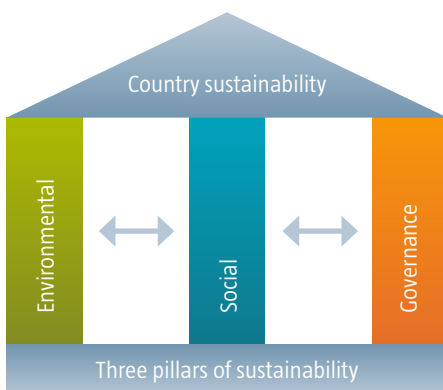# Robeco's Country Sustainability Ranking

Sovereign debt is one of the largest and most liquid markets in the world, with over USD 60 trillion outstanding. In view of the size and importance of the sovereign debt market, the systematic integration of environmental, social and governance (ESG) features in sovereign risk assessment has been ignored for quite a long time. However, the inclusion of ESG elements in this sovereign debt space has been gaining momentum in recent years as private and institutional investors, as well as international organizations, public authorities, rating agencies and regulators have recognized that ESG factors are important drivers for economic performance and the risk and return profile of sovereigns. Yet, the implementation of a proper ESG framework within this universe comes with several challenges and there is still a lack of consensus on how to appropriately analyse a country's ESG performance.

## Robeco's country sustainability ranking framework

In recognition of the importance of ESG factors for the sovereign risk analysis, we have started to develop a proper country sustainability ranking (CSR) ranking tool in 2010. The framework includes a broad range of metrics and ensures that all relevant ESG topics for sovereigns are covered. It is based on a country sustainability definition, which refers to a complex concept that integrates E, S and G factors, aimed at assessing whether these factors ensure a sustainable development of a country that also preserves the long-term solvency of a sovereign (see Fig. 1).

**Figure 1 | Robeco country sustainability definition**



In our understanding country sustainability refers to a complex concept that integrates E, S & G factors, assessing whether the latter are ensuring a sustainable economic development and, ultimately, preserving the long-term solvency of a sovereign.

- The three constituent parts - E, S & G – are all interconnected and cannot be considered in isolation. If any one of them is weak it can threaten the sustainability of a country as whole.
- The environment is evaluated on the ability to support the economic development and to avoid damaging impacts on the population and economy.
- The social area is assessed according to the level of social well-being, inequality, education and health, again with a focus on the effects on the economy.
- The governance sphere is analyzed for its capacity to support (or hurt) the economy by the existence of well-functioning and independent institutions, a reliable judicial system and a reasonable policy framework.

Over the years, the CSR methodology has been further developed as more indicators, new research findings and fresh evidence from market trends have become available. A proper maintenance of the CSR tool with periodic model reviews is also a best practice requirement to make sure that our approach remains state-of-the art. Thereby we have relied upon the knowledge and expertise by various internal stakeholders (sovereign analysts and portfolio managers from the Global Macro team, biodiversity, climate, human rights and quant specialists) and external experts (World Bank, HRMI, University researchers). At present, our CSR framework includes fifty indicators, summarized in fifteen criteria and three dimensions (see Fig. 2). The country sustainability scores are being

updated on a semi-annual basis and have been calculated back to the year 2000. As for the country universe, current coverage includes 150 countries (23 developed countries and 127 emerging market economies).a
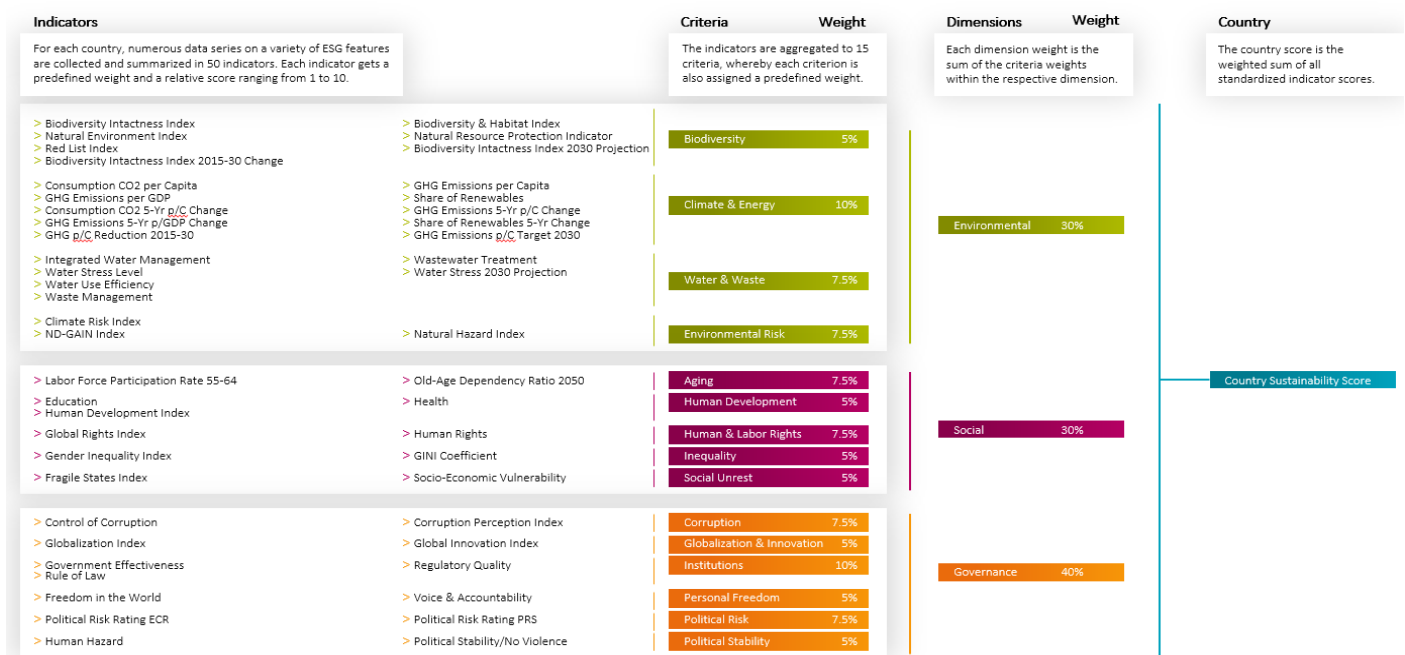
## Selection of indicators, data sources and calculation of ranking

The selection of indicators has been based on various criteria such as relevance, financial materiality and availability of the data, as well as the credibility of data providers. Thereby we have taken care to ensure an adequate and balanced coverage of all relevant ESG facets, being aware of the still existing limitations in terms of data availability and quality in this space. The weightings of the individual indicators, criteria and dimensions has been based on expert judgement, evidence from external research, statistical analysis, and peer comparisons.

For the data sources we rely on a broad range of diverse sources including international organizations, international financial institutions, NGOs, private institutes & think tanks, rating agencies, and universities. We pay attention to the credibility and reputation of the data provider, and by gathering the information from diverse sources we also aim at limiting a potential bias in the data given that some of the metrics are derived from expert opinions and surveys and may thus be subject to a certain degree of subjectivity.

To calculate the CSR, after preparing the data, first the criteria scores are standardized. Subsequently, they are combined according to the weights to arrive at the ranking. All indicators, criteria and weights are shown in figure 2, while the data sources are presented in figure 3.

**Figure 2 | Robeco's country sustainability ranking framework**

**Figure 3 | Data sources**

| No. | Criterion | Indicator | Source | URL |
|-----|-----------|-----------|--------|-----|
| 1 | **Biodiversity** | Biodiversity Intactness Index | Natural History Museum, London | The Biodiversity Intactness Index |
| 2 | | Biodiversity & Habitat Index | Yale University/SEDAC | Downloads \| Environmental Performance Index (yale.edu) |
| 3 | | Natural Environment Index | Legatum Institute | Legatum Prosperity Index 2021 |
| 4 | | Natural Resource Protection Indicator | SEDAC - Socioeconomic Data & Applications Center | SEDAC |
| 5 | | Red List Index | Our World in Data/UNStats | Red List Index, 2022 (ourworldindata.org) |
| 6 | | Biodiversity Intactness Index Change 2015-30 | Natural History Museum, London | The Biodiversity Intactness Index |
| 7 | | Biodiversity Intactness Index 2030 Projection | Natural History Museum, London | The Biodiversity Intactness Index |
| 8 | **Climate &** | Consumption CO2 Emissions per Capita | Our World in Data/Global Carbon Project | Per capita consumption-based CO2 emissions, 2019 (ourworldindata.org) |
| 9 | **Energy** | GHG Emissions per Capita | EDGAR | EDGAR - The Emissions Database for Global Atmospheric Research (europa.eu) |
| 10 | | GHG Emissions per GDP | EDGAR | EDGAR - The Emissions Database for Global Atmospheric Research (europa.eu) |
| 11 | | Share of Renewables to Energy Consumption | U.S. Energy Information Administration (EIA) | International - U.S. Energy Information Administration (EIA) |
| 12 | | Consumption CO2 Emissions p/C 5-Yr Change | Our World in Data/Global Carbon Project | Per capita consumption-based CO2 emissions, 2019 (ourworldindata.org) |
| 13 | | GHG Emissions per Capita 5-Yr Change | EDGAR | EDGAR - The Emissions Database for Global Atmospheric Research (europa.eu) |
| 14 | | GHG Emissions per GDP 5-Yr Change | EDGAR | EDGAR - The Emissions Database for Global Atmospheric Research (europa.eu) |
| 15 | | Share of Renewables to Consumption 5-Yr Change | U.S. Energy Information Administration (EIA) | International - U.S. Energy Information Administration (EIA) |
| 16 | | GHG Emissions p/C Reduction 2015-30 | Climate Resource | NDCs - Climate Resource (climate-resource.com) |
| 17 | | GHG Emissions p/C Target 2030 | Climate Resource | NDCs - Climate Resource (climate-resource.com) |
| 18 | **Water &** | Integrated Water Management | UN Water - UNEP | Home \| SDG 6 Data |
| 19 | **Waste** | Wastewater Treatment | SEDAC - Socioeconomic Data & Applications Center | Environmental Performance Index (EPI) \| SEDAC (columbia.edu) |
| 20 | | Water Stress Level | UN Water - FAO Aquastat | Home \| SDG 6 Data |
| 21 | | Water Stress Projection 2030 | World Resources Institute - Aqueduct | Data: Aqueduct Projected Water Stress Country Rankings \| World Resources Institute (wri.org) |
| 22 | | Water Use Efficiency | UN Water - FAO Aquastat | Home \| SDG 6 Data |
| 23 | | Waste Management | SEDAC - Socioeconomic Data & Applications Center | Environmental Performance Index (EPI) \| SEDAC (columbia.edu) |
| 24 | **Environmental** | Climate Risk Index | Germanwatch | Globaler Klima-Risiko-Index 2021 \| Germanwatch e.V. |
| 25 | **Risk** | Natural Hazard Index | DRMKC - INFORM - European Commission | INFORM - Global, open-source risk assessment for humanitarian crises and disasters (europa.eu) |
| 26 | | ND_GAIN Index | University of Notre Dame | Download Data // Notre Dame Global Adaptation Initiative // University of Notre Dame (nd.edu) |

| No. | Criterion | Indicator | Source | URL |
|-----|-----------|-----------|--------|-----|
| 27 | **Aging** | Labor Force Participation Rate 55-64 | ILOSTAT - International Labour Organization | https://ilostat.ilo.org/data/ |
| 28 | | Old-Age Dependency Ratio 2050 | UN – Population Division | Population Division \| (un.org) |
| 29 | **Human** | Education | Legatum Institute | Legatum Prosperity Index 2021 |
| 30 | **Development** | Health | Legatum Institute | Legatum Prosperity Index 2021 |
| 31 | | Human Development Index | UNDP | Human Development Data Center \| Human Development Reports (undp.org) |
| 32 | **Human &** | Global Rights Index | ITUC - International Trade Union Confederation | Home - ITUC GRI 2021 (globalrightsindex.org) |
| 33 | **Labour Rights** | Human Rights | Fund for Peace | Fragile States Index \| The Fund for Peace |
| 34 | **Inequality** | Gender Inequality Index | UNDP | Human Development Data Center \| Human Development Reports (undp.org) |
| 35 | | GINI Coefficient | Our World in Data | Income inequality – Gini Index, 1981 to 2019 (ourworldindata.org) |
| 36 | **Social Unrest** | Fragile States Index | Fund for Peace | Fragile States Index \| The Fund for Peace |
| 37 | | Socio-Economic Vulnerability | DRMKC - INFORM - European Commission | INFORM - Global, open-source risk assessment for humanitarian crises and disasters (europa.eu) |
| 38 | **Corruption** | Control of Corruption | World Bank | WGI 2021 Interactive > Home (worldbank.org) |
| 39 | | Corruption Perception Index | Transparency International | 2021 Corruption Perceptions Index - Explore the... - Transparency.org |
| 40 | **Globalization &** | Globalization Index | KOF/ETHZ | KOF Globalisation Index – KOF Swiss Economic Institute \| ETH Zurich |
| 41 | **Innovation** | Global Innovation Index | WIPO | Indicator Rankings & Analysis \| Global Innovation Index |
| 42 | **Institutions** | Govenment Effectiveness | World Bank - Worldwide Governance Indicators | WGI 2021 Interactive > Home (worldbank.org) |
| 43 | | Regulatory Quality | World Bank - Worldwide Governance Indicators | WGI 2021 Interactive > Home (worldbank.org) |
| 44 | | Rule of Law | World Bank - Worldwide Governance Indicators | WGI 2021 Interactive > Home (worldbank.org) |
| 45 | **Personal** | Freedom in the World | Freedom House | Freedom in the World \| Freedom House |
| 46 | **Freedom** | Voice & Accountability | World Bank - Worldwide Governance Indicators | WGI 2021 Interactive > Home (worldbank.org) |
| 47 | **Political Risk** | Political Risk Rating ECR | Euromoney Country Risk | Obtained via e-mail |
| 48 | | Political Risk Rating PRS | PRS Group | Obtained via e-mail |
| 49 | **Political Stability** | Human Hazard | DRMKC - INFORM - European Commission | INFORM - Global, open-source risk assessment for humanitarian crises and disasters (europa.eu) |
| 50 | | Political Stability/No Violence | World Bank - Worldwide Governance Indicators | WGI 2021 Interactive > Home (worldbank.org) |