Responsible Investing

Perspectives

Green bonds: Financing the transition to a new economy

- Green bonds have grown rapidly in recent years and emerged as an effective investment tool to finance the transition to a low-carbon economy.
- The Green Bond Principles have played a critical role in establishing an industry-wide definition for green bonds; BMO Global Asset Management became member of the Green Bond Principles in 2015.
- A key challenge remains on how to harmonize the measuring and reporting of environmental impact.

Green bonds are a type of fixed income instrument where the proceeds raised are used to finance clearly defined projects that have environmental benefits. Projects financed include renewable energy, water conservation, energy efficiency, green buildings, clean transport and sustainable land use.

The potential for green bonds to raise billions, and even trillions, in capital to tackle climate change by funding the transition to a low-carbon economy is generating excitement. The International Energy Agency estimates that $53 trillion of energy investments are needed between now and 2035, or nearly $1 trillion of additional investments a year, to put the world on a two-degree path and avoid climate change. Bank loans and government funding alone will not be sufficient in providing all the necessary financing and the expectation is for the capital markets — including green bonds — to fill much of this shortfall.

The green bonds market has grown rapidly in recent years as major issuers and leading institutional investors have both acknowledged opportunities from participating in this space. At BMO Global Asset Management, we consider that green bonds could develop into a critical transition financing instrument and are playing a part in supporting the successful growth of the market. We are starting to see the signs of the market maturing and we now believe that green bonds can become an increasingly attractive asset for investors seeking to incorporate climate change considerations into their investment strategies.

> **"A systematic and efficient green finance system can attract private investment and enable China to achieve growth in financial sector and economic and green development."**
>
> — Wang Yao, Deputy Secretary General, China Green Finance Committee, October 23, 2015

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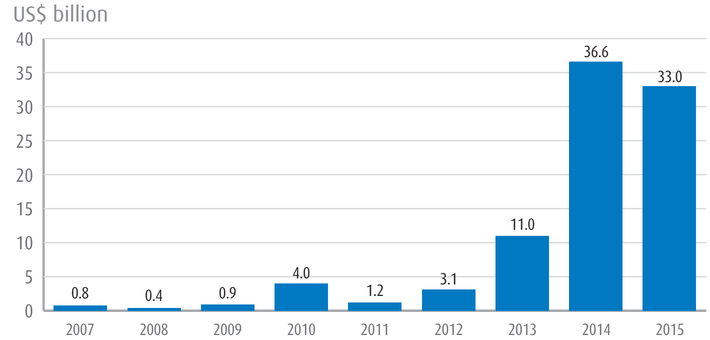
Green bond characteristics

- Standard fixed income instruments where the proceeds are exclusively for environmentally focused projects
- Projects include renewable energy, energy efficiency, green buildings
- Green bonds offer the same credit risk as the issuer as most bonds are standard recourse to the issuer debt obligations
- Green bonds trade in line with non-green bonds in the issuer's yield curve
- Supranational agencies started market in 2007
- Investment grade dominated
- U.S. dollar and euro are main currencies
- Labeled green bond market stands at $85 billion (as of October 31, 2015)[1]

The history of green bonds is short. The first issuance was as recently as 2007 when supranational agencies pioneered green bonds as a way to assist governments in meeting their climate change related policy goals. AAA-investment grade issuances from **European Investment Bank** and the **World Bank** started the market. A major turning point was in 2013 when the first sizeable corporate green bonds were issued by **Électricité De France (EDF)** and **Bank of America**. 2014 was a landmark year with $36.6 billion of issuance — more than tripling the year before.

Despite vastly optimistic projections of $100 billion of issuance, 2015 hasn't been able to maintain that level of growth momentum and is likely to end with issuances similar in size to the previous year. The smaller-than-expected issuance levels for the year is driven in part by lower supply from the supranationals. Nevertheless, we have seen the market develop through the year with a diversification of issuers. There have been issuers coming from the emerging markets, most notably China, as well as sub-investment grade (high-yield/junk), municipalities and regional government. The green asset-backed securities also picked up steam. The market has also seen longer maturity of issuances with the 10-year-plus section growing. Our expectation is for the market to grow steadily and to diversify further in the coming years. Also, corporates will continue the trend from 2015 by overtaking supranationals and becoming the established main bloc for green bond issuances.

Green bond issuances



Sources: Bank of America Merrill Lynch, Climate Bonds Initiative. 2015 data as of 11/11/2015

The Green Bond Principles

A key development in the history of the green bonds market was the establishment of the Green Bond Principles in early 2014. As the market grew, it became important for an industry-wide framework to be set up to define exactly what constitutes a green bond. The Green Bond Principles were drafted by a group of the leading investment banks in this area and provides voluntary guidelines for issuers and underwriters to follow. There are four components to the Principles[2]:

1. **Use of proceeds:** The most fundamental aspect of green bonds. How the proceeds from the bonds will be spent needs to be clearly described in the bond's legal documentations. The proceeds must be used for financing projects/initiatives with environmental benefits.
2. **Process for project evaluation and selection:** The issuer should clearly outline the decision-making process it follows to determine the eligibility of projects using proceeds.
3. **Management of proceeds:** Net proceeds of green bonds should be sufficiently separated from other funds. The management system should be sufficiently transparent to allow third-parties, such as auditors, to verify the internal tracking method and allocation of funds.
4. **Reporting:** Issuers should provide at least annually a list and descriptions of projects to which green bonds proceeds have been allocated.

In addition, the Principles recommend that issuers use independent third-parties to conduct external assurance to confirm that the issuance is aligned with the four components of the Principles. A micro-industry of service providers has developed providing second-party reviews, such as Vigeo and Cicero. Major accountancy firms with global scale such as KPMG have started to provide audit and assurance services.

[1] Bank of America Merrill Lynch and Climate Bonds Initiative data

[2] ICMA Green Bond Principles 2015

Issuers, investors and underwriters that have participated in the market can become members of the Green Bond Principles. BMO Global Asset Management became investor members in 2015. BMO Capital Markets the investment and corporate banking division of our parent company **Bank of Montreal** (or **BMO Financial Group**) — is also an underwriter member. Other organizations involved in green finance — such as service providers, non-governmental organizations (NGOs) and academic institutions — can become observers. Currently there are around 150 members and observers of the Green Bond Principles.

There is no doubt that the Principles have played a significant role in the professionalisation of the market and provided the platform for a broad range of participants to discuss the evolution of the market, and enter it with greater confidence. A process for revising and updating the guidelines by consulting its members and observers is in place. This ensures that the Principles can stay relevant over time as the market develops across sectors and geographies.

At this stage of the market's maturity, we accept it is important to ensure some flexibility in the Principles to encourage a broad range of issuers from a variety of sectors and countries to make issuances. One of the current weaknesses of the market is that it remains narrow in scope despite diversification of issuers seen in the past year. In the corporate space, utilities and financials dominate. The narrowness in variety also extends to the underlying projects being financed by the bonds. Approximately 40% of proceeds go to renewables and 30% to buildings and industry.[3] These will need to broaden out to ensure that the composition of the green bond market can start to resemble closer the broader bond market.

Defining green

There are, however, some concerns that the non-prescriptive, flexible and voluntary nature of the Principles could mean that green bond issuances, which fall far short of the desired quality and integrity, will be placed to the market with insufficient controls in place. There are calls from stakeholders, including from investors, for mandatory minimum standards to be developed. This would require issuers to meet a pre-defined set of specifications around post-issuance reporting and verification of the quality of projects financed. This idea has been the focus of widespread discussions among market participants.

From the issuer's perspective, there are additional costs involved in issuing green bonds — such as establishing segregated treasury accounts, reporting and second-party opinions. These costs are being borne by the issuer as there is currently little pricing advantage in issuing green bonds over standard bonds. As a result, new corporate issuers to the market are having to carefully weigh up whether the benefits of green bond issuance — namely diversifying their investor base and strengthening their sustainability credentials — outweigh the costs.

The most contentious area of debate is around evaluating the "greenness" of the projects financed. While the Principles identify the type of projects that would qualify (e.g., renewable energy, energy efficiency), they do not provide defined criteria for the environmental impact and additionality of the projects.

In the vacuum of universally adopted approaches, a number of organizations are developing standards to define what is considered green. A leading player has been the Climate Bonds Initiative, a not-for-profit organization, which has developed technical specifications for certain types of climate-related projects. There are other approaches, including from the World Wide Fund for Nature (WWF) and research providers such as MSCI ESG.

Part of the answer to the question of defining greenness may involve a more rigorous analysis of the ultimate impact of the projects being financed. The major supranational agencies have taken the lead in implementing best practice among the issuers. They have set up robust internal processes to evaluate projects from an environmental perspective and adopted a high standard of environmental impact reporting. For example, the European Investment Bank's 2015 green bonds reporting[4] provides details of the individual projects financed and the impact on greenhouse gas emissions. While this level of detail and transparency is not always possible nor appropriate for every issuer, it has highlighted the wide range in the quality of reporting provided to investors. Several of the multilateral development banks have made a proposal for a harmonizing framework for impact reporting on renewables and energy efficiency projects. This is a positive development but implementation in the corporate space could be difficult. This is due to the reality that increasing impact reporting standards entails taking on further costs that borrowers aren't sure are justified by green bonds without preferential pricing. This may be a situation that may require regulatory intervention.[5]

The role of governments

Whatever the final outcome of the Paris global climate change negotiations in late November, government involvement in encouraging environmentally friendly technology will increase in the coming years as countries attempt to meet their carbon emission cutting goals. While no national governments have issued green bonds yet, some may consider measures such as preferential tax treatments for investors/issuers and preferential regulatory capital treatment for investor banks.[4]

China's government is set to take the lead by making sustainable and green finance growth a top priority. The Peoples' Bank of China has developed detailed proposals to green China's financial system, and the **Agricultural Bank of China** became the first Chinese bank to issue green bonds when selling $1 billion worth in London in October. Depending on how aggressively the government presses forward with its plans, China could foreseeably become one the major players in green bond issuances in the coming years. A question remains on the transparency investors could realistically expect from Chinese green bond issuers — especially on use of proceeds and reporting — bearing in mind how limited meaningful disclosures currently are on Environmental, Social and Governance (ESG) issues from Chinese companies compared to Western companies.

[3] Climate Bonds Initiative

[4] EIB Climate Awareness Bonds Newsletter, March 2015

[5] "Green Bonds: Investors and issuers still not seeing eye to eye", BMO Capital Markets fixed income research, October 2015

Impact investing and engagement

Leveraging our position as an established responsible investor, we have been proactively engaging a wide range of market participants in 2015 on the issues facing the green bond market. We have engaged in the past a number of green bond issuers including meetings with the European Investment Bank, World Bank, **Nordic Investment Bank**, Environmental Defense Fund (EDF) and **Societe Generale** among many others. Discussions have focused on the nature of projects financed, assessment of projects, quality of reporting and standards in the market. We have found these meetings to be a valuable opportunity to access bond-only issuers, allowing us to assess not only their green bond strategies but also their broader approach to managing ESG risks and opportunities. We have also held discussions with the investment banks that have played an important role in developing the market and the service providers.

We have utilized many of our learnings from our experiences engaging on ESG issues to provide input into the development of the green bond market. We encourage companies to protect their sustainability credentials and avoid accusations of greenwash by: communicating with investors in a transparent manner; establishing robust management processes and controls; and developing methods to measure, track and report on environmental results. We are planning to collaborate with other Green Bond Principles members in the coming months. There will be working groups looking at issues such as assurance and reporting.

Away from green bonds, an area of interest in 2016 for issuers and investors is likely to be discussion and consideration around a development of a framework for social bonds (also known as social impact bonds). These are similar to green bonds but where the proceeds from the bonds are used for projects that have social benefits. These include tackling issues such as education, housing, criminal justice or employment. There is currently no market-wide approach to defining social bonds and there are important hurdles, once again, to be overcome about how social impact would be measured and reported. Should a framework like the Green Bond Principles be established, it could be the first steps for investors to eventually launch sustainability impact bond funds/mandates, which would be invested in both green and social bonds.

Routes to green bond investment

As the market has developed, investors have become increasingly interested in holding green bonds within their own portfolios. Key appeal of green bonds for investors have included: making investments with an environmental impact; being at the forefront of climate finance; sending a signal to stakeholders of their commitment to responsible investment; and aligning their investing activities with their own principles.

BMO Global Asset Management can assist investors seeking to integrate green bonds into their fixed income strategies.