

Investment Insights | Fixed Income

Global Debt Team's active approach to EM sovereign ESG investing

Long history of ESG and sustainable fixed income investing

The Invesco Global Debt Team is part of the Invesco Fixed Income (IFI) platform, a wellresourced team that combines local market knowledge with a strong global perspective. IFI has managed ESG-aware portfolios for more than two decades, and our approach has continually evolved over time. The evolution of our approach reflects changing industry dynamics and the growing appetite for more sophisticated and targeted sustainabilitylinked investment outcomes. We believe our independent research and global approach to sustainable investing could offer value to clients seeking strategic partnerships in emerging market (EM) fixed income.

The Invesco Global Debt Team manages over USD6 billion in assets, including over USD3 billion in sovereign EM debt. Team members have diverse international backgrounds, including fluency in 15 languages. Our sovereign investment process combines top-down global macroeconomic analysis with bottom-up country analysis to identify countryspecific opportunities and determine a portfolio's overall risk budget. Governance factors, along with the impact of environmental and social policies, are key inputs into our analysis of country-level growth and sustainability. Our approach to integrating environmental, social, and governance (ESG) factors in sovereign investment is rooted in our decadeslong experience and belief that evaluating ESG criteria can lead to better long-term risk-adjusted returns.

The incorporation of financially material ESG factors is fundamental, in our view, when investing in developing countries. Our philosophy is based on our belief and experience regarding its positive impact on human welfare, long-term sustainable growth, and sustainable value creation and risk management. Our approach fully integrates ESG risks and opportunities into our investment process, specifically as it relates to investment selection and portfolio construction.

Integrating ESG factors into the sovereign investment process

We integrate ESG factors at each step of the sovereign investment process and portfolio construction. Our top-down global macro analysis aggregates individual country views into a global economic baseline and helps us determine a portfolio's overall risk profile. Our global macro view also emphasizes a country's growth level and direction of change toward sustainability, which includes efforts to increase the use of sustainable energy, access to health care, and food security - crucial factors for stable long-term economic growth. The identification and analysis of broad macroeconomic ESG themes allow us to identify and better monitor risks at the overall portfolio level.

At its core, our investment process is based on active bottom-up portfolio construction that is implemented at the sovereign level. For each country, we seek to identify favorable countryspecific opportunities related to monetary and fiscal policy, political and social stability, the independence of institutions, adaptation to climate change, and long-term sustainability, among others. We believe that good governance and a strong pro-investment policy mindset are inherently beneficial to a country's long-term sustainability and are likely to have an enduring positive environmental and social impact on the well-being of its citizens.

The Global Debt Team leverages its macroeconomic and ESG expertise, creating a robust approach to assessing ESG risk and opportunities by implementing a proprietary twopronged ESG rating framework that is unique within the sovereign fixed income asset class. The First Prong is the foundation provided by a quantitative model, based on a unique formula that incorporates multiple data indicators against specified weightings for the normalization of the data. The initial output provides a numeric rating on which the Second Prong is built.



Wim Vandenhoeck Senior Portfolio Manager



Claudia Castro Director of Fixed Income Research

With contributions from Gerald Evelyn, Senior Client Portfolio Manager

Overview

This paper highlights:

- The Invesco Fixed Income Global Debt Team's expertise and differentiated approach to ESG oriented investing.
- The key advantages of incorporating forward-looking sustainability momentum and sustainability potential indicators into EM sovereign fixed income investing.
- Case study: assessing signals of potential risk in sovereign EM.
- The importance of engagement with sovereigns as a critical component of ESG integration.

The marketing material is intended only for Professional Clients (as defined in the important information at the end); for Sophisticated or Professional Investors in Australia; for Professional Investors in Hong Kong; for Institutional Investors and/or Accredited Investors in Singapore; for certain specific Qualified Institutions and/or Sophisticated Investors only in Taiwan: for Qualified Institutional Investors and/or certain specific institutional investors in Thailand; for Qualified Institutional Investors in Japan; for wholesale investors (as defined in the Financial Markets Conduct Act) in New Zealand, for Institutional Investors in the USA. The document is restricted to Institutional Investors and Advisors in Canada. It is not intended for and should not be distributed to, or relied upon. by the public or retail investors.

The Second Prong is a qualitative assessment that incorporates the fundamental analytical expertise of economists and macro strategists who are well-versed in ESG risk considerations specific to sovereign entities.

Our qualitative assessment builds on Invesco's fixed income framework of sovereign debt ratings, which gathers relevant information in a proprietary scoring tool to generate a composite ESG profile for each country so that relative performance and direction of change can be compared across developed and emerging markets. We not only formalize ESG factors into our scoring tool, but we also adjust these factors to incorporate forward-looking information, seeking to minimize known biases, such as income bias, which negatively impacts lower-income countries relative to their more developed peers. Mitigating these biases helps to better inform our investment process and ultimate portfolio construction. Our general approach and the tools incorporated are repeatable and systematic across sovereigns, and are broadly highlighted in Figure 1 below.

Figure 1: ESG qualitative assessment considerations

Macro governance factors

Measure: Policy and effectiveness of policy

A picture of the sustainability of a country's economic performance, given its institutional capacity to support long-term stable growth.

- Infrastructure
- · Rule of law
- Corruption

Macro social factors

Measure: Inequality in income and in access to basic resources

A picture of the sustainability of a country's economic performance given its efficacy in meeting basic needs, in reducing poverty and equity issues and in investing in human capital.

- Health
- Education
- · Gender diversity

Macro environmental factors

Measure: Resource use and risks

A picture of the sustainability of a country's economic performance given the management of its natural resource endowment and its resilience to natural hazards.

- Pollution
- Energy consumption
- · Climate change

Source: Invesco. For illustrative purposes only.

Our active approach: ESG momentum and potential

ESG factors play an important role in assessing the macroeconomic context of sovereign investing in EM. This role is manifested through our determination of a country's sustainability momentum and potential, as we believe these are long-term catalysts for economic growth.

We believe the integration of ESG into sovereign investing should incorporate an assessment of a government's policy intentions, which bridges the gap between specific investment projects and behavior that promotes ESG goals at the macro level. Our approach focuses on considering sovereigns along with the momentum behind their sustainability goals. We assess a country's sustainability profile in a comprehensive manner, targeting the rate and direction of progress toward a sovereign's long-term policies and goals. Instead of ranking countries, we seek to qualitatively analyze them on a case-by-case basis, using a repeatable process across countries to derive a holistic view that better informs our determination of the sustainability momentum of a given country.

We favor countries with strong momentum and/or whose potential for success is high, and dislike countries where momentum is weak (or negative) and/or the potential for success is low.

We consider each country's individual endowment of resources, its stage of development, the opportunity presented, and the probability of achieving it. This allows us, as investors, to encourage positive development and favorable policy outcomes on various environmental and social issues, which is at the core of our sustainable investing strategy.

The ESG rating and designated momentum demonstrate a country's potential for success, which is underpinned by a rigorous fundamental economic analysis. A country's ESG momentum and potential contribute to the sizing of our portfolio positions, as illustrated in Figure 2.

Figure 2: Sizing portfolio positions		
ESG factors of directionality	Investment decision (also based on valuation)	
Positive momentum and/or High potential	Benchmark or overweight	
Negative momentum and/or Low potential	Underweight and engage with the issuer	
Source: Invesco. For illustrative purposes only.		

As an example, a sovereign with negative momentum and/or low potential will likely be limited to an underweight position in our portfolios and is flagged as an engagement opportunity, while a sovereign with high potential and/or positive momentum will likely have at least a benchmark weight, and often an overweight in our portfolios. By using this framework, we are able to better identify those countries, for example, that because of their allocation of capital and budgets to increased social services, efforts to improve the quality of life and provide access to sanitation (albeit at different speeds and under different incentives), they are well positioned for sustainable economic growth in the long term.

Case Study

Portfolio application of ESG Momentum: Russia-Ukraine war

Below is an example of how our assessment of ESG potential and momentum combined with bottom-up country analysis to augment our investment process, portfolio construction optimization, and investment risk mitigation, by providing early signals of the risk that led up to the Russia-Ukraine war. In December 2021, our analyst issued a negative momentum trend assessment in both the social and governance scoring pillars of our ESG rating of the Russian sovereign. Although Russia's absolute ESG score was not changed, the momentum trend assessments were updated:

Figure 3: December 2021 Russia ESG summary

Pillar rating score: 1 is best, 5 is worst

Momentum rating: Weakening/Improving/Stable

- a. **Environment:** 3 with stable momentum. Recent events suggest that the true trend is 'stable'. While we do not expect the score to drop, we think more decisive government action is needed to change the trend back to positive. At issue are industrial accidents that cause significant pollution (e.g., oil spills).
- b. **Social:** 2 with weakening momentum. Although the current score puts Russia at an above average 2 with an 'improving' trend, we think the post-COVID backdrop reverses the past positive momentum, and we think scores may fall in the future, thus assigning a 'weakening' trend. A deterioration in life expectancy and rising inequality are most likely to be triggered.
- c. **Governance:** 4 with weakening momentum. The current score is 4 with a 'stable' trend. However, we now think the direction of travel is a lower score and thus we update to a 'weakening' trend. This is based on recent corruption, and we believe foreign outcry for accountability is putting pressure on the current autocratic regime toward even more political oppression domestically and increased aggressiveness in foreign policy.

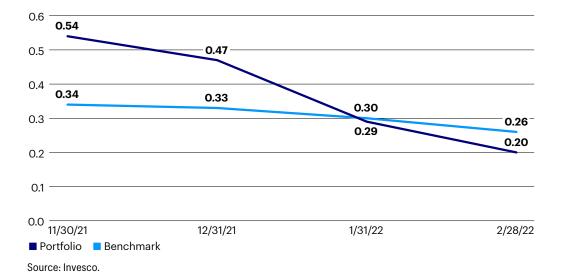
We did not believe an immediate portfolio adjustment was necessary since the overall ESG score for Russia did not change. However, given the escalating rhetoric from both sides, we recognized the potential for the weakening ESG momentum trend to accelerate if ongoing discussions between Russia and Ukraine collapsed, leading to the team's heightened sensitivity to portfolio sizing.

In early 2022, despite our constructive view on the ruble and Russian interest rates, based on a fundamental view that inflation was peaking and the end of the rate hiking cycle was near, we began to reduce our duration and currency exposure to the sovereign by the middle of January and were formally underweight by early February (Figure 4). We were concerned that ESG momentum was deteriorating rapidly, and that the probability of an actual conflict was increasing. Additionally, given our multi-decade experience investing in the asset class through systemic and idiosyncratic market shocks and our investment philosophy, which focuses on downside risk mitigation, we converted our remaining interest rate exposures to an interest rate swap format, as opposed to holding traditional Russian bonds (OFZ), to help guard against a sharp decline in liquidity in Russia's bond market, were an escalation to unfold. These strategic moves proved prescient, as they helped mitigate the impact of the geopolitical event on our portfolio.

Figure 4: Global Debt Team — Russia duration exposure over time

Date	Portfolio	Benchmark	Relative to benchmark
Nov. 30, 2021	0.54	0.34	+0.20
Dec. 31, 2021	0.47	0.33	+0.14
Jan. 31, 2022	0.29	0.30	-0.01
Feb. 23, 2022	0.20	0.26	-0.06

Source: Invesco.



This example underscores the value of a fully integrated, holistic ESG approach that incorporates high frequency qualitative trend assessments. Frequent analyst assessments help bridge the "time gap" between traditional ESG data sets and real-time changes in sovereign sustainability factors, leading to improved portfolio risk signaling and better

Sovereign engagement and investor stewardship

investment outcomes.

We view ourselves as proactive and engaged investors. Engagement with policymakers is a core part of our due diligence and investment process. We engage prior to investing and afterward for monitoring purposes. We assess the quality of countries' policies via research trips and by engaging directly with local policymakers and stakeholders, including senior government officials, central bank representatives, state administrators and agencies, local politicians, non-governmental organizations and consultants, as well as senior executives from the private sector. Assembling a holistic picture gives us greater confidence in our assessment of a country's policy feasibility and sustainability trajectory, which we believe are critical for a country's long-term economic prospects and investment returns.

We believe engagement is the critical component that drives ESG progress at the sovereign level. Unlike companies, which face mandatory disclosure requirements, such as annual reporting, Corporate Social Responsibility and European Union Taxonomy compliancy, sovereigns are not bound by this same level of transparency or data frequency. This means that sovereign ESG engagement is an important tool to not only gauge sustainability progress, but also to obtain additional assessment data and information across E, S, and G indicators. Our conversations with sovereigns entail broad and detailed discussions around a country's sustainability agenda.

Engagement is a key tool to provide active due diligence and stay informed on the relevant changes of a given sovereign. We understand the need for continuous interaction because ESG momentum can change significantly over time, which increases the need to provide accurate and consistent updated recommendations, which are crucial as they are ultimately reflected in investment positioning. For example, a country's governance measures may be challenged at a point in time when the social and environmental demands of a growing middle class are not met. Oftentimes, the interplay between ESG factors first materializes as changes in policy intentions and risk assessments. We therefore continuously engage with local policymakers, not just on their fiscal and monetary policy agendas, but also on the impact of their social and environmental policies on growth and productivity.

Sovereign engagement template: Example Brazil

Figure 6: ESG engagement template

When engaging with issuers, policymakers, and local market participants, we use the template below to track and monitor discussion topics, key takeaways, and recommendations offered. This standardized template helps to ensure that a repeatable process and consistent approach is maintained across all countries assessed, allowing for greater efficiency and comparability.

Issuer:	Central Bank of Brazil (BCB)	
Date of Engagement		
Issuer attendees		
Invesco attendees	Wim Vandenhoeck (Sr. Portfolio Manager), Claudia Castro (Director Fixed Income Research), Mayde Sykora (Sr. Fixed Income ESG Analyst)	
Overview:	The Central Bank of Brazil (BCB) discussed its recent sustainability initiatives. Invesco proposed several topics for discussion, including climate change in stress tests, deforestation, net zero, and government synchronization.	
Key points:	BCB released its first sustainability publication titled Report on Social, Environmental and Climate-related Risks and Opportunities.	
	 BCB does not have a net zero target in place. Although the Brazilian sovereign has a net zero target, BCB is independent from the government, so the country's commitment doesn't apply to it. 	
Recommendations and takeaways:	 BCB is incorporating information on several fronts for the identification and management of ESG risks. 	
	 Invesco recommended that BCB form a sustainability investor working group. 	

Source: Invesco. For illustrative purposes only.

Our engagement approach is instrumental in gathering insights and establishing our investment convictions. We believe investors have a key role to play in the evolution of sovereign ESG factors and can facilitate best in class practices by having a seat at the table and holding open and informative dialogues with sovereigns. Our discussions help inform us of the awareness and ability of sovereign issuers to position themselves against the changing macro landscape, ESG risk exposures and capitalize on the opportunities ESG presents. We have had many productive engagements that informed our ESG trend assessments and we continue to strengthen relationships with sovereigns through our non-prescriptive engagement approach.

Conclusion

We believe that integrating financially material sovereign ESG factors into the investment process when assessing developing market opportunities is integral to optimizing for positive investment outcomes and is additive to overall portfolio risk management in emerging markets. Data lags and inherent model country biases favor ESG approaches that seek to mitigate these shortfalls and increase the relevance and efficacy of sustainability considerations in the investment analysis of developing market sovereigns. The Global Debt Team's two-pronged ESG approach aims to contemporize its proprietary quantitative data results by incorporating higher frequency qualitative analyst assessments that focus on the sustainability momentum and potential for success of individual sovereign issuers. This allows us to identify financially material sustainability trends earlier and their potential impact on our portfolios. We believe our commitment to consistent and relatively frequent engagement with sovereigns on ESG topics creates a positive feedback loop of information exchange with the objective of furthering the sustainability development of EM sovereign issuers and improving their overall economic profile and structural health over a medium to long-term time horizon.

Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

Fixed-income investments are subject to credit risk of the issuer and the effects of changing interest rates. Interest rate risk refers to the risk that bond prices generally fall as interest rates rise and vice versa. An issuer may be unable to meet interest and/or principal payments, thereby causing its instruments to decrease in value and lowering the issuer's credit rating.

The risks of investing in securities of foreign issuers, including emerging market issuers, can include fluctuations in foreign currencies, political and economic instability, and foreign taxation issues.

The performance of an investment concentrated in issuers of a certain region or country is expected to be closely tied to conditions within that region and to be more volatile than more geographically diversified investments.

The use of environmental, social and governance factors to exclude certain investments for non-financial reasons may limit market opportunities available to strategies not using these criteria. Further, information used to evaluate environmental, social and governance factors may not be readily available, complete or accurate, which could negatively impact the ability to apply environmental, social and governance standards.

Important information

This document is for Professional Clients only in Dubai, Jersey, Guernsey, Isle of Man, Ireland, Continental Europe (as defined below) and the UK; for Qualified Clients/Sophisticated Investors in Israel; for Institutional Investors only in the United States, for Sophisticated or Professional Investors in Australia; in New Zealand for wholesale investors (as defined in the Financial Markets Conduct Act); for Professional Investors in Hong Kong; for Qualified Institutional Investors in Japan; in Taiwan for Qualified Institutions/Sophisticated Investors; in Singapore for Institutional/Accredited Investors; for Qualified Institutional Investors and/or certain specific institutional investors in Thailand; in Canada, this document is restricted to Institutional Investors and Advisors. It is not intended for and should not be distributed to, or relied upon by, the public or retail investors. Please do not redistribute this document.

For the distribution of this document, Continental Europe is defined as Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Lichtenstein, the Netherlands, Norway, Portugal, Spain, Switzerland and Sweden. This does not constitute a recommendation of any investment strategy or product for a particular investor. Investors should consult a financial professional before making any investment decisions.

This overview contains general information only and does not take into account individual objectives, taxation position or financial needs. Nor does this constitute a recommendation of the suitability of any investment strategy or product for a particular investor. Investors should consult a financial professional before making any investment decisions. It is not an offer to buy or sell or a solicitation of an offer to buy or sell any security or instrument or to participate in any trading strategy to any person in any jurisdiction in which such an offer or solicitation is not authorized or to any person to whom it would be unlawful to market such an offer or solicitation. It does not form part of any prospectus. While great care has been taken to ensure that the information contained herein is accurate, no responsibility can be accepted for any errors, mistakes or omissions or for any action taken in reliance thereon.

The opinions expressed are that of Invesco Fixed Income and may differ from the opinions of other Invesco investment professionals. Opinions are based upon current market conditions, and are subject to change without notice. As with all investments, there are associated inherent risks. Please obtain and review all financial material carefully before investing. Asset management services are provided by Invesco in accordance with appropriate local legislation and regulations.

This material may contain statements that are not purely historical in nature but are "forward-looking statements." These include, among other things, projections, forecasts, estimates of income, yield or return or future performance targets. These forward-looking statements are based upon certain assumptions, some of which are described herein. Actual events are difficult to predict and may substantially differ from those assumed. All forward-looking statements included herein are based on information available on the date hereof and Invesco assumes no duty to update any forward-looking statement. Accordingly, there can be no assurance that estimated returns or projections can be realized, that forward-looking statements will materialize or that actual returns or results will not be materially lower than those presented.

By accepting this document, you consent to communicate with us in English, unless you inform us otherwise.

All information is sourced from Invesco, unless otherwise stated.

All data as of June 26, 2023, unless otherwise stated. All data is USD, unless otherwise stated.

Restrictions on distribution

Australia

This document has been prepared only for those persons to whom Invesco has provided it. It should not be relied upon by anyone else. Information contained in this document may not have been prepared or tailored for an Australian audience and does not constitute an offer of a financial product in Australia. You may only reproduce, circulate and use this document (or any part of it) with the consent of Invesco.

The information in this document has been prepared without taking into account any investor's investment objectives, financial situation or particular needs. Before acting on the information the investor should consider its appropriateness having regard to their investment objectives, financial situation and needs.

You should note that this information:

- may contain references to dollar amounts which are not Australian dollars;
- · may contain financial information which is not prepared in accordance with Australian law or practices;
- may not address risks associated with investment in foreign currency denominated investments; and does not address Australian tax issues
- Issued in Australia by Invesco Australia Limited (ABN 48 001 693 232), Level 26, 333 Collins Street, Melbourne, Victoria, 3000, Australia which holds an Australian Financial Services License number 239916.

Canada

In Canada this document is restricted to Institutional Investors and Advisors, is for educational purposes only, does not constitute investment, tax or legal advice and should not be relied on as such. This is not to be construed as an offer to buy or sell any financial instruments and should not be relied upon as the sole factor in an investment making decision. As with all investments there are associated inherent risks. Please obtain and review all financial material carefully before investing. All material presented is compiled from sources believed to be reliable and current, but accuracy cannot be guaranteed.

• Issued in Canada by Invesco Canada Ltd., 120 Bloor Street East, Suite 700, Toronto, Ontario, M4W 1B7.

Further information is available using the contact details shown:

- Issued in Belgium, Denmark, Finland, France, Greece, Italy, Ireland, the Netherlands, Spain, Sweden, Luxembourg, Norway and Portugal by Invesco Management S.A., President Building, 37A Avenue JF Kennedy, L-1855 Luxembourg, regulated by the Commission de Surveillance du Secteur Financier, Luxembourg.
- Issued in **Dubai** by Invesco Asset Management Limited. Index Tower Level 6 -Unit 616, P.O. Box 506599, Al Mustaqbal Street, DIFC, Dubai, United Arab Emirates. Regulated by the Dubai Financial Services Authority.
- Issued in Austria and Germany by Invesco Asset Management Deutschland GmbH, An der Welle 5, 60322
 Frankfurt am Main, Germany.
- Issued in Switzerland and Liechtenstein by Invesco Asset Management (Schweiz) AG, Talacker 34, 8001 Zurich, Switzerland.
- Issued in the Isle of Man, Jersey, Guernsey, Israel and the United Kingdom by Invesco Asset Management
 Limited which is authorised and regulated by the Financial Conduct Authority. Invesco Asset Management Ltd,
 Perpetual Park, Perpetual Park Drive, Henley-on-Thames, RG9 1HH, UK.

Israel

This document may not be reproduced or used for any other purpose, nor be furnished to any other person other than those to whom copies have been sent. Nothing in this document should be considered investment advice or investment marketing as defined in the Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 1995 ("the Investment Advice Law"). Investors are encouraged to seek competent investment advice from a locally licensed investment advisor prior to making any investment. Neither Invesco Ltd. Nor its subsidiaries are licensed under the Investment Advice Law, nor does it carry the insurance as required of a licensee thereunder.

Hong Kong

 Issued in Hong Kong by Invesco Hong Kong Limited 景順投資管理有限公司, 45/F, Jardine House, 1 Connaught Place, Central, Hong Kong.

Japan

 Issued in Japan by Invesco Asset Management (Japan) Limited, Roppongi Hills Mori Tower 14F, 6-10-1 Roppongi, Minato-ku, Tokyo 106-6114; Registration Number: The Director-General of Kanto Local Finance Bureau (Kin-sho) 306; Member of the Investment Trusts Association, Japan and the Japan Investment Advisers Association.

New Zealand

This document is issued only to wholesale investors (as defined in the Financial Markets Conduct Act) in New Zealand to whom disclosure is not required under Part 3 of the Financial Markets Conduct Act. This document has been prepared only for those persons to whom it has been provided by Invesco. It should not be relied upon by anyone else and must not be distributed to members of the public in New Zealand. Information contained in this document may not have been prepared or tailored for a New Zealand audience. You may only reproduce, circulate and use this document (or any part of it) with the consent of Invesco.

This document does not constitute and should not be construed as an offer of, invitation or proposal to make an offer for, recommendation to apply for, an opinion or guidance on Interests to members of the public in New Zealand. Any requests for information from persons who are members of the public in New Zealand will not be accepted.

Issued in **New Zealand** by Invesco Australia Limited (ABN 48 001 693 232), Level 26, 333 Collins Street, Melbourne, Victoria, 3000, Australia, which holds an Australian Financial Services Licence number 239916.

Issued in **Singapore** by Invesco Asset Management Singapore Ltd, 9 Raffles Place, #18-01 Republic Plaza, Singapore 048619.

Issued in **Taiwan** by Invesco Taiwan Limited, 22F, No.1, Songzhi Road, Taipei 11047, Taiwan (0800-045-066). **Invesco Taiwan Limited is operated and managed independently.**

Issued in the United States by Invesco Advisers, Inc., 1331 Spring Street, N.W., Suite 2500, Atlanta, Georgia, 30309.