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Raising transparency through TCFD-aligned climate reporting

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At a glance

- The availability of consistent and comparable climate-related information is a decisive factor in considering the effects of climate change for business and investment decisions.
- The recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) have emerged as a global reference for climate reporting and enjoy widespread support from private and public organizations around the world.
- While the number of official TCFD supporters is considerable, voluntary disclosure has not yet achieved the intended level of transparency.
- The biggest reporting gaps exist in the use of climate scenarios and the integration of climate risks into overall risk management.
- Recently, few governments have announced mandatory disclosure obligations to foster more standardized and comprehensive climate reporting.
- Germany and other countries should intensify efforts – notably, in the Corporate Sustainability Reporting Directive (CSRD) context – towards mandatory climate disclosure requirements in order to raise transparency on the impacts of climate risks and opportunities.

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It is estimated that human activities have already caused 1.1°C of global warming since the pre-industrial period (IPCC, 2021). Even if all the Nationally Determined Contributions (NDCs) outlined within the Paris Agreement are implemented, the world is still on course for a 3°C temperature rise (UNEP, 2019). Trends show that natural disasters and extreme weather conditions are becoming more intense and more frequent throughout the world due to global warming (IPCC, 2021). Thereby, climate change severely affects natural and human systems, which will in turn have a significant impact on the global economy. Respondents to an annual risks perception survey ranked the failure of climate change mitigation and adaption as the number two risk by impact and by likelihood over the next ten years (World Economic Forum, 2021).

To assess the sources of climate change and develop adequate response measures, reliable and comprehensive climate-related data about the real economy is required. For example, the ability to shift financial flows to decarbonized investment portfolios depends on the transparency of the underlying assets (Bhandary et al., 2021). However, the quantity and quality of climate-related information and according data is by far not sufficient. In response, the launch of the Task Force on Climate-related Financial Disclosures (TCFD) was no surprise. In 2015, this international initiative was established by the Financial Stability Board and headed by Michael Bloomberg, with the aim of achieving consensus on effective disclosures by developing recommendations on consistent and comparable reporting on climate issues (Christophers, 2017). Although the TCFD has emerged as a popular global reference for climate reporting, according disclosures are voluntary. Thus, we ask: Have the recommendations of the TCFD been successful so far?

Climate reporting and the emergence of the TCFD

Natural scientists and economists alike warn that climate change can cause large physical damages and related economic losses; at the same time, unrestrained climatic change could also affect the stability of the financial system (Svartzman et al., 2020). Depending on different emission paths, the expected "climate value at risk" could amount to a total of \$3–24 trillion, or 2–17% of global financial assets (Dietz et al., 2016). Therefore, assessing the impact of climate risks on the financial

system and assets is an essential issue, as well as a challenge, for banks, investment funds, and insurance and pension funds.

Financial market participants increasingly request disclosures about how companies are addressing the sources and effects of climate change (Bernow et al., 2019), since this is critical for understanding a company's full risk profile and its future viability (KPMG, 2017; PwC, 2019). As such, climate-related disclosures lead to increased financial transparency (Ramanna, 2013). This is particularly relevant for investors because the ensuing financial implications will affect the performance of entire investment portfolios (Sullivan & Gouldson, 2012).

Yet, companies are not required to comply with pre-defined standards when disclosing climate-related information (Bernow et al., 2019). Over the years, several voluntary frameworks have emerged, which are as diverse as the companies and institutions that implement them (KPMG, 2019). Some frameworks are focused on climate change while others cover the full set of environmental, social, and governance (ESG) aspects. Due to these myriad frameworks, the outcomes of corporate climate disclosures are heterogeneous, hardly comparable, and, in turn, difficult to use (Hale et al., 2020).

In 2015, the Financial Stability Board[1] initiated the TCFD with the task of developing a global standardized framework for climate reporting (TCFD, 2017). Following engagement and consultation with those preparing and using disclosures, the TCFD published its final report in 2017, in which it set out its recommendations on climate-related financial information. The recommendations are applicable to organizations across financial and non-financial sectors, and provide guidance around four core elements (see Figure 1): "Governance" addresses the extent to which climate issues are dealt with by an organization's management board or supervisory board, and whether climate risks are considered in decision-making processes. "Strategy" focuses on the analysis of the short-, medium-, and long-term impacts of climate risks on the business model, strategy, and financial planning. This includes examining the resilience of the business model using a scenario analysis that takes

[1] For more information see the website of the Financial Stability Board (last access February 17, 2022. This also applies to all other online sources of this report, unless stated otherwise).

into consideration different climate paths, including a 2°C or lower scenario. The third area covers the process of identifying, assessing, and managing climate risks, and their integration into general "Risk management". "Metrics and targets" refers to the provision of quantitative and qualitative information for the assessment of climate risks and opportunities related to strategy. This also includes the definition of targets for the evaluation of corporate performance.

Figure 1: Recommendations of the TCFD (based on TCFD, 2017).

1. Governance		2. Strategy		3. Risk Management		4. Metrics and Targets	
1a	Describe the board's oversight of climate-related risks and opportunities.	2a	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	3a	Describe the organization's processes for identifying and assessing climate-related risks.	4a	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
1b	Describe management's role in assessing and managing climate-related risks and opportunities.	2b	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	3b	Describe the organization's processes for managing climate-related risks.	4b	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
		2c	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	3c	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	4c	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

Since its establishment, the TCFD has received widespread support from governments, financial regulators, companies, and investors from around the world. A well-known proponent is Larry Fink, the CEO of BlackRock, who has called upon businesses to report under the TCFD. Many regulators and governmental entities

from around the world highlight the importance of the TCFD (O'Dwyer & Unerman, 2020).

TCFD reporting in practice

In 2021, 2,496 organizations have publicly declared their support for the TCFD (TCFD, 2021). These consist of 1,028 real economy companies and 1,193 financial institutions, as well as 275 other organizations including governments or industry associations (ibid.). However, officially supporting the TCFD does not equate to implementing the recommendations – be it by firms directly or by governments enforcing corresponding regulations. In its third annual status report, the TCFD acknowledges that "disclosure of climate-related information has increased since 2017, but continuing progress is needed" (2020, p. 4). Each year, based on a review of more than 1,000 public company reports, the TCFD publishes figures on the implementation of its recommendations.

In 2018, 78% of the analyzed companies disclosed information aligned with at least one of the TCFD recommendations (TCFD, 2019). Indeed, between 2017 and 2019, the disclosure of climate-related information aligned with the TCFD recommendations increased by six percentage points across the TCFD recommendations (TCFD, 2020). However, the average number of the 11 recommended disclosures addressed by companies in their reports has increased only marginally, from 2.8 in 2016 to 3.6 in 2018 (TCFD, 2019). Furthermore, there is significant variation in the coverage of TCFD reporting. While some recommendations are reported on by only 7% of firms, other recommendations have up to 41% disclosure (TCFD, 2020). The biggest reporting gaps exist in the use of climate scenarios and the integration of climate risks into overall risk management. Only one in 15 companies discloses information on the resilience of its strategy when taking into consideration different climate-related scenarios (ibid.). Less than 20% of companies report on how climate-related risks are integrated into their overall risk management (ibid.). Thus, so far only a few supporters have achieved comprehensive implementation across all the 11 recommended disclosures.

These results are mirrored by a recent study by Demaria and Rigot (2021). Since the inception of the TCFD in 2015, considerably more companies are disclosing climate

risks and opportunities, but formal and content-related shortcomings remain. Similar observations can be made with the German DAX 30 companies. In 2019, 16 companies mentioned the TCFD in publicly available disclosures, however, the scope of TCFD reporting varies considerably among them. While most of the reports contain information on greenhouse gas emissions and climate protection targets, hardly any company provides statements on the resilience of corporate strategy with different climate scenarios. Moreover, while some companies dedicate several pages (0.5–15 pages) to TCFD reporting, four companies claim to comply with the TCFD recommendations without providing any further explanation or evidence. However, most of the 16 companies signal that TCFD reporting is still in its "infancy" and will be developed and expanded in the coming years. Based on our review, climate reporting is heterogeneous, and almost no company fully complies with the TCFD recommendations. Considering that large companies are more likely to disclose TCFD-aligned information (TCFD, 2020), it can be assumed that implementation by smaller companies shows even larger gaps.

What are the reasons that prevent companies from adopting the TCFD recommendations, and what are possible factors that could ease their implementation? We conducted semi-structured interviews to obtain a more nuanced picture of the implementation of TCFD-aligned climate reporting. Therefore, we consulted nine Europe-based listed companies that are either official TCFD signatories or have recently engaged with the TCFD recommendations. Of these, five companies are financial companies, while the remaining companies operate in the chemical, building, and utilities industries. The interviews revealed the following main aspects.

First, on a company level, there are different factors that limit a firm's ability and willingness to meet the TCFD recommendations. Identifying and evaluating climate risks and opportunities require new capabilities, which might deviate from traditional business practices. Time scales applicable to climate impacts often go beyond corporate time considerations for risk management and financial planning. Another issue is the granularity of climate-related information that is available to companies. The evaluation of climate impact relies on the accuracy and usability of data. However, even when companies overcome the difficulties of data evaluation,

some are reluctant to disclose this information. Companies are concerned about revealing the climate impact on their strategic risks, especially if this could expose them to competitors. This implies that companies are worried about possible disadvantages that could result from disclosure. Thus, when companies do not adopt the recommendations, it is due to a mixture of the feasibility of implementation and the desirability of doing so.

Second, beyond the impediments on a company level, there are institutional barriers. Due to the lack of mandatory requirements, more than 300 ESG and climate frameworks have emerged over the years (ITC, 2021). The pluralism of different frameworks could distract and confuse companies, which, in turn, might hamper the adoption of the TCFD recommendations. There are many uncertainties about how the reporting environment will evolve and what will happen at the political and regulatory levels. The prediction of climate impacts involves contingencies, and the development of carbon technologies is still ongoing. While climate policies have been introduced in the past, and future regulation is likely, the timing is unclear. As a result, some companies remain in a wait-and-see position, refusing to commit to a particular framework and reluctant to make definitive statements in their reports.

However, there are supporting factors on a company level, which could enhance implementation of the TCFD recommendations. A frequent success factor is top-level management commitment, and the provision of the resources required to implement TCFD-aligned climate reporting. Further, education on climate risks and opportunities, and the integration of climate issues into strategy and processes supports implementation. Thus, once a company decides to adopt the TCFD recommendations, these are supporting factors that can provide the basis for implementation.

Furthermore, the alignment of concurrent and voluntary ESG frameworks can be seen as key enabler for the further implementation of the TCFD recommendations. Both the CDP (formerly the Carbon Disclosure Project) and the Principles for Responsible Investment (PRI) have modified their frameworks to comply with the TCFD recommendations. This can increase the implementation of TCFD recommendations among users of other voluntary frameworks. Nonetheless, companies that have not made voluntary efforts to report on climate issues might

only be persuaded by external pressure. Investor and regulatory pressure can propel the adoption of the TCFD recommendations. However, policy intervention could potentially impair disclosure quality if organizations merely pursue compliance rather than providing information that is useful for decision-making. Nonetheless, embedding the TCFD recommendations in the institutional setting, whether by integrating them into existing frameworks or through legal requirements, can contribute to their implementation. Further, as more companies follow the TCFD recommendations, whether mandatory or voluntary, the potential disadvantages from disclosure may dissolve for individual companies.

In summary, the high level of support for the TCFD recommendations does not come along with an equal level of climate-related disclosures. This outcome is in line with Bingler et al. (2021), who argue that firms' voluntary support for the TCFD could be "mostly cheap talk". Although a significant number of organizations support the TCFD, the quantity and quality of climate-related information remains at an unsatisfactory level. We infer that voluntary disclosure has not yet achieved the intended level of transparency. Significant barriers, both internal to companies and at the institutional level, currently prevent companies from more extensive implementation. Thus, it is time for climate policy interventions to raise climate disclosure practices to the next level.

Conclusion: Calling for stronger policy interventions

The availability of and access to climate-related information at the micro level is the basis for holding actors accountable for their actions (Bäckstrand & Kuyper, 2017), and facilitates the monitoring of progress towards the NDCs (Hale et al., 2021; Street & Jude, 2019). Thus far, only a few countries have introduced government regulations towards mandatory climate disclosure requirements (Carrots & Sticks, 2016). In 2020, New Zealand and the UK were the first countries in the world to declare mandatory climate reporting in line with the TCFD recommendations. In August of the last year, Switzerland announced that large public and private companies would be legally bound to report on the TCFD recommendations from 2024 (FDF, 2021).

At the EU level, there are currently no mandatory requirements that explicitly prescribe the disclosure of climate-related information. So far, the EU Commission

has only integrated the TCFD recommendations into a non-binding guideline that supplements the EU's Non-Financial Reporting Directive (NFRD). Incorporating mandatory climate disclosure at the EU level could move climate disclosure from private-sector action and national policy to a supranational level that puts climate reporting on a broader agenda. In December 2019, the EU Commission committed to reviewing the NFRD to improve disclosure of climate and environmental data by companies, so as to better inform investors about the sustainability of their investments. According to a public consultation, many respondents argued that the revised NFRD should be aligned with the TCFD recommendations (EU Commission, 2020). Therefore, in order to meet stakeholders' demands for more and better climate-related information, we clearly call for the EU Commission to incorporate the TCFD recommendations into the new (and renamed) Corporate Sustainability Reporting Directive (CSRD). The first working paper of the mandatory EU sustainability reporting standard developed by the European Financial Reporting Advisory Group (EFRAG) was published in January 2022. In its climate standard draft, it covers most of the TCFD elements but added components beyond the TCFD. A strong alignment is recommended, as this would enable global data comparability and reduce the workload for companies.

As a first step, governments that have officially registered as TCFD signatories should move towards mandating disclosure requirements. So far, only a few nations have announced mandatory climate reporting in line with the TCFD recommendations. Countries that support the TCFD and wish to contribute to comprehensive climate reporting should follow their lead. In a second step, other countries that have not yet officially supported the TCFD could also be prompted to act. In Germany, for example, so far only the Federal Financial Supervisory Authority (BaFin) officially supports the TCFD at the regulatory level. The German government should also publicly declare support for the TCFD especially with regard to the upcoming national implementation of the CSRD (which former implementation in Germany was known under the term CSR-RUG).[2] The overall aim of policy makers should be to create a level playing field where mandatory and standardized climate disclosure becomes

[2] See the related Policy Brief: https://wpsf.de/en/publikation/pb-2-2022-g7-presidency/

the rule rather than the exception. This is also in line with the report of the G7 taskforce on impact investment published in December 2021.

Ultimately, we agree with Mark Carney (2019) who said that "(...) to achieve a carbon-neutral economy, disclosure must clearly become mandatory." Industry-led and other voluntary initiatives can provide a basis for mandatory reporting obligations. However, introducing mandatory climate disclosure is the essential lever that is needed to achieve the urgently required quantity and quality of climate-related information. It is therefore not a matter of "if" we need mandatory climate disclosure policies, but of how and when they are implemented.

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About the project

The Sustainable Finance Research Platform is a joint project between five German research institutions conducting research on different aspects of Sustainable Finance, e.g. sustainable investments, sustainability risks and chances, and sustainability reporting. With their independent research, the project partners aim to support stakeholders in politics, the financial sector, and the real economy in understanding and shaping the central role of capital markets in achieving a net-zero economy. The researchers involved answer social, political, and business-related questions, provide established and new research findings, and participate in political and public debate. They also want to establish sustainable finance as a topic in the German research landscape and secure connections with international institutes and processes.

More information can be found on the project's website wpsf.de/en/.

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