# THE CHALLENGES AND OPPORTUNITIES IN MEASURING CARBON EMISSIONS: SCOPE 1, 2 & 3

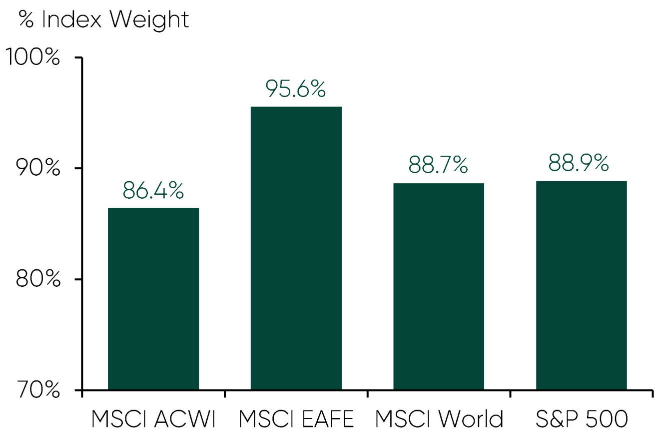
## KEY POINTS

- Corporate carbon reduction targets are increasingly popular.
- Decision-making based on scope 3 carbon emissions has limitations and challenges.
- Fisher Investments (FI) primarily uses scope 1 & 2 measures combined with direct engagements.

## INCREASING CORPORATE CARBON REDUCTION TARGETS

Usage of scientific terms like *carbon neutral*, *carbon negative* and *net-zero* are increasingly gaining popularity in corporate press releases. As shown in Exhibit 1, a majority of the companies in various major indexes have set a carbon emissions reduction target, illustrating the importance carbon factors have for investors. (Exhibit 1)

Exhibit 1: Percent of Companies with Carbon Emissions Reduction Target




*Source: MSCI ESG Research, as of February 2024.*

This trend in corporate participation has many questioning the meaning of climate pledges. Quantifying carbon emissions is not simple and there are various metrics with differing methodologies for accounting and disclosures. How one defines the 'scope' of measurement will influence how small or large the carbon emission is for a company. FI believes that while scope 3 emissions may have portfolio management and reporting use, decision-making solely based on scope 3 carbon emissions has limitations and challenges. As a result, FI more commonly uses scope 1 & 2 measures of carbon emissions in evaluating company and portfolio carbon footprints.

## SCOPE 1, 2 & 3 CARBON EMISSIONS

According to the Greenhouse Gas (GHG) Protocol, the most commonly used international carbon accounting framework, there are three groups or 'scopes' of carbon emissions. (Exhibit 2)

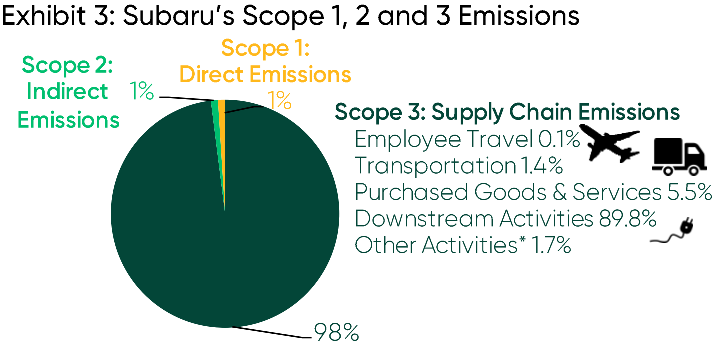
Exhibit 2: GHG Protocol Scope of Carbon Emissions

| Scope | Emissions Type | Definitions |
|---|---|---|
| 1 | Direct | Those from sources owned or controlled by the company, typically direct combustion of fuel as in a furnace or vehicle. |
| 2 | Indirect | Those caused by the generation of electricity purchased by the company. |
| 3 | Indirect | Includes an array of indirect emissions resulting from activities such as business travel, distribution of products by third parties, and downstream use of a company's products. |

*Source: GHG Protocol.*

The broadest measure of emissions is scope 3 as it includes the complete supply chain. Scope 3 emissions are, in most cases, larger than Scope 1 and 2, combined. For example, Subaru has 98% of its total emissions coming from scope 3. (Exhibit 3)

Exhibit 3: Subaru's Scope 1, 2 and 3 Emissions



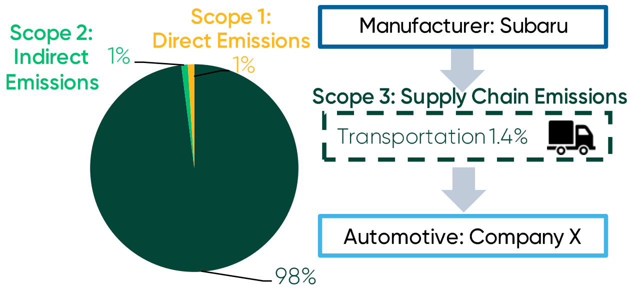
*Source: Subaru, as of March 2023. *Comprised of capital goods, fuel & energy related activities not included in scopes 1 & 2 and waste generated in operations.*

## CHALLENGES OF USING SCOPE 3 CARBON EMISSIONS

The duplication of data, lack of reporting and wide variation in estimates for capturing scope 3 carbon emissions make evaluating companies using this metric very challenging. As a result, scope 3 measures seem to be of low value, as they are currently defined, for asset managers and/or asset owners to utilise in making investment decisions.

For many companies, the majority of scope 3 carbon emissions lie outside of their own operations. This raises the concern that accounting for a broader scope of indirect emissions can lead to duplication or double counting where two different companies may include the same emissions. Exhibit 4 shows how Subaru, an auto manufacturing company, shares its scope 3 carbon emissions with an automotive company via their usage of a third-party transportation company as part of the supply chain.

Exhibit 4: Type of Double Counting Example

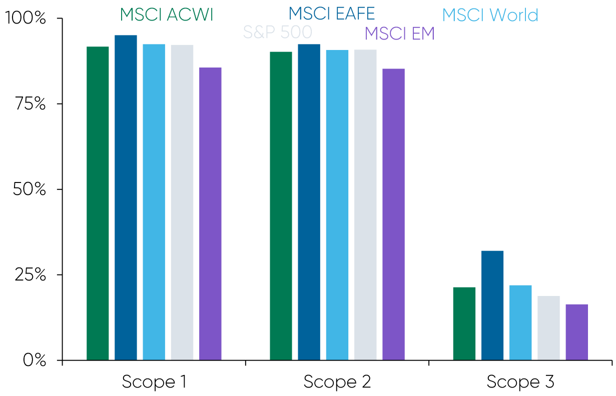



*Source: Subaru, as of March 2023.*

Double counting can also take place between clients, lending and investments spanning across different countries and industries. It is particularly a challenge for companies in the financial sector, as investment portfolios include hundreds or thousands of companies – located in multiple regions and spanning across many industries – that may be involved in more than one step along the production life cycle.

Utilising scope 3 data may be useful to track progress toward carbon reductions or to determine areas that drive emissions within the value chain. However, it may limit the investable universe significantly and become problematic when determining which companies to divest out of a climate-aligned portfolio. Additionally given the wide breadth, there are several barriers that make capturing and evaluating the data challenging. While the number of companies reporting scope 3 has improved in recent years, the majority of the indexes still fall behind in terms of reporting coverage. (Exhibit 5)

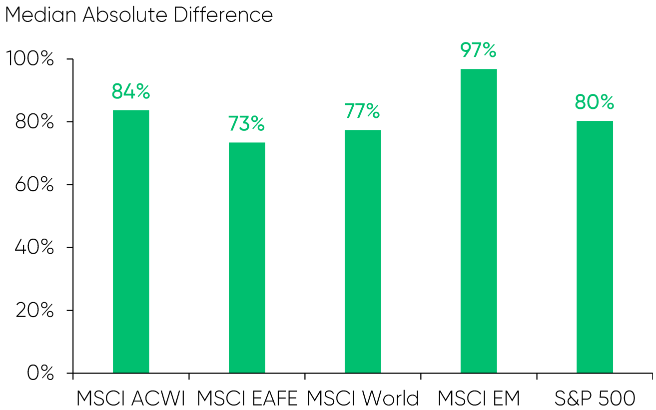
Exhibit 5: Percent of Companies Reporting Carbon Scope 1, 2 & 3 Carbon Emissions




*Source: MSCI ESG Research, as of February 2024.*

As a result, most of the coverage still relies on model estimates. Unfortunately, to make progress towards tracking scope 3 emissions, there is a large deviation between estimated and reported data. On an absolute median basis, there is ~80% difference between the estimated versus reported scope 3 carbon emissions amongst the companies in major indexes. (Exhibit 6)

Exhibit 6: Large Deviation Between Estimated and Reported Scope 3 Carbon Emissions




*Source: MSCI ESG Research, as of February 2024. Data only includes companies that have both disclosed scope 3 carbon emissions as well as have MSCI estimation model data.*

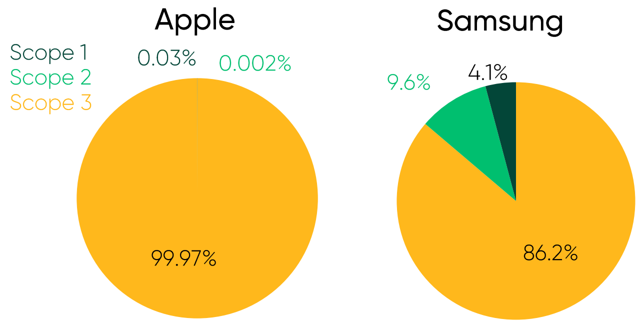
## OPPORTUNITIES FOR ACTIVE MANAGEMENT

By definition, the GHG Protocol definition of scope 1 & 2 ensures that two or more companies do not account for the same emissions. As a result, many investors tend to focus efforts on analysing these two metrics because it avoids the double counting issue, providing a clearer view of emissions for each position and the total portfolio.

While using scope 1 & 2 emissions may be a better choice, scope 1 & 2 measures have their own pitfalls. These stricter divisions of scope means that a business decision to outsource manufacturing can create the false impression that a company's emissions are lower than a competitor's. By analysing scope 1 & 2 data, FI found an example where companies with similar business models can have differing emissions profiles. Exhibit 7 shows that Apple has a much lower scope 1 + 2 carbon footprint than Samsung. However, upon closer review, because Apple outsources the majority of its manufacturing business, it has a large portion of its emissions in scope 3 rather than in scope 1 & 2.

Exhibit 7: Samsung's and Apple's Carbon Emissions

| Company | Carbon Emissions (Metric Tons) | | |
|---|---|---|---|
| | Scope 1 | Scope 2 | Scope 3 Est. |
| Samsung | 5.97 | 13.92 | 124.72 |
| Apple | 0.06 | 0.003 | 177.54 |




*Source: MSCI ESG Research, as of February 2024.*

As a result, we believe investors should not accept Scope 1 & 2 at face value and instead consider a more comprehensive approach through active and frequent due diligence of *all* climate-related risks and not limit themselves to just carbon emissions.

## FI'S TOP-DOWN CARBON CONSIDERATIONS WITHIN STRATEGIES

For investors interested in managing carbon emissions, FI believes in constructing a low carbon strategy that directly restricts the worst offenders while offsetting portfolio risks. Exhibit 8 summarises the carbon considerations commonly applied throughout our investment process. In ESG and Sustainable Equity strategies, in addition to utilising scope 1 & 2 measures, we also restrict companies with more than 5% of *power generated* or *revenue derived* from mining thermal coal. '*Power generated'* captures companies that generate electricity using a thermal coal source, and '*revenue derived'* isolates companies with considerable income from selling thermal coal. In tandem, these two metrics serve to restrict carbon emissions directly from upstream and downstream activities of targeted companies.

Exhibit 8: FI's Common Carbon Considerations

| Carbon Considerations | Type of Strategies | | |
|---|---|---|---|
| | All | ESG | Sustainable |
| Assess carbon-related financial risks or opportunities that may affect a holding or prospect (positive or negative) | √ | √ | √ |
| Use scope 1 & 2 & 3 carbon emissions for reporting purposes | √ | √ | √ |
| Target scope 1 & 2 weighted average carbon intensity less than BM levels | | √ | Varies |
| Restrict companies with more than 5% of revenue from thermal coal or 5% of total power generated from thermal coal sources | | √ | √ |
| Restrict companies with more than 5% of revenue derived from oil sands | | √ | √ |
| Typically avoid companies within the worst decile by Scope 1 & 2 Carbon Intensity vs BM | | √ | √ |

*Source: Fisher Investments Research, as of February 2024.*

We also understand there are transitional risks companies face as the world progresses towards a low-carbon economy. On top of supporting TCFD[1]

[1] *TCFD stands for Task Force on Climate-Related Financial Disclosures.*

recommendations, within our top-down investment process we integrate carbon factors when analysing global political drivers. This allows us to uncover insights into companies that are at risk of facing potential political or regulatory actions surrounding carbon-related issues. Furthermore, we frequently review the impact of climate-related legislation as well as shifting consumer preferences on country, sector and company decisions within our investments.

## FI'S CLIMATE-RELATED RISK CONSIDERATIONS

Our organisation considers both direct and transition risks and opportunities for the organisation and its primary activities related to investment management. While the direct climate-related risks to our organisation are limited, FI does consider such financial risks throughout the investment process. Within portfolios, for example, FI reviews the impact of climate-related legislation and shifting consumer and investor preferences on country, sector and security decisions, and we regularly engage companies in dialogue on climate-related risks and opportunities.

Further, Research Analysts monitor responsible investments thematic opportunities and risks deemed material to returns or those supporting ESG portfolio objectives:

- Environmental thematic opportunities include, but are not limited to, those related to the global low carbon transition (e.g. energy efficiency, alternative energy, electric vehicle trends, green building & sustainable water).

- Environmental thematic risks include those related to thermal coal power, resource extraction (e.g. mining labour strikes and resource nationalisation) and litigation tied to environmental impact.

FI assesses climate risks in the security selection process, examining specific climate risk sources such as carbon emissions, fossil fuel production, and fossil fuel use when deemed material. FI continually reevaluates companies within ESG portfolios for policy compliance. Such assessments seek to improve the probability of alpha generation or to support the non-financial objectives mandated by FI's clients.

### Short term: Regulatory, Environmental Stewardship, & Business Activities

Short term risks and opportunities are those where businesses may be negatively impacted by regulation or poor environmental stewardship or positively impacted through a business activity (e.g. energy efficient products and services.) Such risks and opportunities are idiosyncratic and mostly within the firm's investment horizon (12-18 months).

### Medium term: Regulatory & Reputational

Medium term risks and opportunities are those where country policy or shifting consumer preferences may have a more general impact (positively or negatively). Such risks and opportunities are sometimes idiosyncratic, and sometimes within the firm's investment horizon.

### Long term: Climate Transition Risks

Long term risks and opportunities are those mostly associated with a broader transition from a carbon-based economy. These risks and opportunities may be sizeable but slower to mature. Such long-term risks and opportunities are monitored to help ensure shorter-term opportunities and risks are appropriately identified.

## FI'S ESG PHILOSOPHY STATEMENT & HIGH TOUCH PORTFOLIO MONITORING

Our approach to carbon analysis is reflected in our ESG philosophy statement: *We believe ESG investors are best served by an investment process that considers both top-down and bottom-up factors. Integrating ESG analysis at the country, sector and security levels consistent with clients' investment goals and ESG policies maximises the likelihood of achieving desired performance and improving environmental, social and governance conditions worldwide.*

At FI, we regularly monitor our portfolio for potential ESG issues through engagement. Information uncovered during meetings with management is incorporated into our fundamental analysis.

Recently, in Q4 2023, we met with an industrial company to follow up on our suggestion that it measure and disclose scope 3 emissions (it had set Scope 1 & 2 emissions reductions targets in 2021). Encouragingly, the company published a Taskforce for Climate-related Financial Disclosures (TCFD) - aligned report that included Scope 3 emissions on the use of its sold products – this represents a milestone in the engagement.

Similarly, we also actively participate in proxy voting and vote according to our environmental resolution guidelines. For example, in its May 2023 Annual General Meeting, a global logistics company received a shareholder proposal requesting the adoption of independently verified science-based GHG emissions reduction targets in line with the Paris Climate Agreement. While the company had set a goal for its operations to be carbon neutral by 2050, the details of the strategy were not clear including how much it planned to rely on carbon offsets. After actively evaluating the proposal, FI concluded that independent third-party verification of the emissions reduction targets was relevant for the company and would provide greater transparency to investors. FI voted in support of the proposal.

Our high touch ESG approach across our organisation is reflected in our Principles for Responsible Investment (PRI) assessment scores. The PRI is an organisation dedicated to promoting environmental and social responsibility among the world's investors. The PRI produces a reporting framework for companies to complete, enabling us to track our investment practices and see how we compare to global peers.

FI became a PRI signatory in May of 2014, and since then has improved our scores, thanks in part to the work of FI's Responsible Investments Committee and FI's increased focus on ESG/SRI and Sustainability considerations. FI believes these PRI scores reflect our years of continued progress. (Exhibit 9)

**Exhibit 9: FI's 2023 PRI Scores**

| Module | Rating | Proportion of AUM |
|---|---|---|
| Policy Governance and Strategy | ★★★★☆ | ~90% |
| Listed Equity - Active Fundamental | ★★★★☆ | |
| Confidence Building Measures | ★★★★★ | |
| Fixed Income - Securitised | ★★★☆☆ | ~10% |

*Source: UN PRI, as of December 2023. The PRI reporting programme for signatories has undergone multiple rounds of changes since 2020. These changes have resulted in an overhaul of the annual questionnaire, scoring methodology, and corresponding grading scale, in addition to a one-year delay in the 2022 reporting cycle. Due to these updates, PRI Assessments from 2021 onward cannot be directly compared to scores from previous years, and 2022 will not be reflected in our overview of Historic PRI Scores (since reporting was not open for PRI signatories that year).*

## CONCLUSION

The challenges of accurately measuring emissions are compounded when trying to assess the broadest measures (Scope 3). While company-level carbon reduction targets are an external signal to the market that a company takes the issue seriously, investors should not accept them at face value and instead consider direct engagements to help assess the overall risks at a company level when appropriate.

Active and frequent due diligence through engagements and proxy voting should also be expected of asset managers who strive to adhere to their ESG philosophy statement. In our view, our approach to sustainable equity strategies allows us to maximise the likelihood of achieving both objectives: desired performance and improving environmental and social conditions worldwide.

# DISCLOSURES

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*For purposes of defining "years with Fisher Investments," FI was established as a sole proprietorship in 1979, incorporated in 1986, registered with the US SEC in 1987, replacing the prior registration of the sole proprietorship, and succeeded its investment adviser registration to a limited liability company in 2005. "Years with Fisher Investments" is calculated using the date on which FI was established as a sole proprietorship through 31 December 2023. FI is wholly owned by Fisher Investments, Inc. Since Inception, Fisher Investments, Inc. has been 100% Fisher-family and employee owned, currently Fisher Investments Inc. beneficially owns 100% of Fisher investments (FI), as listed in Schedule A to FI's form ADV Part 1. Ken and Sherrilyn Fisher, as co-trustees of their family trust, beneficially own more than 75% of Fisher Investments, Inc., as noted in Schedule B to FI's Form ADV Part 1.*

*FIE outsources portfolio management to FI. FI's Investment Policy Committee (IPC) is responsible for all strategic investment decisions. The Joint Investment Oversight Committee (IOC) is responsible for overseeing FI's management of portfolios that have been outsourced to FI.*

*This document has been approved and is being communicated by Fisher Investments Ireland Limited.*

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