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ABOUT CI GLOBAL GREEN BOND FUND

The scale of investment needed to tackle climate change is enormous. The world's largest coalition of financial institutions committed to transitioning the global economy to net-zero emissions – *Glasgow Financial Alliance for Net Zero Financing* - estimates more than USD 32 trillion over the next decade will need to be deployed to solutions for climate change¹. Carbon dioxide and other greenhouse gas (GHG) emissions are a byproduct of so much of the economy – not just for generating electricity, but also for warming our buildings, and for transportation. GHGs are also a byproduct in the creation of the essential materials for the global economy – cement, steel, and ammonium for fertilizers.

When presented with a problem that large, our reaction cannot be inaction. That is why CI Global Asset Management (CI GAM) has launched the CI Global Green Bond Fund (the 'Fund'). This Fund's objective is to provide long-term total return. The Fund follows an approach to investing that focuses on sustainable and responsible issuers by primarily investing in labelled green bonds issued by government, government-related and corporate issuers, located anywhere in the world.

WHAT ARE GREEN BONDS?

The Fund uses the following criteria to select green bonds:

1. Labelled green bonds: to become a labelled green bond, issuers must apply for certification by a recognized third party, such as an auditor or ESG ratings firm. Generally, the fund will invest at least 60% of its assets in labelled green bonds.

One of the leading market standards for green bonds is the International Capital Market Association's *Green Bond Principles*². According to this standard, the funds raised by the bond issuance – *use of proceeds* – include but are not limited to the following:

- Renewable energy
- Energy efficiency
- Pollution prevention and control
- Environmentally sustainable management of living natural resources
- Terrestrial and aquatic biodiversity
- Clean transportation
- Sustainable water and wastewater management
- Climate change adaptation
- Circular economy
- Green buildings

The four core principles articulated in *the Green Bond Principles* are:

- 1) Use of proceeds
 - 2) Process for green project evaluation and selection
 - 3) Management of proceeds
 - 4) Reporting of the environmental impact
2. Self-labelled green bonds, unlabelled bonds and other fixed income securities that are part of the Reference Index 'Bloomberg MSCI Global Green Bond Index':
 - The Reference Index's methodology by MSCI ESG Research is used to evaluate index-eligible green bonds to ensure they adhere to the *Green Bond Principles*
 3. Self-labelled green bonds, that are not part of the Bloomberg MSCI Global Green Bond Index are subject to the portfolio manager's own qualitative evaluation, if the issuer has stated the proceeds will be used to promote climate or other environmental sustainability purposes:

¹ [Glasgow Financial Alliance for Net Zero: Financing Roadmaps \(gfanzero.com\)](https://www.gfanzero.com/)

² [Green-Bond-Principles_June-2022-280622.pdf \(icmagroup.org\)](https://www.icmagroup.org/green-bond-principles/)

- For example, Hydro Quebec is a pure play renewable energy provider which does not have their bonds certified as green bonds because they believe that the market already understands that the use of proceeds is for low carbon energy production and therefore “green”.

As of December 31, 2022, 86% of the Fund was invested in labelled green bonds.³ Another 7% was held in cash and the remaining 7% was invested in short-duration Government of Canada bonds to ensure the needed diversification within the fund in the short end of the bond curve where limited green investments are available.

ABOUT THIS REPORT

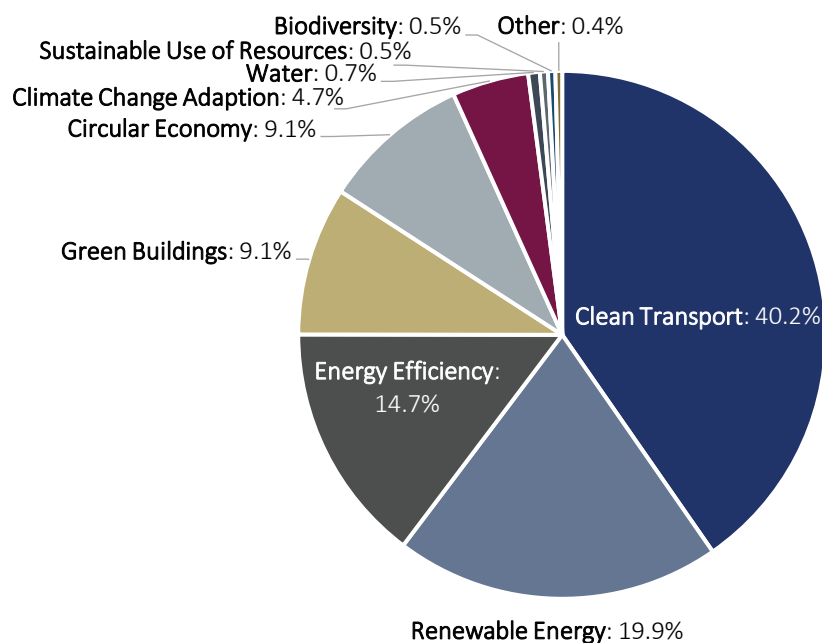
This Report is CI GAM’s inaugural report that demonstrates the ‘green’ criteria - use of proceeds towards the clean economy. It also measures the environmental performance of the Fund, namely the avoidance / removal of carbon dioxide emissions. The Report follows the ICMA GBP’s reporting requirement and the guidance on environmental performance measurement in the *UN Harmonized Framework for Impact Reporting*⁴. Please see the Methodology section for notes about emission calculations, where we state we have relied only on the disclosures from the bond issuers and have not produced our own estimations.

The Fund was launched on September 22, 2022⁵. The Report covers the holdings in the fund on December 31, 2022. The environmental benefit is stated on annual basis, assuming the investor holds the Fund for one full year until at least September 22, 2023.

KEY PERFORMANCE METRICS⁶

- Financed Green Activities - Use of Proceeds:** The Fund finances primarily Clean Transport (40.2%) and Renewable Energy (19.9%), as well as Energy Efficiency (14.7%) and Green Buildings (9.1%). This is based on the information we received from 82% of the bond issuers in the fund.
- Environmental Impact Benefit – Carbon Dioxide Emission Avoidance:** On annual basis, the Fund avoids/removes approximately 600 tons of carbon dioxide emissions (CO2) / million USD invested. This is based on the information we received from 59% of the bond issuers in the Fund. This is equivalent to taking 130 cars off the road annually⁷.

Table 1: Financed Green Activities – Use of Proceeds⁸



Notes:

- a) Based on 82% of issuers that reported the use of proceeds;
 - b) The Government of Canada green bond (4% of the portfolio) did not yet report the use of proceeds;
 - c) The remaining 14% of the portfolio is invested in cash (7%) and short duration Canadian government bonds (7%) that are not labelled green. There is limited availability of green bonds in the short end of the bond curve, yet portfolio diversification is needed.
- Refer to Methodology for more detail.

³ Source: CI GAM, Bloomberg Finance LP

⁴ [Handbook-Harmonized-Framework-for-Impact-Reporting-220420.pdf \(ifc.org\)](#)

⁵ The fund started internally on September 22, 2022 through seed funding and was launched September 27, 2022 for retail investors.

⁶ In most cases, the latest available disclosures from bond issuers at the time of this report publication was for the year 2021. 82% issuers within the Fund disclosed use of proceeds and 59% disclosed carbon emission avoidance, either via public reporting or direct engagement with our CI GAM team.

⁷ US Environmental Protection Agency: [Greenhouse Gas Emissions from a Typical Passenger Vehicle \(EPA-420-F-18-008, April 2018\)](#)

⁸ CI Global Asset Management calculation based on the reporting from the underlying issues

Table 2: Environmental Impact Benefit - Avoided Carbon Dioxide Emissions

Issuers	Green Bond Holdings	Weight in the Portfolio	Impact Benefit (avoided CO2 equivalent tonnes / million USD)
Government and Government Credit			
Netherlands Government	NETHER 0.5 01/15/40	4.50%	155
CDP Financial Inc	CADEPO 3.8 06/02/27	4.20%	4 ¹⁰
Province of Ontario	ONT 1.85 02/01/27	3.90%	15
Province of Ontario	ONT 2.65 02/05/25	7.70%	15
Ontario Teachers' Finance Trust	ONTTFT 4.45 06/02/32	3.50%	533
Province of Quebec	Q 3.65 5/20/32	3.90%	2 ¹⁰
City of Toronto	TRNT 2.6 09/24/39	2.60%	13
South Coast British Columbia Transportation Authority	SOUCOA 2.65 10/29/2050	2.10%	3 ¹⁰
City of Ottawa	Ottawa 2.5 5/11/2051	2.00%	32
Kreditanstalt Fuer Wiederaufbau	KFW 2 11/15/29	8.90%	136
Kommunalbanken	KBN 3.8 12/07/27	3.50%	11
Corporate Issuers			
Apple	AAPL 3 06/20/27	4.40%	5241 ⁹
Bank of America	BAC 2.456 10/22/25	4.50%	1881 ⁹
Brookfield Finance Inc	BNCN 2.724 04/15/31	3.80%	7 ¹⁰
		Total: 59% ¹¹	On average, approximately 600 CO2t/USD MM avoided.

Source: CI GAM based on issuers' disclosures

Notes: We used only bond issuers' - companies and governments— reporting the impact of the funded projects. We did not use our own estimations; however, we made several conservative assumptions to normalize an issuer's reporting at the fund level (see Methodology).

⁹Apple and Bank of America's reported emissions reductions impact per million dollars was much higher than our other issues. Please see the issuer profiles below for an explanation.

¹⁰Bonds with low emission avoidance are primarily public transit companies. These projects are obviously beneficial, but the estimates seem low often because modal shift calculations are conservatively not factored in fully.

¹²Only 59% of the issuers reported the impact metric.

Disclaimer: these estimates are based on conservative assumptions and the actual impact may diverge from the initial projections.

EXAMPLES OF HOLDINGS

The two bond issues with the highest impact are the Bank of America and Apple.

Issuer Profile: Apple¹³

Apple has set the goal of becoming carbon neutral by 2030 by decreasing emissions in their operations by 75% and using carbon offsets for the remainder of their emissions. They are doing this by using 100% renewable energy and by working with suppliers to reduce their manufacturing and supply chain emissions. For example, Apple has invested in Elysis to produce low-carbon aluminum by using patented technology that eliminates direct GHG emissions from the traditional smelting process.

For the unavoidable emissions, Apple is investing in carbon removal with REDD+ carbon offsets which aim to sequester carbon in forests and mangroves by restoring degraded and barren land. These projects are verified under the Verified Carbon Standard (VCS) and the Climate, Community and Biodiversity Standards (CCBS).

In 2021, Apple reported on the overall impact of green bond program - the issued 2€ billion and 1\$ billion USD. Apple estimates that its green bond funded projects have mitigated close to 2 million tons of CO₂ equivalent tonnes per year. Since they have allocated \$550 million USD, this is 5241 tonnes of GHG emission reduction per year per million USD.

Issuer Profile: Bank of America¹⁴

Bank of America aims to be net-zero in their operations, supply chain and financing activities before 2050. As part of this commitment, the bank has set the goal of allocating \$1.5 trillion USD by 2030 in sustainable finance to support the environmental transition and inclusive development.

The bank's green bond issue in our Fund helped fund solar and wind projects that are estimated by the bank to avoid more than 3 million CO₂ equivalent tonnes of carbon per year. The bond was a \$2 billion USD issue, this is 1881 tonnes of GHG emission reduction per year per million USD.

METHODOLOGY

1. We relied on the bond issuers to provide us with appropriate disclosures on the two metrics we measured: the use of proceeds and emission avoidance. We did not use our own estimations for emission avoidance. However, we did make assumptions to normalize avoided emission reporting at the total Fund level.
2. In the case of investments by government entities which seeded/enabled/subsidized investments of private parties to be profitable, we allocated the impact according to a conservative estimate of the ratio of the subsidy to the overall operational and capital expenditure of the project.
3. We aimed for issue-level disclosure of impact as much as possible, and otherwise opted for a) the overall issuer-level disclosure, or b) previous issue-level
 - a. Namely, where disclosure of impact for the bonds that we bought was not available, we extrapolated from the disclosures issuers released on their aggregate green bond issuance program (i.e. aggregate reporting for several issues). In these cases, we assumed all green projects were financed by multiple bonds in proportionate parts. We then prorated the impact to our own issue.
 - b. If the issuer provided issue level details which omitted the bond we were holding, due to timing of impact reporting, we assumed that the marginal impact of the bond we purchased was the same as the bonds reported in the most recent impact report.
4. Where the issuer raised funds to finance a project currently under construction, we assumed the impact from a built and operating project.
5. We disclosed impact only from the allocated funds and not from funds held in cash.
6. At our Fund level, we standardized the issuer's carbon emission avoidance to the annual per million USD basis
7. Portfolio holdings as of December 31, 2022. Use of proceeds and carbon emission avoidance is for the year 2021 – latest available information at the time of this report publication.
8. Exchange rates as of December 31, 2022: EUR/USD 1.07, CAD/USD 0.738 and NOK/USD 0.101.

¹² Apple Green Bond Impact Report [Apple's FY2021 Green Bond Impact Report \(q4cdn.com\)](https://www.apple.com/energy/environment/sustainability/green-bond-impact-report)

¹⁴ Environmental, Social & Governance-Themed Bond Report ([bankofamerica.com](https://www.bankofamerica.com/esg))

For more information, please visit ci.com.

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