

# FSSA Carbon and Climate 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 explains the approach we take to managing the risks and opportunities. With this, we also provide an interactive carbon

footprint and climate risk report. This document provides information on which carbon footprint and climate change metrics show and don't show.

All carbon data is sourced from Institutional Shareholder Services Inc. (ISS) and numbers below are for illustrative purposes only.

## Some issues which are important to keep in mind:

- Data quality and availability issues, including that a significant proportion of carbon emissions data is estimated as not all companies report;
- Dividing Emissions by Revenue (for corporates) is often not the best intensity measure but has been recommended by the Task Force on Climate-related Financial Disclosures;
- Transition and stranded asset risks are not captured in carbon footprints;
- Other risks including physical risks are not captured in carbon footprints.

## Header section

In the top right corner of the dashboard header is a drop-down box that can be used to change the reporting time period to any 3-month quarter for last 5 years. The date and currency are displayed under this box.



### Carbon & Climate - FSSA Investment Managers

Reporting Period

All metrics are based on USD as at December 2023



293

# Issuers (Portfolio)

277

# Issuers (Covered)

30.1bn

Exposure (Portfolio)

83%

Coverage

Source: ISS Climate data as at 31 Dec 2023, FSI Holdings data as at 31 Dec 2023

Under the header are summary metrics for the number of issuers in the portfolio, the number of issuers covered by our carbon data, the total exposure in USD represented by investments in the portfolio and the coverage expressed as a percentage. Issuers means any company that issues investment securities. All metrics are based on USD.

Exposure refers to the proportion of assets under management that is relevant for the calculation of carbon and climate change metrics.

## Metrics

### Portfolio Carbon Footprint

This metric measures the absolute greenhouse gas emissions associated with a portfolio (Scope 1 and 2) expressed in tCO<sub>2</sub>e. Scope 1 and 2 emissions are allocated to investors based on an enterprise ownership approach (if an investor owns 10% of a company's total Enterprise Value Including Cash (EVIC), then they own 10% of the company and therefore of the company's emissions).

#### Portfolio Carbon Footprint



4.43M

Scope 1

4.11M

Scope 2

8.94M

Scope 3

8.54M

Scope 1+2

Source: ISS Climate data as at 31 Dec 2023, FSI Holdings data as at 31 Dec 2023

Scope 1 emissions relate to direct emissions by the company (for example by burning fossil fuels). Scope 2 refers to indirect emissions from the generation of purchased electricity and heating by the company. Scope 3 refers to other indirect emissions in a company's value chain from sources they do not own or control (for example purchased goods and services, business travel, use and processing of sold products).

Uses: portfolio decomposition and attribution analysis. Not for comparison as the data is not normalised.

### Relative Carbon Footprint

The carbon emissions of a portfolio per \$m invested. Scope 1 and 2 emissions are allocated to investors based on an enterprise ownership approach (if an investor owns 10% of a company's total Enterprise Value Including Cash (EVIC), then they own 10% of the company and therefore of the company's emissions). This is then normalised by portfolio value.

#### Relative Carbon Footprint (Scope 1 & 2)



33.48

tCO<sub>2</sub>e / \$m invested  
Portfolio



133.15

tCO<sub>2</sub>e / \$m invested  
Benchmark



(74.86%)  
Variance

Source: ISS Climate data as at 31 Dec 2023, FSI Holdings data as at 31 Dec 2023

Variance shows the difference between the Carbon Footprint for all companies in the portfolio vs the benchmark as a percentage.

Uses: this metric normalises the measure of a portfolio's contribution to climate change based on investment size to enable comparisons to the benchmark and other portfolios.

### Weighted Average Carbon Intensity

This metric measures the Weighted Average Carbon Intensity (scope 1 & 2) per \$m revenue for all companies in the portfolio. Carbon intensity is weighted by percentage exposure to each company.

#### Weighted Average Carbon Intensity



Source: ISS Climate data as at 31 Dec 2023, FSI Holdings data as at 31 Dec 2023

Variance shows the difference between the carbon intensity (scope 1 & 2) per \$m revenue for all companies in the portfolio vs the benchmark as a percentage. Carbon intensity is weighted by percentage exposure to each company.

Uses: this metric adjusts for company size and is therefore a more accurate measurement of company efficiency than absolute emissions. It can be used for comparisons against a benchmark or another portfolio and for portfolio decomposition and analysis.

### Fossil Fuel Exposure

This indicator tells an investor how much exposure a portfolio has to companies that are involved in fossil fuel related activities.

#### Fossil Fuel Exposure



Source: ISS Climate data as at 31 Dec 2023, FSI Holdings data as at 31 Dec 2023

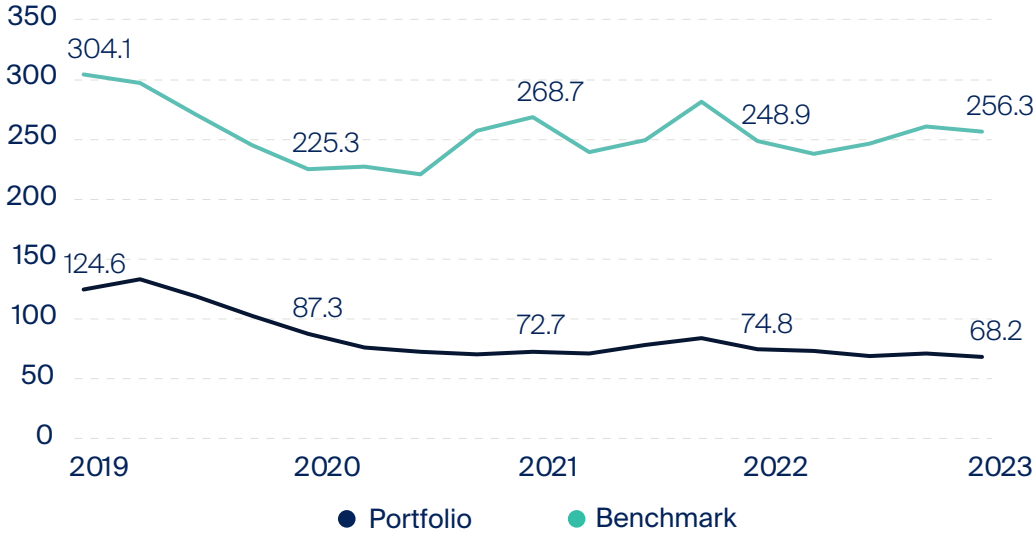
Fossil Fuel related activities are defined as:

- I. exploration, mining, extraction, distribution or refining of hard coal and lignite;
- II. exploration, extraction, distribution (including transportation, storage and trade) or refining of liquid fossil fuels; and
- III. exploring and extracting fossil gaseous fuels or from their dedicated, distribution (including transportation, storage and trade).

This metric also focuses on the supply side of energy. We can use this metric to gain a better understanding of the stranded asset risk within portfolios. Any exposure will flag the full weight of the holding.

### Historical Weighted Average Carbon Intensity

This line chart compares the WACI trend for the portfolio vs the portfolio's benchmark over the past 5 years.



Source: ISS Climate data as at 31 Dec 2023, FSI Holdings data as at 31 Dec 2023

### Sector

This chart shows the difference between the portfolio's weighted average carbon intensity against benchmark for each sector.

GICS Sector Name	Intensity (Portfolio)	Intensity (Benchmark)	Intensity Var (%)
Consumer staples	92.57	82.11	12.73%
Health Care	61.28	69.26	(11.52%)
Materials	880.26	1,016.50	(13.40%)
Consumer Discretionary	46.51	56.80	(18.12%)
Financials	6.98	8.98	(22.24%)
Industrials	148.72	212.95	(29.83%)
Information Technology	62.66	91.58	(31.58%)
Communication Services	27.92	44.21	(36.85%)
Real Estate	26.71	57.46	(53.52%)
Utilities	30.85	3,256.54	(99.05%)

Source: ISS Climate data as at 31 Dec 2023, FSI Holdings data as at 31 Dec 2023

### Top Contributors

This table shows the ten largest contributors<sup>1</sup> to emissions in the portfolio based on the selected metric.

Issuer	Contribution to:	Contribution (%)
Taiwan Semiconductor Manufacturing Co. Ltd.	5.94	8.57%
PT Indocement Tungal Prakarsa Tbk	5.26	7.59%
CSPC Pharmaceutical Group Ltd.	4.34	6.26%
HeidelbergCement India Ltd.	4.13	5.96%
Xinyi Glass Holdings Ltd.	3.85	5.56%
China Mengniu Dairy Co. Ltd.	3.15	4.54%
CK Hutchison Holdings Ltd.	2.85	4.12%
Beijing New Building Materials Public Ltd.	2.68	3.87%
China Resources Beer (Holdings) Co. Ltd.	2.33	3.36%
Shenzhou International Group Holdings Ltd.	2.00	2.89%

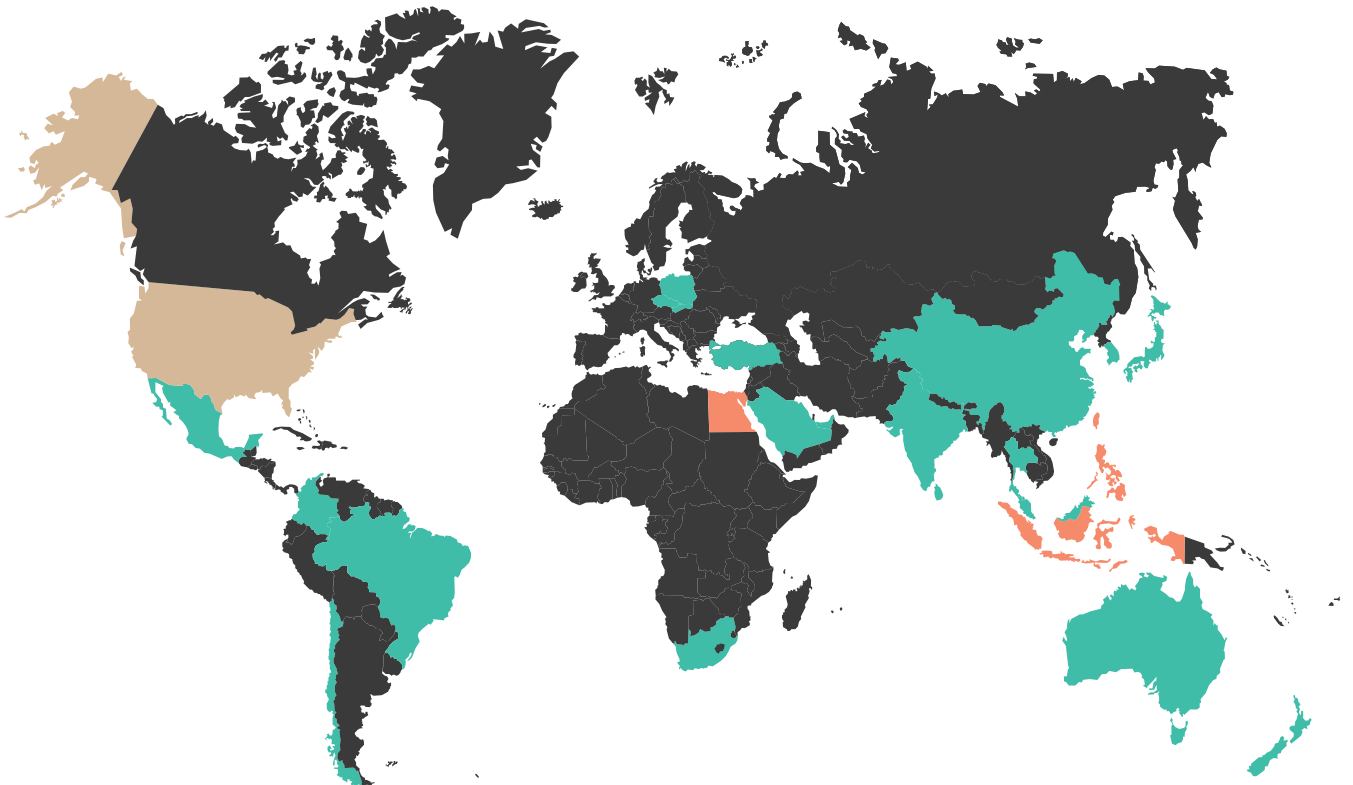
Source: ISS Climate data as at 31 Dec 2023, FSI Holdings data as at 31 Dec 2023

The contribution values represent the company’s portion of the total portfolio value for the selected metric, not the value of the metric for the company itself. Portfolio level metrics differ because they adjust for things such as research coverage and averaging across the portfolio.

1. 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 may or may not form part of the holdings of a portfolio or fund managed by the First Sentier Investors Group and are subject to change.

### Country of Domicile

The colour represents the difference in weighted average carbon intensity for the companies held in the portfolio vs. the benchmark. Countries highlighted in green and orange are more than 50% below or above the benchmark respectively, amber represents less than 50% variance from the benchmark.



Source: ISS Climate data as at 31 Dec 2023, FSI Holdings data as at 31 Dec 2023

### Important Information

This material is for general information purposes only. It does not constitute investment or financial advice and does not take into account any specific investment objectives, financial situation or needs. This is not an offer to provide asset management services, is not a recommendation or an offer or solicitation to buy, hold or sell any security or to execute any agreement for portfolio management or investment advisory services and this material has not been prepared in connection with any such offer. Before making any investment decision you should consider, with the assistance of a financial advisor, your individual investment needs, objectives and financial situation.

We have taken reasonable care to ensure that this material is accurate, current, and complete and fit for its intended purpose and audience as at the date of publication. #To the extent this material contains any measurements or data related to environmental, social and governance (ESG) factors, these measurements or data are estimates based on information sourced by the relevant investment team from third parties including portfolio companies and such information may ultimately prove to be inaccurate. No assurance is given or liability accepted regarding the accuracy, validity or completeness of this material and we do not undertake to update it in future if circumstances change.

To the extent this material contains any expression of opinion or forward-looking statements, such opinions and statements are based on assumptions, matters and sources believed to be true and reliable at the time of publication only. This material reflects the views of the individual writers only. Those views may change, may not prove to be valid and may not reflect the views of everyone at First Sentier Investors.

To the extent this material contains any ESG related commitments or targets, such commitments or targets are current as at the date of publication and have been formulated by the relevant investment team in accordance with either internally developed proprietary frameworks or are otherwise based on the Institutional Investors Group on Climate Change (IIGCC) Paris Aligned Investment Initiative framework. The commitments and targets are based on information and representations made to the relevant investment teams by portfolio companies (which may ultimately prove not to be accurate), together with assumptions made by the relevant investment team in relation to future matters such as government policy implementation in ESG and other climate-related areas, enhanced future technology and the actions of portfolio companies (all of which are subject to change over time). As such, achievement of these commitments and targets depend on the ongoing accuracy of such information and representations as well as the realisation of such future matters. Any commitments and targets set out in this material are continuously reviewed by the relevant investment teams and subject to change without notice.

### About First Sentier Investors

References to 'we', 'us' or 'our' are references to First Sentier Investors, a global asset management business which is ultimately owned by Mitsubishi UFJ Financial Group. Certain of our investment teams operate under the trading names FSSA Investment Managers, Stewart Investors and Realindex Investments, all of which are part of the First Sentier Investors group.

We communicate and conduct business through different legal entities in different locations. This material is communicated in:

- Australia and New Zealand by First Sentier Investors (Australia) IM Ltd, authorised and regulated in Australia by the Australian Securities and Investments Commission (AFSL 289017; ABN 89 114 194311)
- European Economic Area by First Sentier Investors (Ireland) Limited, authorised and regulated in Ireland by the Central Bank of Ireland (CBI reg no. C182306; reg office 70 Sir John Rogerson's Quay, Dublin 2, Ireland; reg company no. 629188)
- Hong Kong by First Sentier Investors (Hong Kong) Limited and has not been reviewed by the Securities & Futures Commission in Hong Kong. First Sentier Investors, FSSA Investment Managers and Stewart Investors are the business names of First Sentier Investors (Hong Kong) Limited.
- Singapore by First Sentier Investors (Singapore) (reg company no. 196900420D) and this advertisement or material has not been reviewed by the Monetary Authority of Singapore. First Sentier Investors (registration number 53236800B), FSSA Investment Managers (registration number 53314080C) and Stewart Investors (registration number 53310114W) are the business divisions of First Sentier Investors (Singapore).
- Japan by First Sentier Investors (Japan) Limited, authorised and regulated by the Financial Service Agency (Director of Kanto Local Finance Bureau (Registered Financial Institutions) No.2611)
- United Kingdom by First Sentier Investors (UK) Funds Limited, authorised and regulated by the Financial Conduct Authority (reg. no. 2294743; reg office Finsbury Circus House, 15 Finsbury Circus, London EC2M 7EB)
- United States by First Sentier Investors (US) LLC, authorised and regulated by the Securities Exchange Commission (RIA 801-93167)
- other jurisdictions, where this document may lawfully be issued, by First Sentier Investors International IM Limited, authorised and regulated in the UK by the Financial Conduct Authority (FCA ref no. 122512; Registered office: 23 St. Andrew Square, Edinburgh, EH2 1BB; Company no. SC079063).

To the extent permitted by law, MUFG and its subsidiaries are not liable for any loss or damage as a result of reliance on any statement or information contained in this document. Neither MUFG nor any of its subsidiaries guarantee the performance of any investment products 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