changes in the Public Pension System and Their Impact on the Labor Market.*" Following the successful defense of her dissertation, she was appointed as an assistant professor and subsequently as a chief associate professor at the ERI. She has accumulated extensive experience in the preparation and implementation of various scientific and applied projects conducted at the "Economics 2000" Club, where she has served as a senior consultant, project leader, and participant in various projects.

3 Fulfillment of Minimum Requirements

The candidate has submitted a detailed report in accordance with the requirements of the Regulations for the Assessment of Scientific Research Results and its implementing rules, as per which it is evident that the minimum requirements have been met, and the candidate has the necessary number of points to occupy the academic position of associate professor.

4 Description of the Candidate's Scientific Activity

4.1 Assessment of the Candidate's Scientific and Applied Activity

4.1.1 Monographs

The candidate has submitted three monographic research works for review:

1. *Velkova, D., Kirilova, Y. (2023) Financial Instruments for Implementing Municipal Investment Projects, "Economics 2000" Club, 238 pages, ISBN 978-619-91769-9-3.*

This study examines financial instruments from the perspective of financing public policies. It provides a well-founded empirical assessment of the role of financial instruments and compares them with other sources of financing, with a focus on municipal investments in Bulgaria. The methodology developed for assessing different financial sources is impressive. The study identifies various limitations in the use of financial instruments and offers generalized

conclusions and recommendations for a more comprehensive utilization of financial instruments as a source of funding for development in public services.

2. ***Velkova, D., Kirilova, Y. (2023) Financial Opportunities for Potential Beneficiaries to Co-Finance Water and Wastewater Projects under Priority Axis 1 of the Operational Program "Environment 2014-2020," "Economics 2000" Club, 229 pages, ISBN 978-619-91769-7-9.***

The research focuses on assessing the financial capacity and potential resources of water and wastewater operators and municipalities to co-finance investment projects for the development of water supply and sanitation services. It examines the environment for the implementation of investment projects in the water and wastewater sector, including the requirements of the specific operational program for environmental development. A methodology for evaluating the financial condition of municipalities in Bulgaria and regional water and wastewater operators – future beneficiaries under the Operational Program for Environment is developed and applied, covering an 8-year historical period (2007-2014). For each distinct territory in Bulgaria, the indicative financial resource for co-financing water and wastewater projects that each of the two potential beneficiary groups can allocate is determined. The conclusion is substantiated that, in absolute terms, municipalities can provide more funds for co-financing water and wastewater investment projects under the Operational Program for Environment 2014-2020 compared to water and wastewater companies. Specific cases within the indicative available resource for certain distinct territories are discussed.

3. ***Velkova, D. Changes in the Public Pension System and Their Impact on the Labor Market, "Economics 2000" Club, 176 pages, ISBN 978-619-7740-01-1***

This monographic study is dedicated to the relationships between the public pension insurance system and the labor market, assessing the impact of changes in it on the labor market. Theoretical aspects related to the labor market, pension provision, and the influence of the public pension insurance system on the labor market are presented. This is achieved through the study and systematization of various publications and research, primarily from EU and OECD member countries, including Bulgaria, as well as within the context of various EU policies. The changes in the parameters of the pension insurance system in Bulgaria, which affect the labor market, are described and evaluated. Additionally, a review of the considered parameters of the pension system in selected eight countries is conducted for comparative analysis. Assessments and conclusions are made based on the analysis of empirical data, including statistical and empirical sociological information. The author summarizes the main results of the research and provides corresponding conclusions and recommendations.

4.1.2 Studies

1. ***Velkova, D., Kirilova, Y., (2023) The discount rate in the assessment of EU-funded investment projects, Economic Studies Journal, Vol. 32, (4), Economic Research Institute, Bulgarian Academy of Sciences, ISSN: 02053292, pp.135-148***

The focus of this study is placed on the impact of the financial discount factor on key indicators that are elements of cost-benefit analysis applied in the evaluation of public investment projects. Cost-benefit analysis is applied in the assessment of public investment projects in EU countries. The methodology of weighted average capital costs is examined as an alternative approach for calculating the discount factor. The approach utilizes the debt/equity ratio in the overall portfolio of the investment project and the Capital Asset Pricing Model (CAPM), based on: (1) the return on investments in risk-free financial instruments; (2) the country's risk premium (so-called sovereign risk); (3) the business risk premium; (4) the asymmetric project risk premium. A model for calculating the discount factor has been developed and applied to the example of a public environmental investment project in Bulgaria.

2. ***Velkova, D., Kirilova, Y. (2023) Challenges in setting municipal waste fee tariff in Bulgarian Municipalities, Economic Studies Journal, Vol. 32, (5), ISSN: 02053292, pp.160-178.***

The motivation behind this study is the current mechanism for determining household waste disposal fees, with a systematic presentation of the challenges faced by Bulgarian municipalities. In accordance with the regulatory changes made in 2017, the amount of household waste disposal fees will need to be based on the quantity of generated waste and the number of users of the waste management service. From 2017 until the effective date of the mentioned regulatory changes, there have been several postponements due to the numerous challenges that could seriously jeopardize the future operation of waste management services in municipalities. These challenges are related to the comprehensive transformation of the existing waste collection and transportation systems in municipalities and significant investments required for this purpose. Additionally, challenges include the need for extensive public awareness campaigns, insufficient data availability, and the lack of appropriate information systems. These challenges also pertain to the public's willingness to pay for the service and the tolerance for associated costs. Based on the analysis of the current situation, reasoned conclusions have been drawn, and corresponding recommendations have been provided.

4.1.3 Articles

1. ***Keremidchiev, S., Kirilova, Y., Velkova, D., (2018) Financial aspects of NPP construction: Implications for NPP Belene. Economic Studies Journal, Vol. 27, (6), ISSN: 02053292, pp.121-129***

The focus of the research is on the new models for financing the construction of nuclear power plants resulting from new safety requirements for future power plants introduced after the Fukushima nuclear disaster in 2011. In addition to financing models, the article discusses research issues related to the development of a financial model for assessing the viability of projects for building new nuclear power plants and the decisions that need to be made in determining the key parameters of the model. Based on the results of the study, conclusions and recommendations have been formulated that can be taken into account in research and decision-making regarding the construction of the Belene Nuclear Power Plant in Bulgaria.

2. **Velkova, D., Kirilova, Y., Bardarska, G. (2017) *Challenges in Financing the Water and Wastewater Sector under the Operational Program "Environment 2014-2020". Journal of the Bulgarian Academy of Sciences, Issue 2/2017, Publisher of the Bulgarian Academy of Sciences "Prof. Marin Drinov". ISSN 0007-3989.***

This study examines two primary challenges in financing infrastructure projects in the water and wastewater sector aimed at improving water supply and sanitation services under the Operational Program "Environment 2014-2020." The first challenge is associated with the new conditions for accessing funding under the Operational Program for Environment 2014-2020, such as (1) funding for projects in agglomerations with over 10,000 equivalent inhabitants (e.i.) and only within the distinct territories of consolidated water and wastewater operators; (2) the significant amount of co-financing that water and wastewater operators must provide for each individual integrated project and the insufficient funds at their disposal. The second challenge is related to the social affordability of water and wastewater service prices, as evidenced by an assessment of the population's affordability of these services in Bulgaria. Due to the limited capabilities of water and wastewater operators to co-finance investment projects in the water and wastewater sector and the low-income levels of the population in the country, the introduction of a mechanism for water social support has been proposed.

3. **Velkova, D. (2015). *Chapter 6: Policies for the Development of Public Capital in the Operational Program "Environment 2007-2013" in ANNUAL REPORT OF IEES-BAS 2015 "ECONOMIC DEVELOPMENT AND POLICIES IN BULGARIA: ASSESSMENTS AND EXPECTATIONS," pp. 166-178. ISBN 978-954-616-248-9.***

In this section of the Annual Report of ERI at BAS, policies for the development of public capital in the Operational Program "Environment 2007-2013" are analyzed and assessed from several aspects: 1) scope, consistency, and sustainability of environmental policies; 2) implementation of policies aimed at improving the state of the environment – financial resources and the level of achievement of the objectives of the Operational Program. Summaries and recommendations for the development of environmental protection policies in the next programming period are provided.

4. **Velkova, D., Bardarska, G., Kirilova, Y. (2011) *Affordability of Water and Wastewater Services and Good Practices for Water Support, Water Affairs Journal, 5-6, 2011. ISSN 02045745.***

The main goal of this study is to demonstrate the need for introducing social support for the consumption of water supply and sanitation services (known as water support) for low-income groups of the population. An assessment of the affordability of water and wastewater services for the first income decile by basin management areas in the country is conducted, and a comparison with other European countries is made. The attitudes of the population towards the introduction of water support in Bulgaria are presented. Good practices for water support that can serve as a basis and be adapted for the practical implementation of this mechanism in the country are also presented.

4.2 Collective monograph

1. ***Beleva, I., Tsanov, V., Velkova, D. Working Conditions and Employment Quality in Bulgaria: Trends and Interactions. Avangard Prima, 2009. ISBN: 978-954-323-609-1. ISSN 1314-8893.***

The book examines the development and interdependence of the main elements of working conditions in Bulgaria from 1995 to 2008. It identifies the risk groups in the labor market working under unfavorable conditions and formulates labor market recommendations aimed at improving adverse working conditions. In a separate chapter authored by the researcher, the development of public social insurance is discussed as an element of the social protection system that guarantees the protection of employed individuals in case of certain risks (retirement, disability, occupational accidents and diseases, common illnesses, maternity, and unemployment). Social insurance is viewed from two perspectives: from the standpoint of contributors, for whom it represents "mandatory" savings or deferred consumption, reducing their disposable income, and from the standpoint of beneficiaries – as a factor contributing to greater security for employed individuals in the event of the insured risks. Conclusions and assessments are made regarding the main aspects of social insurance as an element of working conditions.

4.3 Conference Papers

1. ***Kirilova, Y., Velkova, D. (2023). EU Financial Instruments for Local Development Support (pp. 467-474). In: Economic Development and Policies: Realities and Perspectives. Challenges and Risks in the Face of Ongoing Crises. National Scientific Conference with International Participation, November 21-22, 2022, Sofia. Sofia: Publishing House of the Bulgarian Academy of Sciences "Prof. Marin Drinov". ISBN 978-619-245-327-5.***

After Bulgaria's accession to the European Union, municipalities gained access to significant financial resources to support local development. The funds received in the form of non-repayable financial assistance from European funds through operational programs play a leading role. Financial instruments are a relatively new source of financing for municipal projects, which gained particular importance in the period after 2014. The report presents the essence and development of financial instruments for local development support in Bulgaria from their inception to the present day. An analysis is conducted on the activity of the funds, the volume of allocated funds and their absorption, the sectoral scope of the funds, the typology of municipalities receiving funding, and more. The achievements of financial instruments for local development support are summarized.

4.4 Contributions and Citations.

The candidate has provided a self-assessment of her scientific and scientific-applied contributions, specifying them for each individual publication. I accept the candidate's self-assessment and have summarized the most important contributions as follows:

4.4.1 Contributions with mainly theoretical-methodological character:

- The essence, content, and development of financial instruments provided through operational programs in Bulgaria have been systematized.

- A methodology for assessing the advantages and disadvantages of funding sources for municipal investments in Bulgaria has been developed.
- A system of indicators for evaluating the financial condition of water and wastewater operators and municipalities in Bulgaria has been structured and tested.
- An algorithm for applying the requirements of the Law on the Regulation of Water Supply and Sewerage Services to assess the social acceptability of water and wastewater service prices for the population has been created.
- A methodological toolkit for studying the impact of the pension system on the labor market has been developed.

4.4.2 Contributions with mainly applied character:

- An assessment and ranking of funding sources for municipal investments for improving and developing public infrastructure have been conducted.
- A financial discount factor for environmental investment projects in Bulgaria has been calculated using a developed specific model.
- The indicative financial resource has been defined, and specific cases in the indicative available resource for certain separated territories have been examined.
- Key challenges to financing infrastructure projects for the development of public water supply and sewage systems have been defined, and the social acceptability of water and wastewater service prices for the population has been assessed.

4.4.3 Citations

The candidate has provided a detailed reference to the citations of their scientific research. According to the reference, the candidate's 12 publications have been cited a total of 16 times, with 3 of these citations appearing in scientific publications referenced and indexed in globally renowned databases of scientific information or in monographs and collective volumes.

4.5 Candidate's Personal Contribution Assessment

From the table breaking down the candidate's scientific publications, it is evident that there is a sufficient volume and quality of scientific output presented. The utilized literary sources have been thoroughly documented. There is no evidence of plagiarism.

5 Critical Remarks and Recommendations

I do not have any significant critical remarks. I recommend that the candidate deepen her research efforts and strive for publications in international journals.

6 Personal Impressions

I have known the candidate personally for many years and have excellent impressions of her work and professional development.

7 Conclusion

The documents and materials presented by the sole candidate, Chief Ass. Prof. Dr. Dochka Velkova, meet the minimum requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, as well as the Regulation for the Implementation of the law, and the relevant Regulation of the ERI at BAS.

The candidate in the competition has presented a sufficient number of scientific works published after the materials used for the defense of the Doctor of Science degree. In the candidate's work, some scientific and scientific-applied contributions can be found, as described in section 4.2. The theoretical developments of the candidate have practical applicability, with a significant portion of them directly oriented toward the activities of municipalities in Bulgaria. The scientific qualification of Chief Ass. Prof. Dr. Dochka Velkova is at the required level. The results achieved by the candidate in scientific research correspond to the specific requirements of ERI at BAS, adopted in connection with the Regulation of the Academic Qualification Framework for Academic Staff.

After reviewing the materials submitted in the competition and the scientific works contained therein, as well as analyzing their significance and the scientific and scientific-applied contributions they contain, I find it justified to give my **positive** assessment and recommend to the Scientific Jury to prepare a proposal to the Scientific Council of the ERI at BAS for the appointment of Chief Ass. Prof. Dr. Dochka Velkova to the academic position of "Associate Professor."

14.09.2023

Reviewer:

Assoc. prof. Victor Yotzov, PhD