Montreal Carbon Pledge – Carbon footprint of investments

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-carbon economy.

In 2014, The Co-operators became the first Canadian insurer to sign the United Nations-supported Principles for Responsible Investment (UN PRI)'s Montréal Carbon Pledge, a commitment to measure and publicly disclose the carbon footprints of investment portfolios.

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 Montréal Carbon Pledge and was the first Canadian asset manager to disclose the carbon footprints of all its equity funds.)

Our footprints
We measure and monitor the carbon footprints of our investments using two metrics:

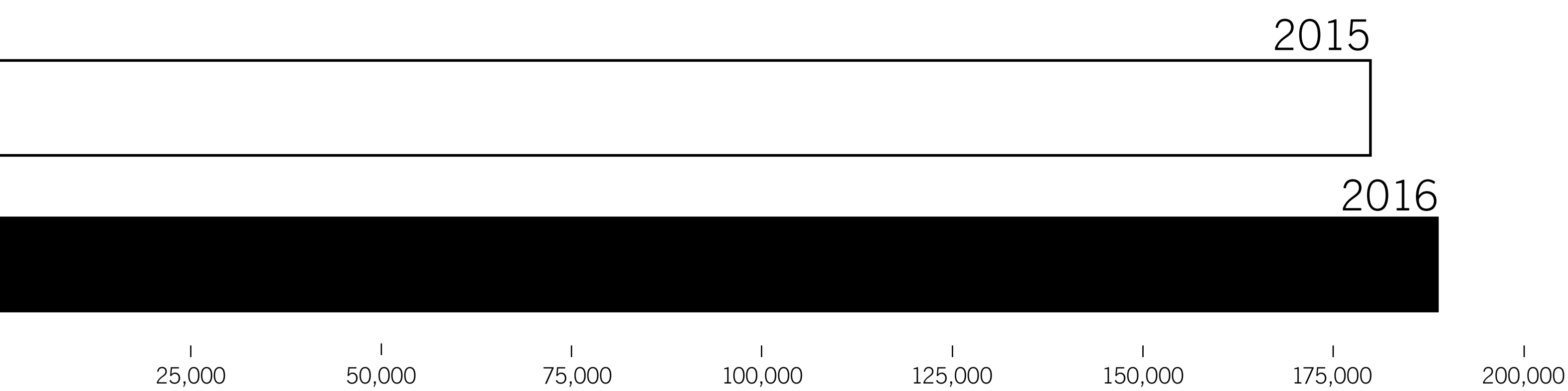
1. Owned carbon emissions measures our share of the absolute greenhouse gas (GHG) emissions of each of our investments.
2. Weighted average carbon intensity shows the average carbon intensity (emissions per revenue generated) of our investments, revealing our exposure to carbon-intensive companies.

We previously disclosed the carbon footprint of our equity investments and through disclosure in our 2016 Integrated Annual Report have added the footprints of our corporate bond and preferred share investments.

Owned carbon emissions
In 2016, The Co-operators equity investments, corporate bond and preferred share investments 'owned' a total of 188,814 tonnes of CO2-equivalent greenhouse gases (emissions sources scopes 1 and 2 only) emitted by companies in our portfolio. Compared on a like-for-like basis to 2015, we noted a 5.0 per cent increase in carbon emissions. This increase is due to more investments in the preferred shares of companies with high greenhouse gas emissions which was offset by a reallocation within equities from higher emitting forest products companies to lower emitting materials companies.

Our investment carbon footprint far exceeds the emissions from our operations, which totaled 15,843 tonnes of CO2-equivalent emissions in 2016 (see Appendices page AP-36). The Co-operators net emissions were reduced by 72 per cent in 2016, compared to 2010 emission levels, primarily through purchases of renewable energy certificates from Bullfrog Power. The fact that our owned emissions are more than 10 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.

The Co-operators Portfolio Carbon Emissions



Greenhouse gas emissions emitted by portfolio companies during prior fiscal year (tonnes of CO_2 equivalent)

Weighted average carbon intensity
The weighted average carbon intensities of some of The Co-operators representative investment portfolios are shown in the graph below. The Co-operators equities have lower emissions on average than benchmark companies. The carbon intensity of our Canadian REIT holdings and corporate bonds are marginally below the benchmark. Our preferred shares have a higher carbon intensity than the benchmark because we own a higher proportion of utilities companies in the portfolio than the benchmark. Utilities alone make up over 80 per cent of the intensity figure for our preferred shares portfolio.

Methodology: How we calculate the carbon footprint of investments
The methodology for measuring carbon footprints of investments is evolving, and many data gaps exist. The following key points from our methodology ensure transparency in our approach.

1. Data sources: 1) Reported and estimated greenhouse gas emissions data from MSCI ESG Research; 2) market and fundamental data from Bloomberg; 3) index data from MSCI, S&P and BMO. Greenhouse gas emissions data are from 2014 and cover scopes 1 and 2, as 2015 data are not yet available. Market values for investments were used with data from December 31, for each year.
2. Asset classes covered: Our disclosure covers our Canadian, U.S., and international equities, as well as our REIT portfolio, corporate bonds and preferred shares.
3. 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. The owned emissions calculation considered the invested assets of all companies across The Co-operators group of companies.
4. Emissions allocations: For the owned emissions calculation, each company's total emissions were allocated to debt, equity and preferred equity based on the book values for debt and preferred equity and the market value for equity using total capital as the denominator.

Weighted average carbon intensity of The Co-operators equity, REIT, preferred share, and corporate bond portfolios vs Benchmark (tonnes of CO2 equivalent / $m USD revenue)