Call for Research Proposals

Green Bonds in Emerging Market Economies
Call for Papers

The Connectivity, Markets and Finance Division of the Inter-American Development Banks assists member countries to overcome the financing barriers that limit their productive development. Green finance has emerged as one key pillar of the divisions' work in addition to financial inclusion, broadband connectivity, disaster risk management, and structured finance.

The transition to a green economy is crucial to ensure that the LAC Region can mitigate climate change and better hedge against climate risks (Estache et al., 2015; Serebrisky et al., 2015; Vergara et al., 2013). This transition requires substantial investments, for which Green bonds emerged as a key financing instrument. Green bonds can provide dedicated funding to climate change mitigation, adaptation, and other environmentally and socially friendly projects–small and large scale–at appropriate terms and conditions, including longer tenures given the maturity of the underlying assets that back the issue. Global issuance of labelled green bonds reached US$2 trillion by the mid-2022. Green bonds have been the subject of increasing government, investor and media interest and expectations, driven by the prospect of matching large low carbon investment requirements with trillions of dollars in global bond markets held by institutional investors. The mix of issuers has expanded from the multilateral development banks (MDBs) that initially pioneered the market to include local governments, municipalities and agencies, utility companies, national development banks and corporate issuers.

Green bond issuances are generally multiple times over-subscribed illustrating the demand for these instruments, while the existence of premium for green bonds is getting clearer in the literature for developed markets (for instance MacAskill et al., 2020). Investors and asset managers are increasingly interested in investing in green assets due to internal mandates to invest in climate-change-aligned assets (Euromoney, 2019), the evolving climate risks disclosure regime (TCFD, 2017; Ehlers et al., 2017), diversification, and downside risk considerations. International investors aim to understand better the green investment opportunities in the LAC region, while local investors aim to understand better the definition of green investments.

Green Bonds are like conventional bonds – a fixed-income debt instrument with long-term maturity – save for one particularity: the issuer commits to use the proceeds exclusively for financing or re-financing of investment projects, assets or business activities considered green (i.e., those that deliver environmental benefits). An issuer can request through an external review a pre-issuance review, called Second Party Opinion or Climate Bonds Initiative Verification to receive a "green label." The "green" label adds additional disclosure and procedure obligations as well as pre-issuance and post-issuance costs for the issuer, intended to provide assurance to investors on the green use of proceeds. Investors invest in the green bonds trusting the "green label" and the commitments (promises) of the issuers. The issuer is obliged to disclose the use of proceeds and the impact a year after issuance. At this point the investor had already invested in the bond and ideally through the issuer's disclosure can find out whether the pre-issuance commitments have been realized. The investor thus would ideally be able to compare the issuer's pre-issuance promise with the issuer's post-issuance performance.

The value of the green label, for the issuer and investors depends on the reliability of these disclosure and procedure results. Bachelet et al. (2019) analyzed the difference between institutional and private issuers for 89 green and non-green bonds and conclude that "green bonds may enjoy a negative premium and therefore green investment may be financed at a discount (either for the existence of a willingness of investors to pay for environmental sustainability, or due to the lower exposition to stakeholder risk of green investment). However, the premium requires either the established reputation of the (institutional) issuers or a green verification to reduce asymmetric information and provide guarantees to investors against greenwashing." Flammer (2019) suggests that green bonds lead to an increase in environmental performance for green bond issuances that are certified by independently certified third parties.

Currently, most of the existing empirical literature on the question of the "greenium" has been conducted in developed markets. Existing literature points to the conclusion that investors value the greenness of a bond. For instance, Kapraun et al. (2021) find that while green and conventional bonds trade at similar yields on average, there is a substantial variation of the green premium across currencies and issuer types. Investors have accepted 5 to 18 bps lower yields (i.e., a greenium, which makes interest rate payments cheaper for the bond issuers) when the bond was issued by governments, local governments, or supranationals, or the issuance has been in Euros (EUR). While for corporate green issuers no significant greenium emerges for bonds issued in another currency than EUR. While not focusing a specific dataset on emerging markets, the authors suggest that investors in green bonds issued by countries with rather low sustainability reputation might trust and value the label of green bonds denominated in major currencies (EUR, USD) more than those denominated in their local currency.

Baker et al. (2018) analyzes the green bond premium of US municipal bonds in the primary markets utilizing the green certification of the bond by an external party and find a significant green premium average of 6 basis points for bonds utilizing the Green Bond Principles and on average 14 basis points when the green bond received a Climate Bond Initiative certificate. Geerlings (2019) constructs a Green Disclosure Integrity Score to assess the secondary market behavior of green bond investors and finds a significant 23 basis point difference. All the literature above points to the fact that investors value the green credentials of a bond. The research on emerging markets however is sparse, also due to the smaller size of the market. For instance, Latin America and the Caribbean command consistently about 2% of the total USD 2 trillion global green bond market.

MacAskill et al. (2020) in their systematic literature review on premium determinants in studies published between 2007 and 2019 confirm the existence of a green premium within 56% of primary and 70% of secondary market studies, particularly for green bonds that are government issued, investment grade, and that follow defined green bond governance and reporting procedures. There is a larger range of premia in the primary market, and an average greenium of 1 to 9 basis points in the secondary market.

Interestingly, their findings highlight the importance of strengthening environmental preferences amongst bond market participants (issuers and investors).

A possible way to strengthen the depth of green bond markets is by providing open and transparent datasets on green bonds non-financial information. Transparent, credible, and available data can support the forming of environmental preferences by investors and issuers. Thus, providing this data can in itself be a tool to support investors to form their decision criteria, and then act according to them.

On April 2021, the IDB Group launched the Green Bond Transparency Platform (GBTP). The GBTP is a key free-to-use reporting tool for issuers in Latin America and the Caribbean that provides investors and the broader market comparable, credible, and easy to access data on the use of proceeds and environmental impact of green bonds. It supports the harmonization and standardization of green bond reporting, thus providing greater level of confidence to investors that the proceeds from bond issuances are being spent on green projects whose impact are adequately measured. This confidence potentially helps attract new domestic and international private capital for green finance projects in the region.[1]

What are the goals of this call?

The motivation for this call is to foster an understanding of investor preferences and understand the determinants of a greenium. Using the most up-to-date data comprising i) all or most emerging market green bonds issuances, ii) each bond's use of proceeds, ideally at the project level, iii) estimated and realized environmental impact metrics, and iv) methodologies and taxonomies used, this initiative seeks to identify guidelines and recommendations to further expand the market and increase the capital deployed in green projects. The purpose of the papers produced under this call is to obtain useful recommendations on how to support further development of the green bond market, allowing issuers and investors to strengthen their capabilities.

Which topics will be prioritized?

The objective of this call is to generate a research agenda and high-quality research papers on green bonds in emerging market economies. We are particularly interested in research analyzing the pricing implications of certifications, voluntary disclosures, and regulatory risk using cutting-edge quantitative and qualitative research methods. We encourage the use of open databases such as the Green Bond Transparency Platform.

We welcome three different types of submissions:

- **Research papers**: manuscripts that use quantitative and/or qualitative research methods analyzing any aspect of green bonds, green bond market dynamics, and the evolution of green bond markets in a single emerging market country or regional emerging market context. We are especially interested in contributions that analyze the role of transparency and information disclosure and its impact on valuation and investor pricing decisions.

- **Policy papers:** evidence-based manuscripts that focus on a particular policy area impacting the dynamics of green bond markets. We are open to quantitative and qualitative work, analyzing a single emerging market country or a specific regional emerging market case. We are particularly interested in contributions that further our understanding of the role of regulatory, central bank reserve management, and government policy, as well as the role of local institutional investors in

[1] Please see: Vasa, Vartanyan, Netto (2022) A novel database for green bonds to support investment analysis and decision making, research, and regulatory decisions: The Green Bond Transparency Platform

the evolution of green bond markets. We are also interested in manuscripts that identify policy challenges and discuss potential policy innovations to enhance the viability of green bonds in emerging markets.

- **Methods papers**: manuscripts that help advance existing analytical tools such as survey methods or machine learning techniques that further our understanding of green bond markets in emerging market economies. We are particularly interested in research that can provide the basis for future analytical work furthering our understanding of investor sentiments and market dynamics in green bond markets.

The papers produced as part of this research project may be submitted for publication as working papers of the IDB. They will be eligible to be selected for presentation in an online workshop on green bond markets in emerging market economies. The workshop aims to bring together researchers, policymakers, and practitioners working on green bonds and the evolution of green bond markets.

Who can present research proposals

Researchers, policymakers, and practitioners working on green bonds and the evolution of green bond markets may present proposals.

What are the evaluation criteria?

Research proposals will be evaluated by a review process including practitioners, IDB staff, and researchers in the field, based on the following criteria:

a) **Quality of the proposal** – this will include sufficient detail regarding the hypothesis, methodology, sufficient detail regarding data sources, and their availability to judge the feasibility of the analysis proposed. Creative and innovative proposals that are judged feasible will be particularly welcome.

b) **Relevance to policy challenges faced by the region** – the proposals should outline what challenge(s) the analysis addresses and why the results are expected to be relevant to policymakers that must deal with the challenge(s) under consideration.

Papers will be eligible for presentation in an online workshop on green bond markets in emerging market economies. Final papers will be considered for dissemination as IDB working papers or technical notes, depending on quality. Proposals may include suggestions for further dissemination of the final version of the paper. Other forms of dissemination or publication should be explicitly approved by the coordinators.

What pieces should the proposal contain?

a) A properly stated research question that is supported by evidence of its relevance and its analytical novelty.

b) A brief survey of previous studies in this topic involving the selected country or countries (up to two pages).
c) A detailed description of the methodologies to be used in the quantitative exercise.
d) Data templates for the data being used and assessment of data availability. Proposals must additionally provide a description of strategy for collecting relevant data, including regulatory/proprietary data.
e) A budget for carrying out the proposal.

How are research proposals submitted?

Eligible parties should submit an extended abstract in English (limited to 1500 words) to research@greenbondtransparency.com no later than **August 12, 2022.**

Coordination and Schedule

This research project will be administered by the Connectivity, Markets and Finance (IDB/CMF) division and will be coordinated by Alexander Vasa alexanderv@iadb.org and Andreas Kern ak679@georgetown.edu.

The tentative schedule of activities is as follows (exact dates subject to changes):

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- **August 12, 2022:** Due date for extended abstracts.
- **August 25, 2022:** Decisions on the extended abstracts.
- **November 7, 2022:** Due date for full papers for accepted extended abstracts.
- **December 6, 2022:** Virtual IDB Workshop.

How much is the funding?

The IDB will contribute up to **US$15,000** (or its equivalent in local currency) – depending on the scope and complexity of the proposal.

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