PGIM FIXED INCOME

Emerging Markets Unveiled

Uncovering opportunities for impact in Emerging Markets

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- Assessing sovereigns on their ESG impacts is no easy feat. In comparison to companies, governments have a much wider array of responsibilities and impacts, both within and beyond their borders. And no sovereign issuers are perfect – conflicting priorities, a lack of political will, and insufficient resources are a few of the many challenges that prevent them from making the necessary investments needed to improve on ESG. Despite this, sovereigns have unique potential to generate immensely positive impacts on the environment and society.
- In the corporate world, investors concerned with ESG impact can divest from ESG laggards and overweight leaders. If all investors followed this path, only companies with strong ESG performance would be able to raise capital; the laggards would be forced to close. But countries cannot shut down. And while it would be simpler to lend only to countries that already have the best metrics, this may not be the best way to generate real world impact.
- Therefore, investors seeking to maximize ESG impact should use an ESG ratings framework with the explicit aim of identifying countries where added capital is most likely to improve outcomes. Unfortunately, due to a number of methodological shortcomings common to many sovereign ESG ratings, this is often not the case. Such shortcomings can be a particular problem for ESG assessments in emerging markets due to issues such as ingrained income bias, overdependence on quantitative metrics, and a bias towards certain governance structures.
- In PGIM Fixed Income's current sovereign ESG ratings framework, we attempted to tackle these issues head on. The following focuses on the main methodological challenges we faced in that endeavor and how we addressed them.

At PGIM Fixed Income, we strive to understand the impacts our investments have on the environment and society through a variety of tools, one of which is PGIM Fixed Income's proprietary ESG impact ratings. Whilst we use our impact ratings across all our asset classes, we recognize that emerging markets (EM) are particularly nuanced and require a different approach. The methodology of our Sovereign Impact Rating framework has continued to evolve so it better serves our clients who want to achieve impact by identifying the EM countries that are best positioned to do so.

In this whitepaper, we will share how our Sovereign Impact Rating framework addresses some of the key challenges we see, with the hope that we can help the industry better allocate capital to the countries where the impact will be greatest.

ASSESSING ESG THROUGH AN IMPACT LENS

PGIM Fixed Income's impact ratings assess our investments against negative and positive ESG impacts that are relevant to the issuer, offering our clients the choice (but not the obligation) to apply this additional "impact" lens to their portfolio. This ESG impact assessment is distinct from our assessment of the credit risk from ESG events that could impact the financial/economic value of our clients' investments.

When it comes to **Sovereign ESG Impact Ratings** we recognize a few distinct challenges that are specific to this asset class, namely the **ingrained income bias**, an **overdependence on quantitative metrics**, and a **bias towards certain governance structures**. These issues can oftentimes lead ESG investors to unjustly penalize emerging markets in their scoring systems, which can lead to an inefficient allocation of capital if the objective is incremental positive environmental and/or social impact. While we made numerous enhancements to our Sovereign ESG Impact Ratings Framework, which you can read about in greater detail here, we are highlighting some of the key improvements that have allowed us to develop a more nuanced assessment, especially of emerging markets.

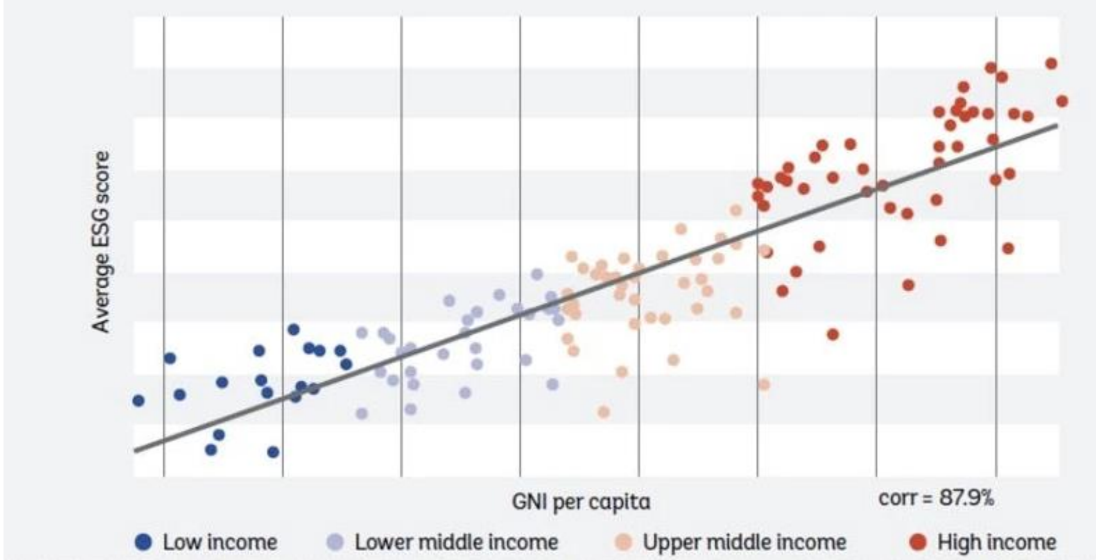
SOLVING SOVEREIGN STUMBLING BLOCKS

CHALLENGE #1: MEASURING IMPACT NOT INCOME

In 2020, the World Bank released a paper titled "Demystifying Sovereign ESG," which analyzed the methodologies and outputs of the major sovereign ESG rating providers.[1] The paper highlighted a structural issue widely prevalent in sovereign ESG scores, termed "the ingrained income bias." This is the phenomenon that richer countries tend to perform better on sovereign ESG indicators, while poorer economies tend to perform worse. Thus, sovereign ESG ratings (including PGIM Fixed Income's former framework) are often highly correlated with a country's income as illustrated in Figure 1.

[1] Op. Cit.

Figure 1: Average ESG scores across seven ESG providers are highly correlated with GNI per capita across 133 countries (the regression line exhibits a significantly positive slope).



Source: World Bank, Sovereign ESG investing: We can do better, June 8, 2021

When investing for impact, this systematic bias could be driving an inefficient allocation of capital, as money is being allocated to richer countries where the incremental impact may be lower than if it went to lower income countries that are effectively developing.

TACKLING THE INGRAINED INCOME BIAS: DYNAMIC PEER GROUPING

At PGIM Fixed Income, we decided to address this challenge through the use of peer groups in certain (but not all) portions of our updated framework – namely those portions where performance most clearly depends on available resources. Benchmarking against peers reduces the ingrained income bias as we compare countries to those with a similar capacity to spend on relevant environmental and social issues, instead of the entire universe of countries.

Where we have seen peer groups applied, common practice is to have static peer groups (i.e. breaking the universe down into distinct quartiles or quintiles). But, we observed that this created "cliff effects," where the score of an issuer near a quintile (or quartile, etc) boundary can dramatically change if its income slightly changes and that pushes it up or down into the adjacent group. To avoid this, we use dynamic peer groups, which means that every country has its own, unique peer group made up of whatever countries had the most similar GNIs per capita. As a country's GNI per capita changes, so does the composition of its peer group. For more information on this, please see PGIM Fixed Income's methodology document.

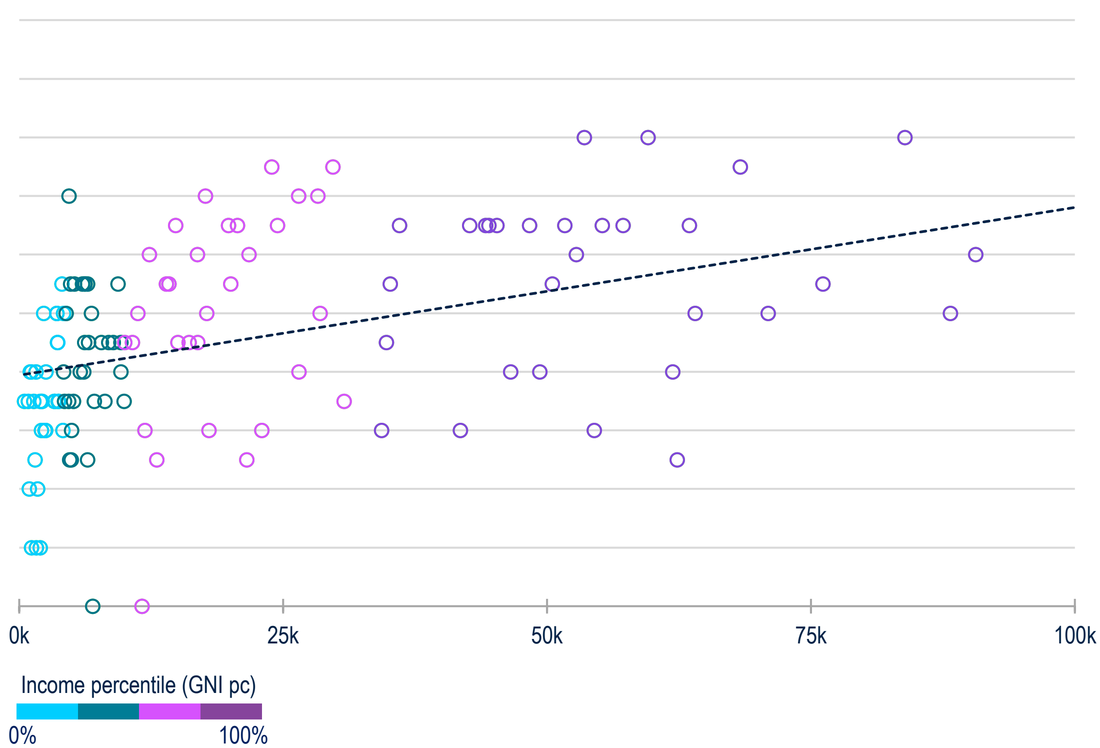
TO PEER GROUP OR NOT TO PEER GROUP?

It is important to note that we do not apply peer grouping to every indicator in our framework. We do this only where a particular data point is highly influenced by the country's capacity to allocate resources to the theme. For example, the life expectancy of a country's citizens is highly dependent on healthcare spending, as this sets a limit on the country's number of doctors, hospital infrastructure, access to medicines and quality of treatments. In these cases, it makes sense to compare countries against others with a similar capacity to spend to see which countries are better or worse at effectively deploying their available resources (i.e. which countries are "punching above/below their weight").

However, there are some indicators where peer grouping may not be appropriate given they should not be driven mainly by income levels. For such indicators, there may still some empirical correlation with income, but, in these cases, we do not feel that correlation implies causation (and/or the causation may be reversed, i.e. poor performance on the indicator explains lower incomes). For example, indicators under the Freedom and Rights theme are not peer grouped in our updated framework because, despite some empirical correlation with income, because we do not believe financial resources are a key determinant in whether individuals are treated fairly and benefit from basic rights.

Overall, our approach to peer grouping has achieved what we intended (Figure 2): The correlation between our sovereign ESG Impact Ratings and GNI per capita is less than before but has not been eliminated completely. Instead, the best performing Emerging Markets are scoring higher than previously, thus getting the credit they deserve, and the worst performing Developed Markets have lower ESG Impact Ratings than before.

Figure 2: PGIM Fixed Income's Sovereign Framework (y-axis: Sovereign ESG Impact Rating; x-axis: GNI pc)



Source: PGIM Fixed Income

CHALLENGE #2: TIGHTENING THE BELT ON DATA GLUTTONY

Whilst the quantitative portion of our framework plays a key role in our ESG impact ratings, there are material drawbacks from relying solely on the data.

Sovereign ESG data are far from perfect; they are often stale, backward-looking, filled with methodological challenges, and frequently lack transparency. Emerging markets are oftentimes the ones that score poorly on these quantitative metrics, as many do not have adequate reporting systems in place to collect the data in the first place. Furthermore, as we tried to measure progress on issues that are not fully quantitative in nature, we found that relying only on data led to an incomplete picture of how countries are performing in reality.

When it comes to assigning a proprietary sovereign *credit* rating, our team of economists draw on their expert knowledge of the countries in their coverage to combine a quantitative assessment of macro fundamentals with a qualitative assessment of a country's institutional frameworks and policymaking. Our economists maintain their expertise through country visits, careful tracking of the government's legislative and policy decisions, and through engagements with country officials. We feel this bottom-up analysis also gives our economists a more complete understanding of a country's ESG *impact* performance than what data alone can provide.

The data for the waste and pollution theme are limited, and given that our economist covering a West African country believed its data did not reflect the scale of its waste issues, he applied a downward adjustment to the county's waste and pollution theme score.

Therefore, to address the challenge of being overly reliant on data, we apply a qualitative overlay to almost every theme based on two questions:

1. Are there any other material issues or factors that should be incorporated into this country's score for this theme that are not captured elsewhere?
2. How do you expect the country's performance on this theme to change over the next five years?

These questions allow the economists to leverage their country expertise and gives them the ability to override the score on a particular theme if they feel the data do not adequately reflect what is currently happening in the country. For example, the data availability for the waste and pollution theme is somewhat limited, and the economist covering a country in West Africa believed the country's data did not fully reflect the scale of its systemic waste issues, particularly e-waste and plastic pollution. So, he applied a downward adjustment to the county's waste and pollution theme score.

A critical aspect of investing for impact is identifying issuers most likely to materially improve (and avoiding those likely to worsen), something that can be difficult to do based only on lagged, backwards-looking data. So, we also wanted to allow our economists to feed their forward-looking views into the ESG Impact Ratings to capture any factors that may materially change a country's theme performance over the next five years. As an example, we believe that a large country in Latin America's performance on biodiversity will improve significantly following a recent change in government. The new President has signaled clearly his commitment to restoring and protecting the country's rainforest region from further deforestation. We have accordingly adjusted the country's biodiversity theme rating upwards in anticipation of these effects.

CHALLENGE #3: THE BUCK STOPS WITH G(OVERNANCE)

Another finding in "Demystifying Sovereign ESG" was that the large majority of sovereign ESG ratings base their G pillars on the World Bank's World Governance Indicators (WGIs). However, the WGIs incorporate a dizzying array of underlying metrics and indices, most of which overlap heavily (and sometimes exactly) with those used in E and S themes, meaning that the G pillar in such frameworks may add little informational value (and may even dilute the analysis).

So, we thought carefully about what to measure under G. Ultimately, governance does play a key role in our framework, but our updated G pillar is focused purely on indicators which help us identify the countries that we believe will best use loaned funds to address their most material environmental and social impacts.

Additionally, the themes within our governance pillar—"government effectiveness" and "freedom & rights"—are both outcomes focused, which means we do not automatically favor democracies (a bias we intentionally looked to avoid) over other types of political systems, but instead reward the countries that achieve better results on these outcomes.

We have additional rules for the G pillar in our latest ESG Impact Ratings because we believe that good governance outcomes are a prerequisite for achieving positive environmental and social impact. To this point, we apply an overarching rule where poor performance on either one or both of the G themes caps a country's overall ESG Impact Rating regardless of how well the country performs on other themes. For example, a large country in Asia triggers this rule because it scores poorly on the Freedom & Rights theme due to leading rights groups regularly reporting abuse of ethnic and religious minorities. This poor performance means we cap this country's overall ESG Impact Rating even though it has very strong performance on other E and S themes.

Whilst we aim to remain agnostic to cultural differences, we acknowledge that there is no perfect set definition (right/wrong) or gold standards for ESG and that views on many ESG issues can depend on personal beliefs and cultural norms. Acknowledging we may not satisfy every viewpoint, we aim to apply sound judgement informed by internationally accepted frameworks, such as the UN's Convention on Human Rights or the Sustainable Development Goals. When it comes to freedom and rights, our framework is based on the assumption that each person has basic human rights regardless of his/her/their background or identity and that every individual should be treated with dignity and be free from abuse.

THE BOTTOM LINE

In our framework we have attempted to address the key challenges when assessing ESG impact performance for sovereigns. Whilst there is no perfect solution, we believe that by leveraging the expertise and dedication of our ESG specialists, Economists and Portfolio Managers, and the strong collaboration between them, there is huge potential for the asset class to drive material ESG impacts. Governments are uniquely positioned to change incentives and transform how their countries' companies and citizens operate, both in the short and long term. By creating a thoughtful, bespoke sovereign ESG Impact Rating framework, we believe we can better capture the nuances and the complexities of the asset class that the market often overlooks.

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Source(s) of data (unless otherwise noted): PGIM Fixed Income, as of September 2024.

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