INTRODUCTION

The purpose of this document is to address common questions that companies may have regarding Trucost, the carbon data provider for global market indices such as the S&P PACT™ Indices (S&P Paris-Aligned & Climate Transition Indices) and S&P Global Carbon Efficient Index Series. Specifically, it addresses questions relating to Trucost’s research method, the scope of data collection, and the environmental concepts employed as part of the index construction process. There is growing evidence that engagement between investors and companies on environmental, social, and governance (ESG) issues can create shareholder value. As a leading provider of environmental data with coverage of over 15,000 companies globally, Trucost is at the forefront of this mission, informing sustainable value creation with a robust and comprehensive lens on corporate environmental performance.

1. **What is Trucost?** Trucost is part of S&P Global. A leader in carbon and environmental data and risk analysis, Trucost assesses risks related to climate change, natural resource constraints, and broader ESG factors. Companies and financial institutions use Trucost intelligence to understand their exposure to these factors, inform resilience, and identify transformative solutions for a more sustainable global economy.

2. **What is Trucost’s “Environmental Register”?** Trucost’s Environmental Register is a database containing information on the direct and supply chain environmental impacts for a universe of over 15,000 companies, representing 95% of global market capitalization. Information about each company’s environmental impact is updated annually using a mix of disclosed and, where gaps are present, modeled data. The data covers hundreds of environmental issues encompassing carbon and other pollutants, water dependency, natural resource efficiency, and waste disposal.

RESEARCH PROCESS QUESTIONS

1. **What data does Trucost collect from companies?** Trucost collects company environmental data, including performance data and disclosure metrics on greenhouse gas (GHG) emissions, water use, pollution impacts, and waste disposal. We also collect information on a company’s business activities.

2. **What sources does Trucost use in its data collection process?** Trucost uses a variety of publically disclosed sources, such as company financial reports (annual reports, financial statements, 10-K/20-F reports, SEC/regulatory filings), environmental data sources (corporate social responsibility [CSR], sustainability, or environmental reports, the CDP, EPA filings), and data published on company websites or other public sources.
3. **In the absence of disclosures, how does Trucost model company impacts?** Trucost’s environmentally extended input-output (EEIO) model combines industry-specific environmental impact data with quantitative macroeconomic data on the flow of goods and services between different sectors in the economy. The EEIO model enables us to estimate environmental impacts for a company’s own operations and across its entire global supply chain. Trucost’s model calculates environmental impacts per USD 1 million in revenue for each of the 464 business activities in our system, which we can then use to anticipate the most material impacts for a company based on its business activities.

4. **How often is the data updated?** Trucost produces annual company assessments to align reported environmental data with annual company financial reporting. Trucost’s research process is continuous, so revisions may occur at any point in the year as companies disclose information and further complete our quality checks, engagement, and data verification steps. Company data restatements are not typically taken into account in the data, apart from cases in which there is an error correction provided in the disclosures. However, it is common for a company’s data disclosure to have valuable information pertaining to previous financial years (time-series performance) that can allow Trucost to refine its assessment or take a disclosed value for a prior year instead of previously estimated values.

5. **How can I validate the data collected on my company?** Once the company’s data have been reviewed by a Trucost sector-specialized analyst, the company’s environmental profile is available to view via Trucost's secure online portal. Companies are invited to respond to Trucost to verify its data or directly engage in order to provide either refined, additional, or non-public data. Where Trucost deems any additional data from this process useful, it will quality check the data and integrate them into the analysis.

6. **Can I make changes to the data collected on my company?** You will have the opportunity to review or amend the data collected on your company during the data validation process (see response to question 5).

7. **If I provide information to Trucost privately, will it be made public?** All company information provided privately to Trucost will be treated in the same way as information collected from publicly available sources. If privately provided information is incorporated into Trucost's research on your company, it will be available to subscribers of Trucost data services. Any data provided directly by a company will be flagged as such, so that users understand the source of each data field.

8. **Where can I learn more about the data collection and modeling process?** For more information about Trucost's data collection and modeling process, please contact trucostinfo@spglobal.com.

**SPECIFIC CONCEPTS**

9. **What is a “carbon intensity” metric?** “Carbon intensity” is a metric that denominates a quantity of GHG emissions (e.g., tonnes of carbon dioxide equivalent [tCO₂e] emissions) with another data point: a normalizing factor. Trucost’s standard metric, which is perhaps the most widely used carbon intensity metric, denominates emissions by a company’s annual consolidated revenues in millions of U.S. dollars: tCO₂e/USD 1 million revenue.
Carbon intensities are useful in comparing companies within and across different sectors. They can act as a control for different company characteristics, such as size, making it possible to assess the carbon efficiency of a company. Trucost’s default carbon intensity metric is carbon to revenue in metric tons CO₂e per USD 1 million revenues, which is defined as “the aggregation of operational and first-tier supply chain carbon footprints of index constituents per USD 1 million in revenue”.

10. Why are carbon intensities calculated using revenues? GHG emissions are generated by a company’s direct and indirect operations, so a suitable normalizing factor should also be correlated with direct and indirect operations in order to reflect the carbon efficiency of a company. Since a company’s revenues can be reasonably correlated with its scale of operations, at least within a sector, revenues have become the market-standard carbon intensity normalizing factor.

Linking the carbon intensity metric to a company’s financial performance allows us to begin to understand the relationship between GHG emissions and financial risk. The tCO₂e/USD 1 million revenue metric indicates the dependency on the generation of GHG emissions that a company has when generating revenues.

11. What are “direct” and “first-tier indirect” emissions, and how do they differ from the GHG Protocol’s scopes 1, 2, and 3? Direct and first-tier indirect emissions are Trucost’s default emission scopes, which differ slightly from the GHG Protocol’s scopes 1 and 2.

Scope 1 emissions are from directly emitting sources that are owned or controlled by a company. For example, scope 1 includes the emissions produced by the internal combustion engines of a trucking company’s trucking fleet.

Scope 2 emissions are from the consumption of purchased electricity, steam, or other sources of energy generated upstream from a company’s direct operations.

Scope 3 encompasses all other emissions associated with a company’s operations that are not directly owned or controlled by the company. Therefore, scope 3 emissions include several sources of indirect emissions in both the company’s supply chain and downstream from the company’s owned or controlled operations (e.g., the emissions from the in-use phase of a company’s products or services, such as the driving of a truck produced by an automobile manufacturer). By such a definition, scope 3 emissions are attributed the largest quantity of a company’s emissions footprint.

Trucost defines direct emissions as the GHG Protocol’s scope 1 emissions, plus any other emissions derived from a wider range of GHGs relevant to a company’s operations. First-tier indirect emissions are defined as GHG Protocol scope 2 emissions, plus the company’s first-tier upstream supply chain—their direct suppliers. The goal of this enhancement is to include some of the company’s most relevant upstream scope 3 emissions, while limiting the extent of the double counting of emissions. The upstream supply chain of companies in Trucost’s database is calculated using its EEIO model.

FOLLOW UP QUESTIONS

12. Who can I contact if I want to know more about Trucost and my carbon data? For more information on Trucost and data, please contact trucostinfo@spglobal.com.
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