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# Reporting on climate-related risks and opportunities – Status quo and recommendations



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The pressure on companies from investors and other stakeholders to address climate change keeps increasing. On the one hand companies play a major part in the realisation of climate targets; on the other hand, many face significant climate risks. Hence it becomes a necessity to incorporate climate-related risks in their risk management procedures and their external reporting. However, reporting on climate-related risks and opportunities and especially their impact on financial statements is still in its infancy as companies struggle to follow the TCFD recommendations and define the interrelation between nonfinancial and financial performance. This is revealed by the latest PwC study on climate-related disclosure in Austrian companies' annual reports. The authors present the results of the study and provide guidance on how to define and incorporate the respective interrelations on climate-related risks and opportunities.



Sustainability, Climate change, Climate risks, Climate related financial disclosure, TCFD, Nonfinancial Reporting, Accounting

## Berichterstattung zu klimabezogenen Risiken und Chancen – Status quo und Empfehlungen

Unternehmen erfahren zunehmenden Druck, den Klimawandel zu adressieren. Einerseits spielen sie eine wesentliche Rolle für die Umsetzung der Klimaziele, andererseits sind viele von ihnen signifikanten Klimarisiken ausgesetzt. Daher müssen klimabezogene Risiken in Risikomanagementprozesse und auch externe Berichterstattung integriert werden. Die Berichterstattung zu klimabezogenen Risiken und Chancen und deren Auswirkungen auf den Jahresabschluss steckt allerdings noch in den Kinderschuhen. Unternehmen haben ihre Mühen, die Empfehlungen der TCFD umzusetzen und die Wechselwirkung zwischen nichtfinanzieller und finanzieller Leistung zu definieren. Zu diesem Ergebnis kam eine PwC Studie über Österreichs Unternehmen. Neben den Studienergebnissen präsentieren die Autorinnen Empfehlungen, wie die erwähnten Wechselwirkungen identifiziert und integriert werden können.

Nachhaltigkeit, Klimawandel, Klimarisiken, Klimaberichterstattung, TCFD, Nichtfinanzielle Berichterstattung, Rechnungslegung

## **PwC Study reveals: Reporting of climate-related risks and opportunities and their impacts on the financial statements are insufficiently addressed by Austrian companies**

As countries struggle to deal with COVID-19, it becomes apparent that the safest way to not end up in a crisis mode, is to deal with risks and opportunities early on and systematically. The same can be said for managing climate change-related risks, both from a national and a corporate perspective. Since climate change increases adverse health impacts for humanity and likely their spread significantly, there is even more urgency to act.<sup>1</sup>

With increasing temperatures and changing climate norms, companies are facing increasingly more physical risks from natural disaster or weather extremes that contribute to damages on asset values, shortcomings in production etc. This affects not only industrial companies but is equally important for the investment strategies of financial advisors, institutional investors and other stakeholders.

These physical risks are the most acknowledged and well understood risks. However, increasingly significant are transition risks relating to political and economic decisions towards a decarbonised economy as a result of the 2015 Paris Agreement and the announcement of the European Green Deal. These include political, regulative, technological, market and reputational risks fostered through e.g. the introduction of a carbon tax for carbon intensive industries or the acceleration of low-carbon technologies substituting fossil fuel intensive production. Failing to manage and deal with those risks will have significant consequences on the operational business model, corporate strategies and financial performance vice versa understanding these factors as economic opportunities can turn them into drivers for additional and sustainable revenues and profits.

Since companies play an important role in the realisation of national and international climate and energy targets, the transparent disclosure of climate change related risks and opportunities is an important necessity for companies to start incorporating climate-related risks thinking and mitigation strategies into their operations. In addition, stakeholders and especially investors, such as banks, private investors or insurance companies, expect and require comparable, reliable information to support their investment decisions. In order to fulfill these expectations companies need to not only identify, assess, monitor, steer and report on their climate change-related risks and opportunities but also determine the impacts on their financial performance.

Thus, climate change has become a top management topic. The latest PwC study on climate-related risk reporting among Austrian companies published in 2019 reveals severe shortcomings when it comes to the disclosure of relevant information and addressing risks and opportunities in a structured way.

As climate-related risk reporting is an emerging field, the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD)<sup>2</sup> provide guidelines for reporting on climate-related risks and opportunities. After its initial publication in 2017, TCFD recommendations have been adopted by 1,100 companies from 142 countries in 2019, yet more improvement is needed. The recommendations are voluntary, but, if applied appropriately, provide a solid and comparable foundation to investors, lenders, and insurance

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1 WHO: Climate Change and Health (2018); <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>.

2 TCFD: Recommendations of the Task Force on Climate-related Financial Disclosures. Final Report (2017).

underwriters on how companies are exposed to climate-related risks and opportunities, and how well they are prepared to deal with those. The TCFD 'Second Status Report' (2019) reveals that, while the quantity of information published since 2016 has increased, investors consider it still insufficient to inform their investment decisions. More clarity is needed around the potential financial impact of climate change-related aspects on companies. The PwC study on climate reporting reveals similar conclusions for Austrian companies.<sup>3</sup>

### **TCFD Recommendations in a nutshell**

The TCFD developed 11 recommendations which are structured around four core elements of business organisations: governance, strategy, risk management, as well as metrics and targets.



Figure 1: TCFD core elements<sup>4</sup>

The implementation of the TCFD recommendations by Austrian companies was subject of the PwC study. Only publicly available information, such as annual and/or sustainability reports for the reporting period of 2018 (or 2017–18) were considered for 39 ATX industrial and financial companies.<sup>5</sup>

It becomes apparent that Austrian companies are not sufficiently focusing on climate-related risks and opportunities, or are at least not sufficiently disclosing that they do. Only two out of 39 companies refer to the TCFD in their financial annual or sustainability report. Those industries that are most obviously affected today by climate change have the most advanced climate-related risk and opportunity reporting.

### **Governance**

These disclosures consider the organisation's governance around climate-related risks and opportunities. Both, a governing board's oversight and the management's role in assessing

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3 TCFD: Task Force on Climate-related Financial Disclosures Status Report (2019).

4 TCFD: Recommendations of the Task Force on Climate-related Financial Disclosures. Final Report (2017).

5 PwC Österreich: Klimaberichterstattung österreichischer Unternehmen (2019); <https://www.pwc.at/de/publikationen/klimawandel-nachhaltigkeit/klimaberichterstattung-oesterreichischer-unternehmen.pdf>.

and managing risks and opportunities allows conclusions on how well prepared a company is for future scenarios. For instance, information about the involvement of governing boards in monitoring and decision-making on climate-change related risks includes the frequency with which governing boards are informed about climate issues.

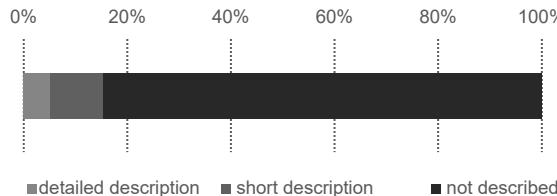


Figure 2: Governance concerning climate-related risks and opportunities

The PwC study revealed that these disclosures are more often high-level and climate-related topics are only marginally described or referenced in general. Slightly more frequently do companies disclose the responsibilities of management on how they evaluate and steer climate-related opportunities or risks.

Only a total of 16 % of companies are explicitly and transparently describing climate-related governance processes. Only a few reports reveal how frequently and in which manner the governing board or higher management is informed about climate-relevant topics, and how progress towards reaching metrics and targets is monitored.

### Strategy

In terms of strategy, the TCFD recommends disclosing the potential and actual climate impact on the operating business model, business strategy and financial planning of a company. The risks and opportunities identified are expected to be described for a short-, medium-, and long-term horizon, considering any actual or potential impact on the company. Climate scenario analyses support companies in evaluating the resilience of their company considering the impact of different climate scenarios on a company's strategy.

A critical recommendation by the TCFD is the assessment of the compatibility of an operating business model and its related strategy with identified impacts of climate change over different periods of time and different climate change scenarios – mostly using a future 2°C climate scenario. Especially for resource intensive companies with high CO<sub>2</sub> emissions who are sensitive to transition risks a climate scenario analysis is highly recommended for their long-term strategies. Only one of the analysed companies reports to have applied a scenario analysis on their operating model and their strategy.

Climate scenarios considering physical risks are highly relevant for companies that are chronically or urgently exposed to physical risks because of climate change, such as location-specific risks in climate sensitive regions (e.g. coastal or high tide areas) or companies with a strong dependency on the availability of water.

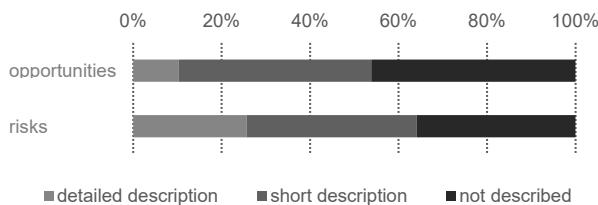


Figure 3 Reporting on climate-related risks and opportunities

The study indicates that, compared to governance disclosure, more information is provided on the strategy level. Approximately 60 % describe climate-related risks and/or opportunities in some form, even though there is still plenty of room for improvement concerning the level of detail. Around 18 % provide more in-depth explanation to their identified risks and opportunities. Conversely, four out of ten companies do neither implicitly nor explicitly mention any climate-change related risks or opportunities in their reports.

The most frequently mentioned risks concern physical risks such as damages to asset values through natural disasters, as well as transition risks like stronger regulation on CO<sub>2</sub> emissions or increased prices for raw material and energy. Around half of the companies mention opportunities that arise from climate change, only every tenth report is more in-depth. The most common opportunities mentioned are linked to saving energy or market opportunities through the development of more energy efficient products and services.

## Risk Management

The TCFD recommends that companies describe how they identify, assess and control climate-related risks, and how they manage those risks and integrate them into their management system. This includes the specifically used risk terminology, references to existing risk classification systems, the methodology to identify potential size and scope of risks, as well as the processes for managing climate-related risks. In addition, while disclosing how climate-related risks are captured within the company-wide risk management, companies have to assess and disclose interdependencies to other financial parameters, such as credit risks, market risks and operational risks.

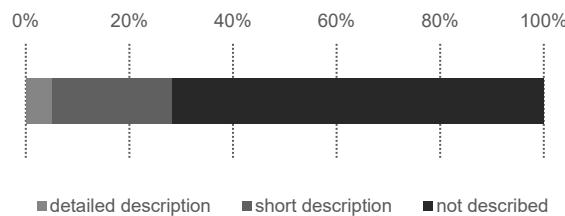


Figure 4: Risk management processes to identify, monitor and steer climate-related risks

It can be observed that climate-related risks are often integrated in the company-wide risk management processes, but only three out of ten companies describe underlying processes for the identification, assessment and management of climate-related risks. How those

risks are weighted compared to other financial risks, such as credit risks etc. is not disclosed.

### Metrics and Targets

Part of the TCFD recommendations is also the measurement and monitoring of identified risks against a set of metrics and targets that reflects the company's underlying strategy and risk management processes. Ideally, companies disclose metrics and their targets over a period of years allowing for a trend analysis. Key metrics include the three different scopes of greenhouse gas emissions, i.e. ranging from direct emissions from fossil fuels (Scope 1) to indirect ones, e.g. related to the consumption of electricity or district heating (Scope 2) as well as other indirect emissions related to the supply chain, products and business travel (Scope 3).<sup>6</sup>

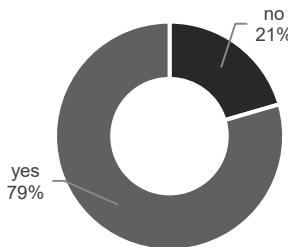


Figure 5: Reporting on GHG emissions

The study reveals that companies are doing quite well when it comes to reporting on climate-related KPIs, particularly greenhouse gas emission: Approximately eight out of ten companies present at least one GHG emission-related KPI. Mostly it is Scope 1 and/or Scope 2 emissions that are being reported. However, the study revealed that most companies struggle with the disclosure of Scope 3 emissions, most likely due to a lack of sufficient data across their supply chains.

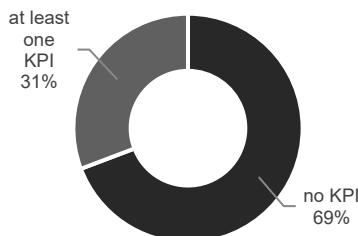


Figure 6: Quantified climate-related targets

Close to one third of companies disclose quantitative targets for at least one of their climate-related KPIs, usually a CO<sub>2</sub> reduction target. Science-based targets for CO<sub>2</sub> reduction are used by five companies at this point.

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<sup>6</sup> World Resources Institute and World Business Council for Sustainable Development: The Greenhouse Gas Protocol – A corporate Accounting and Reporting Standard, Revised Edition (2004).

## Implications on financial statements of climate-related reporting

The TCFD recommendations regarding strategy require the description of the impact of climate-related risks not only on the company's businesses and strategy but also on the financial planning, as climate-related risks might significantly influence companies' operating business models as well as their financial performance and impact stakeholders' investment decisions. Factors to be considered in the financial planning are in general not limited to net income, revenue or cash forecast but shall depict all relevant financial implications. Hence, companies should at least consider operating costs and revenues, investment and allocation, new acquisitions and sales, as well as access to capital as part of their financial planning. Only one company quantifies the actual and potential impact on their financial planning.

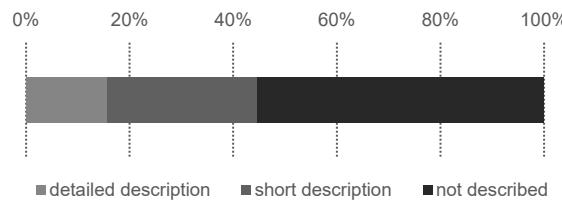


Figure 7: Reporting on climate-related financial impacts

Almost half of the companies mention potential climate-related financial implications but they are rarely specified. Most companies mention financial impacts to be related to increasing raw material and energy prices, higher CO<sub>2</sub> certificate prices, and investments in R&D etc.

It is striking that only a few companies include non-financial information in financial reporting. For example, some companies mention "climate-related risks", but without providing any further details. One company claims to be working on raising awareness of climate-related risks. Another company explains the difference between physical climate-related risks and transition risks, but does not specify details regarding the effects of these risks on the financial situation of the company – although it considers physical climate-related risks and transition risks as a financial risk. Regardless, a few companies report environmental expenditures and investments.

As investment decisions are usually not based on qualitative descriptions, but on quantitative information, the identification, evaluation and quantification of the climate-related risks, various measures and their effects are of crucial importance in enabling stakeholders to assess the effectiveness of the company specific measures implemented relating to climate-related risks and opportunities and to perform respective comparisons. Accordingly, the implication of non-financial aspects, risks and opportunities not only in the financial planning but also in the financial information and its reporting is essential and of increasing importance for investors and all other stakeholders. The potential financial implications for companies reporting under International Financial Reporting Standards (IFRS) arising from climate-related and other emerging risks may include, but are not limited to:

- Presentation of Financial Statements
- Research and development costs,
- Property, plant and equipment,

- Biological assets,
- Fair value measurement,
- Impairment calculations,
- Provisions and contingent liabilities,
- Expected credit losses for loans and other financial assets,
- Climate-related income and expenses.

### **Presentation of Financial Statements – IAS 1**

Overall, IAS 1 requires organisations to report on decision-making information that is not presented elsewhere in the financial statement but is relevant for the stakeholders to understand the actual true and fair view of the organisation's assets, financial position, earnings and cash flows. This might require the disclosure of information on how climate-related risks are considered in the organisation's planning and its impairment calculation, if investors have a vested interest or other organisations of the same industry disclose respective information, although IAS 36 does not require this disclosure explicitly.

### **Research and development – IAS 38**

Organisations might change their business models, their product portfolio or their operating activities with regard to climate-related risks or opportunities. This results in an increase of research and development expenses or an increase of capitalised development costs. A change in the business model and the product portfolio also impacts the planning calculation of revenues, working capital as well as the calculation of impairment losses and values of deferred taxes.

### **Property, plant and equipment – IAS 16**

Due to climate change assets relating to property, plant and equipment encounter significant risks. An increase of temperature might lead to an increase of flooding of landscapes or forest fires in areas where the organisation owns property or plants. The associated physical risks impact the impairment calculations of the respective assets and also result in consequences for the calculation of deferred taxes. Hence, it is advisable to calculate with scenarios reflecting a maximum temperature increase of up to 2° C. Organisations might also or must invest in environment-friendly technology and equipment or energy efficient buildings to support the goal of climate neutrality in 2030.<sup>7</sup> These investments impact the organisation's balance sheet, working capital and cash flows as well as operating expenses, if, e.g. a company invests in solar technology and is then able to cover its own electricity consumption by more than 100 %, operating expenses for energy will be reduced, and in addition, if the company is able to sell the overproduction additional revenues are generated. As well as this, the estimated useful life of these tangible assets might change resulting in changes of the annual amount of depreciation or amortisation. Last but not least, government grants in connection with the support of the goal of climate neutrality, i.e. the European Green Deal impact the financial statements.

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<sup>7</sup> [https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en).

## Biological assets – IAS 41

Biological assets within the scope of IAS 41 are measured on initial recognition and at subsequent reporting dates at fair value less estimated costs to sell at the point of harvest, unless fair value cannot be reliably measured. Climate change might affect biological assets in various scenarios, but are not limited to:

- flooding of landscapes,
- forest fires,
- pest infestation,
- harvesting losses.

Organisations need to disclose among others also the financial risk management strategies associated with these risks.

## Fair value measurement – IFRS 13

In accordance with IFRS 13 organisations need to disclose the underlying key assumptions regarding the fair value measurements of respective assets and liabilities. Climate-related risks affecting the fair values of assets or liabilities might relate to economic developments but may also arise out of potential changes in laws and regulations. Hence, organisations need to disclose the consideration of these risks, the respective assessments and effects on the fair value measurements, even if a quantification is not feasible.

## Impairment – IAS 36

As tangible, intangible, including goodwill, biological and financial assets might be affected by climate-related effects, the associated risks need to be considered in the assessments and their measurements. Impairment tests need to be performed because of triggering events like climate-related catastrophes on a regular annual basis. Any calculation needs to include key assumptions related to these risks, the exposure of future estimated cash inflows and outflows used for the determination of the recoverable amounts. Additionally, IAS 36 requires disclosure of the key assumptions for the underlying projections of the calculation, in particular for goodwill and other indefinite-life intangible assets. Furthermore, the effects on the recoverable amounts of an organisation's assets might be relevant for the financial statement users.

## Provisions, contingent liabilities, contingent assets – IAS 37

According to IAS 37, companies are obliged to describe contingent liabilities, to estimate the financial impact if necessary and to disclose uncertainties regarding the outflow of resources to meet the obligation. Climate-related risks and uncertainties can influence the estimate of the provision. Companies must therefore explain how climate-related risks have been included in the estimate of the provision. Climate-related risks could have the following effects:

- recognition of a contract provision for potential loss of revenues or increased costs that were taken into account in climate-related risk scenarios for deriving the best estimate
- increased provisions for the decommissioning of a plant or the rehabilitation of environmental damage due to regulatory changes or shortened project lives

- disclosure of contingent liabilities for potential legal disputes or fines in the event of violation of regulations that occur with a probability of less than 50 percent

### **Expected credit losses for loans and other financial assets – IFRS 9, IFRS 7**

IFRS 9 requires forward-looking information to be determined, included and recognised in expected credit losses. Financial institutions lending money need to assess any climate-related risks and assess the exposure on loans and the respective credit losses. On the other hand, financial institutions also hold investments either in industries that might be affected by climate-related risks or in green investments and could be exposed to price risks. IFRS 7 requires disclosure of an organization's exposure to market risks arising from financial instruments and information about the management of these risks and any changes toward the previous period.

### **Conclusion**

Transparent climate-related reporting is of increasing importance due to political and economic efforts to decarbonise the global economy, and due to the growing exposure to climate change impacts which companies and the society as a whole are facing. The current status quo is scattered in terms of focus and depth relating to the identification, management of and ultimately reporting on climate-related risks and opportunities. As the reporting focus is different for each company, any comparison between companies and their approaches to deal with climate-related risks and opportunities is difficult. Investors, lenders, insurers' underwriters and other stakeholder groups require a solid and transparent reporting and the disclosure of the impacts of climate-related risks and opportunities as well as of other non-financial risks in the financial statements of the companies in order to assess their clients' risk exposures and to manage their investments. Climate friendly products and services can serve as business drivers for companies to not only manage their risk exposures but also to explore new business opportunities.

Ultimately EU-wide initiatives, i.e. the guidelines on non-financial reporting on climate-related risks<sup>8</sup>, demonstrate the increasing need for more concrete guidance but also the necessary increasing efforts to harmonise the different guidelines to facilitate and improve reporting on climate-related risks and opportunities and their implications on the financial statements.

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<sup>8</sup> Communication from the Commission — Guidelines on non-financial reporting: Supplement on reporting climate-related information C/2019/4490.

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