BONDS AND CLIMATE CHANGE 2014

THE STATE OF THE MARKET

CANADA Report

The Canadian Universe

- Breakthrough year for green/ climate bonds, both globally and in Canada
- Canadian companies account for C$28bn - 5% of the total climate-themed bonds universe
- Three major Canadian issuers join the growing labelled Green Bonds Universe
- Province of Ontario issues C$500 million green bond, with plans for regular program
- 90% of Canadian issuance is investment grade

C$28bn

Canadian climate-themed bond: 92% investment grade

C$1.3bn

Canadian labelled Green Bonds

The labelled green bonds market started as a tool to easily identify green opportunities and to allow corporate issuers with some green projects and assets to enter the market. From a small base it's fast growing.

The Changing Landscape

This is the third annual update of the Bonds and Climate Change report Canadian report. Since the first report in 2012, the climate bonds landscape in both Canada and the world has changed dramatically.

Three years ago, bonds labelled as 'green' or 'climate' (see box) were a niche market pioneered by a handful of multilateral development banks such as the World Bank and IFC. This has now changed with the issuance of bonds labelled as 'green' or 'climate' growing rapidly in the past year in Canada and worldwide.

In our last report (mid 2013) the global market of labelled green bonds stood at C$8.45bn outstanding with zero from Canadian issuers. By October 2014, there was over C$58bn outstanding including C$1.4bn from three Canadian issuers: TD Bank, Export Development Canada and Province of Ontario (more below). The issuer base has also diversified to include a range of corporate, government and financial issuers designating and labelling bond proceeds for climate projects.

While labelling of bonds as green is essential to aid investor discovery and kick-start the market, there is also a vast array of bonds financing climate infrastructure that are unlabelled. >>

Labelled green bonds make it easier for investors to choose green

The term 'labelled' green bonds refers to bonds *marketed* as being 'green', where the proceeds are for climate / green assets or projects. A broader universe is identified in this report of bonds whose proceeds are for climate projects but that are not (yet) *labelled* green.

We call these 'climate-themed' bonds. An investor seeking to build a climate-themed portfolio can look to the broader universe.

The unlabelled universe indicates where future bonds can be labelled, making discoverability easier.

Climate Bonds INITIATIVE — Prepared by Climate Bonds Initiative.

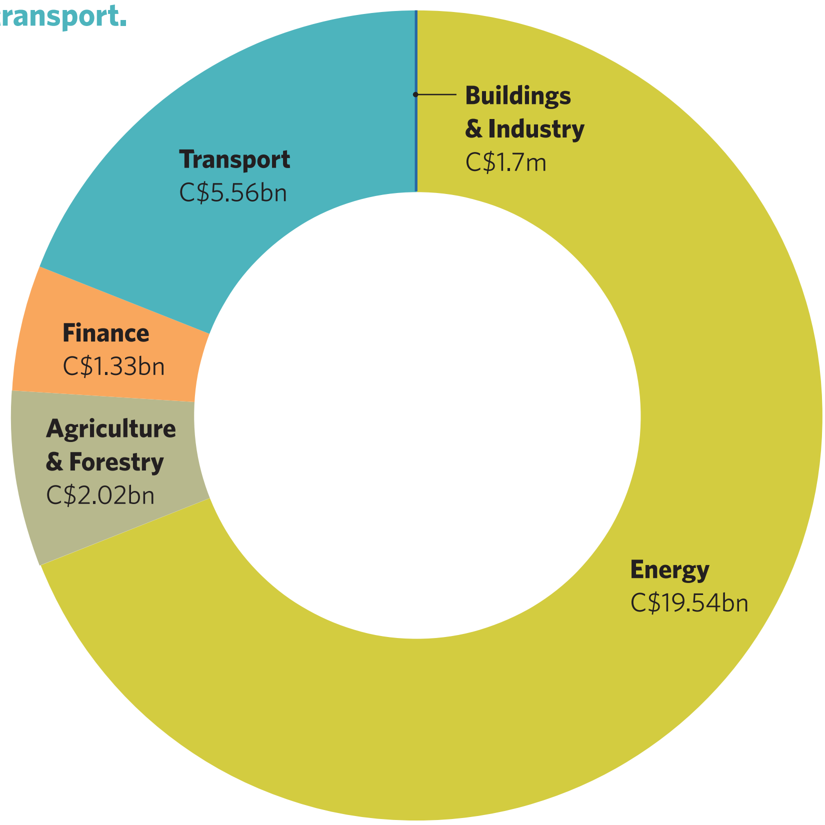
HSBC — Commissioned by HSBC.

SP Sustainable Prosperity — With Sustainable Prosperity.

The Bonds and Climate Change report, and this Canadian supplement, estimates the size of the full climate-themed bonds market, whether labelled or not. It provides an accurate picture of bond flows towards climate change, where gaps exist and where future labelling can take place.

While the climate-themed bond market continues to grow in Canada and worldwide, the International Energy Agency estimates that over C$60trn in cumulative investment in energy supply and energy efficiency will be required up to 2035 — over C$1.14trn per year. As the largest single pool of capital in the world, global bond markets will be essential to meeting these financing requirements, something that this report aims to stimulate.

Renewable energy, in particular hydro, is the primary theme in the Canadian Climate Bonds universe, followed by low carbon transport.



Results

We estimate that the full climate-themed bonds universe amounts to C$574bn outstanding, of which Canadian issuers account for C$28bn outstanding. This includes labelled green bond issuance of C$1.3bn from TD Bank, Export Development Bank of Canada and Province of Ontario.

This Canadian universe includes unlabelled bonds issued by Hydro-Quebec. Many large hydro companies were not included in previous reports due to concerns over assets within tropical areas; this year we were able to undertake more research on this topic and Hydro Quebec, which has no tropical hydro assets, was included.

Canadian Developments

Globally, 2014 has had over twenty new issuers of labelled green bonds, three of which are Canadian.

Export Development Canada (EDC) was first with an AAA rated US$300m (C$335m) bond for "loans that will preserve, protect or remediate air, water or soil, or help mitigate climate change". In March of this year, TD issued Canada's second green bond (the first from a commercial bank).

The three year C$500m green bond is dedicated to funding a range of green initiatives. Both bonds were at least 1.5 oversubscribed, with the EDC bond receiving US$500m orders in 15 minutes. Such demand could lead to interest from other Canadian issuers.

The other major development in the Canadian market was the Province of Ontario's first green bond in September. The C$500 million, four year bond was issued following a year of consultation and policy development by the province. The Ontario Finance Authority, which is the issuing entity, has developed a policy framework for green bonds in the province which lay out some basic information on how

Top 10 Canadian issuers by amount outstanding (C$)

Hydro-Quebec	15.7bn
Canadian National Railway Co	4.4bn
Cascades Inc	1.7bn
Société Trans Montréal	668m
TD Bank	452m
Province of Ontario	448m
Comber Wind project bond	425m
Canadian Hydro Developers Inc	345m
Export Development Canada	300m
L'erable Wind project bond	243m

Climate bonds have been issued by a wide variety of issuers including; corporates, banks/agencies municipal governments and development banks. The range of issuers shows the depth of the market - which is important for investors. Depth and liquidity are key in developing a large robust climate bond market.

projects will be considered eligible and selected for financing. While Toronto's planned Eglinton Crosstown Light Rail Transit project is included, further details on allocation for the program remain vague, with a broad range of eligible projects set out, including energy efficiency and conservation, clean energy and technology, forestry, agriculture and land management, and finally climate adaptation and resilience as eligible activities. The Ontario bond was five times oversubscribed, which speaks to the latent appetite for high-quality Canadian dollar green bonds.

Finally, in addition to the landmark TD green bonds issuance, Canadian financial institutions took greater interest in green bonds. RBC Capital Markets held a special seminar for investors in April 2014 on the subject, and – along with BMO Financial Group - signed onto the Green Bonds Principles. They were joined as signatories later in the year by TD and CIBC World Markets. RBC also became a Climate Bonds partner.

The creation of Green Bonds Principles has been a major development in the market. It began as a sell-side collaboration of underwriting banks that put together voluntary best practice guidelines on how a green bond should be structured. Membership now includes investors and issuers. It's important to note that while the Principles provide essential guidance on disclosure and transparency around use of proceeds and fund tracking, they do not set out to define which types of assets can be classified as 'green'. The Principles make recommendations on what to communicate so that investors can scrutinise a bond's green credentials and make ther own decisions.

Analysis

The Canadian climate bonds universe equals C$28bn outstanding, making up 5% of the C$574bn climate-themed bonds global universe.

Canadian bonds were issued primarily in C$ (69%), with the bulk remaining in US$ (30%) and 1% in EUR. Non-Canadian issuers also issued C$-denominated bonds, possibly to attract Canadian investors. These included French companies Reseau Ferre de France and SNCF, supranational Eurofima, the UK's Network Rail and US company Trillium Windpower.

The graph on the previous page shows the thematic breakdown of the Canadian universe which includes three labelled green bonds (in the Finance theme).

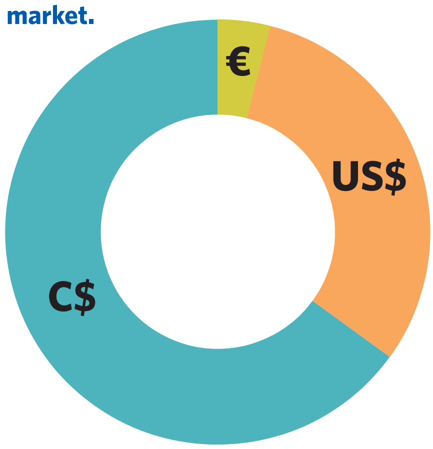
The Energy theme stands at C$19.5bn, accounting for 69% of the universe primarily due to inclusion of Hydro Quebec which has C$17.7bn outstanding (from 2005). The remainder of the theme is made up of solar and wind project bonds as well as smaller renewable energy and hydro corporates.

The Transport themes accounts for 20% of the total and is made up almost entirely of mass transit (rail and bus) with Canadian National Rail and Société des Transports de Montréal making up the bulk of this.

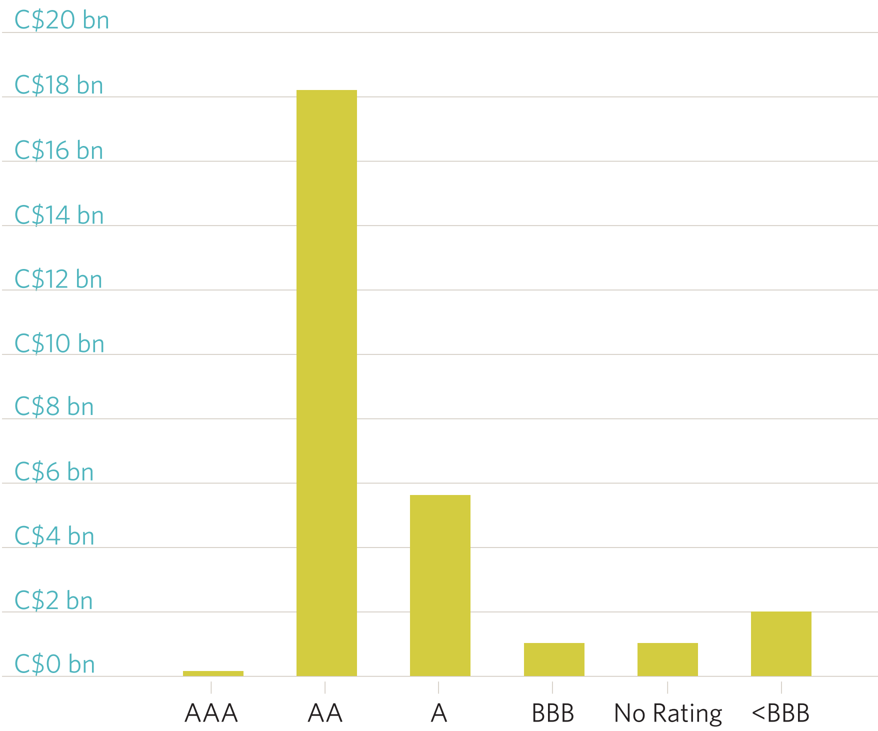
The Finance theme consists of the three labelled green bonds already mentioned which are linked to multiple themes including Energy, waste and buildings & industry but issued by financial institutions or municipalities, hence their inclusion in this theme.

The Agriculture and Forestry theme makes up 7% of the universe and comprises of large sustainable forest product companies which have certified operations under Forest Stewardship Council or PEFC.

Canadian climate bonds are mostly issued in C$, indicating strong domestic interest. Almost all remaining issuance is in US dollars. A small amount issued in Euros for European investors who continue to be influential buyers in the market.



Most Canadian Climate Bonds are investment grade



The Buildings and Industry theme is very small making up 0.01% of the Canadian universe with a single unrated issuer in the smart grid space - Eguana Technologies.

There are no Canadian issuers in the other climate themes – Waste and Water which are also a very small proportion of the full climate-themed bonds universe.

Ratings

Canadian climate-themed bonds picked up in this report are 90% investment grade with the majority of bonds falling within the AA category. This mirrors the trend in the overall universe where 89% is within investment grade ratings bands.

Export Development Canada is the only AAA issuer while the large rail and hydro companies (Canadian National Rail, Hydro Quebec) account for much of the AA issuance.

The sub-investment grade and unrated categories include smaller technology companies such as the previously mention Eguana Technologies. The three Canadian project bonds (L'erable, Comber and St Clair) are all investment grade achieving BBB ratings.

The majority of the Canadian bond universe is investment grade, with 90% within investment grade ratings bands.

AAA	0.334bn	1%
AA	18.733bn	66%
A	5.488bn	19%
BBB	0.999bn	4%
No Rating	0.874bn	3%
<BBB	2.025bn	7%

Outlook

The past year has seen significant developments in both the growth of the green bonds market and for Canada's place within it. We expect to see the following developments in the year ahead:

1. Canadian sub-government Green Bonds issued.

As indicated above, the province of Ontario issued its first green bond in September 2014. Given the success of the issuance, which was five times oversubscribed, the province foresees at least a $1bn a year in future issuances. It remains to be seen whether other provinces follow suit.

Although provincial regulations in Canada prohibit municipalities from running a deficit, they are permitted to issue debt to fund capital projects. Some provinces have centralized municipal borrowing authorities, but there are a number of large municipalities across the country who issue directly in the market, and some of them have begun to look into green bond issuance.

2. More Canadian green corporate and bank bonds

The success of green bonds from Canada's TD Bank and the Export Development Bank suggests there is opportunity for others to join.

3. Retail opportunities

While this report focuses on larger bonds available on public markets, there are also growing opportunities worldwide including in Canada for small scale retail green investments.

In Canada, Solar Share has issued Community Bonds to develop community-based solar electricity generation in Ontario. It is backed by the Ontario government's feed-in tariff program.

In the US and UK, similar small scale bonds have been successfully issued to retail investors including two solar rooftop securitization bonds from SolarCity (US) and Ecotricity bonds in the UK. While we do not see such opportunities as making a significant contribution to the investment gap that exists, they are important in raising the profile of green investments by providing an opportunity for individual investors to participate at smaller levels.

The year ahead will contain significant developments within Canada and the rest of the world. The challenge will be to ensure that key market actors work to ensure that the market is truly shifting capital to climate solutions rather than facilitating green wash.

The Climate Bonds Initiative and Sustainable Prosperity will continue to work together to promote the development of the market in a way that is both rapid and credible.

The Climate Bonds Initiative is an investor-focused not-for-profit, mobilizing debt capital markets for a rapid transition to a low-carbon economy.

All source data derived from Bloomberg.
All figures are rounded.

www.sustainableprosperity.ca
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Prepared by Climate Bonds Initiative.

Commissioned by HSBC.

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