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A New Dawn – Rethinking Sovereign ESG

J.P.Morgan

WORLD BANK GROUP

This paper forms part of a series of publications under the Global Program on Sustainability (GPS). The series is a knowledge product of GPS Pillar 3 with the objective to promote the use of high-quality data and analysis of sustainability to better inform decisions made by governments, the private sector, and financial institutions. GPS Pillar 3 is led by the World Bank's Finance, Competitiveness and Innovation (FCI) Global Practice (GP) in collaboration with World Bank Treasury (TRE), Development Economics Vice Presidency (DEC), and other GPs. Focusing on ESG issues in sovereign investing, the series disseminates practical, evidence-based recommendations for market participants, including institutional investors, sovereign issuers, credit rating agencies, and ESG data and service providers, among others.

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"A New Dawn – Rethinking Sovereign ESG" proposes improvements to the sovereign ESG framework and builds on findings and recommendations discussed in other papers in the series.

"Demystifying Sovereign ESG" focuses on comparing the sovereign ESG methodologies of leading sovereign ESG providers and describes structural challenges posed by the current sovereign ESG framework.

"Riding the Wave: Navigating the ESG Landscape for Sovereign Debt Managers" provides a thorough discussion of sovereign ESG from a debt management office perspective.

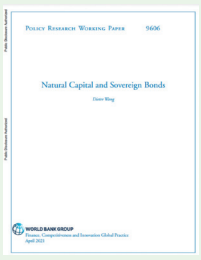
"Paving the Path: Lessons from Chile's Experiences as a Sovereign Issuer for Sustainable Finance Action" provides a concentrated study of Chile's ESG-focused issuances to date and relevant lessons.

"Spatial Finance: Challenges and Opportunities in a Changing World" (produced in partnership with the World Wildlife Fund) discusses challenges with the E data, including at the sovereign level, and explores the use of satellite data to address the quality and availability of E data.

"Credit Worthy: ESG Considerations in Sovereign Credit Ratings" demystifies the role of ESG factors in country credit ratings and highlights potential ESG impact on the creditworthiness of countries with the application of the World Bank's wealth and stranded asset data.

"1% Growth in Natural Capital: Why It Matters for Sovereign Bonds" quantifies the materiality of natural capital and its impact on sovereign bonds by adjusting for ingrained income bias.

The chapter "Natural Allies: Wealth and Sovereign ESG" from the book *The Changing Wealth of Nations 2021: Managing Assets for the Future* focuses on challenges in ESG data and discusses solutions with the application of the World Bank wealth data.



"Natural Capital and Sovereign Bonds" introduces the concept of ingrained income bias and presents evidence that sovereign bond yields reflect a country's various types of natural capital.

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Contents

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Abbreviations

E	Environmental
EM	Emerging Market
EPI	Environmental Performance Index (Yale)
ESG	Environmental, Social, and Governance
G	Governance
GDP	Gross Domestic Product
GNI	Gross National Income
GPS	Global Program on Sustainability
IIB	Ingrained Income Bias
JESG	J.P. Morgan ESG
ND-GAIN	Notre Dame Global Adaptation Initiative (Country Index)
NGFS	Network for Greening the Financial System
MDBs	Multilateral development banks
OECD	Organisation for Economic Co-operation and Development
PCA	Principal Component Analysis
RRI	RepRisk Country ESG Risk Index
S	Social
SDG	Sustainable Development Goals
UN	United Nations
WBG	World Bank Group
WGBI	World Government Bond Index
WGI	Worldwide Governance Indicators

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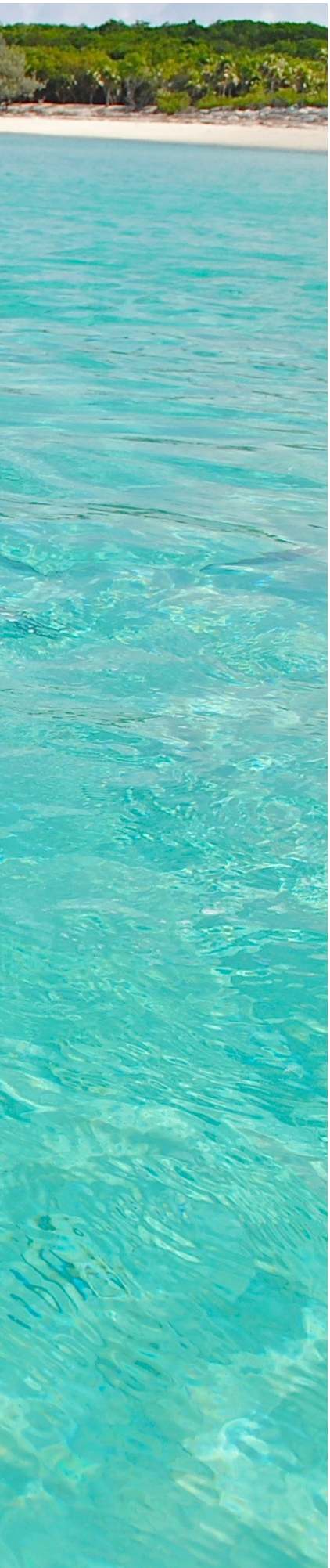

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Headline Messages

I. Environmental, Social and Governance (ESG) investing has become part of mainstream finance.

With more than $40 trillion of funds under sustainable management, ESG investing is no longer niche investing, including in emerging market (EM) sovereign debt markets. A recent J.P. Morgan survey of EM sovereign debt investors indicates that ESG factors are increasingly being used as an input into investment decisions. This is not only true for investments in sovereign debt markets but also other investments on the national and subnational level.

II. ESG scoring frameworks need improvement.

The motivation for sovereign ESG investment decisions has evolved from "ESG as input"—primarily a way to manage ESG-related risks—to also encompass "ESG as output," with investors seeking to affect ESG conditions positively. In the "ESG as input" view, ESG scores are used as additional inputs into financial decision-making, such as assessing the risk-return profile of an investment. In contrast, the "ESG as output" view considers an investment's impact on broader, nonfinancial issues, such as environmental and social systems. This report argues that both views are not mutually exclusive and that investors can balance both to achieve a "sweet spot." Sovereign ESG assessments should make it easier for investors to pursue traditional investment goals, while also contributing to measurable sustainable outcomes. The current ESG framework is not always conducive to this perspective.

III. The sovereign ESG framework must overcome three challenges: lack of clarity, the ingrained income bias, and poor environmental data quality.

Unclear terminologies, overlapping concepts, and opaque scoring methodologies raise fundamental questions about the outcomes of ESG investing compared with the stated goals. This lack of clarity hampers the ability of investors to balance the use of ESG for investment and risk management decisions with goals for investment impact. Investment goals and the purpose of ESG scores must be conceptually aligned. Distinguishing between weak and strong sustainability further complicates ESG investing.

IV. The ingrained income bias may incentivize capital flows toward high-income countries and away from countries where funding is needed most.

Leading sovereign ESG providers score countries consistently on Social and Governance issues but differ on the Environmental pillar. Unlike the documented "aggregate confusion," which describes the large differences among corporate ESG scores by various ESG providers for the same firm, sovereign ESG scores are generally consistent with each other. This consensus may appear desirable, but a deeper look reveals that this is not necessarily true. More-developed countries tend to have stronger institutions, more equality, and more prosperity. Therefore, higher income tends to be tied to better ESG scores, especially regarding Social and Governance issues. Because of this *ingrained income bias*, about 90 percent of ESG scores can be explained by a country's gross national income. As a result, richer countries have better ESG scores. Whether this truly reflects sustainability in every country is debatable. Furthermore, the sovereign E pillar includes a host of information on a sovereign's environmental condition and has the smallest weight in overall sovereign ESG scores.

More concerning, the predominant role of income sets questionable investment incentives. The income bias could disguise the ESG risks of prosperous developed countries, while greatly exaggerating the risks in developing nations. This discrepancy sets potentially perverse investment incentives that drive capital away from lower-income toward higher-income countries. This relationship also has profound implications for other investment flows, such as infrastructure investment, as well as sovereign ESG indices, which are strongly dependent on sovereign ESG scores.

V. Poor environmental data quality stands in the way of better assessment of a country's sustainability.

Improving the underlying environmental data sources is essential. The current data landscape makes it difficult to accurately assess recent performance, consistently compare country performances or construct reliable investment indices. Compared to their scoring on Governance and Social issues, ESG providers score countries on Environmental issues much less consistently. This is due to disagreements on what "good" performance is on a conceptual level, but also due to data gaps, out-of-date statistics, and heterogeneous reporting standards, which often force providers to fill in and estimate missing values. Fortunately, recent advances in geospatial technologies, as well as pressure for more standardized national reporting and the newest version of the Changing Wealth of Nations data show promise for mending these gaps.

VI. Sovereign ESG needs to adjust course toward a more transparent framework: Sovereign ESG 2.0.

Greater overall clarity in sovereign ESG is needed to better align the use of tools with intended purpose. The Sovereign ESG 2.0 framework should improve on the existing framework along five guiding principles:

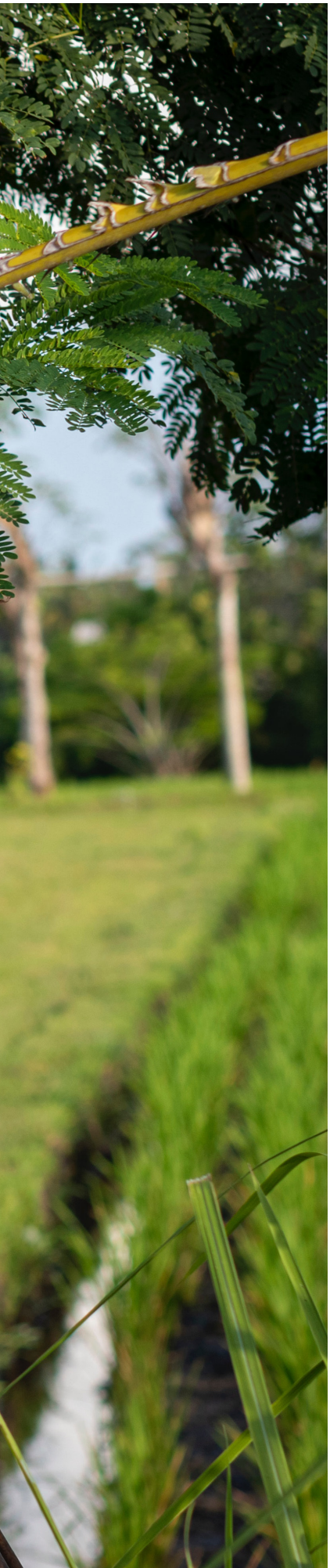
1. Clarity on investment objectives
2. Transparent scoring methodology
3. Improved data sources
4. Incorporation of forward-looking scenarios
5. Accounting for the ingrained income bias

VII. Capital market development efforts should continue and cooperation between the public and private sector remains important.

The very nature of the financial system, as well as the prevalence of benchmark investing in the sovereign emerging market universe, means that only a few EM sovereigns can attract meaningful flows to their local currency sovereign debt market. Multilateral development banks (MDBs), such as the World Bank, continue to play an important role in deepening financial sectors and support developing countries' sustainable growth. Cooperation between MDBs and private institutions will need to grow to help EM issuers access capital markets. Further public-private cooperation (for example, IFC and Amundi, JPMorgan Chase Institute, among others) is essential for continuing the transformation of the financial industry toward greater sustainability.

VIII. The World Bank will continue to lead and support sustainable finance.

Sustainability is a complex topic. More good can be achieved if market practices that become embedded in the financial system are equitable and transparent for all. Both private and public sectors have key roles to play. ESG investors should explicitly articulate their investment goals, and ESG score providers should facilitate this through clarity on how they score. It is important that policy makers in MDBs and governments of advanced economies support middle- and low-income countries in their efforts to make their economies more sustainable. Finally, although sovereign debt markets are important, they may not always be the best way to achieve desired sustainability results. Taxation and regulatory changes may be a better way to encourage ESG-oriented capital.



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Executive Summary

Environmental, social, and governance (ESG) investing is quickly becoming *ordre du jour* in sovereign debt investing. There remains, however, lack of clarity around frameworks for scoring sovereign ESG performance, industry practices, and the definition of sustainability itself. This World Bank publication consists of two independent reports. The first part is written by the World Bank and takes stock of the current sovereign ESG investing framework and proposes improvements. The second part presents a survey on ESG practices among emerging market (EM) sovereign debt investors conducted by J.P. Morgan (JPM), which launched the first EM sovereign ESG index in 2018. This publication is a result of the World Bank's proactive engagement with stakeholders on pertinent sovereign ESG issues and is part of a publication series under the auspices of the Global Program on Sustainability (GPS).

The JPM survey emphasizes that ESG considerations are no longer a niche topic for investors in EM sovereign debt. However, the level of penetration of ESG considerations into EM sovereign debt investing remains mixed. About 65 percent of respondents report that less than one-fifth of their assets under management (AUM) have explicit ESG considerations. Furthermore, when asked to assign a weight to ESG versus traditional investment factors such as inflation, interest rates, and debt-to-GDP ratios, more than 60 percent of participants assigned a weight of 20 percent or less to ESG. In a similar vein, more than 75 percent of respondents say that dedicated ESG funds make up less than one-fifth of their overall EM sovereign strategy. On the other end of the spectrum, about one-fourth consider ESG factors for more than 80 percent of their assets under management (AUM). Most respondents interested in sovereign ESG strategies were in Europe, 6 percent were in the United States, and 4 percent were in the Asia-Pacific region. Most of these said they were pursing ESG integration, in other words incorporating ESG-related information into investment decisions to enhance risk-adjusted returns, regardless of a sustainable mandate. A significant number were also pursuing exclusionary investment screening, a practice of excluding certain countries involved in ESG practices deemed unacceptable. Many also are increasing engagement or stewardship with sovereigns although half of respondents reported that they do not engage with sovereign issuers enough and want to improve.

The investment objective—whether motivated by achieving a certain risk-adjusted return, having an investment impact, or some combination of both—is a key consideration when assessing how ESG factors are included in the investment process. For decades, ESG factors, such as governance and to a lesser extent social factors, have been a foundational tenet of sovereign credit analysis. Yet, the explicit integration of ESG factors into the investment process is a recent phenomenon. Even though ESG investing has

its roots in equity and corporate debt, the increased focus of sovereign debt investors comes as no surprise, given the size of the government bond market. The sovereign issuer is, however, fundamentally different from a corporate entity. This report documents various reasons for why the corporate ESG framework may not necessarily be fit for purpose for sovereign debt investing.

Investors are beginning to regard ESG factors as output metrics of investment decisions, rather than another set of "input" parameters. In this "output" approach, ESG factors influence not only the financial value of an investment, but also reflect its impact on wider, nonfinancial systems. This is observable in the JPM survey, in which 30 percent of respondents said that sustainability is integral to their sovereign ESG framework, while 60 percent have a separate but complementary Sustainable Development Goal (SDG) framework and 10 percent assess sustainability separate from the ESG framework. This paper argues that it is possible to have a "sweet spot" (Figure ES.1) which allows an investor to maximize return, while also contributing to measurable sustainable outcomes.

ESG investing requires more clarity in its terminology to better articulate its investment purposes. Figure ES.2 groups various terms that are often used to describe the trade-off investors face, according to their relationship to financial, social, and environmental materiality. Questions regarding materiality or impact are central to this confusion, and there is need for further efforts at a global level to streamline both investment terminology and methodologies. For example, investors who consider only financially material ESG risks in the investment process may not, in fact, contribute to sustainable outcomes. Indeed, sustainability has different shades, ranging from weak sustainability, which assumes complete substitutability between the different capital stocks, to strong sustainability, which assumes no substitutability such that all natural capital must be conserved. This nuanced distinction complicates ESG investing further. There is also a clear regional distinction between interpretation of the role of fiduciary duty and ESG investing, as well as regulatory approaches to ESG across regions.

Attributing ESG investing in sovereign debt to sustainable outcomes is complicated by the nature of the asset class. The nature and scope of sovereign bonds, the primary vehicle for sovereign ESG investing, obscures how an investment achieves ESG output. The rise in sovereigns issuing thematic bonds may help partially alleviate some investor concerns. In the JPM survey, most asset managers do not currently see the link between sovereign debt and sustainable outcomes as a

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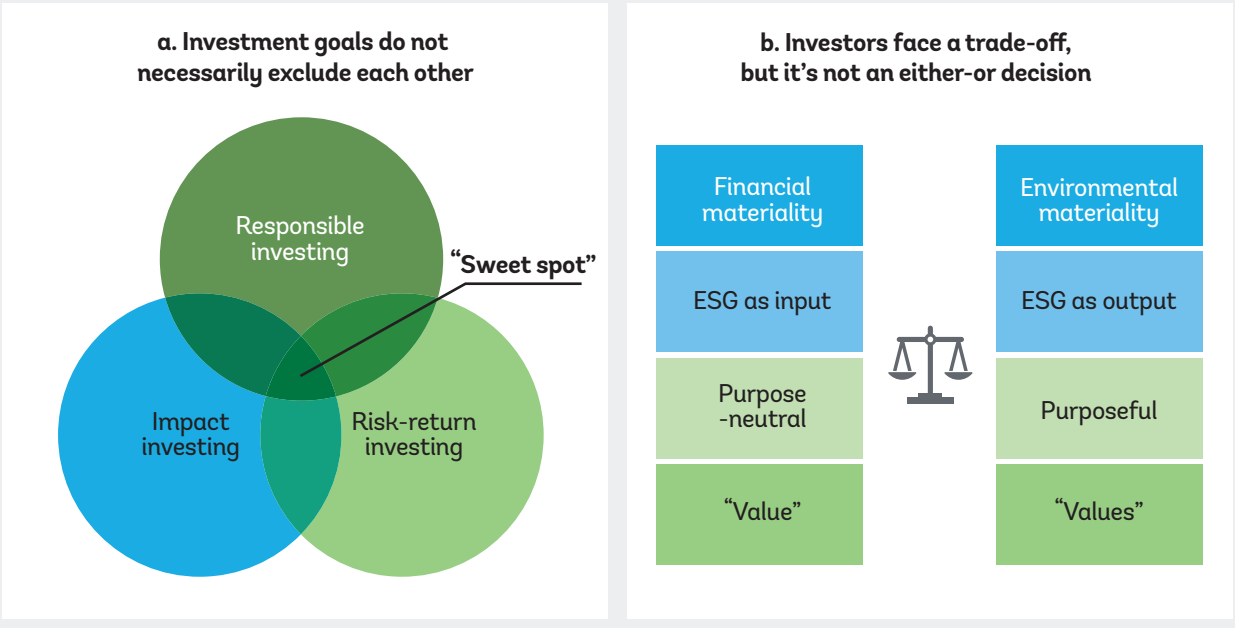
FIGURE ES.1 Overview of ESG investing approaches

ESG investing contains a multitude of terminologies. Figure 1.1a locates the ideal "sweet spot" as the intersection of common investment paradigms. Figure 1.1b groups various terms that are often used to describe the trade-off investors face, according to their relationship to financial and social/environmental materiality.



Source: World Bank staff illustration.
Note: ESG = environmental, social, and governance.

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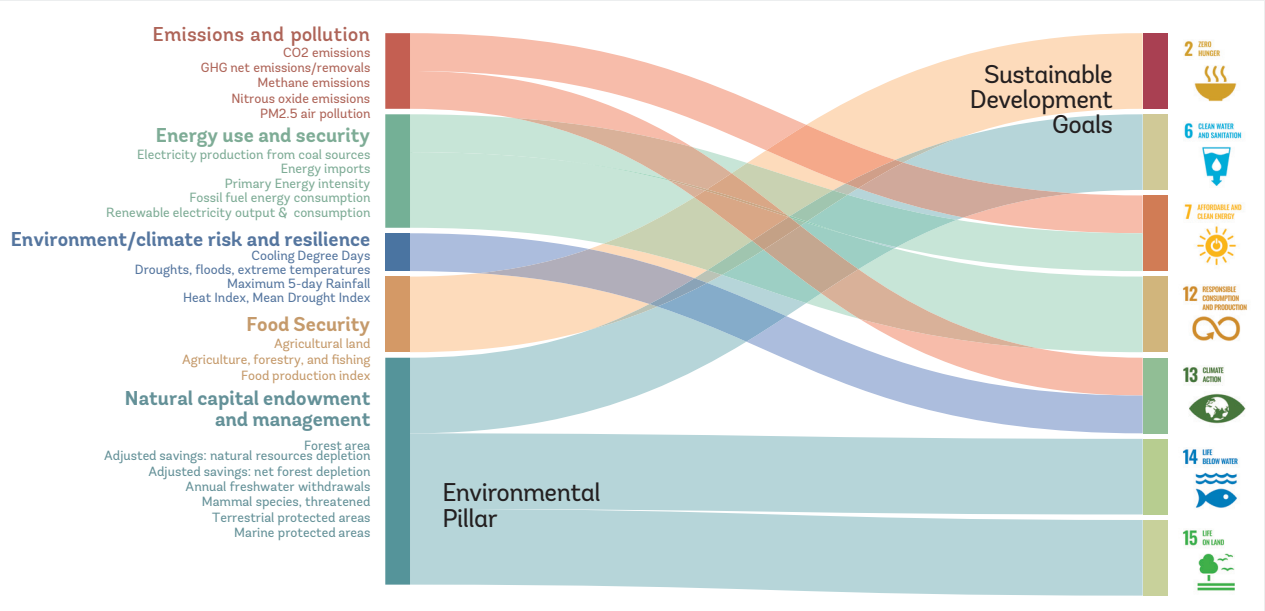
FIGURE ES.2 Sovereign ESG environmental pillar has many facets that are difficult to measure

The five major environmental themes from the Sovereign ESG data portal are directly linked with at least seven of the Sustainable Development Goals. This close relationship highlights the importance of accurately measuring environmental indicators.



Source: World Bank staff Illustration.
Note: CO2 = carbon dioxide; ESG = environmental, social, and governance; GHG = greenhouse gas; PM2.5 = particles of less than 2.5 micrometers diameter.

major problem (only 16 percent do). The survey found that the current primary concern for investors is the lack of ESG standardization (42 percent) and the prevalence of greenwashing (24 percent).

Sovereign ESG performance sets a benchmark and drives capital allocations for subnational investment decisions. Sovereign ESG scores serve not only to characterize sovereign-level instruments, such as government bonds. Similar to how the performance of an investment portfolio is evaluated against market indices or industry factors, in many cases sovereign ESG scores also serve as a benchmark for performances of subnational entities. Moreover, sovereign ESG scores also trickle down to subnational entities, such as municipalities and corporations. Especially in countries where data coverage and quality are lacking, country-level indicators are often used to fill in missing values for smaller entities. This emphasizes the high demand for a reliable and transparent sovereign ESG framework, which would also enable a fairer comparison of corporates across borders.

Three Structural Challenges

The paper identifies three structural challenges with the current sovereign ESG framework: Lack of clarity, the ingrained income bias, and poor environmental data quality. First, unclear terminologies, overlapping concepts and opaque scoring methodologies raise fundamental questions about the de facto outcome of ESG investing compared to its stated goal. This lack of clarity hampers the balancing between the "ESG as input" and "ESG as output" views. Investors who truly aim for the sweet spot may in fact do harm to sustainable outcomes, when investment goals and the purpose of ESG scores are conceptually not aligned. The JPM survey on EM sovereign investors supports this concern with lack of ESG standardization being the greatest concern of ESG going forward, and with transparency among the main concerns on existing ESG data.

Second, while sovereign ESG providers may converge on what good sovereign ESG performance is, that ideal is driven by an ingrained income bias (Figure ES.3). About 90 percent of sovereign ESG scores are explained

by a country's national income, thus richer countries tend to have better ESG scores. Prosperous countries tend to have better institutions and less inequality, which are linked to better social conditions and governance. But ESG is multifaceted and whether this truly reflect sustainability can be debated. More concerning, the predominant role of income sets questionable investment incentives. The income bias could disguise ESG risks of prosperous developed countries, while greatly exaggerating the risks in developing nations. This sets potentially perverse investment incentives that drive capital away from lower income toward higher income countries. This relationship also has profound implications for sovereign ESG indices and other investment flows, which are strongly dependent on sovereign ESG scores. The JPM survey emphasizes that the ingrained income bias is also a focus for the asset manager community: 24 percent of respondents listed it as the most dominant concern about sovereign ESG investing.

Third, poor environmental data quality stands in the way of better assessing a country's sustainability. Sovereign ESG providers, who have laid the foundation for the operationalization of ESG investing in sovereign fixed-income markets, converge on measuring good sovereign performance on Governance and Social issues but not on measuring the Environment pillar at the sovereign level. The sovereign E pillar includes a host of information on a sovereign's environmental condition and has the smallest weight in overall sovereign ESG scores. One of the main reasons for disagreement on the E pillar is the complex question of what a "good" environmental performance is. The five major environmental themes from the World Bank's sovereign ESG data portal, for example, are directly linked with at least seven of the United Nations SDGs (Figure ES.2). This close relationship highlights the importance of accurately measuring environmental indicators but also the challenge. This is also manifested in the JPM survey: 70 percent of the respondents underrepresent the E pillar because of data challenges, whereas 26 percent underrepresent the S pillar and only 4 percent underrepresent the G pillar.

The Path Forward

As a result of these structural challenges, the current sovereign ESG framework needs to adjust course and become more transparent. We list guiding principles for a Sovereign ESG 2.0. framework that should provide a solid foundation for future developments and avoid the structural challenges of the current framework (Figure ES.4). Five key areas that both the World Bank and other stakeholders can focus on are identified. These are clarity on investment objective, more transparent methods, improved data quality, incorporation of forward-looking scenarios, and 5accounting for the ingrained income bias.

Foremost, investors need to be able to clearly define their preferred investment approach, whether that be "ESG as input", "ESG as output" or some combination of both. Investors and asset managers need to clearly articulate (a) their financial and sustainability objectives, (b) the mechanisms by which they will be achieving these objectives, (c) the metrics by which they will measure success or failure, and (d) the approach for balancing these objectives when they are not aligned. Transparent methods are also critical to allow stakeholders to understand what is being measured. More transparency in rating approaches and data sources facilitates a constructive dialogue between data providers, rating agencies, and investors.

Availability of data is critical to advancing the sovereign ESG framework. More frequent and timely data coverage would improve analysis of recent performance of sovereigns on ESG issues. A reliable data environment also makes the construction of rules-based investment indices feasible. Despite good progress—for example the World Bank sovereign ESG data portal, World Resources Institute data platform, and advances in geospatial data—significant shortcomings remain, particularly on the environmental side. As the majority of JPM survey participants indicate, the E pillar is currently underrepresented due to data challenges. Large data gaps and lags mean that it is often necessary to impute missing data or extrapolate data forward. Advances in geospatial data collection, as well as machine learning methods, also offer a promising way forward, but they also require significant technical expertise and support to be more broadly and publicly available.

World Bank wealth accounting data are a promising source for additional data insight. The purpose of wealth data largely overlaps with the goals of sovereign ESG scores, but the latter have adopted wealth data only to a limited degree. The economic materiality, forward-looking perspective, and long history of consistently curated data suggest that wealth data could be a potential input for better-quality data. Wealth data address two major shortcomings of current sovereign ESG data. First, wealth data measures the economic value to environmental resources and, second, its comparatively long history and high frequency allows focus on recent developments in environmental performance.

Forward-looking assessments are also critical because the risks from climate change are expected to be more frequent and larger in the future than in the past. Traditionally, financial materiality has been determined by

looking at statistical relationships in past data. With the consequences of environmental degradation and climate change looming on the horizon, E indicators need to not only represent the value of the environment today but also capture the value of its protection and the costs of its loss for future generations. Looking at nature from this perspective also sheds light on the risks and opportunities that stem from natural assets.

The *ingrained income bias* is a fundamental challenge for sovereign ESG investing. Recognizing and adjusting for this bias is a key requirement for Sovereign ESG 2.0. Ideally, ESG scores should give an accurate representation of a country's sustainability that is not primarily a result of its level of income. However, removing this bias is not a simple exercise, as any adjustment method rests upon assumptions about what ESG scores should represent and what "good" ESG performance is. While some practitioners have advocated income adjusting by using a regression adjusted for GDP per capita, the authors of this paper argue that this may lead to overcorrection and would fail to capture the nonlinear nature of income's impact. We therefore propose two alternative approaches (momentum and peer-group scoring) that may serve the goals of income adjustment better. We also discuss the drawbacks of these methods, such as additional data requirements and the sensitivity of peer group selection.

The level of capital market development is a binding constraint for operationalizing a more equitable sovereign ESG framework. The very nature of the financial system, as well as the prevalence of benchmark investing in the sovereign EM universe, means that only a few EM sovereigns can attract meaningful flows to their local currency sovereign debt market. Multilateral development banks (MDBs), such as the World Bank, continue to play an important role with respect to financial sector deepening, contributing to efforts to support developing countries' sustainable growth. The World Bank's Finance, Competitiveness, and Innovation (FCI) and Treasury global practices also provide technical assistance and advisory services on bond market development as well as on thematic sovereign bond issuance. Cooperation between MDBs and private institutions will need to grow to help EM issuers access capital markets. Further public-private cooperation (for example, IFC and Amundi, JPMorgan Chase Institute, among others) is essential to continue to also transform the financial industry collectively toward greater sustainability through, among other things, design of new financing instruments and development of market-ready practices and frameworks.

The World Bank will continue to work with key stakeholders on the issues identified in this paper. The guiding principles identified provide a solid foundation

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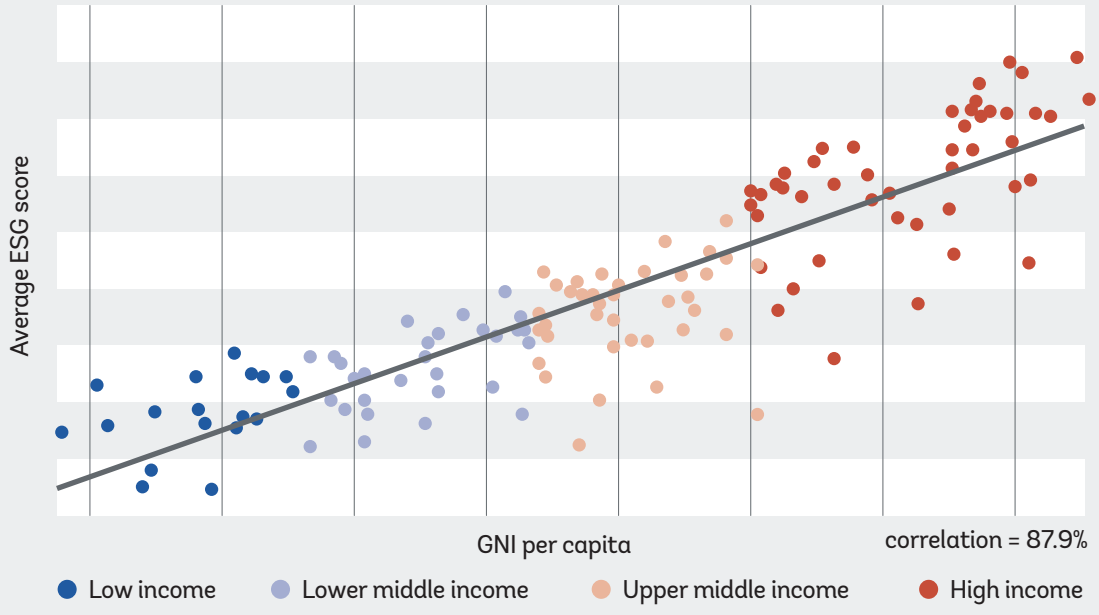
FIGURE ES.3 Sovereign ESG scores have a strong income bias

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 staff illustration.
Note: GNI = Gross National Income.

for future work, and the World Bank will continue to play a proactive leading role. The paper highlights that sustainability is a complex topic and that the current sovereign ESG framework may in fact disadvantage poorer countries. It is also important that policy makers and key stakeholders are cognizant of these dynamics and that MDBs and governments of advanced economies support middle- and low-income countries in their efforts to make their economies more sustainable. This work may or may not be through the sovereign debt market. Although sovereign ESG investing is certainly one lever to attract ESG-orientated capital, other methods such as taxation and regulatory changes could also help and be relatively more effective in lower-income countries.

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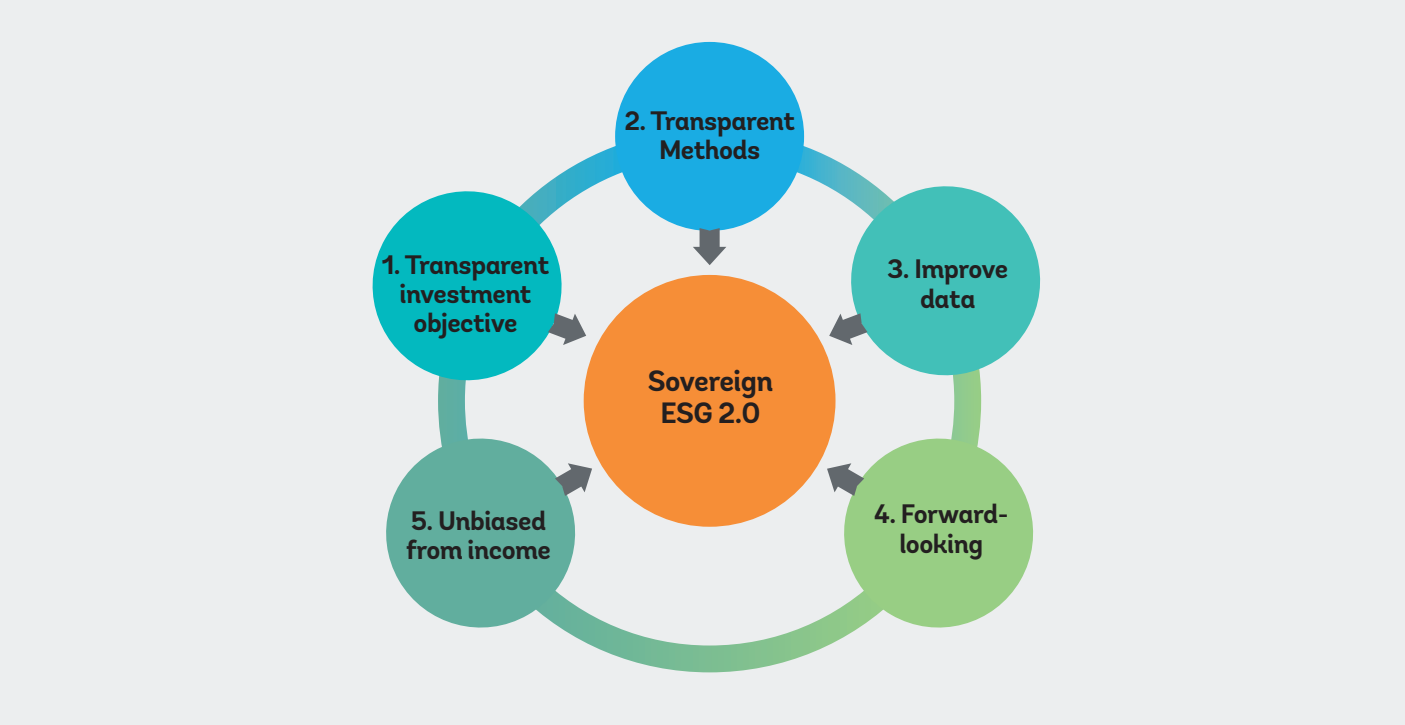
FIGURE ES.4 Key requirements of Sovereign ESG 2.0



Source: World Bank staff illustration.

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A New Dawn – Rethinking Sovereign ESG

Introduction

> > >
Key Takeaways

1. **"ESG as input" and "ESG as output" are two mutually nonexclusive approaches to environmental, social, and governance (ESG) investing:** (a) ESG integration or a purpose-neutral approach using ESG factors as an input in the investment process to manage ESG-related risks that affect the financial risk of the investment portfolio and (b) a purposeful approach using ESG factors as an output of the investment process to achieve measurable, sustainable impacts.
2. **The sovereign ESG framework has predominately been focused on (a), not on (b).** This is not an either-or decision: investors can pursue a mix of both approaches. It is possible to have a sweet spot whereby an investor can improve risk management of a portfolio while also contributing to measurable sustainable outcomes. This approach of balancing *financial materiality* and *environmental materiality is called dual materiality*.
3. **The World Bank team has identified structural challenges in the current sovereign ESG framework.** First, we highlight the terminology confusion. Secondly, our research shows that there is a strong relationship between the output of the current sovereign ESG methodologies—sovereign ESG scores—and countries' level of income. Thirdly, we find that there is little agreement on what constitutes or how to measure good sovereign environmental performance among ESG data providers, compared with the performance of governance and social factors..
4. **The sovereign ESG investing framework is also becoming important for country capital allocations.** Sovereign ESG performance is becoming a key part of overall country risk assessments and could affect decisions of many ESG-conscious investors to invest in a country, therefore influencing capital flows.
5. **A sovereign ESG framework with greater transparency** is needed so that investors can make informed investment decisions to ensure alignment of ESG tools with investment objectives.

This paper consists of two independent reports on the topic of sovereign environmental, social, and governance (ESG) investing. The first chapter presents a World Bank report that takes stock of the current sovereign ESG investing framework and proposes improvements. The second chapter presents a survey conducted by J.P. Morgan (JPM) on ESG practices among emerging market (EM) sovereign debt investors.[1] The survey broadly emphasizes that ESG considerations are no longer a niche topic for investors in emerging market (EM) sovereign debt although the level of penetration of ESG into EM sovereign debt investing remains mixed.[2]

The World Bank promotes sustainable development and shared prosperity globally, and developing sustainable financial markets is a key conduit for attracting capital for this purpose. Cooperation between multilateral development banks (MDBs), such as the World Bank, and private institutions will need to grow to help mobilize capital and finance a more sustainable future in emerging markets. As part of this effort, the World Bank proactively engages with many asset owners and asset managers, institutional investors, banks, and other private sector participants on pertinent ESG-related issues. These discussions have been the primary motivation for this paper.

This publication is targeted at both policy makers and key stakeholders in the industry. Specifically, the paper answers the following questions:

- *Sovereign ESG and sustainability:* To what extent does the current sovereign ESG framework that we call "Sovereign ESG 1.0" contribute toward sustainability?
- *Promises and realities of sovereign ESG:* What are the issues that need to be addressed for the sovereign ESG framework to be better aligned with the sustainable development goals (SDGs)? How does the ability of ESG investing to enable sustainable development outcomes fare in the face of market realities?
- *Toward Sovereign ESG 2.0:* What does Sovereign ESG 2.0 need to look like to be better aligned with sustainability objectives? What reforms to the current sovereign ESG framework are required to help move the financial system toward greater sustainability?

Sovereign debt is a unique asset class because the sovereign issuer is fundamentally different from a corporate issuer. As a result, the external validity of empirical findings and mechanisms related to ESG, which primarily have emanated from the corporate world, should not be assumed. For example, a sovereign is involved in a diverse array of activities that involve many societal tradeoffs.

There are two mutually nonexclusive approaches to sovereign ESG investing. Up to now, ESG investing has focused on ESG integration, which uses ESG factors as an input in the investment process to help minimize ESG-related risks (that is, a purpose-neutral view).[3] In the EM context, this approach emphasizes governance issues due to their strong place in existing sovereign credit analysis and exclusion-based investment mandates.

As ESG investing becomes an integral part of the financial sector, investors are also beginning to focus on ESG from an impact or output viewpoint rather than as another investment input parameter.[4] This more purposeful approach considers ESG factors that affect not just the financial value of the asset but also its impact on the wider nonfinancial aspects such as environmental, and social systems. This ESG-as-output view is closely related to the impact-investing paradigm. However, having impact through project financing is more tractable than having impact on a sovereign level. While dealing with impact-washing and measuring impact is difficult on any level, attributing environmental improvements to specific investments is particularly challenging on a countrywide scale. As we will argue later in this report, the relevance of ESG as an output is instrument specific. Sovereign ESG discussions have been primarily focused on sovereign bonds. In this report, we therefore also focus on sovereign debt markets, but many of the key considerations are also applicable to broader sovereign capital allocation decisions.

1 The survey was conducted in January 2021 and received 51 responses from EM investors across three regions that represented almost US$650 billion in assets under management (AUM).

2 We emphasize that results should not be considered representative of the full universe of institutional bond investors since respondents were selected and agreed to participate in this survey. These takeaways should instead be seen as upper boundaries for the wider market in terms of ESG adoption. About 65 percent of respondents reported less than one-fifth of their AUM as having explicit ESG considerations. On the other end of the spectrum, about one-fourth consider ESG factors for more than 80 percent of their AUM. Furthermore, when asked to assign a weight to ESG versus traditional investment factors (inflation, interest rates, debt-to-GDP ratios), more than 60 percent of participants assigned a weight of 20 percent or less to ESG. Similarly, more than 75 percent of respondents said that dedicated ESG funds make up less than one-fifth of their overall EM sovereign strategy.

3 In a 2020 report, J.P. Morgan recognized that ESG investing has started to shift from purpose-neutral to purposeful, bringing this investment approach closer to the concept of sustainable development. As a result, EM investors are increasingly seeking out frameworks and methodologies to qualify and quantify impact to avoid accusations of green-washing or impact washing. This ongoing evolution of the financial industry toward a greater focus on development outcomes, while also retaining the broader market appeal of traditional ESG investing, will help attract new sources of capital for EMs to meet their development objectives and Sustainable Development Goals in the years ahead.

4 As these two approaches to ESG investing are often presented in different ways, box 1.1 provides an overview of different framings, while appendix A provides a repertoire of commonly used terminology pertaining to both approaches. Figure 1.1 illustrates the two main ESG investment approaches and shows that there may be overlap between these concepts.

Sustainability has different shades, ranging from weak sustainability, which assumes complete substitutability between the different capital stocks such as produced capital and natural capital, to strong sustainability, which assumes no substitutability, so that natural capital must be conserved (Pelenc, Ballet, and Dedeurwaerdere 2015). Lack of consensus and clarity on the nature of sustainability pursued through investing in various asset classes complicates ESG investing further. On top of this, ESG investing contains a multitude of terminology interpreted and applied differently by different market players. Figure 1.1a locates the ideal "sweet spot" as the intersection of common investment paradigms. Figure 1.1b groups various terms that are often used to describe the trade-off investors face, according to their relationship to financial, social, and environmental materiality. Box 1.1 also provides an overview of the varying terminology used to distinguish between ESG investing objectives.

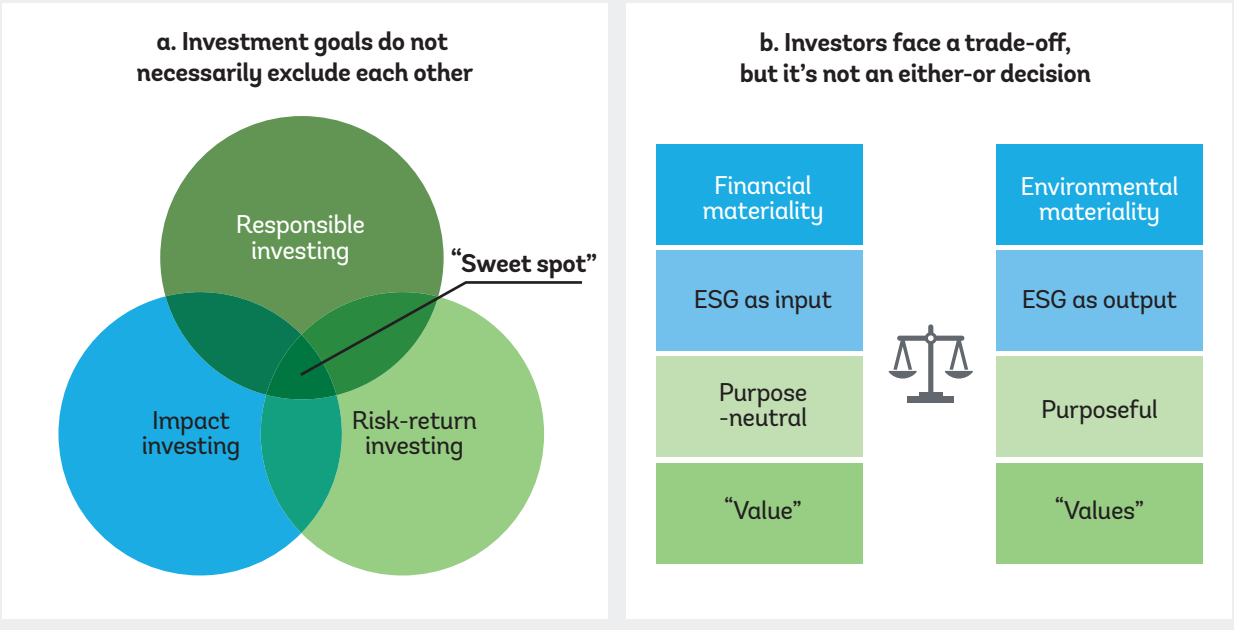
It is possible to have a "sweet spot" whereby an investor can pursue traditional investment objectives while also contributing to measurable, sustainable outcomes, as figure 1.1 illustrates. This approach of balancing financial materiality and environmental materiality (called *dual materiality*) arguably stands at the heart of the debate on whether sustainable investing and traditional investment goals are mutually exclusive. The JPM EM ESG investor survey gives a clear answer: less than 13 percent of respondents believe that following an ESG strategy implies sacrificing investment returns compared to a market benchmark. While 36 percent are ambivalent, the remaining 51 percent believe that the sweet spot is achievable in some form. The sweet spot, however, does not mean that financial and environmental materiality are equivalent. Some 64 percent of respondents consider the primary purpose of ESG as being the better quantification of a sovereign's credit risk situation. The remaining 34 percent believe that the main purpose is to measure a country's sustainability profile and effort.

The World Bank team identified structural challenges in the current sovereign ESG framework. Our research shows that there is a strong relationship between the output of the current sovereign ESG methodologies used by sovereign ESG providers—sovereign ESG scores—and countries' level of income (Boitreaud et al. 2020; Gratcheva, Gurhy, and Wang 2021; Wang 2021). This implies that

> > >

FIGURE 1.1 Overview of ESG investing approaches

ESG investing contains a multitude of terminologies. Figure 1.1a locates the ideal "sweet spot" as the intersection of common investment paradigms. Figure 1.1b groups various terms that are often used to describe the trade-off investors face, according to their relationship to financial and social/environmental materiality.



Source: World Bank staff illustration.
Note: ESG = environmental, social, and governance.

the level of income in developed countries could disguise ESG risks while undervaluing sustainability performance in developing countries, a situation which could lead to misallocated capital and the potentially perverse incentive of driving capital away from low-income countries toward rich countries.[5] If this result is indeed the intended purpose of ESG scores, it is then worth asking what value ESG scores add, de facto, compared to existing sovereign credit ratings. While richer countries receiving better credit ratings is in line with their stated goal of measuring creditworthiness, it is questionable whether this is also in alignment with the purpose of ESG scores.

We find that environmental factors can often be misconstrued by investors with wide disparity among sovereign ESG data providers. The results show that there is little agreement on what constitutes "good" sovereign environmental performance among ESG providers. In contrast to the relatively high level of correlation for aggregate ESG, S, and G scores, there is a markedly lower level of correlation between environmental pillar scores. Reasons for this include data lags, nonalignment of financial and environmental materiality, and the longer time horizon and nonlinear nature of environmental risks.

The rest of the paper is organized as follows. Section 1.2 outlines the current sovereign ESG investing framework and how it contributes toward sustainability objectives while section 1.3 highlights structural challenges of the current sovereign ESG practices and approaches. Section 1.4 proposes a new sovereign ESG 2.0 investment approach, which in addition to the underpinnings of the current sovereign ESG 1.0 framework, we argue, would more transparently align with sustainability objectives. Potential reforms are highlighted followed by the conclusion. The JPM survey is then presented.

5 In its report, J.P. Morgan has also acknowledged that the current sovereign ESG investing framework, which assigns low-income EM countries the lowest ESG scores, perpetuates their development challenges. Indeed, J.P. Morgan has been seeking solutions to address this issue for sovereign investors within their sovereign index methodology as well as establishing a development finance institution to spur additional capital toward financing the UN SDGs in EMs.

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BOX 1.1 Terms for differentiating the purposes of ESG investing

There is a lack of clarity about the purpose of ESG investing and the terminology used to describe it. Questions regarding materiality are central to this confusion, so we present terminology and distinctions that help more clearly articulate the multiple potential goals of ESG investing.

Regulators are beginning to clarify terminology. There is clear distinction in using different terms under the European Commission's (EC) Guidelines for Reporting Climate-Related Information and American trust fiduciary law. In its 2019 guidelines, the EC defined *financial* and *nonfinancial materiality* with regard to assessing and reporting climate change impact on companies. While it defined financial materiality in the broad sense of affecting the value of the company rather than in the narrow sense of affecting its financial statements, it clarified the directionality of this impact: by climate change on companies, which is the focus of the task force on climate-related financial disclosures (TCFD). It defined *nonfinancial materiality* to assess the company's impact on the environment. Consideration of both factors is defined as *dual materiality*. Figure B1.1.1 illustrates these concepts adapted for the sovereign context.

There has been a clear regional distinction between interpretation of the role of fiduciary duty on ESG. In 2020, Schanzenbach and Sitkoff (2020) proposed an ESG investing taxonomy of *collateral benefits ESG* versus *risk-return ESG* to reflect American trust fiduciary law's emphasis on investment motive.[a] US fiduciary law constrains investments based on considerations of the potential effects of US institutional investors using collateral-benefits ESG. While risk-return ESG investing could provide superior risk-adjusted returns, they argue that achieving collateral benefits as an objective may not necessarily achieve this (Schanzenbach and Sitkoff 2020).

The Network for Greening the Financial System (NGFS) has also defined two high-level socially responsible investing (SRI) objectives for central bank portfolios: (a) a *financial SRI objective* that aims to address the impact of climate-related risks and ESG-related risks on the portfolio and (b) an *extra-financial SRI* objective that aims to address the impact of the portfolio on the environment and society, alongside financial returns (figure B1.1.1). These objectives are increasingly likely to overlap as adaptation and mitigation policies evolve in response to climate change. For a climate-specific scope, the two high-level goals can be translated into a carbon risk objective and a climate friendliness objective (Dupré et al. 2015).

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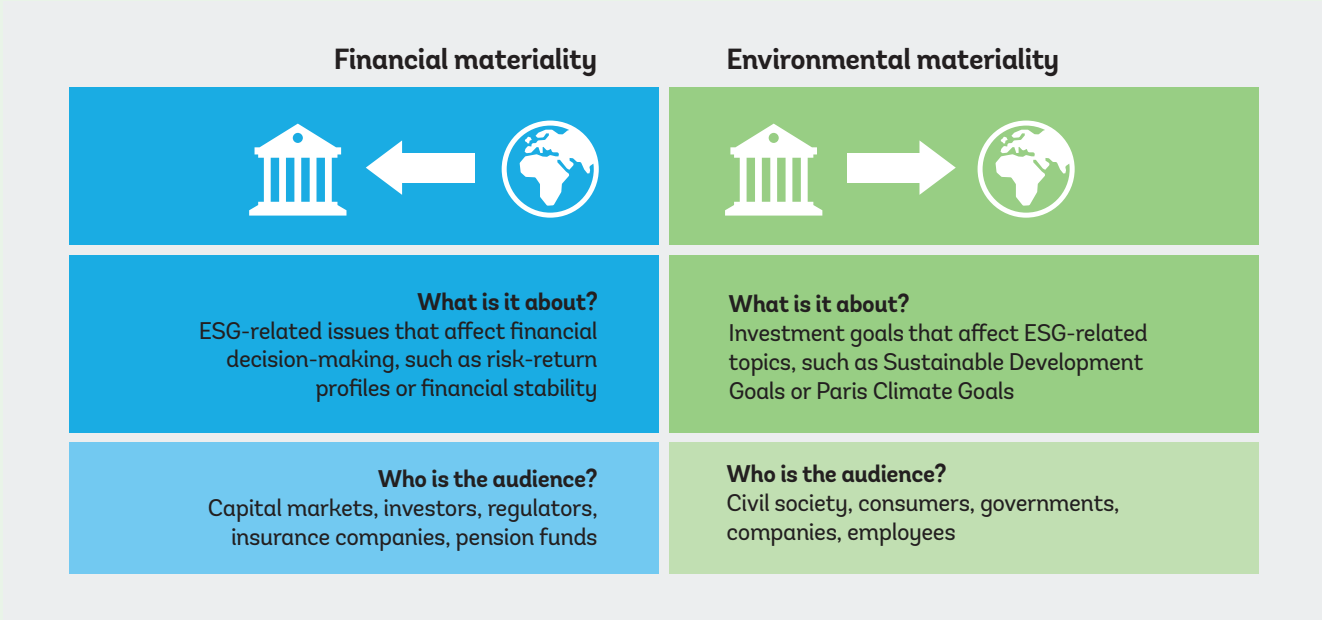
FIGURE B1.1.1 Dual materiality in Sovereign ESG Investing



Source: World Bank staff illustration; European Commission 2019.
Note: ESG = environmental, social, and governance.

a. Collateral-benefits ESG is defined as an investment approach that considers sustainability outcomes as part of its investment process, while risk-return ESG is an investment process that considers material E, S, and G inputs to the investment process with the exclusive motivation of improving risk-adjusted returns. For a broader international perspective, refer to PRI and UNEP FI 2019.

Sovereign ESG and Sustainability

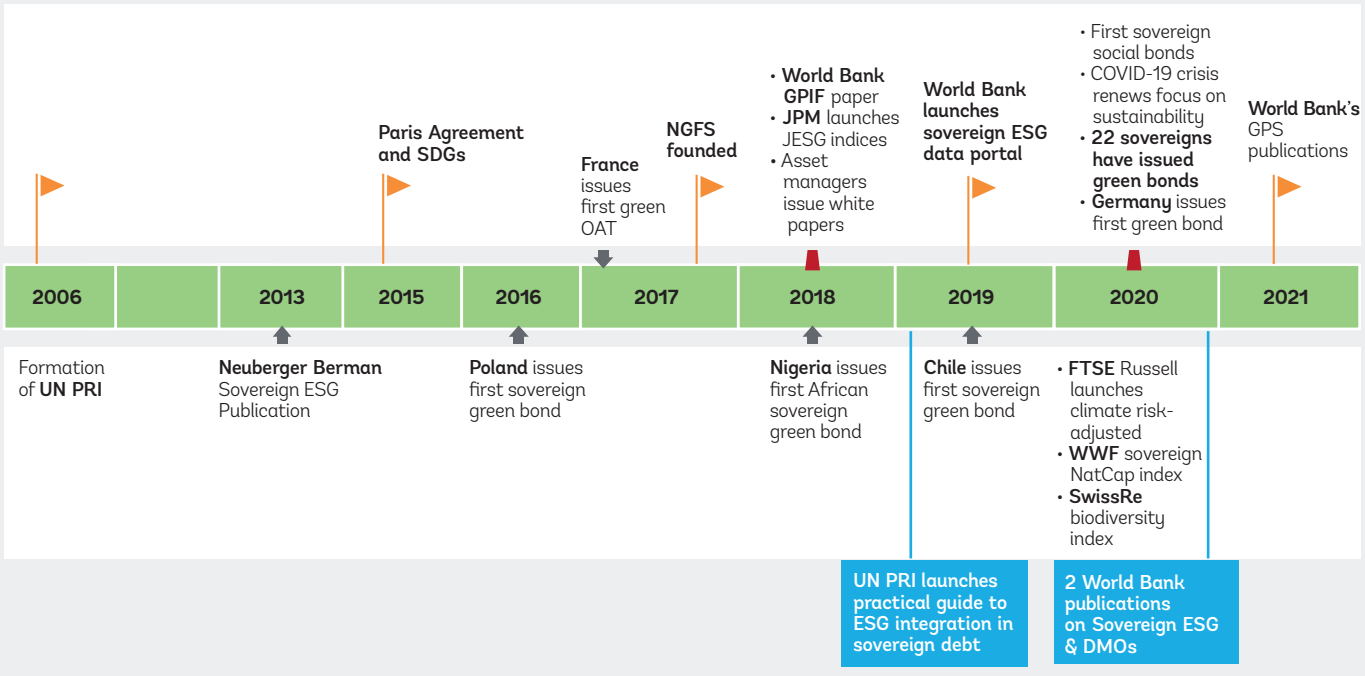
> > >
Key Takeaways

1. **Sovereign bonds are limited in their ability to serve as a direct vehicle to achieve sustainable development goals** mainly because of the complicated transmission channels from investments in the asset class to the real economy.
2. **Nevertheless, sovereign debt has an important role to play in the sustainability discussion, given its large scale within the global capital market.** Moreover, sovereigns drive and fund the country's economic, social, and environmental policies because that is the role of government.

The ESG investing framework was originally designed for equities (and corporate bond) investing and was later adapted to sovereign debt investing. Since 2017, ESG investing in sovereign fixed income has become increasingly mainstream (see box 1.2). The timeline in figure 1.2 demarcates major events in the evolution of ESG investing in the sovereign fixed income asset class. The sovereign ESG framework is used primarily by sovereign fixed-income investors but is also becoming increasingly important for subnational capital allocation. Specifically, sovereign ESG metrics may also implicitly affect allocations to corporates, infrastructure, or private investments within a country. Especially in countries where data coverage and quality are lacking, country level indicators are often used to fill in missing values for smaller entities. Furthermore, a reliable and transparent sovereign ESG framework also enables comparison of corporates across borders that is fairer.

> > >
FIGURE 1.2 Sovereign ESG: The road to mainstream

This timeline demarcates major events in the world of sustainable finance. Since the formation of the United Nations Principles of Responsible Investment, the topic has gain increased attention an momentum in recent years.



Source: World Bank staff illustration.
Notes: DMO = debt management operation; ESG = environmental, social, and governance; GPIF = government pension investment fund; GPS = Global Program on Sustainability; JESG = J.P. Morgan ESG; JPM = J.P. Morgan; NatCap = Natural Capital; NGFS = Network for Greening the Financial System; OAT = French government bond, SDG = sustainable development goal; UN PRI = United Nations Principles for Responsible Investment; WGBI = World Government Bond Index; WWF = World Wildlife Fund.

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BOX 1.2 ESG Investing and Sovereign Debt

The rise of environmental, social, and governance (ESG) investing in sovereign debt is notable both because of the unique role of governments and because of the scale of the asset class.

The focus on sovereign debt is not surprising given the acceleration of global climate policy initiatives and political commitments that have moved both the issuer and investor communities to become increasingly proactive in repositioning themselves. The COVID-19 pandemic has also resulted in a stark increase in global sovereign debt levels as the full mechanisms of the state have been called upon to meet the social and health emergency brought about by the crisis.[a]

Because sovereign fixed income is the biggest investment asset class, the integration of ESG investing as a more systematic part of it can be viewed as a natural and expected progression. Sovereign issuances of green and labeled bonds, the continued growth of ESG-tilted investment benchmarks, and growing sovereign-level offerings from ESG data providers reflect a quickly evolving financial sector ecosphere. Issuance of labeled bonds in emerging markets (figure B1.2.1) and emerging market ESG fixed-income assets under management (AUM) (figure B1.2.2) continue to grow. Although sovereign labeled bond issuances attract much of the market attention, the overall amount outstanding represents only about 0.2 percent of sovereign debt outstanding—so there is room for this market segment to continue to grow, given investment demand. In the meantime, investment mandates with ESG factors integrated will likely drive sovereign ESG asset allocations.

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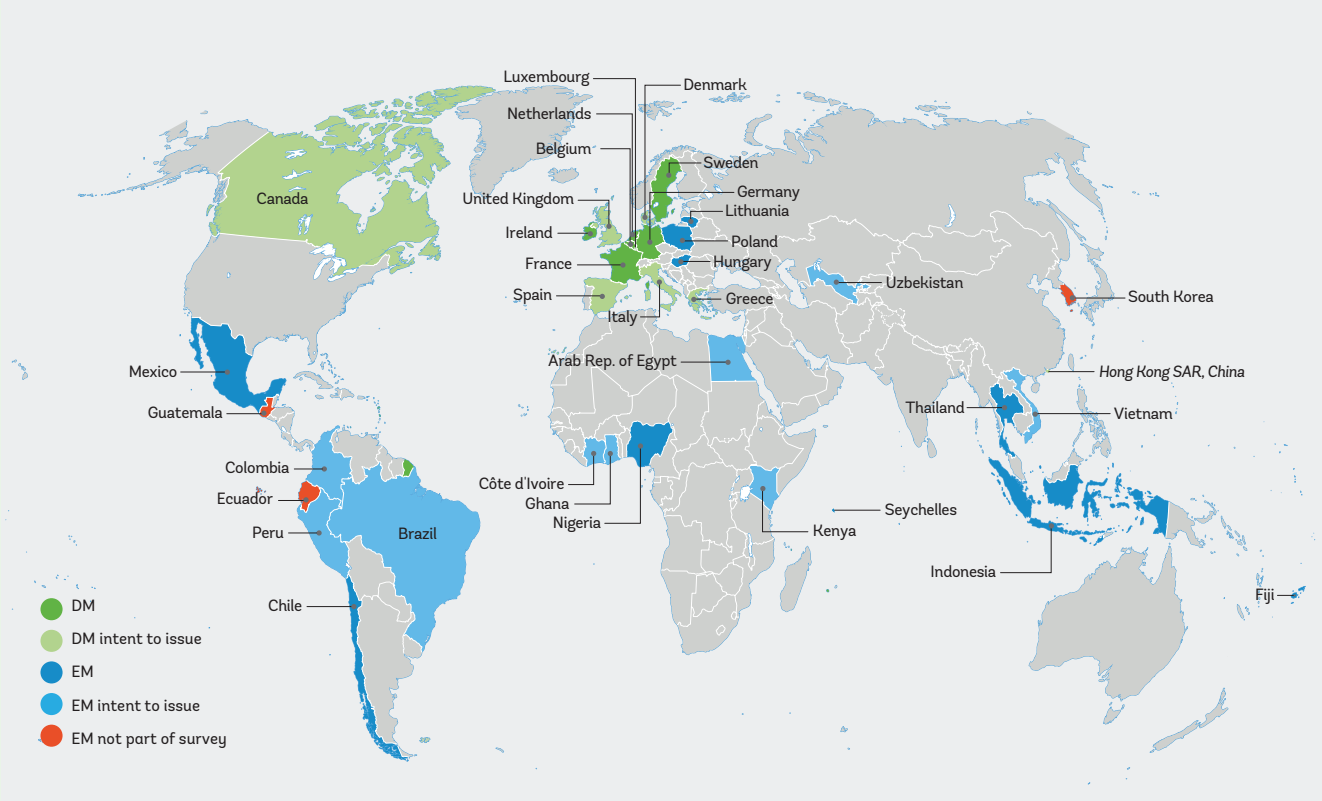
FIGURE B1.2.1 Climate bond initiative Sovereign Green, Social, and Sustainability Bond Survey: 22 sovereigns have issued labeled bonds since 2016.



Source: Climate bond initiative survey 2020. The survey covered 97% of issuance with 19 out of 22 sovereign issuers sharing their experience on issuing a labeled instrument. As of November 2020, 22 national governments had issued sovereign labeled bonds totaling USD96bn. In addition, at least 14 other sovereign governments across the world have indicated their intention to issue such bonds.
Note: DM=Developed Market; EM = emerging market.

a. Public debt increased by US$8.5 trillion through September 2020, which included US$1.4 trillion in emerging markets.

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BOX 1.2 Continued

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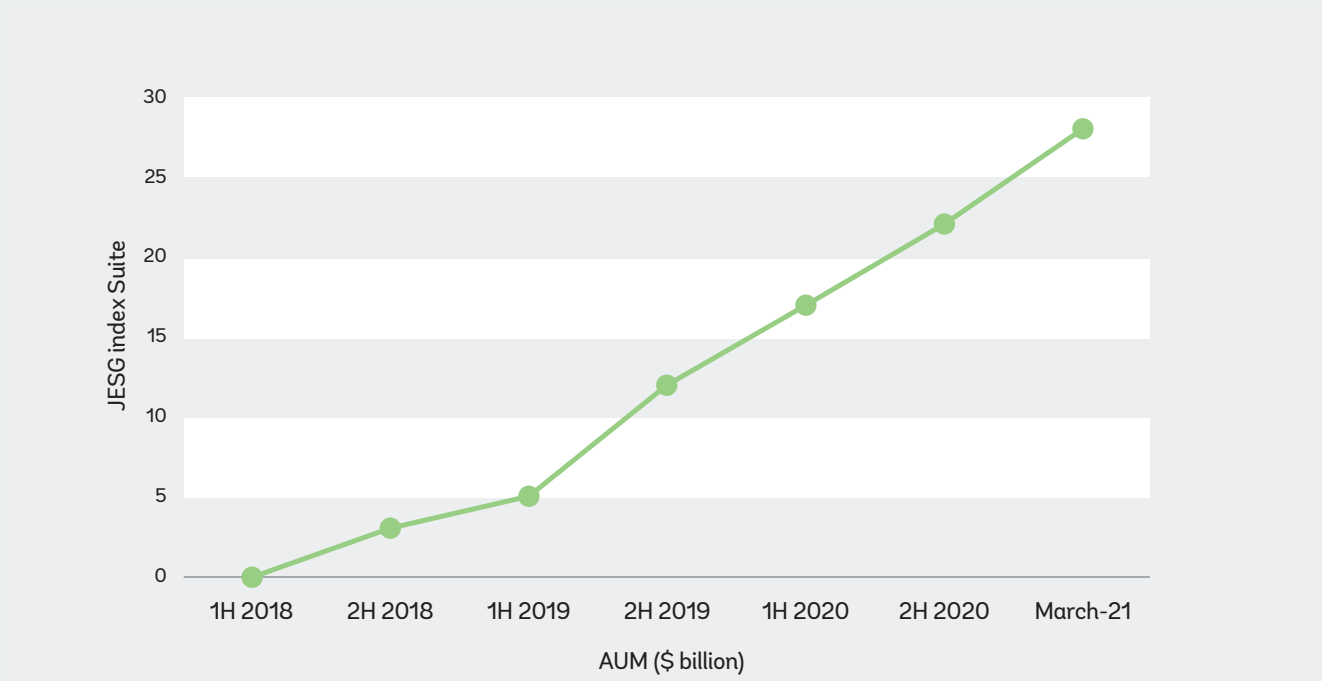
FIGURE B1.2.2 Emerging-market JESG assets under management, US$, billion



Source: JPM.
Note: JESG = J.P. Morgan ESG.

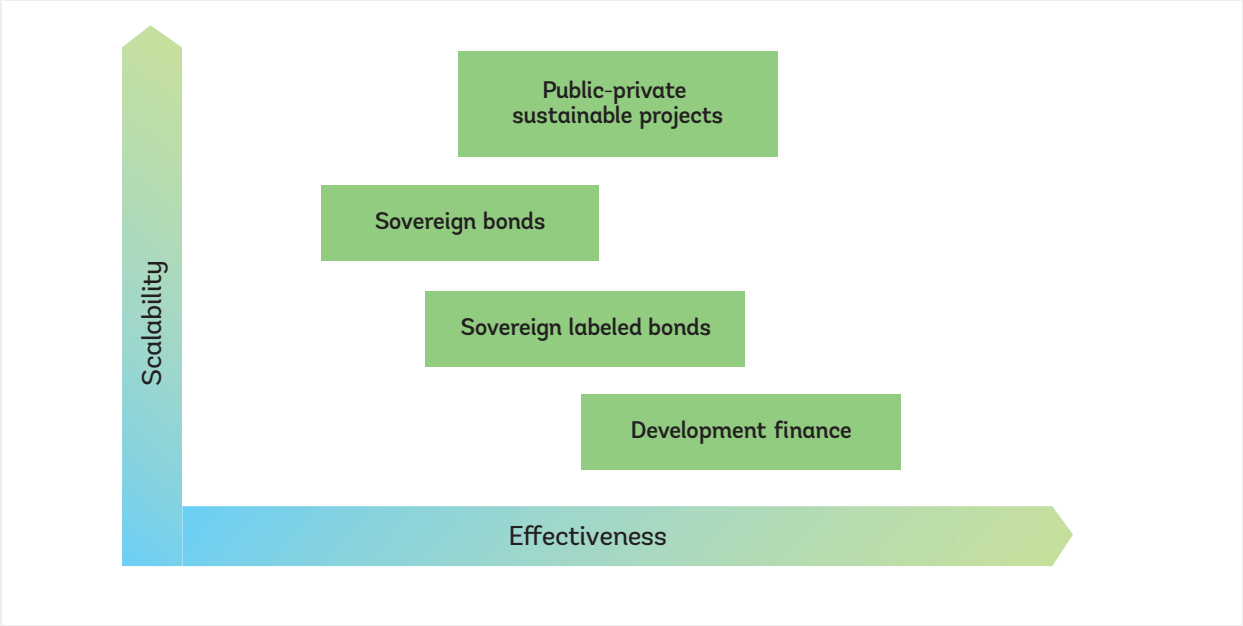
The transmission channels of investing in sovereign fixed income to achieve sustainable outcomes are complex. While integrating ESG investing into sovereign investment mandates may not be the most direct and effective way of achieving sustainable outcomes, it has an overriding benefit of being scalable, given its large size and the importance of the asset class.[6] Box 1.3 provides more context to the challenge of measuring impact when investing in the sovereign fixed income asset class. Figure 1.3 shows that certain asset classes are highly scalable in terms of the size of the asset class but are less effective at achieving measurable sustainable outcomes, while others are less scalable but more effective at achieving sustainability outcomes. Sovereign labeled bonds, for example, are effective at achieving measurable transparent sustainable outcomes, but their potential for scalability is curtailed. Traditional development finance likewise has a strong emphasis on achieving sustainable development goals, but its concessional nature limits its scale and ability to close SDG funding gaps. Finally, it's worth noting that the outcomes of sovereign ESG investing can be circumvented using other levers such as taxation and regulatory changes (capital charge reductions), and these mechanisms can also help channel capital to more sustainable projects.

Figure 1.4 presents an overview of the current ESG investing ecosphere for sovereign bonds. A utopian world in which all investment in sovereign debt is driven by sustainability considerations is not realistic, but stakeholders have been aspiring to an investing world where investment decisions can contribute more meaningfully to sustainable outcomes. The changing financial sector ecosphere (also evident in the JPM client survey) and the "build back better" vision that many have embraced worldwide now present a unique opportunity to address the key shortcomings of the current Sovereign ESG 1.0 and broaden out the investment "sweet spot." The next section presents in greater analytical detail the main structural issues in the current sovereign ESG framework.

> > >

FIGURE 1.3 The scalability and effectiveness space

This graph positions various investment products according to their scalability (e.g. sovereign bonds have a wide global coverage) and effectiveness (e.g. proceeds of green bonds are earmarked for green projects).



Source: World Bank staff illustration.

6 The impact of sovereign ESG investing on sustainability outcomes is a function of scalability multiplied by the effectiveness at achieving sustainable outcomes.

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BOX 1.3 Measuring the Impact of Sovereign ESG

Measuring impact in sovereign ESG investing is challenging but given the market's enormous scale, the effort is worthwhile.

If ESG is to assume its role as an output measure, it is important to clarify its relevance and attributability for the impact considered. Using sovereign ESG for impact investing faces a trade-off between relevance and attribution. Country-level scores are highly relevant for the valuation of country-level instruments such as government bonds. It is difficult, however, to attribute recent environmental improvements across a country to an allocation of new outside capital via sovereign bonds or some other investment vehicles. At the same time, impact can be better assessed on a smaller scale, such as from project-level financing, but it is questionable how relevant sovereign-level ESG indicators are to achieving this impact.

The sovereign debt asset class has the overriding benefit of being scalable. Many of the Sustainable Development Goals (SDGs) require public sector intervention (and therefore public sector financing), and closing these funding gaps and maximizing impact will involve recognizing the need to balance scale with effectiveness.a In addition, labeled instruments are an attractive instrument both for sovereigns to attract new capital to ESG-related projects and for impact-focused investors. The composition and structural nature of both local currency and hard currency sovereign bond markets, however, mean that for lower-income and lower-middle-income countries, the asset class is likely to have only a marginal benefit.

Inclusion of the SDGs in the sovereign ESG investing framework is challenging and often involves tradeoffs. An investment may, for example, focus on promoting inclusive and sustainable economic growth or fostering innovation, but this could also inadvertently increase country and gender inequality or lead to biodiversity loss. Furthermore, indices such as the sovereign SDG indices from the Sustainable Development Report are highly correlated with a country's level of income and thus suffer from the ingrained income bias discussed in the next section.

a. For example, traditional development finance has a strong emphasis on achieving sustainable development goals, but its concessional nature limits its scale and ability to close SDG funding gaps. Closing such gaps and maximizing impacts will involve recognizing the need to balance scale with effectiveness at achieving suitable outcomes.

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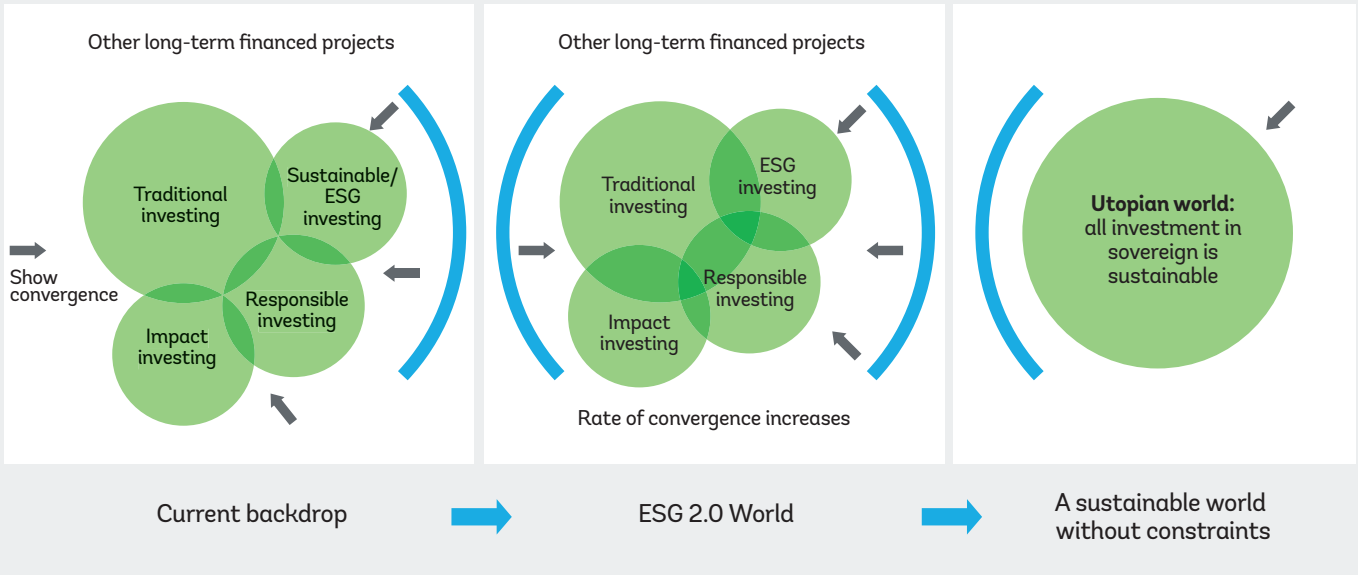
FIGURE 1.4 ESG investing can result in more measurable and impactful outcomes as investment approaches converge.



Source: World Bank staff illustration.
Note: Overall institutional assets (about US$100 trillion) versus ESG-themed strategies (about US$40 trillion) versus impact investors (about US$750 billion). These figures represent all assets under management (AUM), so the ESG-focused sovereign bond mandates are less, but given the AUM are likely significant. ESG = environmental, social, and governance.

Structural Challenges in Sovereign ESG 1.0

> > >
Key Takeaways

1. **Sovereign ESG scores are strongly correlated with a country's level of income**, which may result in capital allocations toward richer countries at the expense of poorer ones, perpetuating an *ingrained income bias* cycle.
2. **There is lack of agreement on how to measure sovereign environmental performance.**

Sovereign ESG scores are designed to quantify a country's resilience to material ESG risks. While data providers offer different ways of conceptualizing their sovereign ESG products and different aggregation methodologies, they tend to focus on providing aggregated data points that have some demonstrated financial materiality in addition to standard sovereign credit risk analysis. Furthermore, market practice incentivizes portfolios with higher, aggregated ESG scores. This approach only considers ESG as in input but does not necessarily consider how an investment contributes to ESG outcomes. Moving toward this approach of sovereign ESG investing would require structural changes to the current framework.

The Ingrained Income Bias Enabling environment

Sovereign ESG scores[7] have a strong and statistically significant positive relationship with a country's income (figure 1.5). Gratcheva, Emery, and Wang (2021) found that in contrast to corporate ESG scores, aggregate sovereign ESG scores have a high level of correlation between providers; they also found that a key driver of this is a strong positive correlation to a country's level of income.[8] Indeed, one could argue that because governance is a key weighting in ESG ratings (Bouyé and Menville 2021), that pillar drives this natural correlation or income bias and further that, because the governance indicator is explicitly included in sovereign credit analysis to varying extents, the inclusion of it in ESG rating scores could be viewed as contributing to a "double count." It furthermore raises the fundamental question of whether the materiality of E, S, and G pillars (and hence weightings) should differ depending on one's investment objective as well as across countries with different levels of development. Box 1.4 provides a more in-depth discussion on the ingrained income bias.

The implication of the ingrained income bias for sovereign ESG scores is that they largely reflect a country's level of development and economic diversification, and as such, countries have little ability to change their scores in the short term. As we explore in more detail in Gratcheva, Emery, and Wang (2021), financial and nonfinancial measures of national income, such as measures of sustainability, seem to measure an unobservable third variable: development. While there is a correlation between higher scores and higher incomes, a certain income in no way prevents countries from improving on their scores with the right policies in place. It follows that even at the same level of development, technical capacity building could help improve governance, environmental sustainability, and social justice issues. This should act as a strong encouragement to even lower-income countries, that concentrating efforts on improving ESG issues can help weight capital allocations to relatively better ESG "performers."

Market practices that explicitly or implicitly target portfolios with higher aggregate ESG scores may have the perverse impact of increasing SDG funding gaps (figure 1.6). Many ESG-adjusted benchmark indices are also tilted in that they use ESG scores to increase the aggregated ESG scoring versus a traditional benchmark, which results in a direct manifestation of the "ingrained income bias" on a relative basis (Boitreaud et al. 2020).

7 Sovereign ESG scores are different from credit ratings in that they are not regulated. Also, unlike credit ratings, whose accuracy can be measured quantitatively against future default rates (even though they are also opinions), there are no agreed-upon objective definitions of what ESG sovereign scores are supposed to measure.

8 Other commonly used measures of sustainable development and resilience, such as the SDG index, the Yale Environmental Performance Index (EPI), and the Notre Dame Global Adaption Initiative Index (ND GAIN), demonstrate a similar strong relationship with a country's level of income.

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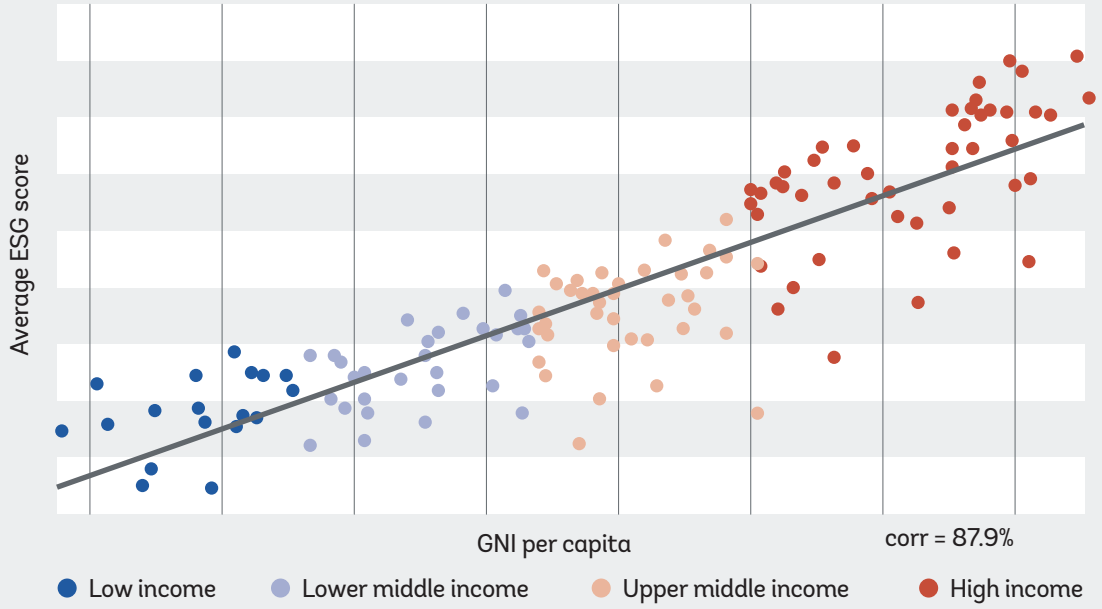
FIGURE 1.5 Sovereign ESG scores have a strong income bias

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 staff illustration.

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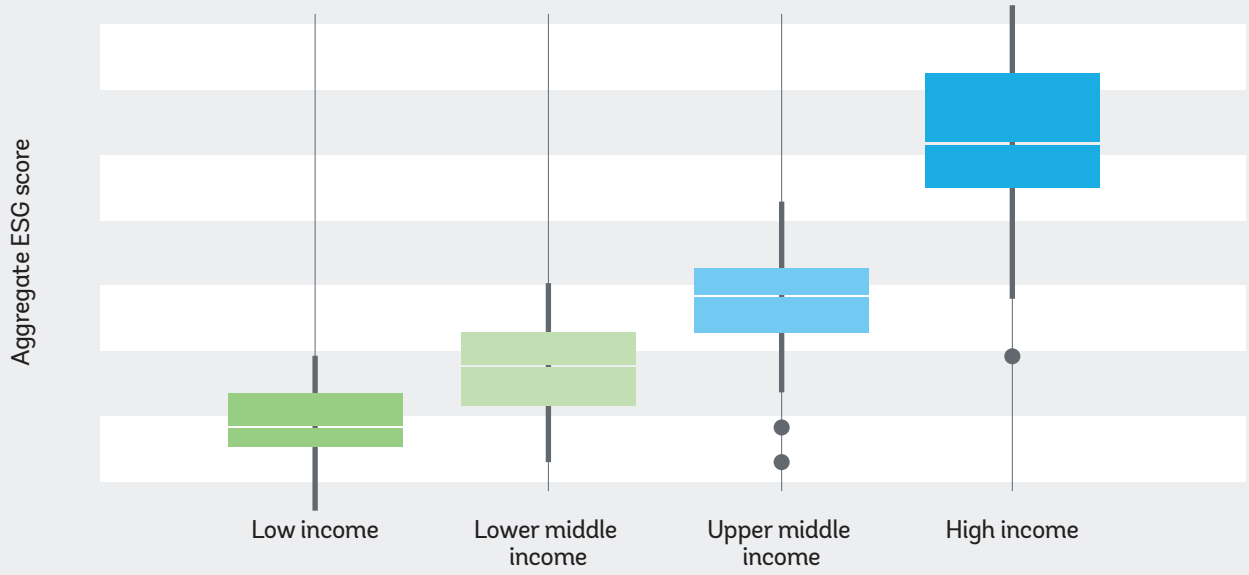
FIGURE 1.6 Figure Sovereign ESG 1.0 may worsen SDG funding gaps

Investment according to ESG 1.0 scores may worsen SDG funding gaps by incentivizing capital to flow towards wealthy countries.



Source: World Bank staff illustration.
Note: ESG = environmental, social, and governance; SDG = sustainable development goal.

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BOX 1.4 What is the Ingrained Income Bias?

A key empirical finding from the World Bank's research is that sovereign ESG scores, along with other commonly used indices of sovereign level sustainability and resilience, highly correlate with a country's level of income.

Gratcheva, Emery, and Wang (2021) describe the empirical finding that countries scoring high in ESG scores tend to also rank high in income and development level. This is not surprising since high labor participation and access to electricity, political stability and rule of law, carbon dioxide emissions, and forest depletion do not exist in a vacuum. These indicators are both inputs and outputs of long-term growth and development. This phenomenon, the ingrained income bias (IIB), is not limited to ESG 1.0 scores, because the IIB is ingrained in any type of cross-country analysis that compares development-related indicators.[a] Not accounting for the IIB leads to two important consequences:

- **The income bias leads to perverse investment outcomes.** Tilting investment portfolios toward higher ESG scores is equivalent to rewarding rich countries for their prosperity.
- **The "ingrainedness" leads to disheartening policy incentives.** Policy efforts in the short run are unlikely to affect a country's income level, which is the result of decades or centuries of development.[b]

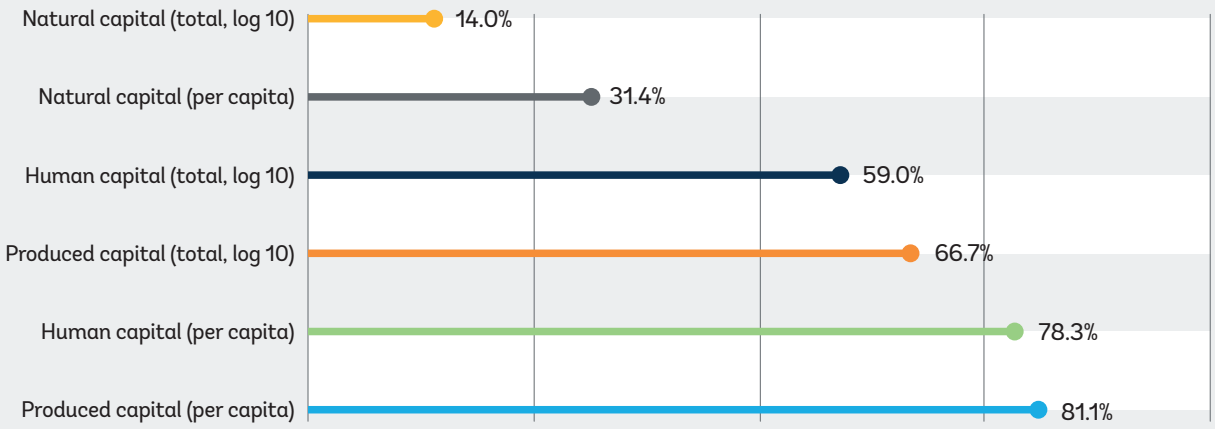
Figure B.1.4.1 illustrates the correlation of wealth and a number of ESG indicators.

> > >

FIGURE B1.4.1 Income permeates a large array of sustainability indicators

a. Income and wealth accounting

Natural, produced and human capital figures are presented in total (transformed with base-10 logarithm) or per capita numbers. Natural capital is least correlated with GNI per capita.



Source: World Bank staff.

a. In econometric terms, these types of analyses suffer from endogeneity or, more specifically, omitted variable bias. See Wang (2021) for an in-depth discussion.
b. While future research can properly assess whether financially material ESG risks are in fact highly correlated with a country's level of income, it suffices to say that it is plausible for two reasons: (a) wealth has long been recognized as a key factor driving sovereign credit risk (Cantor and Packer 1996) and (b) higher-income countries have greater resources to mitigate ESG risks. A higher-income, better-diversified country may, for example, may have more resources for reinforcing critical infrastructure to be more resilient to increasingly extreme weather events that flow from climate change. Such investments in risk mitigation may help the country avoid disruptions to economic activity or the fiscal costs of rebuilding, both of which may be relevant to financial assessments of sovereign credit risk.

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> > >

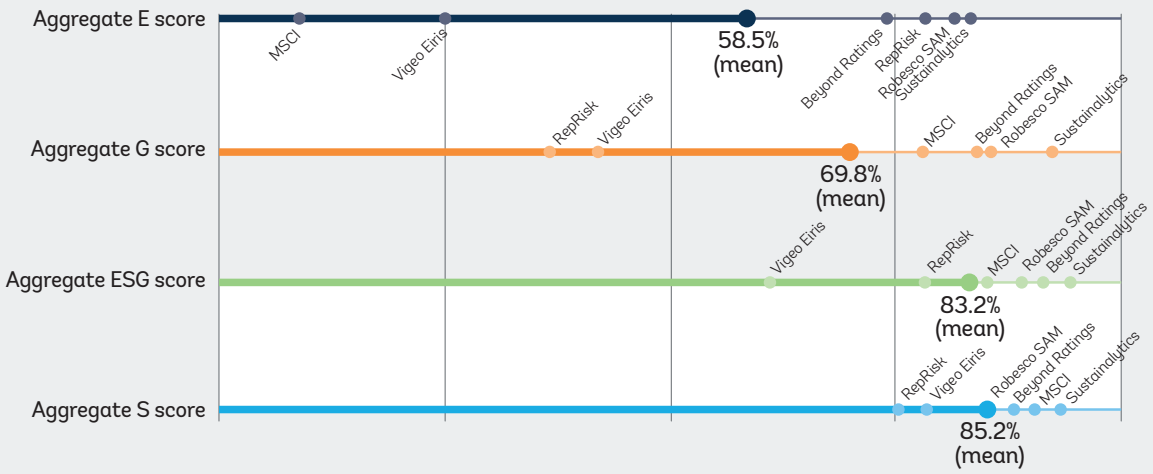
BOX 1.4 continued

> > >

FIGURE B1.4.1 continued

b. Income and sovereign ESG providers.

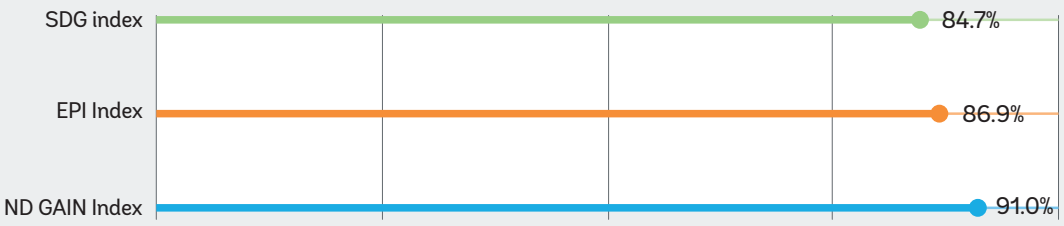
The E, S,G and combined ESG scores are correlated with GNI per capita to varying degrees, depending on the ESG provider. The S scores are most correlated with little variation across providers, while the E scores are least correlated with large discrepancies between providers.



Source: World Bank staff.
Note: The E, S, and G scores and the combined ESG scores are correlated with GNI per capita to varying degrees, depending on the ESG provider. The S scores are most correlated with little variation across providers, while the E scores are least correlated with large discrepancies between providers. E = environmental; G = governance; GNI = gross national income; S = social.

c. Income and sovereign ESG providers.

The Sustainable Development Goals Index, Yale Environmental Performance Index, and Notre Dame Global Adaptation Initiative Index are similarly and strongly correlated with GNI per capita.



Source: World Bank staff.

Structural Challenges in the Environmental Pillar

Empirical analysis of sovereign ESG scores shows that there is little agreement on what constitutes good sovereign environmental performance. Gratcheva, Emery, and Wang (2021) found that in contrast to the relatively high level of correlation for aggregate ESG scores, there is a markedly lower level of correlation between environmental pillar scores, especially once the scores are adjusted for income. This highlights that there is a lack of consensus on how to measure sovereign environmental performance. Additionally, the contrast between the high correlation of aggregate ESG scores and the low correlation of the environmental pillar scores emphasizes that the environmental pillar has a relatively low contribution to the aggregate scoring. Figure 1.7 illustrates the wide disagreement on the weighting of the E pillar among sovereign ESG sovereign score providers. Typically, E, S, and G pillars are approximately equally weighted with a small emphasis on G, but the weighting schemes vary considerably among ESG providers.

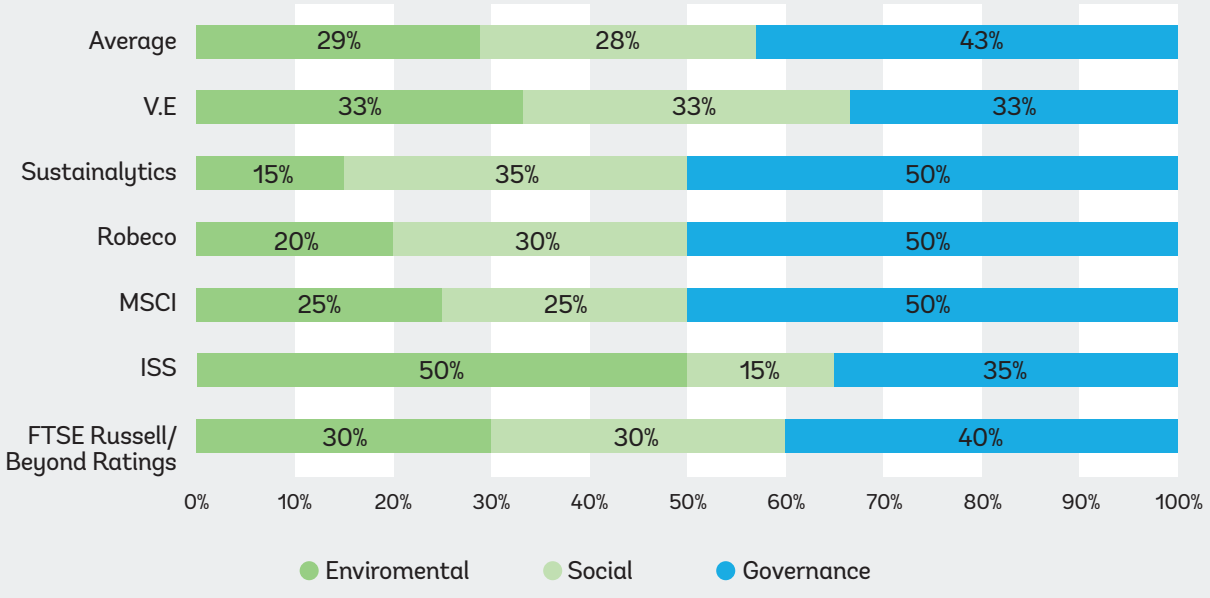
The sovereign E pillar includes a host of information on a sovereign's environmental condition and has the smallest weight in overall sovereign ESG scores. This consolidated score may not only relate to the climate situation in a country but could also include information on the current condition of a multitude of issues such as waste, water management, and natural habitat. It may also encompass information around risk mitigation and adaptation many decades into the future. In the JPM survey, more than 70 percent of respondents considered environment as the most underweighted pillar in overall sovereign ESG scores.[9] Governance is identified by half of survey participants as the most important pillar. This constellation is however not set in stone: 40 percent of respondents indicated that the most important pillar may change depending on the underlying materiality.

Obtaining data is a key challenge for the environmental pillar. Despite good progress in producing relevant data sets (World Bank sovereign ESG data portal, WRI data platform, advances in geospatial data), significant shortcomings remain. Large data gaps and lags mean that it is often

> > >

FIGURE 1.7 Composition of Sovereign ESG Scores by Pillars for Major ESG Providers

While on average E, S, and G pillars are approximately equally weighted with a small emphasis on G, the weighting schemes vary considerably among ESG providers.



Source: World Bank staff.
Note: RepRisk is excluded because of different methodology. ESG = environmental, social, and governance.

9 Dasgupta (2021) also notes the undervaluation of natural capital assets. The review calls for changes in the ways that society measures economic success to protect and enhance prosperity and the natural world.

necessary to impute missing data or extrapolate data forward. The median lag for the World Bank sovereign ESG data portal environmental data, for example, is five years versus three years for social and governance data (Boitreaud et al. 2020). In addition, creating universal data sets is also difficult because of the heterogeneity of environmental issues facing countries with different geographies and history (measuring deforestation may be more applicable to a country with large rainforests than to a country that is mostly desert). Moreover, quantifying the multifaceted environmental pillar on a per country basis in a comparable and meaningful way is a major challenge.

Sovereign ESG 2.0

> > >
Key Takeaways

1. **For Sovereign ESG to make meaningful contributions toward sustainability, the current framework needs to adjust course.** Sovereign ESG needs more transparency in the scoring methodology and data sources. More transparency would allow investors to clearly follow their preferred investment approach, which may favor the ESG-as-output or ESG-as-input view, or a combination of both.
2. **Additional clarity not only benefits investors but also facilitates a constructive dialogue** between raw input data suppliers, ESG providers, rating agencies, and regulators.
3. **A course-adjusted sovereign ESG framework needs to account for the ingrained income bias.** Simple income adjustment techniques of ESG scores may not necessarily result in greater sustainability outcomes. Momentum and peer group scoring may be more effective in alleviating the IIB.
4. **Data improvement and capital market development are key tools for understanding the market and transmitting capital to sustainable goals.** In many instances, these areas act as key binding constraints, and policy makers and the investment industry need to renew efforts on both fronts.

This section discusses how the sovereign ESG framework needs to evolve and reposition itself. For the new Sovereign ESG 2.0 approach to ESG investing to be successful, this section recommends five key areas that both the World Bank and other stakeholders need to focus on in order to help contribute to a more robust framework: (a) clarity on investment objectives, (b) transparent methods, (c) improved data, (d) incorporation of forward-looking scenarios, and (e) lack of bias relative to a country's level of income. Box 1.5 provides an overview of the guiding principles.

A new sovereign ESG investing framework is not only important for sovereign debt investing. ESG integration and an understanding of the associated risks have been primary considerations for constructing sovereign ESG bond indices and portfolios. Given the underrepresentation of low- and lower-middle-income countries in the sovereign bond market and the opaque relationship between bond prices and ESG indicators, government debt securities may not be the most suitable instrument to achieve sustainability goals. The relevance of Sovereign ESG 2.0 should therefore not be limited to capital allocations to the sovereign debt market but also should serve as a backdrop against which investors can assess regional, corporate, and project-level financing in both public and private investments.

Transparent Investment Objectives

End investors should be able to choose between using ESG as an input or an output in their sovereign ESG strategies depending on their investment objectives, legal constraints, and desire to promote sustainability outcomes. This paper has illustrated that considering ESG as an input in the investment process will not automatically lead to more sustainable outcomes. End investors and asset managers need to clearly articulate (a) their financial and sustainability objectives, (b) the mechanisms by which they will be achieving these objectives, (c) the metrics by which they will measure success or failure, and (d) the approach to balancing these objectives when they are not aligned. Mechanisms for influencing sustainable outcomes derived from equity markets should not automatically be assumed to be directly applicable to sovereign fixed income, although they may provide a useful starting point for this thinking.[10] The environmental pillar poses significant challenges given the many facets covered. Despite this, it is important that claims of sustainable outcomes be transparent (figure 1.8). The five major environmental themes from the World Bank's sovereign ESG data portal are directly linked with at least seven of the UN Sustainable Development Goals. This close relationship highlights the importance of accurately measuring environmental indicators.

10 In *Can Sustainable Investing Save the World?*, Kölbel and coauthors (2019) examine the mechanisms for investor impact on sustainability outcomes in the equity markets. They identify capital allocation, engagement and indirect impacts as mechanisms of investor impact on sustainability outcomes, and then they investigate the empirical evidence for the effectiveness of each mechanism. The paper provides a promising approach for beginning to formulate such a theory for the unique context of sovereign fixed-income investing.

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BOX 1.5 Guiding principles for Sovereign ESG 2.0

Recognizing the challenges discussed in this report, we list guiding principles for Sovereign ESG 2.0. A framework built on these principles should provide a solid foundation for future developments and avoid the structural challenges of the current Sovereign ESG 1.0 framework.

1. **Transparent investment objective**
   What's the investment objective: risk management or the promotion of sustainability outcomes? Align tools with objectives. End investors and asset managers need to clearly articulate (a) their financial and sustainability objectives, (b) the mechanisms by which they will be achieving these objectives, (c) the metrics by which they will measure success or failure, and (d) the approach for balancing these objectives when they are not aligned.
2. **Transparent methods**
   Is the framework transparent in terms of the methodology and underlying data sources employed? What are the lags and gaps in the underlying data, and what methods will be used to fill in missing data points? How is materiality defined and tested and under what time horizon?
3. **Improved data**
   A solid data foundation is crucial for Sovereign ESG 2.0 to promote sustainable development outcomes, and it allows for an operationalization of ESG investing. World Bank wealth data are a promising complement to existing ESG data sources. Wealth data have economic materiality and take a forward-looking perspective. Additionally, most data sets have a long history.
4. **Forward-looking**
   Given the nature of climate change, forward-looking assessments that incorporate possible adverse scenarios are needed.
5. **Income adjustment**
   How do the framework and the scoring methodology ensure that the analysis does not suffer from ingrained income bias?

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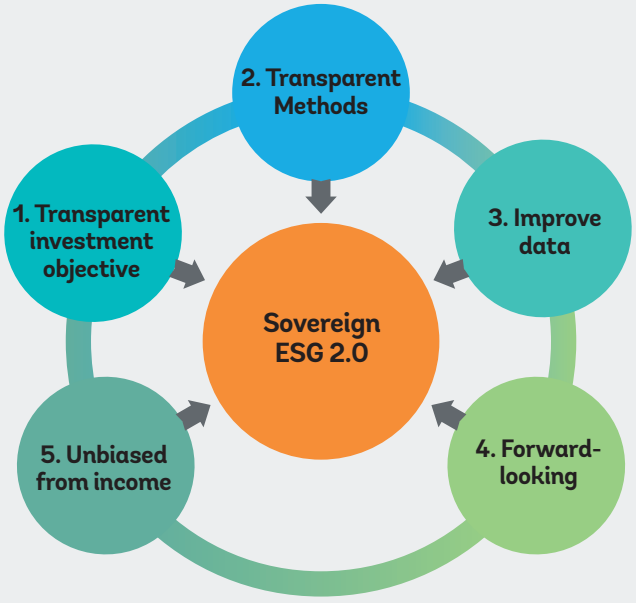
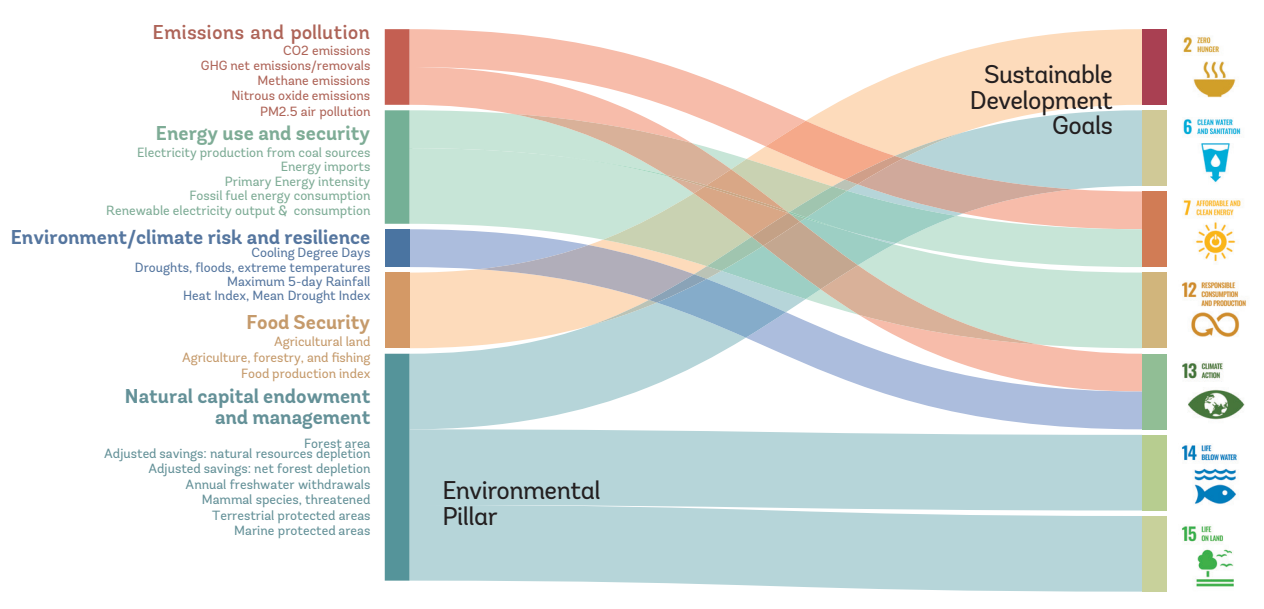
FIGURE B1.5.1 Key areas to focus on for Sovereign ESG 2.0



Source: World Bank staff illustration.
Note: ESG = environmental, social, and governance.

FIGURE 1.8 Sovereign ESG environment pillar has many facets that are difficult to measure but relevant for SDGs

The five major environmental themes from the Sovereign ESG data portal are directly linked with at least seven of the Sustainable Development Goals. This close relationship highlights the importance of accurately measuring environmental indicators.



Source: World Bank staff Illustration.
Note: CO2 = carbon dioxide; ESG = environmental, social, and governance; GHG = greenhouse gas; PM2.5 = particles of less than 2.5 micrometers diameter.

The potential sustainability impact of an investing framework is a function of its scalability multiplied by its effectiveness at impacting sustainability outcomes. Investors should clearly define where their framework is situated on these two axes and how that affects its potential for sustainability impact. To achieve greater scale, there are two necessary steps.

First, the industry needs to begin devising better ways of identifying and quantifying impact in sovereign debt investing. The issuance of labeled bonds and the definition of the use of proceeds and allocation of equivalent amounts toward sustainability projects is one way to achieve this (Boitreaud et al. 2020).[11] Notwithstanding these positive developments, it would benefit the sovereign ESG ecosphere to begin thinking of ways to better quantify impact or sustainability materiality for broader sovereign debt investing.[12] Dual investment objectives require considering sustainability materiality as well, but mixing concepts with both financial and sustainability materiality ("dual materiality") criteria into the same score may make the aggregated score difficult to interpret.[13] Instead, it would be better to have separate scores in which the sought-after objectives are transparent. This would allow investors to better assess the impact their investments are having and to collect relevant information to make informed trade-offs in line with their preferences that balance financial returns and sustainability outcomes.

Second, for purposeful sovereign ESG strategies to become more broadly scalable, policymakers will need to clarify and strengthen the legal basis for pursuing impact objectives for investments. The EU has made steps toward this with its embrace of dual materiality (box 1.1). The UN Environment Program Finance Initiative (UNEP FI), which has sponsored much of the research into the legal basis for ESG investing starting with the 2005 Freshfields Report (UNEP FI 2005), is currently working on a report outlining the legal basis for impact in key investment jurisdictions.[14]

11 Challenges include the use-of-proceeds model and the associated administrative burden.
12 Key performance indicator (KPI)-linked bonds are a possible solution, but these instruments also pose nontrivial challenges to both investors and sovereign issuer alike.
13 This is in line with recent recommendations by the Organisation for Economic Co-operation and Development (OECD) for improving environmental pillar scores for corporates (Boffo and Patalano 2020).
14 See the UNEP FI website at https://www.unepfi.org/investment/legal-framework-for-impact/.

Transparent Methods and Data Sources

The varying degrees of agreement across E, S, and G pillars call for more transparency. As discussed in section 1.3, there is little agreement among the major ESG providers on the environmental score, while social and governance scores enjoy a broad consensus. Understanding the reason for this divergence is hampered by the opaqueness of methodologies. Revisions in definitions and models may furthermore cause large swings in ESG scores, which represent a major challenge for downstream index providers and investors. More transparency in ESG providers' approaches and the data sources employed would facilitate a constructive dialogue between all stakeholders. Investors and asset managers entering sovereign ESG investing face inconsistent definitions and a lack of common terminology. The experience of corporate ESG scores cautions that an incorrect ESG designation may lead to capital misallocations and even regulatory repercussions. A transparent ESG 2.0 framework ensures consistency and makes it easier to adapt future taxonomies.

Investor engagement with sovereigns is becoming increasingly important.[15] While this is challenged by the delay in E data, engagement with sovereigns can be an effective tool in seeking greater transparency from sovereigns on sustainability issues. ESG disclosures are thus becoming an increasing focus with investors when issuers come to market, as well as in the period after and prior to coming to market.[16] This is also discussed in chapter 2.

Data Quality

A solid data foundation is crucial for sovereign ESG 2.0 to promote sustainable development outcomes. Recent performance-type ESG scores require more frequent and recent data coverage. A reliable data environment also makes the construction of rules-based investment indices feasible. While sharing many challenges that corporate-level ESG data also faces (consistency, reporting biases), some problems such as coverage limitation and aggregation decisions only emerge on the sovereign level (WWF and World Bank 2020). A recent study (Herzog et al. 2020) evaluates underlying data production and management issues and gives recommendations for improving the accessibility, quality, and coverage of sovereign ESG indicators. Among the key shortcomings is the low data frequency and long time periods between data points, especially for environmental metrics.

Advances in geospatial data collection offer a promising way forward, but they also require significant technical advances to be more broadly and publicly available. With the recent developments in remote sensing technologies, satellite imagery has become more accessible to the wider public. This data source has already been applied in various circumstances to quantify and verify environmental practices. The objective and globally consistent nature of earth observation data make them an attractive choice to improve existing datasets. Depending on the indicator, weather conditions, and geography, satellite mapping services can deliver reliable updates as often as every week.

Machine learning methods can augment and improve existing ESG data. Statistical methods can be employed to downscale established ESG data to more relevant units. While sovereign ESG data can be spatially disaggregated over states and municipalities, the main benefit of machine learning methods is to augment the temporal dimension. A promising application is to nowcast the most recent values of otherwise missing values. Using the same toolbox, higher-frequency earth observation data can also estimate quarterly or monthly ESG data from their annual counterparts (figure 1.9). This introduces seasonal patterns, quantifies short-term impacts of disasters, and allows a monitoring of deforestation trends and land degradation that is timelier. While data gaps and lags are most severe for environmental data, alternative data approaches may also help augment data on social and governance indicators. Figure 1.9 illustrates how subannual numbers (quarterly, monthly) can be obtained from annual wealth statistics on a subnational level (first administrative level). The example here is calculated for the Cagayan Valley in the Philippines. In this region, annual cropland wealth is distributed throughout the year and the country based on agricultural production data and agronomic satellite imagery. This method ensures that numbers are consistent (that, for example, the sum of quarterly numbers equals annual numbers).

15 The World Bank is in the early stages of leading a project to introduce a TCFD for sovereigns. The framework would provide guidance for voluntary, consistent, climate-related financial disclosures that would be useful to investors, lenders, and insurance underwriters in understanding material sovereign climate risks. The criteria encompassed in the TCFD for sovereigns framework is likely to be broader than the TCFD for corporates in two key ways, as the framework will include nature-related risks alongside climate-related risks and go beyond financial risks to include relevant nonfinancial risks. The World Bank is in the early stages of a pilot project and expects to release a report later in 2021. This initiative, if it gains traction, would be a welcome information source for investors while being voluntary and self-reported.

16 See Principles for Responsible Investment, "ESG Engagement for ESG Investors," https://www.unpri.org/sovereign-debt/esg-engagement-for-sovereign-debt-investors/6687.article and "World Bank Releases Guide for Sovereign Issuers to Engage with Investors on Environmental, Social and Governance (ESG) Issues," news release, November 9, 2020, https://www.worldbank.org/en/news/press-release/2020/11/08/world-bank-releases-guide-for-sovereign-issuers-to-engage-with-investors-on-environmental-social-and-governance-esg-issues.

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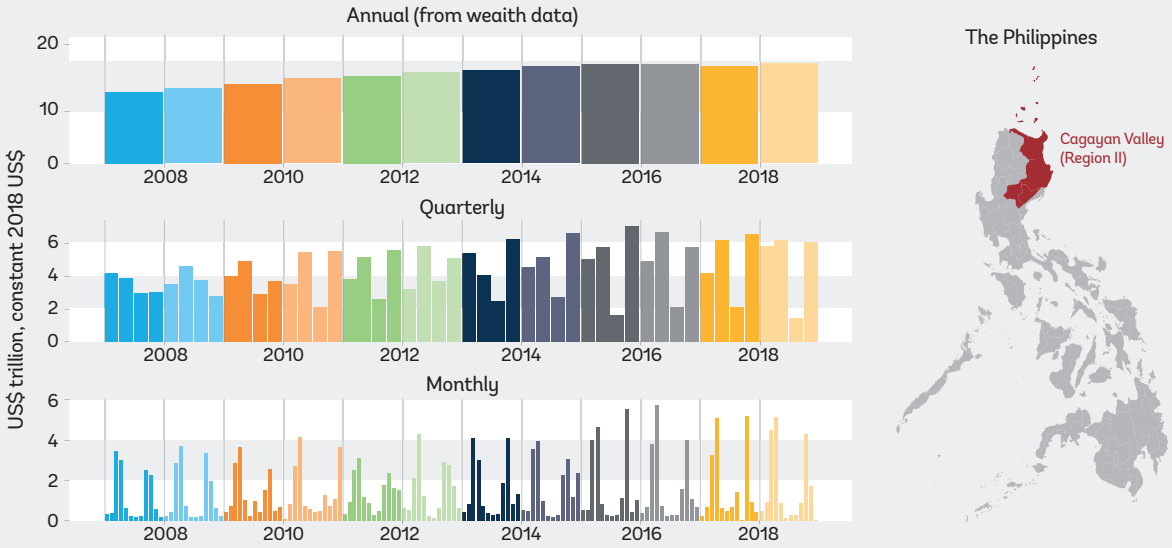
FIGURE 1.9 Illustration for increasing temporal frequency and spatial resolution of wealth data.

The example illustrates how cropland wealth of the Philippines can leverage agricultural production data and agronomic satellite-imagery to increase temporal frequency and spatial resolution.



Source: World Bank staff illustration.
Note: The numbers serve illustrative purposes only and are subject to change.

Wealth Data

World Bank wealth data are a promising source for additional data insight. Box 1.6 provides an overview of the World Bank's work on wealth accounting and how this work provides a firm foundation for advancing the sovereign ESG framework. The purpose of wealth data largely overlaps with the goals of sovereign ESG scores. For example, Sustainalytics has built its ESG framework around wealth data. The economic materiality, forward-looking perspective, and long history of consistently curated data suggest that wealth data are a rich data source for sovereign ESG scores. Wealth data address two major shortcomings of current sovereign ESG data. First, wealth data assign an economic value to environmental resources. Exclusively relying on the latter overemphasizes the environmental materiality but does not account for economic relevance. Second, the comparatively long history of wealth data also allows focus on recent developments in environmental performance. This perspective is robust to the ingrained income bias since focusing on more recent performance can help to adjust for the income bias.

Forward-Looking Methods

The risks from climate change are likely to be larger in the future than in the past. Traditionally, financial materiality has been determined by looking at statistical relationships in past data. With the consequences of environmental degradation and climate change looming on the horizon, E indicators need to represent not only the value of the environment today but also the value of its protection and the costs of its loss for future generations. Looking at nature from this perspective also sheds light on the risks and opportunities that stem from natural assets. As the Bank for International Settlements (BIS) suggests (Bolton et al. (2020), there is a need for an epistemological break from past modes of assessing risk toward forward-looking methods.

Income Adjustment

Sovereign ESG 1.0 is structurally challenged by "ingrained income bias." The ingrained income bias is the highest ESG-related concern of 25 percent of JPM's EM survey respondents. Recognizing and adjusting for this bias is a key requirement for Sovereign ESG 2.0. Ideally, ESG scores should give an accurate representation of a country's sustainability that is not primarily a result of its level of income, but removing this bias is no simple exercise because any adjustment method rests upon assumptions about what "good" ESG scores are.

Many practitioners have advocated adjusting income by using a regression adjusted for GDP per capita.[17]

17 The widely used ND GAIN Index also reports GDP-adjusted index scores at https://gain-new.crc.nd.edu/ranking/delta/vulnerability.

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BOX 1.6 Sovereign ESG 2.0 and Wealth

The World Bank's wealth accounts aim to provide a more holistic accounting of a country's wealth that also includes a country's stock of human and natural capital. They may prove a useful tool for Sovereign ESG 2.0.

Taking better and more frequent stock of the environment is not enough to construct meaningful ESG 2.0 scores. Wealth data are uniquely suited to informing sovereign ESG calculations because they express the lifetime earnings of a country's assets in dollar values (Lange et al. 2018, 2021).[a] The wealth approach is inherently forward-looking, which distinguishes it from pure stock-taking exercises. Relying on raw environmental inputs (like forest cover) only and not accounting for their economic importance (forest wealth-producing capacity) does not accurately describe the long-term relevance of the resource (Gratcheva and Wang 2021). Furthermore, wealth accounting is built on a robust and methodologically well-founded framework for thinking about environmental sustainability, and it already has a long history of curated data that is comparable across countries and years since 1995.

Environmental materiality does not imply economic materiality. Figure B1.6.1 illustrates this discrepancy. The horizontal axes depict the environmental data (agricultural and forest areas as percentages of total land area). The vertical axes show the corresponding wealth variables, expressed in dollar values. The graphs cover 145 countries with data from 2016. The low correlations show that the economic valuation of agricultural wealth is largely unrelated to the sector's geographic size. This similarly holds true for forest assets to a lesser degree. Thus, relying on environmental indicators only may not paint a complete picture for economic decision-makers. Wealth data contain additional information not captured in raw environmental data. Since wealth accounts are constructed to measure economic materiality and long-term sustainable growth potential, their integration into sovereign ESG scores is strongly recommended.

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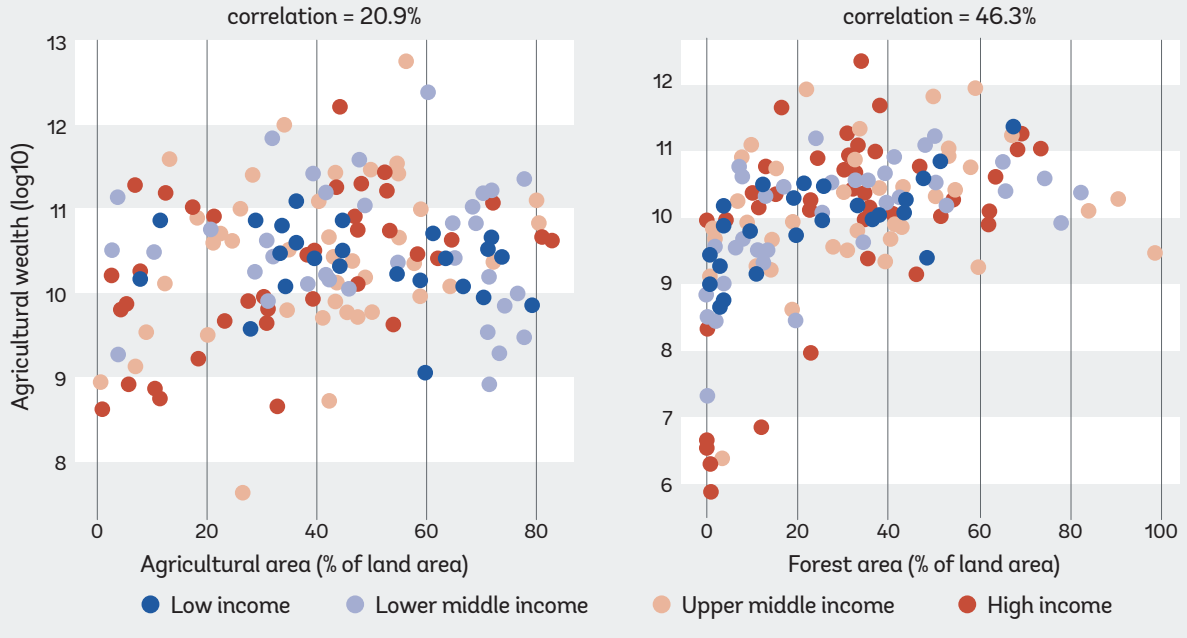
FIGURE B1.6.1 Environmental versus economic materiality

The horizontal axes of both plots show environmental variables, while the vertical axes show their wealth accounting counterparts, expressed in dollar values. Since there is little association between both, relying on Environmental indicators only may not paint a complete picture for economic decision makers.



Source: Gratcheva and Wang 2021.

a. Human capital, for instance, is calculated as the discounted expected lifetime earnings of a population. A similar rationale applies to natural resources. A country's fossil fuel wealth, for example, is calculated as the discounted value of future resource rents up to the point that this nonrenewable resource is depleted. Renewable resources distinguish themselves in that their discount horizon depends on the rate of extraction versus replacement.

This method orthogonalizes (or decorrelates) ESG scores with respect to a country's level of income by estimating the regression $ESG = a + income \cdot \beta + u$, where *ESG* is an ESG rating across countries and *income* is a variable such as log GDP per capita. The regression residuals are then used to construct income-adjusted ESG scores. The intuition behind this is that given the high correlation of ESG scores with income, countries should be judged based upon their ESG performance versus their income-predicted level of ESG performance.

Although simple and implementable, regression-based income adjustment may lead to overcorrection. We explore this approach empirically in our report (Gratcheva, Emery, and Wang 2021). A key empirical limitation to this approach is that the relationship of ESG scores with income is not linear, and the residuals demonstrate a consistent U-shaped "smile" with higher scores at the low- and high-income levels.[18] This nonlinearity may mean that information relevant to sustainable development is potentially stripped out during the adjustment process. We propose two other approaches that may serve the goals of income adjustment better, but these approaches may suffer from the likely ad hoc nature of uniform operationalization and implementation among the investor community.

The two plots in figure 1.11 show the before and after of a regression-based income adjustment. While this income adjustment mechanically removes the linear income bias, the right graph shows that a nonlinear income bias still remains.

Approach 1: Benchmark against peer groups

Measuring performance relative to comparable country peers accounts for the ingrained income bias. Many practitioners advocate methods that assess countries with respect to a relevant peer group. Similarly, the Regulatory Indicators for Sustainable Energy (RISE)[19] framework benchmarks countries against a selected peer group at a similar level of development. This removes the IIB within the group since all members likely share common development trends, geographical conditions, and other cultural and societal factors. This allows for meaningful performance measurements relative to the peer group average instead of an absolute target. For applications with regional focus, benchmarking is a simple and insightful option.

The benchmarking approach comes with drawbacks and should be complemented with other methods. Common critique points include the subjective nature

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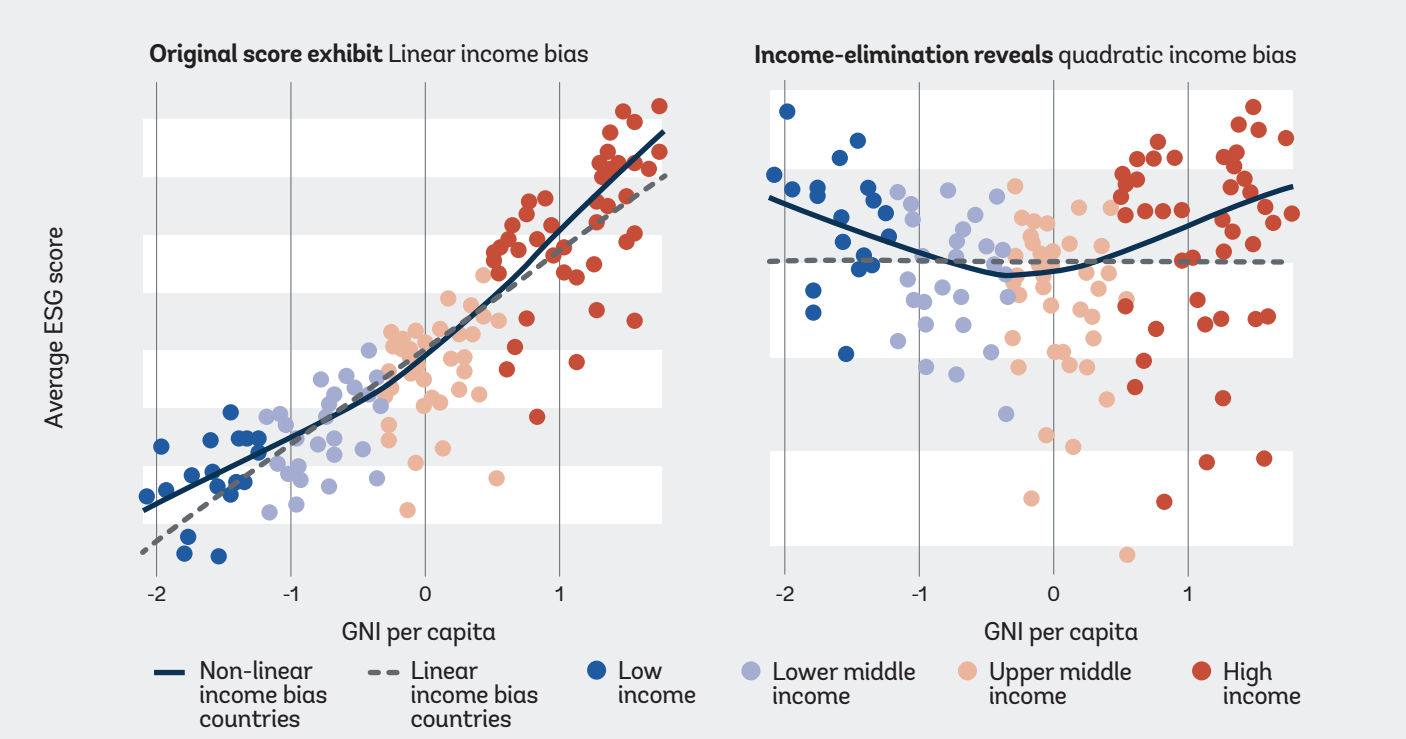
FIGURE 1.11 Persistence of ingrained income bias, even after linear income impact is removed from the data



Source: World Bank staff illustration.
Note: ESG = environmental, social, and governance; GNI = gross national income.

18 This may be related to the concept of the Kuznets curve.
19 See https://rise.worldbank.org/.

of peer group selection and the sensitivity of the results with respect to the group composition. Furthermore, the intragroup comparability comes at the expense of intergroup comparability. This method, then, accounts for the IIB in a transparent and plausible manner, but it only paints part of the picture. It should be complemented with other methods such as momentum-based indicators.

Approach 2: Emphasize momentum or recent performance

Progress toward sustainability goals within a recent time frame contains valuable information for ESG scores. More than 65 percent of the investor survey participants agree or strongly agree that sovereign ESG scores should weigh recent successes or setbacks in sustainable development rather than long-term trends. Recent performances in ESG-relevant areas (growth in protected areas, declines in economic inequalities, stronger legal rights) may be more informative than their long-standing counterparts (area under protection, level of economic inequality, strength of legal rights). Looking at flows rather than stocks is an effective way to address the IIB.[20]

Linking sovereign ESG indicators with recent sustainability improvements sends an encouraging message. One of the main consequences of IIB (see box 1.6) is that its deeply embedded nature discourages any short-term policy measures to improve sovereign ESG scores. Even if such measures were to improve sustainability, these advancements are unlikely to have any noticeable impacts on the sovereign's level of income. Because of IIB, they are also unlikely to significantly affect sovereign ESG scores as currently measured. If sovereign ESG scores do reflect recent progress toward SDGs in a material manner, though, ESG can then be an effective instrument to reward or penalize such endeavors.

The main obstacle for operationalizing these methods is its requirements for recent and frequent input data.[21] Ideally, ESG scores are computed using records measuring sufficiently long historical periods with high enough frequency, but this is not how it actually works. The breadth and depth of the data landscape dictates the feasibility of recent performance-type ESG ratings. While the quality of fast-moving data is improving, the continued prevalence of significant data gaps and lags means that momentum techniques must currently still rely heavily on the subjective expert judgment of analysts.

20 Looking at changes alone does not entirely account for the IIB since the rate at which changes happen depends on the country's level of income and development.
21 See https://github.com/worldbank/ESG_gaps_research/blob/master/docs/ESG_gaps_research.pdf.

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BOX 1.6 Putting Emphasis on Recent Performance

World Bank research outlines a momentum-based approach.

The approach described in Gratcheva, Gurhy, and Wang (2021) removes the IIB by favoring in-country over between-country comparisons. Instead of comparing countries with each other through scoring or rankings, the authors assess how the recent growth in, for example, renewable natural capital affected sovereign bond yields. This is done for each country on a level playing field by comparing a country with itself at an earlier point in time.

The resulting parameters are financially meaningful as they describe the sensitivity of sovereign borrowing costs with respect to environmental performance. Putting a dollar value on 1 percent growth in natural capital for sovereigns paves the way for its incorporation into ESG 2.0 scores.

Gratcheva, Gurhy, and Wang (2021) and Wang (2021) examine the role of natural capital in sovereign bond yields using a cross-section of 37 countries comprising 20 A-rated countries (average long-term debt rating between AAA and A−) and 17 B-rated countries (ratings between BBB+ and BB−) over the time period between January 2009 and December 2018.

The authors estimate the effect of 1 percent growth in natural capital on the 10-year bond yield from two perspectives. When comparing bond yields with natural capital across countries, a positive association emerges: countries richer in natural capital tend to have higher borrowing costs.[a] While this could be explained through the natural resource curse or long-term growth arguments, the authors strongly caution against drawing any conclusions based on pure cross-country analyses because of the ingrained income bias.

Instead, the authors advocate in-country comparisons that measure the effect of recent environmental performance on recent changes in bond yields. This brings countries onto a "level playing field" and removes the ingrained income bias. After adopting the appropriate statistical framework, the authors find a negative relationship: as a country grows richer in natural capital, borrowing costs tended to drop. This finding is robust against the inclusion of various macrofinancial controls, wealth variables, and common bond factors.

After decomposing natural capital into renewables and non-renewables,[b] the authors find that growth in renewables lowers borrowing costs in B-rated countries. Similarly, agricultural and forest wealth lower bonds yield the most in B-rated countries. This is likely because these are economically worthwhile investments for countries that rely more on these resources for growth. Protected areas, which predominantly expanded in A-rated countries, are more likely luxury investments, as they are costly and nonproductive. Growth in this type of renewables would hypothetically raise borrowing costs in B-rated countries, since they have the highest opportunity costs in terms of foregone agricultural or forest rents.

a. Gratcheva, Gurhy, and Wang (2021) and Wang (2021) use the 10-year bond yields as proxies for long-term government borrowing costs.
b. Renewable natural capital can be generated or replaced as fast as it is being used. It includes living species and ecosystems that use solar energy and photosynthesis, as well as nonliving items such as groundwater and the ozone layer. Nonrenewable natural capital is either irreplaceable or can only be replaced over geological timescales by, for example, fossil fuels, soil, and minerals. Nonrenewable natural capital exists in finite amounts on Earth. Once consumed or used, it cannot be replaced.

Capital Markets Development

The level of capital market development (figure 1.12) is also a binding constraint because less developed capital markets will likely not provide the direct mechanisms for investors to invest in. The least developed capital markets are often in countries where the SDG funding gaps are largest (figure 1.12). This represents a key binding constraint in operationalizing a sovereign ESG 2.0 framework and more vigorously attacking the key limitations of the current sovereign ESG 1.0 framework.

The prevalence of benchmark investing in the sovereign EM universe (figure 1.13) means that only a few EM sovereigns can attract meaningful flows to their local currency sovereign debt market. For example, only 11 percent of local currency sovereign bonds outstanding are included in the main EM sovereign bond indices on average, compared to 84 percent for equivalent hard currency debt (figure 1.14). This implies a need for continued efforts to develop local capital markets and create an environment that can attract investors and capital on scale as the

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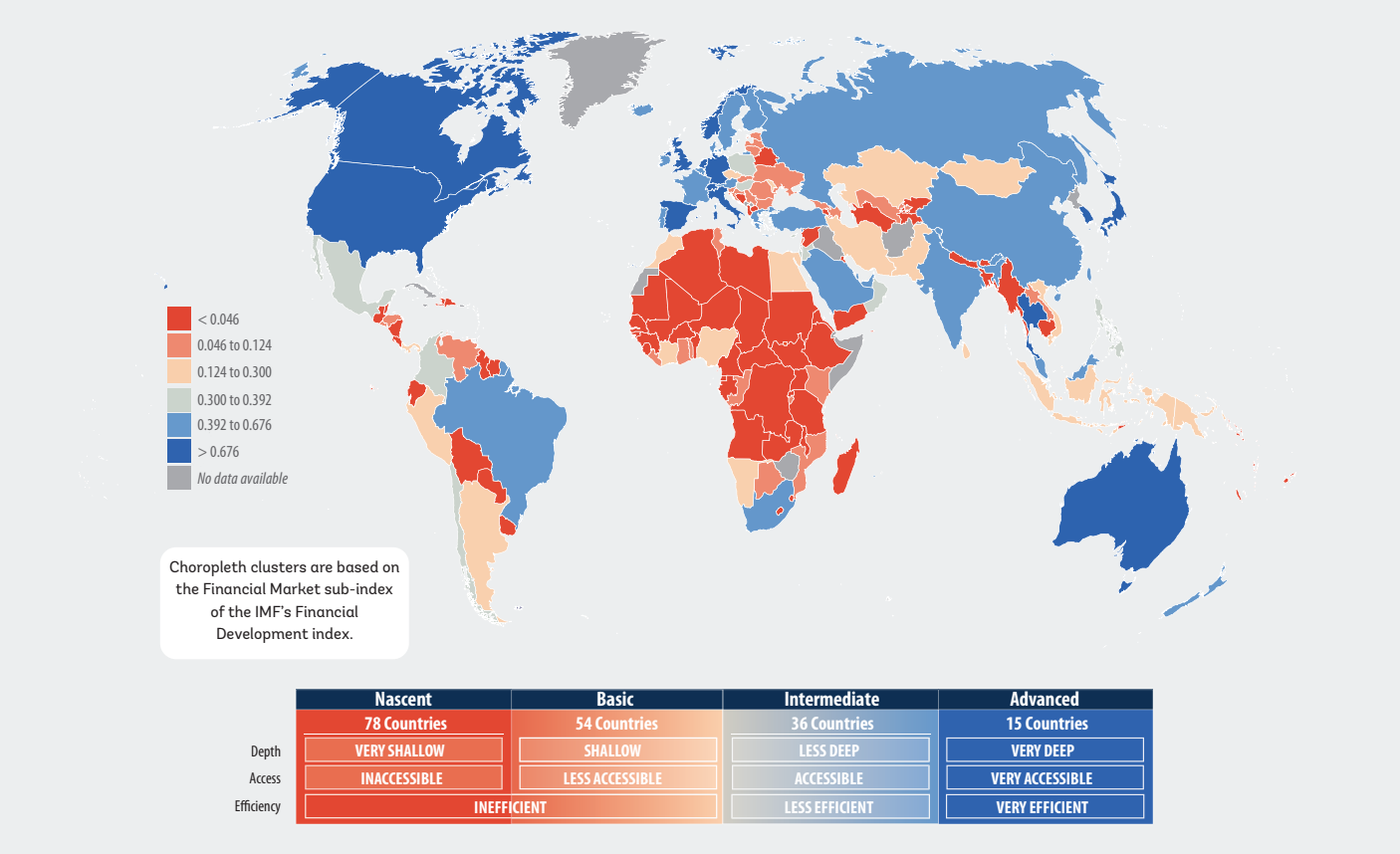
FIGURE 1.12 Overview of Capital Market Development



Source: World Bank 2020.
Note: IMF = International Monetary Fund.

government debt market is often the most developed part of a local financial system. It is normally also the first market that a foreign investor would be attracted to in a developing economy, and it also acts as an enabler to attract private sector capital. For some countries, issuing labeled bonds could contribute to the development of the local capital market and attract new ESG-focused investors.

MDBs continue to play an important role with respect to financial sector deepening, contributing to efforts to support sustainable growth in developing countries. For example, the joint World Bank-International Joint Capital Market's Program is a key part of World Bank-IFC efforts to develop domestic capital markets with this initiative focusing on strategic advisory programs and demonstration transactions to support the development of domestic capital markets, thereby unlocking synergies and helping to create systemic market impact. The World Bank FCI and Treasury global practices also provide technical assistance and advisory services on bond market development as well as on thematic sovereign bond issuance. In addition, cooperation between MDBs and private institutions (IFC and Amundi, JPMorgan Chase Institute) will likely continue to grow to help EM issuers access capital markets, which will help provide fertile ground for innovation, use-of-proceeds tracking, and impact measurement.

The issuance of sovereign labeled instruments can play a key role in, but sovereign issuers need to carefully weigh the advantages and disadvantages of going down this avenue (World Bank 2020). Sovereign labeled bond issuance accounts for less than 1 percent of the outstanding sovereign bond universe, so it is still unclear to what extent labeled instruments can be scalable in the sovereign context. Labeled bonds can be a useful instrument for allowing investors to measure their investment impact and encouraging issuers to be more purposeful and transparent with what they finance. It can also be a good start toward engaging with investors on ESG. The issuance of sovereign labeled issuances can also bring governance benefits and act as an important signal that could help local corporates issue and expand investment opportunities for foreign investors.

> > >

FIGURE 1.13 Lower income countries sovereign bond markets still small

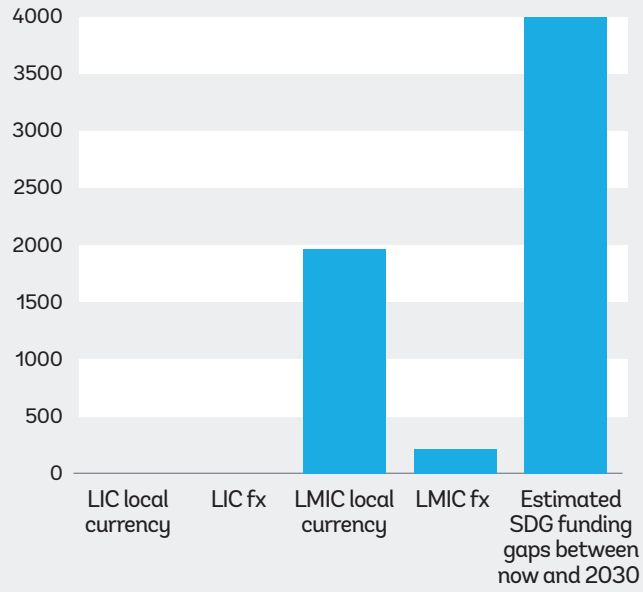


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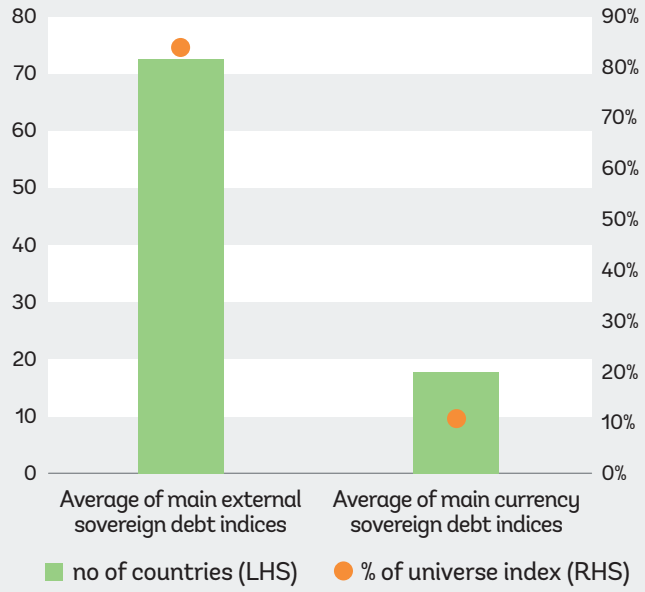
FIGURE 1.14 EM benchmark indices play a key role in capital allocation- many EM countries do not meet inclusion criteria



Source: World Bank staff illustration.
Note: EM = emerging market; fx = foreign exchange; LIC = low-income countries; LMIC = low- and middle-income countries; SDG = sustainable development goal.

In less developed markets, however, it may be better for the sovereign issuer to concentrate efforts on developing the local sovereign debt market while also including sustainability considerations. This would include the preconditions of market development such as institutional setting and governance, which also indirectly incorporate ESG aspects. Some issuers in less developed markets have issued token sizes in local currency, which has attracted little additional foreign inflows but often steady publicity. At the same time, such efforts have necessitated significant operational efforts from often under-resourced debt management offices.

ESG investors can also play an important role in helping to develop local capital markets. Their investment activities, while often symbolic, can have a catalytic effect on governance and thereby indirectly contribute to a more sustainable future over the medium to longer term. Investors should bear these aspects in mind when considering impact and accompanying investment mandates.

Conclusions

Our report has highlighted that the sovereign ESG framework needs to evolve. There are no quick and easy solutions to the issues identified in this paper, but transparency around the topic is needed. While investors and asset managers are likely to increasingly focus on ESG investing in all asset classes, the substance and nature of this investing must be transparent.

Up until now, ESG investing in sovereign bonds has almost solely focused on using ESG factors as an input in the investment process, which emphasizes minimizing ESG-related financial risks on the investment portfolio. As policy makers and investors focus more on the role that finance can play in achieving a more sustainable future through implementing the Paris Agreement, actioning of the SDGs, and so on, using ESG factors as an output that prioritizes impact measurement will probably become more prevalent.

The approach of using ESG as an output is important because it allows investors to understand the impact of their investments, and this may result in even more capital being attracted by ESG-focused investment mandates. This effort could create a virtuous cycle over time, which is especially important for EM countries where the marginal financial and nonfinancial impact of investment decisions may even be greater. For many investors, having the ability to see how their investments have an impact is an important and sometimes required part of their investment mandates.

The World Bank will continue to work with key stakeholders on the issues identified in this paper. The guiding principles identified provide a solid foundation for future work, and the World Bank will continue to play a proactive leading role. The paper highlights that sustainability is a complex topic and that the current sovereign ESG framework may in fact disadvantage poorer countries. The Sovereign ESG 2.0 framework helps deal with structural challenges such as the ingrained income bias and the lack of clarity around the environmental pillar. It's also important that Sovereign ESG 2.0 acknowledge any shortcomings in a clear transparent way.

Policy makers and key stakeholders need to be cognizant of the structural challenges in the current sovereign ESG framework. MDBs and governments of advanced economies will continue to need to support middle- and low-income countries in their efforts to make their economies more sustainable. This may or may not be through the sovereign debt market. While sovereign ESG investing is certainly one lever to attract ESG-orientated capital, other methods, such as taxation and regulatory changes, can also help and be relatively more effective in lower-income countries.

The next part of this report presents the results from a JPM survey on ESG investing in sovereign EM external and local currency debt. It is seminal as it's a real time window into the current ESG investing landscape in EM sovereign debt. Above all else, the survey highlights the evolving nature of this topic, the many opportunities and challenges, and the fact that many investors, even in the EM sovereign debt asset class, are reconsidering their reason for existence, which presages a "new dawn" on the horizon.

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J.P. Morgan ESG Investor Survey*

> > >
Key Takeaways

1. **J.P. Morgan's Emerging Market (EM) Research Team and Global Index Research Group conducted a survey of dedicated EM investors to gain an insight into their experience with sovereign ESG strategies.** survey of dedicated EM investors to gain an insight into their experience with sovereign ESG strategies. Investors with a total of assets under management (AUM) of nearly US$650 billion participated in the survey at a response rate of 70 percent, indicating a high level of interest by managers looking to grow their environmental, social, and governance (ESG)-aligned funds.
2. **Investors that manage ESG-aligned funds are primarily motivated by their own respective mission statement rather than the evolution of the regulatory landscape.** Most investors consider ESG integration to be within their fiduciary duty.
3. **There is a growing emphasis on the E and S elements, but G remains the most important** when conducting sovereign assessments.
4. **Investors agreed that better ESG fundamentals should lower sovereign credit risk, but there remains some uncertainty whether implementing ESG would sacrifice returns.** Investors believe that sovereign ESG should support the development journeys of EM countries rather than rewarding only high performers, highlighting a key tension within current frameworks.
5. **Investors overwhelmingly rely on external data vendors to assess ESG factors**, MSCI and Sustainalytics being the most commonly used providers.
6. **Most investors believe that they are not engaging enough with debt management offices (DMOs)**, which are seen as having a critical role in providing sovereign ESG data to investors.

Overview

J.P. Morgan's Emerging Markets (EM) Research Team and Global Index Research Group conducted a survey of dedicated EM investors with sovereign debt strategies. The survey aimed to gauge investor opinions on a range of topics related to environmental, social, and governance (ESG) strategies, focusing specifically on EM sovereigns rather than corporates, including but not limited to their ESG investment and sustainable finance investment philosophy, the materiality of ESG factors, the trade-offs between fiduciary duty and sustainability goals, and issues around ESG scores for EM sovereigns.

The survey was small by design, our intent being to start with a small sample size with the potential to grow in the future. The survey was designed to take the temperature of a relevant group in order to better understand investor attitudes toward sovereign ESG approaches and to begin the conversation regarding both challenges and opportunities. The survey received a response rate of 70 percent, representing investors with almost US$650 billion in assets under management (AUM), indicating the high level of interest by managers looking to grow their ESG-aligned funds. More details on their characteristics are in Table 2.1.

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TABLE 2.1. Survey participant characteristics

Dedicated Emerging Markets AUM	US $645 bn
Real Money	96%
Hedge Fund	2%
Asset Owners	2%
# Responses from Europe	51%
# Responses from US	35%
# Responses from Asia	14%

Source: J.P. Morgan.

Top Takeaways of the Survey

Purpose of EM Sovereign ESG

The manner in which ESG has been transplanted from the corporate world and repurposed for sovereigns creates challenges for investors and sovereign issuers. In the corporate sphere, ESG investment appropriately rewards companies with the best ESG outcomes, but this fails to translate well to sovereigns, where it risks reinforcing gaps in sustainable development instead of closing them. ESG scores in EM are historically lower on average than their developed market peers, and the divide will remain unless ESG sovereign frameworks evolve (we note that the three-year average J.P. Morgan ESG score for EM economies is 40 but double that for developed market economies). To that end, investors believe that sovereign ESG frameworks should support sustainable development journeys and do a better job of accounting for recent ESG successes and setbacks.

Investors are driven by their own respective mission statement in regard to ESG strategy rather than in response to regulation. We acknowledge that the development of a mission statement, which investors most frequently ranked as the most important driver of their ESG considerations, is often informed and shaped by regulation. From the survey results, though, we infer that regulatory advances serve mostly as a backstop for ESG laggards, while for those more advanced in the ESG journey, it serves to formalize existing practices. In Europe, where regulatory frameworks are the most advanced, investors did not cite major concerns over the extent of regulation, but they also did not classify it as a primary driver of their ESG process.

Two-thirds of the survey participants believe that it is their fiduciary duty to integrate ESG factors across all of their respective funds. That said, we received some pushback. Some 6 percent of respondents did not consider

ESG integration as an obligation to their end investor. Such divergence highlights a regional divide in which European investors, who are likely influenced by European Union (EU) regulation, overwhelmingly consider ESG to be within their fiduciary duty, a sentiment not shared by a handful of US and Asian investors. The results show that 90 percent of client interest and inflows currently originate from Europe, followed by North America (6 percent) and the Asia-Pacific region (4 percent).

Three-quarters of the investors are adamant that ESG funding should support the sovereigns facing the greatest sustainable journeys as opposed to sponsoring only those currently with strong ESG credentials. Investors would prefer to close existing gaps in sustainable development, but hurdles to this include income and reporting biases, as well as data deficiencies. Disconnects between investor intentions and current ESG frameworks illuminate the need for improvement on a number of issues, including data provision, scoring, and engagement. We expect the sector to evolve to better address these shortcomings as the shift away from purpose-neutral toward purposeful investing gains momentum around the world.

The lion's share of participants believed that improving ESG fundamentals will lead to lower sovereign credit risk. There are few studies at this time showing a strong correlation or causation between ESG fundamentals and credit risk. The role of governance factors in complementing financial and macroeconomic metrics in sovereign credit analysis is better understood. The materiality of environmental and social factors is not as well documented, yet events such as climate disasters or the COVID-19 pandemic have underscored the fact that ESG can materially affect the long-term profile of an issuer.

Nearly half of the investors surveyed are unsure if implementing ESG sacrifices returns. J.P. Morgan research using JESG data has found that EM sovereigns prove to be clear beneficiaries of ESG alignment. The JESG Emerging Markets Bond Index (EMBI) has consistently performed better than the baseline EMBI Global Diversified with over 50 basis points (bps) of annualized outperformance over the past seven years. Financially distressed EM sovereigns such as Venezuela and Lebanon have incidentally shown lower ESG scores and hence have been excluded or underweighted in the JESG EMBI, helping the ESG-aligned index's relative performance and resiliency. The unique benefit of the methodology is brought out by the fact that the JESG indices have been almost perfectly correlated to their respective baseline benchmarks since inception, thereby ensuring that it meets its overarching objectives in being replicable with liquidity.

EM Sovereign ESG Approaches

Nearly two-thirds of the respondents believe ESG considerations represent less than 20 percent of their overall sovereign analysis. This likely reflects both the nascent nature of sovereign ESG approaches and data quality and coverage issues. Data transparency is essential with investors considering timeliness, methodology limitations, and coverage as the main concerns surrounding ESG data for EM sovereigns (readily available environmental data at the sovereign level is deemed most lacking). More broadly, lack of ESG standardization was seen as the top long-term challenge. Across all regions, investors are relying on the World Bank's Governance Indicators as a supplement to EM sovereign ESG analysis.

There is a greater emphasis on the E and S in ESG strategies, but G remains the most important when conducting sovereign assessments. One-quarter of investors selected "social" as the most underrepresented pillar in sovereign ESG data. Along with issues reaching consensus on qualitative factors, these data challenges could contribute to the difficulty in integrating social factors into sovereign assessments.

The least common ESG strategy for investors was "1.5 or 2°C alignment/transition risk assessment," with only 16 percent of investors applying this strategy. This result is to be expected, because despite the increasing urgency of climate risk, obtaining data to integrate climate change risk at a sovereign level remains a challenge. This result also tracks with the answers to Q15 "Which pillar (if any) of ESG is underrepresented due to data challenges at the EM sovereign level," to which over 70 percent of investors selected environment. In Europe 19 percent of investors selected this strategy, followed by 17 percent in the US. No Asian investors surveyed selected this strategy.

United Nations Sustainable Development Goals (UN SDGs) do not necessarily fit within the ESG sovereign frameworks but are viewed as complementary by the majority of investors (59 percent). About one-third of investors, most of which were European, responded that the 17 UN SDGs are integral to ESG analysis. While at a high level the UN SDGs might be considered separate, investors may select relevant goals to consider as inputs to their ESG assessments. This survey result appears to validate a key premise of our report "ESG Investing and Development Finance in Emerging Markets: ESG and SDG Frameworks Increasingly Overlap in EM" (Oganes et al. September 2020).

Most investors agree that issuer engagement is critical to any ESG strategy; surprisingly, however, more than half of the respondents are not engaging with DMOs

(debt management offices). Despite the desire to engage on ESG topics, the investors felt that without coordination and collaboration on topics and desired outcomes, engagement was ineffective. Because of the multitude of sovereign ESG approaches taken by the investment community, the view is that from the DMO perspective, there is too much confusion. What is needed instead is more coherent and targeted engagements. In follow-up discussions of the survey results with some respondents, it was proposed that J.P. Morgan could be an effective conduit between EM policymakers and investors to improve engagement through such forums as roundtables and conferences focusing on ESG.

Thematic Bonds

Virtually all investors believed that sustainable instruments are pari passu to conventional securities and consider them worthy of inclusion in all funds regardless of ESG alignment. Investors confirmed that in their view, the underlying credit risk of the issuer does not change depending on the use of proceeds. As a result, the bond will be included in any mandate regardless of ESG inclusion if the bond is financially attractive. Indeed, some managers may actually avoid sustainable instruments on financial grounds, because they typically trade tighter than the rest of the curve.

Scrutinizing the use of proceeds of sustainable instruments is critical to avoid greenwashing. We found through the survey that while the majority of investors expect the use-of-proceeds approach to be used appropriately, most still rely on the issuer to provide ex post reporting. Sustainable bond verifiers ("second-party opinion" providers) ensure that a sustainable bond is in line with market expectations and industry best practice through annual reporting. Similarly, the Climate Bond Initiative (CBI) takes this a step further by offering a green bond certification, certified climate bonds. Green bonds that meet CBI's Climate Bond Standards are proven as scientifically aligned to the goals within the 2015 Paris Agreement. As all sustainable bond markets mature, we foresee a growing demand for issuers to showcase their sustainable credibility through such assurances and bond certifications.

ESG Data

Despite the limitations of ESG data from third party vendors, 90 percent of investors use at least one third-party vendor. Investors generally tend to accept that the market for ESG data has some way to go before it becomes as rigorous and comprehensive as financial data. The development and coordination of reporting standards and frameworks and the potential regulation of ESG data vendors themselves will go a long way to facilitating the development of generally accepted accounting principles. Importantly, investors see the value in engaging with both issuers and ESG vendors to facilitate improvements in disclosures and methodologies and to further enable the consideration of ESG factors.

More than 70 percent of European investors incorporate four or more third-party ESG vendors. This is unsurprising, as it is widely recognized that European investors are the most ambitious and sophisticated in sustainable investment. Second, as sovereign-level ESG data still lag behind corporate-level data, it seems intuitively obvious that those clients that hold strong ESG ambitions would be willing to finance and seek out ESG data from multiple sources. The incorporation of a variety of third-party ESG vendors furthermore allows for the derivation of a superior bespoke ESG model, which ought to be better aligned with one's ESG investment intentions.

MSCI and Sustainalytics were most commonly named by investors across all regions as the ESG data providers best placed for sovereign ESG integration. A third top provider, though, was Verisk Maplecroft, considered by those using this vendor as the best because of their customizable approach. At this stage, a minority of vendors are deriving an EM sovereign ESG approach entirely in-house, probably because of the still nascent nature of ESG strategies in the asset class and ongoing data challenges.

Roughly 80 percent of investors believed the credit rating agencies (S&P, Moody's, and Fitch) will start to play a larger role in providing ESG transparency. Rating agencies have invested more in their ESG analytic capabilities by acquiring ESG vendors. Moreover, investors believe credit agencies are best placed to standardize the current ESG rating landscape. Present ESG vendors face several criticisms, many in relation to a lack of clarity and transparency around underlying ESG rating methodologies. Despite the necessity of ESG data and methodology standardization, one question about the developing ESG market stands out: should the emphasis be on more transparency, or should it be on standardization?

The vast majority of investors across all regions do not manage their investments against an ESG benchmark. Since indices act as a unit of relative financial performance, investors rarely deviate from their chosen index at a fund's inception because they seek to demonstrate a credible historical track record. Consequently, the migration of existing fund benchmarks to comparatively new ESG indices can be problematical for several reasons; nonetheless, we are witnessing an increasing uptake in benchmarking against ESG indices within newly launched funds as investors continue to improve their ESG qualities.

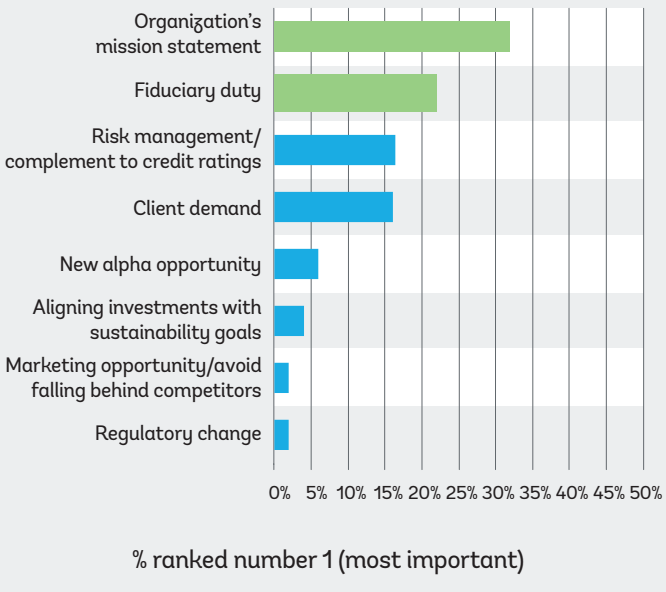
More than 50 percent of respondents chose "improving ESG research output" and "ESG regulatory alignment" as desired enhancements to J.P. Morgan's ESG index offering. The investment community is increasingly demanding greater "translation" in what is meant by changes in issuer ESG ratings. It is no longer sufficient to explain that an issuer's ESG rating has improved or deteriorated by a certain degree. Instead, investors want to understand the material changes in ESG performance, such as a deterioration in greenhouse-gas emissions or the occurrence of a controversial event. We see this receiving more momentum in 2021, a development spurred on by the upcoming UN Climate Change Conference (COP26) and the ongoing implementation of sustainability-related regulation such as the EU Sustainable Finance Disclosure Regulation.

Survey Results

Answers to the 33 survey questions follow.

> > >

QUESTION 1: What is the primary driver for the consideration of ESG within your sovereign investment process?



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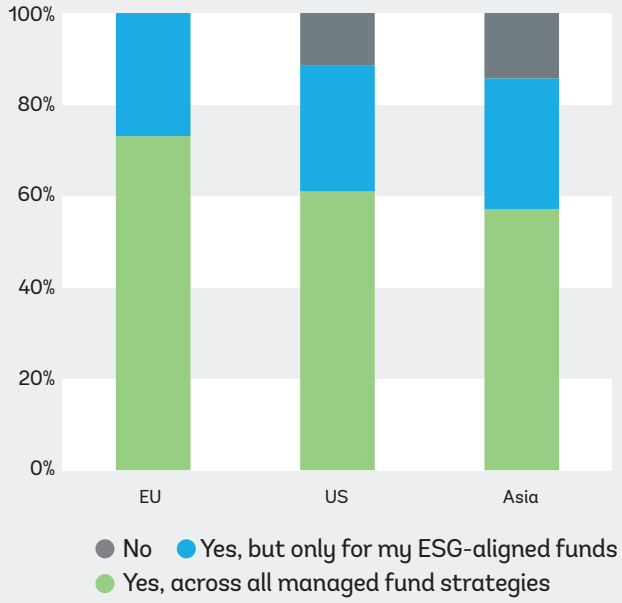
QUESTION 2: Do you consider ESG integration a part of your fiduciary duty?



Source: J.P. Morgan.

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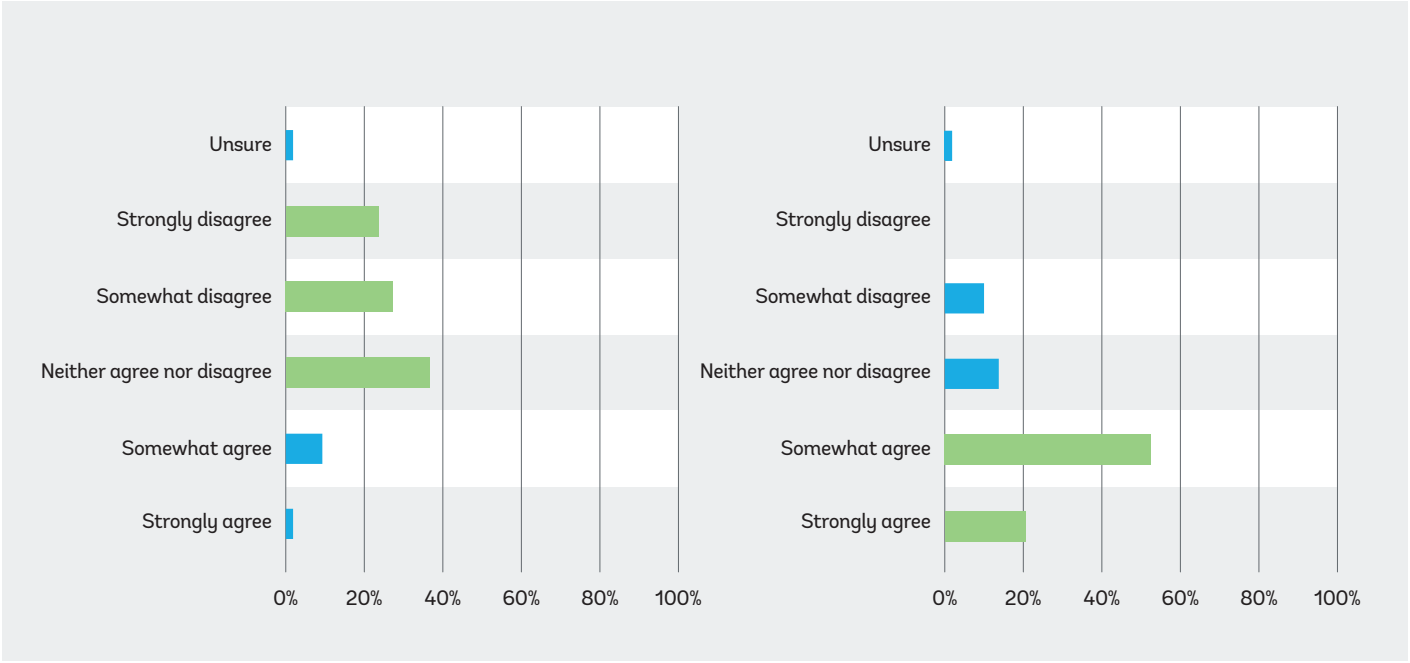
QUESTION 3: To what extent do you agree with the statement: "Implementing an ESG strategy sacrifices investment returns compared to a market benchmark"?

> > >

QUESTION 4: To what extent do you agree with the statement "sovereign ESG approaches should support those issuers who have the greatest sustainable development journey to accomplish rather than those that are best ESG performers?"



Source: J.P. Morgan.

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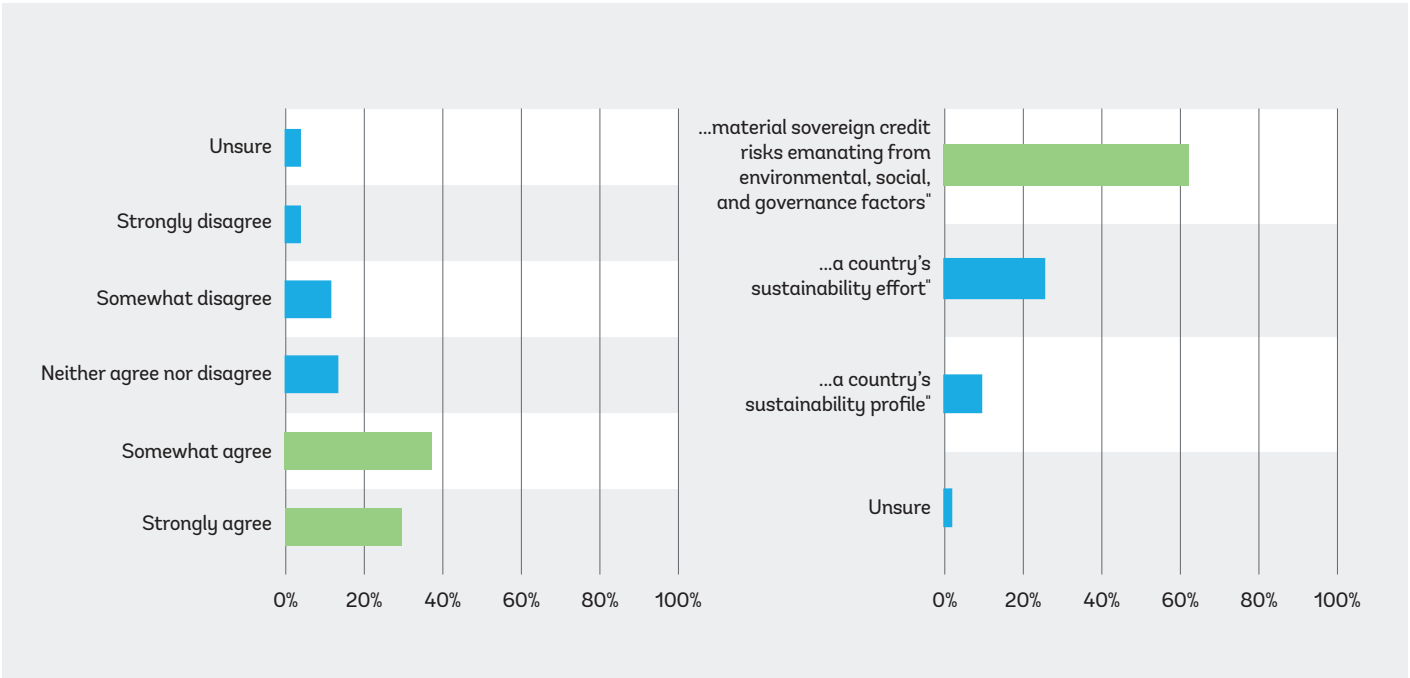
QUESTION 5: To what extent do you agree that sovereign ESG scores should weigh recent successes or setbacks in sustainable development rather than long-term trends, such as income and wealth?

> > >

QUESTION 6: In your opinion, what should a sovereign ESG approach primarily capture? Quantification of...



Source: J.P. Morgan.

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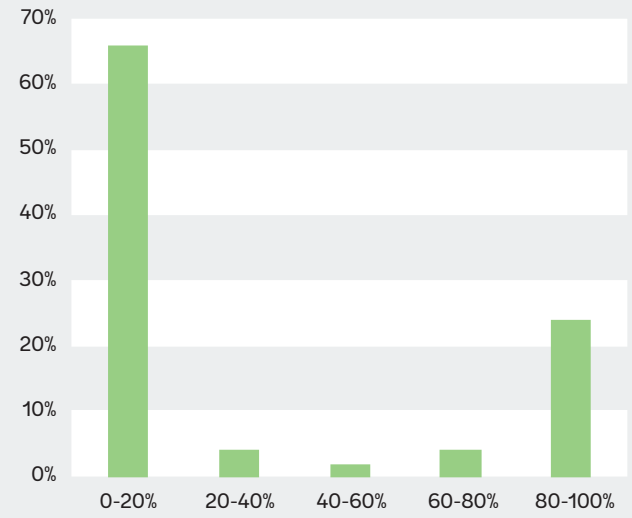
QUESTION 7: As it currently stands, what percentage of your EM sovereign AUM has explicit ESG considerations?



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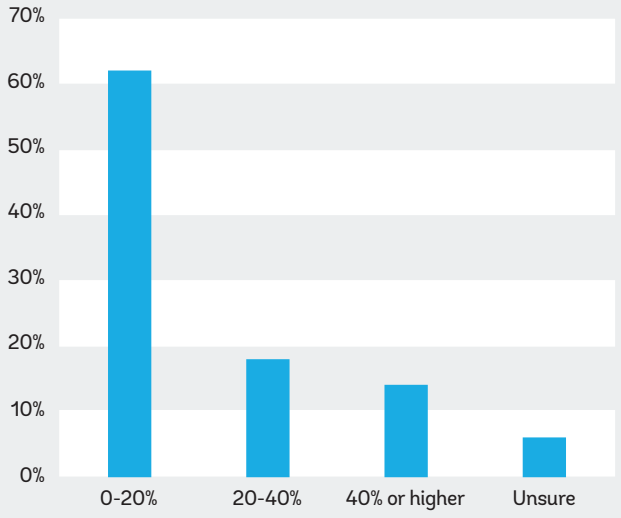
QUESTION 8: In your investment decision/ valuation framework for EM sovereigns, what weight do ESG considerations carry as opposed to traditional financial factors?



Source: J.P. Morgan.

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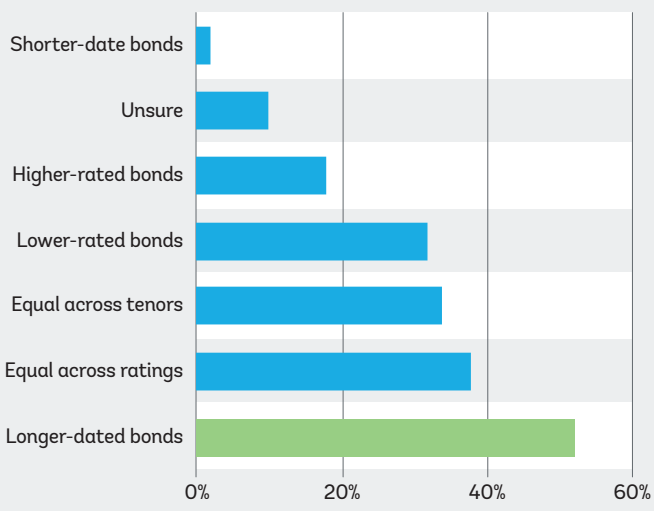
QUESTION 9: For EM sovereign bonds, where do you think ESG considerations are more material for valuations/investment decisions? Please select all that apply



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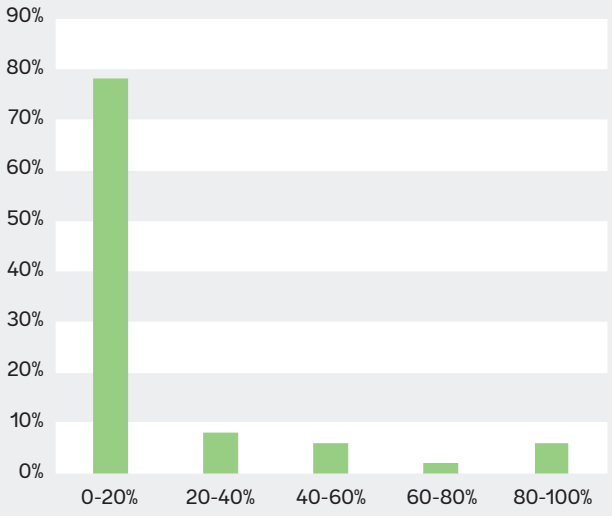
QUESTION 10: By the end of 2021, dedicated ESG funds will represent what percent of your overall EM sovereign strategy?



Source: J.P. Morgan.

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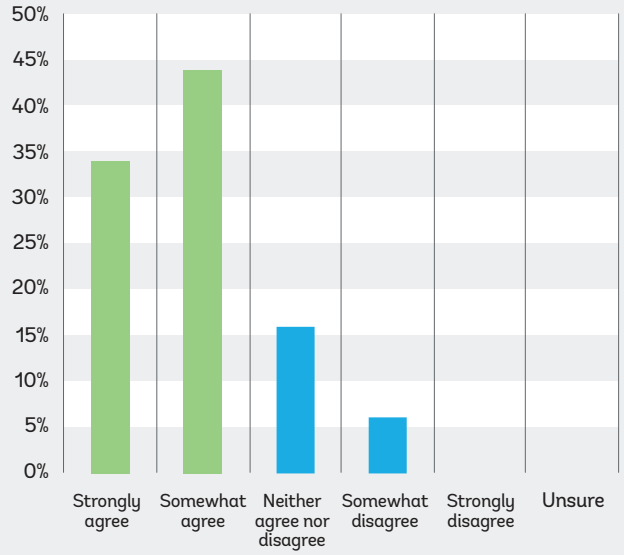
QUESTION 11: To what extent do you agree with the statement "improving ESG fundamentals will lead to lower sovereign credit risk?



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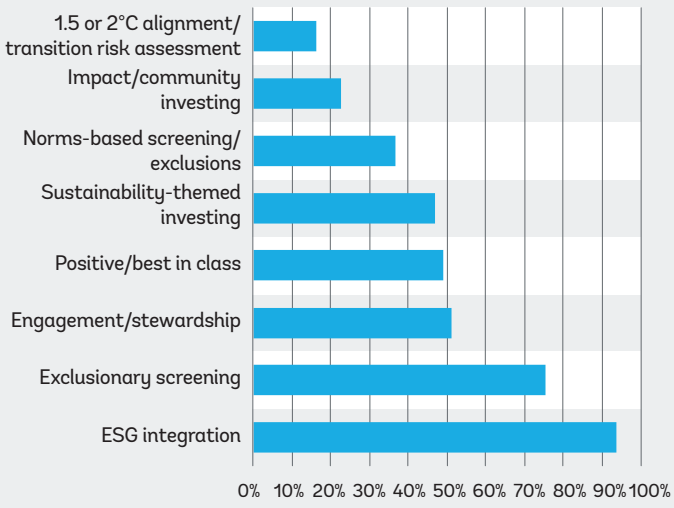
QUESTION 12: What ESG strategies do you incorporate with your EM sovereign debt investing? Please select all that apply



Source: J.P. Morgan.

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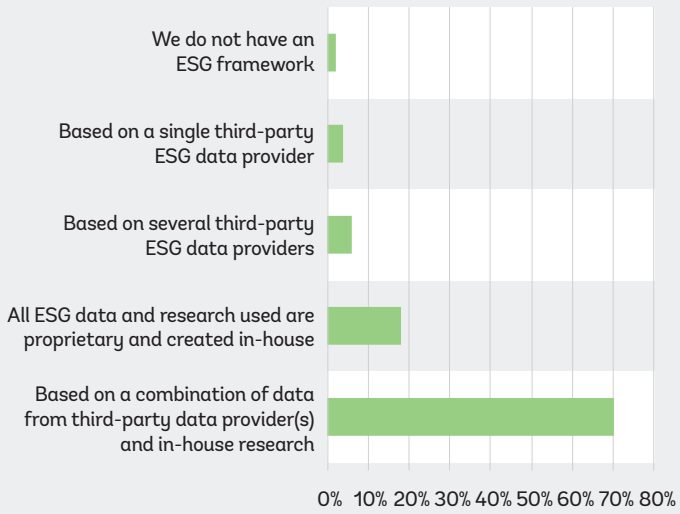
QUESTION 13: Is your ESG framework proprietary and created in-house or based on external third-party ESG data provider(s)?



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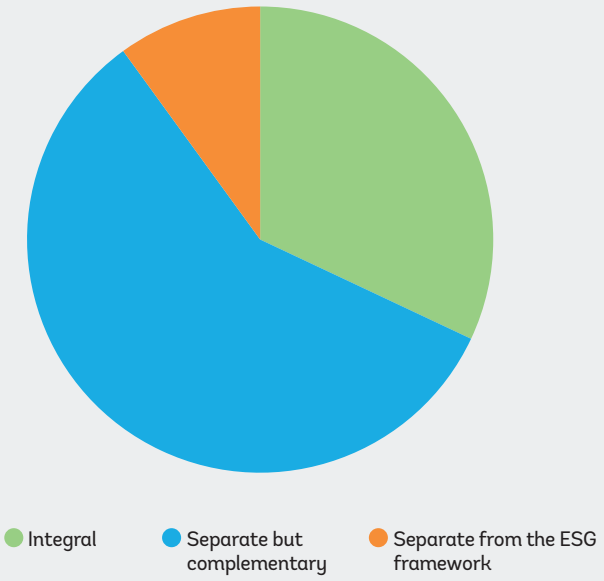
QUESTION 14: How do you view the incorporation of UN Sustainable Development Goals (SDGs) within an EM sovereign ESG framework?



Source: J.P. Morgan.

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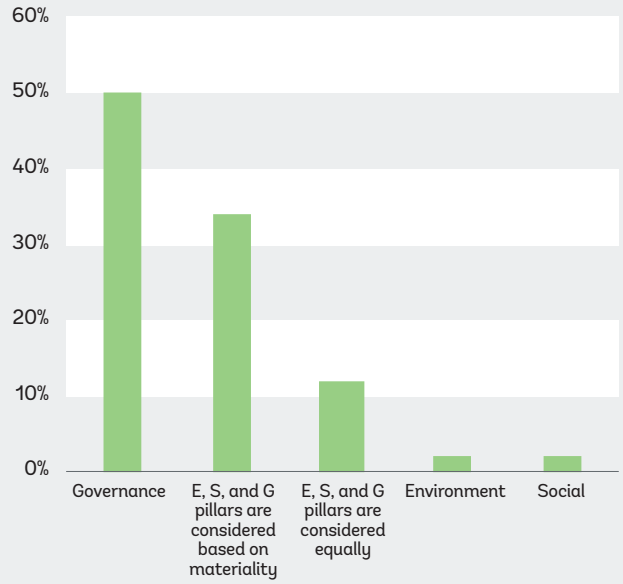
QUESTION 15: Which pillar (if any) within ESG is most important when conducting EM sovereign assessments?



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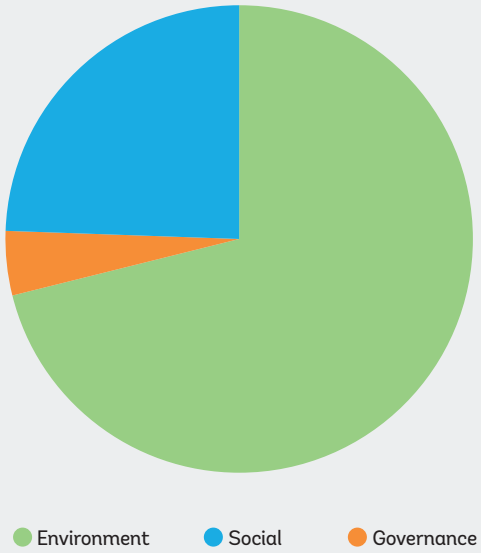
QUESTION 16: Which pillar (if any) of ESG is underrepresented due to data challenges at the EM sovereign level?



Source: J.P. Morgan.

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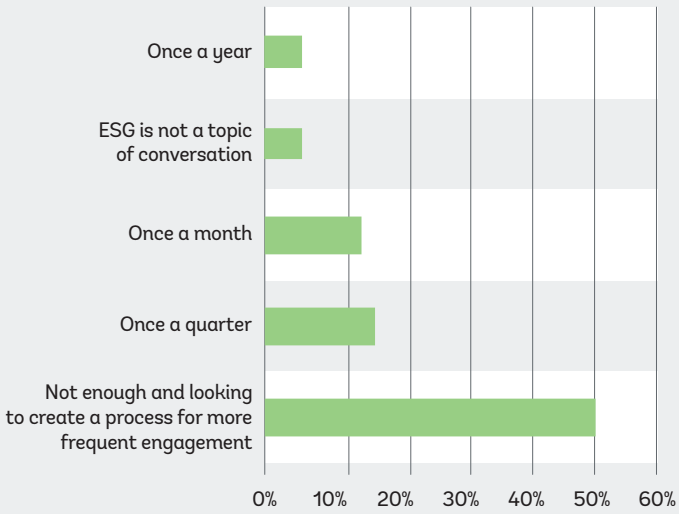
QUESTION 17: How frequently do you engage with EM sovereign debt management offices (DMOs) on ESG topics?



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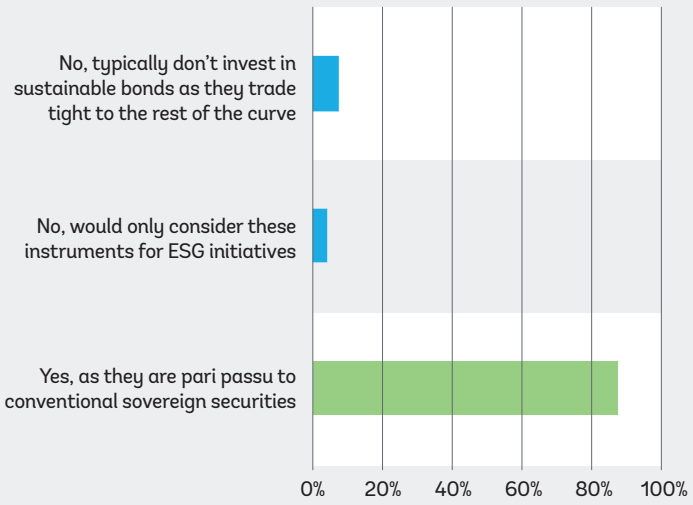
QUESTION 18: Where do you see the majority of client interest/inflows originating from?

Source: J.P. Morgan.

> > >

QUESTION 19: Are sustainable instruments (green, social or sustainability linked) integrated in mandates NOT aligned to ESG?



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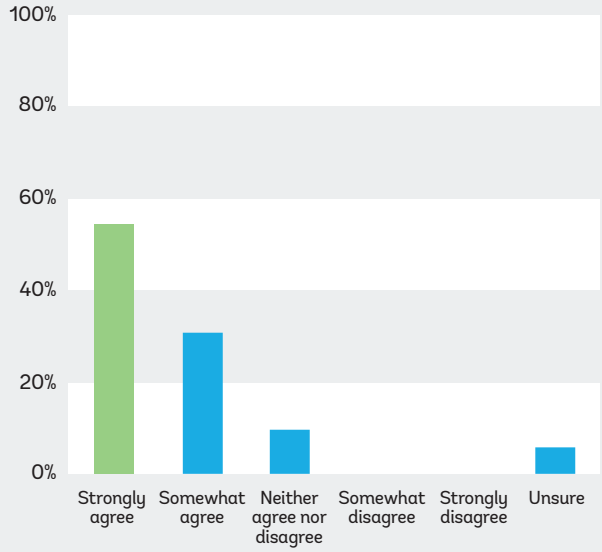
QUESTION 20: To what extent do you agree that the "use of proceeds" of sustainable instruments achieves the intended impact is very important?



Source: J.P. Morgan.

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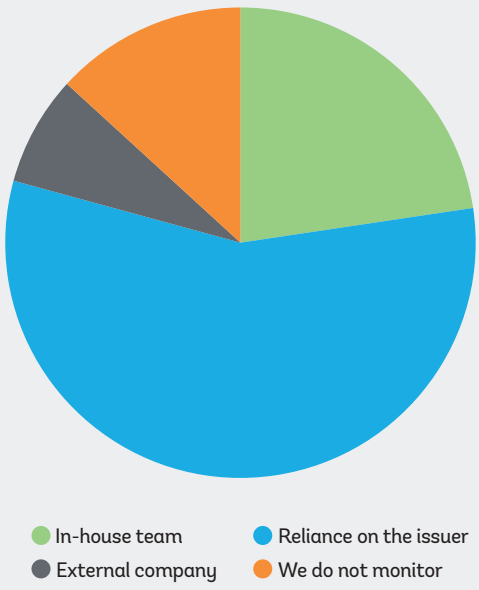
QUESTION 21: How do you conduct ex-post monitoring of "use of proceeds"?



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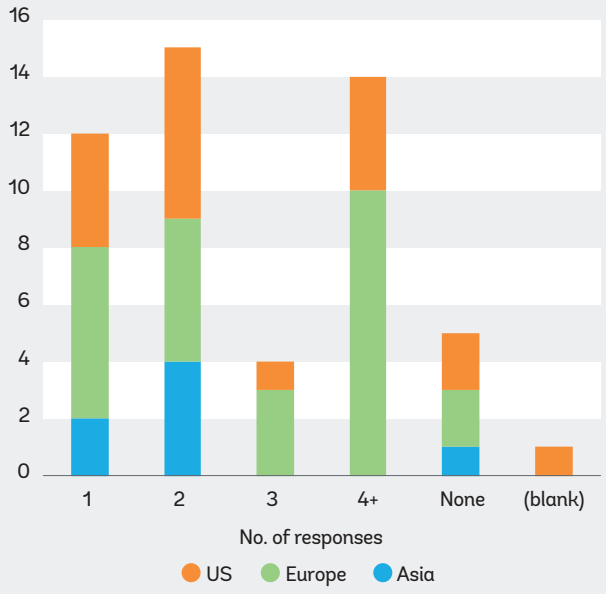
QUESTION 22: How many third-party ESG vendors do you license?



Source: J.P. Morgan.

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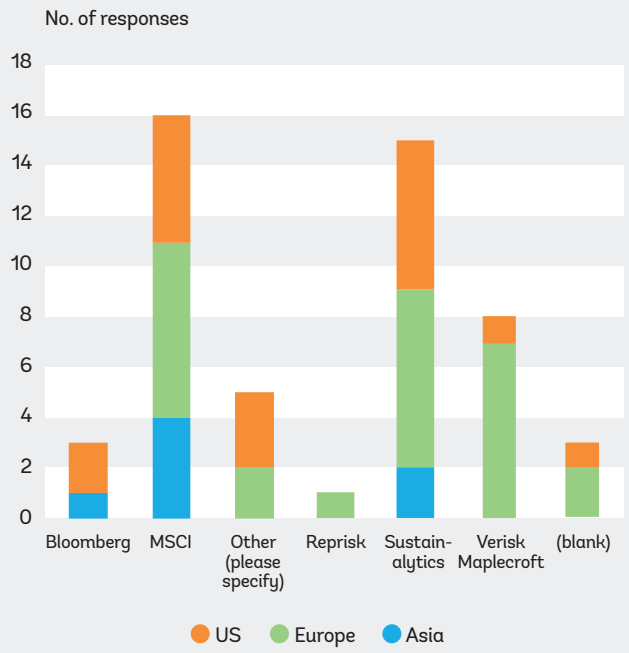
QUESTION 23: Which ESG data providers are best placed for sovereign ESG integration?



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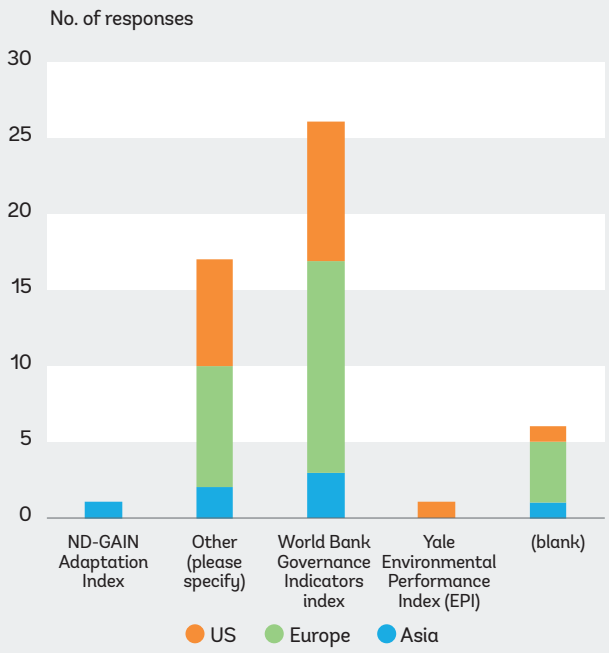
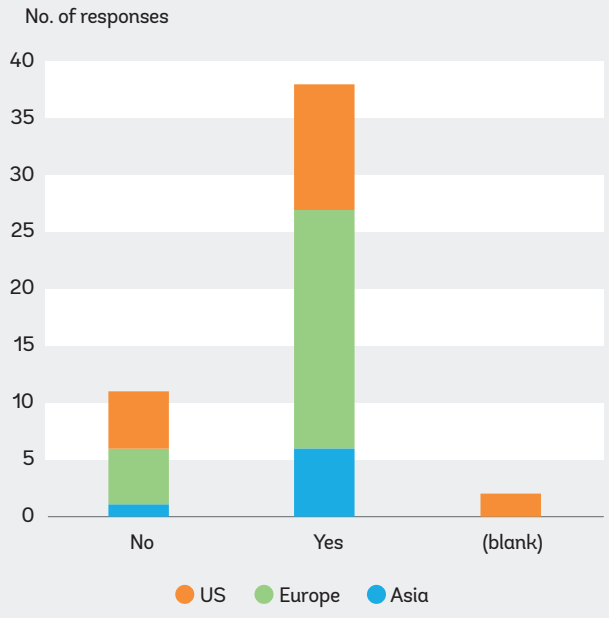
QUESTION 24: Do you supplement data from ESG vendors with additional country-level public sources within your EM sovereign ESG approach?



Source: J.P. Morgan.

> > >

QUESTION 25: Do you believe credit agencies will have a larger role to play going forward in providing EM sovereign ESG ratings, compared to existing third-party ESG data providers?



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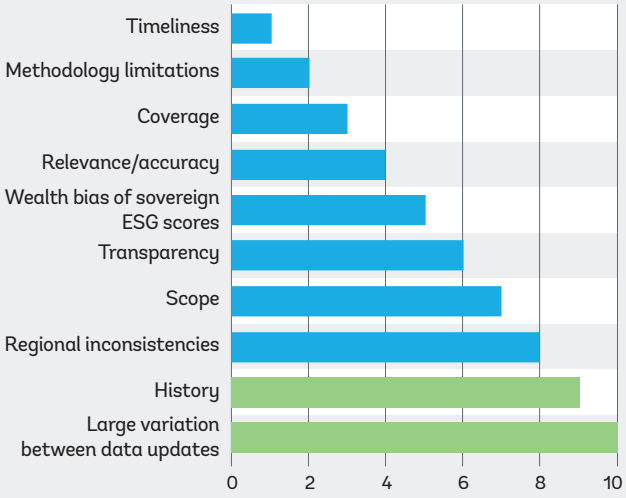
QUESTION 26: What are your main concerns surrounding available ESG data for EM sovereigns?



Source: J.P. Morgan.

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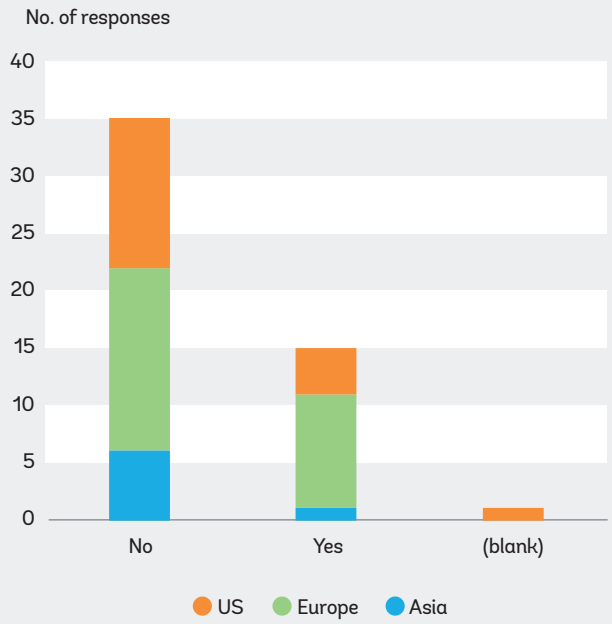
QUESTION 27: Do you manage to an ESG benchmark?



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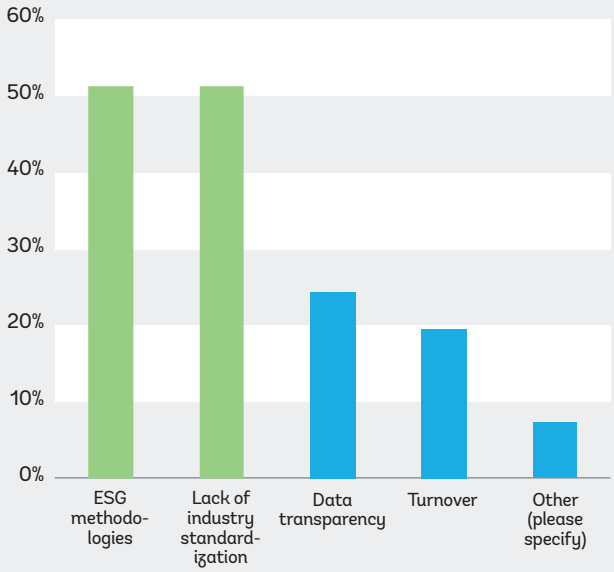
QUESTION 28: What are the main hurdles you find in managing to an ESG benchmark? Please select all that apply.



Source: J.P. Morgan.

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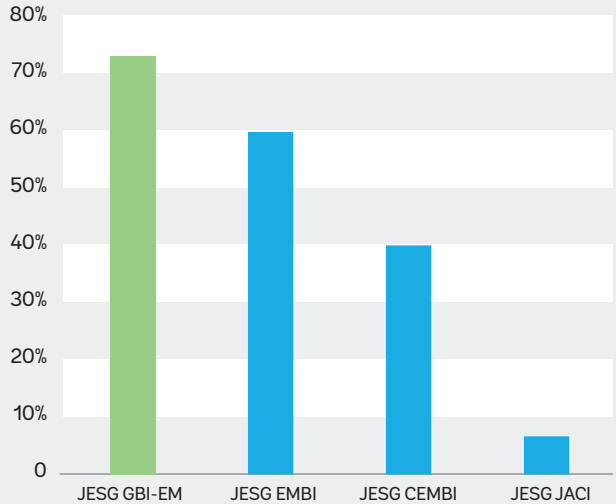
QUESTION 29: Which J.P. Morgan ESG (JESG) Index do you use as a benchmark?



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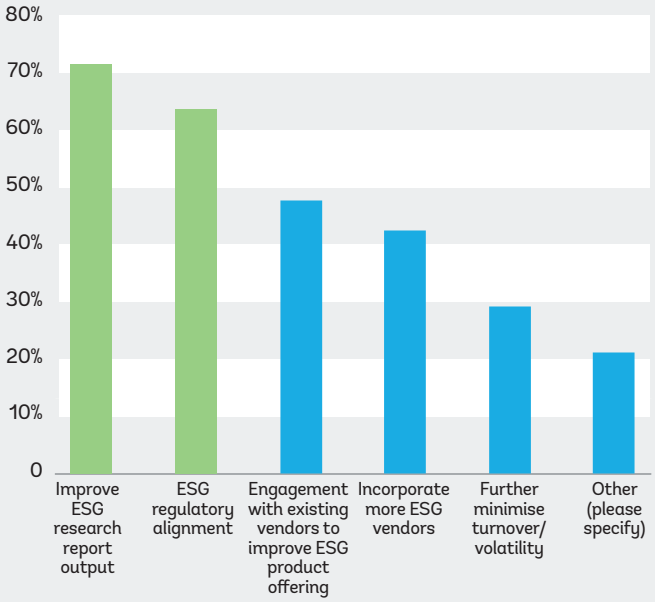
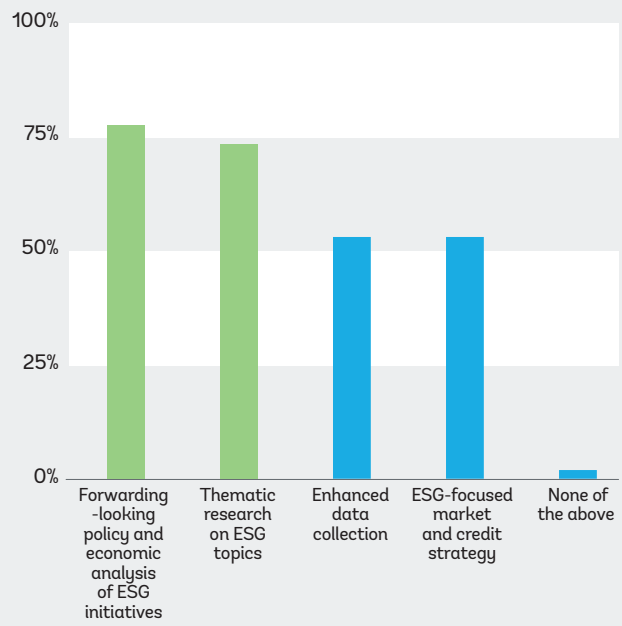
QUESTION 30: How can J.P. Morgan improve the JESG Index Suite going forward? Please select all that apply.



Source: J.P. Morgan.

> > >

QUESTION 31: How can J.P. Morgan help complement your EM sovereign ESG analysis? Please select all that apply.



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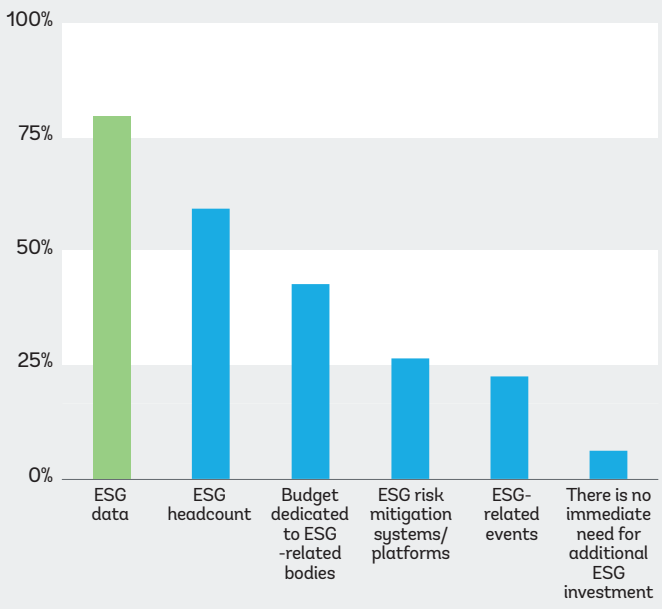
QUESTION 32: How are you investing in increasing your ESG capabilities? Please select all that apply.



Source: J.P. Morgan.

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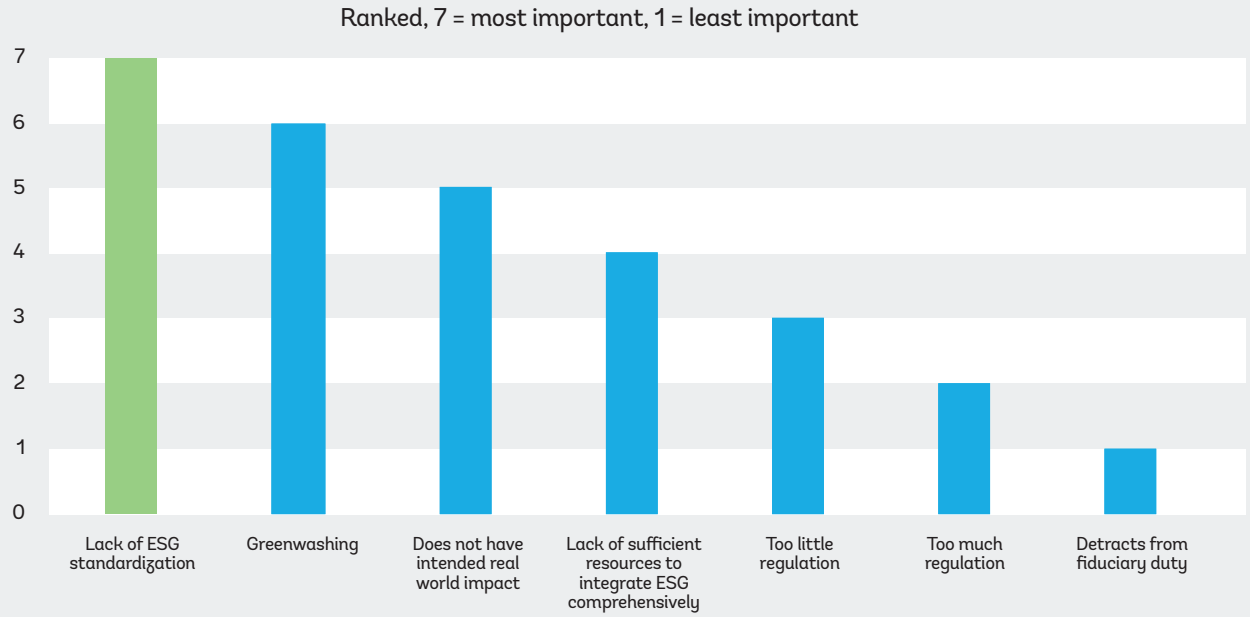
QUESTION 33: What is your greatest ESG concern going forward?



Source: J.P. Morgan.

Looking Ahead: A Green Light at the End of the Tunnel

The survey uncovered gaps in existing sovereign ESG frameworks, yet we believe there is a green light at end of the tunnel. ESG analysis is inherently more complex at a sovereign level compared to the corporate level. Frameworks that reward best-in-class ESG performance risk restricting capital to EM issuers that need it to improve. The data are often patchy and slow moving, and engagement with sovereign issuers requires further coordination from investors in order to be effective. Despite these challenges, though, the survey emphasized that investors are strongly engaged in developing solutions and are deploying resources to strengthen their analysis for Sovereign ESG 2.0.

Investors are focused on correcting sovereign ESG's shortcomings to direct flows to countries better on the basis of sustainable development needs and trajectory. Investors are aware that prevailing ESG approaches for sovereigns can end up reinforcing rather than correcting gaps in sustainable development by directing investment flows to strong performers, which tend to be wealthier countries. At the same time, investors understand that capital is required for the neediest countries to improve their ESG performance. Correcting ESG scores for this income bias by adjusting for a country's wealth or income is one such solution, an approach broadly endorsed by participants in the survey. Similarly, investors would like to incorporate a more forward-looking approach to ESG analysis by weighing recent country-level successes or setbacks. The strong endorsement by the investor base reflects a desire for ESG assessments that are more timely, that move beyond more static scoring, and that reward countries for positive steps taken in their sustainable development journey (or penalize backsliding). We believe that ongoing engagement from the investment community will help the market to overcome such hurdles to better direct ESG investment flows in emerging markets.

While issues of coverage, methodological differences, and timeliness in ESG data need to be addressed, the investment community is aware of these gaps and is putting resources to work to close them. As borne out in the results, governance is weighed most heavily in sovereign ESG analysis and best understood in credit analysis. Environmental and social data tend to be patchier or nonstandardized at the sovereign level in ways that complicate their integration into ESG analysis. This speaks to the need for buy-side and sell-side firms to invest in data provision and research across the whole spectrum of ESG analysis, which are two of the top issues for future focus identified by the participants in our survey.

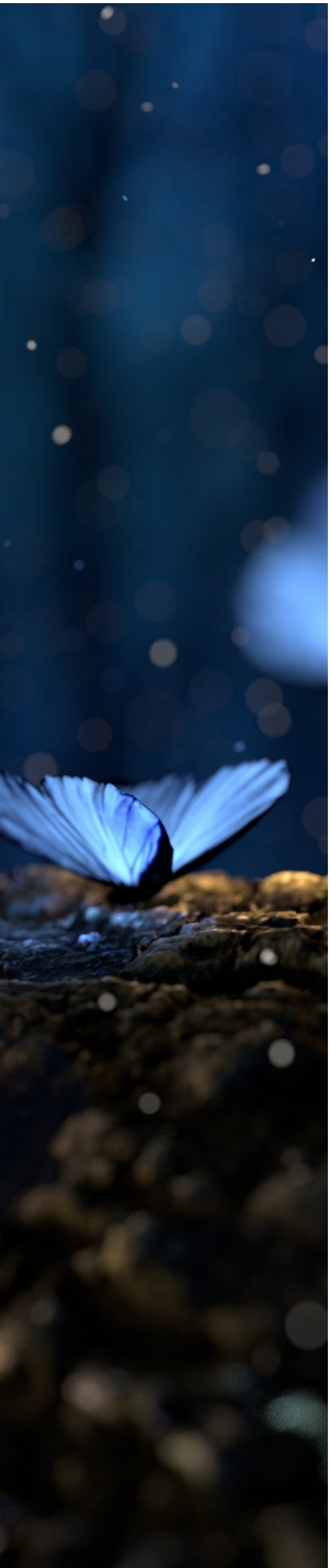
Sovereign ESG strategies would benefit from greater conviction that investments need not sacrifice returns, but this requires more concrete evidence. Our survey uncovered some evidence among investors that ESG-focused strategies can be positive or at least neutral for returns compared to a benchmark, while only a small portion thought that ESG strategies might sacrifice returns. As more funds incorporate ESG strategies and sovereign ESG approaches mature, the larger sample of data will likely add to the evidence. On the positive side, while there is little conviction at this stage, investors are actively engaged in testing their approaches and sell-side research firms may possibly be able to add to the conversation. Positive evidence in this regard will further contribute to mainstreaming sovereign ESG approaches.

Investors are interested in greater engagement and more closely tracking the impact of ESG investments. As discussed, participants expressed a need for a coordinated process for engaging DMOs to pool the differing ESG priorities across the investor base into a coherent approach. Firms like J.P. Morgan, which already serve as effective conduits to DMOs in EM countries, can facilitate such engagement through roundtables and conferences. Likewise, investors are focused on avoiding so-called greenwashing to ensure thematic bonds (green, social) achieve their intended impacts. Better ex post use-of-proceeds monitoring through engagement with issuers or employing internal or third-party resources will likely prove to be a growing area for the investor base.

Europe is the overwhelming source of client interest and inflows, but client interest from Asia and the United States shows potential. The Biden administration's commitment to climate change and the environment is likely to ignite momentum on ESG topics for US investors, and a broader approach to fiduciary duty could foster the development of impact-driven investment strategies. Domestically, the new administration is expected to cultivate a political environment in which ESG investing can flourish. The reintegration of environmental standards (diluted or rolled back under the Trump administration) and the promotion of a more institutionalized regulatory framework will support this process. The influence of the new administration should also spill over externally, with the rejoining of international efforts like the Paris Climate Agreement expected to reinforce global cooperation around climate issues (Dubourg and Hecker 2020). The US Treasury and Federal Reserve also have signaled greater emphasis in their approaches to climate change. More broadly, greater transparency around ESG

data and frameworks is needed to encourage these flows from underrepresented regions.

We intend to repeat this survey in coming years to chart developments in EM sovereign ESG strategies. Throughout the survey process, we collected feedback on numerous questions in the survey about instances when the wording was too ambiguous or the format of the question was not the most appropriate for encouraging proper investor response. Going forward, future surveys will incorporate this feedback to improve the value and transparency of this work further.



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Appendix A
Glossary of Terms

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GLOSSARY OF TERMS

Sovereign ESG scores	Environmental, Social, and Governance indicators that reflect a country's sustainability.
ESG 1.0	The sovereign ESG framework that has been used by financial institutions and rating agencies to quantify a country's ESG performance. The resulting scores are predominantly concerned with financial materiality and "ESG as input" and are affected by the IIB.
ESG 2.0	An ESG framework complementary to ESG 1.0 that emphasizes both transparency of methodology as well as environmental and financial materiality. It is adjusted for the IIB.
Impact investing	An investment paradigm that provides capital to projects, firms, or other organizations in order to have measurable impact, which usually pertains to beneficial social or environmental effects.
Financial materiality	Variables that are relevant for financial decision-making, such as investment allocation, portfolio construction, and risk management, among others. One example of this is the correlation of ESG factors with market returns.
Environmental materiality	Variables relevant to achieving environmental goals that aim at protecting natural assets, fighting pollution, and maintaining the sustainable use of resources. Examples include deforestation rate and greenhouse gas emissions.
Dual materiality	Variables that are relevant for achieving both environmentally and financially material goals.
Wealth accounting data	A data set and methodological framework that quantifies the economic value of natural, produced, and human capital in dollar values as part of a country's balance sheet. The goal of wealth accounting is the forward-looking measurement of a resource's importance for long-term sustainable economic growth.
Forward-looking risks	Such risk incorporates future outcomes and developments into present decision making.

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GLOSSARY OF TERMS (continued)

Ingrained income bias (IIB)	Observed phenomenon among sovereign ESG scores that predominantly assign better scores to high-income countries. This income bias may skew investment incentives by favoring countries that are more prosperous. The ingrained nature of the bias may also create negative policy incentives since income levels make ESG scores difficult to change in the short run.
Income adjustment	Scoring methodology that accounts for the IIB such that the resulting scores do not predominantly reflect the income level of the underlying countries.
Scalability effectiveness space	An abstract space to position the ability to scale up financial products in increasingly effective ways in order to implement sustainable development solutions.

Other insights into **sustainable finance** you may be interested in

- *Riding the Wave: Navigating the ESG Landscape for Sovereign Debt Managers.* by S. Boitreaud, E. Gratcheva, B. Gurhy, C. Paladines and A. Skarnulis
- *Demystifying Sovereign ESG.* by E. Gratcheva, T. Emery and D. Wang
- *A New Dawn - Rethinking Sovereign ESG*. by E. Gratcheva, B. Gurhy, T. Emery and D. Wang
- *Credit Worthy: ESG Considerations in Sovereign Credit Ratings.* by E. Gratcheva, B. Gurhy, F. Stewart, A. Skarnulis and D. Wang
- *1% Growth in Natural Capital: Why it Matters for Sovereign Bonds.* by E. Gratcheva, B. Gurhy and D. Wang
- *Natural Allies: Wealth and Sovereign ESG*, in: *The Changing Wealth of Nations 2021: Managing Assets for the Future.* by E. Gratcheva and D. Wang
- *Natural Capital and Sovereign Bonds.* by D. Wang
- *Spatial Finance: Challenges and Opportunities in a Changing World* by WWF and World Bank.

GPS Global Program on Sustainability

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