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MITIGATING RISK WITH ENVIRONMENTAL, SOCIAL AND GOVERNANCE SOVEREIGN BONDS

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BNP PARIBAS
ASSET MANAGEMENT

The sustainable
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Introduction

As asset managers, we have a fiduciary responsibility to generate compelling investment returns and mitigate investment risk for our clients. As global citizens, we have a responsibility to adapt to the realities of climate change while persistently advocating for ever more just social and governance standards.

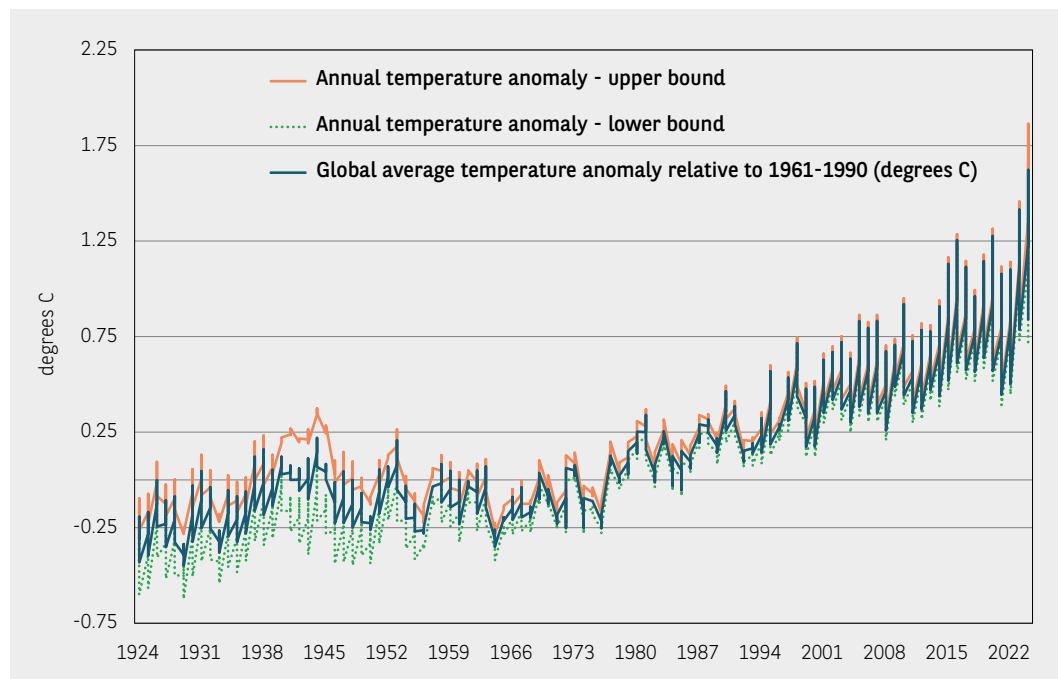
Increasingly, these two responsibilities are becoming intertwined. Because the effects of climate change are a growing investment risk for sovereign bond investors, a responsibly managed portfolio must attempt to quantify the risks and implement commensurate protections. Furthermore, responsible investment managers must increasingly engage with sovereign bond issuers and work to educate their clients on the growing risks and their possible remedies, including green bonds.

The risks are rising

Rising climate and biodiversity risks will increasingly weigh on the creditworthiness of sovereign issuers. Over the life of a 30-year bond, rising temperatures raise known (and thus quantifiable) risks that seemed immaterial 30 years ago, as well as unknown risks. For example, weather is notoriously difficult to predict, but as temperatures rise and long-established weather patterns change, the risk of extreme and unpredictable events rises, and uncertainty rises. As such, risk premiums need to rise, potentially altering the risk profiles of traditionally stable ('risk free') government bond portfolios.

Exhibit 1

The average global temperature has climbed steadily since the 1970s



Source: <https://ourworldindata.org/grapher/temperature-anomaly>

The World Economic Forum recently estimated that half the world's GDP is threatened by biodiversity loss¹. With 40% of the planet's land surface 'degraded'² and more than one million species nearing extinction³, it shouldn't be a surprise that the Forum estimated "USD 44 trillion of economic value generation – over half the world's total GDP – is potentially at risk as a result of the dependence of business on nature".

Examples of climate change already impacting national economies are becoming increasingly routine. In 2023, the US set a record for billion-dollar weather and climate related disasters at 28, according to the National Oceanic and Atmospheric Administration (NOAA).⁴ While the 1980-2023 annual average for such disasters is 8.5, over the last seven years '137 separate billion-dollar disasters have killed 5 500 people and cost more than USD 1 trillion in damage.'⁵

As climate-related costs accelerate, governments that are already saddled with being a lender of last resort through 'disaster relief' funds increasingly have to carry the burden for repairing or replacing public-sector infrastructure damaged by or lost to climate change.

The National Bureau of Economic Research (NBER) recently concluded that biodiversity risks are already affecting stock prices, with investors increasingly concluding that biodiversity risk is not adequately reflected in current valuations⁶. While we sympathise with the difficulty of determining an appropriate risk premium for biodiversity and climate risks, it doesn't take a seasoned sovereign bond investor to know that repayment of principal is dependent on economic growth.

Simply put, the physical climate and biodiversity risks to macroeconomic and geopolitical stability – and thus sovereign creditworthiness – are rising and, in our view, are underappreciated as material risks. This is particularly true for very long loan tenors in a buy-and-hold bond portfolio – a core holding for many retail and institutional investors.

Ranking sovereign ESG performance and risks

Sovereign bond managers have decades of experience analysing risks related to governance. A country's commitment to the rule of law, fiscal discipline and political stability have long been important factors in assessing short and long-term sovereign risk. To help quantify environmental and social factors, we developed a framework to score all 109 developed and emerging market countries that make up our global sovereign investment universe.

When scoring environmental performance, we quantify each country's environmental performance by looking across 14 themes, including its energy infrastructure needs, availability or scarcity of water, and its level of biodiversity.

We also quantify the country's efforts to mitigate climate change by considering the temperature and temperature-mitigating measures it already has in place, as well as its climate change ambitions and the laws and policies it has in place to support those ambitions.

Finally, we consider the country's exposure to climate change (its physical climate risk) from floods, storms, droughts, etc., and the potential implications these variables could have on the country's physical infrastructure, industrial processes, and supply chains.

1 World Economic Forum, <https://www.weforum.org/agenda/2023/02/biodiversity-nature-loss-cop15/>

2 United Nations Convention to Combat Desertification, <https://www.unccd.int/resources/publications/land-degradation-neutrality-biodiversity-conservation-briefing-note>

3 World Economic Forum, <https://www.weforum.org/agenda/2023/02/biodiversity-nature-loss-cop15/>

4 National Oceanic and Atmospheric Administration, <https://www.climate.gov/news-features/blogs/beyond-data/2023-historic-year-us-billion-dollar-weather-and-climate-disasters>

5 Ibid

6 NBER, <https://www.nber.org/papers/w31137>

While quantitative measures can provide quick results, we are mindful that they may not capture all of the relevant data for a particular country. Because countries have different risks from climate change and different responsibilities to combat it, our framework adjusts for a country's relative wealth and size.

However, our final ESG scores also include insights from our global investment teams as well as input from our dialogue with regulators, debt management officials and policymakers. For example, sovereign data provided for our quantitative assessment can lag, sometimes by as much as two years. To the extent our analysts are aware of relevant data that is timelier, or our own engagement with the sovereign has yielded additional information, we adjust our ESG scores accordingly.

The benefits of green bonds

Green bonds are, in our view, an essential vehicle to fund the transition to a more sustainable global economy. They are issued across the world to finance new and existing projects that generate positive environmental impacts, including:

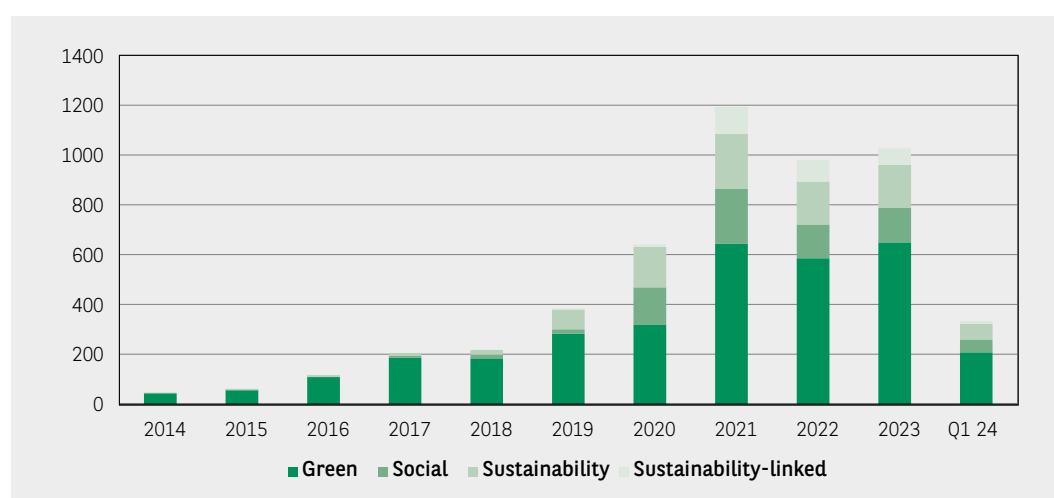
- Renewable energy
- Energy-efficient clean transportation
- Green building
- More efficient wastewater management
- Sustainable management of natural resources on land
- Terrestrial and aquatic biodiversity protection, conservation, recovery, and restoration.

Unsurprisingly, supranational entities and agencies led the way in green bond issuance, but sovereign issuance has grown steadily. In 2023, 35 sovereigns issued a green bond, of which 17 were developed countries and 18 were in the emerging markets. Seven of the 35 were issuing their first green bond.

In total, sovereign green bonds have risen from about 7% of the total green bond market in 2017 to over 20% at the end of March 2023⁷, as can be seen in the figure below.

Exhibit 2

Green, social and sustainable bonds - amount issued (in USD bln)



Source: BNEF; October 2024

⁷ BNP Paribas Asset Management, <https://viewpoint.bnpparibas-am.com/sovereign-green-bonds-bigger-stronger-and-more-diverse-in-2024/>

The rise in emerging market sovereign issuance is particularly encouraging insofar as many of these countries face both high exposure to physical climate risk and a significant gap in the financing needed to meet their climate change objectives.

The green bond market has helped narrow this gap, providing both funding and the engagement needed to make it more effective. For example, the Turkish government recently raised USD 2.5 billion for environmentally sustainable management of natural resources and, in a sign of the demand for such investments, the offering was three times oversubscribed.

As issuance expands, so do the tools needed to evaluate them, both at the asset management level and at the regulatory level. Taking effect in late 2024, the European Union Green Bonds Standard (EUGBS) will significantly enhance reporting and transparency requirements. For example, the standard will require that at least 85% of the economic activities financed by a green bond align with the EU taxonomy for sustainable activities.

Furthermore, the EUGBS will require green bond issuers to explain how the funds contribute to the sustainable transition, ensuring green investments are not negated by unsustainable activities in other areas. Also, pre and post-issuance verification and numerical reports on taxonomy-related issues will be mandatory, reviewed by an independent body, and reviews will be published online to enhance transparency.

In our view, a virtuous circle is developing in green bonds as a shift from voluntary to regulatory standards should help enforce greater market discipline, build investor confidence, raise demand and encourage further issuance of green bonds.

The power of engagement

Direct investor engagement with sovereign issuers can be a powerful tool to better understand the risks of climate change, catalyse action and build more effective risk-adjusted sovereign bond portfolios. At BNP Paribas Asset Management, we are engaging on two fronts: With regulators and sovereigns on their environmental policies, and with the borrowing agencies directly about individual bond structures and their expected impact.

At the policy level, we are a founding member of the Collaborative Sovereign Engagement on Climate Change initiative led by the Principles for Responsible Investment (PRI) to assist governments in addressing climate change. Its goal is to have investors join forces in encouraging governments to undertake comprehensive measures to combat climate change, adhere to the objectives of the Paris Agreement, and work to limit average global temperatures to 2°C.

At the borrower level, we actively and aggressively work with issuers of both conventional bonds and green bonds. This includes a wide range of sovereign issuers, such as Turkey, Brazil, Singapore, Sweden, the UK, Japan, Canada, various EU countries and Australia.

In each case, we have done extensive due diligence on the issue to assess whether the funds can be implemented effectively, that all aspects of the implementation are consistent with its stated ESG goals, that the framework for ongoing reporting is sufficient, and that the impact achieved is correctly measured and reported on a regular basis.

In a few cases, our ongoing monitoring of an issue's environmental performance revealed material deviation from its intended goals. However, in most of these cases we found the issuers were open to collaboration and a path was found to get performance back on track. In another case, our analysis of a proposed green bond looked insufficiently effective to us (raising the spectre of 'greenwashing'), but again we found the issuer was receptive to our concerns and added additional constraints to ensure the funds raised could achieve the originally intended impact.

The necessity of active management

Our history with engagement has led us to the conclusion that sovereign ESG investing requires active management. This can be due to practical concerns such as an investor's constraints on their ability to invest in ESG sovereigns. But the figure below shows the key challenges bond investors struggle currently with: many relate to difficulties in quantifying the risks, opportunities and rewards. While the percentage of investors facing moderate or significant challenges is quite high, engaged active managers can, in our experience, help mitigate or even eliminate many of these factors.

Ultimately, because we believe engagement is an essential component of ESG investing, active management must also be. Active managers can help ensure investments remain on target through monitoring and, if necessary, addressing any shortfalls with the issuers. They can also help avoid greenwashing simply by virtue of the due diligence an active manager provides. Finally, allowing a more dynamic or tactical approach to investment risk (the bread and butter of active management) could help generate positive alpha and mitigate tracking error, slippage from sub-optimal allocations resulting from the ESG bias, or any required interest-rate hedging costs.

Building sovereign bond portfolios to help slow rising temperatures

There has long been concern that building a portfolio to maximise an ESG impact necessarily reduces its economic returns. While the impossibility of having a dual mandate is logical, the practical reality is that it is manageable. The US Federal Reserve, for example, has had its missteps but, by and large, it has effectively managed its dual mandate of supporting employment and containing inflation.

In our experience, it is entirely possible to build a sovereign bond portfolio that is benchmarked to a conventional index, maintains a reasonable tracking error, and targets a mere 1.5 °C rise in global temperature – a sustainable increase according to the scientific consensus.

In our approach, actively managed ESG sovereign portfolios remain focused on the traditional economic variables, such as monetary and fiscal policy, that affect bond performance over shorter horizons. But over longer-term horizons, expressing a preference for countries that are aggressively targeting environmental concerns, or that have a lower risk of physical or economic impact from climate change, can help lower risk, increase returns, or both.

One way to do this is simply to favour exposure to the bonds of countries most aligned with their Paris Agreement objectives. While specific Nationally Determined Contributions (NDCs) to temperate increase are likely to be updated in 2025, and there are justifiable concerns about both their credibility and the accuracy of the disclosed data, there are work-arounds.

For example, with current policies well above already pledged targets, there is room to underweight the most obvious laggards and favour those demonstrating an aggressive desire to catch up to their targets. In this regard, our ESG scoring framework, particularly its qualitative factors, can be a significant help.

Similarly, a framework like our ESG scoring system can be used to assess the physical climate risk a sovereign currently faces or may face over the life of the bond. In our view, the need for quantification and monitoring of these risks will only grow: active managers have an obligation to help global sovereign bond portfolios avoid exposures that have outsized physical climate impact risk and/or policy shortcomings that effect economic development, deteriorating credit quality.

Additionally, irrespective of the Paris Agreement objectives, investors can lower their sovereign portfolio's aggregate carbon footprint by replacing conventional sovereign bonds from countries that have a low climate score with green bonds issued by the same sovereign. While there is also a variety of data and definitional issues involved in evaluating carbon footprints, there are work-arounds, and we believe 'the perfect should never be the enemy of the good'.

From a portfolio construction perspective, one can bring about much of the above by simply switching from similar duration exposure issued by a country with a higher temperature path to one with a lower path.

For example, the US is – by most standards – on track for a higher temperature change than many eurozone countries. And within the eurozone, there are options to switch from specific sovereign issuers to EU green bonds.

Finally, to the extent a portfolio manager can use leverage and derivatives, it is possible to minimise the cash commitment to short-duration exposure from higher-polluting countries, and then invest the remaining cash in greener instruments of similar duration.

In all of the examples, portfolio managers must be mindful of the correlations between the substituted instruments. However, in our experience, the tracking volatility implications of these substitutions is manageable, especially if derivative instruments can be used to hedge unwanted interest-rate risk

Conclusion - There is still much work to do

Investing in climate change is not, unfortunately, as simple as buying an exchange-traded fund (ETF) that tracks a global ESG sovereign bond benchmark. Because even these benchmarks don't (yet) exist. While more progress has been made in the ESG corporate bond market, the ESG sovereign bond market is still maturing.

Investors and managers need ever more complete data, estimation models need improvement and refinement, regulatory frameworks (like the EUGBS) need to be tested and expanded to increase investors' confidence in a country's decarbonisation plan. Just finding agreement on the accounting of sovereign emissions is as yet not straightforward, as there is still little consensus on the most appropriate methodologies.

However, we expect the approaching 2030 net-zero milestone will likely put national governments under broad-based pressure to act on climate change. Nevertheless, in our view, engagement is critical to sustaining momentum on climate change. The more investors that demand ESG sovereign bonds, the more it will help accelerate the transition. Above all, we believe the entire financial services industry has an obligation to engage, educate and do more quantitative and qualitative work to help make ESG sovereign bonds more accessible, reliable and profitable.

In the meantime, enough work has been done to allow an active manager with a commitment to ESG, deep experience in global sovereign risk analysis, and sophisticated portfolio construction expertise, to build sovereign bond portfolios that help investors reach their ESG goals.

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