

An introduction to: Green Bonds

Many governments and companies raise funds to finance investments and capital projects through bonds. In recent years, a fast-growing type of bond is the “green bond” – a bond issued specifically for environmental and sustainability related projects.

What is a “bond”?

A bond is a fixed-income financial instrument in which one organization (or issuer) borrows funds from investors (or debtholders) and commits to repaying the borrowed funds by a specific date, usually with interest.

What are the advantages of bonds?

Relative to purchasing stocks, bonds are noted for their stability, predictability, as well as their safety should an issuer declare bankruptcy. Bond investors also have access to “quality” ratings by rating agencies (e.g., in the US, Standard & Poor’s or Moody’s).

Who issues bonds?

Bonds are most often issued by governments (sovereign, treasury, state/provincial and even municipal) and major corporations. They are generally traded on major public exchanges.

Who can buy bonds?

Most bonds are purchased by institutional investors, such as pension funds, mutual funds, hedge funds, insurance companies and commercial banks. Governments (in the form of central banks) are also major purchasers of bonds.

Individual (or retail) investors can also buy bonds through mutual funds, exchange-traded funds or, less often, directly.

What is a “green bond”?

A green bond functions like any other type of bond (it is a loan made by an investor to an issuer, repayable within a given time with interest). However, green bonds are used specifically to fund projects with environmental benefits.

How are green bonds used?

Green bonds can be used to support a wide range of environment related initiatives, but they tend to be used for large-scale, long-term investments centered around environmental solutions, including (but not limited to) renewable energy projects, green property building or retrofits, clean transportation projects, energy and manufacturing efficiency programs, clean transportation and various resource and agricultural management programs.

What is a “climate bond”?

A climate bond is a bond that finances projects needed to address climate change. The terms “green bond” and “climate bond” are often used interchangeably, but climate bonds tend to be more directly aimed at climate-change related objectives.

How long have green bonds been around?

The city of San Francisco has been credited with issuing the first green bond in 2001 through a city issued “solar bond” for renewable energy programs. Since then, the green bond market has steadily increased in size and, as of 2018, the green bond market was estimated to be valued around US\$155 billion (according to Climate Action Programme).

Are green bonds widely used?

Green bonds are issued by a variety of state and multilateral actors at the national and international level. To date, 37 countries have issued green bonds. Multilateral development banks like the World Bank and the European Investment Bank, and many sub-national governments like states, provinces or municipalities, have also issued green bonds.

Can corporations issue green bonds?

Yes – much like “regular” bonds, corporations can issue green bonds. Corporate green bonds appear to be used most often to finance capital investments, such as for new “green” buildings or manufacturing facilities, retrofits or to finance a transition to renewable energy sources. For example, Apple recently issued 2 green bonds worth a total of \$2.5 billion to support the development of environmental and renewable energy initiatives.

What makes a green bond “green”?

While there are no mandatory guidelines governing if a bond can be called “green” or not, most financiers make use of the “Green Bond Principles” (GBPs) or the “Climate Bond Certification” (CBCs). Some green bond issuers work with independent third-parties (such as Sustainalytics) to ensure that their green bonds frameworks are aligned with market expectations and industry standards, and that green bond proceeds are allocated and managed as per investor expectations.

Are green bonds used in Canada?

In Canada, the green bond market is still relatively small. The provinces of Ontario and Quebec (who have collectively issued more than \$4.5b worth of green bonds since 2014) and the municipalities of Ottawa and Toronto (who have issued over \$400m in green bonds since 2017) are the only Canadian governments offering green bonds to date. Corporate and institutional issuers include the Canadian Pension Plan (\$1.5 billion in 2018), TD Bank (\$500 million in 2014) and Manulife (\$600 million in 2018).

About this series

This series presents brief introductions to new and ongoing issues in sustainability for business audiences. It is not intended to be used as business or investment advice.

About the Lee-Chin Institute

The Michael Lee-Chin Family Institute for Corporate Citizenship is a research centre at the Rotman School of Management, University of Toronto. The LCI helps business leaders integrate sustainability into business strategy and practices by actively developing and disseminating research, tools and curricula. Our research focuses on three themes: sustainability strategy, social entrepreneurship, and responsible investment. For more information about the LCI, visit our [website](#) or follow us on [Twitter](#) and [LinkedIn](#)