16. Thematic bonds to diversify fiscal sources

Farah Imrana Hussain¹

Emerging market sovereigns have access to a variety of debt financing, such as bilateral and multilateral loans, domestic financing, and international commercial financing, depending on a country's level of financial development. The financial terms vary in concessionality, currency and tenures and result in exposure to various types of risks, such as refinancing, interest rate, currency, and operational risks.² Managing such risks is critical for maintaining macro-economic stability and falls within the purview of public debt management offices (DMOs) in the ministries of finance, which are responsible for raising the required amount of funding for the government “at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk” (IMF 2014). Ideally, the DMO executes a funding strategy based on an approved debt management strategy that considers all reasonable financing alternatives.

Just as sovereign debt managers optimize the cash flow characteristics of debt instruments to trade off borrowing costs against refinancing risk, so do they target different investor segments to match issuances to potential demand and reduce refinancing risk and cost of funding.³ Evolutions in investor preferences, priorities, and strategies—including the consideration of environmental, social, and governance (ESG) risks in the investment process—and the rise of investment approaches that contribute to a sustainable and resilient economy, have led to opportunities for different financial instruments.⁴ Since the World Bank issued a bond labeled “green” in 2008 with a specific process to allocate proceeds to projects that support the transition to low-carbon and climate-resilient development in client countries, sovereign debt managers have become acutely aware of the potential to attract investors who would not otherwise have engaged with them, by issuing similar bonds known as “thematic bonds” (World Bank 2018a).

1. WHAT ARE THEMATIC BONDS?

Thematic bonds are fixed income securities that aim to meet environmental and social objectives and commit funds to programs, projects or assets that are deemed environmentally and/or socially beneficial, and are labeled as such. Although some jurisdictions such as the Association of Southeast Asian Nations (ASEAN) have outlined specific guidelines for thematic bonds, these bonds are in general subject to the same capital market and financial regulations as other listed fixed income securities. Most of them are backed by the issuer's full credit and therefore have the same risk and return profile as conventional bonds by the same issuer. Because they have the same characteristics as conventional bonds and are subject to the same laws and regulations, they do not constitute a new asset class. Many of these securities would not even qualify as a new sub-asset class since they are “use-of-proceeds” securities

rather than “project finance” securities, and repayment comes from the issuer’s entire balance sheet. Just like traditional bonds issued by the entity, thematic bonds are backed by the full faith and credit of the issuer; therefore, the credit risk to the investor is the same for thematic and traditional (non-thematic) bonds.

Thematic bonds differ from others in the way the specific use of funds is described in the prospectus or other offering document as well as the information about the issuer’s environmental and social objectives, which appeals to investors with similar interests and investment mandates. Before issuance, issuers are generally expected to obtain an independent review of the types of projects the bond proceeds will support and the governance processes they will adopt, to ensure there is no slippage, intentional or unintentional. While any such slippage would not lead to a default (which is usually limited to nonpayment) under the bond terms described in the prospectus, if an issuer were to renege on its commitment to use the proceeds of the bond as described, the reputational damage would be considerable and generally acts as a deterrent. There is no known case of a sovereign willfully misrepresenting the use of a thematic bond’s proceeds.

The most recognized type of thematic bond is the green bond, which stipulates that all the funds raised are to be used to finance projects that are designed to achieve positive environmental impact. Blue bonds are a subset of green bonds and focus on marine- and ocean-based projects that have positive environmental, economic and climate benefits. Green bonds have also inspired the development of other sustainable and responsible debt products such as the social bond, which supports new and existing projects with positive “social” outcomes. Sustainability bond proceeds support a combination of both green and social projects (ICMA 2020c; G20 Green Finance Study Group 2016).

Like any other bond, thematic bonds are priced according to market conditions at the time of issuance. Given that they are use-of-proceeds bonds based on the issuer’s credit rating, these bonds are generally priced in line with existing yield curves. The 15-year sustainability bond issued by Thailand in August 2020, for instance, was priced in the same way as its conventional 15-year benchmark bond. Nevertheless, differential pricing for thematic bonds relative to other bonds is expected to emerge in the future depending on demand and supply trends in specific markets. Some sovereign thematic bonds have already seen tighter pricing compared with initial pricing guidance due to larger order books. Egypt sold its \$750 million 5-year green bond (the first in the Middle East and North African region) 50 basis points below their original target after receiving \$3.7 billion of investor orders and 12.5 basis points below the 5-year yield curve (Bloomberg 2020). The Mexico DMO also confirmed that its innovative Sustainable Development Goal (SDG) bond priced 45 basis points lower than initially expected (*The Telegram* 2020).

From a debt sustainability point of view, there is no difference between thematic bonds and conventional bonds. Thematic bonds may finance green or social projects, but they are backed by the full faith and credit of the government, not the projects financed. The issuance of thematic bonds adds to a country’s debt burden. As with conventional bonds, any new borrowing in the form of thematic bonds should be consistent with fiscal spending and deficit plans to keep public debt on a sustainable path. A country’s public debt is considered sustainable if the government can meet all its current and future payment obligations, which is no different for thematic bonds. This is an important concern for emerging markets, given the risks to debt sustainability in many countries.

Some national treasuries such as that of the United Kingdom (UK) argue that issuing thematic bonds potentially fragments the market's thematic and conventional debt issuance and reduces liquidity and efficiency (*Financial Times* 2020). Such concerns could be addressed by carefully designing a borrowing plan that does not overlap conventional and thematic bonds and focuses on building benchmark size issuances to support liquidity.

Even without a distinct pricing advantage, the issuance of thematic bonds can be beneficial to sovereign issuers because it signifies the issuer's strong commitment to environmental and social priorities and overall sustainability. This may explain the recent reversal of policy in the UK confirmed by Chancellor Rishi Sunak's announcement that the UK government would in fact be issuing sovereign green bonds (UK Debt Management Office 2020).

The importance of engaging with investors on sustainability issues cannot be minimized in an environment where ESG criteria are used to filter out sovereigns that may pose a financial risk due to unsustainable practices, price in the risks, or to seek out investment opportunities in line with specific mandates (Hussain et al. 2020b). The Indonesian green sukuk issued in 2018 and 2019 expanded and diversified their investor base by attracting investors with green mandates (29 percent of the order book). Egypt's green bond was five times oversubscribed, attracting new investors in Europe, the United States, East Asia and the Middle East.

2. HISTORY OF MARKET DEVELOPMENT

In 2006, the International Finance Facility for Immunisation Company (IFFIm) issued a \$1 billion bond to accelerate funding for Gavi, the Vaccine Alliance to immunize more than 500 million children before 2015. The World Bank as treasury manager for IFFIm introduced the bond to the market. Proceeds were used to scale up GAVI Alliance, boost vaccine use, and improve health systems. Since then, these bonds have come to be known as vaccine bonds (IFFIm 2006). In 2007, the European Investment Bank issued a climate-awareness bond to finance renewable energy and energy-efficiency projects. A structured product, the 5-year bond offered a return linked to an equity index, the FTSE4 Good Environmental Leaders Europe 40 Index (European Investment Bank 2007). In 2008, the World Bank issued the first labeled green bond, establishing the eligibility criteria and governance structure in a "Green Bond Framework", a second opinion from the Center for International Climate Research in Oslo (CICERO), and commitment to report annually the allocation of proceeds and expected impact. Other multilateral development banks such as the International Finance Corporation and public entities (agencies and municipalities) came to the market in 2010. In the early years, supranationals championed the development of the market by issuing green bonds to finance environmental projects. Over time, however, private entities (both financial and nonfinancial corporates) dominated the market (Box 16.1 and Figure 16.1) By 2019, new issuance of green bonds reached a record \$280 billion; by October 2020, more than \$1 trillion of green bonds had been issued since 2007, accounting for 1 percent of the total bond market, according to research company BloombergNEF (2020).

BOX 16.1 MULTILATERAL DEVELOPMENT BANKS LED THE DEVELOPMENT OF THE THEMATIC BOND MARKET

Asian Development Bank

The Asian Development Bank (ADB), a leading AAA-rated borrower in international and domestic capital markets, launched its Green Bond program in 2015 and raised approximately \$7.6 billion, as of December 2019. Its Green Bond Framework defines eligible projects as those that help to mitigate the impact of climate change such as (1) renewable energy (i.e., solar, wind, geothermal, small hydropower < 20 megawatts); (2) energy efficiency; (3) sustainable transport (excluding roads), as well as adaptation projects under the following sectors: (a) energy, (b) water and other urban infrastructure and services, and (c) transport.

Source: ADB. 2020. ADB Green Bonds Newsletter. Issue No. 5. Manila. Accessed at: <https://www.adb.org/sites/default/files/publication/297141/adb-green-bonds-newsletter-2020.pdf>.

African Development Bank

The African Development Bank (AfDB) launched its Green and Social Bond Programs in 2013 and 2017, respectively. As of December 2019, AfDB raised approximately \$2.5 billion in green bonds through nine transactions. Green bond proceeds are allocated to support the financing of renewable energy (solar, wind, hydro, geothermal); energy efficiency (energy distribution systems and vehicle energy efficiency); clean transportation (low-carbon transport infrastructure); biosphere conservation (forestry conservation); and sustainable water and wastewater management (water and wastewater management, agriculture), among others. Eligible adaptation projects include water use management; water supply and access; urban water drainage systems; and agriculture. As of December 2019, AfDB had issued three social bonds, raising approximately \$2 billion. Social bond proceeds support affordable housing, health care, electricity connectivity, education and vocational training, employment, financial inclusion, gender equality, and food security, among others.

Source: AfDB. 2020. Green and Social Bond Newsletter. Issue No. 6. Abidjan. Accessed at: <https://www.afdb.org/en/documents/green-and-social-bond-newsletter-issue-ndeg6-march-2020>.

World Bank

The World Bank issues on average \$55–\$65 billion in sustainable development bonds per year. It issued the first labeled “green bond” in 2008, and followed that with more than 150 transactions in over 20 currencies for a total of approximately \$15 billion. The World Bank’s processes served as the blueprint for the Green Bond Principles (GBP) that are coordinated by the International Capital Markets Association (World Bank 2008). Its sustainable development bonds raise awareness for and support projects related to gender, water and oceans, food loss and waste, and other themes linked to the Sustainable Development Goals (SDGs), as well as pandemics and other development initiatives.

Sources: The World Bank. IBRD Funding Program. Accessed at: <https://treasury.worldbank.org/en/about/unit/treasury/ibrd/ibrd-green-bonds>; and International Finance Corporation. 2019. Green Bond Impact Report: Financial Year 2019. Washington, DC. Accessed at: https://issuu.com/ifcinvestors/docs/ifc-greenbondimpact-2019-final_updated?fr=sYTQ3Yjl1OTU5Mw.

Other multilateral development banks and agencies that have issued green and other thematic bonds include the European Bank for Reconstruction and Development, the International Finance Corporation, the Inter-American Development Bank, the Islamic Development Bank, and the Nordic Investment Bank.

Source: Bloomberg.

Figure 16.1 Thematic bond issuances by issuer type, 2007–September 2020

As the range of issuers widened, so did the variety of sustainability-themed bonds (Figure 16.2). The issuance of sustainability bonds grew from \$2.6 billion in 2014 to \$44.2 billion in 2019. Social bonds increased from \$0.6 billion to \$16.5 billion during the same period. While still small compared with green bonds, investor support for financial products with positive impact during the COVID-19 pandemic in 2020 demonstrated that green bonds have revolutionized the way investors assess their investments and ignited their interest in a wider range of sustainability-related issues (BloombergNEF 2020; Hussain 2020).

Sovereign issuers began tapping the market in 2016. By December 2020, many of them had issued green bonds, including Poland (2016), France (2017), Fiji (2017), Nigeria (2017), Belgium (2018), Lithuania (2018), Ireland (2018 and 2019), Indonesia (2018, 2019, and 2020), the Netherlands (2019), Chile (2019), Hungary (2020), Sweden (2020), Thailand (2020), Germany (2020), and Egypt (2020). Hong Kong, China also issued a green bond in 2019. Seychelles issued the first blue bond in the world in 2018 with support from the World Bank. In 2020, Ecuador and Guatemala issued social bonds while Thailand issued a sustainability bond, and Mexico an SDG bond. Sovereign issuances are expected to increase in the near term as Colombia, Denmark, Kenya and the UK make their debut. Box 16.2 presents examples of sovereign thematic bonds.

Source: Bloomberg.

Figure 16.2 Thematic bond issuances, 2007–September 2020

BOX 16.2 SOVEREIGN ISSUER HIGHLIGHTS

Indonesia Green Sukuk

The Government of Indonesia issued the first sovereign green sukuk in the world in March 2018 with a \$1.25 billion offering, followed by a \$750 million green sukuk in February 2019, and a savings retail sukuk (the first green retail sukuk in the world) in November 2019.⁵ The three instruments appealed to traditional emerging market investors, dedicated green funds, and the Islamic finance market. The 2018 offering saw prices tighten by 30 basis points from the initial pricing guidance (Dunkley 2018). The second offering also came in 25 to 30 basis points lower than initial guidance and was oversubscribed 3.8 times.

Indonesia’s Green Bond and Green Sukuk Framework is aligned with the GBP and was awarded a Medium Green Shade by Second Party Opinion provider, CICERO. The proceeds are financing projects in line with national strategies on mitigation, adaptation and biodiversity. The government introduced a climate budget tagging mechanism to identify government expenditures that deliver the specified climate change benefits in accordance with the government’s climate objectives.

Source: Government of Indonesia, Ministry of Finance.

Thailand Sustainability Bond

The Government of Thailand issued its first thematic bond, a sustainability bond, in July 2020. It was the first sovereign sustainability bond issued in the ASEAN region. Bond proceeds were directed toward expenditures related to green and social projects, specifically the refinancing of capital expenditures for the Mass Rail Transit Orange Line and COVID-19-related spending for public health, support for small and medium-sized enterprises, and cash handouts for people affected by the outbreak. The framework was aligned with the International Capital Market Association’s Green and Social Bond Principles (SBP) and Sustainability Bond Guidelines as well as the ASEAN’s Green, Social, and

Sustainability Bond Standards. Sustainalytics provided a second opinion on the framework. The groundbreaking transaction (B30,000 million 15-year tenure) was highly successful. A diverse group of investors, including banks, asset management companies, financial institutions, insurance companies and offshore investors, submitted orders for more than three times the announced offering. A larger proportion of nonresident investors compared with conventional bonds participated in the transaction.

Source: Government of Thailand, Ministry of Finance.

3. WHO BUYS THEMATIC BONDS AND WHY?

In Europe, the first green bond investors were institutional investors such as pension funds and insurance companies, and in the United States investors with strong environmental focus. As issuances increased, the types of investors grew increasingly diverse, including asset managers, central banks, companies, foundations, and religious organizations looking for investments that can generate measurable social or environmental impact alongside financial return. The Global Impact Investing Network estimates the current size of the impact investing market to be \$715 billion.⁶

An even larger number of players in the investment community are assessing the impact of ESG factors on the financial performance of their investments. More than 3,000 signatories representing more than \$100 trillion who have signed up to the United Nations Principles for Responsible Investment fall into this category.⁷ Signatories are required to incorporate ESG issues into investment analysis and decision-making processes. Investors using ESG analysis in their investment decisions may use thematic bonds such as green bonds as part of their risk management strategy to offset the carbon intensity of their portfolios, for instance.

A survey conducted by the World Bank in 2020 found that public debt managers receive the most questions from investors on thematic bond issuance plans (Figure 16.3) (Hussain et al. 2020b).

Note: ESG = environmental, social and governance.

Source: The World Bank.

Figure 16.3 Top ESG topics investors asked debt managers (% of all questions)

Very few domestic market investors in emerging markets have developed impact investing or ESG frameworks. Given that the financial characteristics of thematic bonds are no different

from conventional bonds, thematic bonds in emerging markets are usually bought by the traditional investor base, mainly local banks and institutional investors, although foreign investors also participate in some well-developed emerging bond markets.

The experience of Fiji, Nigeria, and Thailand shows that local investors are very interested in supporting national development priorities and drive up subscription to thematic bonds significantly (Government of Fiji 2017).

BOX 16.3 INVESTOR HIGHLIGHTS

PGGM

PGGM manages the pensions of various pension funds, mainly for the Dutch health-care sector, affiliated employers, and their employees. On 30 June 2020, PGGM managed pension assets worth €246 billion for 4.4 million participants. The not-for-profit cooperative pension fund service provider is a strong supporter of the thematic bond market, with exposure to €3 billion in such bonds across sovereign, supranational and corporate bond portfolios for both developed and emerging markets. Its current focus on increasing portfolio exposure and impact on climate, water, food and health is based on the recognition that the financing gap for areas such as renewable energy, water and sanitation, public transportation, and sustainable agriculture is large and even larger in emerging economies. PGGM supports the International Capital Markets Association's green, social and sustainability bond frameworks. Clear thematic bond frameworks, use of proceeds, reporting, and second party opinions raise the credibility of thematic bonds and attract more foreign long-term investors. PGGM expects exposure to such thematic bonds to grow further as the market develops and as PGGM aligns its investments along the SDGs.

Source: PGGM.

Nuveen

Nuveen is one of the world's largest asset managers, with over \$1 trillion in assets under management. As a firm, Nuveen is dedicated to responsible investing and as part of its commitment manages over \$6 billion in impact investments, of which over \$5 billion is in dedicated public fixed income impact strategies. These fixed income impact investments pursue positive social and environmental impact alongside competitive financial returns, with increasing opportunity in emerging markets. As of 31 July 2020, Nuveen invested over \$100 million in emerging market sovereign bonds and \$470 million in emerging market corporates and agencies.

Nuveen's fixed income impact investing framework is grounded on the principles of direct and measurable impact. Therefore, bond proceeds must fund specific projects or initiatives that deliver a clearly defined environmental or social benefit, and the issuer must be able and willing to disclose key performance indicators (KPIs) through impact reporting for the project or initiative on an annual basis. Nuveen's public fixed income impact objectives focus on four themes: affordable housing; community and economic development; renewable energy and climate change; and natural resources. In 2018, Nuveen participated in the

blue bond issued by the Republic of Seychelles, providing guidance to the World Bank and the issuer on the structuring of risk mitigation factors and specific KPIs for impact reporting that would ensure the asset manager's participation. The bond is the first financial instrument designed to support sustainable marine and fisheries projects. Nuveen believes these types of risk-sharing mechanisms that leverage public-private partnership are innovative ways to increase capital flow to emerging markets where positive social and environmental projects can have the most impact on making progress toward achieving the SDGs.

Source: Nuveen.

4. ISSUING PROCESS

Thematic bonds are useful tools for debt managers as they seek to maximize opportunities to close funding gaps for sustainable development. As with any funding decision, proper due diligence is paramount when considering the issuance of thematic bonds. The first step is to carefully explore whether the issuance fits the fiscal framework. As with any other bond, the decision to issue thematic bonds should be anchored in a broader debt management strategy, which takes into consideration the availability and pros and cons of different funding sources and the impact on debt sustainability. An important consideration is whether to issue in the international or domestic market. Domestic issuances are simpler. Issuing in the international capital markets allows sovereign issuers to issue at longer maturities than they generally can in their domestic markets in similar volumes, diversify their investor base by accessing impact investors who are located largely in Europe and the United States, and generate more visibility for their sustainability commitments. On the other hand, international issuances expose issuers to currency risk (see Chapter 14 in this volume). Adherence to a debt management strategy allows debt managers to stay within their risk appetites and signals to rating agencies and capital markets that a government's liabilities are well managed. As with any other bond issuance, market circumstances will determine the timing of the transaction, that is, an issue should be launched only under favorable market circumstances.

To issue a conventional bond, the issuer goes through the following steps (assuming an international issuance):

- Secure a country and/or bond rating.
- Hire an independent advisor.
- Select a lead manager.
- Hire legal counsel.
- Prepare documentation (base prospectus).
- Communicate with investor (roadshows).
- Execute and settle the transaction.

Issuing a thematic bond includes additional steps, based on widely accepted international standards. Investors expect issuers to follow these steps (Box 16.4) to ensure transparency and accountability:

- Prepare a framework document.
- Select eligible expenditures.

- Set up the process to manage bond proceeds.
- Track and report the allocation of bond proceeds and impact (post-issuance).

DMOs are recommended to establish a dedicated task force or steering committee, composed of different departments in ministries of finance and relevant line ministries, to develop a thorough understanding of the requirements; discuss the value proposition; conduct a detailed analysis of eligible expenditures; and design a work plan. While the time required from the start to end is case-dependent, a first-time issuer can expect to take at least six months to complete the process. The DMO can seek advice from multilateral development banks or investment banks with recognized expertise to understand the requirements, develop the bond framework, and identify eligible projects in line with national priorities.⁸

BOX 16.4 THEMATIC BOND STANDARDS

International standards and guidelines for thematic bonds have developed over time to promote transparency and ensure accountability. Dedicated platforms created by the London Stock Exchange and the Luxembourg Stock Exchange restrict entry to issuers that comply with recognized standards such as the GBP and the SBP—guidelines developed by the International Capital Markets Association in collaboration with market participants. The key recommendations are as follows:

- Allocate bond proceeds in the case of green bonds to environmental (or “green”) projects, and in the case of social bonds to projects that “aim to address or mitigate a specific social issue and/or seek to achieve positive social outcomes especially but not exclusively for a target population(s)”.
- The issuer must disclose its overall sustainability objectives, the process used to determine eligibility of projects, and the approach to manage environmental and social risks of these projects.
- The issuer must disclose how bond proceeds will be managed.
- The issuer should report annually the amounts allocated to eligible projects and the expected impact of the projects until “full allocation, and on a timely basis in case of material developments”.

The GBP and SBP have been used as bases for several national and regional standards and guidelines, such as the People's Republic of China's Green Bond Project Catalog, Indonesia's Financial Services Authority Green Bond Regulations, and Malaysia's SRI Sukuk Guidelines. The ASEAN Capital Markets Forum, comprising capital market regulators from 10 ASEAN jurisdictions, launched the ASEAN Green Bond Standards in 2017, followed by the ASEAN Social and Sustainability Bond Standards in 2018. Issuers who wish to issue and label bonds as ASEAN green, social or sustainability bonds must demonstrate compliance with the ASEAN standards.

Sources: ASEAN Capital Markets Forum (ACMF). ASEAN Green Bond Standards. Accessed at: <https://www.theacmf.org/initiatives/sustainable-finance/asean-green-bond-standards>; ACMF. 2018. ASEAN Social Bond Standards. Accessed at: <https://www.theacmf.org/images/downloads/pdf/ASBS2018.pdf>; and ACMF. ASEAN Sustainability Bond Standards. Accessed at: <https://www.theacmf.org/initiatives/sustainable-finance/asean-sustainability-bond-standards>.

In line with the core components of the GBP and SBP, the issuer needs to:

- *Prepare a framework.* The framework outlines the process that will be used to disclose eligible expenditure items and stipulates how they are selected, monitored and reported on, so that investors can easily follow where the bond proceeds go and evaluate their intended impact from an environmental and social perspective. The DMO must work with relevant ministries and departments to establish these processes and develop the framework document disclosing the issuer's commitment to follow the procedures outlined in it.
- *Identify and select eligible expenditures.* An amount equivalent to the bond proceeds will fund government budget expenditure items that are linked to sustainable investments and projects. Green expenditure items will be selected based on the country's environmental and climate policy objectives (Box 16.5).

BOX 16.5 IDENTIFYING ENVIRONMENTALLY BENEFICIAL EXPENDITURES OR PROJECTS

Green bond investors are interested as much in the strategic sustainability approach of the issuer as they are in the environmental benefits of the investments and/or projects financed with the bond. It is therefore important to select projects that are in line with national environmental objectives and those that resonate with the country's overall sustainable development priorities and agenda. These may include promoting a cleaner urban environment; protecting the country's natural resources (water, land, forests); and pursuing a low-carbon and climate-resilient future. These objectives should be in accordance with existing environmental plans, policies and regulations, including commitments to international agreements such as the Paris Agreement. Currently there is no standardized global definition of "green" (or "social"), which makes it more challenging for issuers and investors alike. The European Union has developed a "green taxonomy" that applies to its jurisdiction. However, national circumstances, sustainable development agendas, and local priorities differ from country to country, making it difficult to apply the same definitions across countries.

Given the lack of clarity on what "green" means, regulators must consider developing a "national green taxonomy". A structured and well-defined classification of what the country considers to be green is essential for better-informed and more efficient decision-making by the Ministry of Finance as well as other public and private green bond issuers and direct capital toward national environmental objectives (Hussain et al. 2020a).

Source: World Bank.

Similarly, social expenditure items will be selected based on national priorities and SDGs such as affordable housing (Target 1.4); socioeconomic advancement and empowerment (Targets 1.1, 1.2, 1.3, 1.4, and 1.5); and food security (Targets 2.1, 2.2, 2.3, and 2c) (ICMA 2020a). The legal documentation for the security should appropriately describe the utilization of bond proceeds.

The size of the issuance will depend on the total expenditure items defined as eligible under the framework. The identified expenditures should exceed the issuance volume to ensure that there is a margin in case some expenditure items are removed. Debt managers

must therefore balance the need to meet minimum volume requirements in line with investor preferences for tradability or liquidity and inclusion in international bond indices (such as the J.P. Morgan Emerging Market Bond Index or other) and ensure that the size of the bond does not exceed borrowing requirement.

- *Establish the process of managing the proceeds.* DMOs are expected to segregate and track the flow of funds from the bond to eligible expenditures. Issuers can segregate bond proceeds in a (1) separate account; (2) subaccount; or (3) virtual account or cash account (World Bank 2018b). Segregating proceeds into a separate account is not an option for many DMOs, in which case they can allocate an amount equivalent to the proceeds of the bond to the portfolio of eligible green expenditures, record it in a register/virtual account, and report on the allocation and expected impact of the expenditure in accordance with the framework.
- *Obtain an external review of the framework.* Investors expect the framework to be reviewed by a specialized independent entity who will provide a second opinion or certify/verify that the bond meets relevant standards and acceptable best practices (Box 16.6). The external review of the framework has implications for both cost and time. A typical external review takes two–five weeks to finalize and involves intensive decisions and several iterations before the framework and the reviewer's assessment is finalized. The cost of a review by an international provider typically ranges between \$20,000 and \$50,000. Some countries like Malaysia have encouraged the development of local external review providers for domestic issuances, which are more economical.⁹

BOX 16.6 EXTERNAL REVIEW OF THEMATIC BOND FRAMEWORKS

Thematic bond issuers are expected to obtain an independent external review of the sustainability credentials of their labeled bonds. This review can take the form of a second party opinion, a certification against a recognized external green/social/sustainability standard or label, a verification of alignment to a specific standard, or a scoring/rating based on environmental and/or social performance data, processes or benchmarks. A credible institution with environmental/social/sustainability expertise that is independent from the issuer is expected to perform the external review. A variety of institutions perform this task, including research institutes, accounting firms and credit rating agencies. The International Capital Markets Association has published guidelines to promote best practice in external reviews (ICMA 2020b).

Independent external reviews by qualified entities, based on sound practice, assure investors that the bond is in line with market expectations and industry best practices. It gives them confidence in the nature of the issuance and “promotes the integrity of the market” (Ceres Investor Network of Climate Risk and Sustainability 2018).

Source: World Bank.

- *Prepare reports.* Issuers of thematic bonds are required to provide investors with information about the allocation of proceeds to eligible projects and expected environmental and/or social benefits. This information allows investors to quantify the benefits of investing in thematic bonds and provides them with the confidence to commit long-term capital.¹⁰ The issuer must define how and at what level of detail they plan to disclose information about the projects or portfolio. DMO staff are not engaged or familiar with such technical details of projects. Therefore, they need to coordinate with the line agencies and operational units overseeing the projects to obtain the required information. The first report is expected no later than the fourth quarter of the year following the issuance of the bonds. Some issuers have the proceeds allocation and environmental impact report audited and/or verified by an independent third party, which investors highly value.
- *Prepare a communication strategy.* In addition to the above, the issuer should be ready to proactively and transparently communicate with investors on the issuance plan. The lead manager will arrange roadshows to meet investors face to face and present and market the transaction. In addition to the usual economic outlook and debt management activities (debt profile, structure, borrowing plan objectives), the issuer should prepare a presentation offering detailed information on the sustainability characteristics of the bond. It is advisable to include representatives from line ministries who are able to communicate the government's sustainability objectives. Typically, the DMO will organize a broader marketing campaign targeting the general public and interested stakeholders such as the development community, other DMOs, and international media.

5. CONCLUSION

An increasing number of investors—many of whom are buy-and-hold investors who may react differently to market conditions from traditional investors—are looking to finance projects that aim to achieve environmental and social sustainability.¹¹ Given the opportunity to attract and expand the investor base, DMOs should include thematic bonds in their medium-term debt management strategies to maintain a wide range of options regarding funding alternatives. At the same time, DMOs should keep in mind that these instruments contribute to levels of debt in the same way as conventional bonds. They should look at the potential risks and returns and assess the demand and benefits of such products as they would any other debt instrument.

When considering the issuance of thematic bonds, issuers should also keep in mind that their overall sustainability profile and commitment to reducing their carbon footprint and other credentials relating to ESG are important to this investor segment and relevant market participants. Investors avoid bonds when they see a clear disconnect and may sell positions and/or communicate their disapproval publicly if they determine that the issuer is not committed to a sustainable future. Netherlands-based asset manager NN Investment Partners decided that Poland's Green Bond was not eligible for their green bond portfolio because the government had an inadequate policy for phasing out coal-fired electricity (Allen and Shotter 2018; NN Investment Partners 2019). The Amundi Planet Emerging Green One fund, the first green bond fund focused on emerging markets, announced publicly that it would sell off its State Bank of India green bonds if it went ahead with plans to finance a thermal coal mine in Australia (*National Herald* 2020). Such actions would have implications for the issuer's reputation and future funding plans.

The issuance of thematic bonds involves steps related to disclosure and transparency, which are not required for conventional bonds. Diligently following these steps is important to ensure that the bond can be identified as a labeled thematic bond. Exchanges such as the London Stock Exchange withdraw thematic bonds that do not comply with defined requirements from its sustainability bond market. In preparation for the issuance of thematic bonds, the issuer needs to adopt a framework that sets the basis for identifying, selecting, verifying and reporting of the expenditures or projects eligible to be financed by the bond, and the management of such proceeds. The framework should follow internationally accepted standards and guidelines. Establishing the governance processes and preparing the formal documentation take time and consume resources. It is recommended that an interministerial working group oversee the development of the framework, with participation of the Ministry of Finance; Ministry of Environment; Ministry of Planning and Investment; and ministries in charge of energy, transportation, and climate change.

Eligible expenditures should be selected from the previous year's realized expenditure and the current year's expenditure in the government's budget and in line with the government's environmental and sustainable development objectives and priorities. DMOs have several options for segregating and tracking the use of bond proceeds. The issuer is expected to engage a credible independent reviewer to assess the framework, and the opinion provided by the reviewer should be publicly available. Thematic bonds are bought by traditional investors as well as those with specific mandates or frameworks for impact investing. Investors who pursue positive impact look for tangible and measurable social and environmental impact, aligned with the SDGs, as well as risk-adjusted financial returns. If the DMO wishes to attract these investors, they must market the bond to investors accordingly and provide detailed information on impact. While DMOs play a central role in engaging with the investor, they will need to enlist the help of line ministries to communicate the sustainability credentials of the bond and the issuer. The final step of post-issuance reporting should take place in coordination with line ministries, project owners, and overseers to ensure the timely collection of robust data.

While the entire process takes time, resources and considerable collaboration within government departments initially, subsequent issuances are easier. Based on the track record of sovereign-issued thematic bonds, the resulting issuance sees strong demand from investors, including new and long-term investors, and allows the issuer to lock in new financing sources and position itself as a leader in the sustainable finance market. It is also a good start to engage with investors on ESG more broadly, which is a growing trend with investors focused on minimizing ESG risks in their investment portfolio (Hussain et al. 2020b).

Thematic bonds deliver efficiencies beyond sustainability-related issues. With enhanced transparency and accountability credentials, these bonds have created appetite and interest in both issuers and investors for greater openness with regard to the use of proceeds of all bonds. The increasing importance of transparency in public debt has been well documented by experts (see Chapter 14 in this volume). Investors are asking more questions and looking for more reporting. The design and preparation process of thematic bonds encourage DMOs to improve and enhance transparency and governance for all issuances, coordinate more effectively with line ministries, and integrate funding strategies with development plans.

NOTES

1. The views expressed therein are those of the authors and do not necessarily reflect the views and policies of ADB, its Board of Governors or the governments they represent.
2. For a full description of the risks to sovereign debt portfolios, see Jonasson and Papaioannou (2018).
3. See IMF Primer on Managing Sovereign Debt-Portfolio Risks (Jonasson and Papaioannou 2018) and IMF (2014).
4. In this chapter, “sustainability” refers to environmental and social sustainability, unless indicated otherwise.
5. Sukuk are bonds that conform to Islamic investing principles. See Corporate Finance Institute. Sukuk. Accessed at: <https://corporatefinanceinstitute.com/resources/knowledge/trading-investing/sukuk/>.
6. Global Impact Investing Network. What You Need to Know about Impact Investing. Accessed at: <https://thegiin.org/impact-investing/need-to-know/#who-is-making-impact-investments>.
7. Principles for Responsible Investment (PRI). PRI Update Q4 2020. Accessed at: <https://www.unpri.org/pri/about-the-pri>.
8. The World Bank Treasury advised Egypt, Fiji, Indonesia, Kenya, and Nigeria, among others, to support the development of sustainable capital markets and facilitate demonstration transactions. The World Bank. Sustainable Finance Advisory. Accessed at: <https://treasury.worldbank.org/en/about/unit/treasury/client-services/sustainable-finance-advisory>.
9. RAM Consultancy. Sustainability Services. Accessed at: <https://www.ram.com.my/sustainability>.
10. Emerging Markets Dialogue on Finance. Investor Network on Climate Risk. A Statement of Investor Expectation for the Green Bond Market. Accessed at: http://www.emergingmarketsdialogue.org/wp-content/uploads/2018/02/Statement_of_Investor_Expectations_for_Green_Bonds.pdf.
11. As Amundi Asset Management and IFC (2020) states, “So far, investment flows since the start of the crisis have proven more resilient towards green investments when compared to their traditional counterparts. It is possible that investors view green issuers as more long-term oriented and able to weather short-term volatility”.

REFERENCES

- African Development Bank (AfDB). 2020. Green and Social Bond Newsletter. Issue No. 6. Abidjan. Accessed at: <https://www.afdb.org/en/documents/green-and-social-bond-newsletter-issue-ndeg6-march-2020>.
- Allen, K. and J. Shotter. 2018. Environmental Qualms Cloud Poland’s Green Bond Sale. *Financial Times*. 5 February. Accessed at: <https://www.ft.com/content/634b4fe8-074b-11e8-9650-9c0ad2d7c5b5>.
- Amundi Asset Management and International Finance Corporation (IFC). 2020. *Emerging Markets Green Bonds Report 2019*. Washington, DC. Accessed at: <https://www.ifc.org/wps/wcm/connect/a64560ef-b074-4a53-8173-f678ccb4f9cd/202005-EM-Green-Bonds-Report-2019.pdf?MOD=AJPERES&CVID=n7Gtahg>.
- Asian Development Bank (ADB). 2020. ADB Green Bonds Newsletter. Issue No. 5. Manila. Accessed at: <https://www.adb.org/sites/default/files/publication/297141/adb-green-bonds-newsletter-2020.pdf>.
- Bloomberg. 2020. The Middle East’s First Sovereign Green Bond Sees Strong Demand. 30 September. Accessed at: <https://www.msn.com/en-us/money/companies/egypt-gets-strong-demand-for-debut-sovereign-green-bond/ar-BB19wqUw?ocid=uxbilliondlbing>.
- BloombergNEF. 2020. Record Month Shoots Green Bonds Past Trillion-Dollar Mark. 5 October. Accessed at: <https://about.bnef.com/blog/record-month-shoots-green-bonds-past-trillion-dollar-mark>.
- Ceres Investor Network on Climate Risk and Sustainability. 2018. A Statement of Investor Expectations for the Green Bond Market. Accessed at: http://www.emergingmarketsdialogue.org/wp-content/uploads/2018/02/Statement_of_Investor_Expectations_for_Green_Bonds.pdf.
- Dunkley, E. 2018. Indonesia Issues World’s First Green Sukuk Bond. *Financial Times*. 22 February. Accessed at: <https://www.ft.com/content/e38ea51c-184c-11e8-9376-4a6390addb44>.

- European Investment Bank. 2007. EPOS II – The “Climate Awareness Bond”: EIB Promotes Climate Protection via Pan-EU Public Offering. Press release. 22 May. Accessed at: https://www.unicreditgroup.eu/content/dam/unicreditgroup/documents/inc/press-and-media/FOR_DISTRIBUTION_MAY_22_2007_EPOSeng.pdf.
- Financial Times*. 2020. UK Bond Chief Stheeman Expresses Doubts on Green Gilt. 20 January. Accessed at: <https://www.ft.com/content/b0b31764-3932-11ea-a6d3-9a26f8c3cba4?shareType=nongift>.
- G20 Green Finance Study Group. 2016. *G20 Green Finance Synthesis Report*. Accessed at: https://unepinquiry.org/wp-content/uploads/2016/09/Synthesis_Report_Full_EN.pdf.
- Government of Fiji. 2017. Fiji's Green Bond Launch Sees Unprecedented Support. News release. 2 November. Accessed at: <https://www.fiji.gov.fj/Media-Centre/News/FIJI%e2%80%99GREEN-BOND-LAUNCH-SEES-UNPRECEDENTED-SUPPOR>.
- Hussain, F.I. 2020. Sovereign Social Bonds to Protect Lives and Livelihoods. *Environmental Finance*. May 2020. Accessed at: <https://www.environmental-finance.com/content/analysis/sovereign-social-bonds-to-protect-lives-and-livelihoods.html>.
- Hussain, F.I., L. Tlaiye and M. Jordan. 2020a. *Developing a National Green Taxonomy: A World Bank Guide*. Washington, DC: World Bank Group. Accessed at: <http://documents.worldbank.org/curated/en/953011593410423487/Developing-a-National-Green-Taxonomy-A-World-Bank-Guide>.
- Hussain, F., A.G. Lee, M. Jordan and R. Cabral. 2020b. *Engaging with Investors on Environmental, Social and Governance (ESG) Issues: A World Bank Guide for Sovereign Debt Managers*. Washington, DC: World Bank. Accessed at: <http://pubdocs.worldbank.org/en/375981604591250621/World-Bank-ESG-Guide-2020-FINAL-11-5-2020.pdf>.
- International Capital Market Association (ICMA). 2020a. *Green, Social and Sustainability Bonds: A High Level Mapping to the Sustainable Development Goals*. Paris. Accessed at: <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/Mapping-SDGs-to-Green-Social-and-Sustainability-Bonds-2020-June-2020-090620.pdf>.
- International Capital Market Association (ICMA). 2020b. *Guidelines for Green, Social and Sustainability Bonds External Reviews*. Paris. Accessed at: <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/External-Review-GuidelinesJune-2020-090620.pdf>.
- International Capital Market Association (ICMA). 2020c. *Sustainable Finance: High-Level Definitions*. Zurich. Accessed at: <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Sustainable-Finance-High-Level-Definitions-May-2020-110520v4.pdf>.
- International Finance Corporation (IFC). 2019. *Green Bond Impact Report: Financial Year 2019*. Washington, DC. Accessed at: https://issuu.com/ifcinvestors/docs/ifc-greenbondimpact-2019-final_updated?fr=sYTQ3YjI1OTU5Mw.
- International Finance Facility for Immunisation (IFFIm). 2006. *International Finance Facility for Immunisation Issues Inaugural Bonds*. 7 November. London. Accessed at: <https://iffim.org/press-releases/international-finance-facility-immunisation-issues-inaugural-bonds>.
- International Monetary Fund (IMF). 2014. Revised Guidelines for Public Debt Management. IMF Policy Paper. Washington, DC. Accessed at: <https://www.imf.org/external/np/pp/eng/2014/040114.pdf>.
- Jonasson, T. and M.G. Papaioannou. 2018. A Primer on Managing Sovereign Debt-Portfolio Risks. *IMF Working Paper*. No. 18/74. 6 April. Washington, DC. Accessed at: <https://www.imf.org/en/Publications/WP/Issues/2018/04/06/A-Primer-on-Managing-Sovereign-Debt-Portfolio-Risks-45746>.
- National Herald*. 2020. French Giant Amundi Threatens to Divest SBI Bonds if Loan Granted for Adani Coal Project. 29 November. Accessed at: <https://www.nationalheraldindia.com/national/french-giant-amundi-threatens-to-divest-sbi-bonds-if-loan-granted-for-adani-coal-project>.
- NN Investment Partners. 2019. Green Bond Bulletin: Market Growth, Green QE and Beware of Greenwashing. *Speciale Green Bond Series*. 5 December. Accessed at: <https://www.nnip.com/it-IT/advisor/insights/green-bond-bulletin-market-growth-green-qe-and-beware-of-greenwashing>.
- The Telegram*. 2020. Mexico Issues “World's First” Sovereign Bond Linked to U.N. Sustainability Goals. 15 September. Accessed at: <https://www.thetelegram.com/business/reuters/mexico-issues-worlds-first-sovereign-bond-linked-to-un-sustainability-goals-496978/>.

- UK Debt Management Office. 2020. UK Government Announces its Intention to Issue its First Sovereign Green Bond in 2020. 9 November. Accessed at: <https://www.dmo.gov.uk/media/17077/sa031120.pdf>.
- World Bank. 2008. *The World Bank Green Bond Implementation Guidelines*. Washington, DC.
- World Bank. 2018a. *From Evolution to Revolution: 10 Years of Green Bonds*. Feature Story. 27 November. Accessed at: <https://www.worldbank.org/en/news/feature/2018/11/27/from-evolution-to-revolution-10-years-of-green-bonds>.
- World Bank. 2018b. *Green Bond Proceeds Management and Reporting Guide: A World Bank Guide for Public Sector Issuers*. Washington, DC. Accessed at: <http://pubdocs.worldbank.org/en/768111536944473808/WB-Green-Bond-Proceeds-Management-and-Reporting-Guide.pdf>.