

## Decoding Climate Change Jargon

Malk Insights — June 29, 2023

As a topic at the intersection of the jargon-rich fields of science and public policy, it is no surprise that discussions regarding climate change are often laden with acronyms, creating significant barriers to entry and engagement in such conversations. To make discussions on climate change more accessible and therefore empower greater participation from all stakeholders, Malk has created a “climate dictionary” to define the most common climate-related acronyms and terms that are relevant to private market investors, organized into four categories: key terms, regulatory reporting standards, third-party frameworks, and industry resources. Starting with key terms, the most relevant climate-related terms are listed below:

### Key Terms

- **ESG — Environmental, Social, Governance.** A framework for consideration of non-financial factors that still impact business performance (e.g., environmental, social, and governance related issues). ESG performance can be indicative of investors or companies’ ability to manage risks and opportunities arising from their relationships with key stakeholders and the environment, including their role in driving or mitigating climate change. Climate change is captured as part of the “E” in ESG.
- **GHGs — Greenhouse Gases.** Gases that trap heat in the atmosphere, contributing to global warming, and by extension, climate change (e.g., increasingly severe weather, melting ice caps, sea level rise). The Paris Agreement recognizes seven types of greenhouse gases, though the most commonly discussed gases are carbon dioxide, methane, and nitrous oxide. All seven GHGs are typically measured and tracked in carbon accounting and include:
  - **CO<sub>2</sub> — Carbon dioxide.** Produced by burning fossil fuels such as coal, oil, and natural gas, carbon dioxide is responsible for the majority of GHGs emitted by human activities.
  - **CH<sub>4</sub> — Methane.** A key component of natural gas, typically emitted by livestock and organic waste decomposition, methane is the second most common GHG produced by human activity.
  - **N<sub>2</sub>O — Nitrous oxide.** Gas generated through agricultural and industrial activities.
  - **HFCs — Hydrofluorocarbons.** Human-made compounds used for refrigeration, air conditioning, and fire extinguishing symptoms.
  - **PFCs — Perfluorocarbons.** Class of chemical compounds most commonly used in the aluminum production industry.
  - **SF<sub>6</sub> — Sulfur hexafluoride.** Gas mainly used in the electric power industry to insulate equipment such as circuit breakers and switches.
  - **NF<sub>3</sub> — Nitrogen trifluoride.** Gas used in the manufacturing of electronic goods such as display screens and solar panels.

- **GWP — Global warming potential:** A measure used to compare the warming effects of different GHGs. A gas's GWP value indicates how much energy the emissions of one ton of a given gas will absorb over 100 years, relative to the emissions of one ton of carbon dioxide (CO<sub>2</sub>). CO<sub>2</sub> has a GWP of 1, and the larger the GWP, the more the gas in question warms the Earth compared to CO<sub>2</sub>. HFCs, PFCs, and SF<sub>6</sub> have the highest GWP out of all GHGs. As part of carbon accounting protocols (e.g., GHG Protocol), companies will typically be required to track all seven and report emissions as tons of carbon dioxide equivalent (CO<sub>2</sub>e) but should be aware of the potential outsized impact of particular gasses when considering potential reduction strategies.
- **LCAs — Lifecycle assessments:** An assessment that evaluates the environmental impact, including the GHG emissions generated, by each stage of product's lifecycle, from raw material extraction, production and use, to disposal. LCAs are becoming more common, particularly for consumer goods companies, as a way to help companies and their consumers understand the environmental impacts of their products and identify opportunities to reduce related GHG emissions (e.g., shifting to a manufacturing process powered by renewable energy).
- **Net Zero** — An ideal state in which all greenhouse gas (GHG) emissions generated by human activity are neutralized through technological advancement, sustainability transformation, carbon capture, and carbon offsets. Carbon neutrality, while similar in principle to net zero, refers only to the neutralization of carbon emissions, whereas net zero applies to all GHG emissions (e.g., carbon, methane, nitrous oxide, and other hydrofluorocarbons). Net Zero is an increasingly important term to asset managers (e.g., private equity and venture capital firms), who may face flow down requirements from their investors who maintain Net Zero goals for their portfolios. For further information on [net-zero for private equity](#), see Malk's article, linked here.
- **Scope 1 Emissions** — Emissions from sources directly owned or controlled by the reporting entity (e.g., emissions from an owned fleet of vehicles).
- **Scope 2 Emissions** — Emissions that the reporting entity causes indirectly from purchased energy (e.g., emissions caused from purchased electricity used to power offices).
- **Scope 3 Emissions** — Emissions that are produced not by the entity itself, but rather up and down a company's value chain (e.g., emissions from employees' commutes to work in their personal cars, supply chain emissions).

### Regulatory Reporting Standards

In response to public and scientific pressure, many governments have begun to adopt national emissions reduction plans, which are often accompanied by regulations mandating that businesses and investors operating in their jurisdiction also report their contributions to and risk exposure from climate change. Reporting requirements remain a disparate patchwork, though governments are seeking to standardize and simplify reporting requirements to promote better climate-related decision-making and risk management throughout the global economy. The most notable regulatory reporting standards are listed below:

- **CSRD — Corporate Sustainability Reporting Directive.** EU regulation that entered into force in January 2023, replacing the Non-Financial Reporting Directive (NFRD). It requires [listed or large companies](#) operating in the EU to submit annual statements on their management of ESG risks, including climate change. CSRD reporting requirements include reporting on how companies affect climate change and

how climate change affects the company, a concept often referred to as “double materiality.” To that end, CSRD also requires companies to report their Scopes 1 – 3 GHG emissions. *Further detail is available [here](#)*

- **IFRS — International Financial Reporting Standards.** Internationally recognized sustainability and climate-related reported regulations currently being developed by the International Sustainability Standards Board (ISSB). Notably, the ISSB is the financial reporting standards-setting body for most countries, with the exception of the United States, which continues to use the U.S. Generally Accepted Accounting Principles (U.S. GAAP) developed by the Financial Accounting Standards Board (FASB). The ISSB integrates the Sustainability accounting standards board (SASB) and the International Integrated Reporting Council (IIRC), and complements TCFD disclosures. ISSB released its most recent drafts of the IFRS in 2022, which request more granular data than TCFD but are otherwise very similar to TCFD; the ISSB released a [comparison](#) of the IFRS draft standards and TCFD standards, available for review [here](#).
- **SFDR — Sustainable Finance Disclosure Regulation.** EU regulation requiring large financial market participants to provide firm and fund-level disclosures on how their business negatively impacts society and the planet; these indicators are referred to as principle adverse impacts (PAIs). While not all PAIs are climate-specific, climate-related reporting requirements include Scope 1 – 3 GHG emissions, nonrenewable energy consumption and production, and the GHG and energy intensity of investee companies. Further detail on SFDR reporting requirements can be found [here](#).
- **TCFD — Task Force on Climate-Related Financial Disclosures.** Developed by the Financial Stability Board, an internationally recognized body that monitors and makes recommendations for the global financial system, TCFD is a climate and governance-focused reporting standards. To date, the European Union, United Kingdom, Switzerland, New Zealand, Japan, Singapore, Hong Kong, and Brazil have adopted TCFD-aligned official reporting requirements. TCFD reporting requirements include whether companies have assessed their resilience to climate change under varying risk scenarios, the most common being limiting global warming to 2°C, as well as Scope 1 – 3 GHG reporting. You can review the TCFD reporting obligations [here](#). Notably, however, TCFD is likely to be replaced in many jurisdictions by the IFRS (see above).

### Third-Party Frameworks

In lieu of, and often in parallel to, regulatorily required reporting standards, companies may also leverage a variety of voluntary third-party reporting frameworks. Given their voluntary nature, third-party frameworks are typically used by companies seeking to be leading-edge on climate change, or by those that are requested to disclose climate-related information by climate-conscious limited partners (LPs). The most commonly used third-party frameworks are listed below:

- **CDP — Carbon Disclosure Project.** A global disclosure framework that assesses companies’ GHG emissions and emissions reductions plans through an annual questionnaire. CDP is primarily used for public and large companies and enables benchmarking against peers, a key exercise to determine progress on climate compared to competitors. Read more [here](#).
- **EDCI — ESG Data Convergence Initiative.** Founded by Carlyle and Boston Consulting Group, EDCI is a voluntary initiative among private equity stakeholders to share standardized, comparable ESG metrics from their portfolio companies to facilitate accurate benchmarking. EDCI metrics include GHG emissions

and renewable energy use among other environmental, social, and governance metrics (e.g., Board diversity, safety incidents). Review EDCI-reportable metrics [here](#).

- **PRI — Principles for Responsible Investment.** A United-Nations-supported network of investors that seeks to incorporate ESG principles into their investment and ownership decisions. PRI signatories are expected to report on their efforts to assess and address climate-related risks and opportunities within their investment portfolios, including their climate change strategy and GHG target-setting.
- **SASB Standards — Sustainability Accounting Standards Board Standards.** An industry-specific set of [climate-related disclosure topics and associated metrics](#) created by SASB to help companies and their investors improve transparency into and management of sustainability risks. While SASB standards were developed to be similar to the U.S-specific FASB (Financial Accounting Standards Board) standards, SASB standards are used by [more than half of the S&P Global 1200](#). As referenced above, SASB standards are being integrated into the ISSB to create a standardized set of international sustainability reporting standards.
- **SDGs — Seventeen goals** backed by the United Nations designed to serve as a "shared blueprint for peace and prosperity for people and the planet, now and into the future." The 13<sup>th</sup> SDG, "taking urgent action to combat climate change and its impacts," is the most relevant to climate change, though many other SDGs (e.g., 7 - Clean and Affordable Energy, 11 - Sustainable Cities and Communities, 14 - Life Below Water) are also relevant to climate change. Businesses and their investors often align to one or more of the SDGs to demonstrate commitment to positive social and environmental impact. Review the goals [here](#).
- **SBTs — Science Based Targets.** Developed by the Science Based Targets Initiative (SBTi), a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the Worldwide Fund for Nature (WWF), science-based targets are the gold standard for emissions reduction goals because they are aligned with science-based emissions pathways (i.e., the path each sector needs to take to reach net zero emissions in time to prevent more than 2°C of global warming). As such, SBTs are also the most widely recognized standard for companies and financial institutions around setting targets for net zero GHG emissions and emissions tracking.

## Industry Resources

There are a variety of associations created for the purpose of advising investors and their businesses on how to navigate the dynamic landscape of climate-related reporting, public pressure to reduce emissions, and the increasing impacts of climate change on business operations. Resources relevant for private market investors specifically are listed below:

- **IPCC — Intergovernmental Panel for Climate Change.** A scientific organization created by the United Nations to provide policymakers with regular scientific assessments on [climate change risk scenarios](#) (e.g., scenarios for different degrees of warming) and recommendations on how to best mitigate the impacts of climate change. Notably, climate change stress tests for the financial industry (e.g., banking) are typically based on IPCC scenarios.
- **GFANZ — Glasgow Finance Alliance for Net Zero.** A United Nations (UN)-backed global coalition of financial actors, including banks, asset managers, insurers, and pension funds, interested in decarbonizing the global economy.

- **NZAMi — Net Zero Asset Managers Initiative.** A sector-specific alliance of GFANZ, NZAMi is an international group of asset managers committed to supporting the goal of net-zero greenhouse gas emissions by 2050 or sooner. As of December 2022, 301 asset managers with USD \$59 trillion in assets have signed on to NZAMi.
- **NZAOA — Net Zero Asset Owners Alliance.** Another sector-specific alliance of GFANZ, NZAOA is an international group of 86 asset owners committed to supporting the goal of net-zero GHG emissions by 2050 or sooner. In 2023, the NZAOA released most recent [Target Setting Protocol](#), which recommends that member set targets to reduce emissions between 22-32% by 2025 and between 40-60% by 2030, based on the latest assessment report of the Intergovernmental Panel for Climate Change (IPCC). Many LPs (e.g., CalPERS, Nordea) are [NZAOA members](#), and as such, may prefer investing with GPs that committed to reducing emissions across their portfolio. Notably, however only ~50% of NZAOA members have set a net zero target.

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