

FIXED INCOME & SUSTAINABLE INVESTING

Sustainable Sovereigns: Integrating ESG Analysis into Government Debt Research

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theAdvisory

Investment Insights and Thoughts from Brown Advisory

Brown Advisory has championed Environmental, Social and Governance (ESG) research and sustainable investing for more than a decade. We are now expanding our ESG framework into sovereign bonds, a relatively less developed area in sustainable fixed income. We view sovereign bonds as an asset class with the potential to achieve progress on the United Nations Sustainable Development Goals (U.N. SDGs), as sovereign issuers have ample ability and reach to address key environmental and social challenges. Our framework combines quantitative methodology with qualitative analysis in an effort to build a holistic assessment of a country's ESG risks and opportunities that is comparable across countries yet able to capture subtleties and gradations. We believe that one size does not fit all when assessing sovereigns' sustainability profiles. We illustrate our approach with an in-depth ESG analysis of Indonesia, where we believe that government bonds offer sound credit fundamentals and a compelling ESG outlook, and where the opportunities, in our analysis, far outweigh the risks.

Investors across the globe increasingly seek to incorporate ESG research into investment decisions across asset classes to align their investment outcomes with their sustainability goals. Equity markets were the earliest and fastest adopters of ESG research, with corporate bond markets following suit, alongside the establishment of sustainable investing principles. However, ESG and sustainability approaches are still relatively less developed in other segments of fixed income markets, such as sovereign bonds, securitised credit and private debt.¹

Being the largest sector within fixed income—with approximately \$60 trillion in outstanding debt and backed by the power of government—we believe that the ability and reach of sovereign issuers to

address key environmental and social challenges and to achieve progress on the U.N. SDGs goes well beyond the scope of a corporate issuer. Furthermore, sovereign ESG analysis has the potential to reduce risk and identify compelling investment opportunities in government and corporate bonds, and particularly in emerging markets.

This paper discusses the evolution of our sustainable investing approach, from equities to corporate bonds and, more recently, sovereign debt. We illustrate this approach with an in-depth case study of Indonesia.

¹Private debt may only be available to Qualified Purchasers or Accredited Investors.

THE EVOLUTION OF SUSTAINABLE INVESTING AT BROWN ADVISORY

We believe that while the proliferation of ESG and sustainability themes in global investing is tremendously encouraging, investors must remain vigilant in their own examination of the authenticity of ESG labels and claims. Brown Advisory has championed ESG research and sustainable investing for more than a decade. Our commitment to generating investment performance and positive impact

is built on a solid foundation: the combination of Brown Advisory’s decades of experience in fundamental, bottom-up equity and credit research, with more than 25 years of expertise in ESG equity investing originally developed at Winslow Management Company, which joined our firm in 2009.

Exhibit 1: Brown Advisory’s Sustainable Investing Platform Milestones

2009	2010	2014	2015	2021
Integration of ESG and fundamental research	Established U.S. Sustainable Equity Platform	Established U.S. Sustainable Fixed Income Platform	Global Expansion of Sustainable Equity Platform	Global Expansion of Sustainable Fixed Income Platform

Source: Brown Advisory.

Our sustainable investing philosophy and process were developed in-house and are supported by a robust team of ESG research analysts, portfolio managers and other dedicated professionals. Our approach is consistent and systematic across our platform. It is based on three core tenets:

- 1. Integration of ESG and Fundamental Research:** We believe that investment decisions and performance outcomes improve with the combination of in-depth ESG and fundamental analyses.
- 2. Focus on Risks and Opportunities:** Our ESG research approach seeks to assess ESG risk management, and identify sustainable opportunities that address key environmental and/or social challenges, which we believe can lead to improved performance and impact.
- 3. Constant Innovation:** We have a long history in sustainable investing and strive to stay at the forefront of this space. We continue to develop, refine and enhance our frameworks, approaches and strategies.

Our dedication to advancing sustainable investing principles is reflected in the continued expansion of our team and sustainable investment offerings, our continued transparency and reporting on the impact and sustainable merits of our strategies, and our extensive collaboration with key organisations. These include the Principles for Responsible Investment (PRI), the Sustainability Accounting Standards Board (SASB), International Capital Market Association (ICMA) and CDP, among others, which are helping advance global standards for disclosures and reporting, and improving data availability.

Since integrating ESG and fundamental research over a decade ago, we have expanded our framework to encompass corporate, securitised and municipal bonds. Through our new global sustainable fixed income platform, we recently established an ESG framework for sovereign bonds, the next step in our evolution. Our approach to developing such a framework is to leverage our tried and tested process for ESG research of corporate, securitised and municipal debt.

FROM CORPORATE CREDIT TO GOVERNMENT DEBT FUNDAMENTAL AND ESG RESEARCH

ESG analysis for companies is generally well-understood. Our approach to evaluating sovereigns for ESG is a natural evolution rather than a completely new construct.

There are many similarities between the fundamental and ESG analyses of corporate and sovereign debt. Both ultimately seek to assess an issuer’s ability to service its obligations and the impact of the use of its proceeds. Fundamental corporate and sovereign debt analysis evaluates financial and non-financial indicators as well as specific bond characteristics. Distinctions between corporate and sovereign research arise as we define and identify the variables to evaluate each category. For instance, while non-financial indicators in fundamental corporate debt analysis assess management teams, in the case of sovereigns, the analysis involves evaluating central bank independence, quality of institutions, and the domestic and international political landscape.

Historically, ESG analysis of sovereign debt was primarily focused on governance issues. However, we believe that environmental and social matters are of critical significance to sovereign growth potential and debt sustainability. For example, we believe that human capital, climate change and governance are as important to sovereigns as they are to companies. For a corporation, human capital is crucial to its ability to innovate and to mitigate against operational disruptions, just as it is key to a country’s ability to grow and develop economically. Likewise, for a company, we may evaluate its ability to attract and retain talent through its training and development programs, diversity and inclusion practices, and

employee safety metrics. For a country, we look at health and education outcomes, employment opportunities for citizens, and measures of inequality. From an environmental standpoint, climate change is an issue creating significant disruption globally. Many corporations will have to restructure their business models, just as many countries will have to restructure their economies to mitigate and adapt to its effects. Lastly, governance comes down to how leadership—whether it be a company’s management team or a group of elected government officials—meets the needs of and is being held accountable by its various stakeholders.

Exhibit 2: Similarities in Fundamental and ESG Research Across Corporate Credit and Sovereign Bonds

	CORPORATE CREDIT		SOVEREIGN BONDS
FUNDAMENTALS	<ul style="list-style-type: none"> Ability to generate free cash flow and meet debt obligations 	◀	<ul style="list-style-type: none"> Ability and willingness to meet debt obligations Economic growth and fiscal policy
	<ul style="list-style-type: none"> Management team skills and intentions 	◀	<ul style="list-style-type: none"> Central bank independence, domestic and geopolitical landscape
	<ul style="list-style-type: none"> Analyse issuer and issue Covenants and legal framework 	◀	<ul style="list-style-type: none"> Analyse issuer and issue Institutional effectiveness and political risks
ESG RESEARCH	<ul style="list-style-type: none"> Employee health and safety Training and development Diversity, equity and inclusion 	◀	<ul style="list-style-type: none"> Health and education outcomes Employment and economic opportunity Inequality
	<ul style="list-style-type: none"> Climate transition plans Resource intensity Physical climate risk vulnerability Supply chain resiliency 	◀	<ul style="list-style-type: none"> Climate transition plans Resource intensity Physical climate risk vulnerability Economic resiliency
	<ul style="list-style-type: none"> Business ethics Management team quality and incentives Board composition and oversight 	◀	<ul style="list-style-type: none"> Control of corruption Government effectiveness Voice and accountability

Source: Brown Advisory.

**ESG FRAMEWORK FOR SOVEREIGNS:
ONE SIZE DOES NOT FIT ALL**

ESG risks and sustainable opportunities ultimately have an impact on a country’s potential for economic growth and political stability. The breadth required for ESG analysis of sovereigns is challenging. The range of ESG risks and opportunities that each country faces can be extremely broad, and there is often tremendous variation in the extent to which these have an impact. While consistency is a

necessary condition, it is important to recognise that the effectiveness of such a framework hinges on its ability to capture nuance. Our framework combines a quantitative methodology with qualitative analysis to build a holistic assessment of a country’s ESG risks and opportunities that is comparable across countries yet able to capture subtleties and gradations. We believe that one size does not fit all when assessing the sustainability profile of sovereigns.

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Cross-country data is abundant, and its consistency and coverage have increased over recent years. Such abundance of information, coupled with biases, inconsistencies and lags that are still present in country data, require establishing clear criteria to separate signal from noise. In spite of these challenges, we believe that quantitative data is critical to harmonising this extremely diverse universe.

While quantitative scores are informative, in isolation, we believe they offer an insufficient view of a country's ESG profile. We complement quantitative scores with more traditional, in-depth qualitative analysis that validates and determines the materiality of underlying ESG data for each country. Qualitative analysis allows us to identify trends, evaluate policy developments and current events to ensure timeliness of the quantitative data, and better estimate future developments.

Our proprietary Sovereign ESG Score provides an initial indication of a country's ESG performance from over 30 indicators across a number of ESG factors. The score is assessed against multiple peer groups—defined by income level, region and emerging/developed market classification—to get a better contextual understanding of a country's ESG performance.

Our assessment is also dynamic: we calculate a momentum score to show the progress or deterioration over the last five and 10 years. This is supported by a qualitative analysis of recent trends, policy and current events that enable us to validate and determine the materiality of underlying ESG data, assess the ESG trajectory, and identify indications of improving ESG profiles. We evaluate each sovereign on key ESG factors that we believe can affect political stability, promote economic growth and drive progress on the U.N. SDGs.

Peer group comparisons are essential in the analysis, given the broad range of ESG characteristics encompassed by issuers. Emerging market sovereigns can often be at a disadvantage when assessed

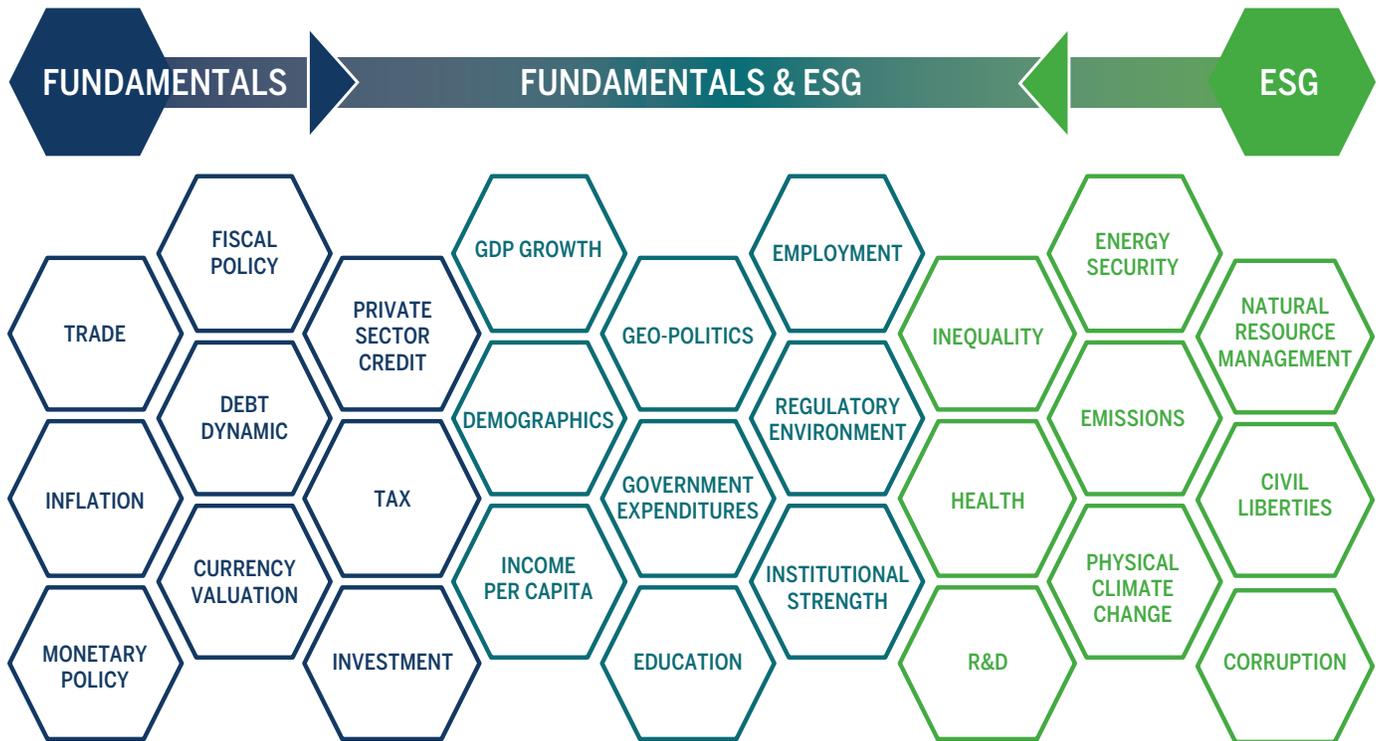
against traditional ESG metrics, as they may have limited resources or are in an earlier phase of their economic development. However, we believe that we can have significant positive impact by providing capital to these issuers to support their transition to becoming more sustainable and achieving the U.N. SDGs. By being able to compare countries across various peer groups and through our qualitative overlay, we have a much more comprehensive understanding of a country's ESG performance and are able to determine which factors are material to its credit profile.

As in other asset classes, we believe engagement can be a particularly useful tool to enhance our due diligence and promote progress on key ESG issues. We continue to explore opportunities to engage with debt management offices, other government officials and non-governmental organisations either directly or through broader investor initiatives. As sovereign issuers are increasingly looking to attract capital from ESG-oriented investors, it is important for us to have a seat at the table.

FUNDAMENTALS AND ESG INTEGRATION

From the bottom up and top down, we seek to build a mosaic of information to evaluate and analyse a country's investment profile with integrated qualitative and quantitative fundamental and ESG research. ESG factors are interwoven into fundamental analysis. Together, they provide a complete picture of the fundamentals and the embedded risks and opportunities of a particular issuer. Social factors are focused on human capital and the ability of a country to increase economic competitiveness through its citizens. Environmental factors are focused on how a country is managing its natural capital so that it can be more resilient over the long term. And finally, governance factors are helpful in assessing a country's ability to execute on the above objectives and ultimately meet the needs of its various stakeholders.

Exhibit 3: Fundamentals and ESG Integration, Illustrative Example



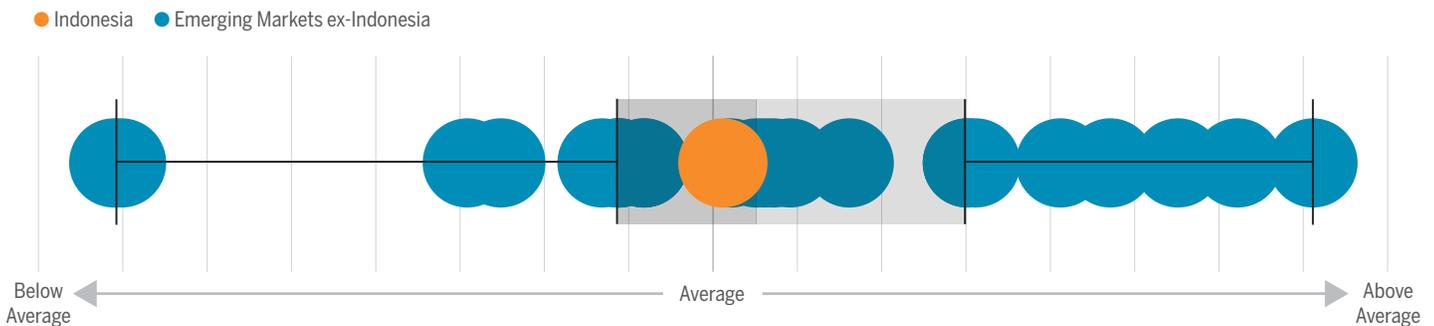
Source: Brown Advisory.

INDONESIAN GOVERNMENT BONDS: POTENTIAL FOR PERFORMANCE AND IMPACT

We believe Indonesia’s sovereign bond market is poised to offer compelling investment performance opportunities and potential for impact. Our proprietary scoring system identifies positive trends in social and governance factors that will likely continue to reinforce a constructive feedback loop in the robust macroeconomic backdrop.

As shown in Exhibit 4, Indonesia’s overarching ESG score performs in line with its emerging market peers on an absolute basis.

Exhibit 4: Indonesia vs. Peers, Aggregate ESG Score

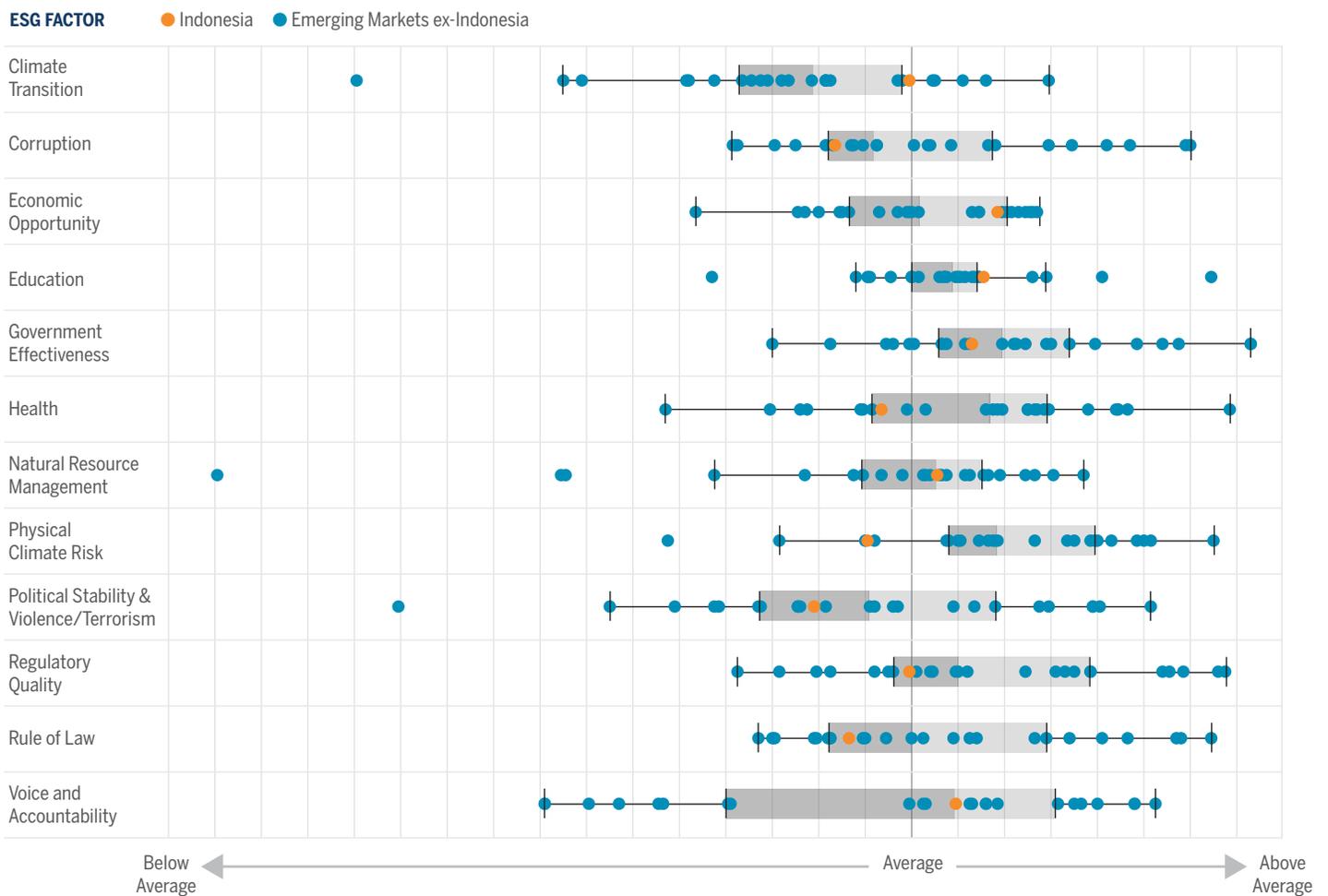


Note: The boxplot shows the distribution of the countries’ ESG scores through displaying the data quartiles (or percentiles) and averages. The vertical bars indicate (from left to right) the minimum score, first (lower) quartile, median, third (upper) quartile, and maximum score. Blue circles show values for the different countries in the sample and the orange circle shows the value for Indonesia. The area shaded in dark gray represents the second quartile and the area in lighter gray represent the third quartile, i.e., the data closer to the average. Source: World Bank (<https://datatopics.worldbank.org/esg/>), ND- GAIN index (<https://gain.nd.edu/our-work/country-index/>) and Brown Advisory. Includes most recently available data as of March 11, 2021.

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Examining the underlying data provides a better understanding of the drivers of a country’s ESG performance. In the case of Indonesia, as shown in Exhibit 5, we note particularly strong performance as it relates to economic opportunity (measured by employment levels, poverty reduction and amenable business environment) and education (driven by a constitutionally mandated 20% spend on education).

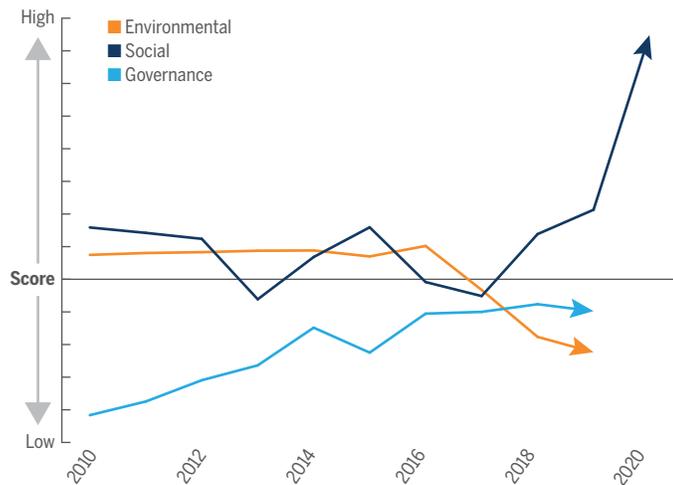
Exhibit 5: Factor Score Shows Strong Performance in Economic Opportunity and Education vs. Peers



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Moreover, as shown in Exhibit 6, we note that Indonesia has shown positive momentum on these social indicators over the last decade, suggesting this is a trend to watch. We believe a continually strong focus on expanding access to education in recent years may increase Indonesia’s ability to capitalise on this growing economic opportunity. This is supported by governance indicators that have also steadily improved over the last decade.

Exhibit 6: Positive Momentum in Social and Governance Indicators



Source: World Bank (<https://datatopics.worldbank.org/esg/>), ND- GAIN index (<https://gain.nd.edu/our-work/country-index/>) and Brown Advisory. Includes most recently available data as of March 11, 2021. 2021, 2020 scores for Environmental and Governance are not yet available due to lags in data reporting.

From an ESG risk perspective, we continue to monitor how the country is addressing physical and climate transition risk, both of which have the potential to disrupt its economy and require financial resources to be allocated to mitigation efforts. However, we believe reduced reliance on the agricultural and forestry sectors over the last decade, in conjunction with recent announcements to phase out coal power, are positive steps in the right direction and should moderate some of the environmental risks. Moreover, the ability to build up the country’s human capital by creating greater economic opportunity and advancing education outcomes may improve its ability to transition its economy away from natural resource-intensive industries. This qualitative analysis overlay allows us to draw better conclusions across the ESG dimensions, which are often absent in a purely quantitative analysis of the data.

On the fundamental side, we view the improving economic backdrop with limited inflationary pressures and a stable currency as a compelling case for owning the sovereign bonds. We do not expect Bank Indonesia (BI) to increase interest rates until the back half of 2022, and limited supply coupled with consistent BI purchases under the current “burden sharing” regime will likely underpin bond yields. Likewise, a positive current account and improving budget balance for Indonesia bode well for interest rates. On the technical side, the slope of the Indonesian bond curve is steep between the five- and 10-year points, which should provide an additional boost to our forecasted total returns over the upcoming 12 months.

Our ESG approach to sovereigns is rooted in our three core tenets—integration of ESG and fundamental research, focus on risks and opportunities and commitment to innovation—and draws on our extensive experience in fundamental analysis of corporate credit and government bonds.

CONCLUSION

Integrating ESG factors into sovereign debt analysis is the natural evolution of Brown Advisory’s global equity and fixed income sustainable investing platform. It also demonstrates our commitment to advancing the frontiers of sustainable investing.

Our ESG approach to sovereigns is rooted in our three core tenets—integration of ESG and fundamental research, focus on risks and opportunities, and commitment to innovation—and draws on our extensive experience in fundamental analysis of corporate credit and government bonds. While our approach to ESG analysis is consistent and systematic across asset classes and geographies, we believe it is flexible enough to capture the nuances that pertain to each country and the connections across and between different ESG factors. Our qualitative analysis complements and enhances our quantitative data analysis to provide a true assessment and forecast of a sovereign’s current and future sustainability. **B**

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All investments involve risk. The value of the investment and the income from it will vary. There is no guarantee that the initial investment will be returned. ESG considerations that are material will vary by investment style, sector/industry, market trends and client objectives. Our sustainable strategies seeks to identify companies that it believes may have desirable ESG outcomes, but investors may differ in their views of what constitutes positive or negative ESG outcomes. As a result, our sustainable strategies may invest in companies or issuers that do not reflect the beliefs and values of any particular investor. Our sustainable strategies may also invest in companies or issuers that would otherwise be screened out of other ESG-oriented funds. Security selection will be impacted by the combined focus on ESG assessments and forecasts of return and risk.

Our sustainable strategies intends to invest in companies or issuers with measurable ESG outcomes, as determined by Brown Advisory, and may seek to screen out particular companies or issuers. Brown Advisory relies on third parties to provide data and screening tools. There is no assurance that this information will be accurate or complete or that it will properly exclude all applicable securities. Investments selected using these tools may perform differently than as forecasted due to the factors incorporated into the screening process, changes from historical trends, and issues in the construction and implementation of the screens (including, but not limited to, software issues and other technological issues). There is no guarantee that Brown Advisory's use of these tools will result in effective investment decisions.

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