SUSTAINABILITY IN THE ROMANIAN BANKING SECTOR

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Abstract

Starting from the definition of the word sustainable, which represents the ability to exist constantly, the central objective of the study is to identify the main directions regarding a sustainable development in the Romanian banking sector, as well as how the risk indicators of the banking sector were influenced in the period 2018–2023 through the lens of a much more environmentally friendly development. The research hypothesis is that most banking institutions have shown their interest in sustainability and have already made impressive progress in implementation by adopting policies for this purpose. The research methodology was based on an analysis of aggregated indicators regarding credit institutions in Romania, a very important indicator being the rate of non-performing loans, the research carried out trying to demonstrate the fact that the presence of sustainability can positively influence the performance indicators of the banking system. At the same time, the new global ESG trend (environmental policies, sustainability and governance) and how it impacted bank financing in Romania was integrated into the paper.

Keywords

sustainable, banking system, banking institutions, non-performing loans, ESG, Romania

JEL Classification: G21

Introduction

In 2015, the General Assembly of the United Nations (UN) adopted Agenda 2030 in New York, which proposed 17 objectives regarding sustainable development, also ratified by the European Union and Romania. The objectives adopted in 2015, which will be implemented by 2030, connect the environment, economy and society by establishing a balance between them (Mukherjee, 2020).

Environmental degradation and climate change represent a challenge for the European Union because it represents a set of radical changes that will bring a series of benefits, such as: new opportunities for innovation, more environmentally friendly investments, more ecological jobs. The member states will make every effort to make Europe the first climate-neutral continent by 2050, the first attempt being represented by reducing emissions by 55% by 2030, compared to emissions in 1990 (European Commission, 2020).

Through the "Social Climate Fund" approximately 65 billion euros will be allocated from the European Union budget and approximately 86 billion euros in total, the difference being formed from other sources, to support the vulnerable population as well as small businesses in the transition to a green economy. This will create favorable conditions for all by eradicating inequality and energy poverty by strengthening the performance of European enterprises. To create a fair competitive environment for businesses in Europe, the new carbon adjustment system will ensure that imported products pay a carbon fee at the border in the affected areas. It represents a valuable tool for supporting the reduction of emissions worldwide but also for training the EU market to achieve the proposed climate objectives. In February 2024, the European Commission presented its assessment of the objectives for achieving climate neutrality of the European Union for the year 2040. The Commission recommended that by the year 2040 the reduction of greenhouse gases by 90% in accordance with scientific opinions and with the promise assumed by the European Union under the Paris Agreement (European Parliament, 2023).

Romania has committed to achieving climate neutrality by 2050, the main sector generating greenhouse gases is the energy sector, which generates 32% of greenhouse gases, 24% the transport sector and 15% the production sector (Department for Development Sustainable, 2022). Romania is facing a low level of investment in sustainable development. This concept is just at the beginning, the investment requirement until 2050 is USD 356 billion, in this case the investments being necessary to mitigate climate change, associated with the electricity, transport and buildings sector. Despite the very high investment required, a decarbonized economy will have an impressive benefit in terms of resilience to an unstable fossil fuel price system, energy independence and health externality (World Bank Group, 2023)

The destruction of nature and biodiversity can represent a source of financial risk, because in the last 20 years the degradation of the environment has increased, approximately 50% of the Gross Domestic Product globally is dependent on nature and the services it provides (WEF, 2020). All economic sectors depend directly or indirectly on ecosystem services and the loss of biodiversity can affect the financial system through two channels: physical risks (the destruction of ecosystem services that companies depend on) and the transition risk that implies policy changes and population preferences that would aimed at disrupting the activities of companies that affect nature (NGFINSPIRE, 2022, van Toor et al. 2020)

In the Romanian banking system, the concept of sustainability is really recent, the stake being very high in terms of business opportunities, as well as the value of risky assets in the banks' portfolio. Sustainability creates impressive opportunities that can involve an increase in lending because there are many ecological investment plans in the market, which do not benefit from state funding, thus banks can have access to a niche through which the volume of lending can increase. According to a report published by the BNR and developed by the National Committee for Macroprudential Oversight

From the year 2021, the financing of companies involving green projects represented approximately 1 billion euros in the banks' balance sheets, but the potential for granting sustainable loans would be approximately 3 billion euros, to which is added

approximately 0.4 billion euros of green loans granted to households for energy efficiency of public administration buildings and units. (NCMO, 2021)

The study proposes to illustrate the current state in terms of the presence of highly qualified staff in the banking sector in Romania as well as new directions of development, in the presentation of sustainable development in the Romanian banking sector being at the beginning of the road. Research in the field is limited and the lack of meaningful and impactful data that verifies the presence of sustainability in the banking system, makes this subject less addressed in the academic research environment. The research paper proposes the following analysis: analysis of the financial indicators of the banking sector, the degree of implementation of environmental objectives in Romania, the intention of Romanian credit institutions to issue green bonds and grant green loans, green lending in the Romanian banking system through the analysis of the balance of green credits in the period 2010-2020, but also the presence of ESG factors with the main risks and opportunities resulting from their implementation in the Romanian banking system through the author's own analysis.

1. Review of the scientific literature

The most popular definition of sustainable development is given by the World Commission on Environment and Development (WCED) in the Brundtland Report: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (The Brundtland Report "Our Common Future", 1983).

As early as 2004, the environmental, social and governance criteria began to take on meaning, the appearance in the corporate environment started to increase, and the involvement in activity of ESG factors transformed business activity in an impressive way through various indicators, an indicator with a high degree of significance being the value of assets managed in accordance with the United Nations Principles for Responsible Investment registered a significant increase in the period 2010-2023, in the year 2010 it recorded a value of 21 trillion dollars, reaching a very significant value in the year 2023, of 123 trillion dollars (Tobias Schimanski, 2024).

For quite some time, decision makers and regulatory authorities worldwide have given high attention to sustainable development. The study of environmental, social and governance (ESG) has become a subject of major importance, becoming in the last 20 years a priority of companies all over the world. Some researchers state that economic resources can have a promotional effect on ESG, and financing constraints, representing a specific manifestation of corporative economic resources, can affect capital investments as well as corporate profits. Green financing policy can greatly affect the financing of enterprises with a strong impact on the environment, thus these entities being forced to modify their behavioral choices. By guiding the financing system and the entities to assume greater ecological responsibility, applying within the entities policies more focused on sustainable development, it can represent an effective way of managing resources and sustainable development (Shuitu Qian, 2024).

The innovation of an enterprise depends on a well-determined strategy, thus there are two types of strategies: exploration strategies and exploitation strategies. Exploration strategies are those through which market studies are carried out, the purchase of new equipment with much higher performance and other ideas that can improve the

operational flow in society. The exploitation strategy consists of continuing the old development ideas, bringing only minor improvements to the flow. Companies that rely on an exploration strategy today will win over those that use an exploitation strategy, because now only through an exploitation innovation can we be sustainable and companies can improve their own environmental policies (Wanyi Chen, 2023).

2. Research methodology

In order to analyze how much sustainability is presented in the Romanian banking sector, series of data and studies developed by various institutions and databases were analyzed such as: National Bank of Romania, European Central Bank, Eurostat, Bucharest Stock Exchange.

In the results and discussions part, quantitative and qualitative analyzes were carried out regarding the presence of sustainability in the Romanian banking sector through various interpretations of data presented in certain sustainability reports of banks operating in Romania, but also a series of financial and environmental indicators from the national banking sector. The most important source was the National Bank of Romania, which provided numerous data regarding the current state of the presence of sustainability in the banking sector in Romania, which in recent years has carried out various studies regarding the opening of banks to become more sustainable, both by offering green credits as well as by implementing the new global ESG concept.

3. Results and discussions

In the sustainable development reports prepared at the initiative of the UN, the SDG indicator (sustainable development goals) is identified, it tracks the progress made by the 193 UN member states in terms of the environmental objectives adopted in 2015. In 2023, Romania it was on the 35th place regarding the achievement of sustainable development objectives, an indicator that places us in a good place compared to other UN member states. The transition to a sustainable economy and the attempts to be more sustainable are reflected in the place Romania achieved in 2023, which shows that from the point of view of sustainable development, Romania is on the right track. At the EU level, in the report carried out by the UN, the first places are occupied by countries that are part of this alliance, the first three places being occupied by Finland, Sweden and Denmark (Sustainable Development Report, 2023).

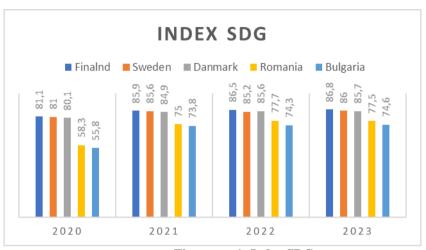


Figure no. 1: Index SDG

Source: The sustainability reports made at the initiative of the UN

It is observed that during the analyzed period, the indicator of achieving the sustainable development objectives for Romania improved, recording an increase of approximately 33% in 2023 compared to 2020. This indicator is also reflected in the economy, since most commercial companies after 2020 have begun to incorporate an environmental component. Of the 193 UN member states for which this index was calculated, the first places in 2023 are occupied by Finland, Sweden and Denmark, countries that have a high degree of implementation of the sustainable development objectives. In the period 2020-2023, Finland registerd an increase in the implementation index by 7.02%. Bulgaria, a country bordering Romania, recorded an increase in the SDG index by 33.69% in the period 2020-2023, an index which in 2023 is below that recorded by Romania, the difference being 2.9 points.

The following graph analyzed the contribution to the international commitment of USD 100 billion for climate-related expenses in the period 2014-2022 in Romania and at the level of the European Union. The indicator measures the expenditure from the annual budgets of the EU member states, the European Commission, as well as the European Investment Bank regarding the international commitment to finance investments related to sustainable development.

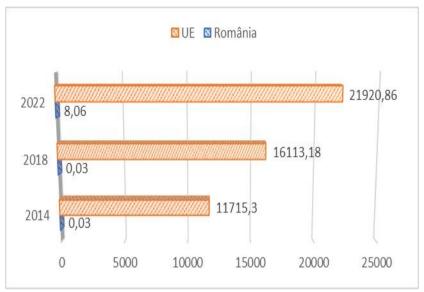


Figure no. 2: Contribution to the international 100bn USD commitment on climate related expending (million euro)

Source: Eurostat

The contribution to the international commitment of USD 100 billion for climate-related expenditure in the period 2014-2022 registered a significant increase, with Romania reaching from a contribution of 0.03 million euros in 2014 to an annual contribution of 8.06 million euros in 2022, which demonstrates Romania's intention regarding the transition to a green economy, an economy based on the reduction of greenhouse gases. In the European Union, the contribution to the international commitment registered an increase of 187.11% in 2022 compared to 2014, an increase that was influenced by the new environmental and climate policies aimed at sustainable development in all economic sectors by implementing solutions durable and efficient, much more environmentally friendly.

As for the EU Taxonomy, which is the basis of sustainability, it has a recent origin and is found in the Paris Agreement of 2015 and the Green Deal of the European Union. The taxonomy represents an action plan through which sustainable development is financed and which includes three clear objectives: the orientation of capital flows towards green investments, a risk management based on sustainability and the promotion of transparency in economic and financial activities (Deloitte, 2022). The taxonomy pursues six environmental objectives: mitigating climate change, adapting to climate change, sustainable consumption and protection of water and marine resources, transition to a green economy, enhancing pollution prevention and control, protecting and restoring biodiversity and natural ecosystems (REGULATION 852 EU, 2020)

In Romania, the first green bond issues took place in February 2024, this one lending approximately 4 billion euros in green bonds, targeting projects with a significant

impact on the environment according to the February 2024 press release issued by the Romanian Ministry of Finance. In the banking sector in Romania, the first bond issue by a commercial bank was in 2021, this perspective on sustainable investments through green bonds being just at the beginning. In Figure no. 3, the trend of green bonds at the level of the European Union in the period January 2021-January 2024 will be presented.

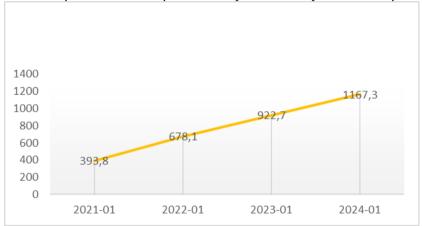


Figure no. 3: Euro area issuances of sustainable debt securities (billion euro)

Source: European Central Bank, own calculation

The graph above shows the issue of green bonds between January 2021 and January 2024 in the European Union, green bonds being necessary to ease the transition to a green economy but also to meet the objectives of the Paris Agreement. In the analyzed period, an increase of 296.41% is observed, an increase that demonstrates the fact that the transition to a green economy is being attempted through sustainable investments, friendly to the environment.

Next, the intention of Romanian credit institutions to invest in green bonds issued by governmental institutions or corporations will be presented, the data being collected from a survey created by the National Bank of Romania, the survey being completed by the 32 financial banking institutions in Romania. In the Romanian banking sector, the first issue of green bonds took place in 2021, Raiffeisen Bank is the commercial bank that started the issuance of green bonds in Romania, the European Bank for Reconstruction and Development (EBRD) investing approximately 11 million euros in the first issue of green bonds of Raiffeisen Bank.

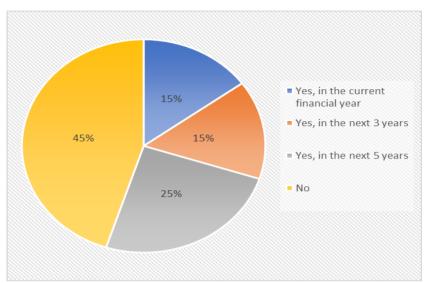


Figure no. 4: Intention of credit institutions to invest in green bonds issued by government institutions or corporations

Source: NBR, Survey on climate change: analysis of trends and preparedness of financial institutions, 2023

In the survey carried out by the National Bank of Romania in 2023, of the 32 respondents, 15% invested in the 2023 financial year in green bonds, 15% intend to invest in the next 3 years, 25% intend to invest in the next 5 years and 45% did not consider the investment in green bonds. In 2023, the trend of investments through green bonds were relatively new, most credit institutions have not implemented a sustainable development policy in the company, a fact that will make it difficult to transition to a green economy and achieve the environmental objectives of the 2030 Agenda.

In the following, the intentions of financial institutions in Romania for loans with social or environmental objectives other than those related to climate change will be analyzed using data from the survey carried out by the National Bank of Romania with the help of the 32 financial and banking institutions in 2023. Banks in Romania currently grants loans aimed at sustainable development such as: real estate loans for green homes, loans for green energy production, etc.

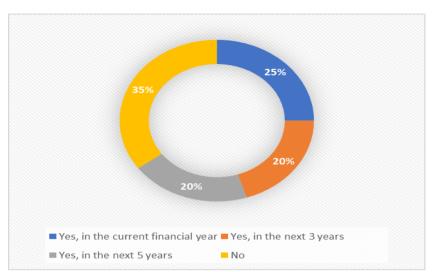


Figure no. 5: The intentions of financial institutions in Romania to grant loans with social or environmental objectives other than those related to climate change *Source:* NBR, Survey on climate change: analysis of trends and preparedness of financial institutions. 2023

In the survey carried out by the National Bank of Romania in 2023, of the 32 respondents, 25% grant loans with social or environmental objectives other than those related to climate change, 20% will grant green loans in the next 3 years, 20% will grant green credits in the next 5 years, and 35% have not considered the granting of green credits. Supporting businesses that want to grow sustainably, producing green energy, from renewable resources, both for their own consumption and to support the national economy is a growing trend in 2024 because alignment with the new European environmental and climate norms is the main pillar of development.

The Romanian banking sector is passing through a good period from the point of view of the main financial indicators and of banking prudence, despite the main global problems that have affected and continue to affect the economic and social environment. Starting with 2020, the banking sector has been tested with the onset of the COVID 19 pandemic, when financing activity and banking operations decreased amid the measures put in place to reduce the spread of the disease. Another very difficult test for the banking system was the beginning of the war between Ukraine and Russia in February 2022, as this war led to an increase in energy prices, turbulence in the financial markets and a decrease in the economies of the two warring countries (NBR, 2023).

A series of indicators of the Romanian banking system will be analyzed below, using data published on the website of the National Bank of Romania, for 2018-2023. In the Table no. 1, the risk indicators of the banking sector will be analyzed, this table also includes a series of prudence intervals established by the European Banking Authority (EBA), these being evaluated using the codes from Figure no. 6.

the best intermediate the most bad

Figure no. 6: The list with the significance of the codes used in Table no.1

Source: National Bank of Romania

Table no. 1. Risk indicators of the Romanian banking sector

Risk indicators	Prudential intervals established by the European Banking Authority	2018	2019	2020	2021	2022	September 2023	EU average
Solvency	n.a	20,71	22,00	25,14	23,32	23,40	22,30	20,00
The rate of non-performing loans	<3% [3%-8%] >8%	4,96	4,09	3,83	3,35	2,65	2,61	1,8
The degree of non-performing loans coverage with provisions	>55% [40%-55%] <40%	58,51	60,75	63,31	66,10	65,55	65,08	42,90
Loans/Deposits for the population and non-financial companies	<100% [100%- 150%] >150%	71,89	69,48	63,61	63,96	65,66	64,62	109,3
ROE (return on equity)	>10% [6%-10%] <6%	14,59	12,21	8,66	13,28	16,40	21,25	10,8

Source: National Bank of Romania

The solvency of the Romanian banking sector registered an increase in the period 2018 - September 2023 by 1.59 percentage points, reaching a solvency in September 2023 of 22.30%, above the average of the banking system of the European Union which registers a solvency of 20%. The increase in the indicator shows the fact that the Romanian banking system is increasingly solvent, managing to honour its debts in the medium and long term.

The rate of non-performing loans registered a drastic decrease in the analyzed period, reaching 2.61% in September 2023 from 4.96 in 2018, an indicator framed in 2022 and 2023 by the EBA as being the best. The reduction of the rate of non-performing loans is

an indicator of great interest for the banking system, it measures the quality of commercial banks' loan balances. The lower this indicator is, it means that the loan balance is problem-free, as the banks have performing loan portfolios without restructuring measures.

The degree of coverage of non-performing loans with provisions increased by 6.57% during the analyzed period, which meant that the banks set up sufficient provisions, which reduces the occurrence of difficulties. According to ABE, the indicator is considered to be the best, registering a value above 55% in the analyzed period.

Loans/Deposits for the population and non-financial companies registered a decrease in the analyzed period by 7.27%, the prudential interval established by the EBA in the analyzed period for this indicator being the best (<100%). The average of the indicator at the EU level is 109.3% being located in the range [100%-150%], the range being considered intermediate.

The return on equity of the Romanian banking sector is rated by the EBA as being the best throughout the analyzed period, except for 2020 when the rate of return on equity was 8.66%. As of September 2023, the rate of return was 21.25%, up 6.66% from 2018, showing that the banking system is efficient in using capital to generate income.

The Romanian banking system registers an increase in green lending, the balance of green loans in the period 2010-2020 registering a significant increase, a fact that shows that public and private institutions attach great importance to sustainable development. The table below will analyze the evolution of green loans granted by commercial banks in Romania as well as their destination.

Table no. 2. Green lending in the Romanian banking system

	2010	2013	2016	2020	
Total green bank loans to	49.282.304	1.129.498.238	2.760.556.688	5.205.956.854	
non-financial companies					
(Romanian leu)					
Share in total corporate	0,05	1,01	2,69	4,20	
loans (%)					
Structure of green corporate bank loans climate activity					
Renewable energy (%)	2,46	69,92	43,06	16,51	
Energy efficiency (%)	85,44	20,84	24,51	11,08	
Transport efficiency (%)	0,52	1,70	0,79	0,56	
Green buildings (%)	0,00	0,01	18,79	59,30	
Waste and water usage	2,02	5,94	12,10	9,40	
reduction (%)					
Financing for energy-	9,56	1,59	0,56	1,21	
efficient technologies (%)					
Financing for climate	0,00	0,01	0,20	1,94	
change adaptation (%)					

Source: NBR, NBR calculations

The total exposure of green bank loans to non-financial companies during the analyzed period shows a significant increase, in 2010 the value of the portfolio of green loans

registered an insignificant value, In 2020, the portfolio of green loans registered an increase of 188.58% compared to the year 2016 and by 460.90% compared to 2013. In 2010, the share of green loans in total loans to non-financial companies represented 0.05%, an indicator that increased to 4.20% in 2020, an increase based on the transition to a sustainable economy and by applying the environmental objectives of the 2030 Agenda. The portfolio of green loans consists of loans with various destinations: renewable energy, energy efficiency, efficient transport, green buildings, waste and wastewater reduction, financing for energy efficient technologies, financing for adaptation to climate change. It is observed that in total green credits in the period 2010-2020 there are changes depending on the destination in terms of the share in total green credits. In 2010, renewable energy represented 2.46% of total green credits, an indicator that reached a weight of 69.92% in 2013, and will decrease to 16.51% in 2020 of total green credits.

In 2010, the balance of credits with energy efficient destination in 2010 represented 85.44% of total green credits and will decrease to 11.08% in 2020. In 2020, the largest share in total green loans was the loans intended for the purchase or construction of green buildings, amounting to 59.30%, this destination increasing according to the analysis carried out after 2016 when the Romanian banking sector began to aim for sustainable development of the activity. Currently, green lending is a nascent market with high potential, with banks having a role to play in raising awareness of the implications of climate risk.

The banking financial system works as a factor that brings changes in the orientation of funds in the economy, thus in the context of the new ESG priorities, increasingly regulated in the context of a much greener economy, the mission to orient and monitor capital towards a sustainable development of the economic sector according to the new regulations from the 2030 Agenda, and the objectives within it aimed at the transition to an economy with low carbon emissions. Recently, a series of regulations of the European Commission, the European Central Bank and the European Banking Authority have appeared with numerous demands that refer to the banking system in Romania, for the purpose of technology and the market which is in constant change. In Romania, the banking community promotes the development of the economy by increasing financial inclusion, increasing financial intermediation on a sustainable basis and reducing risks. Romanian banking institutions have a key role in guiding companies towards a green economy and support financing by creating green products and by implementing an action plan aimed at sustainable financing, promising a series of important steps in this regard:

- identifying and promoting sustainable financing;
- the implementation of green products within commercial banks or the adaptation of existing products by integrating ESG criteria;
- -incorporation of ESG factors into the lending decision;
- the development of internal procedures to incorporate analysis of environmental, social, governance risks, as well as climate risks

The banking sector in Romania is prepared to align its loan portfolios with the objectives of the European Union by identifying and managing risks and integrating

ESG factors into governance and risk components (Romanian Banks Association, 2022).

In Figure no. 7 the ESG factors in the Romanian banking system were presented, using datas available on ESG reporting Guide developed by the Bucharest Stock Exchange.

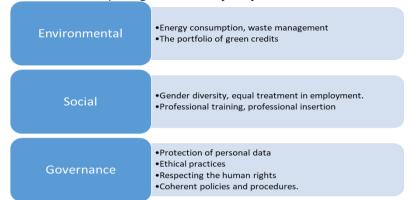


Figure no. 7: ESG factors in the Romanian banking system

Source: Own analysis with the help of the ESG reporting Guide developed by the Bucharest Stock Exchange

In the Table no.3, the risks and opportunities of ESG application have been identified following some research in the Romanian banking market, of the sustainability reports from various years of the commercial banks in Romania. An attempt was made to synthesize and highlight, from the point of view of risk management, operational performance and reputational risk, the main opportunities and risks through the application of ESG.

Table no. 3. The risks and opportunities of applying ESG in the Romanian banking system

Categories	Risks	Opportunities		
Risk management	-sanctions for non-	-keeping values		
	compliance with the	-consistency in terms of		
	legislation in force	operational processes		
	-a decrease in lending and	-good long-term investment		
	loan balances	planning		
	-the implementation of green	-an increase in the quality of		
	products that have the risk of	commercial banks' assets		
	not working in the Romanian	-a decrease in non-		
	market	performing loans		
		-an increase in the solvency		
		indicator		
		-access to green loan		
Operational	-high costs resulting from	-cost savings achieved		
performance	operational inefficiency	through energy efficiency		

	-instability among the staff	and good management of resources and materials -much greater operational resilience -staff alignment with the new environmental, social and governance requirements
Reputation	-loss of certain customers due to high criteria	-a good image in the market -matching the banking sector with the new European environmental and climate norms

Source: own processing from the Sustainability Reports of commercial banks in Romania

At the end of the study, through the prism of those analyzed above, a series of proposals will be formulated regarding the implementation of the sustainable development component by commercial banks in Romania, as follows:

- selective collection of waste in central offices and bank branches;
- carrying out the activity in green buildings;
- -volunteering in environmental activities, green partnerships and the development of educational programs involving a sustainability component;
- increasing the expertise of internal departments in the analysis of non-financial risks, ESG
- the implementation of sustainable lending rules, having the effect of increasing green financing and increasing the portfolio of green loans in Romania.

Abbreviations and acronyms

ABE – European Banking Authority

BERD - European Bank for Reconstruction and Development

CE – European Commission

ESG - Environmental policies, sustainability and governance

NBR - National Bank of Romania

ONU - United Nations Organization

ROE – Return on equity

SDG – The objectives of sustainable development.

UE – European Union

WCED - World Commission on Environment and Development

Conclusions

In Romania, the SDG indicator (sustainable development goals) registered an increase of approximately 33% in 2023 compared to 2020, the period analyzed in the study being 2020-2023. In 2023, Romania occupied the 35th place out of a total of 193. This demonstrates the fact that Romania is becoming more and more sustainable from year to

year, managing to achieve its environmental objectives with the help of the business environment and the stable.

Romania's contribution to the international commitment of USD 100 billion on climate spending has seen a significant increase in the period 2014-2022, with Romania's contribution reaching from 0.03 million euros in 2014 to 8.06 million euros in 2022, showing the interest increasingly fierce of Romania towards sustainable development.

At the level of the European Union, between January 2021 and January 2024, the issuance of green bonds increased by 296%, a situation positively influenced by the 2030 AGENDA and the 17 environmental objectives aimed at the transition to a sustainable economy.

The rate of non-performing loans in the Romanian banking sector, recorded a decrease of 47% in September 2023 compared to 2018. In September 2023, the Romanian banking sector recorded a rate of non-performing loans of 2.61% compared to the EU average of 1.8%. The decrease of the indicator being influenced by the improvement of the client portfolio, the main premise being the application of ESG factors.

The total exposure of green bank loans to non-financial companies during the analyzed period shows a significant increase, in 2010 the value of the portfolio of green loans registered an insignificant value, In 2020, the portfolio of green loans registered an increase of 188.58% compared to the year 2016 and by 460.90% compared to 2013. In 2010, the share of green loans in total loans to non-financial companies represented 0.05%, an indicator that increased to 4.20% in 2020, an increase based on the transition to a sustainable economy and by applying the environmental objectives of the 2030 Agenda.

The Romanian banking sector still records insufficiently in terms of the sustainable development of the sector, the vast majority of commercial banks have not implemented a sustainable development component and according to the survey carried out by the BNR, they do not take into account these sustainable development activities in the future.

References

- [1] Bucharest Stock Exchange, 2022. ESG reporting guide.https://bvb.ro/info/Rapoarte/Ghiduri/Ghid privind raportarea ESG.pdf
- [2] Deloitte Romania, 2022. EU taxonomy the cornerstone of the revolution in sustainability. https://www2.deloitte.com/ro/pages/about-deloitte/articles/taxonomia-ue-piatra-de-temelie-revolutiei-sustenabilitate.html
- [3] Department for Sustainable Development General Secretariat of the Government, 2022. Strategy regarding the Circular Economy of Romania
- [4] European Commission, 2020. Press release,, Commission sets more ambitious climate targets and proposes 55% reduction in emissions by 2030". https://ec.europa.eu/commission/presscorner/detail/ro/ip_20_1599
- [5] European Parliament, 2023. Social Climate Fund: Parliament's ideas for a just energy transition.
- [6] Mukherjee, A., Babu, S.S. & Ghosh, S., 2020. *Thinking about water and air to attain Sustainable Development Goals during times of COVID-19 Pandemic*. J Earth Syst Sci 129, 180. https://doi.org/10.1007/s12040-020-01475-0

[7] National Bank of Romania, 2023. Financial stability report December 2023. https://www.bnr.ro/Raportul-asupra-stabilita%C8%9Bii-financiare---decembrie-2023-27333.aspx

- [8] National Committee for Macroprudential Oversight, 2021. *Analysis of the NCMO Working Group on supporting green finance*. https://www.cnsmro.ro/res/ups/Summary-Report-NCMO-green-finance.pdf
- [9] NGFS-INSPIRE, 2022. Central banking and supervision in the biosphere: An agenda for action on biodiversity loss, financial risk and system stability Final Report of the NGFS-INSPIRE Study Group on Biodiversity and Financial Stability. NGFS Occasional Paper
- [10] REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, 2020. Establishing a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088. https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8">https://eur-lex.europa.eu/legal-content/RO/LSU/?uri=CELEX:32020R0852#:~:text=Regulamentul%20%C3%AE%C8
- [11] Romanian Association of Banks, 2022. ESG and the Banking Community in Romania. https://www.arb.ro/wp-content/uploads/Material-informativ-ESG_banci-11102022.pdf
- [12] Romanian Ministry of Finance, 2024. Press release dated 22.02.2024. https://mfinante.gov.ro/presa-comunicate-de-presa
- [13] Shuitu Qian, Wenzhe Yu, 2024. Green finance and environmental, social, and governance performance
- [14] Sustainable Development Report, 2023. Implementing the SDG Stimulus
- [15] The Brundtland Report "Our Common Future", 1983. Report World Commission and Development (WCED), Chaired by Gro Harlem Brundtland
- [16] Tobias Schimanski, Andrin Reding, Nico Reding, Julia Bingler, Mathias Kraus, Markus Leippold, 2024. Bridging the gap in ESG measurement: Using NLP to quantify environmental, social, and governance communication
- [17] Van Toor, J., D. Piljic, G. Schellekens, M. van Oorschot, and M. Kok,. 2020. *Indebted to Nature: Exploring Biodiversity Risks for the Dutch Financial Sector*
- [18] Wanyi Chen, Yuchuan Xie, Kang He,. 2023. Environmental, Social, and Governance Performance and Corporate Innovation Novelty
- [19] WEF (World Economic Forum), 2020. Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy. Geneva: WEF.
- [20] World Bank Group, 2023. Country Climate and Development Report for Romania