

DEVELOPMENT PATHWAYS FOR GREEN BONDS: A COMPARATIVE CASE STUDY

Jacqueline Yujia Tao, Energy Studies Institute, National University of Singapore, +6565166692, esity@nus.edu.sg
Melissa Low Yu Xing, Energy Studies Institute, National University of Singapore, +6565163080, esimlyx@nus.edu.sg

Overview

Since the first green bond was issued in 2012, the green bond market has seen impressive growth rates. Essentially, green bonds are fixed income financial products that have proceeds that are ringfenced to environmentally friendly products and/or projects. While growth in this market was pushed forward by supranational and developed economies in this formative years, emerging country issuances, led by China and India, have been a rising influence in recent years. In 2015 alone, Chinese and Indian green bond issuances accounted for a collective US\$2.1 billion, or 5% of the global US\$41.8 billion market. Indeed, the speed with which the primary market for green bonds is expanding is largely underpinned by rising volumes from China and India. With the rising need for green energy in these emerging economies, a continued growth spurt in demand is expected in the coming years. This comparative study on China and India's different development pathways will reveal push and pull factors driving the green bond market in Asia.

Methods

Comparative case studies are undertaken over time and emphasize comparison within and across contexts.

Results

The international experience, characterized by growth in green bonds in the European market, is a largely bottom up market-driven process, with a minimal role for policymakers. At the initial stage, the market realised that there is an unmet demand for institutional investors seeking low-risk, stable returns investment instruments that aligns with their investment mandate. Financial intermediaries reacted to this demand by coming up with financial innovations, thereby creating a new market instrument out of an existing asset class of climate-theme bonds. The success of initial issuances sparked market interest in this product, thereby promoting growth of the market. With compounding investor interest, the market grew, along with increasing calls of transparency and disclosure within the market to ensure the integrity of the product. Market players responded to the investor's calls for more MRV, thereby producing standards and protocols. As the market matures, there are increasing calls for standardization and benchmarks to facilitate informed decisions making.

This is in stark contrast with the the top-down development model in emerging economies, best represented in Indian and Chinese markets. The Indian development model is a policy-driven market growth model. In India, policy directives with regards to greening the whole financial system kickstarted the growth in the green bonds market. This is supported by ambitious renewable energy targets, which ensured the need for capital in green areas and ensured stable pool of viable projects in the pipelines. In 2013, IREDA highlighted their commitment for renewable energy projects, and in February 2014, issued their first green bond, officially opening up the market. Following IREDA's lead, leading financial insitutions joined the market, under the insurance of the nation's ambitious renewable energy target. Beyond creating the market, policy makers in India were also active in deepening the demand for these green financial products, through both direct fiscal incentives and indirect policy support.

Although also a top-down model, the Chinese development model place strong focus on ensuring the environmental assurance of the green label, whilst the Indian process seem to have largely placed this issue in the sidelines. The Chinese process started with clear guidelines to outline the requirements of green debt issuance by financial institutions.

Despite broad differences in development models highlighted above, the development of national green bond markets also follow similar patterns in that policy borrowers and financial institutions are typically the first to tap the market.

Conclusions

This paper is expected to contribute by highlighting reasons for lack of a sustainable development of a green bond market in Asia in the countries where there has not been government backing and why other markets in the region have been slow to follow China and India's examples.

References

Bowen, A. (2011) Raising climate finance to support developing country action: some economic considerations, *Climate Policy* 11(3), pp. 1020-1036.

Bredenkamp, H and Pattillo, C. (2010) Financing the response to climate change, IMF Staff Position Note, 25 March 2010. (<http://www.economicswbinstitute.org/essays/imf-greenfund.pdf>)

Buchner, B., Falconer, A., Herve-Mignucci, M., Trabacci, C., and Brinkman, M. (2011) The Landscape of Climate Finance, A CPI Report, Climate Policy Initiative, 27 October 2011. (<http://climatepolicyinitiative.org/wp-content/uploads/2011/10/The-Landscape-of-Climate-Finance-120120.pdf>)

Hourcade, J.C., Perrissin Fabert, B., Rozenberg, J. (2012) Venturing into uncharted financial waters: an essay on climate-friendly finance, *International Environmental Agreements: Politics, Law and Economics* 12(2), pp. 165-186.

Matthews, J. A., Kidney, S., Mallon, K. and Hughes, M. (2010) Mobilizing private finance to drive an energy industrial revolution, *Energy Policy* 38(7), pp. 3263-3265.

Reichelt, H. (2010) Green bonds: a model to mobilise private capital to fund climate change mitigation and adaptation projects, The Euromoney Environmental Finance Handbook. (http://www.policyinnovations.org/ideas/policy_library/data/01583/res/id=sa_File1/Euromoney_2010_Handbook_Environmental_FinanceforGBPage.pdf)

Sierra, K. (2011) The Green Climate Fund: Options for Mobilizing the Private Sector: A brief for the GCF Transitional Committee, Climate & Development Knowledge Network.