Overview

Sovereign debt investors are now able to consider climate change risks in their investment portfolios.

The global sovereign debt market is one of the largest asset classes in the world, yet fixed income markets have typically lagged other asset classes in relation to ESG integration. Sovereign debt investors are exposed to a range of climate change risks that are typically not well understood or incorporated in the investment process. Part of the challenge has been the lack of sustainable investment products and viable climate data.

The FTSE Climate Risk-Adjusted Government Bond Index Series offers a range of solutions that investors can viably implement into their investment process. The indexes measure the performance of fixed-rate, local currency, investment-grade sovereign bonds, incorporating a tilting methodology that adjusts index weights according to each countries' relative climate risk performance.

Quantitative climate risk assessments are made across three climate risk pillars covering:

| Transition risk | The level of climate related risk exposure of the country's economy as measured by the distance to reach the modeled emissions needed to meet a 2 degree alignment |
| Physical risk | The level of climate related risk exposure to the country and its economy from the physical effects of climate change |
| Resilience | A country's preparedness and actions to cope with its level of climate related risk exposure |

Features

Representative

- Based on the FTSE World Government Bond Index and the FTSE European Monetary Union (EMU) Government Bond Index. These widely used benchmarks currently incorporate sovereign debt from over 20 countries, denominated in a variety of currencies, and has more than 30 years of history available
- Incorporates a forward-looking assessment of the climate risks sovereigns face at a country level
- Tilts country weights on a relative basis to the three pillars of climate risk

Best-in-class climate risk modeling

- Comprehensive sovereign climate risk assessments with history available from 2002
- Climate risk modeling provided by Beyond Ratings, part of the London Stock Exchange Group, and a highly regarded provider of ESG data solutions, and climate change research and modeling across asset classes
**Benefits**

- Meaningful climate risk reduction compared to the conventional market value weighted indexes
- Closely matches the index characteristics of the conventional market value weighted index, whilst achieving minimal tracking error and turnover
- Quantitative and transparent approach to climate risk modeling and assessment
- Highly configurable methodology supports custom versions that further reduce the index’s climate risk profile

**Index inclusion and methodology summary**

<table>
<thead>
<tr>
<th>Index</th>
<th>FTSE Climate Risk-Adjusted World Government Bond Index (“Climate WGBI”)</th>
<th>FTSE Climate Risk-Adjusted EMU Government Bond Index (“Climate EGBI”)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coupon</strong></td>
<td>Fixed-rate</td>
<td>Fixed-rate</td>
</tr>
<tr>
<td><strong>Currency</strong></td>
<td>Multiple</td>
<td>EUR</td>
</tr>
<tr>
<td><strong>Minimum maturity</strong></td>
<td>At least one year</td>
<td>At least one year</td>
</tr>
<tr>
<td><strong>Securities included</strong></td>
<td>Fixed rate non-callable bonds. Sovereign debt denominated in the local currency</td>
<td>Fixed rate non-callable bonds. Sovereign debt denominated in the local currency</td>
</tr>
<tr>
<td><strong>Weighting</strong></td>
<td>Alternatively weighted</td>
<td>Alternatively weighted</td>
</tr>
<tr>
<td><strong>Rebalance frequency</strong></td>
<td>Monthly on final business day of the month</td>
<td>Monthly on final business day of the month</td>
</tr>
<tr>
<td><strong>Climate risk pillars</strong></td>
<td>Each country is assessed by three core climate change pillars (each with multiple sub-indicators)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- <strong>Transition risk</strong> represents the level of climate related risk exposure of the country’s economy as measured by the distance to reach the modeled emissions needed to meet a 2 degree alignment</td>
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<td>- <strong>Physical risk</strong> represents the level of climate related risk exposure to the country and its economy from the physical effects of climate change</td>
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<tr>
<td></td>
<td>- <strong>Resilience</strong> represents a country’s preparedness and actions to cope with its level of climate related risk exposure</td>
<td></td>
</tr>
</tbody>
</table>
| **Climate pillars and tilts calibration** | Transition risk: 0.25  
Physical risk: 1  
Resilience: 1 | Transition risk: 0.5  
Physical risk: 0.25  
Resilience: 0.5 |
| **Country climate scores** | Updated annually and applied from the end of May rebalance | Updated annually and applied from the end of May rebalance |
| **Country Climate Score Assessment Cohort** | Major local currency sovereign bond markets actively tracked by FTSE Russell  
This includes: WGBI, EMGBI and sovereigns on the Watch List published through the FTSE Fixed Income Country Classification framework | EGBI eligible local currency sovereign bond markets (current and historical) |
| **Base date** | December 31, 2001 | December 31, 2001 |
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