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

Opportunities in the Canadian Green Bond Market v3.0

June 2019

PREFACE

The purpose of this position paper is to update the previous paper and 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 2018 and the first half of 2019 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 2019 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 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.

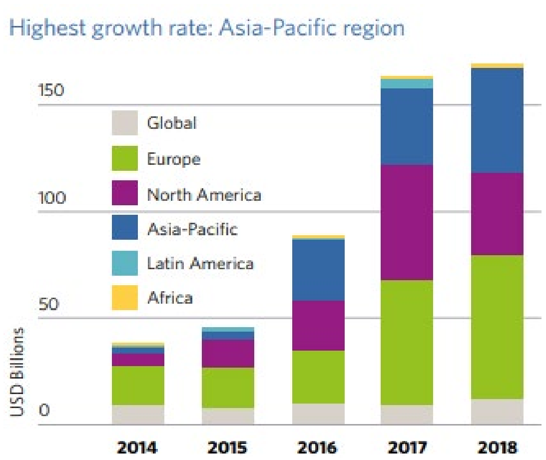
There are three main categories of green bonds: bonds with green use of proceeds, project development bonds, and securitization bonds. In Canada, bonds with green use of proceeds are the most common form. Of note, there is a further categorization by the Climate Bond Initiative (CBI)—a recognized leader 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 2018, there were approximately 1,543 green bond issues, totaling USD 167.6 billion, up a modest 3.4% year-over-year, according to statistics compiled by the CBI (see Figure 1a). These 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.

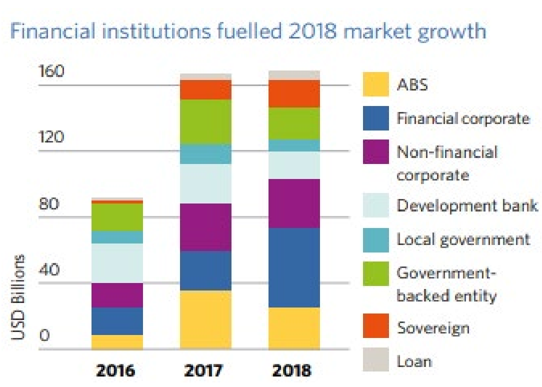
As illustrated in Figures 1a and 1b, the supply of green bonds comes from a broad base of issuers located primarily in Europe, North America and Asia. In 2017, there were approximately 320 different issuers active in the marketplace, with 204 new issuers. As shown in Figure 2a, green bond issuance takes place in many different countries and currencies, with issuance in 2018 accounting for a relatively large share of current outstandings.

FIGURE 1A



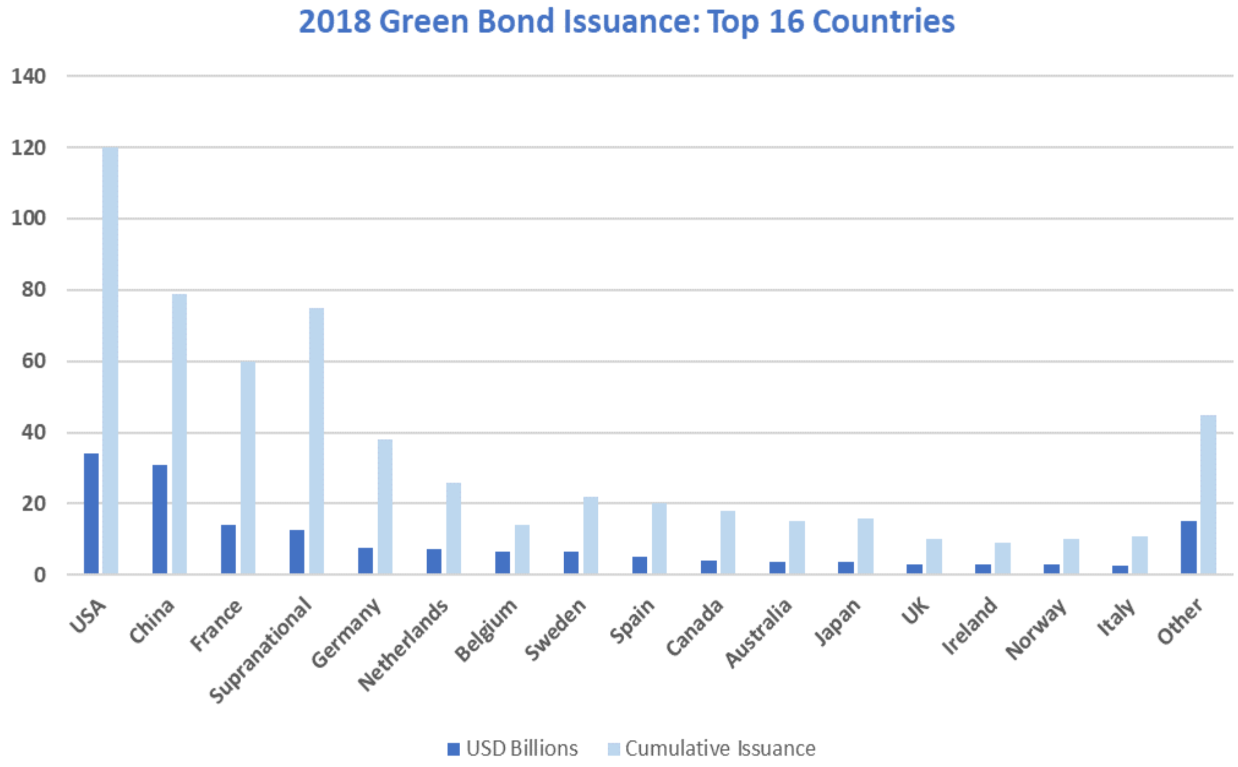
Source: CBI

FIGURE 1B



Source: CBI

FIGURE 2



Source: CBI

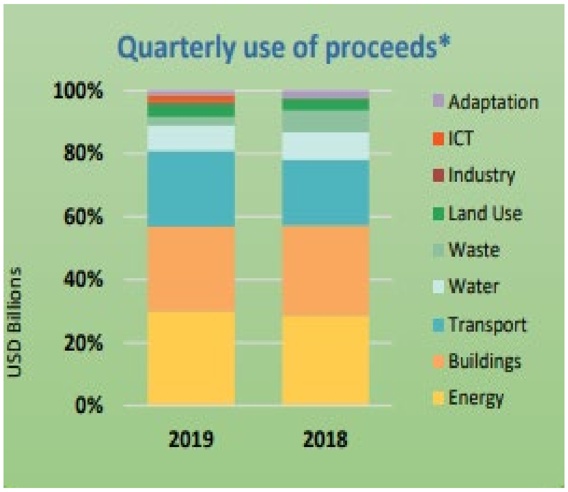
International development banks have been present in the green bond space since the first offering by the European Investment Bank in 2007 and are among the world's largest green bond issuers. It should be noted that international development banks have also become investors in recent years. However, issuance by other parties, including government entities, corporations and financial institutions, has grown rapidly over recent years in response to strong institutional investor demand. Given the current issuance to date in 2019, overall issuance in excess USD 200 billion for the year would seem very possible. In fact, a recent Moody's Investors Service report estimates 2019 green bonds supply will grow by 20% and top USD 200 billion. Having said this, and as has been seen in prior years, supply estimates are subject to developments in key markets that can greatly influence overall demand and 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

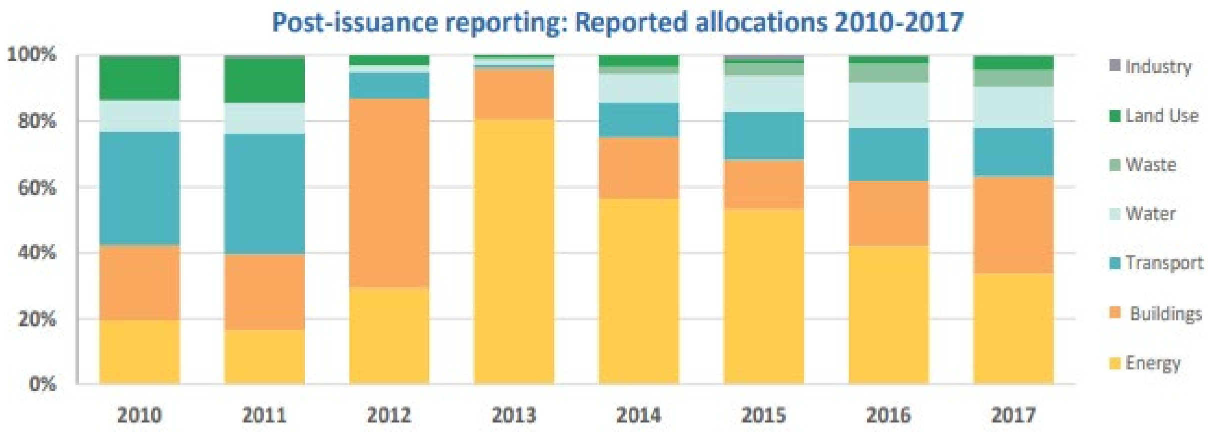
As can be seen in Figure 3a, as recently as the first quarter of 2019, project investments in renewable energy and low carbon buildings still takes up the largest share of green bond funds. Of note however, other uses, such as transport and water are taking up a growing share of proceeds over the last several years, as indicated in Figure 3b. In the future it is expected that a wider range of projects will be financed. Waste, Land Use, Industry and Adaptation investments may increase as clearer mandates are articulated and championed for projects in these areas.

FIGURE 3A



Source: CBI

FIGURE 3B



Source: CBI

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 2019 are:

• Royal Bank of Canada	5-yr €$500mn
• Province of Quebec	5-yr C$800mn
• CPPIB	10-yr €$1.0bn
• Algonquin Power Co.	10-yr C$300mn
• Ontario Power Generation	30-yr CS$500mn

Source: Bloomberg

Municipal issuers with state credit have been regular green issuers in the U.S. market for many years, but it has only been in the last several years that the City of Ottawa, the City of Toronto and the City of Vancouver have entered the green bond market. In Canada, until recently, green bonds have largely been issued by the public sector, unlike other international markets where many issues originate 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 continue 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.
- Encouraging 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 supply of Canadian green bonds.
- Domestic green bond secondary investor demand has the potential to expand as involvement of dealer syndicates provides a backstop 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 Québec, and various municipalities are assessing the green bond market to finance offerings for environmentally sustainable projects.

Canadian corporations and pension funds are also entering the domestic market as issuers, as they have in other countries. This should continue to evolve and accelerate given the positive investor reception towards mandates and competitive pricing of green bonds.

CANADIAN ISSUERS AND MARKET DYNAMICS IN 2019 AND BEYOND

In 2019, the Royal Bank of Canada recently issued a €500 million, 5-year green bond and the Province of Québec issued a CAD 800 million 5-year green bond. CPPIB also issued a large €1 billion deal early in 2019, the second issuance by this pension fund, which remains the only Canadian pension fund to issue a green bond to date. Rounding out 2019 issuance to date, were deals from the Algonquin Power Co. and Ontario Power Generation Inc.

The Province of Ontario continues to lead all other issuers in domestic green bond issuance, but other issuers are closing the gap. Currently, green bond issuance for Ontario and Québec accounts for less than 3% of their overall funding. It is expected this percentage share will remain the same in 2019. As well, funding requirements for Ontario's and Québec'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 over 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 on pricing?
- Will electoral changes at the municipal, provincial and federal levels materially impact government support for green bond financing and investment plans?

CONCLUSION AND NEXT STEPS

The Canadian green bond market continues 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 take 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 and Québec continue to be leaders and have shown a strong commitment to green bond issuance, and have been joined by other municipal, pension and corporate entities in the green bond space.

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 further 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 half-day green bond conference in October, 2019.

Appendix I

RECOMMENDATIONS:

STANDARDS AND GUIDELINES RECOMMENDATIONS

- Rely on ICMA's Green Bond Principles.
- Second Party Opinion/Rating and independent reviews from organizations such as Sustainalytics and CICERO (recommend annual renewal).
- The International Organization for Standardization (ISO) 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 who a non-green issue would otherwise would 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 ESG/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 issues from a given investor.
- Outline how a green bond curve may develop over time in Canada as it has begun to in other, more developed green bond markets, especially in Europe.
- Address the concern around lack of 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 environment technologies.
- Explore possible credit guarantees and other credit enhancements that could help lower issuance cost and attract additional investors.
- Identify 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 that provincial, territorial, municipal and indigenous groups can use to invest in infrastructure projects. The CIB will use federal backing to assist the 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 Canada Infrastructure Bank will invest CAD 35 billion from the federal government into infrastructure projects. CAD 15 billion of this is sourced from the over CAD 180 billion *Investing in Canada* infrastructure plan, including:

- CAD 5 billion for public transit systems;
- CAD 5 billion for trade and transportation corridors; and,
- CAD 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:

- Public-Private 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 the 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.

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[1] Canada Infrastructure Bank