Climate Change Statement 2023

1 July 2022 – 30 June 2023

First Sentier Investors

Contents

Our approach

At First Sentier Investors (FSI), we believe that society must drastically reduce greenhouse gas emissions if we are to avoid the worst consequences of the climate crisis. We accept the science of climate change and support the transition to a low carbon economy, in line with the goals of the Paris Agreement[1] that is already underway.

As allocators of capital, stewards of our clients' assets and active shareholders in companies, we know that the individual and collective decisions we make as investors will influence the nature and speed of this transition.

We acknowledge that we have a wider responsibility to contribute to a sustainable economy and society through our investment activities and business operations. We understand that different assets will be affected by the transition in different ways, both in relation to their contribution to climate change in the form of greenhouse gas emissions, but also their exposure to changes occurring in the physical environment.

In addition to managing climate risk, we are focused on the opportunities presented by the transition to a low carbon economy. Some companies are well-positioned to contribute to, or provide, the solutions needed to reduce greenhouse gas emissions and to adapt to a changing climate. These companies can offer compelling, long-term, risk-adjusted investment returns aided by changes in policy, technology and consumer demand. Over the last five years, we have provided case studies of both kinds in our responsible investment (RI) and stewardship reports.

Beyond its direct effects, climate change often acts as a multiplier of other risks and opportunities that investors have traditionally managed. For example, while companies have always had to manage impacts of extreme weather events, climate change is making these more frequent and intense. Similarly, while technological disruption has always occurred, the urgency and scale of changes needed to shift to a low-carbon economy are unprecedented.

In recent years we have seen an acceleration in the number of companies, financial institutions, states, regions and cities committing to transitioning to a net zero world. However, challenges abound. There is a significant gap between the capital investment required to meet the climate change objectives of the Paris Agreement and the amount currently being deployed across the globe. Investors require support from policy-makers to shift capital at the speed and scale required. However, as stewards of our clients' assets we believe we cannot simply wait for this to occur, because the long-term interests of our clients are tied to a stable climate.

As a result, we will up-skill our employees, work closely with stakeholders and deploy capital towards achieving financial, social and environmental objectives.

This shared responsibility requires transparency from all stakeholders. In light of this, we have prepared this document to align with the Task Force on Climate-Related Financial Disclosures (TCFD). Our updates cover the period July 2022 to June 2023 and the categories of:

1. Strategy
2. Governance
3. Risk Management
4. Metrics and Targets.

For further information on our approach and the targets we have set, please visit the 'Our climate metrics and target' section of our website.

[1] The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.

Key updates

Over the reporting period, FSI has been implementing a comprehensive Climate Risk Management Plan (CRMP). This was developed in 2022 and mapped FSI's progress against TCFD recommendations and associated regulations and guidance. The CRMP identified 59 actions to pursue in 2021 and 2022, and is intended to be used as a dynamic risk management plan, updated and adjusted in line with new climate risk-related government policy and regulations.

Actions include enhancing governance and oversight of climate risks; expanding company level policy parameters; and increasing the management and disclosure of climate-related risks and opportunities at an individual investment team level. At the end of 2022, we developed a second iteration of the CRMP, setting out 21 action items to be implemented in 2023.

Our investment teams continue to build on the extensive climate-related work undertaken in previous years. Most of the Investment teams pursuing active management strategies have developed a range of targets at team, portfolio and/or company level that they wish to pursue over the short, medium and long term.[1] The initial proportion of our total assets under management (AUM) to be managed in line with our net zero ambition was 44.5% (based on total FSI AUM on 31 December 2021). We aim to increase the proportion of assets and investment strategies covered by formal net zero targets over time as methodologies and data become available, as set out in our Climate Change Action Plan. The current proportion of our AUM committed to be managed in line with our net zero ambition is 49.7% (based on AUM as at 31 December 2022).

We have developed a comprehensive Climate Change Action Plan, which sets out our net zero transition strategy to achieve the targets outlined above, including how we will transition existing investments and our operations to net zero; develop new products; work with stakeholders including clients, investee companies and regulators; and monitor progress and measure success.[2]

We invested in additional environmental, social and governance (ESG) data and information sources over the course of 2022, including net zero alignment and fossil fuel related data. We worked closely with our data provider to ensure that all relevant parts of the FSI business are well informed on how to use the data most effectively, and to understand its limitations.

[1] Our climate metrics and targets can be found on our website

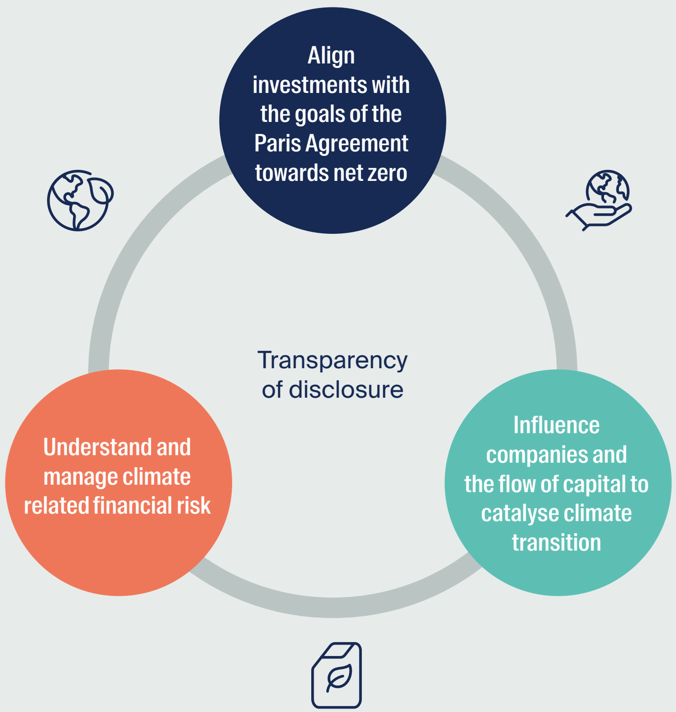
[2] These targets have been formulated based on: (i) available information and representations made to First Sentier Investors by third parties, including, but not limited to, portfolio companies; and (ii) assumptions made in relation to future matters such as the implementation of government policy in climate-related areas, enhanced future technology and the actions of portfolio companies. Such information and representations may ultimately prove to be inaccurate and such future matters may not ultimately be realised. As such, First Sentier Investors cannot guarantee the achievement of these targets. These targets are subject to ongoing review and may change without notice.

Strategy

At FSI, our purpose is to deliver sustainable investment success for the benefit of our clients, employees, society and our shareholder, and our vision is to be a provider of world-leading investment expertise and client solutions, led by our responsible investment principles.

We want to be recognised as a leader in RI and Corporate Sustainability, in terms of both advocacy and our own operations. This is a key strategic pillar for the firm, and climate change is one of the four key ESG themes we are prioritising.

Our climate strategy is centred on ensuring transparency of disclosure on climate change, with the aim to align investments with the goals of the Paris Agreement towards net zero, understand and manage climate-related financial risks, and influence companies and the flow of capital to accelerate climate transition.



We have articulated our formal net zero transition strategy in our Climate Action Plan, and more broadly, climate change is a key feature of our group-wide RI strategy. Our governance structures and strategy are designed to be flexible enough to cater to the needs of our diverse investment capabilities, while remaining clear and practical.

Given the diversity of our investment capabilities, and consequently the range of risks and opportunities posed by climate change, we believe this integrated approach is the most effective way forward.

Our existing RI framework ensures that complex issues, which have implications for multiple investment teams, are captured and managed through the governance structures and committees outlined in the Governance section below.

The elements of our RI strategy that are directly related to climate change are:

- **RI Learning & Development program:** this provides targeted training to different stakeholder groups across the firm (board and executive leadership; investment teams; distribution, marketing, product, legal, communications, compliance and risk management; and whole of firm). Climate change education is a key part of this program and includes inviting external experts to present and engage with the different stakeholder groups.
- **ESG Data Strategy:** this aims to enhance the ESG data (including climate-related data) that is available for investment teams, clients and management, to make more informed decisions and to allow us to be more transparent. In early 2023, we added three additional resources to our data project management team in support of our ESG Data Strategy, and to respond to the fast-moving regulatory environment.
- **Investment integration:** each FSI investment team incorporates climate change into the investment process and portfolio company engagement activities, along with other environmental, social and corporate governance issues.
- **Global Responsible Investment & Stewardship Policy and Principles:** this document sets out the key investment team standards in relation to RI generally, and climate change specifically.
- **Client engagement:** we aim to engage with our key clients to ensure we understand their approach to climate change, so that we can anticipate and meet their needs regarding climate disclosure, reporting and strategy.
- **Policy advocacy:** we actively engage with stakeholders including regulators, industry bodies, civil society organisations and collaborative initiatives, to raise awareness and advocate for the necessary policy settings to enable us to deploy capital to meet global climate objectives.
- **Governance:** we continue to enhance our internal ESG governance process based on the evolving regulatory landscape and client requirements.

Investment team strategies

At FSI, we take a decentralised approach to RI, where individual investment teams are primarily responsible for ESG integration and active ownership in relation to their investments.

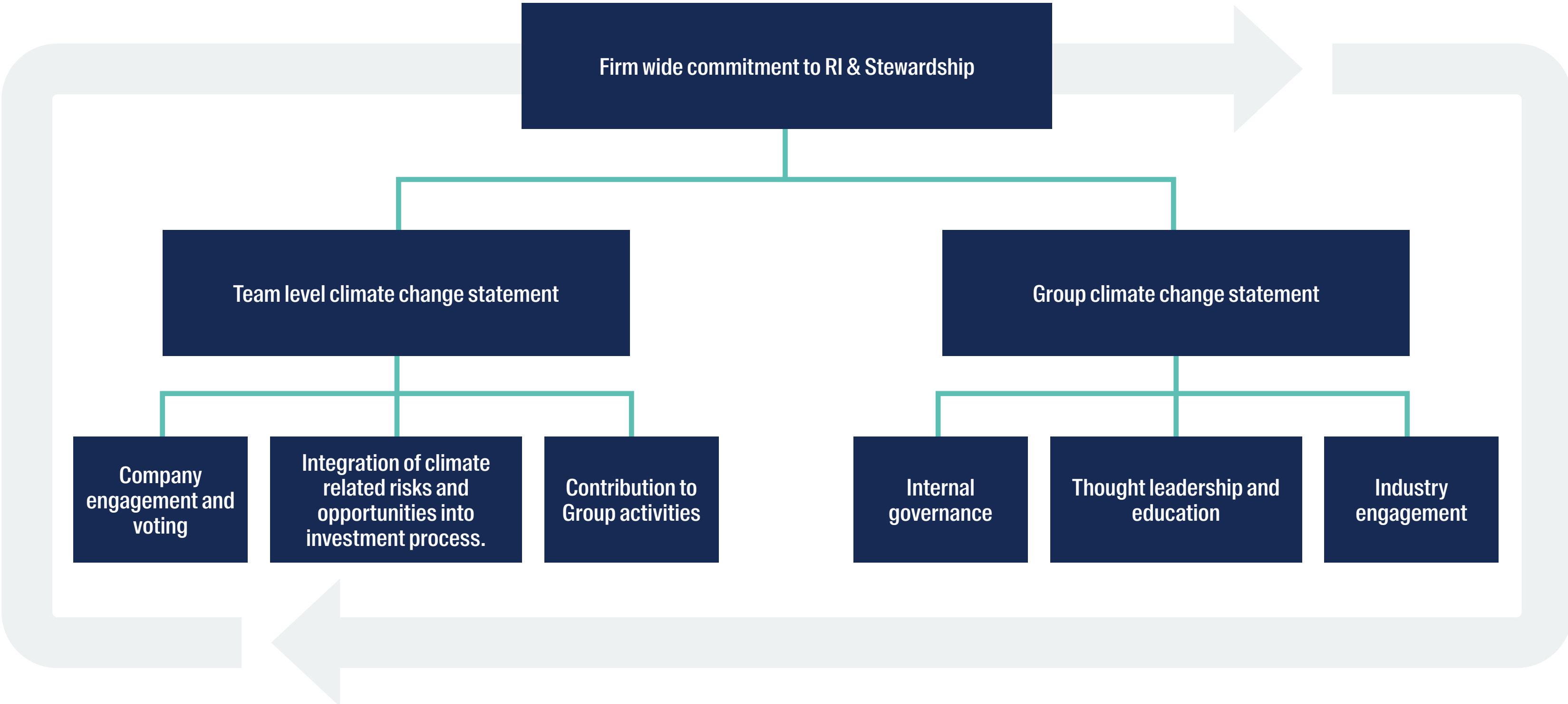
The way in which climate change, among other ESG factors, is incorporated into our investment decision-making and ownership practices is described in our annual RI Report and in each investment team's profile on our website.

As a diverse group of primarily bottom-up, active investment management teams, we believe that the investment experts within each team are best placed to factor in and manage the specific ways in which climate change will manifest itself for their investments.

Each investment team has provided its own Climate Change Statement, available on their respective website profiles, which are designed to show how they identify and address climate-related risks and opportunities in their investment process and the targets they have set.

This includes identifying which climate-related issues are considered to be relevant and material for which time horizon; how they are expected to impact the team's portfolios and underlying investee companies; what data and inputs they use to identify risks and opportunities; and how this is addressed in the investment process. We also provide interactive carbon footprints for each of our listed equity investment teams that allow stakeholders to drill down into portfolio level metrics. These dashboards have been built in-house and use third-party data sources.

While we recognise the unique expertise each team has, the broader organisation still has a responsibility to ensure that views of each team are tested and teams are accountable. The governance mechanisms described further below are designed to assist with such testing and accountability.



Key updates

Corporate Sustainability team began implementing the strategy for managing FSI's ESG impacts from our own operations and by doing so, reinforcing our position as a responsible investor.

Investment teams reviewed their respective Climate Change Statements, which are designed to show how they identify and address climate-related risks and opportunities in the investment process and the targets they have set.

We developed policy advocacy principles that guide how we advocate for the necessary policy settings to enable us to deploy capital to meet global climate objectives.

Governance

In response to the fast changing regulatory environment, we updated our governance structure to better support our board and senior management with oversight and advisory functions. We have restructured our RI Steering Group into the Global Responsible Investment Executive Committee, and created two new committees to focus on climate-related strategy, product development and communication, which are outlined below.

Our current governance structure, as it relates to assessing and managing climate-related risks and opportunities, involves:

Board oversight:

- **First Sentier Investors Holdings Pty Limited (FSIH) Board:** receives biannual reporting and discussion on RI (which includes an update on activities in relation to climate change), and approves climate-related strategy and risk appetite for the overall business.
- **Audit and Risk Committee:** this FSIH Board committee is responsible for overseeing processes for identifying and managing risk, including climate- related risk. Receives biannual reporting and discussion on climate-related risks and opportunities.
- **Global Subsidiary Boards:** receive biannual reporting in relation to climate-related risks and opportunities, where they are regulated entities or otherwise, as required by local law.

Management responsibility:

The FSIH Board has delegated to FSI's Chief Executive Officer (CEO) overall management responsibility for ensuring climate-related risks and opportunities are integrated into FSI's business' strategy, risk management, business operations and oversight functions. The CEO provides regular reporting to the FSIH Board and has established the following management committees, with responsibility for the assessment and management of climate related risks and opportunities forming part of their overall responsibilities:

- **Executive Leadership Team:** responsible for ensuring climate-related risks and opportunities are addressed across the business and their specific areas of responsibility, and approval of the firm's operational climate disclosures.
- **Global Responsible Investment Executive Committee (GRIEC):** chaired by our CEO, this group meets quarterly and is responsible for setting the direction and strategy for RI, approval of the policy framework and oversight of FSI's adherence to global ESG regulations.
- **Global Investment Committee:** responsible for monitoring the management of investment risks, including sustainability risk (which includes climate-related risks) across our global business for all teams other than Igneo Infrastructure Partners, which has its own governance structure for this purpose. This committee meets quarterly and is chaired by our CEO. The Global Investment Committee includes regular reporting on a number of ESG metrics, including a series of climate-related metrics.
- **Global Risk Committee:** responsible for oversight of risks assumed by FSI in the course of managing its business, including climate-related risks to the business.

Specific committees have also been established to undertake and oversee the appropriate assessment and management of climate related risks and opportunities:

- **ESG Impacts Committee:** comprising representatives from each investment team (RI Representatives), the ESG Impacts Committee is a forum for identifying research areas to deepen our understanding of how ESG issues impact investment and business performance. The focus is on crosscutting issues that affect multiple investment teams, such as climate change and human rights risks and creating working groups to consider and deepen our knowledge of these issues. The ESG Impacts Committee meets twice yearly. The RI Representatives are a key pillar of our governance strategy. In the reporting period, the committee's climate related focus was centred around the use of forward-looking climate metrics, exposure to green and brown assets[1] as well as the use of offsets in transition plans.

- **ESG Regulatory Advisory Group:** established in 2022 for the purpose of monitoring and advising on the implementation of global ESG regulations including product/strategy classifications and to make recommendations to the GRIEC.

Climate related risks and opportunities are also supported by:

- **Policy and process framework:** key documents in this framework include this Climate Change Statement and each investment team's Climate Change Statement, our Climate Change Action Plan and our Global Responsible Investment and Stewardship Policy and Principles.

- **Specialist RI team:** engages with and coordinates the business to deliver the RI strategy. The team currently consists of 8 staff located across offices in Australia, Hong Kong, Ireland and the UK, and reports into the Global Head of Investment Management. In 2022, the team created two dedicated roles: Head of ESG Policy and Regulation and an RI Specialist to lead our climate change work.

- **Corporate Sustainability team:** works in partnership with teams across FSI's global business to manage the ESG impacts of our own operations and by doing so, supports our position as a Responsible Investor.

[1] Green assets: those that positively contribute to a greener economy; brown assets: those that are involved in fossil fuel-related activities such as oil and gas

Key updates

Refreshed and introduced new committees to respond to rapidly changing regulatory environment, and as part of the broader active ownership and advocacy approach.

Enhanced the sustainability assessment made by our Investment Product Research and Assurance team (IPRA) for the Global Investment Committee. When FSI made further enhancements to the sustainability assessment framework in 2022, climate change became a key area of focus.

Defined a "climate-specific" investment belief, recognising that climate change is a systemic risk. We believe that actively managing this risk and contributing to systems-level solutions is aligned with our values, is in our clients' best interests and is part of our broader social licence to operate.

ESG Communications Oversight Group: established in 2022, comprising representatives from across the business functions globally, the group monitors and advises on globally-consistent ESG disclosures across regulatory and marketing materials where product/strategy articulation and classifications are expressed.

Risk management

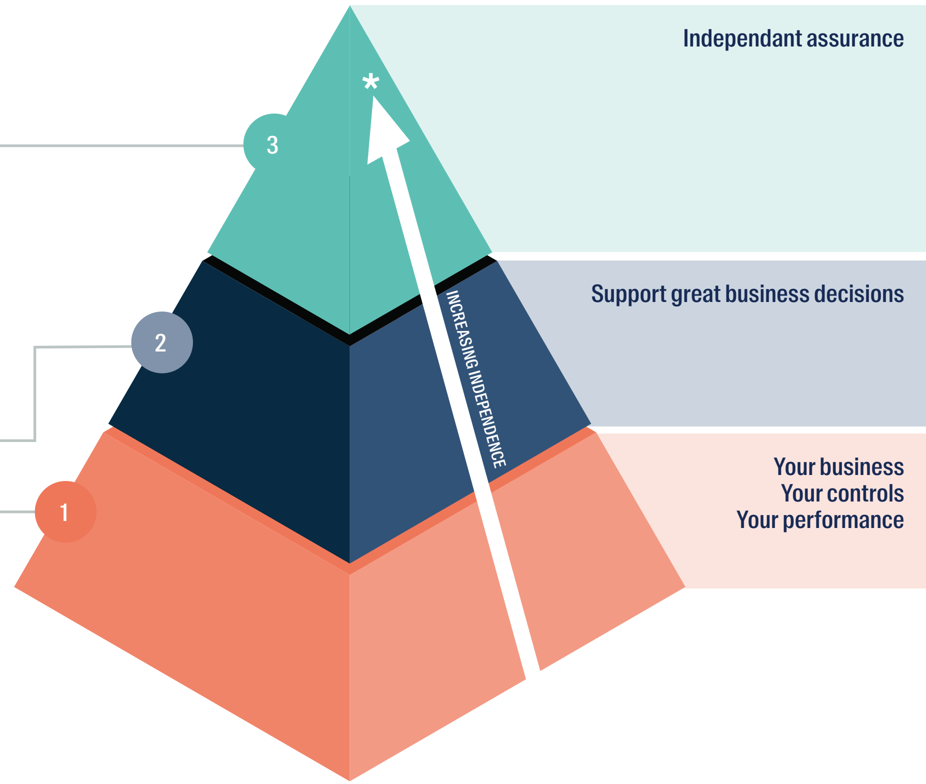
FSI's risk culture is based on doing the right thing by our clients, employees, society and our shareholder. The FSIH Board, senior management and employees are expected to be risk-aware, and understand the role they play in managing risks, and the value that effective risk management adds to the organisation.

FSI's philosophy with respect to responsibilities for risk management can be articulated in the *3 Lines of Accountability/Defence Model*:

Line 1: Business Management: Responsible for identifying and managing risks and ensuring their activities are compliant with legal, regulatory, industry code and organisational requirements.

Line 2: Risk Support Functions (e.g. Risk Management, Compliance, Investment Product Research and Assurance, Finance): Support the business in managing risks and achieving compliance, monitoring risk and compliance levels in the business and reporting on risk and compliance matters to management and governance forums.

Line 3: Internal & External Audit: Provide independent assurance on risk management systems and quality of implementation.



This model applies to climate-related risks within our business and investment strategies as follows.

	Climate-related operational risks	Climate-related investment risks
Line 1	Corporate Sustainability	Investment teams, RI team
Line 2	Risk Management Compliance	Investment Product Research and Assurance
Line 3	Internal and external audit	

Risk management framework

Our Risk Appetite Statement (RAS) sets out the risk appetite for each of FSI's material risk categories and contains qualitative statements of risk appetite and risk tolerances, and is supported by key risk indicators (KRIs). Responsible Investment Risk is a category of Investment Management Risk, one of the seven material risk categories identified in the RAS, and climate change is referred to as a key area of focus under this risk category in the Risk Management Strategy (RMS). Responsible Business Risk is a category of Strategic Risk. Both relate to climate change.

As responsible investing becomes regulated across the markets we operate in globally, there is a growing need for the Compliance team to help the business identify, assess, manage and report on ESG compliance risks and obligations. We are currently leveraging and enhancing our global compliance frameworks to ensure we continue to meet the swiftly evolving ESG regulatory requirements around the globe. In addition, our Internal Audit team periodically reviews investment team processes to ensure that they are compliant with stated ESG and RI policies and principles.

Tabled below is FSI's operational material climate related risk, opportunities, mitigation strategy and key performance metrics:

Market and business transition

FSI has a global operating footprint. There is a risk of increasing prices of raw materials, tariffs on energy supply and increase in carbon pricing in some regions where FSI operates and this could result in increased operating costs for the business.

To avoid the impact of rising operating costs, FSI has developed a *Sustainable Property Guide* to ensure that environmental standards and relevant minimum standards are applied when relocating to new office locations. An *Office Fit-out Guide* has also been developed to embed sustainability in the office design.

Using the Greenhouse Gas Protocol (GHG Protocol), FSI has established baseline data for Scope 1, 2 and certain aspects of Scope 3 emissions to ensure business practices are continually improving towards lowering the companies' carbon footprint. FSI has also established a dedicated decarbonisation platform that supports FSI to track, monitor and report our resource consumption and GHG emissions. This may also result in reducing operating costs for FSI.

Reputational

There is an expectation from FSI's stakeholders (clients, employees, wider society and shareholder) to ensure that FSI's own business is taking actions to address climate change, consistent with what we would expect of the companies in which we invest our client's capital. Failure to do so may risk FSI's own business operations being misaligned with FSI's Responsible Investment philosophy. This could result in negative media coverage for greenwashing, impact client engagement activities or lead to withdrawal of investment.

To mitigate the risk of reputational damage FSI will monitor its progress towards net zero by 2030 (or before); attain globally recognised certifications such as ISO 14001 Environmental Management System for its operations (pilot project underway in Edinburgh headquarters); and communicate progress to FSI's stakeholders. This will reinforce FSI's positioning to its stakeholders.

Regulatory and Legal Risk

FSI operates in a multi-jurisdictional environment, where there are different regulatory requirements for countries it operates in amongst a complex and evolving ESG landscape. Should FSI fail to meet any mandatory reporting requirements, there may be a risk of added regulatory pressure, fines and penalties for not meeting regulatory requirements accusations of greenwashing. To mitigate this risk, FSI horizon scans for new and evolving regulation in relevant markets, with advice and input from internal and external legal advisors and regulatory compliance teams. In many instances the requirements cross both FSI's Investment practices and its own operations and so the Responsible Investment team and Corporate Sustainability will work together to meet these requirements. Our teams continue to evolve our internal governance approaches to ESG regulation and compliance.

Physical Risk

Extreme weather events such as heatwaves, floods and bushfires, chronic heat stress and sea level rise can have physical impacts on FSI offices and data centres but also have an impact on FSI's staff health and wellbeing

To mitigate this risk, FSI has developed internal resources to consider the building resilience during the office selection and assessment process. FSI will continue to work with building management where appropriate to identify physical climate related risk for high-risk regions and ensure the building is managing any risks appropriately through physical interventions or building emergency plans.

Business Issue	Description	Risks	Target & Mitigation Strategy	Metrics & Progress	Opportunities
TRANSITION RISK					
Market and business transition	• Carbon price increase in global markets • Increase in energy tariffs & rates • Increase cost of raw materials	• Risk of higher operating costs for FSI	• Ensure FSI offices are in buildings with high Energy and Water performance ratings • Lower business operating costs by having offices in resource efficient buildings with high green building standards • Develop a purposeful (sustainable) travel strategy • Set energy reduction targets for each headquarter.	• Developed a Sustainable Property Guide to establish minimum sustainable criteria for FSI offices. • Establish baseline data for energy and water for all FSI offices	• Lower operational costs for FSI offices globally
Reputational	• Expectation from stakeholders (clients, employees, wider society and shareholder) to take leadership position in addressing climate change within own operations	• Misalignment with Responsible Investment philosophy • Loss of competitive advantage • Clients/investors withdrawing funds and new investments • Negative media coverage for not following Responsible Investment principles for FSI operations and potential greenwashing	• Development of targets and action plan to reduce environmental impact of FSI operations • Establish an Environmental Management Platform to monitor progress against FSI's Net Zero Commitment by 2030 • Attain globally recognised environmental certifications for FSI's operations to certify actions taken • Introduce sustainability awareness programs for stakeholders on FSI's positioning on climate change in its operations • Publish Net Zero Roadmap and monitor progress.	• Developed FSI's Material Climate Risk Matrix. • Established GHG baseline for Scope 1 and 2, and aspects for Scope 3.	• Reinforce FSI's position as a Responsible Investor • Communication of progress to key stakeholders (clients, employees, wider society and shareholder) • Attracting and retaining staff in a responsible business

Business Issue	Description	Risks	Target & Mitigation Strategy	Metrics & Progress	Opportunities
Regulatory and legal risks	• Carbon price / regulatory cap & trade obligations	• Financial implications of higher operating costs if carbon pricing mechanisms are increased or introduced before FSI's operations are transitioned to net zero emissions • Enhanced emissions reporting obligations	• Target to achieve Net Zero Carbon for FSI operations by 2030 (or before) including Scope 1, 2 and certain aspects of Scope 3 • Reduction of GHG use including using 100% renewable energy for FSI's offices or the purchase of Renewable Energy Certificates. • Electrification: transition away from gas and diesel use in our Edinburgh office.	• Continue to support FSI offices globally to transition to renewable energy and purchase of RECs for applicable offices. • Achieved 100% renewable electricity in Sydney, London, Singapore, New York and Edinburgh offices. • Edinburgh has transitioned to 100% green gas. • Hong Kong office successfully applied to join the REC waitlist.	
	• Complexity of regulatory landscape	• Operating a multi-jurisdictional business where there are different regulatory requirements for different countries. • Fines and penalties for greenwashing and not following protocols.	• FSI horizon scans for new and evolving regulation in relevant markets with RI team. • New ESG Policy and Regulation role. • Undertake ISO 14001 Environmental Management System (EMS) certification for all relevant global offices.	• Head of ESG Policy and Regulation appointed. • Attained ISO 14001 EMS certification at pilot Edinburgh site by Q4 2023.	• Improved reporting and ESG due diligence at FSI.

Business Issue	Description	Risks	Target & Mitigation Strategy	Metrics & Progress	Opportunities
PHYSICAL RISK					
Increasing temperatures	• Chronic heat stress due to sustained high temperatures.	• Offices unable to maintain comfortable or safe working conditions for staff, affecting their wellbeing. • Relocation of staff to more comfortable locations. • Increased operational costs associated with energy and water supply to the offices and data centres and ensuring wellbeing of FSI staff.	• Ensure FSI offices are in buildings with high Energy and Water performance ratings, so they can better manage heat loads. • For the office that FSI manages, ensure energy efficiency measures are implemented. • Ensure plant condition is sufficient to manage sustained heat load. • Undertake energy audits at each relevant office location.	• Developed a Sustainable Property Guide to ensure FSI offices are in buildings that meet minimum sustainable criteria. • Developed a “Sustainable Fit-out Guide” to outline sustainability criteria for FSI office fit-outs. • Implement ESG plan for each office to ensure energy initiatives are planned and delivered at each of the offices.	• Improved preparedness to manage operations during sustained high temperatures. • Reduced demand on building and grid energy infrastructure.
Sea level rise	• Rising sea levels.	• Staff safety and wellbeing. • Impact to building infrastructure, security and IT systems in FSI offices and data centres.	• Future climate analysis or flood reports to be included in office buildings that are at risk of sea level rise.	• Included resilience criteria in the Sustainable Property Guide to ensure flood reports and other risk mitigation methods are reviewed as part of the lease process.	
Extreme weather events	• Extreme weather events may cause physical damage and cause business disruption from storms, heatwaves, cyclones, floods and bushfires	• Effects on FSI staff safety and loss of productivity. • Travel disruptions and higher costs from negative impacts to staff. i.e. physical and mental health & safety. • Physical damage to FSI offices and data centres.	• Office Emergency Plans for each office • Inventory of physical climate related risk identified for each office as part of ISO 14001 certification and controls identified • Ensure remote working technology is not affected by extreme weather.	• Implemented Green Lease or Memorandum of Understanding requirements in the “Sustainable Property Guide” to ensure FSI offices are in buildings that have a Climate Adaptation and Emergency plan to best manage extreme weather events. • Risk and controls identified for extreme weather events in offices.	• Improved preparedness to manage operations in extreme weather conditions. • Improved transparency in FSI office lease agreements regarding building resilience, adaptation and emergency preparedness.

The key climate-related risks we identify and manage across our investments, and how we assess the impact of these risks on investment performance, are outlined in the individual team Climate Change Statements on our website. We take a proportionate approach to managing climate-related risks, and the climate information we disclose is proportionate to the amount of data available; the degree that climate-related risks are considered in each investment team's investment; and our risk management processes.

Scenario Analysis

Having piloted the use of climate scenario analysis over several years for a number of funds, in 2021 we appointed ISS as a scenario analysis provider to understand how aligned our portfolios are with various pathways to a low-carbon economy, using the IEA Sustainable Development Scenario (SDS), Announced Pledges Scenario (APS), and Stated Policies Scenario (STEPS). Top down climate scenario analysis poses challenges, including the large number of assumptions we needed to get comfortable with before selecting a provider and the lack of available and up to date data. However, we do find that this forward looking analysis allows us to gain a more complete picture of a portfolio's expected carbon emissions over time, as well as improvements on the commitments the underlying companies have made for the future. This is particularly the case when combined with backward looking metrics such as historical carbon emissions, together with an assessment of how prepared a company is to transition to a low carbon economy. The extent to which individual investment teams use this analysis is outlined in their team's Climate Change Statements.

In 2021, we committed to managing our investments in accordance with the Net Zero Asset Management (NZAM) initiative. Since then, we have worked to implement elements of the Net Zero Investment Framework (NZIF). A key focus was on creating a bespoke tool to measure and track our team's portfolio coverage with the different stages of net zero alignment, drawing from widely recognised climate initiatives such as Institutional Investor Group on Climate Change (IIGCC), Climate 100+, Transition Pathway Initiative (TPI) and third-party vendor research. As net zero data sets and corporate disclosures have improved since we began this journey, the model has gone through different iterations reflecting those rapid changes.

However, we still face challenges. These include: consistency in definitions on underlying criteria of the net zero alignment model across the various climate initiatives; company net zero disclosure; access to capital expenditure data; lack of scope 3 disclosure; and limited target setting.

Key updates

- Launched an internal Climate Risk Dashboard that will assist our listed equities investment teams with better understanding our exposure to transition risks within portfolio.
- Engaged extensively with our research providers to address the challenges we are facing regarding the robustness and timeliness of carbon emissions data.
- The RI team created dedicated case studies to assist investment teams with understanding high-impact sectors and their transition challenges, with the aim of providing a solid base for transition plan engagement. Training was also provided by the Investor Group on Climate Change on this topic.
- Piloted a tool enhancing our capabilities to capture and track our corporate engagements related to broader RI and climate issues.
- Mapped out a fossil fuel engagement program, identifying and measuring investment teams' exposure to companies involved in arctic drilling, oil sands and extraction of thermal coal. We will be targeting these companies through cross-team collaborative engagement activities.
- We are also taking a targeted approach to identifying and engaging with companies not aligned with a net zero pathway, to encourage them to adopt one.

Metrics and targets

Data is critical to helping us understand climate-related risks and opportunities, measure where we are, how far we have come and our progress against targets.

Our Corporate Sustainability team is collating carbon foot printing and other environmental data for our offices and business activities to give us a clearer picture of the environmental risks and impact, and how to manage them.

We use a range of metrics to assess climate-related risks and opportunities for our investments. We publish these annually in our RI Report and below, but also provide interactive disclosure for our listed equities teams on our website, by means of the Carbon Footprint Dashboard.

Figure 1. Reporting on progress

This table shows the following key carbon metrics for all investment teams, as recommended by the Taskforce for Climate-Related Financial Disclosures (TCFD):

	Listed Equities	Fixed Income	Multi-Asset Solutions	Direct Infrastructure
Coverage (AUM)	94.4%	79.2%	89.9%	88.5%
Weighted average carbon intensity (Scope 1+2/$million sales OR Scope 1+2/$million GDP for sovereign)	219.8	Corporate fixed income: **326.0** Sovereign debt: **378.1**	Listed equities: **85.4** Corporate fixed income: **87.0** Sovereign debt: **228.6**	598.98
Difference weighted average carbon intensity vs benchmark (aggregated)	(32.8%)	Corporate fixed income: **24.5%** Sovereign debt: (**10.7%**)	Listed equities: (**39.6%**) (Equities only benchmark)	n/a
Average fossil fuel companies per portfolio	6.9	1.7	26.0	2.8
Carbon footprint (tCO_2/$m invested)	62.2	95.5	16.5	117.5
Difference carbon footprint vs benchmark (aggregated)	(42.7%)	4.5%	(66.7%) (Equities only benchmark)	n/a
Total Carbon Emissions (tCO_2e, Scope 1+2)	5,116,279	332,539	2,624	1,413,749
Scope 1 (tCO2e)	3,999,614	294,971	1,370	1,332,764
Scope 2 (tCO2e)	1,116,665	37,567	1,254	80,985
Scope 3 (tCO2e)	19,280,206	1,381,106	27,397	3,756,330

Source: First Sentier Investors, MSCI. Data as at 31 December 2022
The data set out above are estimates based on data sourced by First Sentier Investors. This data is current as at 31/12/2022. It is based on information and representations sourced from third parties (including portfolio companies), which may ultimately prove to be inaccurate. No assurance is given or liability accepted regarding the accuracy, validity or completeness of this data and no reliance should be placed on it by any third party.

Carbon footprint: the carbon emissions of a portfolio per US $m invested. Scope 1 and 2 emissions are allocated to investors based on an enterprise value ownership approach i.e. if an investor owns 10% of a company's total enterprise value including cash (EVIC), then they own 10% of the company and therefore 10% of the company's emissions. This is then normalised by portfolio value.

Weighted average carbon intensity: portfolio weighted average of each company's carbon intensity (scope 1 & 2) per US $m sales.

Total carbon emissions: this metric measures the absolute carbon emissions associated with a portfolio (Scope 1 and 2) expressed in tCO2e[1]. Scope 1 and 2 emissions are allocated to investors based on an enterprise value ownership approach (as with the carbon footprint).

Fossil fuel companies: This indicator shows the average number of fossil fuel companies (as defined by MSCI) per portfolio. This includes companies involved in extraction or production, and/or those that own reserves

Carbon footprint reports for each investment team, and an explanation of how each measure is calculated, is available on the FSI website.

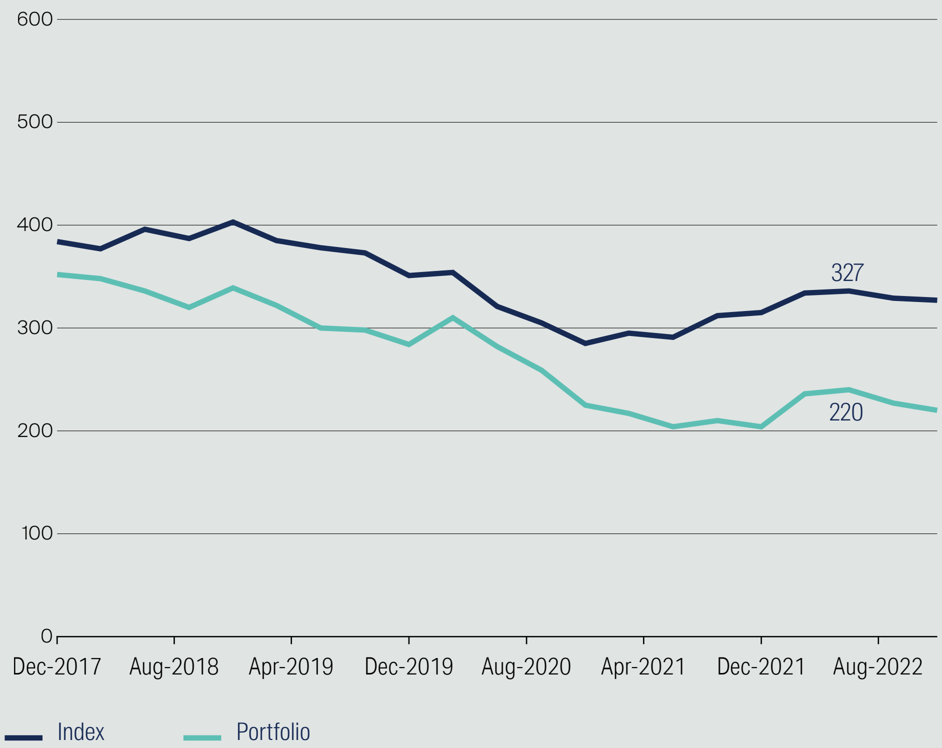
Note: Portfolio emissions and carbon footprint are now based off Enterprise Value as a proxy for company size, as recommended in the most recent Partnership for Carbon Accounting Financials (PCAF) Standard. This is a change from previous years where calculations were based off Market Capitalisation.

* tCO2e refers to tonnes of carbon dioxide equivalent.

The chart below shows the change over five years in Weighted Average Carbon Intensity for all our Listed Equities portfolios vs the benchmark (aggregated).

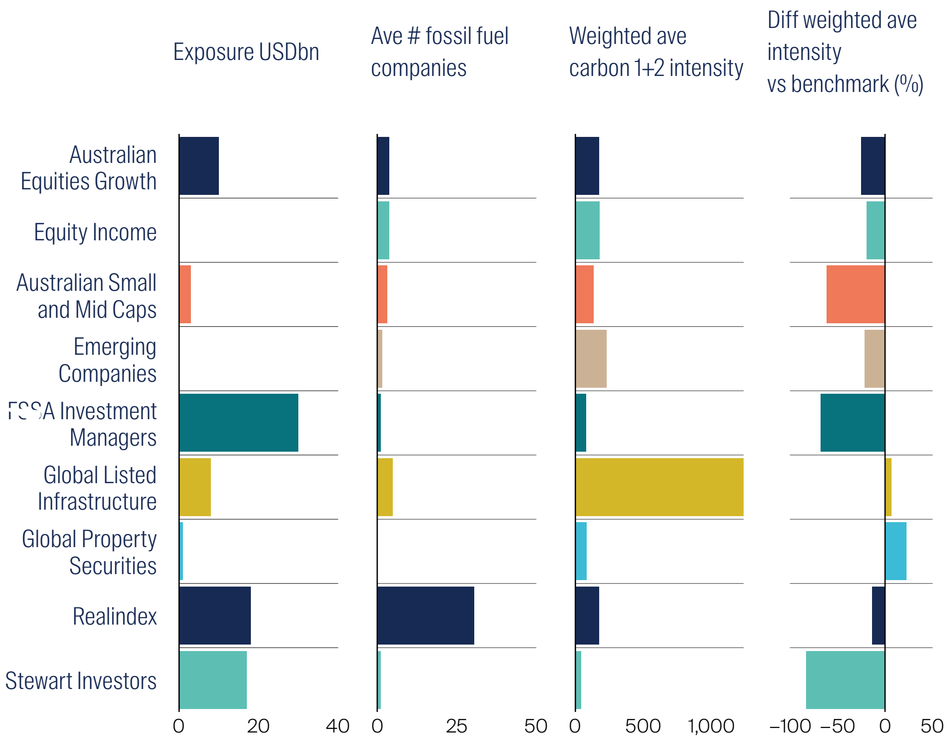
Figure 2. Listed Equities Wtd. Avg. Carbon Intensity

tCO2e/US$m sales



Source: First Sentier Investors, MSCI. Data as at 31 December 2022

Figure 3. Listed equities teams emissions profiles



Source: First Sentier Investors, MSCI. Data as at 31 December 2022. The data set out above are estimates based on data sourced by First Sentier Investors. This data is current as at 31/12/2022. It is based on information and representations sourced from third parties (including portfolio companies), which may ultimately prove to be inaccurate. No assurance is given or liability accepted regarding the accuracy, validity or completeness of this data and no reliance should be placed on it by any third party.

Key updates

Reviewed metrics to be more aligned with TCFD requirements (carbon footprinting based on enterprise value including cash (EVIC), instead of market capitalisation).

Launched an internal Net Zero progress tracking tool to monitor the progress of our portfolios and their underlying holdings towards net zero.

Further updates on our Climate Change actions are also provided in the Key Performance Indicator section of our annual Climate Change Action Plan.

Looking forward

Our priorities for the year ahead and beyond include:

- Increasing the percentage of our funds under management (FUM) that we wish to manage in line with a target of Net Zero by 2050.
- Enhancing our Investment Stewardship, not only through more targeted engagement and reporting on fossil fuels, but also a more structured approach to capture and track ongoing engagement priorities and outcomes, as well as reviewing our climate proxy voting guidelines.
- Continuing to develop and further enhance our ESG Data Strategy, including by making data available across more asset classes to support investment teams, to provide better reporting to management and to be more transparent with clients and other stakeholders.
- Additional ESG related controls have been highlighted and tagged in our Risk Management System which form part of our overarching controls assurance program. This will allow specific reporting in relation to the effectiveness of our ESG related control environment.
- Developing an engagement strategy to partner with our key clients to better understand their net zero approach and needs.
- Developing product guidelines for new products.

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