

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. The 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 investment portfolios. In 2021, we announced our commitment to reduce the emissions of our investments (public equities and publicly-traded bond portfolios) by 20% by 2026, and to make our investment portfolio net-zero by 2050.

Measuring and understanding carbon footprints and other climate-related risks 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.

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 listed equity and 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.

Our financed emissions metrics

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

1. Absolute emissions measures our share of the absolute greenhouse gas (GHG) emissions of our investment portfolio.
2. Economic emission intensity measures the absolute emissions normalized by the market value of the investment portfolio.
3. Weighted average carbon intensity measures the average carbon intensity (emissions per unit of revenue) of our investments, revealing our exposure to carbon-intensive companies.

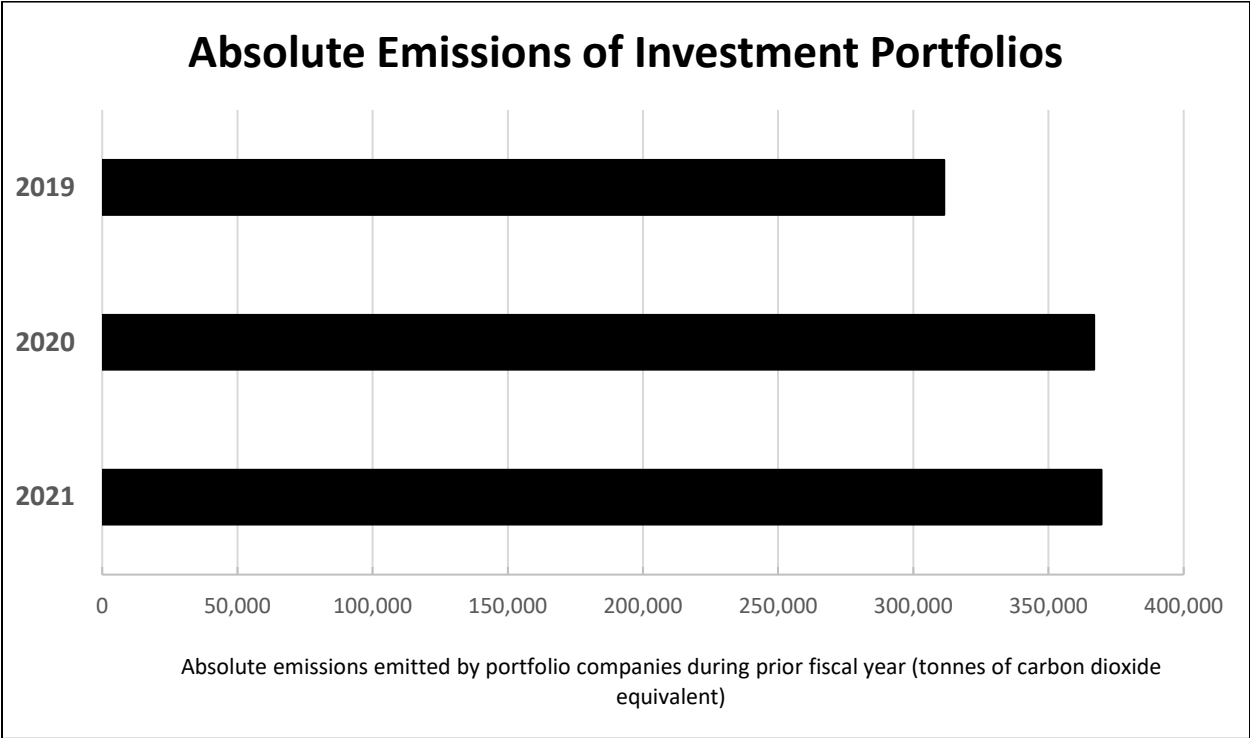
We first disclosed the financed emissions of our equity investments in 2015 and added other asset classes in 2016.

Absolute emissions

In 2021, The Co-operators listed equity and corporate bond investments were associated with 369,645 tonnes of carbon dioxide equivalent greenhouse gases (emissions sources scopes 1 and 2 only¹) emitted by companies in our portfolio. Compared on a like-for-like basis to 2020, we noted a 0.8% increase in carbon emissions. The PCAF data quality score for 2021 was 2.3.

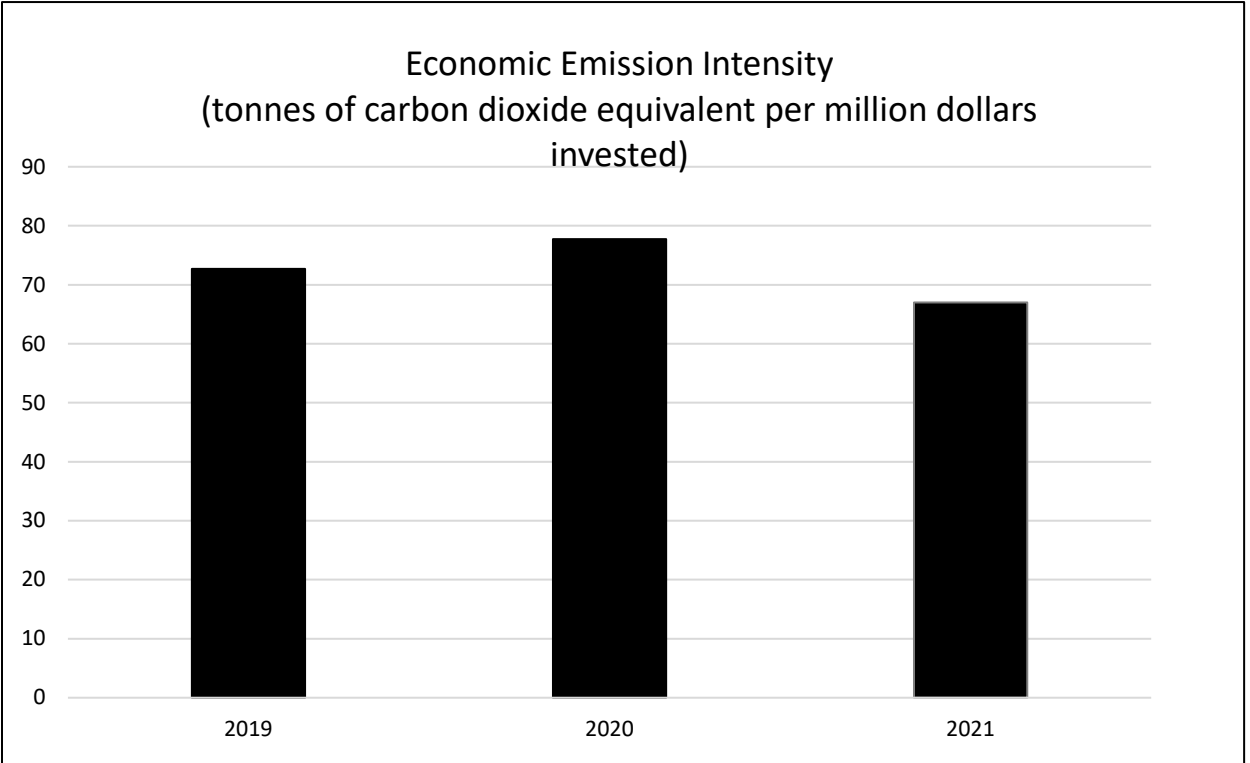
Our financed absolute emissions far exceed the emissions from our operations, which totaled 18,382 tonnes of carbon dioxide equivalent emissions in 2021 (see [Our Carbon Footprint](#)). The Co-operators has maintained net carbon neutral status since 2020 through internal reductions, purchases of renewable energy certificates and purchases of carbon offsets. The fact that our financed emissions are more than 20 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.

¹ PCAF (2020, p.19). The Global GHG Accounting and Reporting Standard for the Financial Industry. First edition.



Economic emission intensity

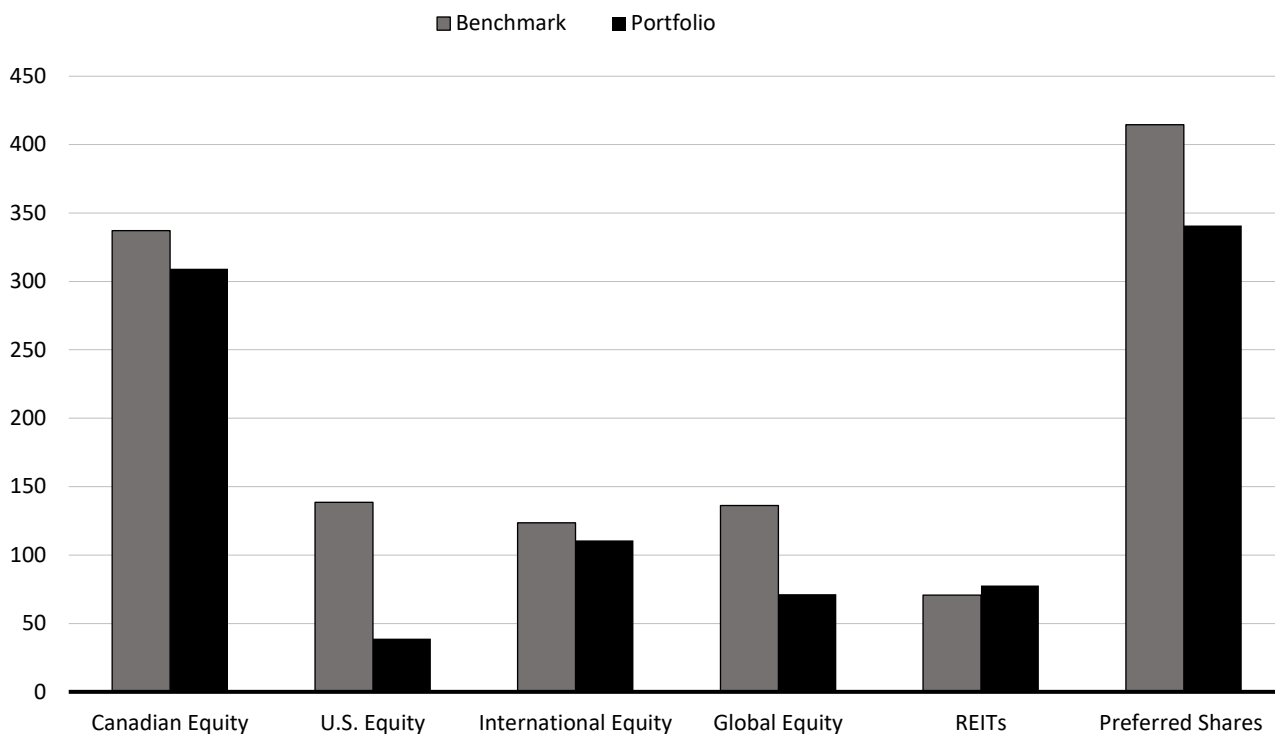
In 2021, The Co-operators listed equity and corporate bond investments had an economic emission intensity, or carbon footprint, of 67.0 tonnes of carbon dioxide equivalent per million dollars invested. Compared on a like-for-like basis to 2020, we noted a 13.8 per cent decrease in the carbon footprint.



Weighted average carbon intensity

The weighted average carbon intensities of some of the portfolios representative of The Co-operators investments are shown in the graph below. The Co-operators REIT portfolio has slightly higher emissions on average than the benchmark while the weighted average carbon intensity of our other portfolios are below the benchmark.

Weighted average carbon intensity of investment portfolios (tonnes of carbon dioxide equivalent per million dollars revenue)



PCAF data quality score	2.0	1.8	1.6	2.1	2.9	1.5
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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 methodology. The following key points from our methodology ensure transparency in our approach.

1. Data sources:
 - a. Reported and estimated greenhouse gas emissions data from MSCI ESG Research.
 - b. Market and fundamental data from MSCI ESG Research and Bloomberg.
 - c. Index data from MSCI and S&P.
2. Greenhouse gas emissions data are from 2019 and 2020 and cover scopes 1 and 2. Enterprise value including cash (EVIC) data from MSCI ESG Research is from the most recent fiscal year end.
3. Asset classes covered: Our disclosure covers listed equity and corporate bonds which includes our Canadian, U.S., and international equities, as well as our REIT portfolio, preferred shares and corporate bonds.

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 absolute emissions calculations considered the invested assets of all companies across The Co-operators group of companies.
5. Absolute emissions calculations:
 - a. For companies with reported or estimated emissions data and enterprise value including cash (EVIC) from MSCI ESG Research: We used each company's most recent total scope 1 and 2 emissions, multiplied by the amount The 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 or EVIC from MSCI ESG Research: We estimated our share of the company's absolute emissions by multiplying the average carbon emissions intensity at the GICS Sub-industry level from MSCI ESG Research, the GICS industry asset turnover ratios from Bloomberg, and the amount The Co-operators has invested in the company (following Option 3c of the PCAF methodology for calculating financed emissions of listed equity and corporate bonds).²
6. Data quality: The PCAF methodology has introduced the concept of a data quality metric, which we have calculated and disclosed. The application of the scores is outlined in the table below.

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 and enterprise value including cash known
4	Company emissions are estimated using company-specific economic metrics and enterprise value including cash known
5 (worst)	Company emissions are estimated using industry-specific economic metrics and/or enterprise value including cash is not known

² Note that in 2021 the methodology has been updated for companies that did not have reported or estimated emissions data and EVIC from Bloomberg. In 2018-2020, we estimated the tonnes of carbon dioxide per million dollars EVIC industry using MSCI ESG data and multiplied that by the amount The Co-operators had invested in the company. For the industry averages, we used the most granular Bloomberg Industry Classification System industry available that had at least 6 companies with either reported or estimated data from MSCI ESG, removed the top and bottom emitters in the industry, and took the average of the remaining companies.