Financed emissions of investment portfolios

Understanding climate-related risk as part of sustainable investing

Climate change can have a significant impact on financial markets and investment returns. Co-operators seeks to manage the investment risks and opportunities associated with climate change and the transition to a low-emissions, resilient economy.

In 2014, Co-operators became the first Canadian insurer to sign the United Nations-supported Principles for Responsible Investment (PRI's) Montreal Carbon Pledge, a commitment to measure and publicly disclose the carbon footprints, or financed emissions, of our investment portfolios. The Montreal Carbon Pledge closed in 2023, following the successful achievement of its main objectives and with the emergence of new initiatives with a similar but more extensive focus such as the UN-convened Net Zero Asset Owner Alliance (NZAOA).

In 2021 we reaffirmed our commitment to climate action by joining the NZAOA, which has brought together over 80 asset owners from across 18 countries, managing US$9.5 trillion in assets to support the climate transition. This Alliance is committed to investing in climate solutions and transitioning investment portfolios to net-zero GHG emissions by 2050, all while reporting on their progress annually. We were featured as a case study in the Alliance's 2023 Progress Report, highlighting our impact investing strategy and the high proportion of our invested assets directed towards climate solutions as a catalyzing force of the climate transition. As part of our commitment, we have set a carbon emissions reduction goal of 25% by year end 2025 and 50% by 2030 from our 2020 base year. We recognize that investors alone cannot help economies reach net-zero goals and that policymakers, industry and society are all critical stakeholders on this journey. Through these commitments we want to do our part to contribute to the critical pathway to net zero.

Measuring and understanding carbon footprints and deepening our awareness of climate-related investment risks and opportunities aligns with the approach to active investing taken by our investment manager, Addenda Capital. In 2015 Addenda became a signatory to the Montreal Carbon Pledge and was the first Canadian asset manager to disclose the carbon footprints of all its equity funds. In 2021, Addenda joined the Net Zero Asset Managers Initiative and their initial targets were published in October 2022.

Co-operators recognizes that carbon emissions disclosure data quality and methods are continually evolving, and as such we are committed to reporting using global best practice guidelines. In 2020, the Partnership for Carbon Accounting Financials (PCAF) released the Global GHG Accounting and Reporting Standard for the Financial Industry. It provides a standardized approach to greenhouse gas (GHG) accounting and reporting for financial services companies. We began using the PCAF methodology to calculate the financed emissions of our public equity (listed equity) and publicly-traded bond (corporate bond) portfolios in 2020. The PCAF methodology includes a data quality metric, which we have disclosed along with each of our financed emission metric results. It highlights the varying carbon emissions data quality available by asset class (see below for more details). As part of our commitment to best practices, in 2023 Addenda underwent a methods review by an independent third-party. The resulting recommendations prompted Addenda to restate carbon emissions for Co-operators investment portfolio for the years 2019, 2020, 2021 and 2022 to reflect the most updated best practices and data availability. Further details on the restatements are described at the end of this document. Below are results for 2023 and the restated results for 2019 to 2022.

Our financed emissions metrics

We measure and monitor the financed emissions of our investments using three metrics:

1. ***Financed emissions***: Measures our share of the absolute greenhouse gas (GHG) emissions[1] of our public equity and publicly-traded bond investment portfolios. It is expressed in tonnes of carbon dioxide equivalent (CO2e) emissions. This term is often interchanged with the term absolute emissions.
2. ***Financed emission intensity***: Measures the financed emissions normalized by the market value of our public equity and publicly-traded bond investment portfolios. It is expressed in tonnes of CO2e per million dollars invested. This term is often interchanged with the term economic emissions intensity.
3. ***Weighted average carbon intensity (WACI)***: Measures the average carbon intensity (emissions per unit of investee company sales) of our investments, revealing our exposure to carbon-intensive companies. It is expressed in tonnes CO2e per million dollars of sales.

We first disclosed the financed emissions of our listed equity investments in 2015 and added other asset classes in 2016. New asset classes will be included over time as methodologies are developed.

Financed emissions

As of December 31, 2023, Co-operators public equity and publicly-traded bond investments were associated with 247,888 tonnes of carbon dioxide equivalent (emissions sources scopes 1 and 2 only[2]). The PCAF data quality score for December 31, 2023 was 2.2. As a result of the restatements, the financed emissions and financed emissions intensity for prior years decreased. Further details on restated results are described below.

Our financed emissions far exceed the emissions from our operations, which totaled 21,311 tonnes of carbon dioxide equivalent in 2023 (see Our Carbon Footprint). Co-operators has maintained carbon neutral status since 2020 through internal reductions, purchases of renewable energy certificates and purchases of carbon offsets. The fact that our financed emissions are more than 11 times the emissions from our operations reinforces the importance of our approach to sustainable investing, which emphasizes stewardship and advocacy, and encourages the companies we own to manage their climate risks and decrease their emissions.

Financed emissions of investment portfolios

Year	Financed emissions (tonnes of carbon dioxide equivalent)
2023	247,888
2022*	246,873
2021*	292,030
2020*	215,112
2019*	255,151

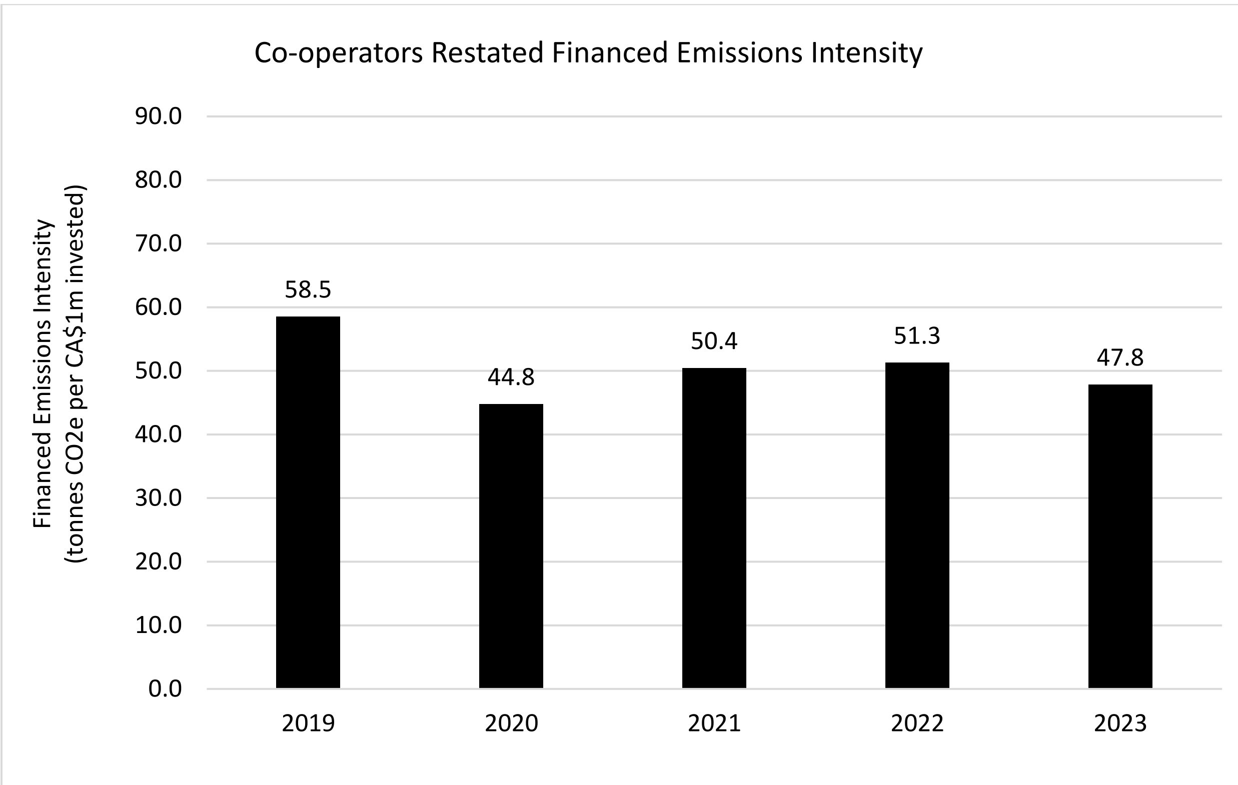
*Restated results using updated methodology

[1] Although the term carbon footprint of portfolios is often used it is in fact measuring greenhouse gases (GHGs) which includes Carbon Dioxide (CO_2) and other gases such as methane (CH_4,), Nitrous oxide (N_2O) and Fluorinated gases. The term carbon emissions equivalents is also appropriate to use in place of the term GHGs. For more details see https://www.epa.gov/ghgemissions/overview-greenhouse-gases

[2] PCAF (2020, p.19). The Global GHG Accounting and Reporting Standard for the Financial Industry. First edition.

Financed emissions intensity

As of December 31, 2023, Co-operators public equity and publicly-traded bond investments had an economic emission intensity of 47.8 tonnes of carbon dioxide equivalent per million dollars invested (CAD). Although our intensity increased 6.7% since our newly-restated base year of 2020 (during the COVID-19 pandemic), intensity has decreased relative to non-pandemic years: 6.8% lower than 2022, and 18.3% lower than 2019. The choice of base year has a significant impact on our relative performance.

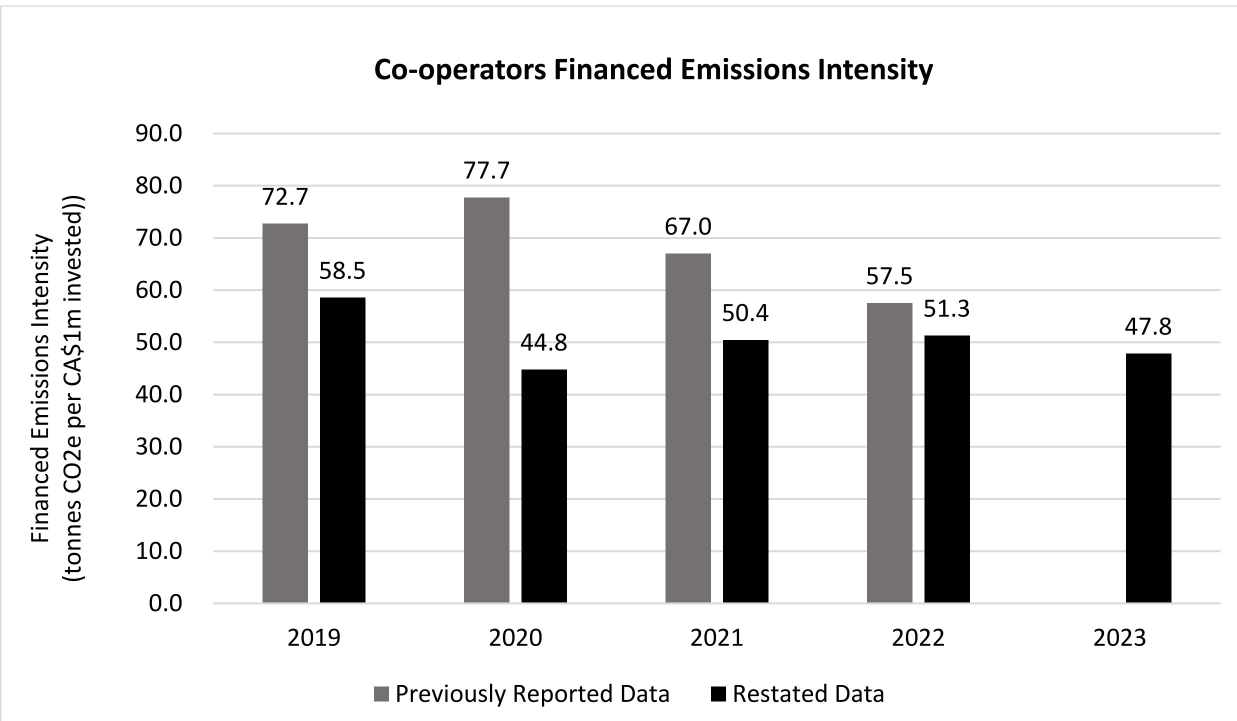


Financed emissions restatements for years 2019 to 2022

In 2023, Co-operators financed emissions calculations underwent a method review by an independent third party. The resulting recommendations prompted Addenda to restate carbon emissions for Co-operators investment portfolios for the years 2019, 2020, 2021 and 2022 to reflect the most updated best practices and data availability.

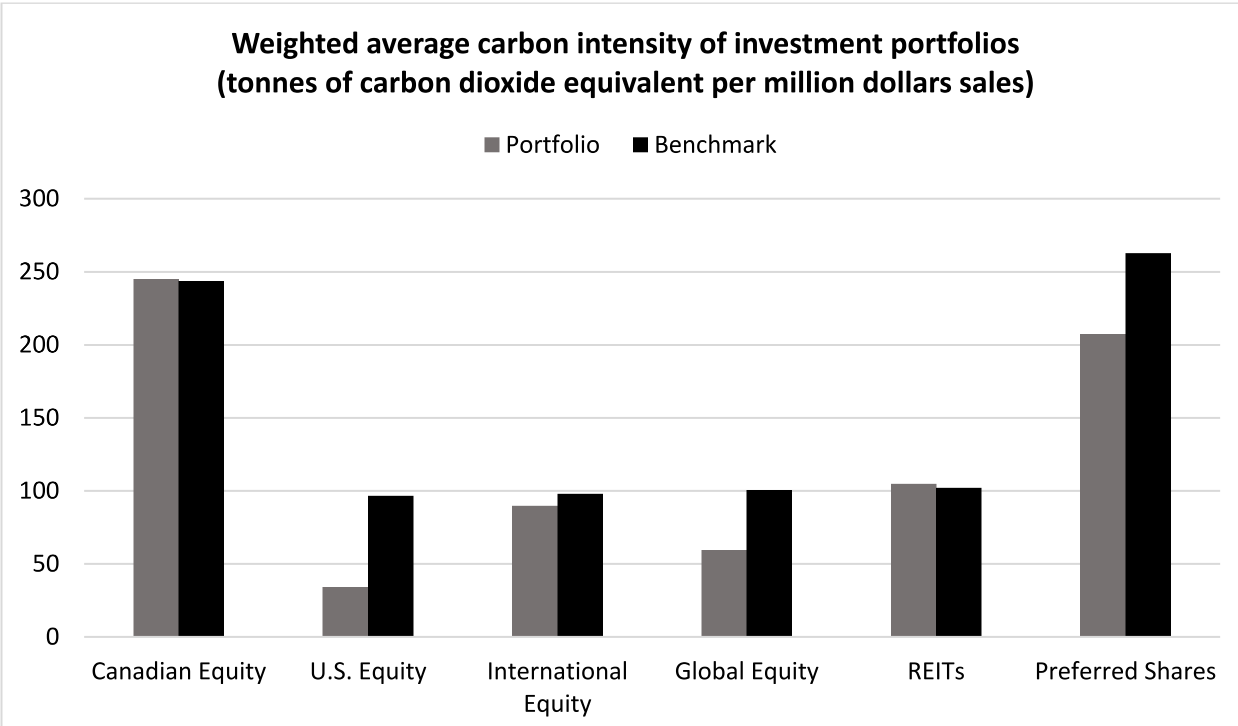
The restated portfolio carbon emissions decreased from previously reported results, due primarily to the availability and application of more sub-industry (vs. industry) and subsidiary (vs. parent company) carbon emissions estimates or data. Another factor was a change in the source for financial data to reflect more timely market pricing data, which improved alignment of company emissions with financial reporting activity.

From 2023 onward, carbon emissions reporting, including for the year 2023, reflect financial data from December 31st whereas the carbon emissions data reported by companies are often from the previous year and in some cases have a two-year time lag. It takes companies several months after year end to complete their carbon emissions calculations and for data providers to upload this data to their systems. For the years 2019 through to 2022, the restated results are based on financial and emissions data from the same time period—whereas the 2023 result relies on the most recently available emissions data, which is subject to this time lag issue. For this reason, the results for 2023 and restated results for 2019 to 2022 are not directly comparable.



Weighted average carbon intensity (WACI)

The weighted average carbon intensities of some of the portfolios representative of Co-operators investments are shown in the graph below. Co-operators Canadian Equity and Real Estate Investment Trust (REIT) portfolios have marginally higher emissions on average than the benchmark while the weighted average carbon intensities of our other portfolios are below the benchmarks.



Methodology: How we calculate our financed emissions

The methodology for measuring financed emissions is evolving, and many data gaps exist. As noted above, we have begun basing our calculations on the PCAF standard. Our methodology as reflected above underwent a method review in 2023 to ensure best practice methods and sources of data were applied. In seeking transparency, the following outlines key data sources, assumptions and methods applied in our approach.

1. Data sources:
   a. Reported and estimated greenhouse gas emissions data from MSCI ESG Research.
   b. Market and fundamental data from Bloomberg.
   c. Index data from MSCI and S&P.
2. Greenhouse gas emissions data are from 2022 year-end and cover scopes 1 and 2. To improve our data quality score, where emissions-related datapoints were not available or captured by MSCI (e.g. third-party verification of company-reported emissions), we sourced information from Bloomberg or directly from companies' sustainability reports. All financial data including Enterprise value including cash (EVIC), Revenue, and Asset Turnover data are from Bloomberg as of December 31, 2023.
3. Asset classes covered: Our disclosure covers public equity and publicly-traded bonds which includes our Canadian, U.S., and international companies, as well as our REIT and preferred share portfolios.
4. Holdings analyzed: Representative investment portfolios for different asset classes were selected to calculate the weighted average carbon intensities, as the same investment strategies are often used across multiple accounts. The financed emissions calculations included the invested assets of all companies across The Co-operators group of companies.
5. Financed emissions calculations:
   a. For companies with reported or estimated emissions data from MSCI ESG Research and enterprise value including cash (EVIC) from Bloomberg: We used each company's most recent total scope 1 and 2 emissions, multiplied by the amount Co-operators has invested in the company, divided by the EVIC of the company.
   b. For companies that do not have reported or estimated emissions data from MSCI ESG Research: We estimated our share of the company's financed emissions by multiplying the average carbon emissions intensity at the GICS Sub-industry level using MSCI ESG Research and Bloomberg, the GICS industry asset turnover ratios from Bloomberg, and the amount Co-operators has invested in the company (following Option 3c of the PCAF methodology for calculating financed emissions of public equity and publicly-traded bonds)
6. Data quality: The PCAF methodology includes the concept of a data quality metric, which we have calculated and disclosed. The application of the scores is outlined in the table below. A portfolio's score is calculated as the weighted average of the portfolio market value of investments in each data quality score level.

PCAF Data Quality Score

Score	When score is used
1 (best)	Company reported emissions that have been independently verified and enterprise value including cash known
2	Company reported emissions that have not been independently verified and enterprise value including cash known
3	Company emissions are estimated using physical metrics or company-specific economic metrics, and enterprise value including cash known
4	Company emissions are estimated using industry-specific economic metrics and enterprise value including cash known
5 (worst)	Company emissions are estimated using industry-specific economic metrics and enterprise value including cash is not known