CARBON FOOTPRINT DASHBOARD EXPLAINER

We believe that climate change is a significant investment issue now and into the future. Understanding how an investment manager is incorporating climate change in their investment decision-making, ownership practices and advocacy is important information for clients and other stakeholders.

We provide a climate change statement on our website which is consistent with the Task-force for Climate Related Financial Disclosure's (TCFD's) recommendations.

In addition, each of our investment teams provides a climate change statement articulating the approach they take to managing climate change risks and opportunities. This disclosure sits alongside information on how they consider environmental, social and corporate governance issues more broadly.

With these climate change statements we also provide interactive carbon footprint reports for each listed equity team and the organisation as a whole. This document provides information on what these footprints show and don't show.

In previous years we have discussed the benefits and issues associated with carbon footprinting. Please see our 2016 RI Report for full details. Notwithstanding these issues, carbon footprinting is an important lens for considering portfolio exposure to greenhouse gas emissions when considered in context with other metrics.

Some of the issues we raised in our 2016 report which is important to be mindful of includes:

- Data quality and availability issues, around 50% of emissions are estimates as not all companies report
- Dividing Emissions by Sales is often not the best intensity measure (see below) but has been recommended by the Task Force for Climate Related Financial Disclosures
- in carbon footprints - Other risks including physical risks are not captured in carbon footprints.

Transition and stranded asset risks are not captured

We will continue to improve our climate change, carbon and ESG disclosure and welcome any feedback or suggestions.



3.683.789 tCO2e Weighted Ave Emissions (Scope 1+2)



372.2 tCO2e Weighted Ave Intensity (Scope 1+2/\$m Sales)



-48.1% **Diff Weighted Ave Emissions** vs Benchmark (Aggregated)



-18.8% **Diff Weighted Ave Intensity** vs Benchmark (Aggregated)

Coverage

Our interactive footprint reports the emissions of the companies we invest in at a team level. This means we add the holdings in all the team's portfolios and compare them to the sum of their respective benchmarks.

The coverage numbers show what proportion of companies held by the team have available carbon data from MSCI. This is presented as both the number of companies and dollars invested.

Weighted average emissions and emissions intensity

Rather than disclose a straight average we use a weighted average based on the size of our holding in each company.

The weighted average is of each company's greenhouse gas emissions (scope 1 and 2¹).

We compare this to the weighted average emissions for the companies in the aggregated benchmark.

Intensity normalises company emissions for size by dividing emissions by \$ sales, which means larger companies (with more emissions) can be compared to smaller companies. It should show which company is more efficient. We have concerns around using sales because other factors like currency or commodity prices can have a large effect on dollars of sales with no effect on emissions. However, this method has been recommended by the TCFD² and we support increased comparability of investor reporting. Over time we will include additional measures to supplement emissions intensity.

¹ Scope 1: All direct GHG emissions. Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity. Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.² TCFD, page 43 https://www.fsb-tcfd.org/wpcontent/uploads/2017/06/FINAL-TCFD-Annex-062817.pdf



3.2 Ave Fossil Fuel Comp per Portfolio



Industrials

Information

Technology

Health Care

Financials

Weighted Ave Carbon 1+2

Weighted Ave

Carbon 1+2 Int

Consumer Staples

Fossil Fuel Companies

This indicator shows the average number of fossil fuel companies (as defined by MSCI) per portfolio. This includes companies who mine fossil fuels as well as generators of fossil based energy sources as well as other users of fossil fuels.

Difference in emissions intensity by country

In the map, the colour of each country shows the difference between weighted average emissions intensity (as defined above) for the team vs the aggregated benchmark. If a team has 100% more emissions it will appear dark red, while 100% less will show dark green.

Numbers which appear over the country show the % dollar exposure the team has to each country.

Clicking on a country filters the rest of the dashboard to only show companies from that country. Hovering over a country reveals more information.

Difference in emissions intensity by sector Similar to the country map, this chart shows the difference in

Similar to the country map, this chart shows the difference in weighted average emissions intensity between the team's holdings and the benchmark by sector. The colour of each rectangle shows this difference. The size of the rectangle shows the percentage exposure of the team to each sector.

Clicking on a sector filters the rest of the dashboard to only show companies from that country. Hovering over a sector reveals more information.

2016

Real

Estate

Energy

2018



2014

Emissions and emissions intensity through time

The chart shows weighted average emissions for the team (blue line) vs the aggregated benchmark (orange line) for the last five years. This is provided for both total emissions and emissions intensity because both measures need to fall over time to meet the Paris Climate Change Agreement targets.

Company scatter plot

The scatter plot shows the difference between each company held by the team and the industry average for the company. The x-axis shows this for total emissions while the y-axis shows this for emissions intensity. Companies to the bottom left perform better on these measures than companies to the top right.

The size of the circle is proportionate to the \$ exposure to the company for all portfolios.

Selecting a group of companies filters the rest of the dashboard to only show those companies. Hovering over a company reveals more information.



Top emissions table

For the dashboard which covers all teams (available with our climate change statement) the table shows a break down of measures for each team including:

- Total assets under management
- Weighted average emissions for the team
- Weighted average emissions intensity for the team
- The difference between each teams weighted average and their benchmark for both measures
- The average number of fossil fuel companies held in each portfolio.

For the individual investment team reports (available in each listed equity team's profile page) the table shows information for the ten largest contributors to the team's weighted average emissions. The table shows:

- \$ Exposure across all portfolios
- Total carbon emissions (scope 1 & 21)
- What contribution these emissions make to the weighted average for the team
- The company's emissions intensity
- What contribution the emissions makes to the weighted average intensity for the team
- The difference between the company's emissions intensity and the industry average.

¹ Scope 1: All direct GHG emissions. Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity. Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.

The information contained within this document is generic in nature and does not contain or constitute investment or investment product advice. The information has been obtained from sources that First State Investments ("FSI") believes to be reliable and accurate at the time of issue but no representation or warranty, expressed or implied, is made as to the fairness, accuracy, completeness or correctness of the information. Neither FSI, nor any of its associates, nor any director, officer or employee accepts any liability whatsoever for any loss arising directly or indirectly from any use of this document.

This document has been prepared for general information purpose. It does not purport to be comprehensive or to render special advice. The views expressed herein are the views of the writer at the time of issue and may change over time. This is not an offer document, and does not constitute an investment recommendation. No person should rely on the content and/or act on the basis of any matter contained in this document without obtaining specific professional advice. The information in this document may not be reproduced in whole or in part or circulated without the prior consent of FSI. This document shall only be used and/or received in accordance with the applicable laws in the relevant jurisdiction.

Reference to specific securities (if any) is included for the purpose of illustration only and should not be construed as a recommendation to buy or sell the same. All securities mentioned herein may or may not form part of the holdings of First State Investments' portfolios at a certain point in time, and the holdings may change over time.

In Hong Kong, this document is issued by First State Investments (Hong Kong) Limited and has not been reviewed by the Securities & Futures Commission in Hong Kong. In Singapore, this document is issued by First State Investments (Singapore) whose company registration number is 196900420D. This advertisement or publication has not been reviewed by the Monetary Authority of Singapore. First State Investments is a business name of First State Investments (Hong Kong) Limited. First State Investments (registration number 53236800B) is a business division of First State Investments (Singapore). The First State Investments logo is a trademark of the Commonwealth Bank of Australia or an affiliate thereof and is used by FSI under licence.

First State Investments (Hong Kong) Limited and First State Investments (Singapore) are part of the investment management business of First Sentier Investors, which is ultimately owned by Mitsubishi UFJ Financial Group, Inc. ("MUFG"), a global financial group. First Sentier Investors includes a number of entities in different jurisdictions, operating in Australia as First Sentier Investors and as FSI elsewhere.

MUFG and its subsidiaries are not responsible for any statement or information contained in this document. Neither MUFG nor any of its subsidiaries guarantee the performance of any investment or entity referred to in this document or the repayment of capital. Any investments referred to are not deposits or other liabilities of MUFG or its subsidiaries, and are subject to investment risk, including loss of income and capital invested.