S&P Global Ratings

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In Canada, Green Bonds Are Taking Root

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PRIMARY CONTACT

Nicole D Martin

Toronto

(1) 416-507-2560

nicole.martin@spglobal.com

SECONDARY CONTACTS

Michael Wilkins

London

(44) 20-7176-3528

mike.wilkins@spglobal.com

Michael T Ferguson, CFA, CPA

New York

(1) 212-438-7670

michael.ferguson@spglobal.com

Key Takeaways

- Despite a relatively small fixed income market by global standards (about C$3 trillion), since 2013, cumulative Canadian green bond issuance ranks in the top 10 countries worldwide. Regional governments, financial companies and development banks have led the way with some representation from the corporate sector.
- Green bond labelling by local and regional government entities is more likely driven by policy than advantageous pricing given low risk issuers and the current low interest rate environment.
- Green bonds remain a relative novelty in Canada but we believe in 2019 issuance will stay at current levels or grow as green issuers return to the market and additional issuers follow suit.
- Investor demand for better disclosure and much-anticipated infrastructure spending are likely to foster further market demand for and supply of green capital.

In 2017 and 2018, the greening of the Canadian financial markets may have finally taken root with issuance surging to four times the average annual issuance from 2014 to 2016. On the global front, 2018 green bond issuance of US$167.3 billion surpassed the US$162.5 billion issued in 2017 despite the growth pace slackening somewhat from previous years, most likely due to choppy market conditions and fears of slowing global growth. Although S&P Global Ratings doesn't expect a further fourfold increase in Canadian issuance in 2019, there could be a repeat of US$4 billion or more in new green bonds if a few additional Canadian large banks and pension funds join the trend. We base our view on increased recognition of the business risks associated with climate change, growing investor appetite for better disclosure of environmental spending, and the larger size of issuers participating in green issuance.

Green Bond Issuance In Canada

Looking back several years, Canadian entities' green bond issuance was initially slow to take off compared with global trends. In fact, annual issuance declined in 2015 and 2016, in striking contrast to global market trends of hockey stick type growth. However, the decline in Canadian issuance has markedly reversed itself, with 72% of total Canadian green bond issuance executed between January 2017 and October 2018 (see chart 1). Despite several large issuances in the past

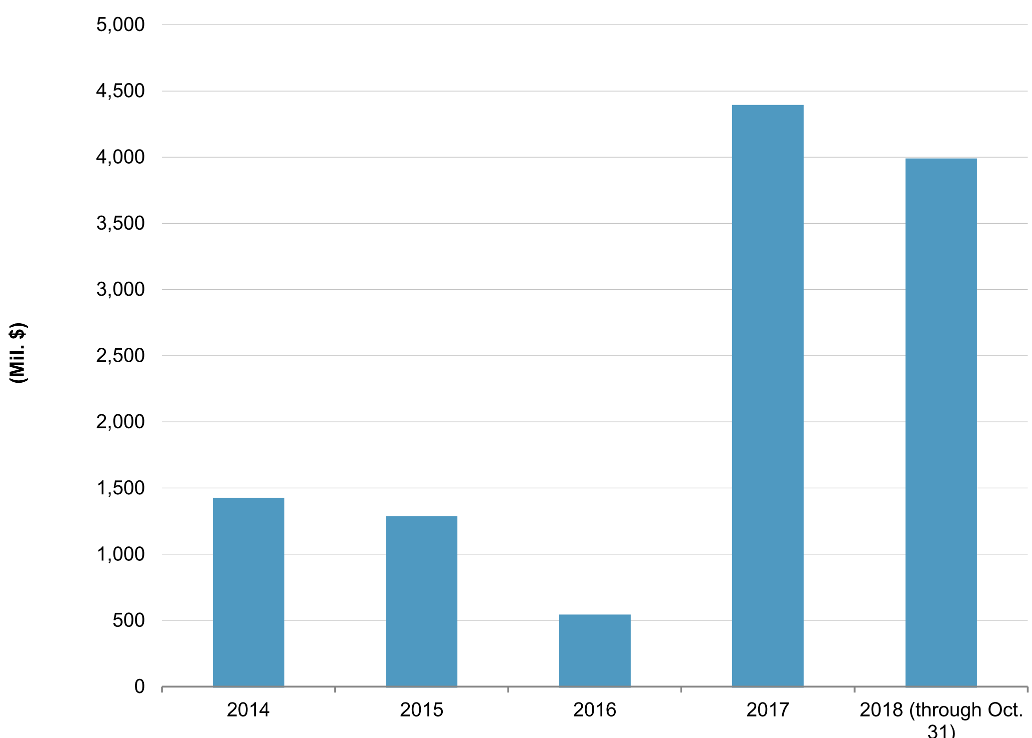
24 months, the number of green-labelled transactions more than doubled to 21 from nine between 2014 and 2016.

Growing interest in green finance suggests that the nascent labelled green bond market in Canada will continue to prosper. As of October 2018, US$4 billion had been issued. This compares with about US$4.4 billion in green bonds for the full 2017 calendar year. We expect a similar amount in 2019, and could see higher levels if the number of large issues from financial institutions and pension funds increases.

Throughout this report we have provided U.S. dollar equivalent figures using the currency exchange rate at the time of issuance from the Climate Bonds Initiative's database. The Canada-U.S. exchange rate fluctuated significantly during 2014 to 2018 but less so in 2017 and 2018, when the bulk of issuance occurred.

Chart 1

Canadian Green Bond Issuance In U.S. Dollars



Source: Climate Bonds Initiative database.

Although governments and financial institutions have dominated the Canadian green bond market to date, issuers are quite diverse. Local and regional government issuances represented about a third of the market by face value (33%). In 2018, the Province of Ontario made its fourth foray into the green market since 2014, the Province of Quebec launched its second, and the City of Toronto made its inaugural issuance (see chart 2). The City of Ottawa also participated with a small issuance (US$80 million) in 2017.

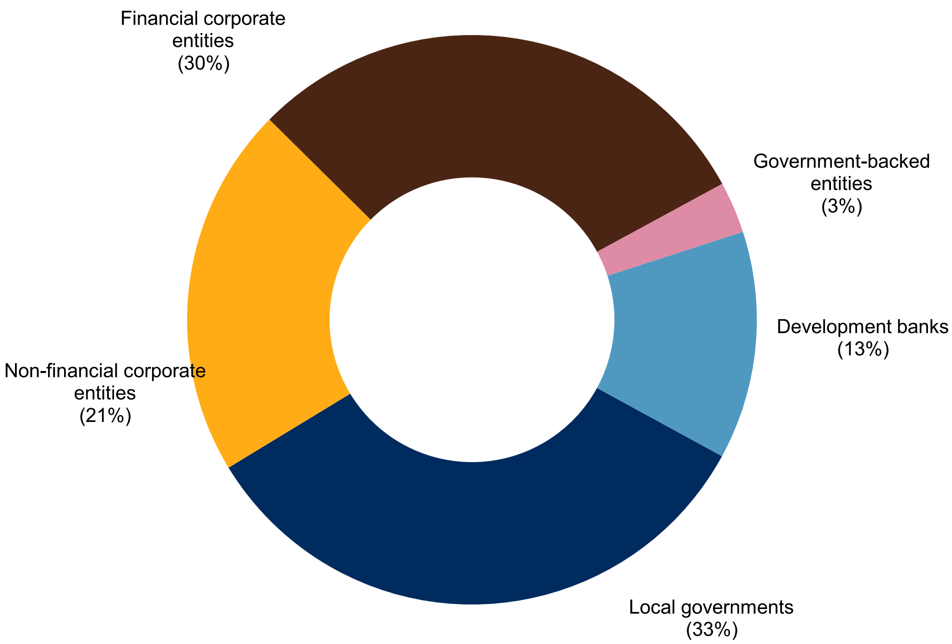
Financial institutions came a close second with 30% of issuance to date (see chart 2). Given significant oversubscription, Toronto-Dominion Bank doubled its offering to US$1 billion from the initially proposed US$500 million in September 2017. This was the bank's second self-labelled green issue. In 2018, the Canada Pension Plan Investment Board issued the largest green bond to date, in Canada, of US$1.142 billion. In the same year, Manulife Financial Corp. also made an inaugural issuance of US$463 million in 2018.

Export Development Canada (EDC) completed two repeat issuances (totaling about US$904 million) representing about a quarter of 2017's activity. The EDC Green Framework supports the preservation, protection, or remediation of air, water, or soil, or the mitigation of climate change. To date, its issuance has largely funded public ground transportation and renewables, and, to a lesser extent, water and waste management. Further details of each bond are available in EDC's Green Bond Impact Report, (February 2018) (1).

Chart 2

Cumulative Canadian Green Bond Issuer Type (Through October 2018)

(US$11.6 Billion Equivalent)

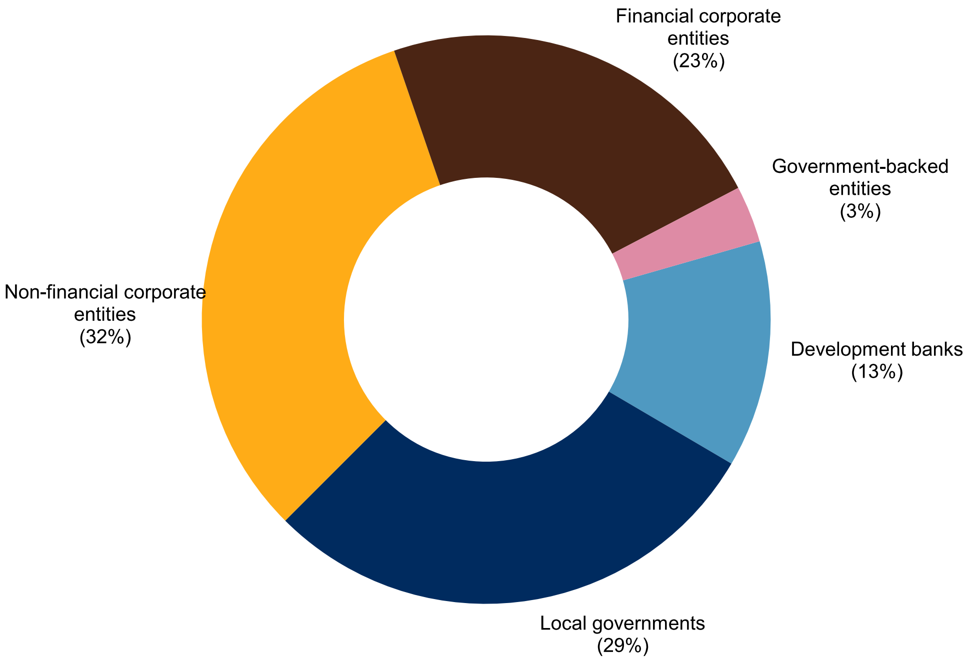


Source: Climate Bonds Initiative database.

As of October 2018, nonfinancial corporates represented the largest number of green transactions (10) but many of these were quite small (less than US$100 million in some cases) compared with those of financial institutions and local and regional governments (see chart 3).

Chart 3

Number Of Issuances By Issuer Type
January 2014-October 2018

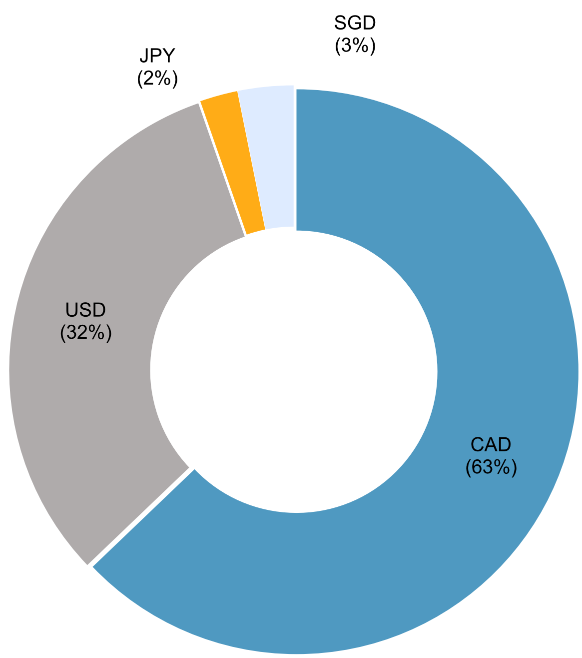


Source: Climate Bonds Initiative database.

Not all green bonds by Canadian issuers were in domestic currency. Almost one-third of the bonds were issued in U.S. dollars, with a small amount issued in Japanese yen and Singapore dollars (see chart 4). These patterns roughly parallel the general characteristics of the Canadian fixed income market, as outlined in a 2014 report by the Ontario Securities Commission (2).

Chart 4

Currency Of Issuance
(Mil. US$ equivalent)



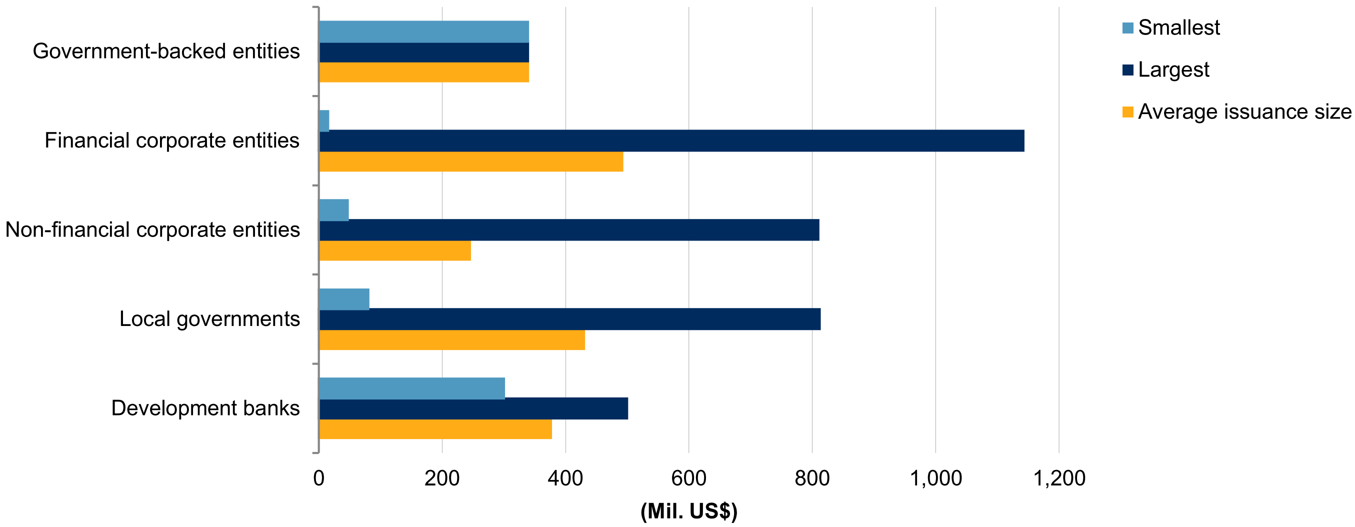
Source: Climate Bonds Initiative database.

The report stated that government entities issued about half of the long-term debt outstanding in the Canadian domestic market, with corporates (domestic and foreign) issuing about a quarter (22% and 3%, respectively). The report also stated that about 20% of the approximately C$3 trillion market was issued in foreign markets (largely the U.S.) with corporate entities issuing about three-quarters of the debt issued outside of Canada.

Over time, the size of green bonds has been growing, with a C$1 billion (or more) issuance in each of 2017 and 2018; however, a wide range remains across issuer types (see chart 5). Issuance size is smallest among corporates (US$245 million) and about twice as large for financial institutions (US$492 million).

Chart 5

Issuance Size (US$ Equivalent)
January 2014-October 2018

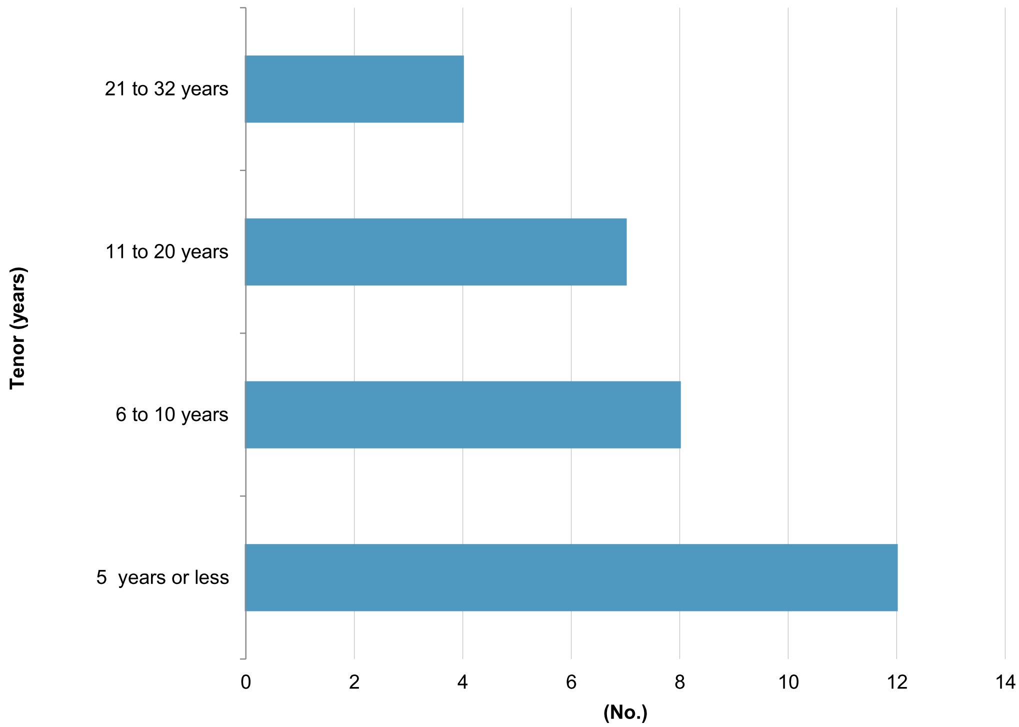


Source: Climate Bonds Initiative database. Note: Corporate and financial corporate each had an issuance of less then US$1 million, which we ignored, and took the second-smallest for comparison.
Only one government-related entity issued green bonds.

Since 2014, some green bonds have already matured, including two three-year 2014 issuances (chart 6). Further demonstrating the strengthening of the market, a number of much longer-term (two decades or more) green bonds have emerged, mainly in the last two years. Some were financing long-term power assets, while others were issued by municipal governments to finance transportation infrastructure. A desire to lock in low interest rates for these long-lived assets may have also contributed to the lengthy tenor.

Chart 6

Tenor Of Issuance



Source: Climate Bonds Initiative database.

S&P Global Ratings' Green Evaluations For Canada-Based Issuers

S&P Global Ratings has been providing Green Evaluations to the market for select transactions since April 2017. We have published 27 green evaluations to date on about US$30 billion in financings of green energy, green buildings, green transport, and water infrastructure around the world.

Our Green Evaluation provides a relative green impact score on instruments targeted at financing environmentally beneficial projects. It also provides a second opinion on alignment with the Green Bond Principles 2018. The Green Evaluation is not a credit rating, and it does not consider credit quality or factor into our credit ratings. The evaluation provides a relative ranking of financings globally at a point in time. We first consider the governance and transparency of a financing from a green perspective. We then combine this assessment with an estimate of the asset's expected lifetime environmental impact in its region, relative to maintaining the status quo. The analytical approach can evaluate both mitigation and adaptation projects.

To date, two project financings, owned by subsidiaries of Canada-based Brookfield Renewable Partners, have been evaluated under our Green Evaluation Analytic Approach (see "Green Evaluation Analytical Approach," published April 26, 2017, on RatingsDirect). Both received an E1 score, the highest relative ranking on our scale of E1 to E4. The notes were predominantly funding hydroelectric generation assets, which typically rank quite high on our relative green scale. Although the physical projects aren't located in Canada, the notes have been included in CBI's database as issued by a Canadian issuer. In addition to these two projects, the parent, Brookfield Renewable Power, recently issued its inaugural corporate level green bond in Canada of C$300 million, maturing 2029.

Green Roots Established But Further Growth In Issuance Rate May Take A While

Given the number of repeat Canadian issuers in 2018 and despite the lack of significant pricing advantage, we believe some green roots have taken hold in the market. However, for growth to really take off, we believe the number of large new issuers needs to expand, across all issuer types. The Canadian fixed income market boasts many large banks and pensions funds in particular that could jump on the bandwagon in 2019 and sustain (or increase) the annual level of about C$4 billion issued in 2017 and 2018. We believe there are at least two factors that could attract new labelled issuers.

First, it appears that investor demand is slowly effecting change in institutional investment strategy. A 2018 survey by RBC Global Asset Management found that almost 72% of the institutional investors and consultants surveyed either somewhat or significantly use environmental, social, and governance (ESG) principles (3) as part of their investment approach (66% in 2017). Of the Canadian survey respondents who use ESG in their investment approach, 60% believe it is part of their fiduciary duty; about a third have an ESG mandate in their investment guidelines, and a similar proportion said ESG was mandated by their board and stakeholders (4). The report also stated that 90% of the 542 global respondents believe that "ESG-integrated portfolios are likely to perform as well or better than non-ESG-integrated portfolios."

The second factor is a growing focus on improved climate-related disclosure both globally and domestically, which is likely to encourage more issuers to label climate-aligned capital. On the domestic front, in 2016, Ontario's Pension and Benefit Act mandated that pension funds must include whether or not ESG factors are used in their investment strategy. This mandate was the first of its kind in Canada. If ESG factors are used in a fund's investment strategy (as the RBC survey would suggest is a growing trend), the act stipulates that the pension fund manager must explain how. Labelled green bonds could facilitate that environmental disclosure. However, this is a very light-handed regulatory approach, because it does not require ESG factors to be incorporated into an investment strategy which could explain the relatively slow rate of adoption.

We don't believe preferential pricing for green capital is a major driver of green bond issuance to date, although it could develop as market depth increases. The lack of statistically meaningful green bond premiums could also reflect the lower credit risk of most issuers to date and the current low interest rates. A recent report (Opportunities in the Canadian Green Bond Market v 2.0, September 2018) by the Investment Industry Association Of Canada observed that "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." Despite the lack of significant pricing advantage, there are a number of recent studies that suggest a growing interest in green finance in Canada.

Room For Improvement

In a 2017 study of Toronto Stock Exchange-listed companies, the Chartered Professional Accountants of Canada noted that almost 80% of companies are making some form of climate-related disclosure but without sufficient context and with inconsistent terminology (5). The study further noted that users would be challenged to locate relevant information among the various securities filings. Less than a third of listed public companies disclosed board or senior management oversight of climate-related issues.

In spring 2018, the Canadian federal government established the Expert Panel on Sustainable Finance. In its interim report last fall, the panel said that reliable information and better disclosure are paramount. It also concluded that green bonds and loans are an increasing means of funding sustainable projects, allowing investors to direct their capital. The panel also observed that the market remains "relatively small and less liquid." The panel will submit its final report in spring 2019 and will make recommendations to the federal government on how "to enable our financial services industry to develop and scale markets and products that will support investment in climate resilience and low-carbon growth." Given this is an election year in Canada, the anticipated recommendations (if accepted by the government) aren't likely to have an impact in 2019 on the green bond market if they require legislative or regulatory change.

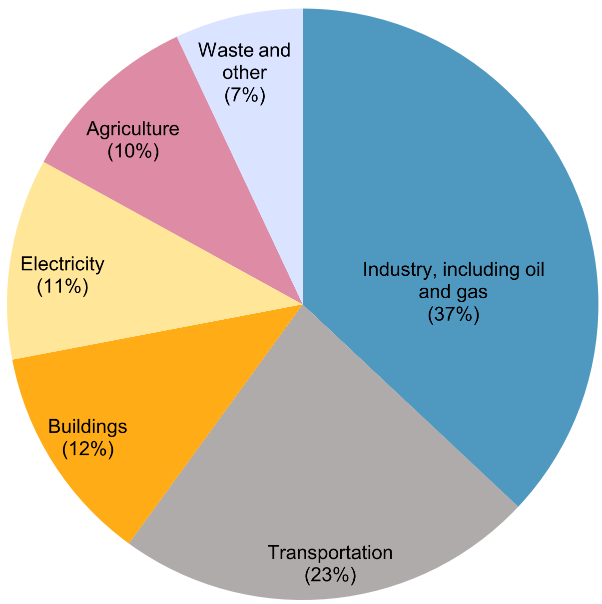
On a more positive note, RBC is participating in a pilot project with 16 of the world's leading banks on implementing the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures. RBC has committed to publishing climate-related disclosures at least annually. And on Jan. 17, 2019, (6) it was reported that the Toronto Stock Exchange, Canada's largest, is in the process of joining a voluntary United Nations Sustainable Stock Exchanges Initiative that promotes green markets and environmental disclosure. The UN initiative was launched in 2009.

Looking Ahead

We believe the Canadian infrastructure space could contribute to growth in labelled green issuance in 2019 and beyond. We expect more spending on public transportation (including electric vehicle infrastructure in Quebec), new buildings, energy efficiency in the oil and gas sector, nuclear refurbishments in Ontario, and more hydro development across the country. These investments are supported by policy at the federal level aimed at meeting the Paris Agreement and reducing Canada's carbon emissions (see chart 7). Despite some political opposition at the provincial level, the federal government intends to support new green investment through its carbon tax and the recently created Canada Infrastructure Bank (CIB). The CIB website states that of the C$35 billion it plans to invest in infrastructure projects, C$10 billion will help fund public transit, renewable power, and clean water systems, all green technologies within our Green Evaluation analytic approach.

Chart 7

Canada's Greenhouse Gas Emissions, 2014



Source: Government of Canada.

Overall, despite a relatively small fixed income market, green bond activity in Canada has been very positive in the past two years, with several repeat issuers as well as new large and oversubscribed inaugural issuances. Although we don't expect a fourfold increase in issuance this year as compared with 2018, increased recognition of the business risks associated with climate change as well as increasing investor appetite for better disclosure are likely to support the continued growth of labelled green bonds in Canada.

Related Research

- Green Finance: Modest 2018 Growth Masks Strong Market Fundamentals For 2019 , Jan. 29, 2019
- COP 24 Special Edition: Shining A Light On Climate Finance, December 2018, Dec. 11, 2018
- Brookfield Power New York Finance L.P. Notes Score E1/91 On Green Evaluation Scale, Oct. 6, 2017
- Green Evaluation Analytical Approach, April 26, 2017

Notes

1) The report is available at
https://www.edc.ca/EN/Investor-Relations/Documents/green-bond-impact-report-2018.pdf

2) The Canadian Fixed Income Market 2014, Ontario Securities Commission,
http://www.osc.gov.on.ca/documents/en/Securities-Category2/20150423-fixed-income-report-2014.pdf

3) Green Bond Principles, June 2018, International Capital Market Association,
https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/

4) Charting a Sustainable Advantage, 2018 Responsible Investing Survey, RBC Global Asset Management,
http://www.rbcgam.com/corporate-governance-and-responsible-investment/pdf/esg-executive-summary-2018.pdf

5) State of Play: Study of Climate Related Disclosure By Canadian Public Companies, Chartered Professional Accountants Canada, 2017,
https://www.cpacanada.ca/en/business-and-accounting-resources/financial-and-non-financial-reporting/sustainability-environmental-anc

6) The Observer,
https://www.nationalobserver.com/2019/01/17/news/toronto-stock-exchange-joining-international-network-wants-green-financial-market

7) Bonds And Climate Change: The State Of The Market 2017, Climate Bond Initiative, Sept 2017,
https://www.climatebonds.net/files/reports/cbi-sotm_2017-bondsclimatechange.pdf

This report does not constitute a rating action.