A Major Step Forward for Scope 3 Carbon Emissions

Reporting on Scope 3 emissions continues to raise challenges for companies and institutional investors due to poor disclosure, data incompleteness, and high volatility. Yet, these indirect upstream and downstream emissions tend to represent the largest share of a company's – or a portfolio's – total emissions. This report highlights the importance of comparable Scope 3 estimates when managing climate change risks facing investment portfolios.

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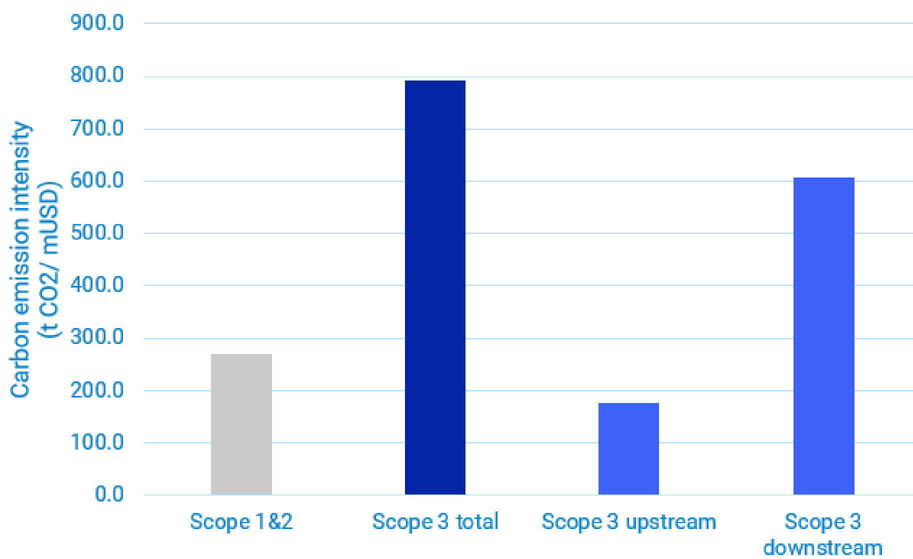
Scope 3 Carbon Emissions – Why Are They Important?

As highlighted in the recommendations from the TCFD,[1] institutional investors continue to be asked to use carbon footprints as a key metric to understand and manage climate related risks and opportunities. The focus has traditionally been on direct emissions (Scope 1) and indirect emissions from purchased electricity (Scope 2), but we have seen investors increasingly realize that the indirect emissions associated with a company's upstream and downstream value chain could carry significant risk and warrant closer investigation.[2] These "Scope 3" emissions include the emissions emitted during the use of a company's sold products (e.g. a mining company's coal being burnt in another company's power plant) and those emitted through the transportation and distribution of products from its upstream suppliers. Scope 3 emissions can oftentimes dominate a company's overall carbon footprint (see Exhibit 1).

Exhibit 1. Weighted Average Carbon Intensity (WACI) of the MSCI ACWI Investable Market Index (IMI), as of July 10, 2020



Source: MSCI ESG Research LLC

This paper identified three major concerns that institutional investors grapple with surrounding Scope 3 emissions data: **limited coverage, incompleteness in reporting, and high volatility.**

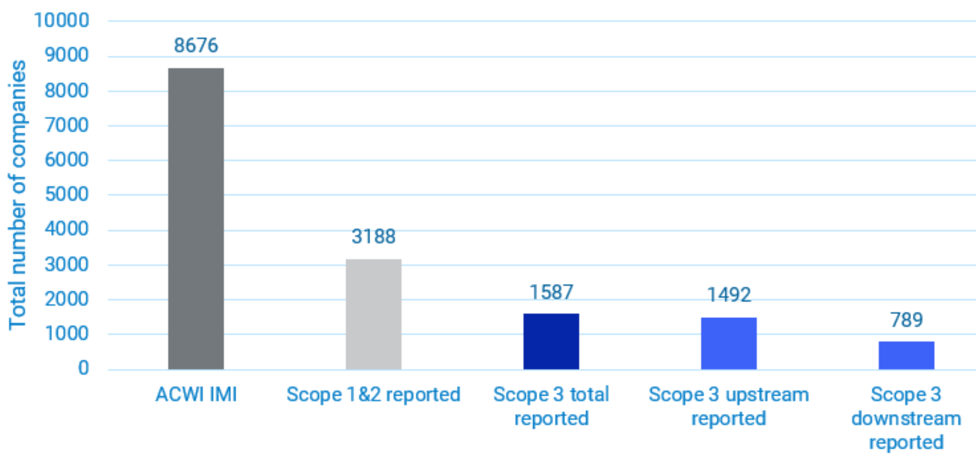
[1] Task Force on Climate-related Financial Disclosures (TCFD), "Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures", June 2017.

[2] For example: Aviva Investors, "Evidence and ambition: The new rules of engagement on climate change", June 2020; Investor Group on Climate Change (IGCC), "Climate Action 100+ investors seek net zero business strategies through company engagement", October 2019.

Scope 3 Disclosure Remains Low

Corporate reporting on Scope 3 emissions has been sparse and incomplete, posing challenges for institutional investors that aim to consider broader value chain climate risks into their climate related risk management and portfolio construction practices. While the proportion of companies that report on Scope 1 and 2 emissions has increased from 27% of the MSCI ACWI IMI as of March 2018, to 32% as of March 2020, only 18% reported Scope 3 emissions (see Exhibit 2).

Exhibit 2. Disclosure of reported and estimated emissions for all scopes, constituents of the MSCI ACWI IMI as of July 10, 2020



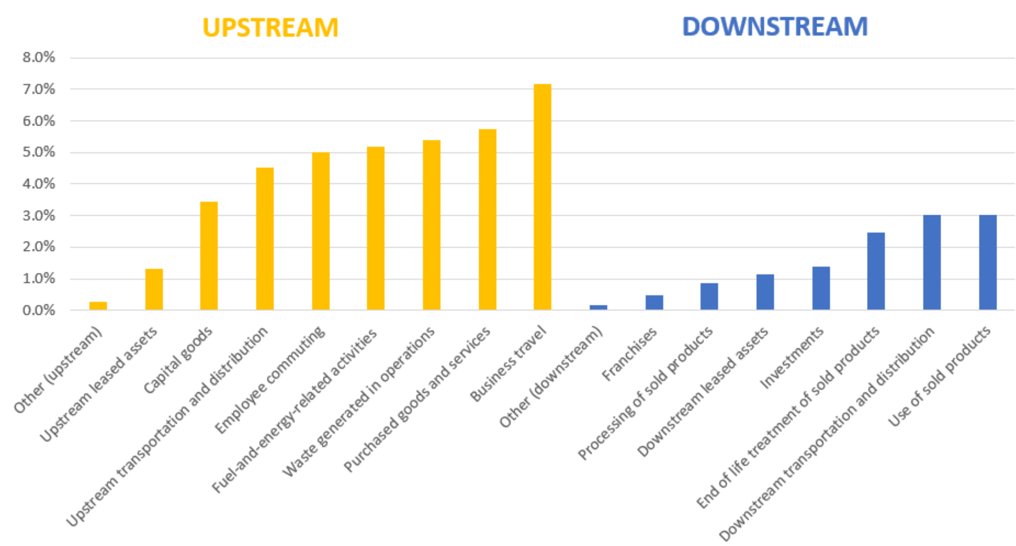
Source: MSCI ESG Research LLC

Despite Scope 3 reporting remaining quite low, there are promising signs that companies are increasing their reporting of indirect carbon emissions. For example, upstream Scope 3 disclosure increased to 17% of the MSCI ACWI IMI in 2018 (from 15% in 2017), and downstream scope 3 disclosure increased to 9% in 2018 (from 7% in 2017).

Scope 3 Reporting is Incomplete

From a more granular perspective, Scope 3 emissions can be broken down into categories, each relating to different parts of the corporate value chain (e.g. "business travel", "use of sold products" or "purchased goods and services") as shown in Exhibit 3 below.

Exhibit 3. Share of companies reporting emissions in each scope 3 category, of the MSCI ACWI IMI as of March 31, 2020



Source: MSCI ESG Research LLC

We note stronger corporate disclosure levels on upstream Scope 3 categories such as business travel, purchased goods and services, waste, energy-related activities and employee commuting, but very low disclosure on other categories, including those associated with downstream emissions. A company's upstream value chain is linked to input costs and its downstream value chain is linked to revenue and top-line growth. Therefore, transparency around the size and category of Scope 3 carbon emissions may yield valuable insight when evaluating the financial impacts of climate change policies or the strength of companies' own risk management practices. For example, a company's strategy to reduce its upstream supply chain Scope 3 emissions could markedly vary compared to reducing its Scope 3 emissions stemming from its highly emitting products.

Example – incomplete reporting

A hypothetical portfolio of 100 stocks includes ten oil and gas companies. All ten of these companies reported on their "business travel" upstream emissions, yet only two of them reported on their "use of sold products" downstream emissions. This could lead one to substantially underestimate the other eight companies' Scope 3 emissions (potentially by a factor of 2000[3]) and, consequently, the portfolio's total Scope 3 carbon footprint. With carbon regulation increasing and a growing downward demand pressure on typical oil and gas products, such underestimation could misdirect investment strategies that intend to reduce carbon emissions or capture opportunities by investing in companies with leading carbon management practices.

Scope 3 Reported Data is Volatile

Furthermore, we identified high levels of year-on-year volatility in company-reported emissions. Even considering annual fluctuations in business activities that can have an impact on corporate carbon emissions and their variability, volatility of a significant proportion of the sample appears to be very high; more than 400 companies' Scope 3 emissions fluctuated by 50-100% between 2018 and 2017.

Example – data volatility

The example below in Exhibit 4 demonstrates a company with consistent reporting on emissions from purchased goods and services, business travel and employee commuting, yet intermittent reporting on emissions from investments. This is quite common, as measuring emissions from investments comes with great uncertainties. This reporting issue creates large swings in company emissions and subsequent footprints, directly impacting company-level and portfolio-level footprint analysis, and adding to the complexities that institutional investors face when using such Scope 3 data.

Exhibit 4. Reported emissions for a large insurance company (anonymized) [Mt/Yr].

Category	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Purchased goods and services	0.16	0.17	0.16	0.11	0.13
Business travel	0.56	0.61	0.65	0.63	0.65
Employee commuting	0.71	0.81	0.83	0.87	1.09
Investments		120.3			42.9
Total	**1.43**	**121.9**	**1.64**	**1.61**	**44.8**

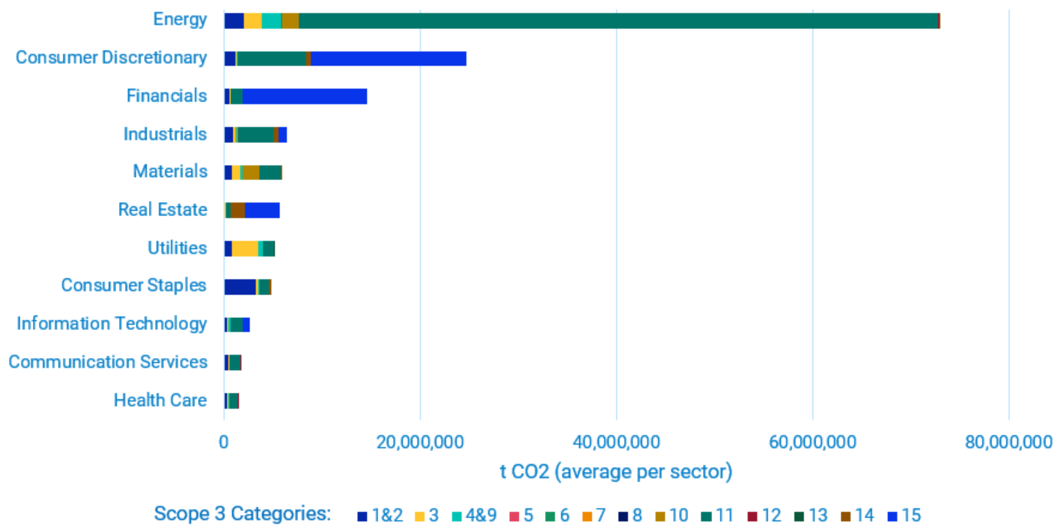
Scope 3 Estimation Dataset

Our recently launched Scope 3 estimation model provides an opportunity for institutional investors to integrate comparable Scope 3 emissions into their investment processes. Moreover, these estimates can shed light on which specific areas of the value chain are contributing most to a company or portfolio's emissions.

[3] According to our estimates, the average oil and gas company's "use of sold products" Scope 3 emissions were 82,780,501 t CO2 eq, while those associated with "business travel" were 41,346 t CO2 eq., based on analysis of MSCI ACWI IMI constituents as of July 10, 2020.

The Scope 3 data set contains estimated Scope 3 emissions for over 8,800 companies, across all GICS®[4] sectors and all 15 Scope 3 categories. As an example, Exhibit 5 below highlights the exposure of each GICS sector to each category of Scope 3 emissions. This can provide insight into the potential risks facing each sector and the location of these risks within their upstream or downstream value chain, while overcoming the challenges associated with company-reported data.

Exhibit 5. Estimated Scope 3 emissions per category for each GICS sector of the MSCI ACWI IMI, as of July 10, 2020



Source: MSCI ESG Research LLC

[4] The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's.

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