Carbon Footprint Report

of Bâtirente's equity portfolios as at December 31, 2019

As a signatory to the Montreal Carbon Pledge, Bâtirente deems that it has a duty to its members and to society to measure its exposure to carbon risk and to consider the various ways of mitigating the associated risks as well as capitalizing on the new investment opportunities.

Measuring the carbon footprint

Bâtirente has been measuring the carbon footprint of its equity portfolios as of December 31 each year since 2015. For each of the companies in which we hold shares directly or through an external fund, we express the greenhouse gas (GHG) emissions in tonnes of carbon dioxide equivalent (tCO_2eq) per million dollars of sales.

The emissions measured include direct "scope 1", emissions, whose sources are within a company's premises (e.g., processing operations, facilities, plants, etc.) and indirect "scope 2" emissions (e.g., emissions generated by third parties to produce the electricity used by that company). Scope 3 emissions, which are attributed to the consumption of the company's products or services further down the value chain (e.g., emissions generated by the combustion of refined gasoline by automobiles), were not measured.

The emissions data were compiled by our partner in responsible investment Æquo, Shareholder Engagement Services, using the index carbon footprint metrics interface provided by Morgan Stanley Capital International (MSCI).

To compare the footprint of our portfolios, we normalized the annual emissions relative to the value of each company's sales. The carbon intensity of our portfolios is thus measured per unit of C$1M in sales and is calculated as follows:

$$\text{Carbon intensity of portfolio} = \frac{\text{Sum of emissions attributed to the portfolio } (tCO_2eq/m)}{\text{Sum of sales of companies within the portfolio (per \$M)}}$$

$$\text{Portfolio footprint} = \sum \left[\text{Company weight within the portfolio} \times \frac{\text{Company total emissions}}{\text{Value of sales of companies held}}\right]$$

Asset Profile of Bâtirente Funds

Table 1 illustrates the weight of the equity component of the Bâtirente Funds' assets and their evolution over the three years covered by this report. It is clear that the proportion of Bâtirente Funds' assets whose carbon footprint is measured from year to year is relatively constant.

Table 1: Asset Profile of Bâtirente Funds[1]

	2019	2018	2017
Total Assets	$730,300,000	$630,800,000	$608,400,000
Total Equity	$398,600,000	$332,300,000	$312,600,000
Equity Weight	54.6%	52.7%	51.4%

[1] *Excluding Guaranteed Investment Certificates held by members*

The total equities are allocated among various markets and in various management mandates. **Table 2** shows the weight of equity allocations in these various markets and mandates.

Table 2: Weight of Equity Categories in Total Equity

	2019	2018	2017
Global Equity	40.6	41.4%	39.8%
Canadian Equity	18.1%	14.8%	21.2%
Global Small Cap Equity	22.5%	25.2%	23.5%
Low Volatility Equity	9.0%	9.1%	7.0%
Listed Real Estate	9.7%	9.5%	8.4%
Total	**100.0%**	**100.0%**	**100.0%**

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Although using this separation by share categories may appear to be superfluous, it should be viewed in terms of the role played by the equities in our various portfolios—bearing in mind that the vast majority of our members' assets are allocated in diversified funds, including the Trajectory lifecycle path (86.5% in 2019). Thus, while all diversified funds hold small cap stocks in varying proportions according to their level of risk, only the Income and Patrimonial Funds use low-volatility strategies, as these funds have been specially developed for our retired members. We will show later that these two strategies have a very different carbon footprint.

Table 3: Weighted Carbon Intensity

Equity Category	2018-2019	2019		2018		2017	
	Evolution	Portfolio	Benchmark	Portfolio	Benchmark	Portfolio	Benchmark
Global Equity	-41%	94.5	186.2	162.1	203.7	162.8	211.6
Canadian Equity	-7%	306.2	345.3	330.1	319.7	326.7	387.3
Global Small Cap Equity	-11%	53.5	143.4	60.8	156.0	74.9	178.4
Low Volatility Equity (income & patrimonial)	+13%	428.0	186.2	379.1	203.7	400.2	262.6
Listed Real Estate	-21%	83.6	119.4	107.1	102.5	113.6	103.3
Total	**-12%**						

Table 4 provides a breakdown of the carbon footprint of the shares in all Bâtirente Funds, separated by category and aggregated to cover the three years included in this report.

Table 4: Carbon Footprint (tCO_2eq) / $M sales[2]

Equity Category	2019		2018		2017	
	Portfolio	Benchmark	Portfolio	Benchmark	Portfolio	Benchmark
Global Equity	38.4	75.7	67.0	84.2	64.8	84.3
Canadian Equity	55.5	62.6	48.8	47.3	69.2	82.0
Global Small Cap Equity	12.0	32.2	15.4	39.4	17.6	42.0
Low Volatility Equity (income & patrimonial)	38.6	16.8	34.4	18.5	28.1	18.4
Listed Real Estate	8.1	11.6	10.2	9.8	9.6	8.7
Total	**152.6**	**198.9**	**175.8**	**199.2**	**189.3**	**235.4**
Ratio	**76.7 %**				**80.4.%**	

[2] *Weighted average carbon intensity*

In 2019, the carbon intensity of our aggregated equity portfolios reached 153 tonnes of CO_2 equivalent per $M of sales, while the asset-weighted composite benchmark was 199 tonnes of CO_2 equivalent per $M of sales. This means that the carbon footprint of Bâtirente's aggregate equity portfolios was 77% of (and, in fact, 23% lower than) the carbon footprint of the benchmark markets in which these portfolios were invested.

The analysis of the data also indicates that in 2019:

- The carbon footprint of our three equity funds (global, small cap, Canadian) combined is lower than that of their benchmark portfolio (105.9 vs. 170.5 or 62.1%). It should be noted that these three funds together account for 81% of our total equities.
- Low-volatility global equities – mainly in our diversified funds with the lowest risk/return profiles (Diversified Income and Diversified Patrimonial) – have a larger footprint than their benchmark, at 428.0 as compared to 186.2. The larger footprint is due to the over-representation of utilities sector stocks in this type of portfolio. This sector includes many companies that produce of electricity from fossil fuels, whose prices are regulated. This results in low volatility.
- Shares of real estate companies are a class of shares found only in diversified funds. The carbon footprint of this portfolio is slightly lower than that of its benchmark market.

What the carbon footprint does not measure

Measuring the carbon footprint does not reveal all aspects of the climate impact of a portfolio of companies' shares. Indeed, for a complete picture, it would also be necessary to measure the positive contributions of companies to greenhouse gas (GHG) reduction. For example, a given company may emit GHGs, but produce a technology that allows another industry to significantly reduce its own GHGs. These companies are active participants in the energy transition, but their efforts are not reflected in their own carbon footprint calculations. While the ultimate purpose of the goods and services they produce is not taken into account in the calculation of GHG emissions. However, the reduction of GHGs of the companies using their products is captured.