



COLUMBIA GLOBAL ENERGY DIALOGUE

The Intersection of Debt and Climate in Emerging Market and Developing Economies: Roundtable Report

By **Drs. Gautam Jain, Luisa Palacios, and Harry Verhoeven**

The COVID-19 pandemic, and the sharp increase in government spending that it precipitated, weakened the fiscal position of almost every country around the world. The most impacted are those in emerging market and developing economies (EMDEs), over 30 of which are now either in default or facing debt distress.¹ Compounding matters, many of these EMDEs are also among the most vulnerable to climate change, meaning they must confront the fiscal cost of both climate mitigation and adaptation. Moreover, meeting climate commitments they made as part of the 2015 Paris Agreement will require an unprecedented increase in capital spending.

To gain a better understanding of the complex intersections between sovereign debt and climatic upheaval, on June 12, 2023, the Center on Global Energy Policy, Columbia University SIPA convened a workshop on the topic that brought together current and former government officials from EMDEs, officials from multilateral development banks (MDBs), private sector investors and bondholders, representatives from nongovernmental organizations (NGOs), and academics. The discussion addressed the following broad questions:

- What are the advantages and disadvantages of integrating climate mitigation and adaptation commitments into sovereign borrowing—specifically thematic bonds² such as

This event summary reflects the author's understanding of key points made in the course of the discussion. It does not necessarily represent the views of the Center on Global Energy Policy. The summary may be subject to further revision.

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green bonds and sustainability-linked bonds (SLBs)?

- How is the role of MDBs evolving and what are the emerging forms of financial assistance aimed at dealing with the twin challenges of debt and climate?
- What role can debt-for-climate swaps³ play in EMDEs' debt-liability and -restructuring operations, and are they scalable?

This roundtable report summarizes the discussion that took place and the key insights that emerged from it.

Climate-Related Thematic Bonds Are Mostly Beneficial for EMDE Issuers

Roundtable contributors highlighted various advantages for governments issuing thematic bonds. One government representative argued that this form of debt issuance enables countries to diversify their investor base and attract growing international funds specializing in environmental, social, and governance (ESG) investing.

Another government official noted that it allows governments to signal more emphatically to official and private international partners their commitment to fighting climate change, beyond individual electoral or business cycles. Moreover, the process of setting targets integral to the issuance of a green bond or SLB requires close internal coordination among various ministries, quasi-sovereigns, civil society, and private sector actors, resulting in more robust policies. For participants, this suggested ways that issuing these types of bonds, though time-consuming, can enhance the economic and institutional sustainability of climate action.

A different government official highlighted that thematic bonds, including SLBs, enhance transparency by improving reporting processes on emissions and their timeliness. This participant provided the example of switching greenhouse gas emissions reporting from a two-year to a one-year lag that allows the private sector to better price risk in light of a thematic bond's issuance.

SLB Challenges Center Around Issuer versus Creditor Incentives

While participants from the government and multilateral organizations tended to be sanguine about the possibilities offered by thematic bonds, investors were divided, particularly on SLBs. One asset manager noted that SLBs do not necessarily lead to lower borrowing rates and that new financial products issued by sovereigns still mainly attract the same type of investors as



before, putting the diversification argument into doubt. Although stopping short of questioning the links made between debt and climate targets, this participant suggested that thematic bonds may layer additional risk factors when investing in EMDEs, which already carries risks that need to be understood.

Another veteran investor noted that the incentives facing issuers and those investing in SLBs in particular are flipped: what is advantageous and good for the issuer (i.e., meeting the sustainability goals set out when issuing the bond) is often not for investors, and vice versa, because of the “step-up/step-down” coupon mechanism built into SLBs. Another investor agreed, saying that this dynamic puts investors in the awkward position of financially benefitting when the issuer fails to meet their sustainability targets.

Yet not all participants shared this view. One private sector voice noted that underperformance by a sovereign on climate goals is not a perverse gain to investors but rather compensation for the potential hit they are likely to take in secondary markets.

A government official suggested that the use-of-proceeds approach (e.g., in green bonds) better aligns issuer and investor interests than does the penalty or reward for missing or meeting key performance indicator targets in SLBs.

In terms of other risks associated with SLBs, a different government official discussed the possibility that underperformance of metrics and quintennial revisions of NDCs might lead governments to set less ambitious targets in their NDCs or fidget with the numbers to gain financing on better terms or avoid penalties. Such an outcome would neither benefit the planet nor boost confidence within financial markets.

An investor posed the question of what type of risks these instruments address, pointing out that the physical climate risk in EMDEs can be substantial. This investor observed that ESG and financial materiality are not as connected for EMDEs, as evidenced by the case of oil-producing countries. A private sector representative from an EMDE cautioned that climate change is already impacting debt sustainability and repayment capacity.

While supportive of thematic bonds, an MDB official underscored their limitations in regard to widespread adoption: while they work well for higher-rated EMDEs, they do not for most African countries and least-developed countries (LDCs) broadly, which still require grants and concessional funding.

Issuing Thematic Bonds Should Not Add to Debt

Over the course of the discussion, participants appeared to converge toward one consensus:



regardless of any advantages that thematic bonds offer, the issuance of such bonds should not saddle already heavily indebted EMDEs with additional liabilities.

One academic summarized it as follows: when thematic bonds are issued, they should replace old debt and not burden low-income or middle-income countries already facing financing headwinds with additional commitments.

A financial sector specialist from an EMDE warned that less than two decades after the historic debt cancellation through the Heavily Indebted Poor Countries (HIPC) initiative and the Multilateral Debt Relief Initiative (MDRI), many African sovereigns are again approaching insolvency, which this participant believed is due to the underpricing of risks in financial markets. The specialist warned that unless lessons are learned as to why another debt build-up has occurred so quickly, the international community can neither hope to address today's complex problems nor prevent future crises. Moreover, developing countries are seeing the cost of capital increase, raising refinancing risks and further complicating the tasks at hand.

It's Early Days for the IMF's New Resilience and Sustainability Trust

One MDB representative suggested that the IMF's new Resilience and Sustainability Trust (RST)⁴ could help mobilize private and public finance for EMDEs with balance-of-payment challenges to address public health crises—such as the recent pandemic—and climate goals. This participant mentioned that reform measures included in this program, which is still in early stages, should be macroeconomically critical, helping countries address greenhouse gas emissions across the economy, and supporting enabling institutions such as the green finance architecture. This participant also noted that the intention is not only to address mitigation but also climate adaptation and transition challenges like those faced by fossil fuel-dependent economies.

For one investor, the RST could be a game-changer for the private sector by signaling the critical macroeconomic reforms and standards to follow. Other participants stressed the need to identify measures that could both enhance fiscal space for low-income countries and improve sustainability, such as carbon taxes or the removal of fuel subsidies. These steps are politically difficult for both the IMF and host governments to pursue but could pay financial and environmental dividends.

An MDB official agreed with the idea of climate conditionality in providing additional support to EMDEs but expressed concern that the RST's limited size could prevent it from helping to crowd in private investment and extra bilateral assistance, especially for African countries and small island



developing states (SIDS). This participant cited the IMF's historical focus on providing sovereigns with short-term funding to address balance of payments crises and its inexperience with both climate and public health reform and long-term financing.

Debt-for-Climate Swaps Are Seen as One Tool in the Toolbox

The discussion of debt-for-climate swaps centered around recent deals struck in Ecuador (the largest so far), Belize, Seychelles, and Barbados as well as their potential applicability to other countries. One MDB representative stated that the goal of these transactions is threefold: recovery from the ongoing fiscal crisis, financing of Sustainable Development Goals (SDGs), and achieving fiscal sustainability.

Representatives of financial institutions who have participated in these and other deals underlined that there is an appetite among investors for such swaps and that this market is likely to expand as investors seek to meet their ESG targets. An investor stated that the advantage of combining fiscal and climate aspects in such swaps is that it can lower the costs for countries. Another investor added that liquidity, size, and simplification are important to them. As such, the more financial institutions are involved in the process, the easier it will be to attract investors.

An MDB representative opined that since subsidies are needed for these swaps to work, they can only address part of the outstanding debt and are not suitable for unsustainable debt situations, and in any case, countries in debt distress cannot afford to spend on nature conservation. In such situations, grants can be more effective for climate spending due to lower transaction costs, especially for countries with limited fiscal space and the ability to issue debt. More broadly, as this representative observed, the applicability of debt-for-climate swaps must be evaluated on a case-by-case basis. Another participant added that for such deals to be successful they must be not only debt-neutral but more specifically debt-negative.

Various roundtable participants offered that MDBs and NGOs could do more to foster a better understanding of debt-for-nature or debt-for-climate swaps. An EMDE representative suggested that better-capitalized MDBs could provide enhanced support and financing to make such deals possible.

The Scalability of Debt-for-Climate Swaps Is Still Being Debated

One NGO representative was bullish on the ability of debt-for-climate swaps not only to scale up (i.e., involve greater levels of debt and more extensive environmental commitments by sovereigns) but also to extend to more EMDEs. For this participant, with requisite care and sustained attention,

there is no reason why the successes of Belize, Ecuador, and Seychelles cannot be repeated in other indebted developing countries—those in default or perceived as close to default and without access to financial markets.

Yet not all participants agreed with that optimistic reading. Some investors with experience in these transactions observed that the process was complex, onerous, and time-consuming, while involving relatively small amounts of debt. One MDB veteran said that debt-for-climate swaps are certainly not a panacea and that bringing them to scale will be hard. Supply and demand for these instruments remain low due to the time and labor required to structure them and the high transaction costs involved. One investor questioned whether the costs are higher now because these assets are still nascent, and whether over time efficiencies and reduced costs will be achieved, especially if investors and issuers can agree on standard terms.

Another MDB participant added that absent a clear path out of insolvency, neither markets nor MDBs will have sufficient trust in whatever swap is being proposed. As an example, the participant pointed to the contrast between Ecuador, where the debt-for-climate swap worked because the country has been undergoing structural reforms since 2019, and Venezuela, where the conditions for such debt deals are not present. For such deals to work in Venezuela, this participant argued, the country would first need to address its macroeconomic issues. While these instruments cannot resolve such issues, they can help with the subsequent rebuilding phase.

One civil servant mentioned that past experience with such restructurings suggests that securing long-term political buy-in is a key determinant of their success in EMDEs, especially given their track record of political volatility. For some participants, the dimension of trust and political commitment involved highlights that intermediaries—whether MDBs, NGOs, or even dependable bilateral partners—are essential to enabling these complex instruments. According to one participant from an EMDE, the appetite for deals will be met by investment in the financial architecture that supports the deal flow from origination and preparation to reporting and risk management.

De-Risking Is Key to the Success of Debt-for-Climate Swaps, but the Devil Is in the Details

For several roundtable participants, the role of MDBs and development finance institutions (DFIs) in mitigating the risk of debt-for-climate swaps was key to their success. According to one participant, de-risking mechanisms are needed to pay for investment rates of return that are fiscally sustainable. Guarantees need not come from MDBs alone. Rather, the goal is to catalyze partners, including developed economies, to do more since they seek to protect nature as a global public good with huge externalities and stand to benefit from it.



One NGO representative invoked the example of Belize, which before its debt-for-climate swap deal was on the low end of the debt-distressed curve among EMDEs with a Caa3 rating. The insurance provided by the US International Development Finance Corporation enhanced Belize's credit, allowing it to fund its debt-for-nature swap at the Aa2 investment grade rating and thereby attract interest from investors that otherwise would be absent.

Participants expressed different views on how MDBs and DFIs are currently positioning themselves in this space. For one investor, MDBs have been slow to increase guarantees: the World Bank and other international financial institutions would rather lend than provide guarantees because MDBs simply have far more experience with concessional funding than with dealing with risk perception. This participant suggested that MDBs can scale up their efforts with credit enhancements in developing countries by sharing their preferred creditor status.

The discussion of guarantees went beyond debt-for-climate swaps. One investor opined that MDBs sometimes provide a 100 percent principal guarantee on EMDE bonds, as in the case of the World Bank's Multilateral Investment Guarantee Agency for countries such as Brazil, but private sector creditors often do not need full de-risking, including in this same case. This participant argued that by providing such a guarantee MDBs are needlessly spotlighting the risk of such deals and limiting their ability to make a difference in other areas. Another investor emphasized the importance of partial guarantees, which can provide credit enhancement for the unguaranteed part of the transaction as well. An underappreciated factor is that an issuer cannot default on the unguaranteed part of the transaction without also defaulting on the guaranteed part. Given that MDBs have preferred creditor status, issuers and bondholders pay attention to this guarantee. In effect, such bonds issued by EMDEs are more attractive to investors because the partial guarantee has a greater impact than the guarantee alone.

Differing Views on Nature Conservation Commitments as Part of the Swap

An NGO participant argued that the goal of debt-for-climate swaps is not only fiscal sustainability but also helping countries with nature conservation. An investor and an MDB representative concurred, stating that NGO participants in such deals play a key role in their execution by supervising and monitoring conservation targets and simply being on the ground. They added that while institutions like theirs are finance experts, they are not climate specialists; an NGO, by contrast, can partner with the country to develop key legislation, improve protection measures, meet important deadlines, and help create appropriate benchmarks to track conservation progress.

An asset manager explained that while having an NGO on the ground is helpful, their firm's clients

are focused more on the risk and yield of the instrument than solely on the possible environmental benefits of a particular deal in a developing economy. Given that some of these investors are buy-hold (i.e., long-term holders of investments), this investor went on, the more DFIs and MDBs can enhance the credit rating of an EMDE and mitigate risks while assuring decent coupons, the more likely it is that investment funds will participate in such deals. Another asset manager disagreed, saying that some investors may be willing to accept sub-market returns in exchange for nature and climate solutions, depending on their mandates.

Back to Basics: Financial Engineering and Its Limitations

For one MDB representative, the world urgently needs to confront two central issues: limited private sector financial flows to developing countries; and the undercapitalization of MDBs, if they are to respond effectively to increasing demand for mitigation and adaptation. A government official underlined that, given the scale of the task at hand for EMDEs, their government is convinced of the need for financial innovation in assisting sovereigns to find the right level and quality of capital.

A former government minister suggested that when considering these instruments, one must think in terms of both supply and demand. From the supply side, it is important to ensure that solutions fit the different purposes—i.e., a taxonomy is needed. From the demand side, it is important to ensure that the incentives to invest in these instruments are appropriate and that the risks are scrutinized correctly. Another participant stressed the need to invest in the financial architecture that makes these deals possible.

Numerous participants stressed that financial innovation to provide more and better climate financing to EMDEs without contributing to mounting problems of indebtedness is welcome but perhaps not the most important area of focus. According to one MDB participant, the IMF, World Bank, and Inter-American Development Bank can only stretch their balance sheets so far. If helping EMDEs weather fiscal and climate challenges is a global priority, then more capital must be made available. As this participant noted, this requires not just sophisticated accounting but increased commitments by member states to MDBs and DFIs.

This sentiment was echoed by a representative of a leading US financial firm, who proposed that the preoccupation with innovation to improve scalability can obscure what both the public and private sectors know about development finance and what can be scaled. Focusing on getting the basics right—on the side of both EMDE governments and their putative public and private financiers—will make a more substantial difference than innovation alone in the form of new instruments.



Notes

1. Kristalina Georgieva, Marcos Chamon, and Vimal Thakoor, “Swapping Debt for Climate or Nature Pledges Can Help Fund Resilience,” IMF Blog, December 14, 2022, <https://www.imf.org/en/Blogs/Articles/2022/12/14/swapping-debt-for-climate-or-nature-pledges-can-help-fund-resilience>.
2. Thematic bonds are fixed-income instruments whose proceeds are used either to meet specified key performance indicators or for eligible projects with clear environmental benefits in terms of mitigation or adaptation and addressing specific social issues by funding basic infrastructure such as clean drinking water, affordable housing, or gender issues. See, for example, Gautam Jain, “Thematic Bonds: Financing Net-Zero Transition in Emerging Market and Developing Economies,” Center on Global Energy Policy, Columbia University, December 12, 2022, <https://www.energypolicy.columbia.edu/publications/thematic-bonds-financing-net-zero-transition-emerging-market-and-developing-economies/>.
3. In the last couple of years, debt-for-nature (or climate) swaps have gained increasing prominence as a way of simultaneously tackling a developing country’s debt issues and providing financing to achieve environmental goals. See, for example, Marcos Chamon, Erik Klok, Vimal Thakoor, and Jeromin Zettelmeyer, “Debt-for-Climate Swaps: Analysis, Design, and Implementation,” working paper, International Monetary Fund, August 2022, <https://www.imf.org/en/Publications/WP/Issues/2022/08/11/Debt-for-Climate-Swaps-Analysis-Design-and-Implementation-522184>.
4. In April 2022, the board of the IMF approved the creation of a new Resilience and Sustainability Trust (<https://www.imf.org/en/Topics/Resilience-and-Sustainability-Trust>) to provide low- and middle-income countries with predictable financing to stabilize their longer-term balance of payments and address climate change and possible future pandemics.

About the Authors

Dr. Gautam Jain is a Senior Research Scholar at the Center on Global Energy Policy (CGEP) of Columbia University's School of International and Public Affairs (SIPA). He focuses on the role of financial markets and instruments, including thematic bonds and carbon markets, in the transition to net-zero emissions, particularly in emerging economies.

Gautam joined the center after a long and fulfilling career in the financial industry where he covered emerging markets as a portfolio manager and strategist. He has worked at asset management firms and investment banks, including The Rohatyn Group, Barclays Capital, and Millennium Partners. He has helped manage emerging market local debt and hard-currency bond portfolios, encompassing currencies, interest rate instruments, and sovereign credits. He specialized in portfolio construction and asset allocation incorporating macroeconomic, policy, and political developments in emerging market and developing economies.

Gautam holds a Ph.D. in Operations Research from Columbia University. He also has an M.S. in Industrial Engineering from Iowa State University and a B.Tech. in Mechanical Engineering from the Indian Institute of Technology, Bombay. He is a CFA charter holder and a Cornell EMI Fellow. He has co-authored publications in the Journal of Derivatives, the Journal of Banking and Finance, the Journal of Applied Probability, and Probability in Engineering and Informational Science. He has also contributed chapters for the 2020 and 2021 Cornell EMI Annual Reports.

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In March 2021, she completed a two-year period in the Board of Directors of Houston-based Citgo Petroleum Corporation, the 5th-largest independent U.S. refiner during most of which she served as Chairwoman. She and her board colleagues led the company during a critical period in its history, as it faced significant geopolitical, financial, operational, and legal challenges. As Citgo's first-ever chairwoman, Palacios also shaped efforts to strengthen corporate governance, ethics, and social responsibility, including the publication of the company's first-ever ESG report.

Before her time at Citgo, Palacios was a Senior Managing Director and member of the management committee of Medley Global Advisors, a macro policy research firm. She headed Medley's Latin America's economic and energy practice and later the firm's emerging market research efforts. She previously worked at Barclays Capital as a Director in the emerging markets research department in New York, and as an economist in the risk department at Société Générale in Paris. She also worked as a senior economist at the Japan Bank for International Cooperation and was a consultant in the Office of the Chief Economist for Latin America at the World Bank in Washington, D.C.



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He is the editor of two books: [*Environmental Politics in the Middle East. Local Struggles, Global Connections*](#) (Oxford University Press/Hurst) and [*Beyond Liberal Order: States, Societies and Markets in the Global Indian Ocean*](#) (Oxford University Press/Hurst). He has also edited the following special issues: Marx and Lenin in Africa and Asia: Socialism(s) and Socialist Legacies (for Third World Quarterly) and Water Security in Africa in the Age of Global Climate Change (for Daedalus: Journal of the American Academy of Arts & Sciences).

Dr. Verhoeven is a Senior Advisor to the European Institute of Peace. He also founded the Oxford University China-Africa Network in 2009 and remains its Convenor. He is an Associate Member of the Department of Politics & International Relations at the University of Oxford and was a Visiting Scholar at the Department of Politics and International Studies of the University of Cambridge. He has collaborated extensively with key policy actors, including the World Bank, the European Union, various agencies of the United Nations, governments in Africa, Europe, the Middle East and North America and non-governmental organizations. For more than a decade, he has served as an expert witness in various legal cases pertaining to mass atrocities, development-induced displacement and human rights violations in various African states.

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