INVESTMENT INDUSTRY ASSOCIATION OF CANADA
ASSOCIATION CANADIENNE DU COMMERCE DES VALEURS MOBILIÈRES

Opportunities in the Canadian Green Bond Market v2.0

SEPTEMBER 2018

PREFACE

The purpose of this position paper is to highlight developments in the green bond market, both globally and in Canada, to identify financing structures and practices and stimulate thinking on common approaches to promote a more vigorous market. The paper outlines some of the important characteristics of green bond issuance in 2017 and 2018 and brings forward recommendations for a more uniform financing structure and common use of proceeds in Canada.

Notably, an effort is made to look beyond 2018 to suggest green bond issuer partnerships and investment projects financed by the proceeds of these partnerships. A more developed green bond market would provide an alternative structure to finance infrastructure projects across Canada. Green bond financings, issued by public and/or private entities, have the potential to reduce financing costs, given receptive strong demand driving or encouraging environmentally supportive projects and economic growth.

There are three main categories of green bonds: bonds with green use of proceeds, project development bonds, and securitization bonds. In Canada, bonds with green use of proceeds are the most common form. Of note, there is a further categorization by the Climate Bond Initiative (CBI)—a recognized leader in green bond financial information—which separates deals into certified greens, labelled greens that meet CBI criteria, and labelled greens that do not meet CBI criteria.

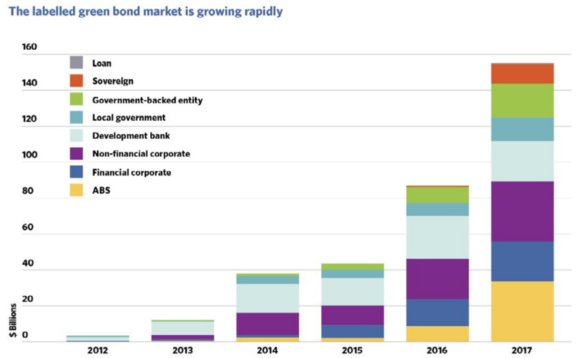
GLOBAL MARKET BACKGROUND

In 2017, there were approximately 1,500 green bond issues totaling US$156.9 billion. In the first half of 2018, issuance was US$74.5 billion. Green bonds are defined on the basis that 100% of the proceeds are used to finance projects or a mix of assets that conform to the 'Climate Bonds' definition.

Issuance in the first half of 2018 was up 4% year-over-year, but the full-year tally of issuance for 2017 was 80% higher than in 2016, according to the CBI (see figure 1a and 1b).

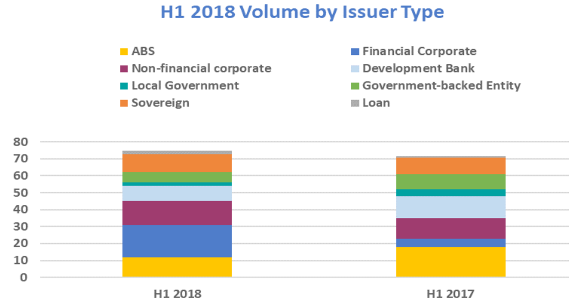
As illustrated in figure 1a and 1b, the supply of green bonds comes from an increasingly broad base of issuers. In 2017, there were approximately 239 different issuers active in the marketplace. As shown in Figure 2a, green bond issuance takes place in many different currencies, with issuance in 2017 accounting for a significant share of current outstandings.

FIGURE 1A



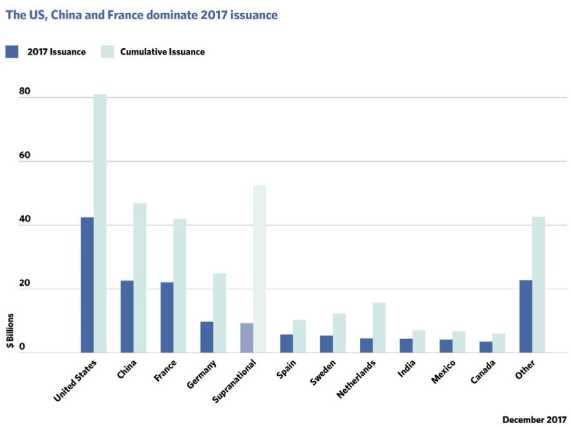
Source: CBI

FIGURE 1B



Source: CBI

FIGURE 2A



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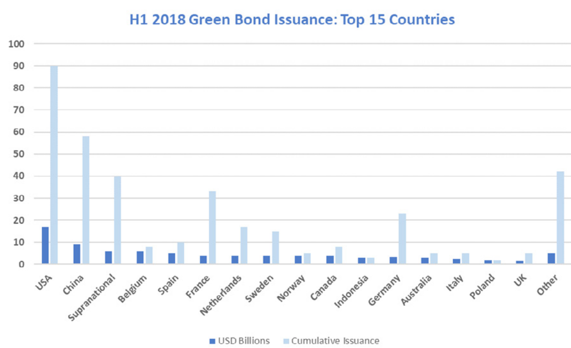


Source: CBI

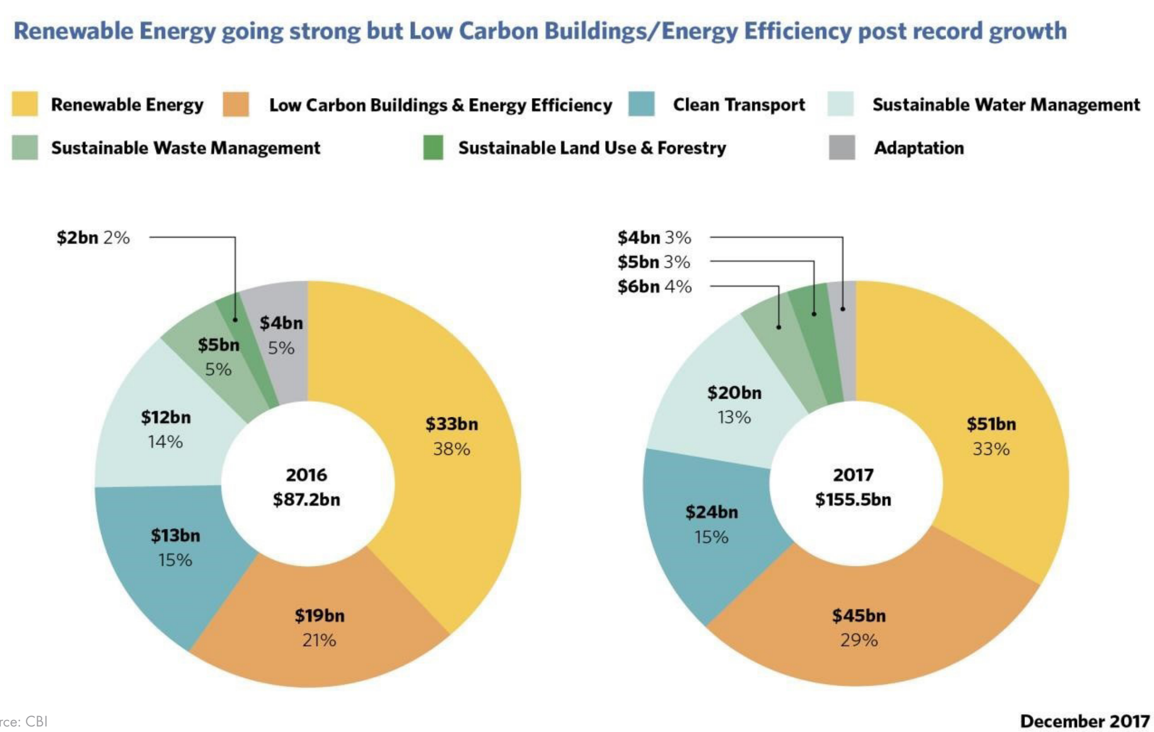
International development banks have been present in the green bond space since the first offering by the European Investment Bank in 2007 and are among world's largest green bond issuers. It should be noted that international development banks have also become investors in recent years. However, issuance by other parties, including government entities, corporations and financial institutions, has grown rapidly over the years in response to strong institutional investor demand. Given historical growth rates, green bond issuance in 2018 in excess US$200 billion would seem very possible. Specifically, the CBI estimates 2018 issuance at US$250-$300 billion while Moody's estimates 2018 supply will "eclipse US$250 billion". Having said this, supply estimates are subject to developments in key markets that can greatly influence overall supply.

Ultimately, the issuance of green bonds will depend on local market conditions, including borrowing rates, market liquidity, investor appetite, regulatory factors and the priority placed on socially responsible investing. Globally the issuance of green bonds encompasses a myriad of factors that are unique to each marketplace with an overarching basic premise.

GLOBALLY - INVESTMENT IN RENEWABLE ENERGY LEADS THE WAY

While project investment in renewable energy takes up the largest share of green bond funds globally, other uses, such

FIGURE 3



Source: CBI

as low carbon buildings and energy efficiency, absorbed a greater share of proceeds in 2017 with renewable energy investments share dropping 5%. In the future it is expected that a wider range of projects will be financed. Waste, Land Use, and Adaptation investments may increase as clearer mandates are articulated for projects in these areas.

THE CANADIAN GREEN BOND MARKET BACKDROP

As shown in Figure 2, Canada is in the mix in green bond issuance, but is a relatively small player. The dominant issuers are the U.S., China and France.

Several initial Canadian issuers placed their green bonds in international markets, but in the last few years domestic investors have been very receptive to Canadian green bond supply. Some of these investors have signed onto the UN's Principles for Responsible Investment (PRI) guidelines as well as established responsible investing guidelines.

The largest Canadian issuers (both domestic and international placements) to date in 2018 are:

City of Vancouver	10-yr C$300 million
Brookfield Renewable Part.	10-yr C$85 million
City of Toronto	30-yr C$300 million
Province of Quebec	7-yr C$500 million
CPPIB	10-yr C$1.5 billion
Manulife Financial Corp	10-yr C$600 million
Ontario Power Generation	30-yr C$450 million
Province of Quebec	5-yr C$500 million
Province of Ontario	7-yr C$1.0 billion

Source: Bloomberg

Municipal issuers with state credit have been regular green issuers in the U.S. market for many years, but in 2017 the City of Ottawa was the first to issue a green bond in Canada. The City of Toronto also entered the green bond market in 2018. In Canada, green bonds have largely been issued by the public sector, unlike other international markets where many issues are originated in the corporate sector. Another feature of the Canadian market is the shorter maturities of most issues compared to the average term of green bonds in other global markets. The term to maturity on domestically placed issues is likely to lengthen over time.

COMPELLING FEATURES OF CANADIAN GREEN BOND ISSUANCE:

- Attracting investors with green mandates that may not be investors in conventional bonds.
- Domestic green bonds could potentially attract more international investors than conventional bonds.
- Encourage development of environmentally progressive projects in Canada.
- Canada's green bonds have usually been priced in line with the borrower's normal bond curve but have often traded at a premium to standard bonds in secondary trading, likely due to the scarce nature of Canadian green bonds.
- Domestic green bond secondary investor demand has the potential to expand as involvement of dealer syndicates provides a back-stop of liquidity for investors.
- Green bond programs and the related underwriting, marketing and communication materials, support awareness of climate issues. There is the potential to increase investor goodwill towards issuers seen to be supporting green initiatives.

As the Canadian green bond market matures, more investors are likely to participate in this market. This will also support market liquidity for established names in the marketplace. Most of Canada's green bond supply has come from issuers who base their programs on the International Capital Market Association (ICMA) Green Bond Principles and have independent reviews from organizations such as Sustainalytics and CICERO. This trend is expected to continue.

CURRENT AND PROSPECTIVE CANADIAN GREEN BOND ISSUERS

Provinces, other than Ontario and Quebec, and various municipalities are assessing the green bond market to finance offerings for environmentally sustainable projects.

Canadian corporations have not yet participated in the domestic market as issuers, as they have in other countries. This could change given the positive investor reception towards mandates and competitive pricing of green bonds.

CANADIAN ISSUERS AND MARKET DYNAMICS IN 2018 AND BEYOND

Ontario issued a $1 billion, 7-year green bond and Quebec issued a total $1 billion (a $500 million, 5year and a $500 million, 7-year). CPPIB issued a large $1.5billion deal in 2018, becoming the first pension fund to issue a green bond. Rounding out 2018 issuance to date were deals from the City of Toronto, Ontario Power generation and Manulife Financial.

The Province of Ontario leads all other issuers in domestic green bond issuance. Currently, green bond issuance for Ontario and Quebec accounts for less than 3% of their overall funding. It is expected this percentage share will remain the same in 2017-18. As well, funding requirements for Ontario's and Quebec's green supply will not have any effect on maintaining sizable, liquid conventional bond benchmarks and there is scope for a higher market share for green bonds as the market deepens.

Moreover, there would appear to be the opportunity for greater corporate and municipal issuance as socially responsible investor interest remains high. While the green bond market still trades at a slight premium, it is unclear if, and how greater supply will affect this premium in secondary markets. The following issues bear watching in the next few years:

- Will the current premium to the issuers conventional debt curve stay in place with expanded issuance of green bonds?
- Will environmentally responsible issuers with an overall commitment to green issues have a significant influence over pricing?
- Will electoral changes at the municipal, provincial and federal levels impact government support towards green bond financing and investment plans?

CONCLUSION AND NEXT STEPS

The Canadian green bond market is poised to grow in tandem with the global market as the world moves to reduce carbon emissions. Canadian debt capital markets will embrace the green market sector as the increase in socially and environmentally related projects are funded by mainstream investors committed to sustainable projects. The sector has already gained traction as a broader base of issuers and investors have entered the marketplace.

Government commitment to the green bond market reflects its support to environmentally sustainable projects. Canadians can get comfort that the government remains supportive of existing and new projects. Various provincial governments have taken important steps to recognize the importance of climate change issues by implementing carbon taxes, cap and trade and other initiatives. Ontario continues to be a leader and has shown a strong commitment to green bond issuance. Quebec will likely issue and add to green bond supply.

NEXT STEPS:

- The IIAC will work with its Debt Markets Committee and debt syndicate working group, buy-side institutions (Canadian Bond Investors Association) and the Bank of Canada to outline a voluntary process to build a more liquid domestic market for green bonds.
- The IIAC will work with the debt markets committee to organize a green bond information session in early 2019.

Appendix I

RECOMMENDATIONS:

STANDARDS AND GUIDELINES RECOMMENDATIONS

- Rely on ICMA's Green Bond Principles.
- Rely on second Party Opinion/Rating and independent reviews from organizations such as Sustainalytics and CICERO (recommend annual renewal).
- Rely on the International Organization for Standardization (ISO). It has approved the development of an international green bond standard that many believe could improve investor appetite for green bonds.

GREEN BOND ISSUER RECOMMENDATIONS

- Define the motivators for issuers of green bonds.
  - Attracting additional investors
  - Corporate image and goodwill
  - Similar cost of issuance
- Quantify the potential cost effectiveness of issuing green bonds versus standard debt instruments.
- Outline the positive public image that green bond issuance can attract.
- Show how green bond issuance can attract investors that a non-green issue would otherwise not entice.
- Update market precedents, emerging global best practices and regulatory standards/guidelines.

GREEN BOND INVESTOR RECOMMENDATIONS

- Show how green bond investments fit within a broader environmental, social and governance (ESG)/socially responsible investing (SRI) strategy.
- Outline mandates/product development to support investment in green bonds and sustainable financing.
- Engage issuers on ESG scores/ratings, sustainability strategy and ESG risk management.
- Define how green bonds perform in relation to non-green issue from a given investor.
- Outline how a green bond curve may develop over time in Canada as it has in other more developed green bond markets.
- Address the concern around secondary market liquidity.

RECOMMENDATIONS FOR VARIOUS LEVELS OF GOVERNMENT

- Encourage discussion of emerging global policy developments – municipal, provincial and federal governments can all have a role to play.
- Identify receptive policy for sustainable environmental technologies.
- Explore possible credit guarantees and other credit enhancements that could help lower issuance cost and attract additional investors.
- Identifying infrastructure projects that could benefit from green bond issuance.

CATEGORIES OF GREEN BONDS

1. BONDS WITH GREEN USE OF PROCEEDS

These bonds are similar to general obligation bonds except that all the funds are directed towards green projects. The funds are deposited in a sub-portfolio and invested in short term instruments until they are allocated to approved projects. Repayment is not linked to the projects and investors have recourse to the issuer.

2. PROJECT DEVELOPMENT BONDS

The proceeds of project bonds fund a special purpose vehicle (SPV) that owns a single project or a group of qualifying green projects. Repayment and risk is linked to the projects and investors only have recourse to the projects themselves.

3. SECURITIZATION BONDS

The bond is collateralized by a pool of loans that are issued to fund a number of green projects.

CANADIAN INFRASTRUCTURE

Canada, along with many countries, is focusing on infrastructure spending to meet the challenges resulting from climate change, population growth and sub-optimal economic growth.

The new Canada Infrastructure Bank (CIB) is a federal initiative that seeks to assist long-term sustainable growth. It is a federal government priority and one that could be greatly assisted by green financing in Canada.

The CIB is a means for provincial, territorial, municipal and Indigenous groups to invest in infrastructure projects. The CIB will use federal backing to assist private sector and institutional investment to create revenue-generating infrastructure projects. By partnering with the private sector, the CIB will help fund projects in an efficient manner.

The CIB will invest $35 billion from the federal government into infrastructure projects. $15 billion is sourced from the over $180 billion *Investing in Canada* infrastructure plan, including:

- $5 billion for public transit systems;
- $5 billion for trade and transportation corridors; and,
- $5 billion for green infrastructure projects, including those that reduce greenhouse gas emissions, deliver clean air and safe water systems, and promote renewable power.[1]

PRIVATE PUBLIC PARTNERSHIP OPPORTUNITIES

Municipal, provincial and federal governments have a role to play in the green bond market by creating policies to support green technologies, issuing green bonds at lower interest rates and providing guarantees and tax incentives. In addition, synergies can be attained through creating partnerships with the private sector as outlined below:

- Private Public Partnerships (PPP) bring together a larger set of skills and allocate a portion of the risks and responsibilities amongst the members of the group.
- PPPs allow government entities to gain the expertise of private industry and access funding for the delivery of public projects. In some cases, government funding may not have been readily available and, as a result, certain projects would potentially be delayed or cancelled.
- Current green bond **and** climate bond issues represent less than 1% of total global bond market. Sustainable projects will fund significant access to capital through green bond financings, particularly if secured through PPP's. Moreover, an increase in Canadian denominated issues would provide additional diversification opportunities for International green bond investors.

1 Canada Infrastructure Bank