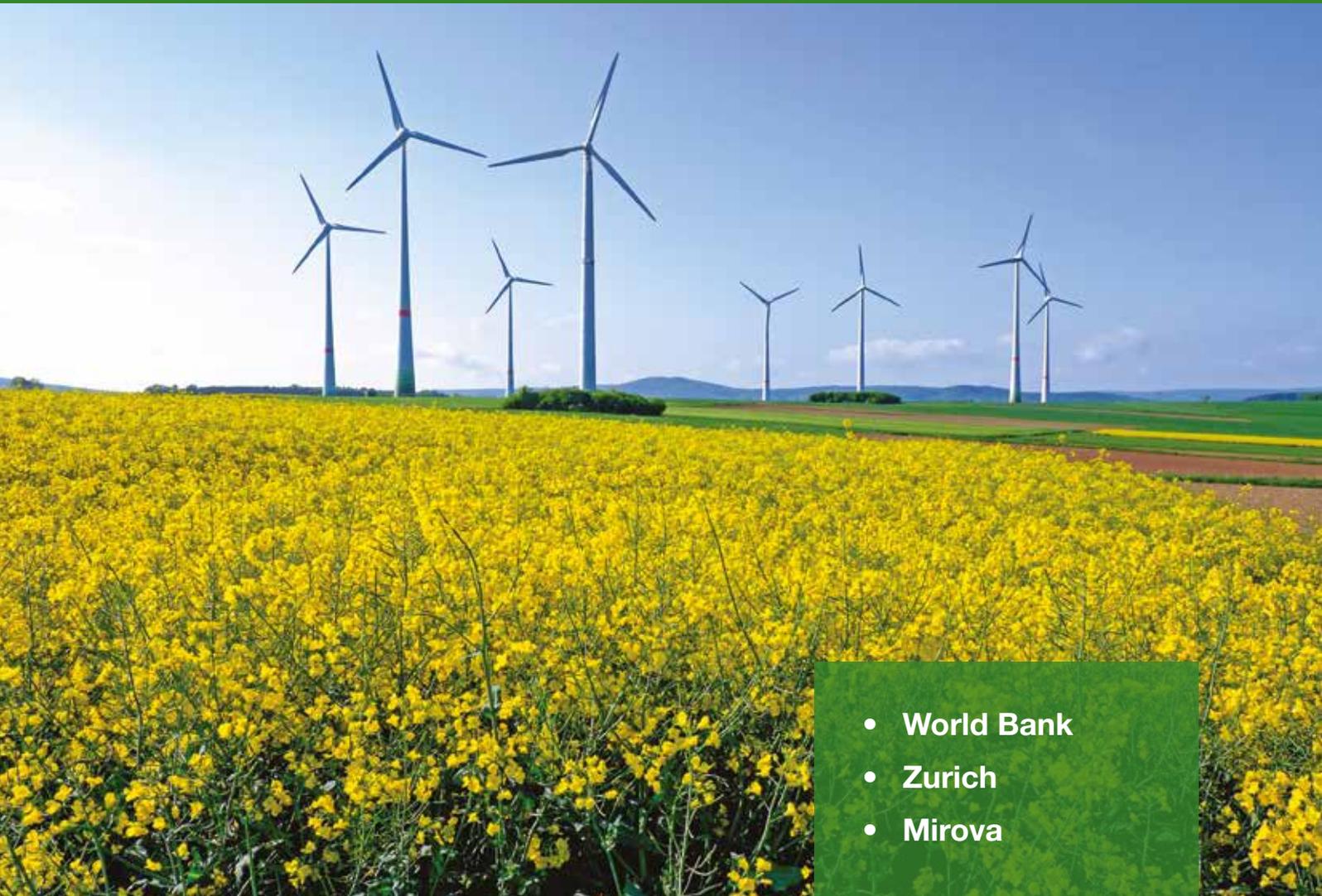


# Pension Fund Service Local Government

- **Green Bonds**



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# Getting to Know the Green Bond Market

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## Executive summary

Over the past few years, there has been growing interest in green bonds as a way to channel private sector financing towards climate-friendly purposes. Green bonds have generated attention from market participants, climate experts, and the media, and have been playing an important role in engaging institutional investors in the financing of the transition to a low-carbon economy. More generally, green bonds are also acting as a catalyst for more sustainable and responsible fixed-income capital markets. This article will cover the basics of green bonds, using the green bonds issued by the World Bank (IBRD)<sup>2</sup> as an example. It will summarize the key drivers behind the growth of the market from both an investor and issuer perspective. Finally, the question of how the green bond market can continue to grow will also be covered in this article.

The financial risk and return characteristics of green bonds are the same as for classic bonds. Their special features make them especially attractive to investors looking to integrate environmental, social and governance (ESG) factors into their fixed-income investment portfolios within existing mandates, as well as to investors that are developing new portfolios with climate-specific strategies. Investors that have the expertise to assess climate and environment risks and opportunities in their portfolios are more comfortable when assessing bonds supporting “green” projects than others that do not. But for all investors, especially the latter group, there are a number of ways that will be discussed in which green bond issuers can help increase investor confidence in their approach. From an issuer’s perspective, the decision to issue green bonds and at what volume and frequency includes a cost-to-benefit trade-off as well as an assessment of the potential pipeline of eligible projects. Factors for issuers to consider, include the opportunity to reach new investors and raise awareness of the positive climate and environmental impact of projects they finance.

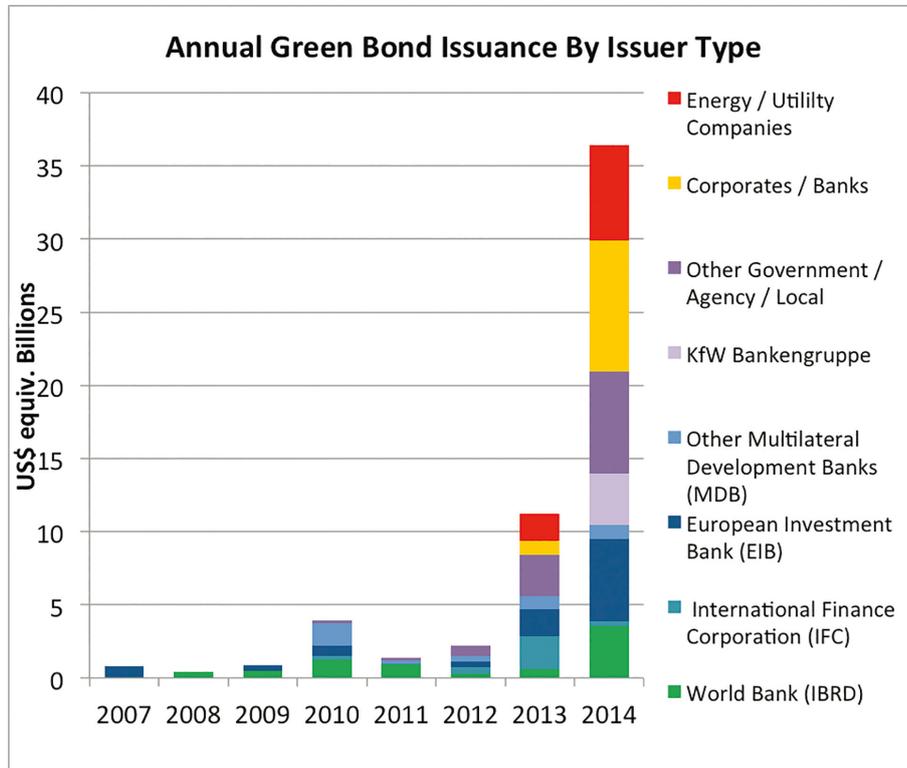
Green bonds are a positive, innovative development that has gained broad support. They are one piece of the puzzle that can help address the challenge of financing the global transition to low-carbon and climate-resilient development and growth. Green bonds have been playing a vital role in raising awareness and building climate finance expertise among investors. In addition, they are an important development in the market that is catalyzing the transition to a more sustainable and responsible fixed-income capital market. They offer investors almost unparalleled visibility about the use of invested funds and the expected positive social and environmental impacts.

<sup>1</sup> The opinions expressed here are the authors’ and do not necessarily reflect those of the World Bank or its stakeholders.

<sup>2</sup> **About the World Bank:** The World Bank (International Bank for Reconstruction and Development, IBRD), rated Aaa/AAA (Moody’s/S&P) operates as a global development cooperative owned by 188 member countries and is the original member of the World Bank Group. The World Bank Group has two main goals: to end extreme poverty and promote shared prosperity. The World Bank (IBRD) seeks to achieve them primarily by providing loans, risk management products, and expertise on development-related disciplines to its borrowing member government clients in middle-income countries and other creditworthy countries, and by coordinating responses to regional and global challenges. It has been issuing bonds in the international capital markets for over 60 years to fund its sustainable development activities and achieve a positive impact.

**About the World Bank Group:** The World Bank Group consists of five separate legal organizations working towards a common mission to eradicate extreme poverty and promote shared prosperity. It includes International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and the International Centre for Settlement of Investment Disputes (ICSID). Both IBRD and IFC are issuers of green bonds.

Although still small in the context of the total bond market, the young green bond market has been growing rapidly. By the end of 2014, annual issuances reached over US\$35 billion, more than three times the US\$11 billion issued the year before. Furthermore, the mix of issuers has evolved from the original multilateral development banks (MDBs) that pioneered the market to include local governments and agencies, utility companies and other corporate issuers.



Source: Bloomberg, World Bank

### What is a green bond and how did the green bond market start?

At its core, a green bond is a regular fixed-income product. For example, the financial characteristics and risk profile of World Bank green bonds are the same as for other bonds issued by the World Bank with the same tenor and currency and comparable in size and structure. Investors benefit from the same triple-A issuer credit rating of the World Bank as they would for classic World Bank bonds - green bond investors are not exposed to the credit risk of individual projects that are being supported. The bond tenor, structure and currency are set based on investor demand, and pricing is in line with World Bank bonds that support other sustainable development activities.

The key feature differentiating green bonds is that the proceeds are dedicated to a specific purpose: they are ring-fenced for projects and activities that promote climate or other environmental sustainability purposes based on a transparent process that connects the financing to the allocation of proceeds to specific projects and their expected positive impact. The European Investment Bank (EIB) introduced the concept of earmarking proceeds for climate investments in 2007, when EIB launched its first Climate Awareness Bond,<sup>3</sup> an equity index-linked bond that was listed in 27 domestic markets in the European Union.

3 [http://www.eib.org/investor\\_relations/press/2007/2007-042-epos-ii-obligation-sensible-au-climat-la-bei-oeuvre-a-la-protection-du-climat-par-le-biais-de-son-emission-a-l-echelle-de-l-ue.htm?lang=en](http://www.eib.org/investor_relations/press/2007/2007-042-epos-ii-obligation-sensible-au-climat-la-bei-oeuvre-a-la-protection-du-climat-par-le-biais-de-son-emission-a-l-echelle-de-l-ue.htm?lang=en)

A year later, the World Bank introduced the first bonds with the label “green bond,” designed in collaboration with SEB and Scandinavian pension funds.<sup>4</sup> The original green bond investors had been assessing climate risk across their portfolios and were looking for plain vanilla fixed-income investment opportunities to support the transition to low-carbon and climate-resilient development and growth. At the same time, they were not looking to invest directly in the relevant projects, as they didn’t have internal resources for project selection, due diligence and monitoring. The new product allowed these investors to benefit from the World Bank’s rigorous environmental and social safeguards in assessing and approving eligible projects, and responded to their request to have their plain vanilla fixed-income investments support World Bank projects with a climate focus rather than the World Bank’s broader portfolio of projects that support sustainable development more generally.

**Box 1: World Bank Green Bonds Eligibility Criteria**

The World Bank’s Green Bond Program supports the transition to low-carbon and climate resilient development and growth in client countries. This includes both mitigation and adaptation to climate change – all while observing the World Bank’s policies for environmental and social safeguards. The table below provides examples of mitigation and adaptation projects that meet the Green Bond eligibility criteria and thus are eligible to be supported by the World Bank’s Green Bond program:

**Examples of eligible mitigation projects:**

- Solar and wind installations;
- Funding for new technologies that permit significant reductions in greenhouse gas (GHG) emissions;
- Rehabilitation of power plants and transmission facilities to reduce GHG emissions;
- Greater efficiency in transportation, including fuel switching and mass transport;
- Waste (methane emissions) management and construction of energy-efficient buildings;
- Carbon reduction through reforestation and avoided deforestation.

**Examples of eligible adaptation projects:**

- Protection against flooding (including reforestation and watershed management);
- Food security improvement and implementing stress-resilient agricultural systems (which slow down deforestation);
- Sustainable forest management and avoided deforestation.

Source: World Bank Green Bond Implementation Guidelines

Green bonds provide investors with transparency about the ex-ante eligibility criteria for allocation of green bonds proceeds, the type of projects and the actual projects that are being supported. The World Bank’s green bond program includes a specific process for identifying eligible projects and tracking green bond proceeds through a special account until they are allocated to projects that have been identified as eligible, as they begin to disburse.<sup>5</sup> The eligibility criteria and description of the process with the special account for the proceeds form part of the legal documentation for World Bank Green Bonds.

4 <http://treasury.worldbank.org/cmd/htm/GreenBond.html>  
 5 <http://treasury.worldbank.org/cmd/pdf/ImplementationGuidelines.pdf>

## The green bond market is growing – fast

In the green bond market, demand is increasing and there are more and more types of issuers from different rating categories. Investors also have a growing number of choice in terms of bond sizes, structures and currencies.

The initial green bond pioneers include the World Bank, with its first green bonds issued in 2008; as well as the European Investment Bank (EIB), which issued its first climate awareness bond in 2007; the International Finance Corporation (IFC), which issued its first green bond in 2010<sup>6</sup>; and the African Development Bank (AfDB), which issued its first green bond in 2013.<sup>7</sup>

As of early 2015, the World Bank had issued over 80 green bonds raising over US\$8 billion. These included a range of bond sizes, from benchmark-sized issuances in euros, U.S. dollars and Australian dollars, to private placements and smaller sized bonds for retail investors in 18 currencies across a range of maturities out to 30 years. They also included structured bonds, such as callable bonds and equity-linked notes designed for both institutional and retail investors.

As the green bond market matures, it is offering investors a choice of more issuers and different types of bonds (size, maturity, currency and structure). In 2014, about two-thirds of all new green bonds had come from issuers outside the multilateral development banks. Other issuers include corporates and utility companies, as well as government agencies, like KfW, and public authorities, like the cities of Gothenburg (Sweden), Johannesburg (South Africa) and Spokane (Washington, USA), the states of California, Massachusetts and New York, the Province of Ontario, and Washington, D.C.'s water authority. These issuers have made important steps for public sector offerings of green bonds. Many of these bonds have been innovative in their character. For example, the first "century green bond" (100-year tenor) was issued by Washington, D.C.'s water authority last year.<sup>8</sup>

By the end of 2014, green bonds had been issued in more than 20 different currencies and from issuers with credit ratings ranging from triple-A to single-B. This offers diversity to investors. The largest green bonds, including those from EIB, EDF, GDF Suez, IFC, KfW and the World Bank, create benchmarks that support liquidity. As of February 2015, with a total of €3 billion, the largest total amount so far for one single green bond issued in several tranches has been issued by EIB.<sup>9</sup> Other notable green bond issues based on their size include a two-tranche green bond from the French electric utility company GDF Suez (May 2014 offering totaling €1.5 billion with maturities in 2020 and 2026)<sup>10</sup>, KfW's two 5-year green bond benchmarks<sup>11</sup> – a €1.5 billion issued in July and a US\$1.5 billion green bond launched in October 2014, and the first green bonds to reach US\$1 billion issued by IFC in February 2013.<sup>12</sup>

## Increased investor demand is driving green bond market growth

The green bond market started as a response to specific investor demand, and the key driver of the market continues to be investor demand. As mentioned earlier, the original demand came from Scandinavian pension funds, which have been pioneers in undertaking a holistic approach to the management of their investments by exercising fiduciary responsibility consistent with environmental, social and governance (ESG) criteria and with a view to ensure the long-term sustainability of their investment returns.

6 <http://ifcextapps.ifc.org/ifcext/pressroom/ifcpressroom.nsf/0/1991E8717A1A273A8525770600605493?OpenDocument>

7 <http://www.afdb.org/en/news-and-events/article/afdb-launches-3-year-usd-500-million-inaugural-green-bond-12359/>

8 [http://www.dewater.com/site\\_archive/news/press\\_release663.cfm](http://www.dewater.com/site_archive/news/press_release663.cfm)

9 [http://www.eib.org/investor\\_relations/press/2015/2015-040-eib-establishes-eur-3bn-green-benchmark-at-negative-yields.htm](http://www.eib.org/investor_relations/press/2015/2015-040-eib-establishes-eur-3bn-green-benchmark-at-negative-yields.htm)

10 <http://www.gdfsuez.com/en/journalists/press-releases/gdf-suez-successfully-largest-green-bond/>

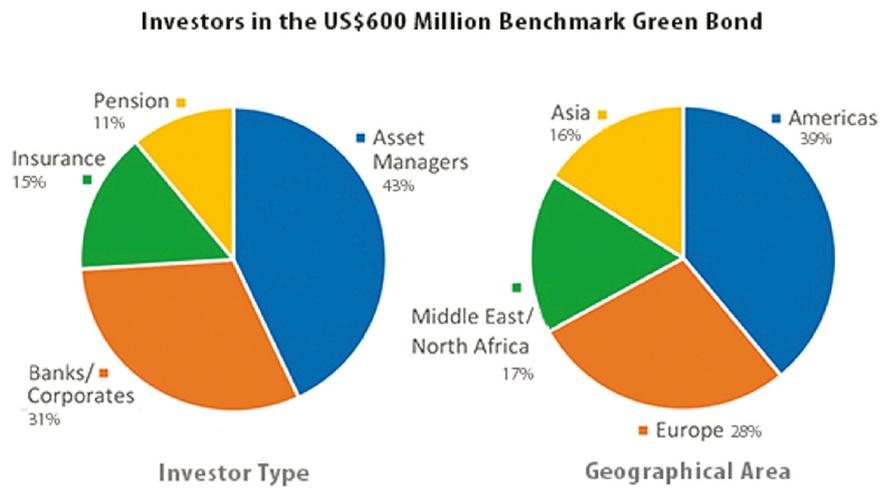
11 [https://www.kfw.de/KfW-Group/Newsroom/Aktuelles/Pressemitteilungen/Pressemitteilungen-Details\\_214336.html](https://www.kfw.de/KfW-Group/Newsroom/Aktuelles/Pressemitteilungen/Pressemitteilungen-Details_214336.html)

12 <http://ifcext.ifc.org/ifcext/pressroom/IFCPressRoom.nsf/0/F9E346765F24CB3085257B1200776829>

Over the past few years, more and more fixed-income investors have started incorporating ESG considerations into their investment process. They are also looking to reduce the climate risks in their portfolio and explicitly support projects with a climate focus. Green bonds are a good fixed-income investment opportunity for these investors – the transparency and disclosure that green bonds offer facilitate the ESG analysis and financial characteristics are comparable to other bonds. Green bond investors generally evaluate both the ESG credentials of issuers and the green bond definition and process for a particular green bond issuer, to make sure they are consistent with their own expectations and requirements. Another interesting feature is the close, constructive dialogue between investors and green bond issuers, making this a compelling avenue for engagement for sustainable and responsible investors.

**Box 2: Case Study – World Bank US\$600 million 10-year Green Bond**

In March 2015, the World Bank issued US\$600 million in 10-year bonds. The bonds were placed with 25 investors, including AP2, AP4, Blackrock, Deutsche Bank Treasury, Everence, Mirova, Nikko AM, Nippon Life Insurance, Trillium Asset Management, UN Joint Staff Pension Fund, and Zürcher Kantonalbank. Several investors highlighted their appreciation for the World Bank’s practice to support transparency around its green bond program, as well as the financial characteristics and beneficial climate aspects of World Bank Green Bonds. Deutsche Bank, Morgan Stanley and SEB were the lead managers for the transaction.



Source: World Bank Treasury

The investor base for World Bank green bonds has expanded to include pension funds from several countries, insurance companies and asset managers, as well as increasingly corporate and bank treasuries. To meet demand from retail investors, the World Bank has also launched several green bonds for retail investors.

### Issuers' interest in green bonds is expanding

With some exceptions, green bonds have been launched with pricing that is in line with issuers' comparable classic bond issuances. So, what benefits are there for issuers?

The benefits for issuers include investor diversification, closer engagement with investors, raising awareness for an issuer's activities and helping to build a market that helps mobilize private sector financing for climate and environmentally friendly activities. Issuers are able to reach and have an active dialogue with investors focused on sustainable and responsible investing and those that incorporate ESG as part of their investment analysis – investors that might not otherwise have considered their bond offerings.

A unique feature of the green bond market is that investors are keen to be associated with green bond issuances and, since the World Bank first published investor names – with their consent – in its green bond press releases, it has become common to see investor names and quotes on green bond issuers' press releases. In several cases, such as with UniSuper for the first benchmark-sized green bond in Australian Dollars, investors provide anchor orders and engage with issuers as they build new green bond portfolios.<sup>13</sup> Several issuers have also reported greater internal collaboration between staff in funding-related functions and those in the project investing side of operations.

#### Box 3: Project Example – World Bank-financed Efficient Lighting & Appliances Project in Mexico



Photo © World Bank

The Mexican Government borrowed US\$250.6 million from the World Bank to promote the efficient use of energy and mitigate climate change by increasing the use of energy efficient technologies in the residential sector. Incandescent light bulbs used by households were replaced with 45.8 million compact fluorescent lights and 1.9 million old and inefficient refrigerators and air conditioners were replaced with more efficient units (paid through savings in the customers' electricity bill). Expected impact results include annual energy savings of 2,000,000 Mega Watt hours (MWh) and over 660,000 tons of CO<sub>2</sub> in annual greenhouse gas (GHG) emission reductions.

<sup>13</sup> [http://treasury.worldbank.org/cmd/htm/AUD300Million\\_First\\_Kangaroo\\_Green\\_Bond.html](http://treasury.worldbank.org/cmd/htm/AUD300Million_First_Kangaroo_Green_Bond.html)

Green bond issuers have recognized that the value of investor diversification, strong order books and the opportunity to engage with investors to highlight positive climate and environmental sustainability work outweighs costs associated with the issuance of green bonds, such as setting up the earmarking process and impact reporting. And, issuers are playing a vital role in building a market that is playing an increasingly important role in climate finance. They are contributing to the transition to a sustainable and responsible fixed-income market overall.

### **What will help the market continue to grow responsibly?**

With a more than threefold increase in green bond issuances in 2014 compared to the previous year – which itself represented exponential growth over 2012 – the green bond market’s growth and development has been impressive. At a cumulative amount of almost US\$60 billion, considering a total bond market size of over US\$80 trillion, there certainly is room to grow. To some, the total volume is less important than what types of green bonds are being offered, how this is leading to more capital being directed towards climate finance, the increased transparency around connecting the source of funding with the expected impact that they are supporting, and the role green bonds are playing in the overall transition to more sustainable and responsible fixed-income markets.

### **Beyond issuance: Notable milestones in the development of the green bond market**

#### ***1. Defining the framework for the green bond market***

In November 2013, at the World Bank Green Bond Symposium,<sup>14</sup> the World Bank Treasury convened a group of investors, issuers and intermediaries to share perspectives on the evolving green bond market. The objective of the symposium was to come to a shared understanding of green bond features that are most valuable for fostering further development of the market by including new investors, issuers and products while ensuring high standards of integrity and quality. The main elements of issuers’ green bond processes that emerged as important to investors to maintain high standards of quality and integrity were:

- (1) Determining the issuer’s criteria/definitions for “green”;
- (2) Selecting eligible projects;
- (3) Earmarking and allocating proceeds;
- (4) Monitoring and reporting on impact; and
- (5) Ensuring transparency and compliance.

#### ***2. Working towards harmonized impact reporting***

One of the outcomes of the World Bank’s Green Bond Symposium in 2013 was the request from investors for the MDBs to work on impact reporting, by drawing from ongoing MBD work on consistent greenhouse gas (GHG) accounting methodologies and applying it for green bond impact reporting. Since then, an informal group of MDBs has been working together towards harmonized, voluntary guidelines for reporting the expected impacts of projects supported by green bonds. The guidelines are intended to help as a reference for green bond issuers as they design their reporting approaches based on their own business models.

#### ***3. Introduction of Green Bond Principles<sup>15</sup>***

In January 2014, a group of banks announced their support for voluntary process guidelines – the Green Bond Principles – to encourage standardization, transparency, disclosure and integrity in the green bond market. ICMA, the International Capital Markets Association, was designated as the secretariat for the Green Bond Principles.

The Green Bond Principles are voluntary guidelines. They explicitly do not attempt to provide a definition of what constitutes “green”. Instead, they are designed to provide issuers with guidance on the key components involved in launching green bonds, to aid investors by ensuring the availability of information necessary to evaluate their green bond investments, and to assist underwriters by moving the market towards a standard process and disclosures that are helpful for issuance.

<sup>14</sup> <http://treasury.worldbank.org/cmd/htm/documents/World-Bank-Green-Bond-Symposium-Summary.pdf>

<sup>15</sup> <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/>

The Green Bond Principles describe four components:

- (1) Use of proceeds;
- (2) Process for evaluation and and selection;
- (3) Management of proceeds; and
- (4) Reporting.

The overarching principle of transparency and disclosure aims to ensure that investors have the information they require to assess the suitability of a particular green bond in terms of its specific mandate and evaluate the impacts of the underlying investments.

#### **4. Statement of investor expectations<sup>16</sup>**

In February 2015, an investor group convened by Ceres' Investor Network on Climate Risk (INCR), a network of major institutional investors, published a Statement of Investor Expectations to support the development of a consistent, durable framework for the green bond market to encourage its further growth and increase clean energy financing and other solutions to climate change. The investor group included pension funds, insurance companies and asset management firms that had voiced their support for the Green Bond Principles and addressed the following four key areas that they thought would benefit from further definition and structure:

- (1) Eligibility, including general criteria for "green" projects;
- (2) Disclosure in the Bond Offering Statement, including intended use of proceeds and other actions consistent with investor expectations;
- (3) Reporting on use of proceeds and project impacts and benefits; and
- (4) Independent assurance.

#### **5. Introduction of green bond indices**

In 2014, several green bond indices were launched. These include the Solactive Green Bond Index launched in March 2014; the S&P Dow Jones Green Bond Index launched in July 2014; the BofA Merrill Lynch Green Bond Index launched in October 2014; and the Barclays MSCI Green Bond Index family, launched in November 2014.<sup>17</sup>

Green bond indices are helping to bring more clarity to the green bond market for both issuers and investors. The Barclays MSCI Green Bond Index, for example, identifies a set of green bonds from the broader green bond universe based on eligibility criteria including on the bond size and issuer's transparent green bond process. This includes defining the eligible use of proceeds and process for project evaluation and selection, as well as a process for management of proceeds and requirements for ongoing reporting. Green bonds that do not meet the requirements set out by MSCI/Barclays in terms of their green bond definition are not included in the index, even if they are labeled as green bonds and meet the financial requirements (size, coupon type, etc). Issuers that want their green bonds to be included in the various indices will have to meet not only the financial inclusion criteria but also the other criteria, thus contributing to a more standardized green bond market.

#### **6. Independent opinions and reviews**

To provide investors with additional information and assurance about their green bond programs, issuers have worked with independent specialists or auditors to review and report on their programs. Many issuers engage an outside expert when they set up green bond programs to review their eligibility criteria and process for selecting eligible projects – even those with internal climate expertise, such as multilateral development banks. For example, the World Bank's eligibility criteria underwent an independent review by the Center for International Climate and Environmental Research at the University of Oslo (Cicero). In Cicero's opinion, "the criteria combined with the proposed governance structure from the World Bank, provides a sound basis for selecting climate-friendly projects."<sup>18</sup>

<sup>16</sup> [http://www.ceres.org/files/investor-files/statement-of-investor-expectations-for-green-bonds/at\\_download/file](http://www.ceres.org/files/investor-files/statement-of-investor-expectations-for-green-bonds/at_download/file)

<sup>17</sup> Bloomberg tickers for these indices are: SOLGREEN (Solactive), SPUSGRN (S&P), GBGL (Barclays MSCI) and GREN (Bank of America Merrill Lynch).

<sup>18</sup> <http://treasury.worldbank.org/cmd/pdf/ImplementationGuidelines.pdf>

Most green bond issuers have second opinions that look at the issuer-defined criteria. Some also extend to other aspects of the green bond process. Issuers can provide investors with an additional level of assurance by obtaining independent audits to cover various elements of their green bond process, such as compliance with their stated policies for selecting eligible projects, tracking and allocating green bond proceeds, and reporting to investors on the use of proceeds and impacts of the underlying project.

Each second opinion provider has its own approach to providing the opinions, with some giving particular focus to the issuers' ESG credentials while others focus on the green bond eligibility criteria and selection process. Efforts like Cicero's launch of the Expert Network on Second Opinions (ENSO) are helping expand the market's capacity to provide second opinions in a consistent manner across the globe.<sup>19</sup> Commercial service providers like investment advisers, auditors and technical experts like DNV, oekom, Sustainalytics and Vigeo are also providing a range of specialist services to issuers and investors. NGO initiatives such as the Climate Bonds Initiative<sup>20</sup> and its partners are working on defining standards for a number of climate-related sectors by coordinating dedicated working groups overseen by a board representing institutional investors, NGOs and other market participants. Issuers can elect to have their green bonds certified for compliance with these standards by an independent verifier, such as DNV.

The opinions and services provided by these organizations are useful to investors and, at this nascent stage in the market's development, provide a degree of customization that is helpful to encourage a diversity of new issuers. For issuers whose ESG capabilities may not be as developed or whose credentials or reputation may not be as well-known, these assurances may help issuers add credibility to launch their green bond programs. Since they represent an additional cost to issuers, it is important for investors to engage with issuers and communicate what level of second party involvement they would require to be comfortable with an issuers' green bond process.

### **The quest for green bond standards**

Newer entrants to the market or those in the process of establishing guidelines for new investment mandates with a specific climate or environment focus have noted the lack of standardization around what is eligible under a green bond program. There are also concerns about proceeds raised through a labeled green bond not being used for the purposes indicated, or for projects with questionable climate or environmental benefits.

Issuers' green bond programs vary, but the services offered by second party opinion providers and certifiers like the Climate Bond Initiative are helping to bring more clarity and are working towards a common understanding of what is expected. However, the issue of standard definitions for green bond eligibility is complex for several reasons. A few are highlighted here.

First, there isn't a universal agreement on what is "green". For example, is a large hydroelectric project with the clear climate benefits of producing renewable energy with low or no greenhouse gas emissions green, even if there are negative environment or social impacts? Should nuclear energy be considered green? Given the diversity of opinions, it can be challenging to establish "standard" definitions of green.

The second challenge is whether such standards need to take into account country-specific contexts. For example, are there country-specific conditions that should be considered when evaluating a public transportation project in one country compared to another, such as existing infrastructure, available public transportation, average commuting distance, or per capita GDP? And if country context is important, can one develop a standard that is applicable globally, or should standards be developed by country, region or level of economic development?

Also, the scope of potential projects with climate or environmental sustainability benefits is so broad and covers such a diversity of sectors that developing standards to cover them all is challenging

<sup>19</sup> <http://www.cicero.uio.no/webnews/index.aspx?id=12038>

<sup>20</sup> <http://www.climatebonds.net/>

Just like investors establish investment guidelines that include financial and credit considerations, those interested in the green bond market would want to have clarity about their own expectations for what they consider to be “green,” and what aspects of the green bond process they consider important. A high level of transparency from the issuer is a starting point for investors to be able to make informed decisions.

### Where to from here?

There is an urgent need to transition to low-carbon and climate-resilient development and growth. The financing required for cost-effective technologies that will achieve these sustainability goals cannot come from governments alone.

The purpose of the green bond market is to mobilize private sector financing for climate-friendly activities. As investors are assessing the climate risks in their portfolios and looking to incorporate products such as weather derivatives, carbon and catastrophe risk bonds, the green bond product offers a simple, plain vanilla fixed-income product that serves as a good introduction to climate finance. For issuers, green bonds are a good way to engage the private sector and start to mobilize private sector financing for climate- and environment-friendly investments. Several developments are underway that are making the green bond market stronger, including several issuers working together towards harmonized guidelines for reporting the expected impacts of projects supported by green bonds, a revised version of the Green Bond Principles, the industry of second opinion providers and auditors focusing on green bonds, and the work by groups like Ceres and the Climate Bond Initiative to clarify investor expectations and develop standards.



Green bonds are catalyzing a trend in sustainable and responsible bond markets. Investors have increasingly been integrating environmental, social and governance (ESG) criteria into their fixed-income investment process. For the next generation of fixed income portfolio managers, asking about an issuers’ ESG credentials and the long term positive and negative social and environmental impact of all their investments will become standard. Issuers that recognize this trend and engage with investors will be integrating ESG into their entire businesses more effectively and can better connect the source of financing with its purpose. They will have an advantage over other issuers who are late to adapt their issuance process towards more purpose-related investments.

Green bonds are not a “magic solution” to the climate finance challenge, but they are definitely moving market participants in the right direction. The World Bank is grateful for the support from investors and market participants in building the green bond market and will continue to play a role in the market’s development as it mobilizes private sector capital for climate finance with the added bonus of inspiring a shift to investing that seeks not only positive financial returns, but also positive social and environmental impact at market-based returns.

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