Following principles of cost accounting, we offer an alternative methodology for reporting carbon emissions that addresses flaws and limitations with the current approach.

CARBON FOOTPRINT REPORTING: CHALLENGES AND ALTERNATIVES

Consistent and comparable reporting of a company's carbon footprint is important if regulators are to set policies that will put society on a path toward Net Zero[1] by 2050. As investors, we also need this information to understand where there may be embedded climate transition risks or opportunities in a company's business. However, defining and understanding a company's carbon footprint is not always straightforward.

Current reporting methodologies break down a company's total carbon footprint into three categories: scope 1 (direct), scope 2 (power purchased and consumed), and scope 3 (indirect value chain[2]). We have historically focused our attention on understanding and engaging with companies on scope 1 and 2 emissions because these are directly within company control and, consequently, more accurately measured, reported, and implicitly reduced over time.

Scope 3—often the largest source of emissions—is increasingly being viewed as a more "comprehensive" assessment of a company's contribution to climate change. We agree stakeholders need a more complete view of a company's carbon profile to make informed decisions but disagree that the current approach to measuring scope 3 emissions is the best means to hold companies accountable for more than what is in their direct control. We will examine some of the major flaws underlying the current approach and propose an alternative that may help provide critical information to consumers, investors, and policymakers in the pursuit of reaching Net Zero by 2050.

SCOPE 3: CURRENT FLAWS AND LIMITATIONS

1) Outside direct company control

Scope 3 emissions are, by definition, outside the direct reporting control of the company. Management must either rely on disclosures from other value chain entities or expend significant resources estimating those emissions, which can be both costly and time consuming.

[1] The point when anthropogenic GHG emissions to the atmosphere are balanced by anthropogenic removals over a specified period (IPCC)
[2] Includes any emissions not directly produced by the company but that occur both upstream and downstream in the value chain. This includes emissions embedded in sold products.

2) Reliance on estimates

Heavy reliance on estimates, which can vary widely, has its own set of problems. Aside from the obvious challenge this poses when trying to financialize ESG risk, it can undermine the usefulness of company reporting (e.g., when aligning portfolio carbon budgets with regulatory guidelines). Companies could also come to be legally liable for estimation errors and/or for reporting that fails to accurately capture climate risk exposure.

3) Double and triple counting

Current scope 3 reporting creates unnecessary redundancies and inefficiencies, as companies take on responsibility for reporting not only their own emissions but those of other entities with whom they do business. To paraphrase, one company's scope 1 or 2 emissions are another's scope 3 emissions.

OTHER CONSIDERATIONS

It is also worth considering whether the outcome of scope 3 emissions reporting justifies the effort required. While in theory scope 3 emissions can be helpful in uncovering and assessing exposure to long-term climate transition vulnerabilities, reporting scope 3 emissions does not necessarily accelerate the transition to Net Zero by 2050. For example, knowing the scope 3 emissions released during the use phase of a product (e.g., a consumer burning gas in their cars) does nothing to impact consumption or incentivize demand-side carbon reductions. When it comes to demand for carbon, we believe governments should have the primary responsibility for legislating the regulatory framework (e.g., carbon taxes or tax breaks for green energy) aimed at altering consumer behavior.

In addition, absent the appropriate regulatory incentives, companies that are optimizing for shareholder value may not have the luxury of developing "greener" products if the costs of doing so make their products uncompetitive. Pursuing long-term shareholder value creation within a regulatory framework that is designed to level the playing field and optimize for society's best interests seems, in our view, a more effective way of benefiting both society and shareholders.

AN ALTERNATIVE METHODOLOGY

Instead of trying to fix the specific flaws with scope 3 emissions reporting, we are proposing a more radical overhaul of the way companies account for emissions, following the principles of cost accounting. We think this would accelerate, rather than hinder, the transition to Net Zero. This was inspired by a 2021 Harvard Business School paper "How to Fix ESG Reporting" by Robert S. Kaplan and Karthik Ramanna.

Their framework would have companies mirror standard accounting practices for accumulating and reporting a product's greenhouse gas emissions across the value chain. Companies would track and pass on a product's "e-liability" in a similar manner to how they currently record costs in their financial statements. Accounting principles do not require a company to estimate the purchase prices paid by all organizations in the value chain but instead simply record payments to immediate suppliers and their own production costs. For emissions, the "e-liability" would similarly be accumulated and recognized across the value chain from sourcing to end use of the good.

Exhibit 1 illustrates how emissions would be quantified and recorded in practice through an illustrative and intentionally simplistic value chain.

Exhibit 1

Value Chain Entity	Emissions accumulated and transferred by an entity
Raw material supplier	Emissions from direct operations per ton of material produced*
Distributor	1. Supplier emissions as a % of materials transferred 2. Emissions from fuel allocated by weight or volume to material transported
Manufacturer	1. Distributor emissions as a % of products purchased 2. Emissions from direct operations per ton of material produced*
Distributor	1. Manufacturer emissions as a % of materials transferred 2. Emissions from fuel allocated by weight or volume to material transported
End consumer	Report of emissions used in production and distribution

* Using a combination of chemistry, engineering, and cost accounting, total emissions are assigned to materials produced. Estimated using principles of cost accounting as usually applied to estimating indirect expenses.

If companies choose to directly eliminate greenhouse gas emissions from the atmosphere (e.g., carbon capture or reforestation), these emissions can be subtracted from the total e-liability assigned to their products. This, in turn, transfers a lower e-liability to the next company in the distribution chain and ultimately the end consumer, which can be an incentive if selling to more environmentally sensitive end consumers.

This method of accounting for emissions is not yet tested in practice, but we agree with authors Kaplan and Ramanna that this methodology offers a more robust, incentive-aligned, and auditable approach to measuring emissions. The scope 1, 2, and 3 numbers are replaced by a clear chain of emissions accounting. In turn, this chain provides regulators, companies, and investors with a way to measure and appropriately account for the negative externality of carbon emissions. End consumers are also more informed with direct visibility of the carbon that went into producing one product vs. another. If that carbon is also taxed efficiently by regulators, consumers of carbon, whether companies or individuals, are incentivized to lower their carbon consumption and thereby reduce overall demand for carbon over time.

ENGAGEMENT

Since we are in favor of more consistent and comparable reporting of a company's exposure to climate change risks and opportunities, we have engaged with several organizations of which we are a member (PRI[3] and SASB[4]), to start a dialogue on this issue amongst peers in the industry. In the meantime, we will continue to assess scope 3 reporting methodologies and engage management teams to try and find additional solutions to these reporting challenges. Even if this specific cost accounting approach does not upend the pre-existing reporting protocols for reporting emissions, it may at least pave the way for further dialogue.

[3] Principles for Responsible Investing
[4] Sustainability Accounting Standards Board

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