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ASSESSMENT AND DEVELOPMENT PROSPECTS OF THE GREEN BOND MARKET IN RUSSIA

AVALIAÇÃO E PERSPECTIVAS DE DESENVOLVIMENTO DO MERCADO DE TÍTULOS VERDES NA RÚSSIA

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Abstract: An analysis of the dynamics of the green bond market development indicators is presented in this article. The analysis was carried out in the sectoral context based on data from the Russian green bond market. The authors assessed the development potential of the Russian green bond market. The assessment was carried out with the aim of achieving the market's target indicators in the field of ESG-orientation. The analyzed data showed that while the Russian green bond market is still relatively small, there is significant potential for growth in the coming years, driven by increasing demand from investors and a growing pipeline of potential issuers. The bigger potential for the development of the green bond market in Russia showed the Utility sector which may become the driving force of the market next years.

Keywords: Green bonds. Sustainable development. Financial market capacity.

Resumo: Uma análise da dinâmica dos indicadores de desenvolvimento do mercado de títulos verdes é apresentada neste artigo. A análise foi realizada no contexto setorial com base em dados do mercado russo de títulos verdes. Os autores avaliaram o potencial de desenvolvimento do mercado de títulos verdes da Rússia. A avaliação foi realizada com o objetivo de atingir os indicadores-alvo do mercado no campo da orientação da ESG. Os dados analisados mostraram que, embora o mercado russo de títulos verdes ainda seja relativamente pequeno, existe um potencial significativo de crescimento nos próximos anos, impulsionado pela crescente demanda dos investidores e por um pipeline crescente de emissores potenciais. O maior potencial para o desenvolvimento do mercado de títulos verdes na Rússia mostrou o setor de serviços públicos que pode se tornar a força motriz do mercado nos próximos anos.

Palavras-chave: Títulos verdes. Desenvolvimento sustentável. Capacidade do mercado financeiro.

1. INTRODUCTION

The processes of transformation of the financial sector are continuous in the current market conditions. This is reflected in the reports of international organizations: for example, the European Bank (2021), as well as in the works of foreign authors. The study by Fotis Kitsios, Ioannis Giatsidis, Maria Kamariotou (2021) is devoted to the analysis of the banking sector, taking into account its digitalization based on internal growth factors. A team of authors Erik Feyen, Jon Frost, Leonardo Gambacorta, Harish Natarajan and Matthew Saal (2021) analyze external factors and their impact on the digitalization of the banking sector. From the perspective of a functional approach, reflected in Valdonė Darškuvienė (2010), financial markets facilitate the movement of funds to finance investments by corporate entities, governments and individuals.

Currently, the processes driven by ESG-orientation are associated with the implementation of investment decisions used as one of the sources of financing green bonds. According to the study by R. Boffo and R. Patalano (2020), asset growth is the result of its management, and includes elements of an ESG orientation. Such growth in the last decade was an exponential relationship. According to the study of the authors, the share of ESG-oriented investments in some countries amounted to more than 20% of the total value of professionally managed assets.

Authors Michela Scatigna, Dora Xia, Anna Zabai and Omar Zulaica (2021) in their study assign the role of the financial market as a tool for facilitating the transition to a more sustainable and "fair" economy. The reason for this is the impact on the cost of funding sources. In addition, the authors describe the relationship between investment decision making and general trends in climate change issues, growing concern about social problems, leading, on the one hand, to an increase in environmental costs, and, on the other hand, to social inequality. Authors Fabrizio Crespi and Milena Migliavacca (2020) conducted a fairly extensive study on the degree of influence of the ESG orientation of 727 financial companies operating in 22 countries. The study was conducted on the basis of panel data for the period from 2006 to 2017. The results of the analysis generally show a linear growth trend. The Report (International Capital Market Association (ICMA), 2021) provides a classification of "green bonds":

- Standard Green Use of Proceeds Bond,

- Green Revenue Bond,
- Green Project Bond,
- Green Securitised Bond.

This type of bonds acts as a source of financing for projects characterized by an ESG orientation. In the GB Report, the authors O. Weber and V. Saravade (2019) analyze the dynamics of green bond issues in different countries. In their report, the authors consider the issue of the prospects for regulation of elements that reflect the state of the environment and the degree of social efficiency on the part of financial regulators. According to the authors, at present, national and regional financial regulators monitor only financial risks in relation to goods characterized by an ESG orientation.

At the same time, H. Velloso (2017) and other authors highlight green bonds in their report as a tool that contributes to the development of the lagging infrastructure of the national (regional) economy of a particular territory, not excluding the unification of the interests of private and institutional investors, for example, the Pension Fund.

Among the Russian authors covering the development of the electric power industry in the context of the transformation of the national economy, the following authors can be distinguished: P.A. Belkin, N.P. Posmakov, N.S. Rostovsky (2020), D.V. Berdnikov (2020), Yu. Turovets, L. Proskuryakova, A. Starodubtseva, V. Bianko (2021), N.D. Rogalev (2021) and others.

2. MATERIALS AND METHODS

The information and analytical sources for the formation of the base of the study are legal acts, statistical data of the Federal State Statistics Service of the Russian Federation (n.d.) on the development of the green bond market. In addition, data for 2022 on the development of the green bond market in various sectors of the Russian economy were used. The data of the information and analytical terminal CBonds were used. The paper presents the results of research by authors on the prospects for the development of the green bond market as a tool for the development of individual territories (regions), and the national economy as a whole.

3. RESULTS AND DISCUSSION

Today, the green bond market in the Russian Federation is represented by companies operating in such sectors of the economy as: electric power, chemical and petrochemical industry, financial sector (banks), institutional investors (development institutions and government agencies), construction (buildings), mechanical engineering and instrumentation, transport (railway transport) and logistics structures (transportation by land transport), as well as waste disposal. The total volume of placement in 2022 amounted to USD 5.44 billion. The distribution of companies depending on the volume of placement is shown in Figure 1.

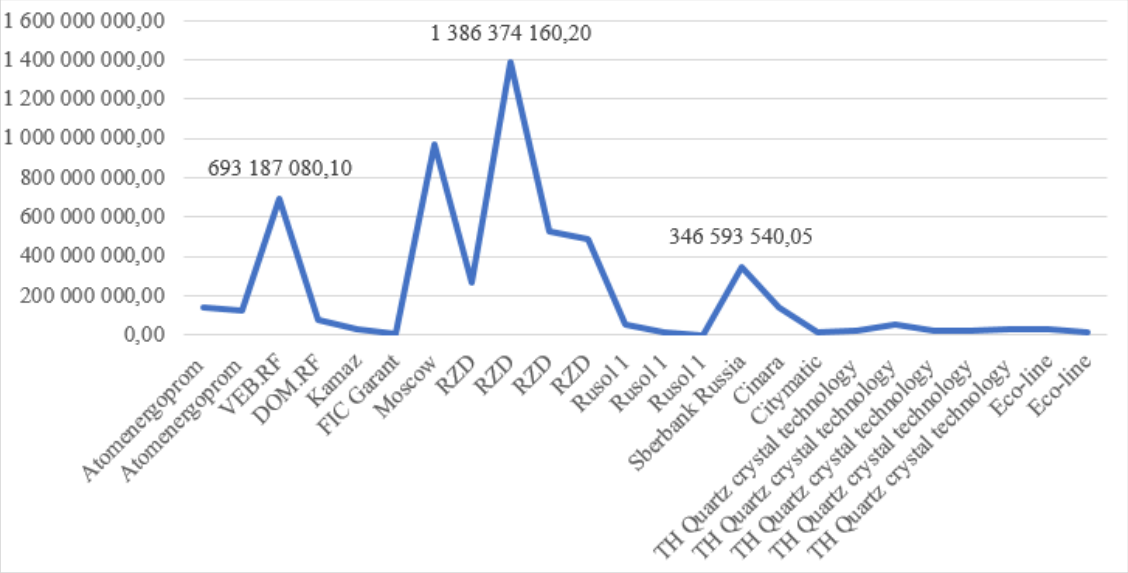


Figure 1. The volume of placement of green bond issues by economic entities of the Russian Federation, USD, 2022

(Compiled by the authors based on site data https://cbonds.ru)

If we distribute the data of issuers taking into account their industry affiliation, we can conclude that the largest volume of issue belongs to the railway transport and the financial sector of the Russian Federation. It is reflected in Figure 2.

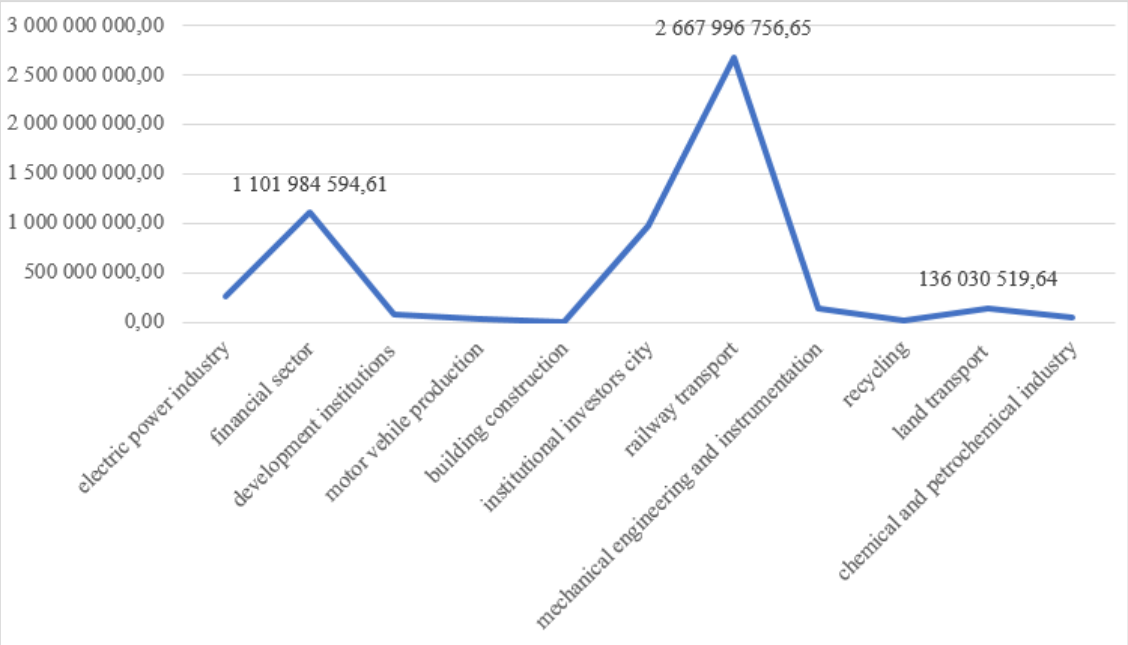


Figure 2. Distribution of green bond issues of economic entities of the Russian Federation by industry, USD

(Compiled by the authors based on site data https://cbonds.ru)

In terms of shares, the distribution of green bond issues by industry is shown in Figure 3.

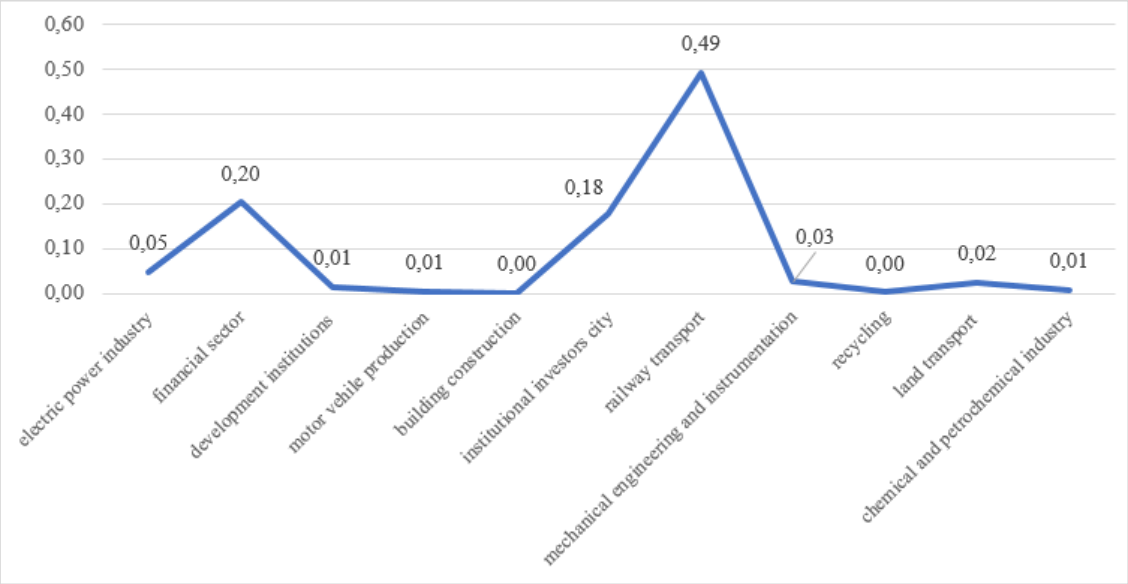


Figure 3. Distribution of green bond issues of economic entities of the Russian Federation by industry in share ratio, USD

(Compiled by the authors based on site data https://cbonds.ru)

According to Figure 3, we can conclude that industries are represented unevenly, but their range is quite wide. Today, we can talk about positive trends in the development of such a block of the financial market as the green bond market. At the same time, green bonds are categorized as debt financing. The issuance of any bonds correlates with the ability of the company to increase the share of debt financing in the total amount of capital (Information is shown in Figure 4. Numbers in parentheses indicate the number of companies analyzed in each sector of the economy.).

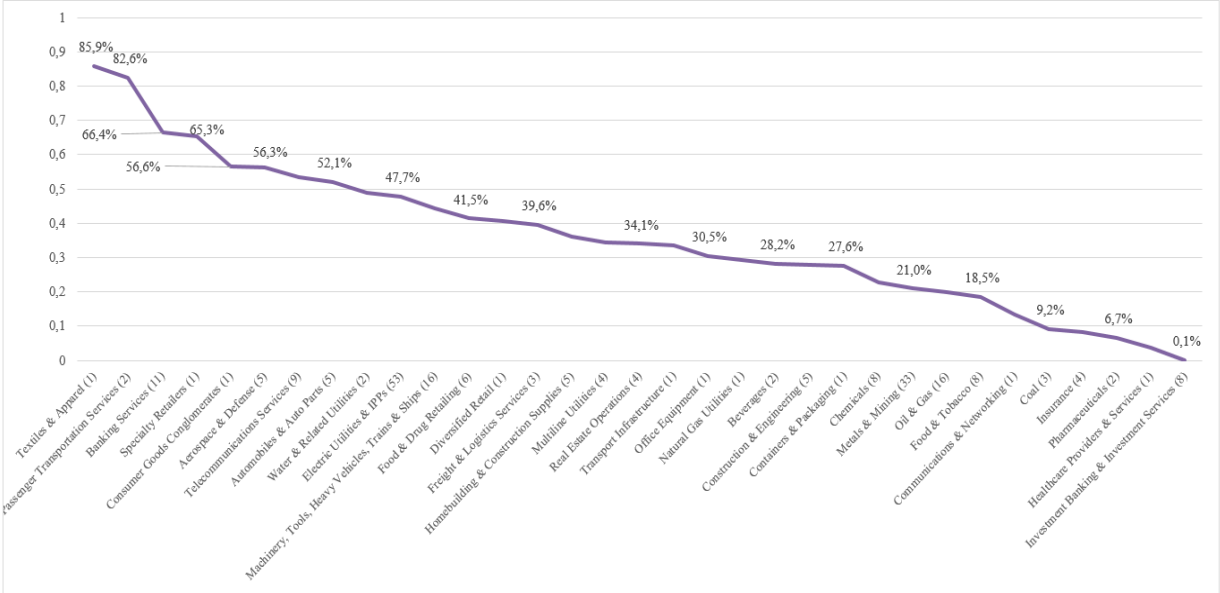


Figure 4. Debt-to-value ratio of Russian companies (average for the industry), 2021 (Compiled by the authors based on data from the Refinitive information and analytical terminal)

For example, the chemical industry, on average, is characterized by a ratio of debt financing to the total value of the company that does not exceed 23%. An important point is that the capital structure of Russian companies in the average version does not change over a long period, which, on the one hand, can act as a hidden factor that makes it possible for companies to issue green bonds without risking their credit rating. The dynamics of the D/EV indicator of Russian companies in various industries is shown in Figures 5-7.

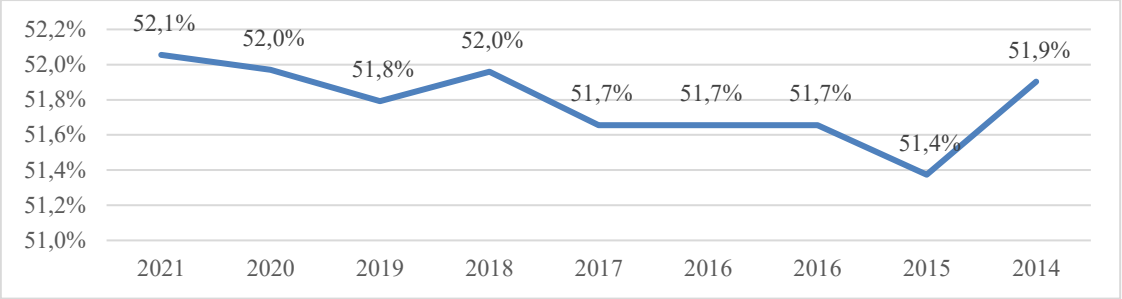


Figure 5. Dynamics of the D/EV indicator of the industry for the production of cars and auto parts of the Russian Federation for the period 2014-2021, %

(Compiled by the authors based on data from the Refinitive information and analytical terminal)

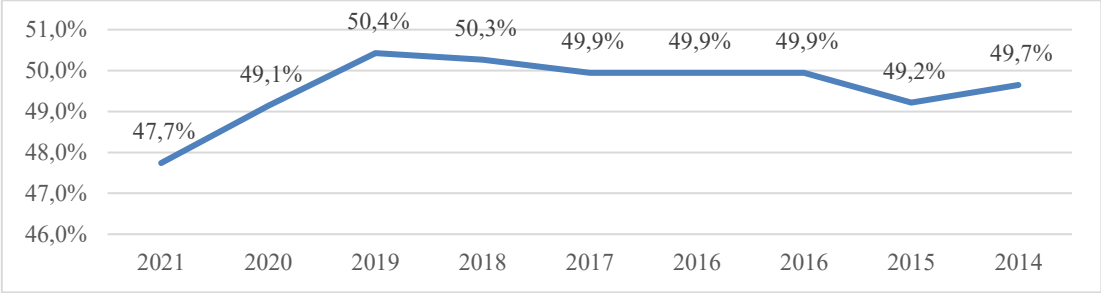


Figure 6. Dynamics of the average D / EV indicator of the electric power industry of the Russian Federation for the period 2014-2021, %

(Compiled by the authors based on data from the Refinitive information and analytical terminal)

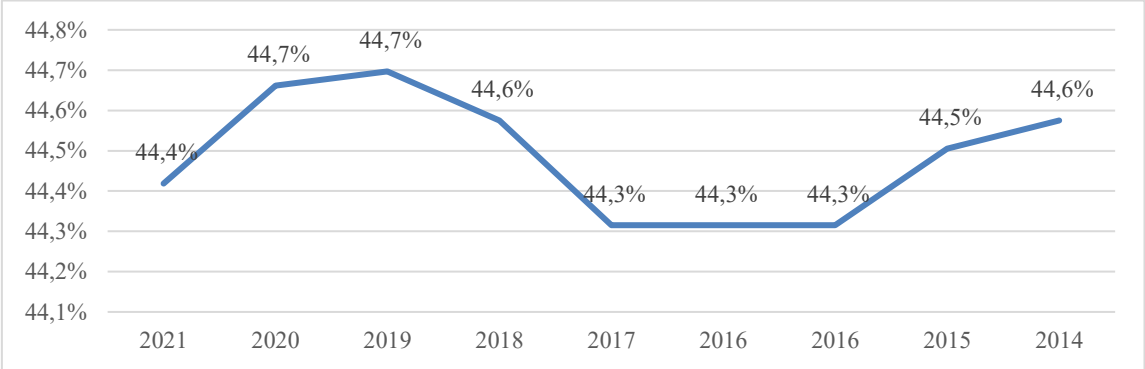


Figure 7. Dynamics of the average D/EV indicator of the engineering industry of the Russian Federation for the period 2014-2021, %

(Compiled by the authors based on data from the Refinitive information and analytical terminal)

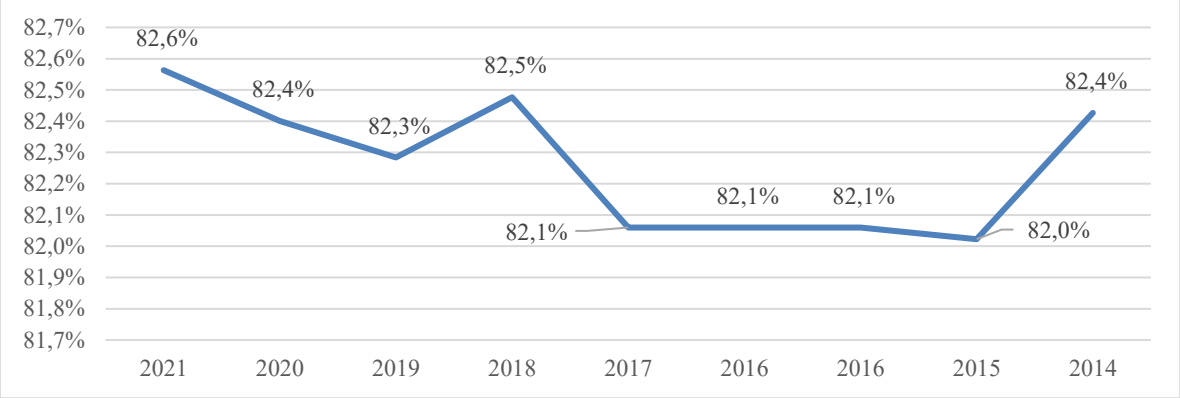


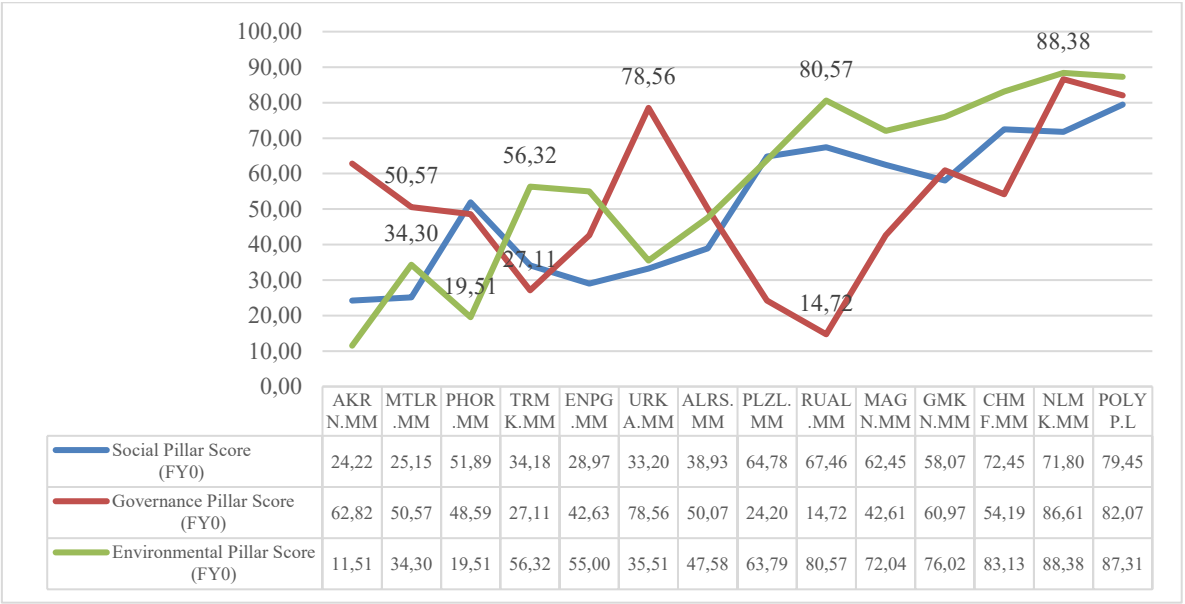
Figure 8. Dynamics of the D / EV indicator in the passenger transportation services sector of the Russian Federation for the period 2014-2021, %

(Compiled by the authors based on data from the Refinitive information and analytical terminal)

As we can see, according to the data in Figures 5-7, the average D / EV varies in the general range from 44% to 53% for the period 2014-2021.

The development of the green bond market takes place as a part of the achievement by business entities of a certain level of ESG orientation. According to the data of the Refinitive terminal, data on the ESG orientation of companies consists of the following evaluation indicators:

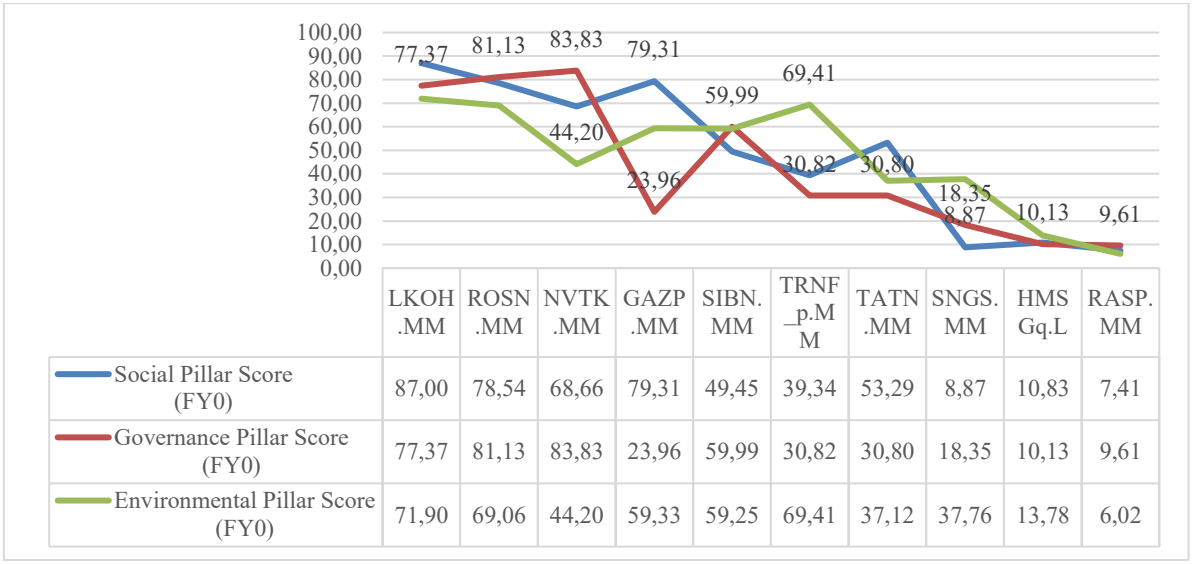
- Social pillar score;
- Governance pillar score;
- Environmental pillar score.



	AKR N.MM	MTLR .MM	PHOR .MM	TRM K.MM	ENPG .MM	URK A.MM	ALRS. MM	PLZL. MM	RUAL .MM	MAG N.MM	GMK N.MM	CHM F.MM	NLM K.MM	POLY P.L
Social Pillar Score (FY0)	24,22	25,15	51,89	34,18	28,97	33,20	38,93	64,78	67,46	62,45	58,07	72,45	71,80	79,45
Governance Pillar Score (FY0)	62,82	50,57	48,59	27,11	42,63	78,56	50,07	24,20	14,72	42,61	60,97	54,19	86,61	82,07
Environmental Pillar Score (FY0)	11,51	34,30	19,51	56,32	55,00	35,51	47,58	63,79	80,57	72,04	76,02	83,13	88,38	87,31

Figure 9. Indicators for assessing the ESG orientation of Russian companies in the Basic materials sector, 2021, %

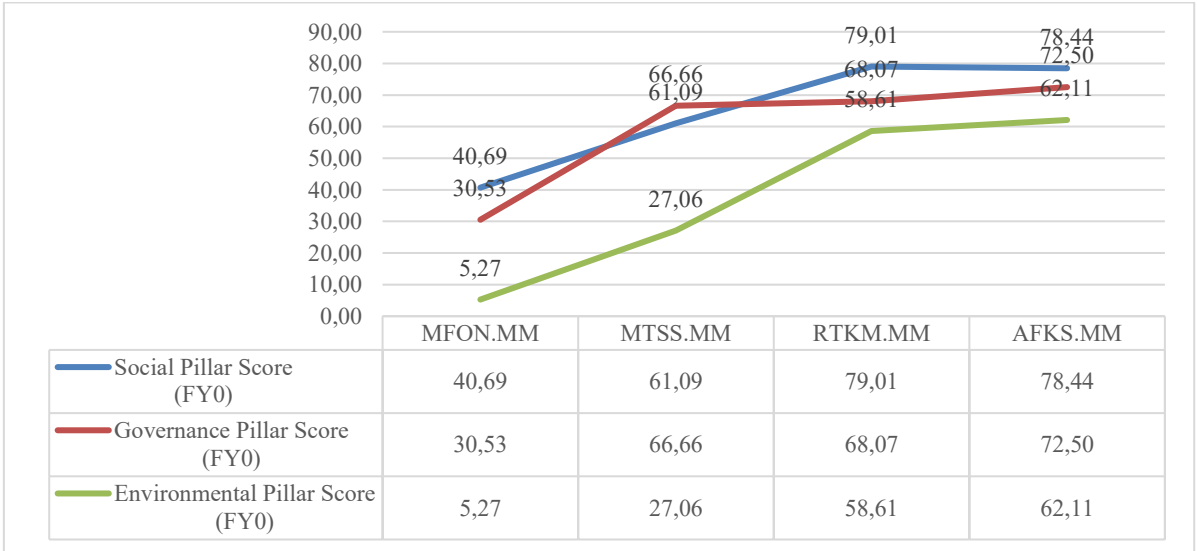
(compiled by the authors based on data from the Refinitive information and analytical terminal)



	LKOH .MM	ROSN .MM	NVTK .MM	GAZP .MM	SIBN. MM	TRNF _p.M M	TATN .MM	SNGS. MM	HMS Gq.L	RASP. MM
Social Pillar Score (FY0)	87,00	78,54	68,66	79,31	49,45	39,34	53,29	8,87	10,83	7,41
Governance Pillar Score (FY0)	77,37	81,13	83,83	23,96	59,99	30,82	30,80	18,35	10,13	9,61
Environmental Pillar Score (FY0)	71,90	69,06	44,20	59,33	59,25	69,41	37,12	37,76	13,78	6,02

Figure 10. Indicators for assessing the ESG orientation of Russian companies in the Energy sector, 2021, %

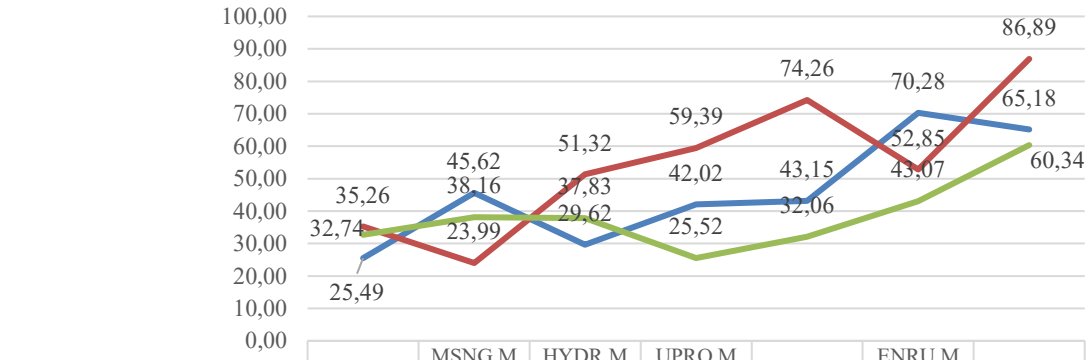
(Compiled by the authors based on data from the Refinitive information and analytical terminal)



	MFON.MM	MTSS.MM	RTKM.MM	AFKS.MM
Social Pillar Score (FY0)	40,69	61,09	79,01	78,44
Governance Pillar Score (FY0)	30,53	66,66	68,07	72,50
Environmental Pillar Score (FY0)	5,27	27,06	58,61	62,11

Figure 11. Indicators for assessing the ESG orientation of Russian companies in the Technology sector, 2021, %

(Compiled by the authors based on data from the Refinitive information and analytical terminal)



	RSTI.MM	MSNG.MM	HYDR.MM	UPRO.MM	FEES.MM	ENRU.MM	IRAO.MM
Social Pillar Score (FY0)	25,49	45,62	29,62	42,02	43,15	70,28	65,18
Governance Pillar Score (FY0)	35,26	23,99	51,32	59,39	74,26	52,85	86,89
Environmental Pillar Score (FY0)	32,74	38,16	37,83	25,52	32,06	43,07	60,34

Figure 12. Indicators for assessing the ESG orientation of Russian companies in the Utilities sector, 2021, %

(Compiled by the authors based on data from the Refinitive information and analytical terminal)

The Environmental pillar score indicator can be singled out as an indicator that characterizes the opportunities for the development of the green bond market. In the Basic materials sector, the range of variation of this indicator is quite wide: 19.51-88.38 for the selected set of companies, according to Figure 9. But in the Energy sector, the range of this indicator is quite lower: 9.61-71.9, according to Figure 10. In the Technology sector, the range of variation of the indicator is: 5.27-62.11, according to Figure 11. Among the sectors of the economy, the highest indicators are observed in the Utilities sector: 32.74-60.34, which is shown in Figure 12 and can be singled out as a driving force for the development of the green bond market in environmental sector of the economy.

The Utilities sector often scores highly in ESG ratings because of the nature of its business operations. Utilities companies provide essential services such as electricity, gas, and water, which are crucial for society and the economy to function. As a result, there is a high level of scrutiny on the environmental and social impact of Utilities companies.

In addition, Utilities companies often have well-established governance structures and policies to ensure compliance with regulatory requirements and to manage risk effectively. This can include measures such as board diversity, executive compensation, and risk management policies. However, it is important to note that individual companies

within the sector may have varying ESG performance, and investors should conduct their own analysis to assess the specific ESG risks and opportunities of each company.

Green bonds provide Utilities companies with an opportunity to raise funds for environmental and social projects, such as renewable energy projects or energy-efficient buildings. By issuing green bonds, Utilities companies can tap into a growing pool of investors who are interested in supporting ESG-oriented investments. This can help to reduce the cost of capital for these projects and support the transition to a more sustainable energy system. There have been several high-profile green bond issuances by Utilities companies in recent years. For example, in 2022, Spanish energy company Iberdrola issued a €1.5 billion green bond to finance renewable energy projects (Iberdrola, 2022), while Italian energy company Enel issued a €3.25 billion green bond to finance renewable energy and energy efficiency projects (Murdoch, 2021).

4. CONCLUSION

The green bond market in Russia is still in its early stages of development, but it has significant potential for growth in the coming years. According to a report by the Climate Bonds Initiative, Russia's green bond market is small but growing. In 2021, the total issuance of green bonds in Russia was approximately $1.6 billion, compared to $578.4 billion globally (Climate Bonds Initiative, n.d.). However, the report notes that there is a strong pipeline of potential green bond issuers in Russia, including government-owned companies and financial institutions (Climate Bonds Initiative, 2021).

One factor that may drive growth in the Russian green bond market is increasing demand from investors for ESG-oriented investments. In recent years, there has been a growing interest among investors in incorporating ESG factors into their investment decisions, and this trend is expected to continue. The Russian government has also signaled its support for sustainable finance, with the Central Bank of Russia launching a sustainable finance roadmap in 2020 (The Central Bank of the Russian Federation, 2021).

Another factor that may support the development of the Russian green bond market is the country's significant potential for renewable energy. Russia has vast reserves of wind, solar, and hydropower resources, and the government has set targets for increasing the share of renewable energy in the country's energy mix. Financing renewable energy projects through green bonds could help to accelerate the transition to a more

sustainable energy system.

In recent years, there has been a growing interest in environmental, social, and governance (ESG) factors among investors and companies. ESG-oriented investing aims to incorporate these factors into investment decision-making, with the goal of achieving better long-term financial outcomes while also promoting sustainability and social responsibility. Overall, there are many different indicators that investors and companies may use to assess ESG orientation, and the specific indicators used may vary depending on the industry and investment strategy.

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