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This series explores the foundations of sustainable finance, one of the most important emerging fields of our time. Sustainable finance aligns financial systems and services to promote long-term environmental sustainability and economic prosperity.

+ SUSTAINABLE FINANCE PRIMER SERIES:

Green Bonds

WHAT ARE GREEN BONDS?

To answer this, let's first define bonds. A bond is a financial debt instrument used to borrow money or raise funds. Investors purchase bonds from firms, sovereign governments, or municipalities and receive periodic interest payments and the repayment of their initial investment (called the principal) at a future date. Bond terms, conditions, and agreements outline the timeframe and frequency over which the borrower will repay the investor including interest payments. Bonds are typically issued to raise funds for ongoing firm investments and/or for specific projects, such as a bridge or a new factory.

[Green bonds](#) are a type of bond designed to raise funds to invest in environmental or climate change mitigation projects. Green bond issuers commit to provide investors with detailed on-going information on the projects and infrastructure supported with the green bond proceeds. In November 2008, the [World Bank issued its first green bond](#) in response to a request from a group of Swedish pension funds seeking to invest in projects that address climate change. Labeled the world's first green bond, it became a [blueprint for today's green bond market](#), providing options for investors to support climate solutions with their investments without sacrificing financial returns.

WHAT ARE THE CRITERIA FOR GREEN BONDS?

- **Use of proceeds:** Proceeds are exclusively used for legally documented green projects.
- **Project evaluation and selection process:** The issuer should clearly communicate to investors the environmental objectives and the process to determine how the project fits within the eligible green project's categories and related eligibility criteria.
- **Management of proceeds:** The net proceeds of the green bond should be credited to an account for tracking and verification.
- **Reporting:** The issuer must follow [mandatory reporting](#) on the use of the proceeds to ensure integrity of the market.

WHY ARE GREEN BONDS IMPORTANT?

[Climate change has drastic impacts](#) on our physical world and our financial systems. It requires countries to transition toward smart, low-carbon economies over the next 20 years or risk being left behind. This rapid transition required to address climate change means a significant involvement of the financial markets in funding climate-friendly and clean projects. Green bonds are also a barometer for the impacts of climate change on the financial system. The development of vibrant green bond markets allows countries and organizations to mobilize traditional debt investments into projects that can have positive and environmentally friendly impacts for society. Green bonds also give investors an opportunity to meet their Environmental, Social, and Governance (ESG) objectives by creating low-carbon investments.

WHAT ARE THE GUIDELINES?

To avoid the practice of using unsubstantiated or misleading claims to market a company or a product as environmentally friendly, the International Capital Markets Association (ICMA) consolidated the [Green Bond Principles \(GBP\)](#) in 2014. Regularly updated, the principles are voluntary and act as guidelines for labelling a bond as “green.” They serve as a starting point for issuers and investors in promoting and ensuring the integrity of the green bond label. The [guidelines](#) recommend transparency and disclosure of the use of the proceeds of the bonds so that investors can evaluate the environmental impact of their green bond investments.

WHO ARE THE ISSUERS?

Any agency that can issue a bond can also issue a green bond. This includes governments, corporations, financial institutions, and recently, even individuals approved through the World Bank. Any institution fulfilling the credit requirements is [eligible](#) to issue a green bond. Today, issuers from more than 50 countries have issued green bonds including the World Bank and the EU's European Investment Bank. Issuers in the U.S. are the largest source of green bonds, led by the mortgage giant Fannie Mae and local governments selling notes to finance infrastructure.

WHAT'S HAPPENING IN CANADA?

Canada's green bond market is relatively small compared to the market in the United States, China, and France, with Canadian issues increasing steadily in size and frequency, over the last four years. The first Canadian green bond was issued in 2014 by the [Province of Ontario](#), the country's largest issuer with a total of [\\$3.05B CAD as of 2019](#). Green bond proceeds have funded transit and energy efficiency projects. Another major issuer is the Canada Pension Plan Investment Board (CPPIB), the world's first pension fund to issue a green bond totaling \$1.5B CAD in 2018. In 2019, [CPPIB issued its first euro-denominated green bond](#). The proceeds will be used to invest in renewable energy, water, and wastewater management projects as well as certified green real estate. Green bond issuances in Canada for 2019 totaled approximately [\\$3.2B CAD](#).

WHAT'S THE OUTLOOK FOR CANADIAN INVESTORS AND ISSUERS?

The issuance of green bonds is currently led by the public sector in Canada, including municipalities. Most recent Canadian green bond issues in the country have been oversubscribed, suggesting that investors demand for green bonds exceeds the current supply. The United States' withdrawal from the Paris Agreement may make Canada's green bond market [an attractive alternative](#) according to the Dominion Bond Rating Service. As the private sector seeks green project funding, there is [significant room for growth](#) from the corporate sector, which is anticipated to evolve as the green bond market matures.

Explore other primers in the sustainable finance series [here](#). The new Institute for Sustainable Finance, based out of Smith School of Business at Queen's University, is set to launch this fall.

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