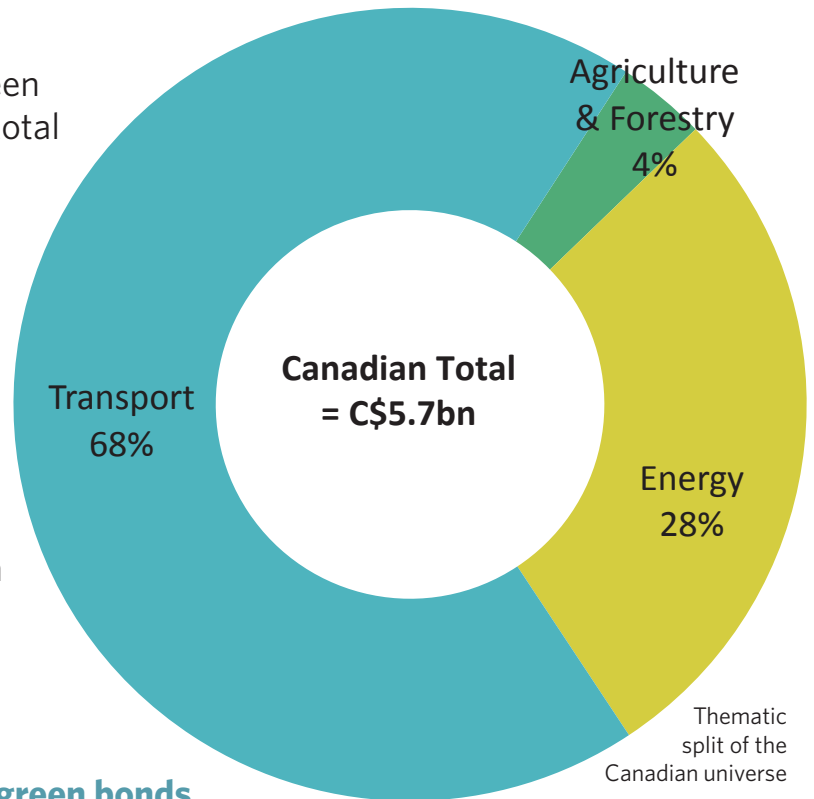


BONDS AND CLIMATE CHANGE 2013

THE STATE OF THE MARKET

The Canadian Universe

- The total universe of Canadian green bonds stands at C\$5.7bn out of a total global universe of C\$346bn.
- Canadian bonds have been issued in three themes: Transport, Energy and Forestry.
- Globally, 2012 saw the largest amount of bonds for climate change issued to date, with approx. C\$74bn over the year.
- Of this USD74bn, C\$1.2bn of green bonds are from Canadian issuers.
- 89% of Canadian bonds are investment grade.



Thematic breakdown for Canadian green bonds

The global universe of bonds was screened for alignment with seven key themes that are part of the low carbon economy.

All of Canada's bonds fit into three of these themes: Sustainable transport (rail, electric vehicles, mass public transportation), Energy (including renewable energy) and Agriculture and Forestry (includes certified timber and paper as well as afforestation).

The Transport Theme continues to dominate both the Canadian and the global universe, making up 74% of bonds globally and 68% Canadian bonds. This is comprised mainly of rail and other mass transit bonds (e.g. bus) issued since 2005.

The Energy Theme accounts for 28% of the universe and is made up primarily of wind and solar project bonds as well as hydro issuers.

Solar, wind and hydro projects were all supported by the government's ecoAction incentive scheme (from 2007- 2011) which provided specific project support for Canadian Hydro Developers and others.

While the Energy theme is much smaller than Transport in terms of amount issued, there were many more issuers with smaller bond sizes being more common.

In the Agriculture & Forestry theme, there is one Canadian issuer- Millar Western Forest Products. The

green classification is because all of its pulp, lumber and woodland operations are certified to Forest Stewardship Council chain of custody or Sustainable Forestry Initiative standards.

There were some exclusions among hydro companies that also have non-qualifying assets, such as methane producing tropical dams. We intend to work with the hydro companies in the future to separate qualifying assets. This could lead to a further C\$17bn in Canadian-issued bonds being classified as green and would significantly alter Canada's position within the global green bonds universe.

Analysis

Developments

One surprising development in 2012 was the growth of Canada's renewable energy project bond market, with three bonds during the year. To date, the US has been the major player in the projects space (accounting for 70% of amount outstanding)- the Canadian bonds indicate change.

All three bonds are BBB rated and total C\$855m - the C\$450m Comber Wind portfolio, the C\$250m L'Erable wind deal, and the C\$175m St. Clair solar PV farm.

The BBB St. Clair bond achieved a higher investment rating than the much talked about BBB- Topaz Solar bond issued by MidAmerican, primarily because there is no construction risk to the bond.

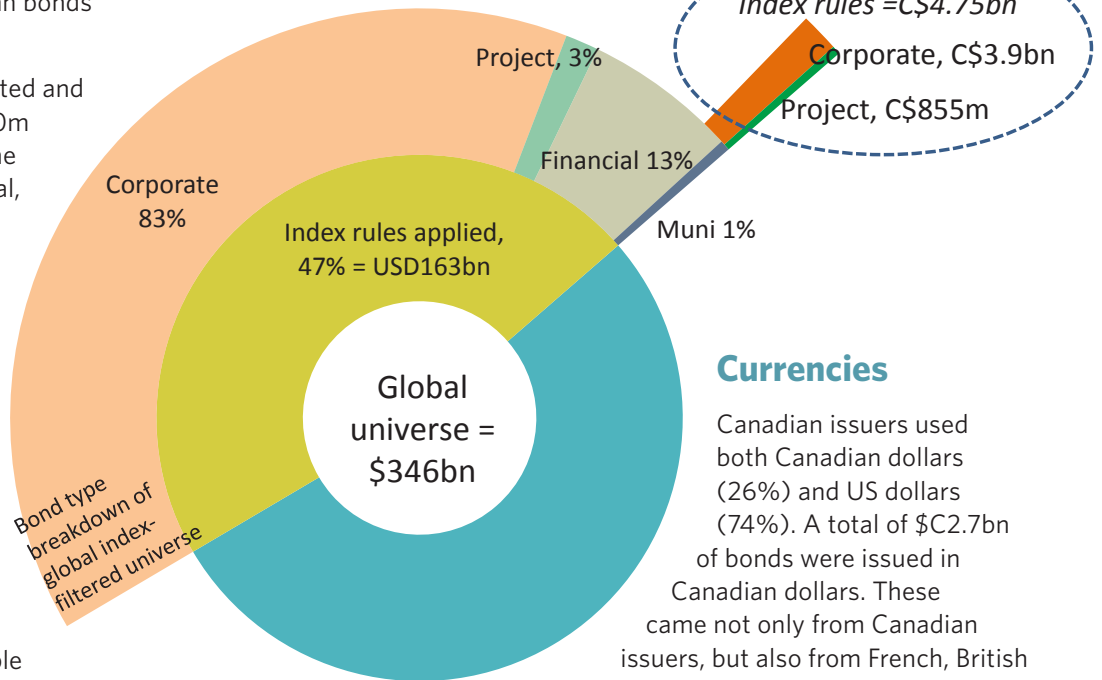
Similarly, Comber Wind farm has been built. L'Erable was privately placed with National Bank Financial and Sun Life Assurance.

We expect future inclusions from Canada to be largely in the hydro space as we develop hydro definitions. This will: a) enable us to re-classify existing bonds as green and b) classify new bonds linked to non-tropical hydro.

Canadian Issuers	Theme
Canadian National Rail	Transport
Comber Wind project	Energy
Canadian Hydro Dvlprs	Energy
L'Erable wind project	Energy
Borex	Energy
Run of River Power	Energy
St Clair Holding	Energy
Innergex Renewable	Energy
NGP Blue Mountain	Energy
New Flyer Industries	Transport
Sprott Power Corp	Energy
Millar Western	Forests

Indexable Universe

Applying three bond index-type filters (>\$100m size; eligible currencies; investment grade) to the green bond list reveals C\$163bn that qualify - i.e. potential candidates for indices. As shown in the chart below, C\$4.75bn of those were from Canadian issuers. Corporate bonds are the dominant bond type making up 83% of both global and Canadian indexable universes.



Currencies

Canadian issuers used both Canadian dollars (26%) and US dollars (74%). A total of \$C2.7bn of bonds were issued in Canadian dollars. These came not only from Canadian issuers, but also from French, British and Swiss issuers.

Ratings

The majority of the Canadian bond universe is investment grade, with 83% within investment grade ratings bands. This mirrors the trend in the overall universe where 89% is within investment grade ratings bands.

Amount outstanding within each ratings band C\$

Ratings band	Amount (C\$)	Percentage
A	3.9bn	67%
B	0.21bn	4%
BBB	0.69bn	12%
No rating	0.99bn	17%

Developments for 2013-14

We see increased interest in green bond issuance, and more public sector issuers entering the market.

A major driver of interest in this space will be continued attention on Canada's "infrastructure gap". In particular, after severe flooding in Toronto and Calgary this past summer, we expect strong interest in climate-resilient infrastructure that may spur more market activity.

www.sustainableprosperity.ca
www.climatebonds.net

Disclaimer

This report does not constitute investment advice and the Climate Bonds Initiative is not an investment adviser. The Climate Bonds Initiative is not advising on the merits or otherwise of any bond or investment. A decision to invest in anything is solely yours. The Climate Bonds Initiative accepts no liability of any kind for investments anyone makes, nor for investments made by third parties.

© Published by the Climate Bonds Initiative June 2013 in association with Sustainable Prosperity.

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.