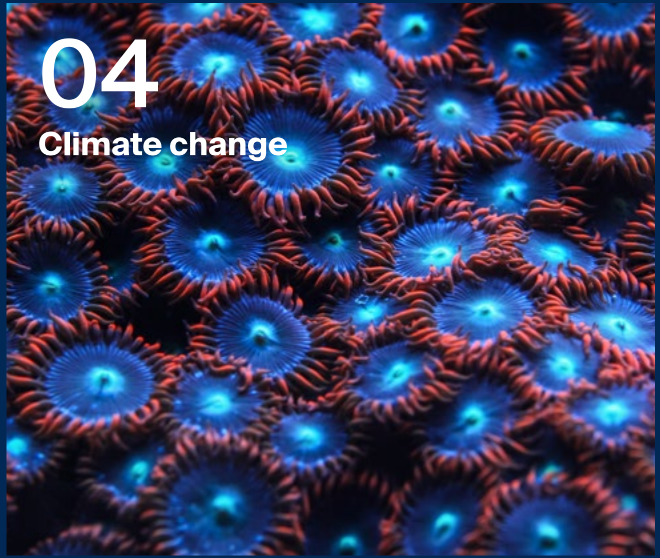
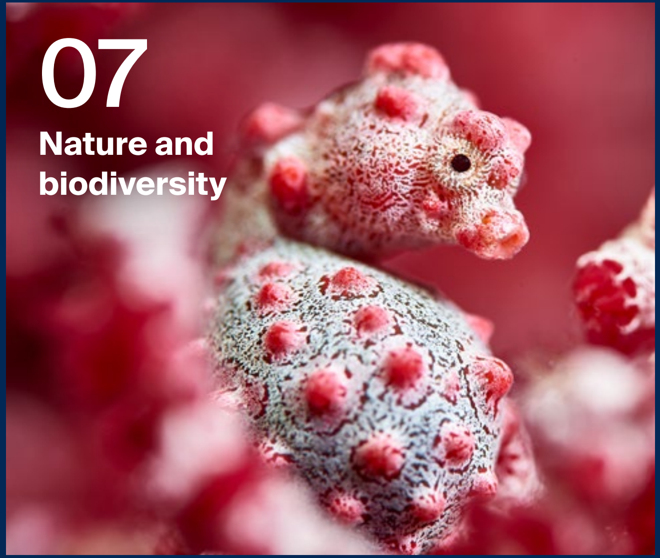
First Sentier Investors

Responsible Investment Report

2022

Contents





01 | CEO foreword

Welcome to our Responsible Investment (RI) Report 2022, outlining First Sentier Investors' (FSI) progress on key environmental, social and governance (ESG) issues.

The year 2022 was one of significant global shifts. The Russia-Ukraine conflict ignited an energy and humanitarian crisis, resulting in the imposition of trade sanctions and a rapid increase in global inflationary pressures. Central banks scrambled to put the inflation genie back in the bottle through rapid interest rate rises. And as investors sought to ensure their capital was being invested responsibly, concerns about greenwashing prompted regulators to focus on the veracity of ESG claims.

Governments from around the world gathered in Sharm el-Sheikh for the climate change summit, COP 27, coming away with a commitment to support vulnerable countries affected by climate change. Then in Montreal, at the biodiversity summit, COP 15, world leaders made a landmark commitment to protect nature and biodiversity.

Against this background, volatility and geopolitical tensions continue to challenge investors everywhere.

However, while the external environment remains uncertain, we continue to put an unwavering focus on strong stewardship, continuous engagement and responsible allocation of our clients' capital. These guiding principles allow our investment teams to actively manage through volatility, while continuing to address a range of complex global challenges.

I hope you enjoy this year's report of our RI activities.

Mark Steinberg
Chief Executive Officer

A snapshot of our progress

38%
reduction in weighted average **Carbon Intensity** for listed equities portfolio in 5 years[1]

All listed equities
Weighted average carbon intensity (Scope 1+2/$m sales)
219.8tCO_2e

33%
lower than benchmark (aggregated)

Portfolio carbon footprint
Listed equities:

43%
lower than benchmark

Multi-assets:

67%
lower than benchmark

26%
The average proportion of **women on company boards** in listed equities portfolios globally

3
Annual Modern Slavery Statements completed by FSI

5
Nature-related issues analysed across our portfolios

108
companies written to by **Stewart Investors** to encourage greater disclosure on carbon emissions

900
Approx. number of member institutions of **Taskforce on Nature-related Financial Disclosures**, including FSI

1. 31 Dec 2017 – 31 Dec 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. Calculations for Multi-Asset Solutions are for objective based funds only.

02 | OUR STRATEGY AND PRIORITIES

02 | Our strategy and priorities

First Sentier Investors is an active investment manager with a diverse range of individual and autonomous investment teams who share a commitment to responsible investment. It is the home of individually branded investments teams, FSSA Investment Managers, Igneo Infrastructure Partners, Realindex Investments and Stewart Investors.

Where an investment decision is associated with a set of ESG risks and opportunities, at a firm level, we are primarily focused on four areas: climate change, human rights and modern slavery, diversity, nature and biodiversity.

Climate Change

We believe that society must drastically reduce greenhouse gas emissions if we are to avoid the worst consequences of the climate crisis. FSI is playing an active role in the transition to a low-carbon economy by managing investment risks, identifying opportunities and seeking to drive change through our stewardship approach.

Human Rights and Modern Slavery

Almost 50 million people are living in situations of modern slavery globally[1], while global events like armed conflict continue to threaten millions of people's human rights. Companies that fail to manage these issues will face an increasing level of scrutiny, in addition to legal, reputational and financial implications. FSI takes a proactive approach to addressing human rights and modern slavery with the companies we invest in through engagement and advocacy.

Diversity

Diversity, equity and inclusion are the keys to building fair and equitable organisations, institutions and communities. Many of our investment teams assess gender diversity as part of their company analysis. We are seeking to expand the conversation to look at diversity beyond gender, and to identify markers of inclusive cultures.

Nature and Biodiversity

Nature is the foundation of our economy, society and life itself, and biodiversity supports all life on our planet. However, biodiversity is eroding at a pace that is severely damaging the natural ecosystems that provide us with food, water and clean air. As long-term investors, we believe biodiversity loss and land degradation is financially material and addressing it is crucial to achieving a net zero and climate resilient future. Protecting nature is therefore in our own and our clients' best interests.

Focusing on these primary areas has allowed us to concentrate our resources more effectively and improve FSI's visibility across these areas. However, each of these areas present large, complex problems to address, and we cannot solve these issues alone.

To contribute to a sustainable economy and society, we seek to collaborate with our clients, competitors and broader stakeholders. We do this by participating in industry forums, actively engaging with investee companies, regulators and policy makers, and publishing thought leadership, all with the intent of effecting change.

"Focusing on these primary areas has allowed us to concentrate our resources more effectively and improve FSI's visibility across these areas."

1. 2021 Global Estimates of Modern Slavery

03 | OUR APPROACH

03 | Our approach

Given our diverse investment teams and investment processes, the specifics of how each team implements their approach to RI varies, however, all teams share the following ESG investment beliefs:

- As a global investment manager, we have the opportunity and responsibility to allocate our clients' capital in a way that drives positive social and environmental outcomes within the context of our investment strategies.
- Incorporating ESG considerations as sources of long-term risk and opportunity into our investment approach helps us make better decisions, leading to stronger long-term investment performance for our clients.
- As active investors, we can create better outcomes on behalf of our clients and broader society.

These beliefs are underpinned by the following approaches at a firm and investment team level.

"The range of approaches taken by our diverse investment teams are key strengths in achieving their RI objectives."

Our firm aspirations

- To engage in public policy debates and collaborate through industry initiatives
- To communicate openly and clearly with our clients regarding ESG issues
- To hold ourselves as a business to the same standards as those we expect of the companies we invest in
- To foster a culture that supports principles of stewardship and responsibility
- To adhere to all relevant regulatory requirements and industry codes

Our investment team aspirations

- To assess and monitor on an ongoing basis our investments for relevant ESG risks and opportunities
- To engage in an active dialogue with companies and entities that we invest in
- To document engagement activities and any issues raised to be followed up and reviewed periodically
- To develop an engagement strategy with escalation points where a company is not recognising or addressing ESG concerns
- To exercise our right to vote whenever possible
- To measure and report on the ESG outcomes of our investments as evidence of our approach to RI
- To not invest in certain companies on ethical grounds[1]

1. A list of our exclusions is available on our website

Asia Fixed Income
Given ESG risks influence companies' ability to service their long-term debt obligations, ESG assessments form an integral part of the team's research process. ESG risks are identified as part of the bottom-up credit research process. Asian issuers, particularly those in more carbon intensive economies, also face both physical and transition risks that factor as an important feature of any ESG assessment. Against a fast-evolving ESG landscape in Asia, the team emphasises both qualitative and quantitative research in arriving at an ESG assessment. Such research is attained via a combination of sources such as company engagements, company reports and third-party research. Material risks are identified by credit analysts as part of their fundamental analysis, and their assessment on issuers' resiliency and ability to adapt against identified ESG risks determine investment decisions across portfolios, both in terms of security selection and portfolio positioning.

Australian Emerging Companies
The team seeks to generate strong long-term performance with consideration of ESG issues where relevant. Where available, ESG information is considered for companies under research and investee companies to provide an understanding of the financial and reputational impact ESG has on businesses.

Australian Equities Growth
The long-term investment horizon and focus on quality, growth companies fundamentally requires sustainability in their business models and practices and is inherently well suited to strong ESG outcomes. The team's belief is that ownership and engagement for change is more effective and adds more value for clients than negative screens. By maintaining an open mind, the team retains the ability to engage on all stocks – with the aim of participating in collaborative discussions with management and the board that influences continuous improvement over time. Identified risk factors are used to assist in developing the quantitative and qualitative assumptions of our analysts in their assessment of industries and stocks. ESG analysis and a proprietary ESG rating system has the potential to impact potential portfolio weights.

Australian Equity Income
The team works in partnership with other investment teams within the firm. As part of this approach, the team draws upon the analyst research from various investment teams, which includes the identification of any relevant ESG issues.

Australian Small and Mid-Cap Companies
ESG considerations influence the team's investment decisions, given that sustainability is one of the six key criteria used to evaluate companies (the others being Management, Financials, Industry/Company Position, Valuation, and Market Factors). ESG issues are frequently raised with senior management and board members during the team's extensive engagement with companies. These discussions make an important contribution towards the team's investment view. Where ESG factors are determined to have a material impact on profitability these considerations can ultimately influence the active positioning of stocks in the portfolio.

Fixed Income, Short Term Investment and Global Credit
ESG issues can have a significant bearing on default risk. Historically, poor corporate and regulatory governance have been recognised contributors in most corporate failures. Consequently, ESG risks are identified as part of Fixed Income's bottom-up credit research process to help manage default risks in bond portfolios. The Fixed Income team's ESG assessment has an important bearing on proprietary internal credit ratings that are assigned to every credit it reviews, in turn influencing portfolio construction decisions. The ESG assessment is also a factor in determining whether portfolios participate in a new bond issue. As well as this bottom-up research, ESG factors are considered as part of its position sizing discipline.

Global Listed Infrastructure
The team views ESG issues as fundamental to infrastructure companies, given they have significant service obligations and moral accountability to the communities in which they operate. As long-term investors, the team takes an active approach to proxy voting to convey their views to boards and management on important ESG topics including board composition, remuneration packages and corporate governance. It participates in industry groups such as Climate Action 100+ to help deal with difficult issues such as energy transition and the path to net zero. Through company engagement, the team seeks to better understand risk in the portfolio, highlight areas for potential improvement, encourage disclosure on ESG issues, and support companies that are making progress in this area.

Global Property Securities
Responsible investment has been deeply ingrained in the team's culture for over a decade. ESG considerations are directly embedded into two parts of its Investment process. Firstly, the team aim to mitigate ESG risks in the initial screening of its investment universe. Secondly, ESG factors directly feed into its valuation methodology, whereby securities with better ESG scores achieve higher intrinsic valuations and are therefore favoured in its stock selection process. While the team uses third party and in-house research, direct engagement with companies remains the most important source for ESG information, given the team's intricate understanding of the global property securities sector.

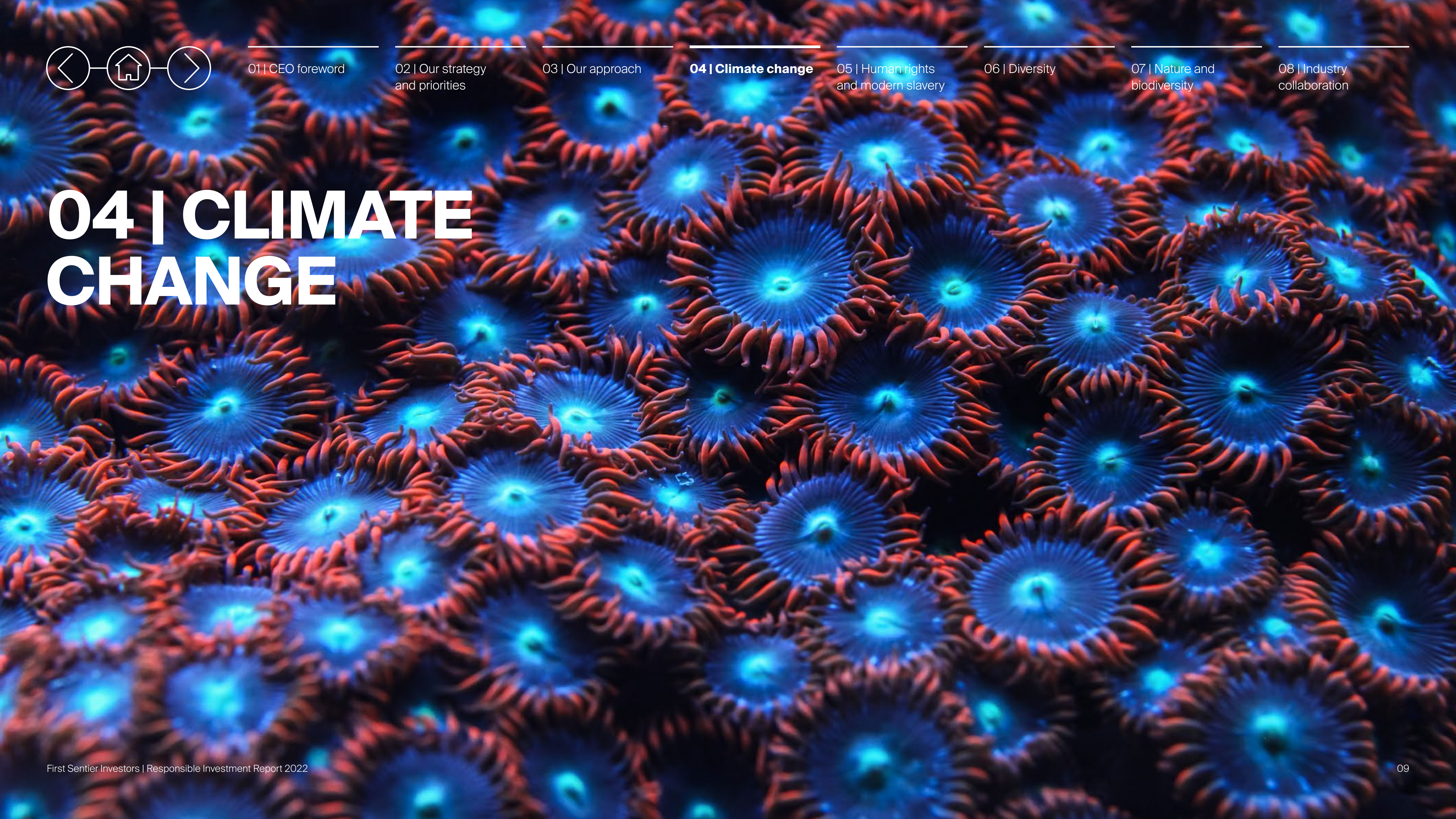
Multi Asset Solutions
The team's approach to responsible investment is integrated within the investment process of the objective-based funds and can be incorporated into bespoke mandates. The RI approach encompasses ESG considerations as well as the use of ethical screens based on numerous themes which can exclude specific 'red flag' companies or industries, such as those involved in fossil fuels. These screens are applied consistently across all asset classes according to these themes. Furthermore, the team incorporate ESG considerations when voting on all company resolutions where possible.

FSSA Investment Managers
To FSSA, ESG and sustainability are not just labels, but a set of values by which they operate. Their investment universe consists of countries that are among the most vulnerable to environmental challenges, suffer from severe inequality, and can be highly susceptible to corruption. For these reasons, since the inception of the team, the focus has been on identifying quality companies and management teams that address these challenges head-on and, as a result, the team believes it can deliver better outcomes for all stakeholders. FSSA invests in companies that it considers to have the management foresight, technology and ideas to address changing societal and environmental expectations. Companies that do not deliver sustainable value for their customers, employees, suppliers and the larger community are unlikely, in FSSA's view, to be rewarding long-term investments. It is the responsibility of each analyst to identify ESG opportunities and risk and incorporate into bottom- up company analysis, valuations, stock selection and engagement.

Igneo Infrastructure Partners
Igneo Infrastructure Partners' strategy is to build a portfolio of mature, operating infrastructure assets that it believes can deliver stable returns over the long-term for our investors. The team has long recognised that managing ESG risks and opportunities is key to protecting and enhancing value. Investment decisions, the asset management approach, and strategic analyses are therefore all examined in the context of ensuring long-term sustainability, with ESG considerations forming an integral part of the investment process. The team has the distinct advantage of being able to engage directly with its portfolio of companies via board representation and workshops with management, giving it the opportunity to provide input into ESG targets, develop initiatives and help drive cultural change.

Realindex Investments
Responsible investment and stewardship principles are important to Realindex's approach to investment management. The team integrates ESG considerations through a 'four pillar' approach based on: risk controls (mainly through carbon reduction controls); using ESG data to identify alpha sources; stewardship activities including voting and engagement; and exclusions, as per FSI's exclusion policy and/or client mandates.

Stewart Investors
Stewart Investors' first strategy was launched in 1988 and its first dedicated sustainability strategy was launched in 2005. The team manages long-only equity portfolios investing in Asia (including and excluding Japan), Global Emerging Markets, Europe (including and excluding the UK), the Indian Subcontinent and Worldwide. Stewart Investors aims to generate strong long-term risk-adjusted returns by investing in high quality companies that are well positioned to contribute to, and benefit from, sustainable development. A focus on sustainability is a natural extension of having a long-term investment horizon. It is integral to how the team thinks about risk and return, and is embedded in the investment process through bottom-up company analysis and mapping company contributions to credible frameworks like Project Drawdown's climate solutions and the team's Human Development Pillars. The team seeks to improve sustainable outcomes by investing in companies contributing to what it believes are positive solutions, avoiding businesses linked to harmful activities, and engaging and voting for change.



04 | CLIMATE CHANGE

04 | Climate change

Why is it important to us?

We believe that society must drastically reduce greenhouse gas emissions if we are to avoid the worst consequences of the climate crisis. It has become obvious that immediate climate action is needed in order to meet the goal of limiting rises in global temperature to 1.5 degrees Celsius.

The individual and collective decisions we make as active investors can influence the nature and speed of this transition.

This year marked the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 27), which was convened with hopes for more climate change action. While it was disappointing no significant strides were made in terms of emissions targets, the creation of a Loss and Damage Fund was a win for vulnerable countries faced with growing climate disasters.

What is First Sentier Investors doing?

We are playing an active role in the transition to a low-carbon economy by managing investment risks, identifying opportunities and driving change through our stewardship approach.

We support the global transition to net zero emissions in line with the goals of the Paris Agreement, and in 2022, we made a public commitment in relation to net zero targets.

We are committed to reducing greenhouse gas emissions across investment portfolios in line with a target of net zero emissions by 2050 (or sooner) and across business operations in line with a target of net zero emissions by 2030 (or sooner). This includes a range of targets committed to by investment teams over the short, medium and long term and an aim to increase the proportion of assets covered by formal net zero commitments over time.[1]

Our net zero transition strategy is detailed in our Climate Action Plan (CAP), which was launched in 2022 and includes details on our investment and operational alignment. We have summarised our approach as 'The 5 C's of Climate Action':

Company engagement

We will use our influence and proxy voting to influence companies and we will allocate capital to help accelerate the climate transition.

Clients

We aim to be a trusted partner who can support clients in their transition to a low carbon economy.

Collaboration

We will continue to support climate-related industry collaborations, climate policies, and regulation, to drive systemic change.

Clarity

We will be transparent about our progress on reaching net zero, and provide evidence for any climate-related claims we make.

Corporate sustainability

We are decarbonising our business operations through a broad range of initiatives, and will report on progress.

1. The commitments and targets set out in this report are current as of the date of publication. Such commitments and targets are based in part on information and representations made to FSI by portfolio companies, together with assumptions 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. As such, achievement of these commitments and targets depend on the ongoing accuracy of such information and representations (which may prove to be inaccurate) and the realisation of such future matters (which are not guaranteed).

In response to various global regulations and guidance coming into force, we implemented a comprehensive Climate Risk Management Plan (CRMP), which sets out a pathway for our governance and oversight of climate-related risks and opportunities, our strategy and risk management approach, and the metrics we are tracking and targets we have set. The CRMP is based on the Task Force on Climate-Related Financial Disclosures (TCFD) framework. Our updated TCFD aligned disclosures are available in our firm-level Climate Change Statement (CCS), and in investment team level CCS's.

Going forward, we will regularly report on our progress against net zero commitment at firm and investment team levels. The CCS and CAP can be found on our website, along with each investment team's respective net zero targets.

We have also upgraded our interactive climate risk dashboard to include a broader range of climate-related metrics as recommended by the TCFD. This information is available to our investment teams, other teams across the business, senior management and clients. We plan to make it publicly available on our website in 2023.

In addition to the firm-wide work on net zero targets and reporting, investment teams have made progress in the following areas:

- The **Fixed Income, Short Term Investments and Global Credit** team has continued to engage with companies on their strategy and progress towards becoming net zero, with a focus on firms in the Australian and European banking sectors, utilities, materials, chemicals, and retail sectors. Notably, the team has begun engagement with Australian states and New Zealand local authority issuers on their sustainability approach including climate change and modern slavery and advocating for improved transparency and where relevant to set targets. The Sovereign, Supranational and Agency (SSA) sector has traditionally been the most difficult to gain access to and engage with on ESG issues, although the team has been encouraged by the receptive and open approach of these issuers.

- In 2022 the **Australian Equities Growth** team started assessing the quality of portfolio companies' transition plans and set multi-year engagement agendas for eight portfolio stocks either materially exposed to climate change or perceived to be lagging on climate commitments. On oil and gas specifically, the team set out the features it expects in a transition plan and engaged with producers on the alignment of capital expenditure with their climate commitments.

- The **Australian Small and Mid Cap Companies** team engages with companies in their portfolios on their strategy and progress towards becoming net zero. Some smaller companies have lagged the larger end of the market when it comes to putting net zero strategies in place. However, the team understands the challenges that some smaller companies face and is encouraged by the progress that has been made.

- **Stewart Investors** has written to 108 companies to encourage them to measure and disclose their current carbon footprint, set carbon reduction targets appropriate for their business and industry and then report on their progress towards meeting them. The companies fall under three broad categories: those with neither climate disclosures nor targets (62 companies), those with disclosures but no targets (39 companies), and a small number (seven companies) with targets but no disclosures. At the end of 2022, the team had received responses from 82 of the companies and held three meetings with companies. Over the next year, the team will continue to follow up with these companies while assessing the progress of companies across its portfolios. The team recognises that climate change is relevant to different companies in different ways but that all companies need to make progress on reducing emissions and increasing resilience.

- **Global Listed Infrastructure** (GLI) tends to have a higher level of carbon intensity given its exposure to the electric power and transportation sectors. To address the impacts of climate change, it is critical that infrastructure companies invest in adaptation and mitigation. Active investors can support this by directing capital to utilities that are leading the shift from fossil fuels to renewable energy, and identifying utilities with under-utilised wind and solar resources. The GLI team has committed to engaging with the 10 largest emitters in the portfolio and is working collaboratively with Climate Action 100+ to engage with two key companies on behalf of the group.

- In 2022, **Realindex** released its climate statement in which it committed to raising issues of the transition to net zero with all companies it engaged with. During the year it engaged with several companies on issues of improved emissions disclosure, setting science-based targets, and disclosure of capex expenditure needed for the transition.

Reporting on progress

Figure 1.

This table shows the following key carbon metrics for all investment teams, as recommended by the Task Force on 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

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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).

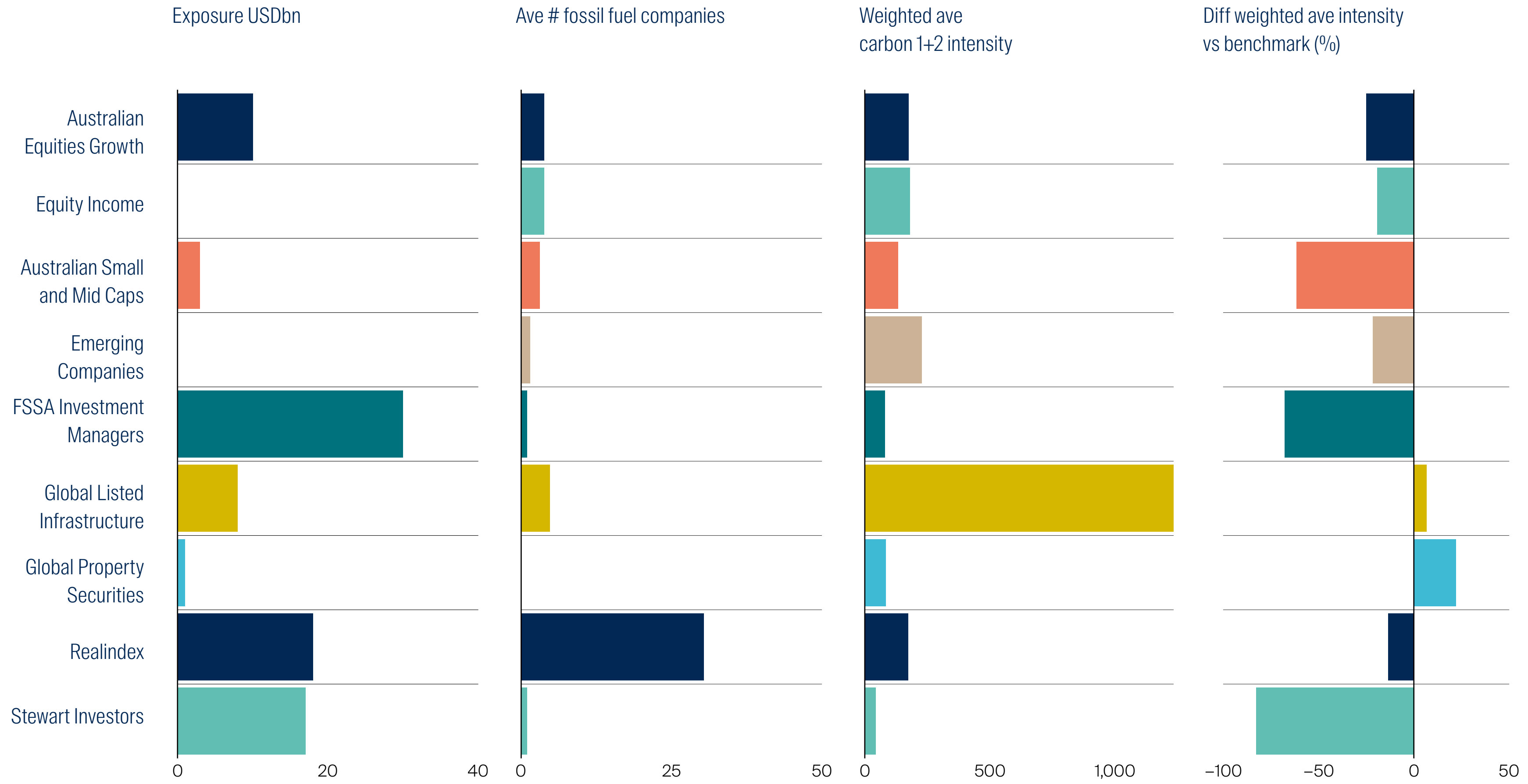
Fossil fuel companies: This indicator shows the average number of fossil fuel companies (as defined by MSCI) per portfolio. This includes companies involved in extraction or production, and/or those that own reserves

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.

1. tCO_2e refers to tonnes of carbon dioxide equivalent.

Figure 2. Listed equities teams emissions profiles



Source: First Sentier Investors, MSCI. Data as at 31 December 2022
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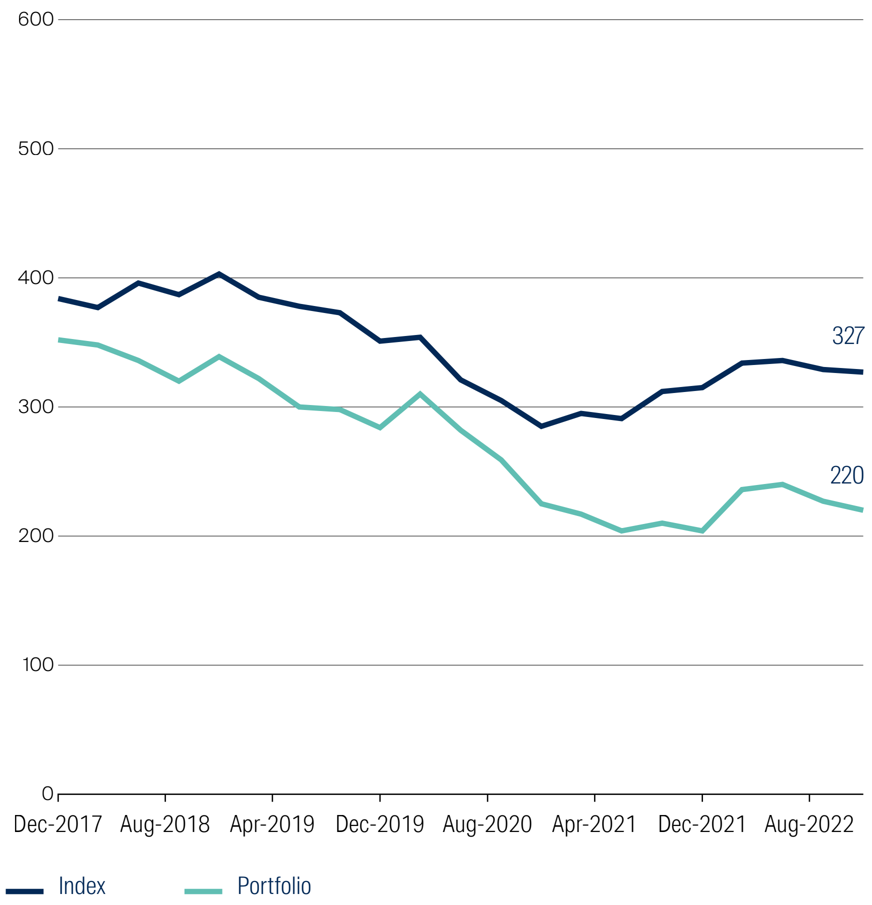
Figure 3. Listed Equities Wtd. Avg. Carbon Intensity

tCO2e/US$m sales



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

Challenges

A key challenge for investors has been the rapidly evolving regulatory environment on mandatory climate disclosure across many global markets. While most initiatives are aligned to the TCFD, most local disclosure frameworks have unique requirements, and some are significantly more prescriptive than others. As a global investment manager, we need to comply with a multitude of different disclosure requirements. Although this is challenging, we have welcomed the additional guidance, and the opportunity to uplift our approach globally.

The quality and availability of data reported by investee companies and collated by ESG data providers remains a challenge for investors. For example, Oil and Gas reporting entities disclose Scope 1 emissions based on either operational control or equity share. Individual data providers choose one of these, which can make it difficult to compare. Another example is where some data providers release GHG emissions data following companies' reporting cycles, while others update their data sets annually. We therefore welcome further guidance from the TCFD and the PCAF to create a more standardised industry approach and have worked closely with our data providers on these topics in 2022.

Future plans

In 2022 we were focused on setting a solid foundation for the implementation of our net zero commitments, as well as developing a robust governance and disclosure framework for climate-related risks and opportunities, and supporting data. Moving forward, we will be more focused on working with investment teams and other stakeholders to continue the work we have started to implement our commitments and monitor progress. This will include providing sector level guidance and training on assessing transition plans, developing updated proxy guidance, and supporting teams with the integration of additional forward-looking climate metrics, physical risk, and resilience.

We will complete our first reporting to the Net Zero Asset Managers initiative and will also report on progress on implementing our CAP.

Feature

Global Property Securities – Embodied carbon in buildings

The Global Property Securities team is committed to achieving our net zero targets. However, the full scope of the real estate sector's contribution to global carbon emissions has not been fully quantified, which creates challenges in achieving this goal.

We believe that Scope 1 & 2 emissions data only gives a partial picture of property portfolio emissions and does not provide for full landlord accountability. Our carbon analysis is based on all owned real estate, including whether the energy is 'controlled' by the landlord or where it may be 'non-controlled'. For instance, a Real Estate Investment Trust (REIT) may only own a minority stake in an asset or be in a leasing arrangement where the tenant has direct control of energy (typically under triple net lease contracts), which we see impacting the level of disclosures available to the market.

Currently, the built environment does not have a standardised methodology to account for the full range of Scope 3 and embodied carbon emissions, such as those associated with modernisation programmes. However, we view this as a key contributor to a building's carbon emissions. Our investment process considers all emissions listed below and seeks company data on them:

- **Scope 1**: Direct GHG emissions occur from sources that are owned or controlled by the company, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.
- **Scope 2**: Accounts for GHG emissions from the generation of purchased electricity consumed by the company. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organizational boundary of the company.
- **Scope 3**: Is an optional reporting category that allows for the treatment of all other indirect emissions. Scope 3 emissions are a consequence of the activities and operation of the reporting company within its value chain.

REITs have higher reporting standards in comparison to private owners and are therefore more scrutinised than their private counterparts.

We believe REITs are well-placed to standardise the measurement of Scope 3 and embodied carbon emissions, which will flow through to the rest of the built environment. Hence, we have taken steps to position ourselves to drive change in our investment universe and encourage REITs to set more ambitious net zero goals.

Through comprehensive research, we developed a tool[1] capable of undertaking high level analysis on all embodied carbon associated with development, redevelopment, and maintenance capital expenditure programmes at a company level.

As a result of our in-depth carbon analysis, we are now able to identify issues and to form a measurable carbon reduction target in our engagement process with companies. We are planning to continue our engagement and reporting on the issue going forward.

1. Ernst & Young was engaged by First Sentier Investors Global Property Securities team to undertake 'limited assurance' as defined by International Auditing Standards, over the team's Portfolio Operational Carbon Emissions (Scope 1 and 2) Forecast to Net Zero for the year ended 30 June 2021. Based on the review, Ernst & Young determined the forecast was prepared and presented fairly, in all material respects, in accordance with the defined Criteria.

Feature

Stewart Investors Project Drawdown®

'Drawdown' is the future point in time when levels of greenhouse gases in the atmosphere stop climbing and start to steadily decline.

Founded in 2014, Project Drawdown® is a non-profit organisation that seeks to help the world reach "drawdown" – the future point in time when levels of greenhouse gases in the atmosphere stop climbing and start to steadily decline.

Project Drawdown's framework aims to connect substantive and existing solutions to stop climate change by reducing sources, supporting carbon sinks and improving society. Through rigorous and ongoing research, they have catalogued more than 90 climate change solutions which, if scaled up, can deliver the Paris Agreement's 1.5°C temperature goal. The full set of solutions, along with the research that backs them, is publicly available at www.drawdown.org.

Drawdown's solutions offer both breadth and depth of decarbonisation-enabling investments and Stewart Investors utilises the solutions to help them understand the role companies can play in climate solutions and the contribution they can make to reducing emissions.

In investment terms, the abatement potential for these technologies can be thought of as "total addressable markets", with some offering significant growth potential for companies (tailwinds), while on the flipside, some will point to significant declines in existing industries and practices (headwinds).

Viewing these areas in conjunction with other sustainable development challenges shows the cross-cutting nature of the carbon abatement challenge and consequent opportunities.

Stewart Investors map each investment against the more than 90 solutions which are captured in eight broader solutions (Buildings, Circular economy/industry, Conservation/restoration, Energy, Food system, Human development, Transport and Water) shown in the chart to the right. The team's focus is on whether the companies themselves are making a meaningful contribution and will have meaningful involvement with the delivery of any of those solutions.

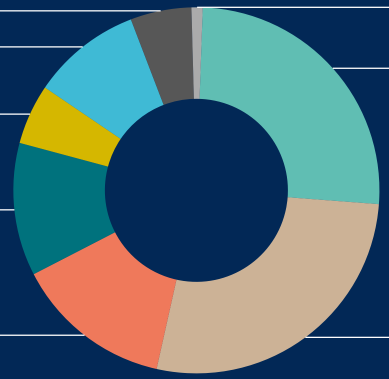
In practice

Stewart Investors recently commissioned research into smallholder farmers, which found there are more than 500 million smallholder farmers globally producing up to 80% of some key commodities like palm oil, coffee and cocoa[1]. These farmers are also at the frontlines of a significant amount of agriculture-related deforestation.

Of Project Drawdown's c.90 solutions, 22 are directly relevant to smallholder farmers, offering more than 540 gigatons of abatement potential or 34% of the total[2]. In this context, poverty alleviation, human rights and secure tenure of land for smallholder farmers are critical for delivering climate change solutions.

Stewart Investors publicly discloses the contributions being made by investee companies on its interactive Portfolio Explorer tool.

Figure 4. Drawdown solutions contributed to 1.5°C[3]



Source: https://www.stewartinvestors.com/all/insights/climate-solutions-update-q42022.html

1. Stewart Investors and Project Drawdown solutions data. Gigatons CO2 Equivalent Reduced/Sequestered (2020–2050)
2. NIRAS-LTS research for Stewart Investors.

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.

05 | HUMAN RIGHTS AND MODERN SLAVERY

05 | Human rights and modern slavery

Why is it important to us?

In September 2022, the *2021 Global Estimates of Modern Slavery* reported that there are an estimated 49.6 million people globally living in situations of modern slavery, an increase of around 10 million people since the previous estimates were released in 2017[1].

This means one in every 150 people are affected by modern slavery, with women, children and migrants disproportionately impacted[2]. As these estimates are based on 2021 data, this number does not account for the number of people impacted by the escalation of the Russia-Ukraine conflict.

There is an ever-greater need to focus on this topic, in light of the COVID-19 pandemic, the Russia-Ukraine conflict, the growing recognition of the human rights implications of climate change, and the need for a just and equitable transition to a lower-carbon future. These forces will all have long-lasting and far-reaching human rights implications.

Companies that fail to proactively manage these issues will face an increasing level of scrutiny, in addition to legal, reputational, and financial implications.

What is First Sentier Investors doing?

Human rights issues are still widely misunderstood by many stakeholders, including investors. FSI first started formal work on human rights in 2016, setting up a human rights working group of investment team members, which culminated in the creation of a Human Rights Toolkit.

1. https://www.ilo.org/global/topics/forced-labour/publications/WCMS_854733/lang--en/index.htm
2. https://www.ilo.org/global/topics/forced-labour/publications/WCMS_854733/lang--en/index.htm

In 2022, we updated the Human Rights Toolkit to provide additional guidance on the human rights implications of armed conflict and arranged for human rights experts from advisory firm Pillar Two, to provide our investment teams with training on this topic.

We have since engaged with several companies on the issue (see the feature below), as well as with clients. In addition, we lead a sub-group within the Responsible Investment Association of Australasia (RIAA) Human Rights Working Group, focused on developing investor guidance on the implications of armed conflict for investors. Proactive human rights due diligence by companies prior to an armed conflict breaking out is our preferred approach. However, for companies that find themselves potentially causing, contributing or directly linked to human rights abuses as the result of an armed conflict, heightened human rights due diligence provides a framework for navigating the situation, in addition to ensuring the company complies with international humanitarian law.

Throughout the year, we also continued our work on modern slavery. The three-year review of the Modern Slavery Act in Australia provided an opportunity to reflect on what was working under the legislation and how all stakeholders can do better to address this issue.

We feel that investors have an important role to play in this review process, and contributed to submissions and consultations on behalf of, or as part of, FSI, Investors Against Slavery and Trafficking APAC (IAST APAC), RIAA and the Financial Services Council.

IAST APAC reached an important milestone in 2022, completing its first full year of collaborative engagements (see feature below).

We did some preliminary analysis on other issues including mental health and access to nutrition, which we intend to do further work on in the coming year.

First Sentier Investors' Submission to Modern Slavery Act Review

In 2022, the Australian Federal Government undertook a review of Australia's Modern Slavery Act 2018 (Cth) (Modern Slavery Act). FSI believes that the Modern Slavery Act has been successful in raising business and government awareness of the risks of modern slavery. However, enhancements will be required for businesses to be compelled to identify, report on and, most importantly, address the risks of modern slavery, going forward.

In our submission to the review, we indicated our support for many of the proposed initiatives and made several recommendations, including:

- Reducing the annual revenue threshold for reporting entities to $50 million (from $100 million), subject to greater resourcing to monitor and review the resulting increase in volume of statements submitted
- Refining the definition of 'modern slavery'
- Harmonising reporting criteria and timelines
- Establishing an Anti-Slavery Commissioner
- Retaining the current, broad approach of non-punitive enforcement mechanisms
- Continuing the Modern Slavery Statements Register
- Considering introducing mandatory human rights due diligence

Feature

Engagement on the Russia/Ukraine conflict

Armed conflict has enormous humanitarian consequences, as well as long lasting economic, social and environmental repercussions. The Russia-Ukraine conflict is not the only conflict happening now (the Geneva Academy is currently monitoring over 110 armed conflicts[1]), however the sanctions relating to this conflict are unprecedented in scope and severity, at state level as well as for corporates.

In response to the invasion of Ukraine, many companies announced their withdrawal from Russia, at times without applying a human rights lens to their decision. After referencing and updating our Human Rights Toolkit and receiving specialised training, First Sentier Investors identified and engaged with a number of companies to determine:

- The nature of their involvement and how exposed they are.
- How the company is enhancing its due diligence to identify, prevent, and mitigate heightened human rights risks and comply with international humanitarian law.
- What measures the company is taking to ensure it actively monitors the situation, including through consultation with workers, affected communities, human rights groups, and/or humanitarian organisations.
- What measures the company has taken to ensure business relationships, products, services, operations, or other actions do not contribute to Russian military activities or occupation in Ukraine (this may or may not include a responsible exit).
- What actions the company has taken to mitigate the effects of any decisions taken on affected communities and workers and how regularly they are re-evaluating their response.
- What other actions the company is taking to promote respect for humanitarian law and human rights.

To date, the quality of company feedback and the response rate has been low, with only 10% of global companies that we invited to respond on the Russia-Ukraine conflict, providing a full or partial response to our questions. The majority of responses were generic. We are continuing to engage.

Next steps will be to follow up with the companies that have not responded in addition to engaging with the companies that provided partial responses to expand our findings. Where we identify examples of best practice, we will seek to share that information with companies that have scope to improve their approaches.

1. https://geneva-academy.ch/galleries/today-s-armed-conflicts

Feature

Investors Against Slavery and Trafficking APAC

IAST APAC is a group of investors working to help end modern slavery, focusing on the Asia-Pacific region. FSI is proud to convene and Chair the initiative, which comprises 37 investor organisations with AU$7.8 trillion in assets under management (AUM), together with the Australian Council of Superannuation Investors (ACSI), Walk Free and the Finance Against Slavery and Trafficking (FAST) initiative.

In 2022, IAST APAC focused on facilitating policy advocacy opportunities for members specifically in relation to the Australian Modern Slavery Act review, and it engaged with 24 focus companies across the consumer discretionary, consumer staples, technology and healthcare sectors, listed on exchanges in the following countries: Australia, Hong Kong, Japan, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Vietnam.

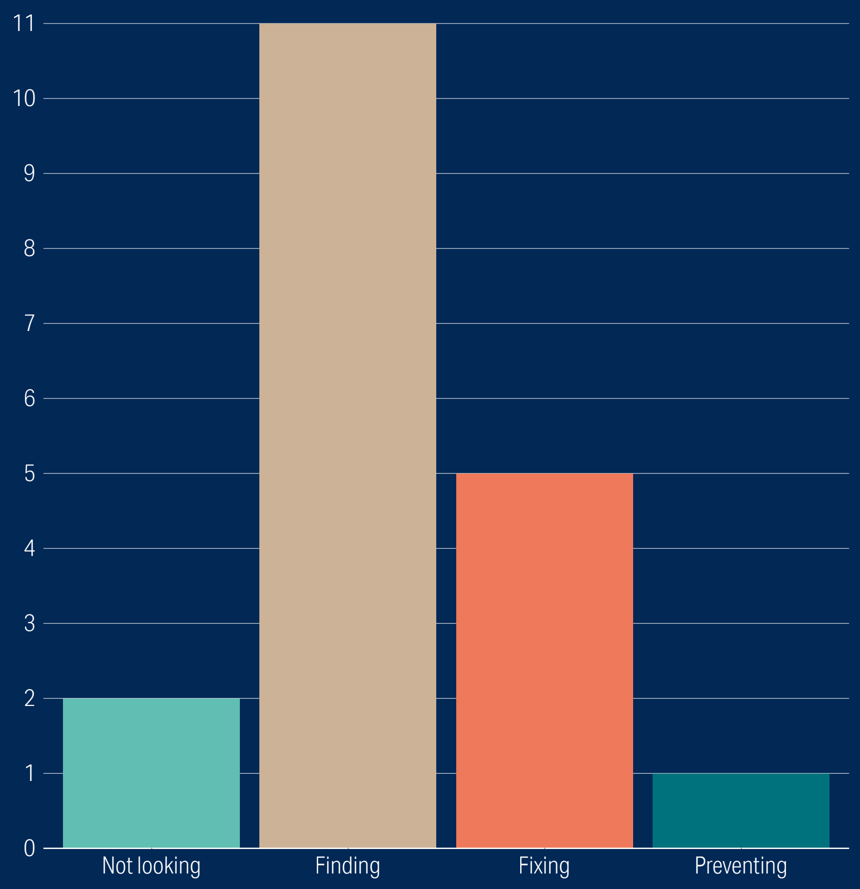
The findings revealed that companies are still at various stages of tackling modern slavery, and that many companies are still coming to grips with the scale of the problem and what is required to address it.

However, the findings also revealed that several companies have made significant strides in finding, fixing and preventing modern slavery in their operations and supply chains.

The aim is to help these leaders go further, modelling best practice for other industry participants as they make progress on the issue, which will assist IAST APAC to more effectively support the companies that are earlier in their journey.

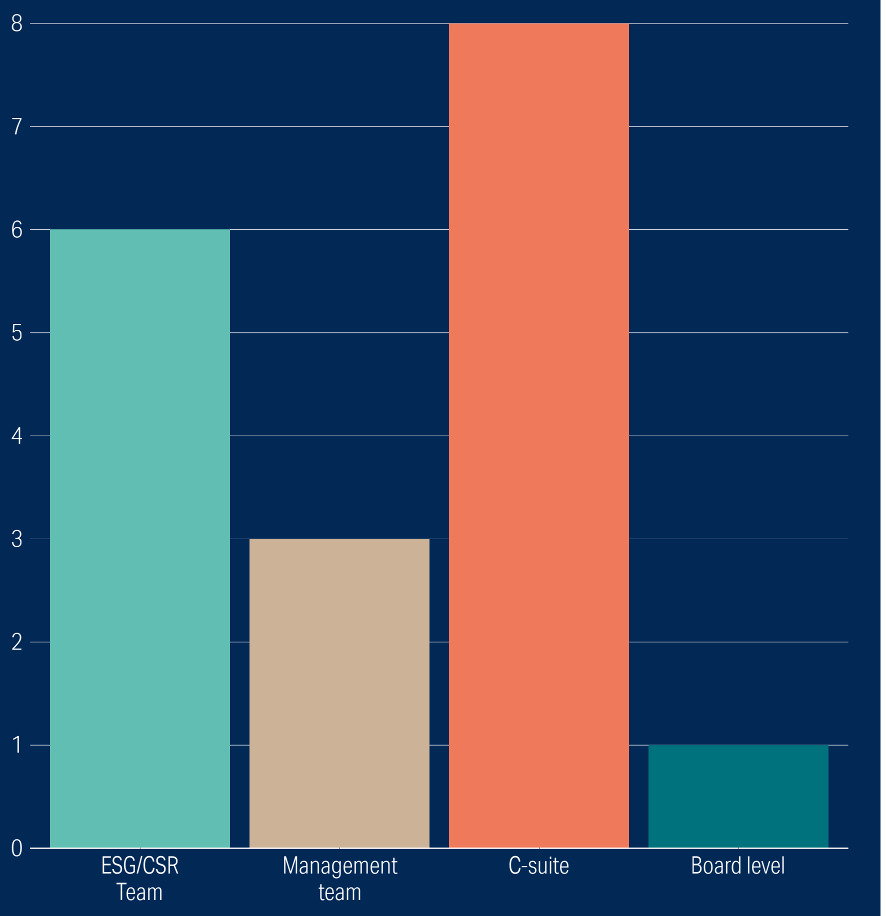
For further information, please see the IAST APAC Annual Report

Figure 5. Company progress at the start of the engagement



Source: IAST APAC, as at 30/6/22

Figure 6. Seniority of company representative met



Source: IAST APAC, as at 30/6/22

Feature

Stewart Investors: conflict minerals collaborative engagement update

The issue

Tantalum, tin, tungsten, gold and cobalt (referred to collectively as conflict minerals) are vital materials and building blocks of the semiconductor industry. The poor traceability of these minerals along complex supply chains, including smelting and refining, can obscure the provenance of these minerals. This can lead to the inadvertent financing of armed conflict and the abuse of human rights.

Demands for a greener future necessitates more semiconductors and therefore more mineral mining.

The engagement initiative

Following specific company discussions and two commissioned research reports, in 2021, Stewart Investors launched an industry engagement initiative: Tackling conflict mineral content in the semiconductor supply chain. The initiative was supported by 160 signatories, collectively representing US$6.59 trillion in AUM.

With regulators and consumers also increasing their attention on the challenges of mineral sourcing within the semiconductor supply chain, the collaboration effort has attracted greater interest from a number of large financial institutions.

Actions

In 2022, Stewart Investors increased engagement efforts with:

- Companies, the team met with several companies in response to the initial letter;
- Industry bodies, at the Responsible Minerals Initiative (RMI) annual conference; and
- Civil bodies, having met with Global Witness to discuss the findings of field research, recently carried out and published in their ITSCI Laundromat report. Click here to watch a short interview with Stewart Investors and Global Witness.

Findings

These engagements revealed the issue of improperly sourced minerals and associated human rights abuses to be more severe than initially anticipated, and progress has stalled due to companies' challenges from reliance on third-party audits, the concentration of minerals in high-risk countries and a lack of sustained effort by companies. However, NGO pressure and geopolitical tensions are increasing governments' focus on supply chain transparency leading companies to refocus their efforts on full supply chain mapping.

Achievements

Stewart Investors has raised the profile of investors' concerns about this issue with key companies in the supply chain. Following this engagement some companies have committed to improving transparency and one company has for the first time published a full list of the smelters and refiners they use.

The engagement has also raised the profile of investors' concerns with the main industry body and civil bodies which has helped bring the issue to a wider audience and provided scope for further collaboration.

It is extremely early days for this multi-year engagement but it is clear that tracing mineral provenance is an extremely complex challenge for companies, and progress is slow. While there is a unanimous desire to improve practices, some companies are more eager and able to meet this challenge than others.

Next steps

Stewart Investors is now seeking to:

- Attract more signatories to underline a deepening commitment to this issue;
- Write again to all companies to assess and encourage progress;
- Formulate investor guidelines, to deepen the quality of company engagements; and
- Attend industry functions to learn and improve the quality of our engagement.

Investment teams have been engaging with a range of companies on human rights and modern slavery, with details shown below.

- The **Australian Equities Growth** team discussed modern slavery risks with 20 ASX-listed companies in 2022. While it continued to focus on retailers, the team broadened its focus to other sectors including IT and healthcare. For companies with broad product ranges and third party manufacturers, it encouraged industry collaboration to maximise leverage with manufacturers. After researching the risk of worker exploitation in the Australian horticultural supply chain several years ago, the team continued to encourage the supermarkets to participate in industry-wide collaborations to educate growers and workers on appropriate pay and conditions.

- The **Australian Small and Mid Cap Companies** team has engaged with all relevant companies on working conditions, employee welfare and accommodation, both from companies' own manufacturing facilities and outsourced offshore manufacturing operations. The team has also engaged with relevant companies on their shipping activities, which is an industry that can have opaque practices which may mask modern slavery risk.

- The **Multi-Asset Solutions** team has partnered with Sustainalytics for its modern slavery thematic engagement service. Sustainalytics is now two years into a three-year engagement programme, which by the end of the year had increased to 16 companies, from 12 in 2021. These companies are equally split across the apparel and construction sectors. Of these companies, nine have improved their scores through either adopting policies on responsible recruitment, commencing supplier audits and by seeking feedback from Sustainalytics on human rights programmes.

- The **Fixed Income, Short Term Investments and Global Credit** team continued its engagement with companies on the topic of human rights and modern slavery, with 24 engagements completed over the year. On the issue of the Russia-Ukraine conflict, the team engaged with four companies that have continued operations in Russia and/or Ukraine and will continue to do so in 2023.

- The **Global Listed Infrastructure** team has assessed where the greatest modern slavery risks lie across its research universe. Companies were ranked according to the vulnerability index of countries they operate in, with the highest risks seen in companies with operations in Africa, Latin America and parts of the Asia Pacific region. The team is also focused on companies involved in the build-out of renewables, as elevated modern slavery risks have also been associated with the production of solar panels and wind turbines. It has engaged with a number of companies in its portfolio on these issues over the past year.

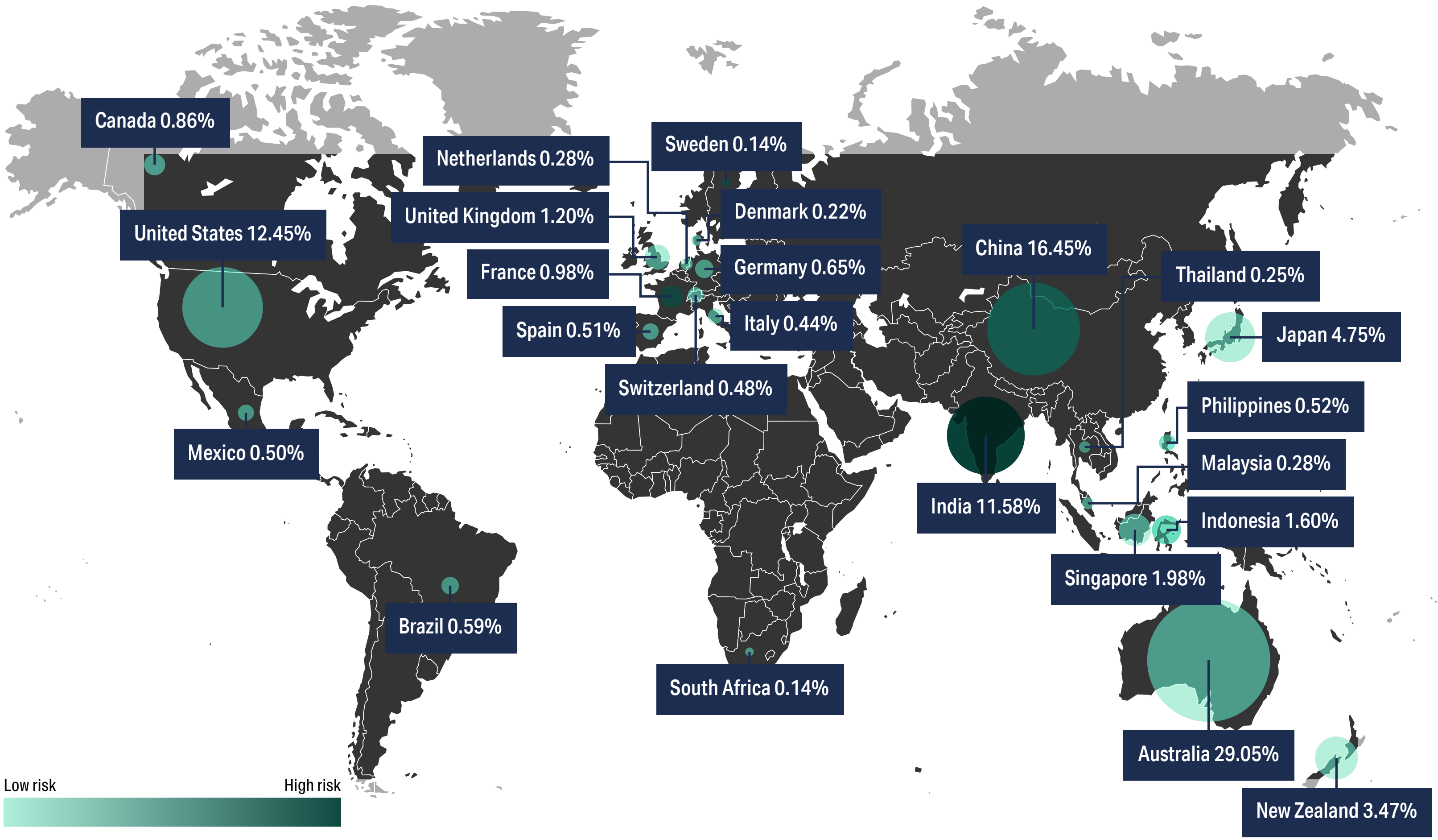
- The **Realindex** team continued its engagement work regarding modern slavery. Besides being involved in the collaborative engagement with IAST APAC and engagement on the Russian/Ukraine conflict, Realindex has raised issues of modern slavery with a number of companies it has engaged with globally. This questions the company's supply chain management including beyond tier one suppliers, as well as discussing policies and any remediation conducted for modern slavery issues identified.

Reporting on progress

The country map below, taken from our Modern Slavery Portfolio Analytics tool, shows the levels of modern slavery risk across various countries where we invest in listed equities and corporate fixed income. The size of the bubble relates to our exposure to companies across these asset classes (expressed as percentages in the labels), and the colour of the bubble relates to modern slavery risk (darker green = higher risk). Modern slavery risk is measured per country using a combination of factors including the total number of people living in modern slavery conditions, the number of victims as a percentage of population and the country's vulnerability score as measured by the Global Slavery index. As the map demonstrates, our greatest risks are concentrated in Asia, hence why we decided to focus on this region as part of the IAST APAC initiative profiled above.

"According to the 2021 Global Estimates of Modern Slavery, one in every 150 people are affected by modern slavery. Women, children and migrants are disproportionately impacted."

Figure 7. Our global modern slavery risk for listed equities and corporate fixed income



Source: Global Slavery Index 2018, First Sentier Investors Data as at 31/12/22

Challenges

Despite the efforts of many, the number of estimated victims of modern slavery worldwide continues to rise. While the numbers quoted in the Global Estimates of Modern Slavery are concerning, it has made a number of recommendations to action between now and the 2030 target date for eradicating modern slavery.

As responsible investors, we have an obligation to set expectations that investee companies find, fix and prevent modern slavery within their operations and supply chains, as well as engage with policy makers and broader stakeholders including survivors, civil society organisations and ESG data providers.

Future plans

After we complete our fourth consecutive modern slavery statement in 2023, we will review the effectiveness of our approach and refine it as appropriate. We will also continue the engagement with companies in relation to the human rights implications of the Russia-Ukraine conflict and other armed conflicts globally. We also hope to build on the preliminary analysis already completed on the topics of mental health and access to nutrition.

06 | DIVERSITY

06 | Diversity

Why is it important to us?

Diversity, equity and inclusion are the keys to building fair and equitable organisations, institutions and communities. While there are many business benefits that can accrue from including people with different skills, life experiences and outlooks, we also believe that creating diverse and inclusive organisations is the right thing to do.

What is First Sentier Investors doing?

Currently, many of our investment teams assess gender diversity as part of their company analysis. This is generally achievable for board diversity, as gender balance is usually publicly reported, and forms part of a company's assessment on its social and governance performance.

Where available, the gender diversity of executive leadership teams is also considered by some of our teams. However, the lack of reporting requirements for this, in most markets, makes it more difficult. As noted in the feature below, proprietary research by Realindex has delved deeper into the gender split of senior management teams globally and found a direct link between greater gender diversity and better company performance. The Realindex team has now included senior management diversity measures into its investment process.

We continue to be involved in industry collaborations designed to boost gender diversity on boards (Australian Institute of Directors' 30% Club) and senior management (40:40 Vision, led by Australian superannuation fund HESTA). We are also committed to bringing more women into our own investment teams and continue to work towards our commitment to have women comprise at least 40% of investment management staff by 2033, as outlined in the Financial Services Council Women in Investment Management Charter.

Departing from previous practice, FSI's internal diversity initiatives and gender scorecards will no longer be outlined in this report. Instead, it will be covered in detail in our inaugural Corporate Sustainability Report.

Investment teams also made progress on this issue, as outlined below.

- While the **Fixed Income, Short Term Investments and Global Credit** team does not have the ability to vote on resolutions, it continued to engage with companies on improving gender diversity on boards and management levels where relevant, and to improve diversity more broadly.
- The **Australian Equities Growth** team continued to ask portfolio companies about their initiatives to improve gender diversity across their workforce. It asks companies about where they perceive the challenges to be and the initiatives they have in place to address those, and encourages companies to carry out equal pay reviews if they have not already done so.
- The **Australian Small and Mid Cap Companies** team seeks to engage extensively with companies on board composition and diversity. While the team is one of many voices advocating for greater board diversity, the strong relationships the team has built with companies over many years, together with an understanding of the challenges for growing businesses, allows for targeted and meaningful engagement.
- The **Multi-Asset Solutions** team, as a result of aligning its voting policy with its broader ESG objectives, voted against 449 individual directors in 2022, where there was insufficient gender diversity on the board of directors.

Feature

Realindex – Beyond Lip Service: progress in gender diverse leadership

Over the past two years, Realindex has created a comprehensive, proprietary database of gender diversity statistics for companies in the MSCI ACWI, an index of large- and mid-cap stocks across 23 developed and 25 emerging markets. The data spans more than a decade and reveals trends in gender diversity at both board and senior management levels.

Realindex has been using gender diversity data alongside other company performance metrics in its investment process. In 2022, it published a research report showing that gender diversity boosts company performance and has the potential to boost returns for investors. The full report can be found on our website.

Using the same database, Realindex has reviewed the progress of gender diversity over the past three years. Some of the insights are outlined below.

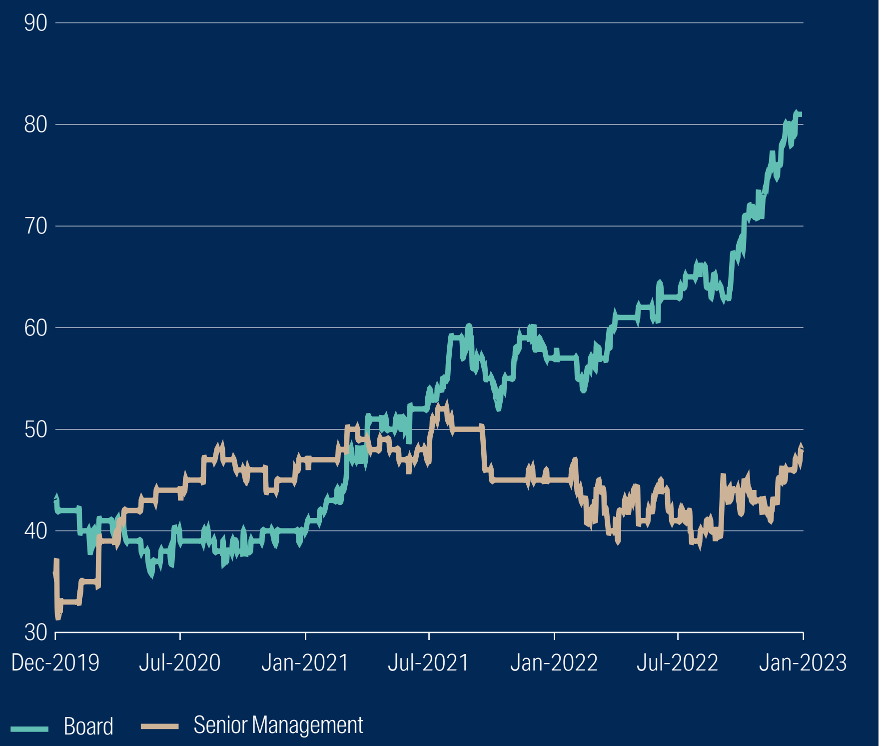
- The world's 20 best-performing companies (in terms of gender diversity for leadership) had boards and senior management teams with female representation of between 50–60%. This is also true for Australia, where the most gender diverse boards and senior management teams had more than 50% women.
- Globally, the number of firms with more than 40% women on boards has almost doubled over three years (1/01/2020–31/12/2022) and risen by 25% for senior management in the same period. However, when we look at the raw numbers this still only equates to less than 10% of companies.

Figure 8. Number of Global (MSCI ACWI ex AU) firms with more than 40% female representation

Source: Factset, Realindex; data as at 31/12/22

In the last 3 years within the ASX300, the number of firms with more than 40% women on the board has nearly doubled, while the increase in senior management has been more modest, growing by 25%. However, when we look at the raw totals, this still only equates to 81 and 48 companies respectively.

Figure 9. Number of ASX 300 firms with more than 40% female representation



Source: Factset, Realindex; data as at 31/12/22

The sectors with the larger increases within Australia have tended to be within the Materials and Financial sectors, whilst globally it has been the Financials, Industrials and Materials sectors. Globally the USA and China have led the larger increases in diversity in both the board and senior management.

Reporting on progress

FSI sought to analyse the board gender diversity of the companies we invest in, to increase transparency and set a baseline for future reference. This is the first year we have captured this data, and while it only applies to our listed equities teams at this stage (representing US$88.8bn of AUM as at 31 December 2022), we hope to increase coverage to other asset classes in subsequent years. The table below shows the weighted average percentage of females on boards for all listed equities teams across FSI, compared to an aggregation of their respective benchmarks, and covering 97.5% of listed equities AUM. As several markets are increasing regulation on this issue, we expect to see an increase in board gender diversity over the next decade.

Table 1. Percentage of females on boards

Weighted Average % Females on Boards	Weighted Average % Females on Boards – Aggregated Benchmark	Variance to Aggregated Benchmark	Coverage (% AUM)
26.2%	25.3%	0.9%	97.5%

Source: First Sentier Investors, Sustainalytics, Data as at 31/12/2022

"Diversity can be summed up as 'the things that make us different'."

Challenges

We are currently exploring ways to assess more markers of diversity in companies. If diversity can be summed up as 'the things that make us different', those things are often a combination of internal factors such as race, age, or sexual orientation, as well as external forces such as a person's socioeconomic background or education. A diverse organisation will be comprised of people who have a range of different experiences, however, data on such factors is often limited, partly due to their personal nature.

FSI's own Diversity Census, now in its second year, is a voluntary survey that seeks to capture these more nuanced differences. It allows us to be more transparent with clients and employees, as well as identify areas for improvement. We would like to see similar approaches in the companies we invest in, so that we can engage with them more meaningfully on this topic.

Future plans

FSI will be undertaking detailed research on the challenges and opportunities of assessing diversity beyond gender, in the companies in which we invest. As part of this, we will work with investment teams to develop an engagement framework that facilitates conversations with boards and management teams regarding their organisation's diversity, equity, and inclusion efforts.

Feature

Australian Small and Mid-Cap Companies

The Australian Small and Mid-Cap Companies team frequently discuss ESG issues with senior management and board members during the team's extensive engagement with companies. The team seeks to ensure that management are aware of, and accountable for, the management of material ESG issues. These discussions contribute towards the team's overall investment view and are an integral part of the team's investment process.

As minority shareholders, it is pleasing to support ESG initiatives and witness improvements in the companies in which we invest. A mining company, which is a key holding in the mid-cap strategy, has steadily improved its ESG practices over several years, which the team has fully endorsed. For example, the mining company has improved its gender diversity across all levels of the organisation, resulting in the workforce now comprising almost 30% women, including more than 40% female representation in the senior executive team and the board. The company's approach to ESG considerations has helped it become one of the leaders in the mining industry globally and it remains a core holding in the mid-cap strategy.

07 I NATURE AND BIODIVERSITY

07 | Nature and biodiversity

Why is it important to us?

Nature is the foundation of our economy, society and life itself, and biodiversity supports all life on our planet. However, biodiversity is eroding at a pace that is severely damaging the natural ecosystems that provide us with food, water and clean air. This in turn poses significant risks to economic, financial and social stability.

Global Developments in Biodiversity Regulation

- The French Energy-Climate Law Article 29 already requires companies and financial institutions to disclose biodiversity risks and impacts. France also became the first country in the world in 2020 to pass legislation requiring all new domestic washing machines to have a microfibre filter fitted, as standard, from the beginning of 2025.
- 'Biodiversity sensitive area' and 'emissions to water' indicators in the Principal Adverse Impacts of the EU Sustainable Finance Disclosure Regulation (SFDR), which fund managers need to disclose for the targeted funds.
- The European Union ban on imported goods that contributed to deforestation or produced in deforested lands. This new law will prevent the sale of products including beef, soy, and coffee linked to deforestation in the EU market.

Although these examples are European, we expect that there will be trickle-down effects from these regulations to other regions.

Globally, there is a growing momentum to address biodiversity loss, which is becoming more tangible. At the UN Biodiversity Conference (COP-15) in December 2022, heads of States agreed to adopt the long-overdue Global Biodiversity Framework and its new targets and goals.

In line with the adopted targets, companies and financial institutions will increasingly be expected to assess and disclose nature-related risks, opportunities, dependencies and impacts in the near term, to deliver the Post-2020 Global Biodiversity Framework goals and targets.

Financial institutions have an important role, as providers of capital, to mobilise the necessary investment and opportunities for nature protection and restoration, and as regulated entities to monitor, assess and disclose nature-related risks, dependencies and impacts on nature across investment portfolios.

As long-term investors, we believe biodiversity loss and land degradation is financially material and crucial to achieving a net zero and climate resilient future. Protecting nature is therefore in our own and our clients' best interests.

What is First Sentier Investors doing?

In 2022, we convened a Nature and Biodiversity Working Group made up of members across FSI investment teams globally, conducted an assessment of sectoral water and deforestation risk for Working Group members, and developed a framework for company engagement.

We also increased awareness of biodiversity internally and developed a knowledge base for our staff, in particular investment and distribution teams. Our investment teams understand the importance of this work, have the relevant data to assess their exposure, and some have developed a list of priority companies for engagement.

We became a member of the Taskforce on Nature-related Financial Disclosures (TNFD) Forum, along with 900 other institutions. As a member, we support a shift in financial flows toward nature-positive outcomes in following the development of target-setting methodologies and metrics by the TNFD and Science Based Targets Network.

As a member of the Responsible Investment Association Australasia (RIAA) Nature Working Group, FSI provided technical input in developing *Nature in a Nutshell* resources and shared our journey with other financial institutions.

Throughout the year, we also continued our engagement with commercial and domestic washing machine manufacturers and policy makers alongside other investors on the issue of plastic microfibre pollution.

Investment teams have been increasingly focused on nature and biodiversity, as demonstrated below.

- Given the rise in extreme weather events in Australia in recent years, the **Fixed Income, Short Term Investments and Global Credit** team engaged with Australian utilities to understand progress on bushfire management, and the Australian REIT sector around physical risks to climate change. For example, a Brisbane shopping centre was damaged beyond repair in 2022. The team also continued engagements with relevant companies on increasing recycling content in packaging.
- **Stewart Investors** notes that when considering individual companies bottom-up, the team is focused on specific, tangible factors such as pollution, supply chains and plastic packaging, which feed into biodiversity outcomes and are more in the control of management than broad measures of natural capital. Further, the team explains that it is increasingly looking at the interconnectedness and dependencies between the issues outlined in this report. Its work on smallholder farmers (see feature on p.16) is a good example of something that cuts across multiple issues, including biodiversity, climate change and human rights.
- The **Global Listed Infrastructure** team has identified the higher-risk sector exposures within its investable universe, using the TNFD priority list. These include the toll road, railroad, offshore wind and water utility sectors. The team has begun engaging with the companies in its portfolio to understand the monitoring systems, disclosures, policies and pledges they have in place, and is planning to expand these activities in the coming year.

Reporting on progress

Sector materiality mapping

In order to understand the relationship between our investment holdings, and their pressure on nature loss, we used the Science Based Targets Network (SBTN)/United Nations Environmental Program (UNEP) World Conservation Monitoring Centre (WCMC) Sector Materiality Tool. The goal was to understand how, at a sector level, our portfolio holdings may be contributing to the pressures that cause environmental degradation and nature loss. This year we assessed listed equities, but plan to expand coverage over time.

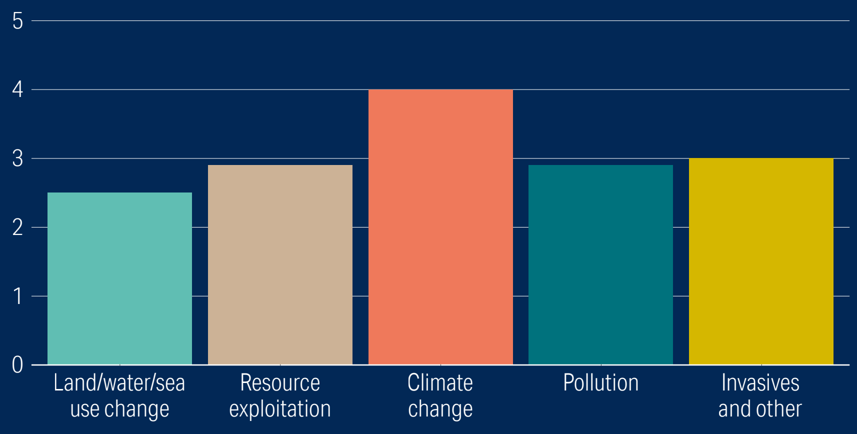
The tool presents materiality ratings for 12 impact categories, themselves grouped by five nature-related issue areas: land/water/sea use change, resource exploitation, climate change, pollution and invasives, and other[1]. This tool has been recommended by TNFD for sector-level research and is in line with the Encore tool[2], which provides information on the materiality of potential impacts on a sector level.

As an initial exercise, we used this tool on our listed equities teams' holdings[3] to understand which pressure/impact categories are more material. This tool only has data for direct operations and upstream operations (i.e. supplier) in the supply chain; downstream (i.e. customer) impacts could not be assessed at this stage. Additionally, although the tool uses International Standard Industrial Classification of All Economic Activities (ISIC), we mapped our holdings using the Global Industry Classification Standard (GICS) subindustries (which is less granular than ISIC), due to data availability issues[4].

1. As defined by Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)
2. Exploring Natural Capital Opportunities, Risks and Exposure (Encore) https://encore.naturalcapital.finance/en
3. Of the US$88.8bn of AUM across the listed equities teams as at 31 December 2022, US$65.7bn, or 74%, is in GICS Subindustries that could be mapped to nature-related pressures using the Sector Materiality Tool. Thus our analysis is based on this level of coverage. In the next iteration we plan to cover fixed income security holdings
4. We are in the process of incorporating the ISIC data into our holdings data and will aim to update the analysis using the ISIC.

Using a 5-point system to translate the materiality scores of Very High (VH), High (H), Medium (M), Low (L) or Very Low (VL), we found that climate change, with a score of 4.0 (High materiality), has the highest weighted average materiality score of the 5 nature-related issues. Our analysis found this is partly due to a relatively high materiality score for climate change in general, and due to our exposure in certain sectors like metals, packaged foods and healthcare.

Figure 10. FSI weighted average scores for nature-relate issues

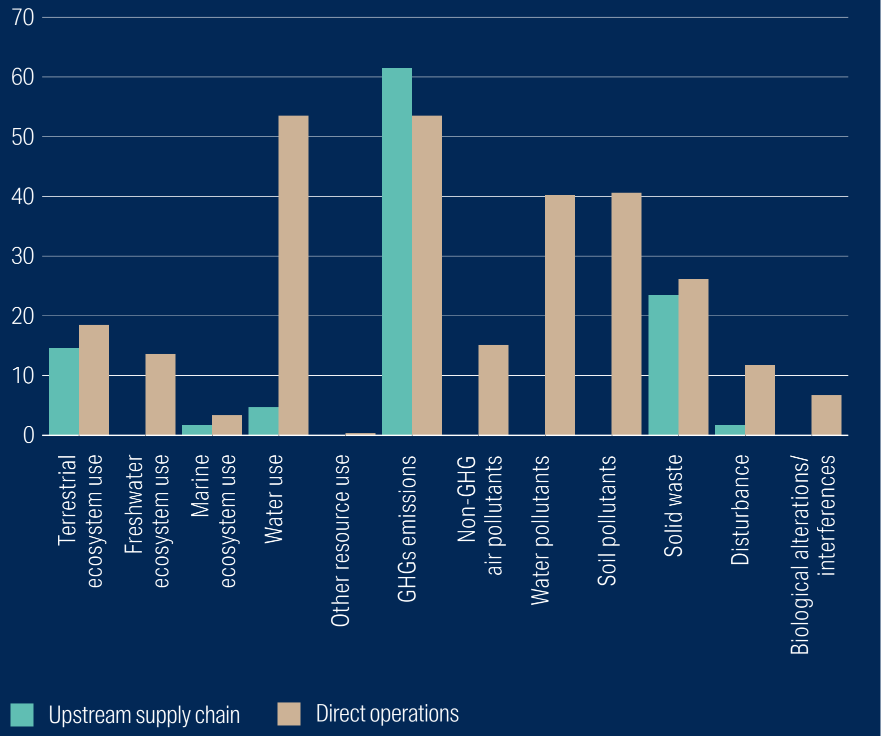


Source: First Sentier Investors as at 31/12/22, SBTN Sector Materiality Tool 2022

In order to break down which of the impact categories we have the highest exposure to, we aggregated sector-level AUM with a materiality score of 4 or more for each impact category and compared the result for upstream supply chain and direct operations. We found that we have a relatively high investment exposure in sectors with high GHG emissions impact in the upstream, but for water and most other impact categories we have greater investments in sectors with impacts occurring at a direct-operation level.

Through this exercise we observed that the overall scores for upstream tend to be lower than direct operation impacts, hence causing the discrepancy in results. It also showed the importance of addressing pollution and waste issues as well as climate change and water.

Figure 11. FSI AUM (A$bn) with high materiality to nature-related pressures



Source: First Sentier Investors as at 31/12/22, SBTN Sector Materiality Tool 2022

Feature

Microplastics policy advocacy update

We believe in our collective responsibility to consider degradation of the natural environment as an investment risk in our decision-making processes, and further proactively collaborate with our industry to encourage the adoption of measures that reduce and mitigate this threat to human and environmental health.

Microfibres have been finding their way into our beaches, rivers and deep ocean, in the air we breathe and the food we eat for decades. Research by the First Sentier MUFG Sustainable Investment Institute (SII) outlines the sources and distribution of microfibre pollution, reasons for its urgent address and steps to prevent it.

Over the last 18 months, studies have shown the effectiveness of filters on washing machines in capturing microfibres before polluting our aquatic ecosystems[1].

As outlined in our Responsible Investment Report 2020, FSI is leading, in collaboration with the UK's Marine Conservation Society, a programme to engage with the manufacturers of domestic and commercial washing machines to fit filtration technology to their products, as a standard feature. In addition to engaging with companies, we have engaged with a number of regulators as part of this initiative. There has been considerable progress, as shown in the advocacy update below.

1. Washing Machine Filters Reduce Microfiber Emissions: Evidence From a Community-Scale Pilot in Parry Sound, Ontario, https://www.frontiersin.org/articles/10.3389/fmars.2021.777865/full)

Table 2: Policy advocacy on microfibres

United Kingdom

On Wednesday 2 November, the Microplastic Filters (Washing Machines) Bill had a second reading in the UK Parliament, requiring manufacturers to fit microplastic-catching filters to new domestic and commercial washing machines.

In support of the Bill, we engaged with the then UK Secretary of State for the Environment and various other senior ministers from across Government in collaboration with the UK Marine Conservation Society and UK Womens Institute who have long been campaigning this issue.

We believe the UK Government could take a global leadership position and prioritise this recommendation on microplastics, specifically to mandate the installation of microfibre filters in new washing machines by 2025.

Australia

Following a visit to our Sydney office by the Australian Minister for the Environment expressing an interest in the issue, we met with CEO Tony Chappel and the team at the New South Wales Environment Protection Agency.

The Agency was very aware of the risks of microplastic pollution and were interested in the engagement work that we had been undertaking.

It is due to hold a consultation early in 2023 on priorities, agreeing to include the issue of microfibre filters in that process.

European Union

As of January 2025, all new washing machines sold in France will have to include a filter to stop synthetic cloth fibres from polluting waterways.

We are now engaging with policymakers to gauge the potential or ongoing discussions for the French Law to be adopted across the EU.

Reporting on progress

Table 3. Progress made under the Finance for Biodiversity Pledge

Commitment	Progress made to date
Collaboration and knowledge sharing	• Joined Taskforce on Nature-related Financial Disclosures (TNFD) Forum. • Contributed to RIAA Nature Working Group. • Held internal sessions to increase team members' technical knowledge around nature and biodiversity. • Part of the content in the Toolkit relevant to the finance industry will be publicly available, as a way for us to share our framework and lessons learned with our stakeholders more broadly.
Engaging with companies	• In the process of finalising a Nature and Biodiversity Toolkit (internal resource) that will form the basis of company engagement on the issue for all relevant teams. • Teams are in the process of identifying priority targets for engagement using the information provided in the Toolkit.
Assessing impact	• Assessed sectoral water and deforestation exposure as a baseline for future analysis. • Conducted an initial assessment of impact assessment tools and services offered by third parties.
Setting targets	• A firm-level approach to key nature-related topics and sector guidelines is in development. This will be accompanied by monitoring, progress reporting, and our assessment of various nature-related commitments made by investee companies.
Reporting publicly	• We will continue to report on progress in our annual RI Report and other specific reports where appropriate.

We aim to develop a firm-level approach to key nature-related topics and sector guidelines. This will be accompanied by monitoring, progress reporting, and our assessment of various nature-related commitments made by investee companies.

We will continue to develop our work on scoping assessments using the Taskforce on Nature-related Financial Disclosure's (TNFD). This is a new risk management and disclosure framework that aims to enable organisations to report and act on evolving nature-related risks. Along with this work, we aim to equip our funds with the resources to report on nature-related disclosure criteria, such as the 'biodiversity sensitive area' or 'emissions to water' indicators in the Principal Adverse Impacts of the EU SFDR.

Challenges

Quality data continues to be a major challenge. In the absence of solid company-level data on nature, our assessment relies on external data providers that are specialised in specific topics of nature such as water and deforestation. However, physical risk and company-level location data are not robust or comprehensive enough to connect company responses and practices with their exposures.

For example, we would encounter significant data challenges in mapping high-forest risk commodities such as beef, and their sourcing locations, for each company to assess how our investee companies' supply chain is contributing to deforestation. We are, however, beginning to see more transparency from some of the leaders.

Engaging with companies on issues such as biodiversity, climate change and human rights cannot be done in isolation. We need to assess companies holistically, and in some cases, there can be trade-offs between these, for example mining copper in primary forests where indigenous communities are present, to support the rapid manufacturing of electric vehicles or solar panels. We need to better understand this nexus and set up a more holistic engagement framework, which will be a future focus.

Future plans

A key output for the working group will be the delivery of a Nature and Biodiversity Toolkit, to provide step-by-step guidelines and a framework for assessing and engaging on nature-related issues in support of the investment teams. This will form the basis for our engagement on nature and biodiversity with investee companies. The Finance for Biodiversity Pledge – which we signed in 2021 – is an agreement initiated by a group of financial institutions calling on global leaders to protect and restore biodiversity through their finance activities and investments. As part of this commitment we continue to monitor our progress under each commitment (see table on p.33 for more details). This includes assessing our firm-level impacts to nature, which will start by understanding the approaches taken by various biodiversity footprinting methodology providers and mapping a path forward for FSI. Any targets we establish are likely to be dependent on the outcomes of the impact assessment.

> *"We aim to develop a firm-level approach to key nature-related topics and sector guidelines."*

08 | INDUSTRY COLLABORATION

08 | Industry collaboration

We support a number of industry and trade groups focused on developing and improving responsible investing. While these groups do not speak on our behalf, except in the cases where we are signatories to a statement, we align with their broader missions.

Each year, we review the various initiatives we have been involved with to ensure each of their purposes align with our clients' interests, and that we have the capacity to make a meaningful contribution. The initiatives that we actively support and engage with are listed here:

Global Initiatives

PRI
- Signatory

Finance for Biodiversity pledge
- Signatory

Task Force on Climate-Related Financial Disclosures
- Supporter

Tobacco-Free Finance Pledge
- Signatory
- Pledge Stamp Member

Cambridge University's Investment Leaders Group
- Founder Member
- Chair of working group

Climate Action 100+
- Supporting Investor for 3 companies

Net Zero Asset Managers initiative (NZAM initiative)
- Signatory

The Investor Agenda
- Member

Taskforce on Nature-related Financial Disclosures (TNFD) Forum
- Member

Asia Pacific

Financial Services Council (FSC)
- Director of the FSC Board
- Member of the Fund Management Board Committee
- Member of the Investment Expert Group
- Chair of the ESG Working Group

Investor Group on Climate Change
- Member

Responsible Investment Association Australasia (RIAA)
- Member of the Human Rights Working Group
- Member of the Nature Working Group

30% Club Australia
- Investor Working Group member

Hong Kong Green Finance Association
- Member

40:40 Vision
- Steering Group member
- Investor Working Group member

Women in Sustainable Finance
- Committee member

Investors Against Slavery & Trafficking APAC
- Chair

Japan Sustainable Investment Forum (JSIF)
- Signatory

Japan Stewardship Initiative (JSI)
- Signatory

EMEA

UK Sustainable Investment Forum (UKSIF)
- Chair Membership Committee

EUROSIF
- President

Prince's Accounting for Sustainability (A4S)
- Expert Panel Member

UK Investment Association
- Member of Sustainability & Responsible Investment Committee
- Chair of the Standards & Definition Working Group

London Stock Exchange Group
- Member of Sustainable Investment Committee
- Member of the ESG Advisory Committee

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