Theoretical and Applied Economics
Volume XXXI (2024), No. 2(639), Summer, pp. 269-278

ESG Global Score Indicator – The new sovereign rating Case study – European Union

Ana Maria (MĂRĂȘESCU) NECULA
Bucharest University of Economic Studies
neculaanamaria@yahoo.com

Abstract. *For the last period of time, the most important ratings were issues based on the analysis of some financial indicators calculated mostly on the basis of accurate financial data. But times have changed and the aspects regarding environmental, social and governance (ESG) indicators are becoming more important every day. This article presents the evolution of ESG ratings, specifically the ESG Global Score Indicator regarding sovereign risk analysis for the states of the European Union.*

Keywords: ESG, ratings, gross domestic product.

JEL Classification: E02, G01, G20.

1. Introduction

The analysis in this paper is based on ESG Global Score Indicator issued by Beyond Rating SAS, which is part of London Stock Exchange Group (LSEG)[(1)]. Beyond Ratings operates as a research and advisory platform. The Company offers new financial analysis standards that systematically and transparently incorporate environmental, social, and governance (ESG) criteria into credit risk analysis[(2)]. Also, this paper presents sovereign ratings issued by the most three important credit rating agencies (also called "Big Three": Standard & Poor's, Moody's Investor Services and Fitch Ratings). The analysis is for the EU countries and refers to ESG Global Score Indicator, Sovereign Ratings and the level of GDP and GDP/capita in the EU countries collected from the Eurostat databases.

Credit rating agencies issue their opinions (ratings) with the role to evaluate in an objective and independent way creditworthiness of the issuers (countries, companies, etc.). Credit ratings are forward-looking opinions about the ability and willingness of debt issuers, like corporations or governments, to meet their financial obligations on time and in full[(3)]. The credit rating agencies use their own rating methodologies in forming and publishing their opinions and their analyses are mostly based on financial and performance indicators calculated using exact data recorded by the analysed entities. Credit rating agencies play an important economic role: they support the debt market in providing reliable information about the risks of default of an issuer or a type of debt (E. Bouye, D. Menville, 2021).

The term "ESG" made its first appearance in a 2004 UN report[(4)], but it was not until the 2020s that ESG emerged as a much more important indicator. Now ESG evolved into a comprehensive framework that includes key elements around environmental and social impact, as well as governance structures. ESG factors have an impact at both macroeconomic and microeconomic levels.

According to World Bank[(5)], the 3 pillars of Sovereign ESG Data Framework (environmental, social, and governance) are being explained as follows:

1) The *Environment* pillar measures the sustainability of a country's economic performance given its natural resource endowment, management, its risk or resilience to climate change and other natural hazards. It pays particular attention to the internalization of environmental externalities created by economic activity. It also accounts for sustainable energy access and food security, crucial factors for stable long-term economic growth. The important factors in evaluating this aspect are:

- Emissions & pollution (for ex.: CO_2 emissions - metric tons per capita);
- Energy use & security (for ex.: Electricity production from coal sources - % of total);
- Climate risk & resilience (for ex.: Population density - people per sq. km of land area);
- Food Security (for ex.: Agricultural land - % of land area);
- Natural capital endowment & management (for ex.: Forest area - % of land area, Terrestrial and marine protected areas - % of total territorial area).

2) The *Social* pillar quantifies the sustainability of a country's economic performance with regard to its efficacy in meeting the basic needs of its population, reducing poverty, managing of social and equity issues and investing in human capital and productivity. This category also includes demographic criteria, pertinent to stable long-term economic growth. The important factors in evaluating this aspect are:

- Access to Services (for ex.: Access to electricity, water, sanitation services - % of population);
- Demography (for ex.: Fertility rate);
- Education & skills (for ex.: Government expenditure on education - % of government expenditure);
- Employment (for ex.: Labor force participation rate - % of total population ages 15-64);
- Health & Nutrition (for ex.: Cause of death, Mortality rate, under-5 per 1.000 live births);
- Poverty & Inequality (for ex.: Poverty headcount ratio at national poverty lines - % of population).

3) The *Governance* pillar describes the sustainability of a country's economic performance in the context of its institutional capacity to support long-term stability, growth and poverty reduction. This category also accounts for the strength of a country's political, financial and legal systems and capacity to address environmental and social risks. The important factors in evaluating this aspect are:

- Economic Environment (for ex.: GDP growth - annual %);
- Gender (for ex: Proportion of seats held by women in national parliaments-%);
- Government Effectiveness (for ex.: Regulatory Quality);
- Human Rights (for ex.: Strength of legal rights index: 0=weak to 12=strong);
- Innovation (for ex.: Patent applications by residents, Scientific and technical journal articles);
- Stability & Rule of Law (for ex.: Control of Corruption, Net migration).

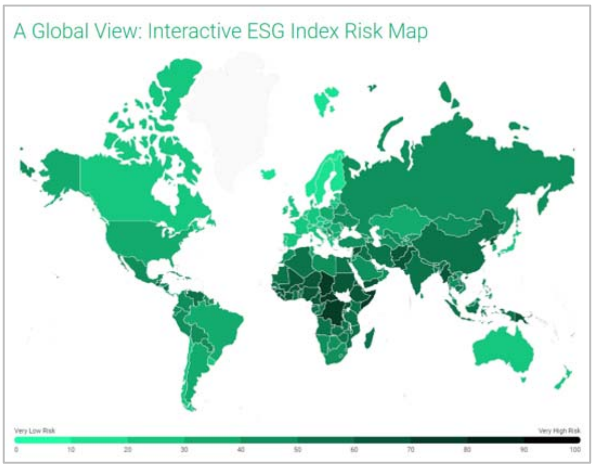
(E. Bouye, D. Menville, 2021) affirmed that calling ESG 'ratings' may imply that ESG scores could be complementary in assessing both financial and non-financial risks. Interestingly, ESG ratings may be combined with credit ratings to measure sovereign risk exposure and viability of the debt.

2. ESG regulation

According to the World Bank[(6)], material climate and nature-related information is as important for assessing sovereign risk as economic data, and this information should be reported with the same rigor in order to provide investors and other decision makers with a more comprehensive country overview. A reporting framework for sovereigns is needed given that climate risk disclosure can help ensure a country's continued ability to access capital markets for investments, including for priority investments in adaptation and transition activities. Reporting on climate and nature-related risks and opportunities at the sovereign level can ensure that a clear, consistent level of financial and economic risk information is available on an ongoing basis to all types of users.

ESG is an important indicator all over the world and global progress is being made to increase the consistency, accuracy, and transparency of disclosure requirement. ESG regulations are government standards for ESG-related actions, reporting, or disclosures. ESG regulations has increased by 155% over the past decade, reflecting the rapid growth of sustainability-based policy interventions(7).

Figure no. 1. *Global view of ESG*



Source: https://risk-indexes.com/esg-index

According to the World Bank, efforts to develop a sovereign climate and nature reporting framework should be closely aligned with ongoing work to develop global, harmonized international sustainability standards for corporates. In this regard, there are various ESG regulations worldwide, including for example: Sustainability Disclosure Requirements (SDR) – The UK Financial Conduct Authority (FCA), The Corporate Sustainability Reporting Directive (CSRD) and The Corporate Sustainability Due Diligence Directive (CSDDD) – European Parliament, Streamlined Energy and Carbon Reporting (SECR) – UK Government, The German Supply Chain Due Diligence Act (the LkSG) – German Parliament, SEC's climate disclosure rules – US Securities and Exchange Commission and so forth.

Also, at the level of the European Union, as an integral part of the European Commission's renewed sustainable finance strategy (adopted in July 2021), the Commission presented a *proposal for a regulation on the transparency and integrity of Environmental, Social and Governance (ESG) rating activities*(8), taking into consideration that ESG ratings play an enabling role for the proper functioning of the EU sustainable finance market by providing critical sources of information for investment strategies, risk management and disclosure obligations by investors and financial institutions.

3. Data analysis

The analysis in this paper aims to present the differences between ESG Global Score Indicator and Sovereign Ratings issued by credit rating agencies, but also to verify the necessity of the cumulative analysis of the two indicators. These rating are also analyzed in correlation with other macroeconomic indicators such as GDP and GDP per capita. EU member states are presented as a case study.

In this regard, the data for sovereign rating were collected from the Refinitiv database, having as issuers the three rating agencies mentioned above: Standard & Poor's, Moody's Investor Services and Fitch Ratings. The data for the ESG Global Score Indicator were collected from the Refinitiv database, where the source of the displayed indicator is Beyond Rating.

Table no. 1. *Sovereign rating of EU states*

Sovereign Risk (Long Term Rating)
- aprilie 2024 -

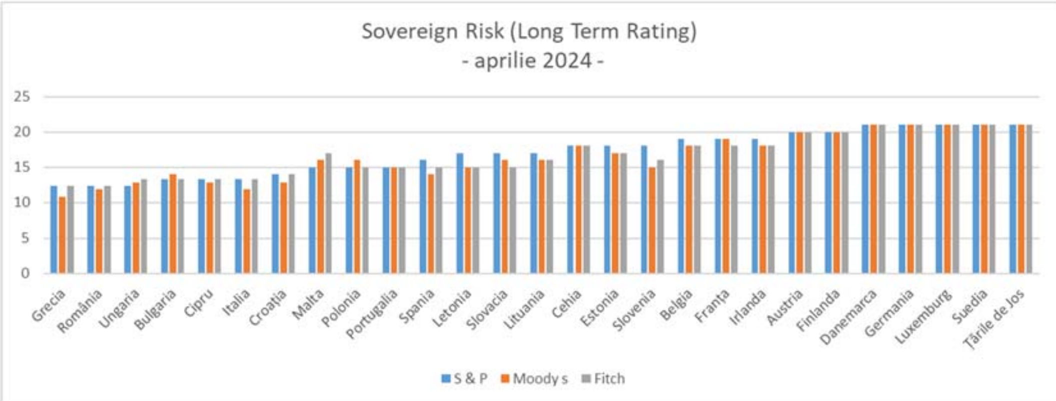
State membre UE	S & P		Moody s		Fitch	
	Rating	Data	Rating	Data	Rating	Data
Austria	AA+	(Aug 2022)	Aa1	(Feb 2023)	AA+	(Feb 2024)
Belgia	AA	(Dec 2023)	Aa3	(Apr 2023)	AA-	(Feb 2024)
Bulgaria	BBB	(Nov 2022)	Baa1	(Feb 2023)	BBB	(Apr 2024)
Cehia	AA-	(Oct 2023)	Aa3	(Nov 2023)	AA-	(Feb 2024)
Cipru	BBB	(Sep 2022)	Baa2	(Sep 2023)	BBB	(Dec 2023)
Croația	BBB+	(Mar 2024)	Baa2	(Nov 2023)	BBB+	(Apr 2024)
Danemarca	AAA	(Feb 2024)	Aaa	(Feb 2024)	AAA	(Nov 2023)
Estonia	AA-	(Jan 2023)	A1	(Mar 2024)	A+	(Jan 2024)
Finlanda	AA+	(Oct 2023)	Aa1	(Jul 2022)	AA+	(Feb 2024)
Franța	AA	(Dec 2023)	Aa2	(Dec 2022)	AA-	(Oct 2023)
Germania	AAA	(Mar 2024)	Aaa	(Feb 2023)	AAA	(Mar 2024)
Grecia	BBB-	(Oct 2023)	Ba1	(Sep 2023)	BBB-	(Dec 2023)
Irlanda	AA	(May 2023)	Aa3	(Apr 2023)	AA-	(Dec 2023)
Italia	BBB	(Oct 2022)	Baa3	(Nov 2023)	BBB	(Nov 2023)
Letonia	A+	(Dec 2022)	A3	(Jan 2024)	A-	(Jan 2024)
Lituania	A+	(Dec 2022)	A2	(Apr 2024)	A	(Nov 2023)
Luxemburg	AAA	(Jul 2023)	Aaa	(Mar 2023)	AAA	(Dec 2023)
Malta	A-	(Jun 2023)	A2	(Nov 2022)	A+	(Mar 2024)
Polonia	A-	(Jun 2023)	A2	(Mar 2024)	A-	(Nov 2023)
Portugalia	A-	(Mar 2024)	A3	(Nov 2023)	A-	(Mar 2024)
România	BBB-	(Oct 2023)	Baa3	(Nov 2023)	BBB-	(Mar 2024)
Slovacia	A+	(Nov 2023)	A2	(Nov 2023)	A-	(Dec 2023)
Slovenia	AA-	(Jun 2023)	A3	(Oct 2022)	A	(Apr 2024)
Spania	A	(Mar 2024)	Baa1	(Mar 2024)	A-	(Nov 2023)
Suedia	AAA	(Oct 2023)	Aaa	(Feb 2024)	AAA	(Oct 2023)
Țările de Jos	AAA	(Oct 2023)	Aaa	(Jan 2023)	AAA	(Feb 2024)
Ungaria	BBB-	(Dec 2023)	Baa2	(Sep 2023)	BBB	(Dec 2023)

Source: Refinitiv, aprilie 2024.

3.1. Sovereign rating in the EU countries

At the level of the European Union, the data regarding sovereign ratings, obtained from the Refinitiv platform, are presented in *Table no. 1. Sovereign rating of EU states*.

Figure no. 2. *Sovereign rating of EU states*

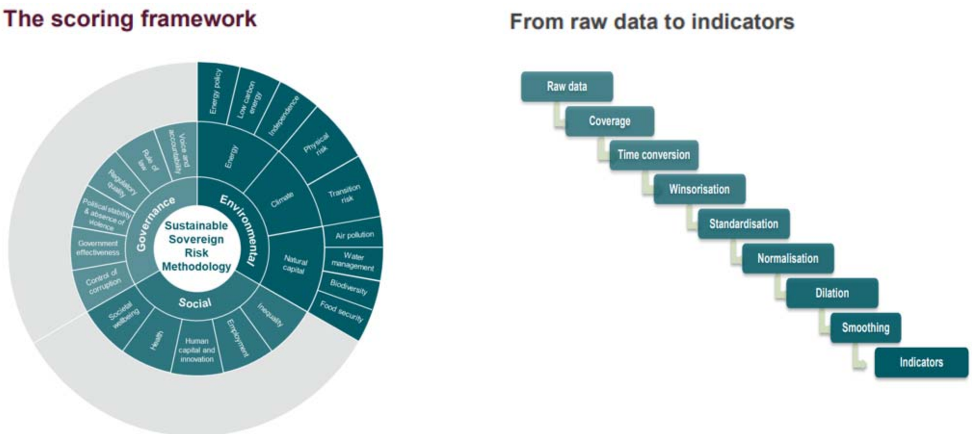


In Figure no. 2 – Sovereign rating of EU states, the UE states are presented in ascending order from the sovereign rating perspective.

3.2. ESG Global Score Indicator in the EU countries

The information provided by the Refinitiv platform for the ESG Global Score Indicator is that it represents a statistical grade with a normalized score (0-100) of Global Sustainable GDP. According to the methodology paper which presents the ESG integration into the sovereign risk analysis(9), each pillar of ESG (Environmental, Social and Governance) is structured around sub-pillars, which consist of several risk themes that include several indicators. Next, the raw data is transformed into indicators.

Figure no. 3. *ESG integration into the sovereign risk analysis*



Source: Beyond Ratings.

Regarding the normalisation process, the methodology paper mentions that the z-scores are transformed into continuous scores on an interval, ranging from 0 to 100 in accordance with the cumulated distribution of a standard normal distribution – where 0 represents the worst score and 100 the best score.

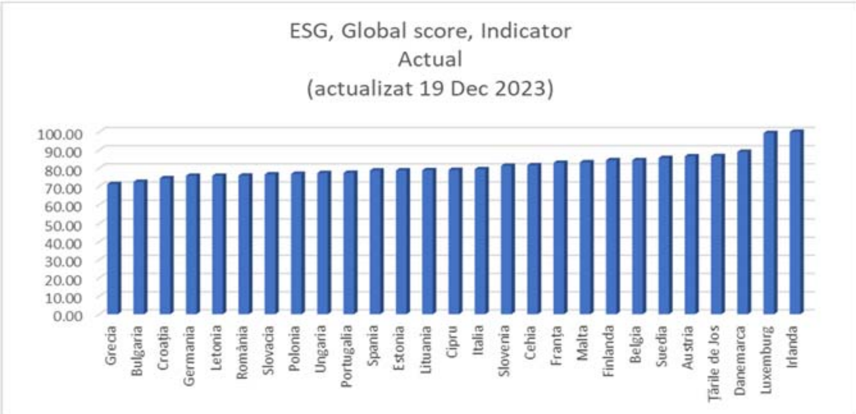
At the level of the European Union, the data regarding ESG Global Score Indicator, obtained from the Refinitiv platform, are presented in absolute numbers in *Table no. 2. ESG Global Score Indicator of EU states* and graphically, in ascending order, in *Figure no. 4. ESG Global Score Indicator of EU states*.

Table no. 2. *ESG Global Score Indicator of EU states*

State membre UE	ESG, Global score, Indicator	
	Actual (actualizat 19 Dec 2023)	Anterior
Austria	**86.52**	86.29
Belgia	**84.40**	84.54
Bulgaria	**72.41**	71.48
Cehia	**81.59**	82.49
Cipru	**79.05**	79.00
Croația	**74.44**	74.40
Danemarca	**88.95**	88.85
Estonia	**78.75**	80.28
Finlanda	**84.36**	85.12
Franța	**82.92**	83.25
Germania	**75.79**	86.33
Grecia	**71.19**	70.62
Irlanda	**100.00**	99.31
Italia	**79.39**	79.63
Letonia	**75.79**	76.67
Lituania	**78.87**	79.84
Luxemburg	**99.28**	100.00
Malta	**83.20**	82.80
Polonia	**76.83**	77.81
Portugalia	**77.42**	77.34
România	**75.89**	75.53
Slovacia	**76.58**	77.39
Slovenia	**81.30**	81.32
Spania	**78.71**	78.93
Suedia	**85.57**	86.46
Țările de Jos	**86.60**	87.02
Ungaria	**77.32**	77.50

Source: Refinitiv (Beyond Ratings), aprilie 2024.

Figure no. 4. *ESG Global Score Indicator of EU states*



3.3. GDP and GDP/capita in the EU countries

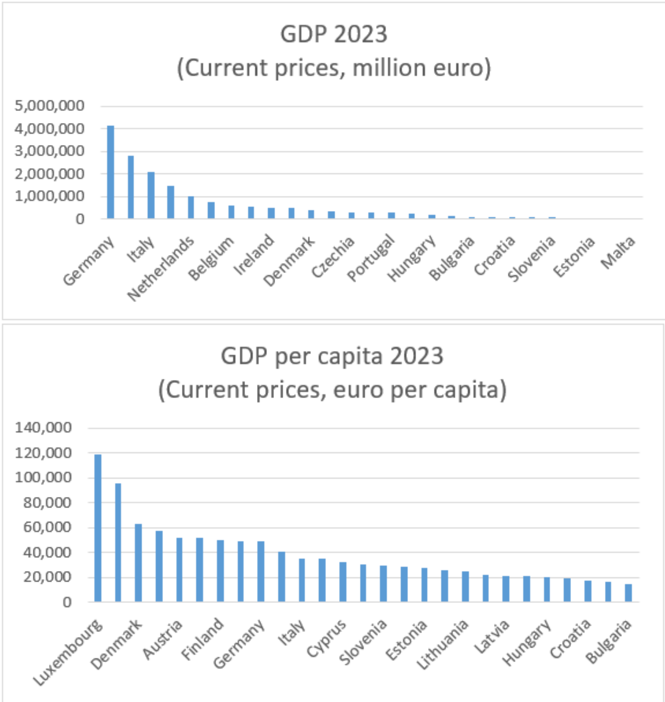
At the level of the European Union, the data regarding GDP and GDP/capita obtained from the Eurostat database are presented in absolute numbers in *Table no. 3* and graphically in *Figure no. 5*.

Table no. 3. *GDP and GDP/capita*

Stat	GDP 2023 (Current prices, million euro)	Stat	GDP per capita 2023 (Current prices, euro per capita)
Germany	4,121,160	Luxembourg	118,770
France	2,803,100	Ireland	95,290
Italy	2,085,376	Denmark	62,840
Spain	1,461,889	Netherlands	57,840
Netherlands	1,034,086	Austria	52,250
Poland	747,748	Sweden	52,040
Belgium	582,583	Finland	49,700
Sweden	548,373	Belgium	49,540
Ireland	504,620	Germany	48,750
Austria	477,249	France	40,800
Denmark	373,755	Italy	35,350
Romania	324,578	Malta	35,340
Czechia	305,967	Cyprus	32,100
Finland	277,625	Spain	30,320
Portugal	265,503	Slovenia	29,750
Greece	220,303	Czechia	28,580
Hungary	196,391	Estonia	27,590
Slovakia	122,156	Portugal	25,730
Bulgaria	93,948	Lithuania	25,070
Luxembourg	79,310	Slovakia	22,090
Croatia	75,855	Latvia	21,440
Lithuania	71,986	Greece	20,920
Slovenia	63,090	Hungary	20,480
Latvia	40,348	Poland	19,840
Estonia	37,682	Croatia	17,682
Cyprus	29,757	Romania	17,030
Malta	19,382	Bulgaria	14,580

Source: Eurostat, aprilie 2024.

Figure no. 5. *GDP and GDP/capita*



From the data and analyses presented in this paper, it can be observed that the top five countries analysed from the sovereign rating perspective differ from the top five countries analysed from the ESG perspective. Ireland and Austria, although they are positioned below the five countries with the highest rating in the EU, they manage to be part of the top five countries following the analysis from the ESG perspective, while Germany, a country with the highest rating, when analysed from the perspective of the ESG Global Score Indicator, reaches the end of the ranking, being placed 24th out of 27 countries of the European Union. Greece, on the other hand, is ranked at the bottom of the list in both cases, although, from the perspective of GDP and GDP per capita, other EU countries register lower values.

4. Conclusion

The history of credit agencies, which started in the early 1900s, is very long and went through many steps before becoming mainstream and central for financial markets; the rating that they offer are of great importance to the financial markets. Still, a new perspective, however, in the analysis of investment opportunities from the point of view of the environment, the social environment and government policies is welcome and can provide additional information complementary to those already in the financial market.

Therefore, the purpose of this paper to present the differences between ESG Global Score Indicator and the Sovereign Ratings issued by credit rating agencies and also to verify the need of the cumulative analysis of the two indicators, correlating all this information with the GDP and GDP per capita indicators was reached.

Notes

(1) https://www.responsible-investor.com/ri-resource/beyond-ratings/
(2) https://www.bloomberg.com/profile/company/1498090D:FP
(3) https://www.spglobal.com/ratings/en/about/understanding-credit-ratings
(4) https://corporatefinanceinstitute.com/resources/esg/esg-environmental-social-governance/
(5) https://esgdata.worldbank.org/data/framework?lang=en
(6) https://documents1.worldbank.org/curated/en/099615001312229019/pdf/P170336065a94c04d0a6d00f3a2a6414cef.pdf
(7) https://sustainability-news.net/policy-and-regulation/2024-guide-to-esg-regulation/
(8) https://eur-lex.europa.eu/resource.html?uri=cellar:1243bcf3-0ac8-11ee-b12e-01aa75ed71a1.0001.02/DOC_1&format=PDF
(9) https://www.lseg.com/content/dam/ftse-russell/en_us/documents/other/ftse-sustainable-sovereign-risk-assessment-methodology-2023.pdf

References

Bouye, E. and Menville, D., March 2021. The Convergence of Sovereign Environmental, Social and Governance Ratings – Policy Research Working Paper 9583, World Bank Group, Treasury Asset Management & Advisory Department.

Paper: Methodology – Sustainable Sovereign Risk – Assessment Methodology – Sovereign ESG revisited, LSEG, February 2023.

Stewart, F.E., Power, S.E., Wadhwa, B., Kumar, M., Flugge, M.L., Swann, S.A. and Nassiry, D., 2022. Sovereign Climate and Nature Reporting: Proposal for a Risks and Opportunities Disclosure Framework (English), Washington, D.C.: World Bank Group.

Sy, A., 2004. Rating the rating agencies: Anticipating currency crises or debt crises? *Journal of Banking and Finance,* 28, pp. 2845-2867.

United Nations – Who Cares Wins: Connecting Financial Markets to a Changing World.

<https://eikon.refinitiv.com/>

<https://www.ecb.europa.eu/ecb>

<http://ec.europa.eu>

<europa.eu>

<http://eur-lex.europa.eu/legal-content>

<https://www.spglobal.com/ratings/en/about/understanding-credit-ratings>

<https://www.responsible-investor.com/ri-resource/beyond-ratings/>

<https://www.bloomberg.com/profile/company/1498090D:FP>

<https://corporatefinanceinstitute.com/resources/esg/esg-environmental-social-governance/>