



**EDUCATIONAL AND BUSINESS CENTER FOR DEVELOPMENT OF
HUMAN RESOURCES, MANAGEMENT AND SUSTAINABLE
DEVELOPMENT, NOVI SAD, SERBIA**

**INTERNATIONAL SCIENTIFIC CONFERENCE:
"CHALLENGES OF MODERN ECONOMY AND SOCIETY
THROUGH THE PRISM OF GREEN ECONOMY AND
SUSTAINABLE DEVELOPMENT"
– CESGED2023**

PROCEEDINGS
ISBN 978-86-81506-23-3

NOVI SAD, APRIL 2023.

PROCEEDINGS

**INTERNATIONAL SCIENTIFIC MEETING CESGED 2023:
CHALLENGES OF MODERN ECONOMY
AND SOCIETY THROUGH THE PRISM OF GREEN ECONOMY
AND SUSTAINABLE DEVELOPMENT
NOVI SAD, 27-30 April 2023**

EDITOR IN CHIEF

PhD Jelena Premović, senior research associate

INTERNATIONAL EDITORIAL BOARD

PhD Branislav Dudić, associate professor (Slovakia)

PhD Tibor Fazekas, assistant professor (Hungary)

PhD Velibor Spalević, associate professor (Montenegro)

PhD Dušica Pešević, associate professor (Bosnia and Herzegovina)

PhD Ljiljana Arsić, full professor (Serbia)

PhD Sanja Škorić, associate professor (Serbia)

PhD Tamara Premović, associate professor (Serbia)

PhD Aleksandar Ašonja, assistant professor (Serbia)

ISBN 978-86-81506-23-3

INTERNATIONAL SCIENTIFIC BOARD

Michal Greguš, PhD, full professor (Slovakia)

Ćemal Dolićanin, PhD, professor Emeritus (Serbia) honorary president

Jelena Premović, PhD, senior research associate (Serbia)

Branislav Dudić, PhD, associate professor (Slovakia)

Paolo Billi, PhD, full professor (Japan)

Sezai Ercisli, PhD, full professor (Turkey)

Ronaldo Luiz Mincato, PhD, full professor (Brazil)

Atef El Jery, PhD, full professor (Tunisia)

Abdulvahed Khaledi Darvishan, PhD, full professor (Iran)

Abdessalam Ouallali, PhD, associate professor (Morocco)

Seddiq Mrihill Ali Esalami, PhD, associate professor (Libya)

Artan Hysa, PhD, associate professor (Germany)

Devraj Chalise, PhD, assistant professor (Australia)

Tibor Fazekas, PhD, assistant professor (Hungary)

Paul Sestras, PhD, assistant professor (Romania)

Milena Moteva, PhD, full professor (Bulgaria)

Boban Melović, PhD, full professor (Montenegro)

Velibor Spalević, PhD, associate professor (Montenegro)

Goran Škatarić, PhD, associate professor (Montenegro)

Novo Przulj, PhD, academician, full professor (Republika Srpska)

Slobodan Marković, PhD, academician, full professor (Serbia)

Ljiljana Arsić, PhD, full professor (Serbia)

Nebojša Stošić, PhD, full professor (Serbia)

Nebojša Đokić, PhD, full professor (Serbia)

Zoran Milićević, PhD, full professor (Serbia)

Milan Kocić, PhD, full professor (Serbia)

Slavica Mitrović Veljković, PhD, full professor (Serbia)

Snežana Štetić, PhD, full professor (Serbia)

Edin Dolićanin, PhD, full professor (Serbia)

Konstansa K. Lazarević, PhD, associate professor (Serbia)

Benin Murić, PhD, associate professor (Serbia)

Samir Aličić, PhD, associate professor (Serbia)

Radivoj Prodanović, PhD, associate professor (Serbia)

Aleksandar Ašonja, PhD, associate professor (Serbia)

Sanja Škorić, PhD, associate professor (Serbia)

Milan Ivkov, PhD, associate professor (Serbia)

Borislav Savković, PhD, associate professor (Serbia)

Boris Radovanov, PhD, associate professor (Serbia)

Bojan Leković, PhD, associate professor (Serbia)

Sanja Dobrićanin, PhD, associate professor (Serbia)

Tamara Premović, PhD, associate professor (Serbia)

Andrijana Maksimović, PhD, assistant professor (Serbia)

Zenaida Šabotić, PhD, assistant professor (Serbia)

Izet Kahrović, PhD, assistant professor (Serbia)

Adem Preljević, PhD, assistant professor (Serbia)

Elvis H. Mahmutović, PhD, assistant professor (Serbia)

Irfan Fetahović, PhD, assistant professor (Serbia)

Edis Mekić, PhD, assistant professor (Serbia)

Željko Račić, PhD, professor (Serbia)

INTERNATIONAL ORGANIZING COMMITTEE

Jelena Premović, PhD, senior scientific associate (Serbia)
Branislav Dudić, PhD, associate (Slovakia)
Zana Dolićanin, PhD, full professor (Serbia)
Tibor Fazekas, PhD, assistant professor (Hungary)
Ivana Nikolić, PhD, assistant professor (Greece)
Leila Gholami, PhD, associate professor (Iran)
Sabri El Mouatassime, PhD, Assistant Professor (Morocco)
Velibor Spalević, PhD, associate professor (Montenegro)
Vladimir Dobrićanin, doctor (Montenegro)
Novica Obradović, MSc (Montenegro)
Aleksandar Brčić, PhD, (Republika Srpska)
Nataša Đorđević, PhD, associate professor (Serbia)
Tanja Soldatović, PhD, associate professor (Serbia)
Nenad Bingulac, PhD, assistant professor (Serbia)
Dejan Logarušić, PhD, assistant professor (Serbia)
Dalibor Krstinić, PhD, assistant professor (Serbia)
Radica Bojičić, PhD, assistant professor (Serbia)
Aleksandar Đokić, PhD, assistant professor (Serbia)
Srđan Nikolić, PhD, assistant professor (Serbia)
Ivan Pajović, PhD, assistant professor (Serbia)
Violeta Milićević, PhD, professor (Srbija)
Marko Gašić, PhD, professor (Serbia)
Goran Perić, PhD, professor (Serbia)
Slaviša Jovanović, PhD (Serbia)
Nataša Lukić, professor (Serbia)
Anđelka Tripković, MSc (Serbia)
Igor Trišić, MSc (Serbia)

INTERNATIONAL SCIENTIFIC CONFERENCE:
"CHALLENGES OF MODERN ECONOMY AND SOCIETY THROUGH THE PRISM
OF GREEN ECONOMY AND SUSTAINABLE DEVELOPMENT" – CESGED2023
Novi Sad (Serbia), 27-30 April 2023.

Organizers of the conference:

- EDUCATIONAL AND BUSINESS CENTER FOR DEVELOPMENT OF HUMAN RESOURCES, MANAGEMENT AND SUSTAINABLE DEVELOPMENT, NOVI SAD, SERBIA;
- COMENIUS UNIVERSITY IN BRATISLAVA, FACULTY OF MANAGEMENT, BRATISLAVA, SLOVAKIA;
- STATE UNIVERSITY OF NOVI PAZAR, NOVI PAZAR, SERBIA;
- EDUCATIONAL CENTER FOR TRAINING IN PROFESSIONAL AND WORK SKILLS, NOVI SAD, SERBIA;
- UNIVERSITY OF ECONOMIC ACADEMY IN NOVI SAD - FACULTY OF ECONOMICS AND ENGINEERING MANAGEMENT - FIMEK AND FACULTY OF LAW FOR ECONOMY AND JUSTICE IN NOVI SAD, SERBIA;

Time and place of the conference:

- NOVI SAD, 27 – 30.04.2023.

Educational center for training in professional and work skills - conference hall,
Novi Sad, Industrijska no. 3;

Thematic areas:

- Green economy and sustainable development;
- Multidisciplinary approach in research:
 - economic sciences;
 - legal sciences;
 - mathematical sciences;
 - technical and technological sciences;
 - biomedical sciences;
 - philological sciences;
 - philosophical sciences and art;
- Economic theory and politics;
- General economy and economic development;
- Business and International Economics and Management;
- Entrepreneurship, leadership and human resource management;
- Management in service activities:
 - tourism and hotel industry;
 - healthcare;
 - agriculture and agribusiness;
 - education and sports;
 - culture and public information;
 - public sector and state administration;
 - banking and finance;
 - traffic;
 - construction; etc.
- Marketing, trade and logistics;
- Accounting, auditing and business finance;
- Business informatics and quantitative methods;

- Investments and technical-technological development;
- Industry 4.0;
- Law, security and criminology;
- Demographics and sociological-psychological research;

GREEN FINANCING IN SERBIA – CHALLENGES AND OPPORTUNITIES¹

Ivana Ostojić

Institute of Social Sciences, Centre for Economic Research
Kraljice Natalije 45, Belgrade, Serbia
e-mail: iostojic@idn.org.rs

Abstract: Policymakers are faced with the challenge of achieving sustainable development and avoiding further environmental degradation. With the establishment of national green investment banks, as well as the rapid growth of the green bond market, the interest in green financing grew in the last decade. The regulatory framework, successfully formulated strategies and their effective implementation, as well as the involvement of the private sector and the creation of a larger market, are key factors for attracting green investments.

The primary objective of this paper is to analyze the trends of green financing in the Republic of Serbia, the available sources of green financing, the challenges that the banking sector faces when defining the offer of green financial instruments, as well as the challenges of the sector of micro, small and medium enterprises and entrepreneurs as potential users of green loans. The paper analyzes to what extent banks in Serbia "green" the sector of micro, small and medium enterprises and entrepreneurs, approving loans for green projects with an ecological dimension. The concluding considerations of this research showed that the process of green transformation of the banking sector of the Republic of Serbia requires both financial and regulatory incentives that contribute to the achievement of sustainable development goals through the rational use and preservation of natural resources and the reduction of environmental pollution.

Key words: green financing, green loans, green projects, green investments, micro, small and medium enterprises, banking sector, sustainable development

INTRODUCTION

Green finance refers to the two-way interaction between the environment, finance and investment. Interest in green financing has been growing over the last decade, and one of the reasons is the establishment of national green investment banks, as well as the rapidly growing green bond market (ISO, 2022). Höhne et al., (2012) define green finance as "an investment in sustainable development projects and initiatives, ecological products and policies that encourage the development of a more sustainable economy." Green finance includes climate finance but is a broader concept. In addition to adapting to climate change and mitigating its negative consequences, it may also include "other environmental goals, for example, industrial pollution control, water sanitation or biodiversity protection." Volz et al., (2015) define green finance as "all forms of investment or lending that take into account environmental impact and improve environmental sustainability." A key element of green finance is sustainable investment and banking and decisions on investment and lending are

¹The paper was written as part of the 2023 Research Program of the Institute of Social Sciences with the support of the Ministry of Science, Technological Development and Innovation of the Republic of Serbia.

based on the assessment of risks and harmful effects on the environment, as well as the assessment of compliance with environmental sustainability standards. Selvapandian, Jeiapaul&Gunabalan (2022) define green finance as a new technology that supports low-carbon environments and point out that renewable energy sources or green resources are the most suitable options to promote economic growth and environmental sustainability. The authors detect long-term financing, project development risks, minimum return values and lack of capacity as the main risks of the green finance management system. Jinru et al., (2022) identify the key role of green financing and logistics in the adoption of sustainable production and the circular economy and conclude that green financing and green logistics have a significant and positive effect on sustainable production and the circular economy. In addition, the authors emphasize the importance of integrating green financing into procurement and strategies for the production of green goods and the promotion of circular economy goals. Ma and Chang (2023) examine the link between green innovation which is the core of enterprise green transformation and green finance, finding that green finance fosters green innovation and sustainable development. Green financing significantly increases the number of green patent applications in underdeveloped countries, which is very important for green development promotion. The authors conclude that green financing has, especially for emerging economies, a key role in the promotion of green innovations. Emerging countries urgently need to develop a foundation for green innovations and sustainable development. Building on previous research, another study examines the role of green technology innovation and green finance in reducing CO₂ emissions and confirms a significant negative impact of green technology innovation and green finance on CO₂ emissions (Sharif et al., 2022). The authors point out that with the representation of green financing and green technology policies, countries could meet the goals of sustainable development such as Affordable and clean energy (SDG 7) and Climate action (SDG 13). Zheng, Du & Wang (2022) explore the bi-directional co integration relationship between green finance and renewable energy development and indicate that the renewable energy development promotion through green financial instruments is an effective approach to achieve the goal of carbon neutrality. Research also shows that green financing promotes the development of renewable energy in the long run.

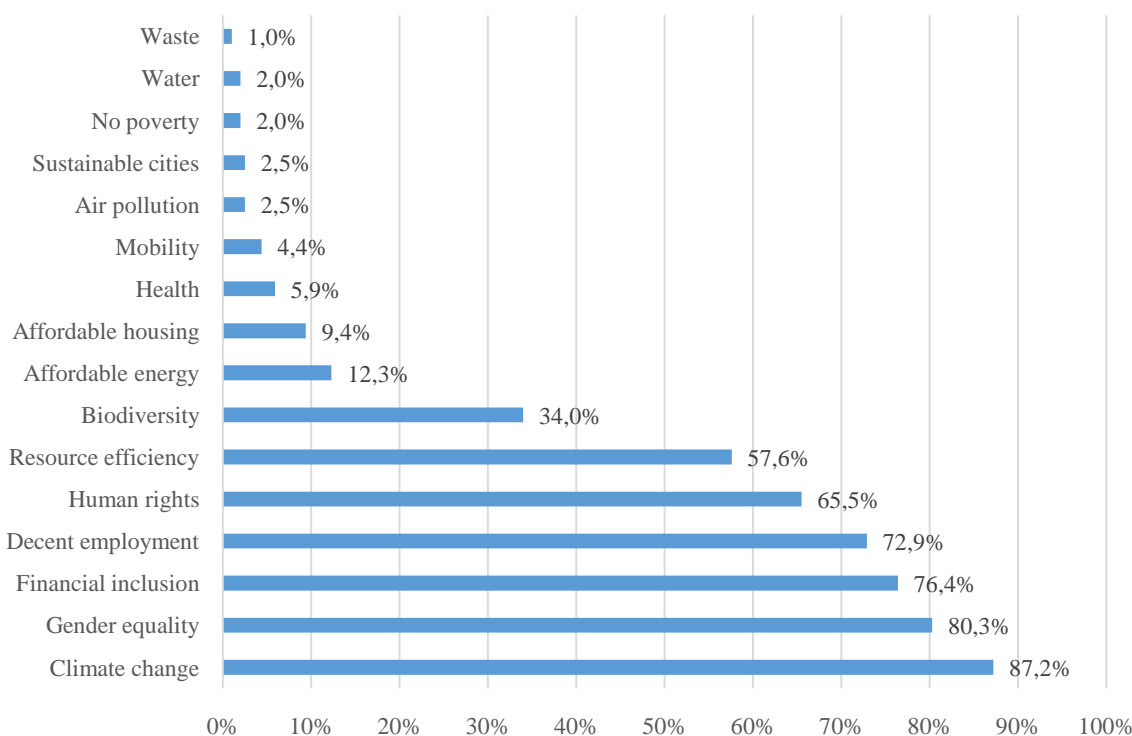
The basic idea of the energy efficiency concept is the use of less energy for the same unit of gross domestic product, with the sustainability of product quality, which results in energy transformation that is reflected in the reduction of energy use and the elimination of environmental pollution. In 2021, the main obstacles preventing the opening of negotiation Chapter 15 related to the field of energy have been removed in Serbia and “the negotiating position for the energy chapter represents the candidate country’s achievement in the harmonization with the *acquis communautaire*, the program of future harmonization, as well as an overview of existing and future administrative capacities for harmonization” (MEI, 2021). In addition to development finance institutions, such as the German Development Bank (KfW), the International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD), support for the sustainable energy-efficient development of Serbia, based on renewable energy sources is also provided by the Global Environment Facility (GEF), the Green for Growth Fund (GGF), the Instrument for Pre-Accession (IPA), the Western Balkans Sustainable Energy Financing Facility (WeBSEFF), Western Balkans Investment Framework (WBIF).

Since it signed the Addis Ababa Action Agenda on Sustainable Development until 2030, Serbia is expected to make significant efforts and mobilize available resources to reduce the rate of poverty, economic and social inequality, the negative effects of climate change through intensive ecologically sustainable investments and the entry to the green transition (Ristanović, 2021). In addition, Serbia is also a candidate country for accession to the European Union, whereby Chapter 27 deals with issues of environmental protection and the consequences of climate change. Despite the 48% increase in allocated funds for the environment in 2020, their further growth and the adoption of more ambitious environmental goals targeting zero carbon emissions are needed. The rules on environmental impact assessment should be strictly followed and priority should be given to projects with the most significant positive impact on the environment with transparent procedures for their selection and implementation (European Commission, 2022). Whether Serbia is on the green path and whether there are incentives and support programs for the green transition will be examined below by presenting the results of research to what extent banks in Serbia "green" the sector of small and medium enterprises by approving loans for projects with an ecological dimension.

GREEN FINANCING IN THE BANKING SECTOR OF SERBIA-EMPIRICAL RESEARCH

With over 300 signatory banks representing almost half of the global banking industry, the UN Principles for Responsible Banking are the world's most important sustainable banking framework that aims to accelerate the global green transition. Through these Principles, banks align their strategy, decision-making process, lending and investments with sustainable development goals and international agreements such as the Paris Climate Agreement (UNEP FI, 2022). As of March 2021, addressing climate change and enhancing gender equality were the most prominent social and environmental sustainability goals among banks that were signatories of the Principles for Responsible Banking worldwide. Then follows financial inclusion and decent employment included in the sustainability strategies of 76.4 percent and 72.9 percent of signatories respectively.

Graph 1. Main social and environmental goals included in banks' sustainability strategy worldwide, 2021



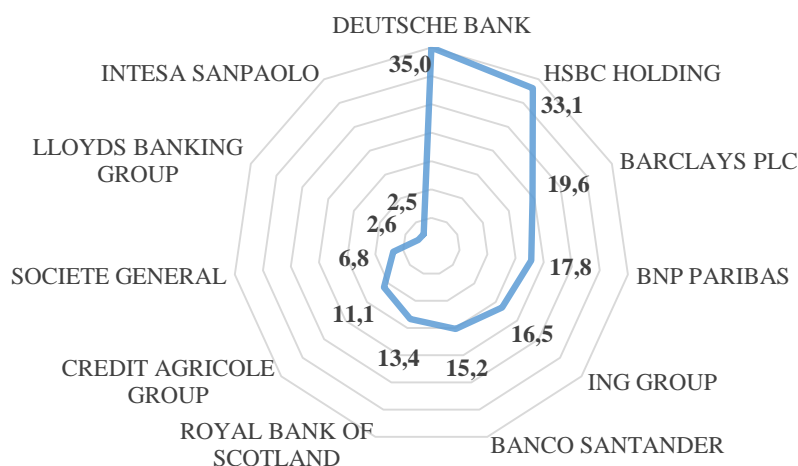
Source: Statista, 2021

The culture of responsible banking encourages doing business with clients that promote sustainable practices and enable economic activities that create prosperity for both current and future generations. In fulfilling that goal, green financial instruments provide support. The development of green financial products is encouraged by the knowledge of the seriousness of the environmental challenges that the world is facing, the country's efforts to achieve sustainable development goals, legislation and regulations in the field of environmental protection as well as the adoption of legislative measures prohibiting unsustainable business practices (Ostojčić, 2022). Since green growth represents a new paradigm of economic growth, green financial products are improved over time and become more diverse, as a result of financial innovations and the adoption of green economy principles (Ostojčić, 2023). Financial institutions with green financial instruments achieve numerous benefits, which are reflected in the strengthening of the market position and the growth of market share, the growth of profitability, building a base of loyal users of new financial products and services, the creation of partnerships with external stakeholders from the sphere of ecology, building a stronger image through socially responsible business activities (Noh, 2018).

A sustainable financial service should contribute to the realization of benefits not only for the client but for the entire society. A green loan is a form of financing that allows its holder to use borrowed funds exclusively for the achievement of environmental goals. Green loans should have clearly defined positive implications for the environment that can be quantified and valorized. Projects financed from green bank loans are selected and evaluated in compliance with prescribed environmental standards. An important element is the obligation of timely reporting on the environmental results of the implementation of financed green projects, through qualitative and available quantitative indicators, such as energy capacity,

produced electricity, reduced greenhouse gas emissions, etc. The countries that are the global leaders in issuing green loans are the USA, Great Britain, Australia, France, Germany, Japan, China, India, Canada and the Netherlands (Bergedieck, Maheshwari&Ugaz, 2016). Among the largest European banks, with the highest value of sustainable financing of 35 billion euros, Deutsche Bank stands out.

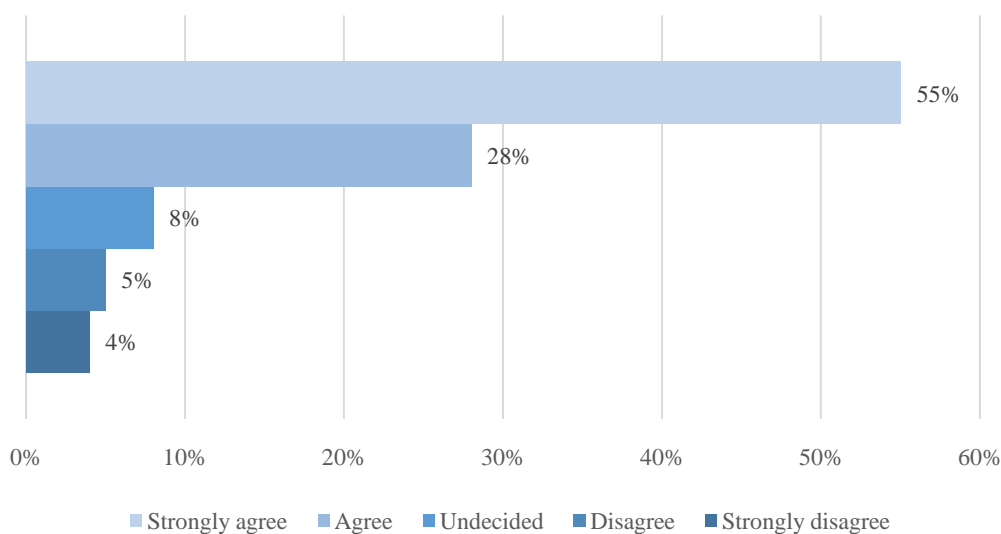
Graph 2. Value of green financing by Europe's largest banks, 2020



Source: Statista, 2020

In the following, the incentives and support programs for the green transition will be analyzed based on practice research in domestic banks and companies whose operations are based on the achievement of a sustainable development model. The subject of the research is the representation of green financing in the Serbian banking sector and the analysis of the advantages of entering the green transition process, which leads in the direction of the development of a low-carbon economy and the reduction of the carbon footprint. In addition to the standardized questionnaire with closed questions, an interview of banking experts and company representatives was also used as a research method. The cross-sectional study design involves the collection of data from respondents from different organizations at the same time. To measure the respondents' attitudes a Likert scale, that provides five possible answers to a question, was used. The total number of respondents is 150 and consists of banking experts and employees in micro, small and medium enterprises and entrepreneurs.

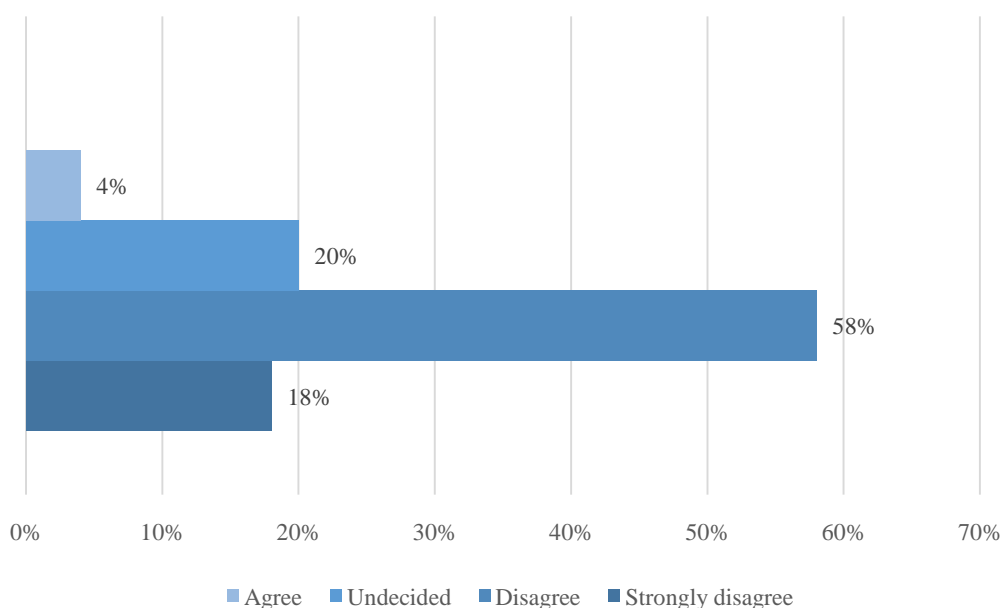
Graph 3. The main business problem of domestic micro, small and medium enterprises and entrepreneurs is the lack of access to finance



Source: Authors' calculations

In addition to achieving measurable positive results in improving the environment, small and medium enterprises will be further encouraged to use green loans from banks if they have more favorable conditions and additional benefits such as effective interest rates, available capital, technical assistance, repayment period, grace period, necessity of security instruments, return of part of invested funds, etc. Analyzing the results of the conducted empirical research, it was confirmed that the biggest business constraint faced by domestic micro, small and medium enterprises and entrepreneurs is the lack of financial funds (28% of respondents agreed with this statement, while 55% strongly agreed).

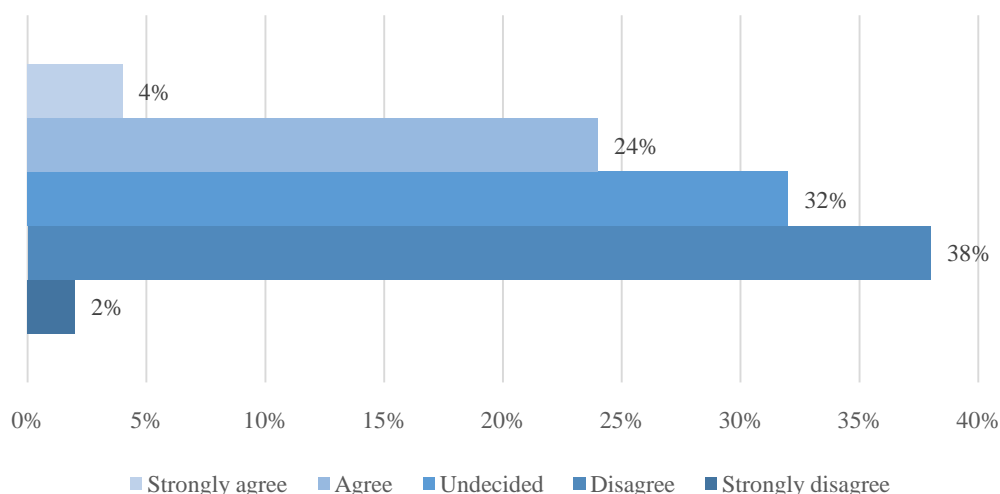
Graph 4. State incentives that promote green investments in the sector of micro, small and medium enterprises and entrepreneurs are sufficiently represented



Source: Authors' calculations

The research confirms that the state does not sufficiently encourage green entrepreneurship through subsidies or tax breaks to reward environmentally oriented business practices, as only 4% of respondents agreed that state incentives promote domestic green investments. Although there is demand for green loans, companies need more information on the principles of green financing, green transition, green inclusive growth, as well as green projects.

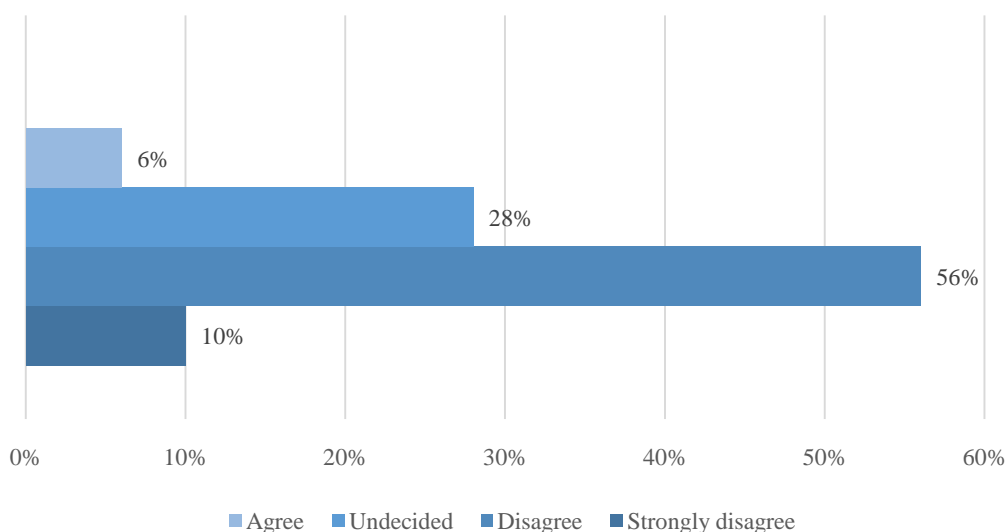
Graph 5. The demand for green loans demand is significant



Source: Authors' calculations

Green loans to the sector of micro, small and medium enterprises and entrepreneurs in Serbia are approved in euros, with a variable interest rate linked to EURIBOR and increased by interest margin. The components of the interest margin are the cost of capital (the cost of the bank's financing sources), the risk premium and the banking margin. Banks provide financial funds from parent banks or international financial institutions, most often the European Bank for Reconstruction and Development (EBRD) or the European Investment Bank (EIB) under certain conditions. The risk of premium depends on the company's financial situation and established indicators of financial stability, profitability, liquidity, indebtedness, etc. Also, depending on the specific bank, a grace period ranging between 6 months and 24 months is provided.

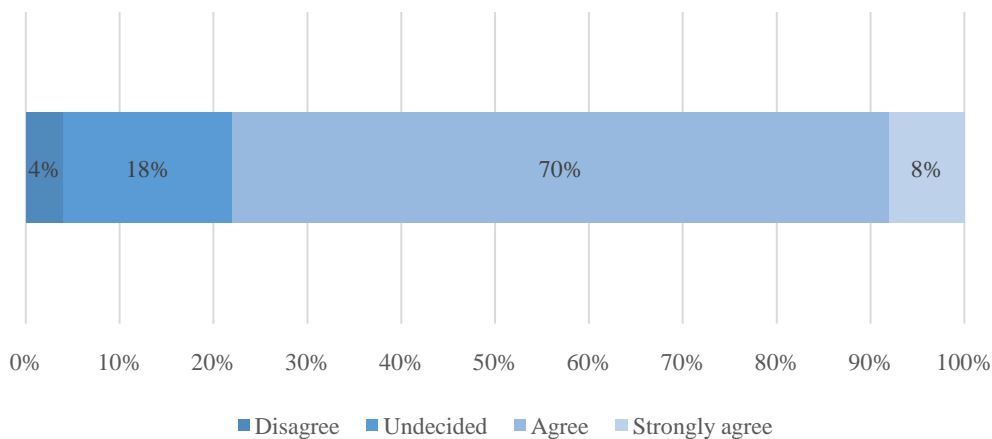
Graph 6. Bank credit lines for green financing are sufficiently represented in Serbia



Source: Authors' calculations

According to the opinion of only 6% of respondents, there is a satisfactory offer of green bank credit lines in Serbia. The most common obstacle for companies to invest in green projects is a poor offer of financial products, an underdeveloped capital market, demanding banking procedures, as well as high interest rates on loans.

Graph 7. An obstacle for companies to invest in green projects is the poor supply of financial products and the underdeveloped capital market

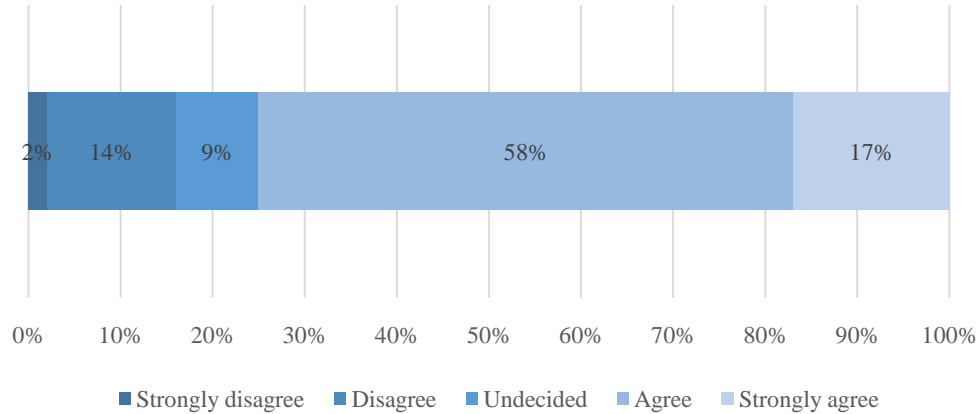


Source: Authors' calculations

A very instructive example of a company's greening strategy is Ireland. The Green Business Initiative significantly improved the environmental results of small and medium enterprises and facilitated the path to green transformation, which involved a dedicated approach to introducing companies to resource efficiency possibilities, defining business segments for potential savings, visiting companies, preparing documentation, providing technical and advisory assistance, developing programs and support tools for the implementation of circular

economy initiatives, connecting companies, organizing seminars, training and encouraging knowledge exchange (European Environment Agency, 2016).

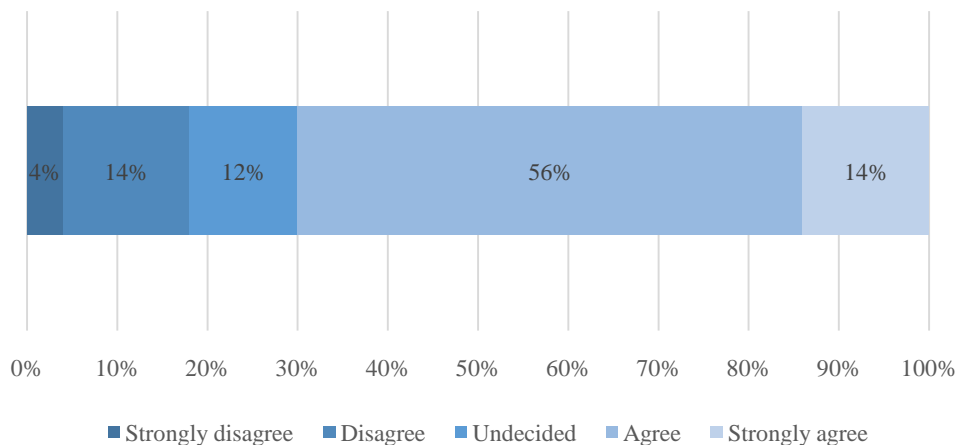
Graph 8. An obstacle for companies to invest in green projects is demanding bank procedure



Source: Authors' calculations

In the domestic banking sector, loans for the improvement of energy efficiency are dominated. The share of respondents who agreed or strongly agreed with the statement that the high interest rate on green loans is one of the obstacles to encouraging green investments and sustainable economic development is 70%, while 75% of the respondents believe that the green loan approval process is too demanding for domestic micro, small and medium enterprises and entrepreneurs.

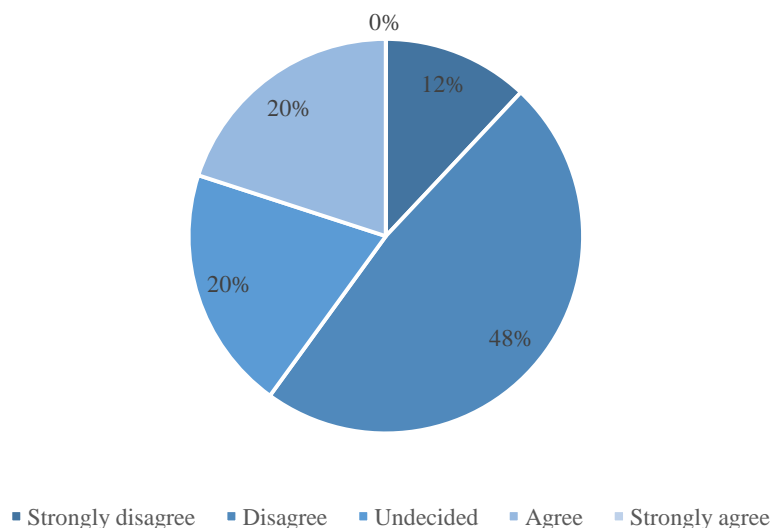
Graph 9. High interest rates on green loans are an obstacle for companies to invest in green projects



Source: Authors' calculations

Only 14% of respondents among banking experts confirmed that the bank where they are employed approves green loans to micro, small and medium enterprises and entrepreneurs, with the share of approved green loans in the bank's total loans less than 10%. This speaks in favor of the statement that green financing in the Serbian banking sector is below its potential.

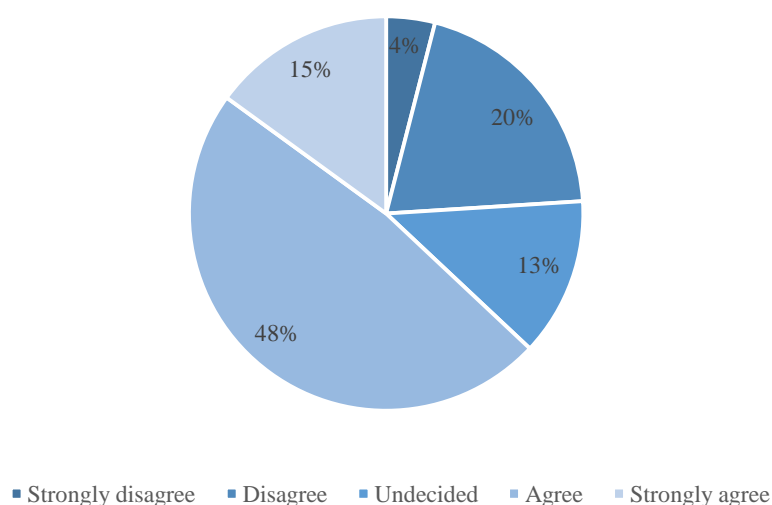
Graph 10. The investment climate in Serbia favors green financing



Source: Authors' calculations

Over 60% of respondents believe that bank green financial instruments, such as loans for financing sustainable development projects, contribute to the improvement of the domestic financial system, while the share of respondents who agree with the statement that the investment climate in Serbia is not conducive to green financing of domestic companies amounts to 60%.

Graph 11. Green financing contributes to the improvement of the domestic financial system



Source: Authors' calculations

How necessary green investments are, shows researches in which the emissions of harmful gases in Serbia have been increasing for years and that they significantly exceed the average of the European Union. In addition, revenues from environmental taxes have increased twice compared to 2015 and reached a value of about 6 billion dinars. It is a devastating fact that for years no taxpayer has contributed to the reduction of its environmental footprint through more responsible business activities (NALED, 2021). Guided by these facts, the Serbian Environmental Protection Agency proposed in 2017 the collection of environmental fees in accordance with the environmental pollution caused by companies through their operations, and not in relation to the size of the company and the activity it is engaged in, because this ignores the actual company's impact on the natural ecosystem. In this way, two positive effects would be achieved: the reduction of the ecological footprint and the growth of funds for investments in green projects (Environmental Protection Agency, 2018).

DISCUSSION

The recognition of the acuteness of environmental problems by the population of certain countries is followed by an appeal to government agencies to fight more actively against the causes of climate change (Lobanov, Zvezdanović Lobanova & Zvezdanović, 2023). In order to contribute to mitigating the negative effects of climate change, the banking sector took part in the green transition through the approval of green loans intended for financing companies that demonstrate their environment responsible behavior through sustainable development projects. The conducted research should provide answers to what extent green financing is represented in the domestic financial system and whether the current investment climate in Serbia favors green financing. Access to finance is the main driver of entrepreneurial initiatives and economic growth. Timely access to finance determines the survival and growth of micro, small and medium enterprises and entrepreneurs. According to Rajamani et al., (2023), the results of the research confirm that the attributes of the firm, the sources of financing and the life cycle of micro, small and medium enterprises and entrepreneurs have a significant positive impact on their access to finance. Examining the views of respondents, micro, small and medium-sized enterprises and entrepreneurs in Serbia are at a disadvantage when it comes to access to finance, which slows down their growth. On the other hand, this sector as a carrier of creativity and innovation, is extremely important since it contributes to the creation of new job opportunities, the growth of tax revenues, promoting economic growth and well-being. If micro, small and medium-sized enterprises and entrepreneurs have access to the required amount of funds at the required moment at a low-interest rate, with fewer procedures, this would help them meet their financial needs.

In the research, which, in addition to the questionnaire, also included interviewing representatives of the private sector, it was determined that the obstacle to green financing in Serbia is the insufficient information of companies about green loans. Companies need to be provided with additional information about green projects that can lead to more efficient use of resources and significant savings in their operations, as well as about the preparation of project proposals and their implementation. This particularly refers to micro-enterprises and entrepreneurs. According to Sheikh et al., (2023) understanding the conditions and requirements of green projects as well as setting green goals for banks effective in applying green financing as a key factor in achieving sustainable entrepreneurship and the emergence of clean industries. The promotion of green entrepreneurship is not sufficiently represented in Serbia. The state does not encourage green growth and green investments through support in the form of subsidies or tax incentives, nor by allocating sufficient budget funds for the

improvement of the environment. The Green Fund, whose establishment was one of the conditions for opening Chapter 27, does not finance environmental projects, which was the purpose of its establishment in 2016. All this indicates that in the current situation, there is a lack of credible institutions that would financially support and manage green projects in Serbia (European Commission, 2022). The OECD report on the progress of small and medium-sized enterprises presents the results of the application of green economy principles in small and medium-sized enterprises through strategic environmental policy frameworks and green incentives and instruments. Serbia achieves poor performance (2.21/5), which has not been improved for years. The goals of supporting the green transition were an integral part of the Strategy to support the development of small and medium-sized enterprises, entrepreneurs and competitiveness for the period from 2015 to 2020, as well as the National Environmental Protection Program, but they were not specified through action plans. As the OECD recommends, the establishment of a coordinating body for the "greening" of small and medium-sized enterprises would contribute to the improvement of green financing, whereby this role could be assigned to the Development Agency of Serbia (OECD, 2019).

Of the green loans, the domestic banking sector is dominated by loans for improving energy efficiency, while loans for green projects of renewable energy sources, as well as loans for projects with a measurable impact on reducing the carbon footprint, are represented in a much smaller proportion. When interviewing representatives of the banking sector, it was found that as the most common reason for low interest in including green loans in their offer, bank experts cite a lack of professional staff who will evaluate green projects and monitor their implementation, as well as the economic profitability of green projects. On the other hand, representatives of micro, small and medium enterprises and entrepreneurs state that green loans are an expensive source of financing. This type of financial arrangement requires the company to prepare specific documentation in the form of an elaborate. If the company's employees do not have the qualifications to prepare studies and accompanying documentation, they have to hire external staff with the necessary knowledge to fulfill green project requirements and create a business plan with estimated positive impacts on the environment, which makes this arrangement financially less favorable. The approval of a green loan is also associated with more complicated banking procedures, since the banks have to perform additional assessments, checks and analyses, and often hire consultants for these specific issues. All the above factors contribute to the growth of green loan interest rates. However, the most important factor affecting the green loan interest rate is the cost of financing sources used by banks (not the risk premium based on the company's financial results).

CONCLUSION

Economies should strive to use their potential for sustainable production towards achieving zero carbon emissions. Due to the scarcity of natural resources, enterprises must focus on green production resources by relying more on the circular economy. As assessed by the Fiscal Council, a significant increase in investment in environmental protection is a budget priority in the coming years. This is supported by the fact that a responsible attitude towards the environment is one of the basic postulates of the European Union, which Serbia is trying to access. Since these investments are mandatory, any postponement of inevitable green investments may cause more serious consequences (freezing wages and pensions, increasing taxes) and will be implemented in a far less favorable fiscal environment. According to the estimates of the Fiscal Council, an increase in public investments in environmental protection

by 1.3% of the gross domestic product (500 million euros) would accelerate the economic growth of Serbia in the short run by at least 0.5% (Fiscal Council, 2018). The regulatory framework, successfully formulated strategies and their effective implementation, as well as involving the private sector and creating a larger market, are key factors for attracting green investments.

It can be stated that the offer of green loans in the domestic banking sector is not at a satisfactory level and that the current conditions for green financing of companies do not represent a profitable financial option. In addition to charging high-interest rates on loans related to the achievement of sustainable development goals, banks currently do not have different green financing instruments and the offer is reduced mainly to green loans for improving energy efficiency. Green financing is not yet sufficiently represented in Serbia and improvements are needed both on the supply side and on the demand side. As the awareness of the importance of the circular economy and the necessity of more intensive involvement in the green transition process grows, so will the demand for green sources of financing, as well as the variety of available green financial instruments. It is necessary to provide incentives for green investments in the form of subsidies, grants, tax breaks and credit guarantees from international development finance institutions, but also to adopt and apply regulations in the field of green financing promptly.

REFERENCES

Bergedieck, L., Maheshwari, A., & Ugaz, F. A. (2016). Green Finance - A Bottom-up Approach to Track Existing Flows. Washington: International Finance Corporation. <https://www.cbd.int/financial/gcf/ifc-greentracking.pdf> (accessed 17 June 2023).

Environmental Protection Agency (2018). Report on economic instruments for environmental protection. Belgrade: Ministry of Environmental Protection Republic of Serbia. http://www.sepa.gov.rs/download/posebni/EkonomskiInstrumenti_2017.pdf (accessed 30 May 2023).

European Environment Agency (2016). Ireland - Country fact sheet: Overview of national waste prevention programmes in Europe. Copenhagen: European Environment Agency. file:///C:/Users/HP/Downloads/Ireland%20fact%20sheet_waste%20prevention_OCT2016-2.pdf (accessed 20 May 2023).

European Commission (2022). Republic of Serbia-Report for 2022. Strasbourg: European Commission. https://www.mei.gov.rs/upload/documents/eu_dokumenta/godisnji_izvestaji_ek_o_napretku/Serbia_Report_2022_SR.%5B1%5D.pdf (accessed 20 May 2023).

Fiscal Council (2018). Investments in environmental protection: social and fiscal priority. Belgrade: Fiscal Council of the Republic of Serbia. <https://www.fiskalnisa.gov.rs/doc/eng/FC%20-%20Investments%20in%20environmental%20protection.pdf>. (accessed 20 June 2023).

Höhne, N., Khosla, S., Fekete, H., & Gilbert, A. (2012). Mapping of Green Finance Delivered by IDFC Members in 2011. Köln: ECOFYS. https://www.idfc.org/wp-content/uploads/2019/03/idfc_green_finance_mapping_report_2012_06-14-12.pdf (accessed 18 May 2023).

- ISO (2022). Green and Sustainable Finance. Geneva: International Organization for Standardization. <https://www.iso.org/publication/PUB100458.html> (accessed 25 May 2023).
- Jinru, L., Changbiao, Z., Ahmad, B., Irfan, M., & Nazir, R. (2022). How do green financing and green logistics affect the circular economy in the pandemic situation: key mediating role of sustainable production. *Economic Research-Ekonomska Istrazivanja*, 35(1), 3836-3856. DOI: 10.1080/1331677X.2021.2004437.
- Lobanov, M., Zvezdanović Lobanova, J., & Zvezdanović, M. (2023). Алармисты и скептики: национальные особенности формирования климатического сознания. *Мирперемен* (1), 154-177. https://doi.org/10.51905/2073-3038_2023_1_154.
- Ma, J., & Chang, C. P. (2023) The Role of Green Finance in Green Innovation: Global Perspective from 75 Developing Countries. *Emerging Markets Finance and Trade*, 1-20. DOI: 10.1080/1540496X.2023.2210720.
- MEI (2021). The negotiating position of the Republic of Serbia for the Intergovernmental Conference on the Accession of the Republic of Serbia to the European Union for Chapter 15 "Energy". Belgrade: Ministry of European Integration. https://www.mei.gov.rs/upload/documents/pristupni_pregovori/pregovaracke_pozicije/pg_pozicija_15.pdf. (accessed 1 June 2023).
- NALED (2021). Analiza uspešnosti fiskalnih instrumenata u smanjenju zagađenja vazduha u Republici Srbiji – Trenutno stanje i predlozi za unapređenje. Beograd: Nacionalna alijansa za lokalni ekonomski razvoj (NALED). <https://naled.rs/htdocs/Files/07055/Naknade-zivotna-sredina-predlog-reforme-dvolist-v2.pdf>. (accessed 18 March 2023).
- Noh, H. J. (2018). Financial Strategy to Accelerate Green Growth. Tokyo: Asian Development Bank Institute (ADB Working Paper 866). <https://www.adb.org/publications/financial-strategy-accelerate-green-growth> (accessed 11 March 2023).
- OECD (2019). SME Policy Index: Western Balkans and Turkey - Assessing the Implementation of the Small Business Act for Europe. Paris: Organisation for Economic Co-operation and Development (OECD). <https://www.oecd.org/publications/sme-policy-index-western-balkans-and-turkey-2019-g2g9fa9a-en.htm>. (accessed 9 May 2023).
- Ostojić, I. (2022). *The Role of Development Finance Institutions in Supporting Sustainable Development* (Doctoral dissertation). Retrieved from SINGIPEDIA <https://singipedia.singidunum.ac.rs/doktorski-radovi/1>.
- Ostojić, I. (2023). Zeleno finansiranje, klimatske finansije i koncept zelene ekonomije. In S. Nikolić Popadić & M. Milenković (Eds.), *Klimatske promene - pravni i društveni izazovi* (pp. 196-213). Belgrade: Institute for Social Sciences.
- Rajamani, K., Jan, N. A., Subramani, A. K., & Raj, A. N. (2022). Access to Finance: Challenges Faced by Micro, Small, and Medium Enterprises in India. *Engineering Economics*, 33(1), 73-85. DOI: 10.5755/j01.ee.33.1.27998

- Ristanović, V. (2021). Serbia and Agenda 2030: Mapping the National Strategic Framework vis-a-vis the Sustainable Development Goals. Belgrade: Republic Secretariat for Public Policies. https://rsjp.gov.rs/wp-content/uploads/Serbia-and-2030-Agenda_November-2021.pdf. (accessed 17 June 2023).
- Selvapandian, G., Jeiapaul, P., & Gunabalan, B. (2022). Adoption of Green Financing Strategies with Renewable Energy Resources for Global Economic Growth. *Global Economy Journal*, 22(4), 1-17. DOI: 10.1142/S2194565923500045.
- Sharif, A., Saqib, N., Dong, K., & Khan, S. A. R. (2022). Nexus between green technology innovation, green financing, and CO₂ emissions in the G7 countries: The moderating role of social globalization. *Sustainable Development*, 30(6), 1934-1946. DOI: 10.1002/sd.2360.
- Sheikh, A. A., Saeidi, P., Abbasi, E., & Naderian, A. (2023). Designing Model and Levelization of the Factors Affecting Companies' Green Financing through Banking System. *Iranian Journal of Accounting, Auditing & Finance (IJAAF)*. 7 (1), 23-38. DOI: 10.22067/ijaaf.2023.42194.1114.
- Statista (2020). Value of Green Financing. Database. New York: Statista Research Department. <https://www.statista.com/statistics/1283398/banks-main-sustainability-goals-worldwide/> (accessed 21 April 2023).
- Statista (2021). Main social and environmental goals included in banks' sustainability strategy worldwide. Database. New York: Statista Research Department. <https://www.statista.com/statistics/1283398/banks-main-sustainability-goals-worldwide/> (accessed 19 April 2023).
- UNEP FI (2022). Principles for Responsible Banking. Geneva: UNEP Finance Initiative. <https://www.unepfi.org/industries/banking/principles-for-responsible-banking/> (accessed 11 June 2023).
- Volz, U., Böhnke, J., Knierim, L., Richert, K., Röber, G.M, & Eidt, V. (2015). *Financing the Green Transformation: How to Make Green Finance Work in Indonesia*. London: Palgrave Macmillan.
- Zheng, M., Du, Q., & Wang, Q. J. (2023). Nexus between Green Finance and Renewable Energy Development in China. *Emerging Markets Finance & Trade*, 59(4), 1205-1218. DOI: 10.1080/1540496X.2022.2119811.