

# Qualitative Scenario Analysis: Getting Started



## Climate-Related Financial Disclosures

Climate change has **emerged** as a top ESG factor. Several of the world's largest institutional investors are committed to integrating climate-related risks and opportunities into investment decision making. Shareholder proposals related to climate change dominated the 2019 proxy season and the same is **expected** for the 2020 proxy season. Many of these ask companies to align to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

The TCFD Recommendations provide a disclosure framework that will aid financial stakeholders in assessing and pricing corporate climate-related risks and opportunities. The 11 TCFD Recommendations are structured around four elements of disclosure: Governance, Strategy, Risk Management, and Metrics and Targets.

Many companies already report on some aspects of climate change and the TCFD Recommendations have provided an opportunity to improve the quality and consistency of reporting in the global capital markets. Climate-related disclosures have steadily increased since the TCFD Recommendations were released, but they still have a long way to go.

Based on the TCFD's 2019 **survey** of over 1,000 large public companies, the overall percentage of disclosure is not greater than 50% for any of the recommendations. Only 7% of survey respondents report having fully completed implementation of the recommendations, with 58% expecting it to take two to three years and 21% expecting over three years. These statistics reflect the understanding that full implementation of the TCFD Recommendations is a journey and align with the TCFD's recommended five-year implementation timeframe.

In the **survey**, the banks, energy and real estate companies demonstrated the strongest overall levels of disclosure. Recommendations relating to the Governance and Metrics and Targets disclosures had the highest levels of disclosure across companies surveyed. The recommendation that universally received the weakest response is the recommendation relating to climate-related scenario analysis.

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### Strategy

*c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.*

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## Scenario Analysis

Scenario analysis has traditionally been used in business forecasting for a variety of purposes. Banks have applied stress testing to test resilience under a range of unfavourable economic scenarios. Energy companies have used scenario analysis to assess energy supply and demand scenarios. However, previously it was not common to apply scenario analysis to climate-related impacts and undertaking this analysis presents several challenges.

Sector-specific initiatives, such as those undertaken through the United Nations Environment Programme Finance Initiative (UNEP FI), and initiatives undertaken by a small number of individual companies (mainly in the oil and gas and financial sectors) have identified challenges related to the complexity of the issues, including the potentially long timeframes, inherent uncertainties, and the availability of adequate data. Safe to say, there is still work to be done in developing methodologies that will provide robust financial valuation of climate risk. In Canada, the Expert Panel on Sustainable Finance has **recommended** that a "made in Canada" climate scenario analysis methodology be developed to ensure quality and consistency.

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While quantitative scenario analysis remains beyond the reach of many companies today, the use of qualitative climate scenario analysis is being increasingly used by companies as a starting point for strategic planning and to work toward fully implementing the TCFD Recommendations.

Qualitative climate scenario analysis allows companies to gain a better understanding of potential business impacts and opportunities based on predicted trends in environmental and socio-economic conditions, including for example:

- Predicted GHG emissions
- Changes in global temperatures
- Changes in physical weather and climate conditions (e.g. precipitation patterns, sea level rise)
- Changes in climate change policies and regulations
- Market or technology shifts
- Energy supply and demand
- Changes in population and/or GDP

Companies that are interested in developing a business narrative around qualitative climate scenario should:

1. Be clear on their business objectives.
2. Determine which reference scenario(s) to apply.
3. Understand how interpret and communicate the results.

## Business Objectives

Care and attention need to be given to the objectives of the assessment, as this will be critical in the selection of reference scenarios and their underlying assumptions, as well as the interpretation and communication of the results. Companies need to link scenario objectives to their key drivers of business performance. For example, for companies in the upstream oil and gas sector, key business performance drivers typically link to potential future demand, pricing, asset mix, costs, or investment in research and development and technological innovation.

In climate scenario analysis, these key drivers of business performance are then weighed against different scenarios relating to policy changes, market preferences, GHG emissions, physical impacts or climate targets. The key drivers of business performance will differ by sector and geography, and the strategic impacts to each company will differ based on their unique business model and operations.

## Selection of Reference Scenarios

Selecting the right scenarios and understanding the key assumptions built into each is a critical step in qualitative climate scenario analysis. Different assumptions can result in major differences in outcomes. Commonly used reference scenarios can be divided into two broad categories: transition scenarios and physical scenarios.

**Transition scenarios** model different pathways for achieving a defined outcome, such as the Paris Agreement targets of 2°C (or less) of global temperature warming. Different scenarios examine different combinations of policy, technology, energy mix, GDP and demographics, and other parameters over varying timeframes. The International Energy Agency (IEA) 2019 World Energy Outlook (WEO) scenarios and the 2018 Intergovernmental Panel on Climate Change (IPCC) scenarios (IPCC 2018, Global Warming of 1.5° C) are examples of transition scenarios.

**Physical scenarios** start with a range of GHG concentrations and then predict the resulting changes to the earth's climate over different time periods, such as increased temperatures, flooding, drought, or rising sea levels. The IPCC scenarios are the most commonly used physical climate models.

It should be noted that there are several scenarios in development that attempt to incorporate both transition and physical climate impacts. Robust climate scenario analysis should consider transition and physical elements, as well as the interconnection between the two.

## Interpreting and Communicating Results

The results of qualitative climate scenario analysis need to be translated into decision-useful information. Results can be used for internal and external purposes.

Companies should begin developing a climate narrative based on the results of assessments using the transition and physical climate scenarios that they have selected. A company should look at trends over the short, medium and long term and discuss them in the context of their business strategy.

For example, the trends highlighted by a transition scenario over the medium and long term might validate a company's business strategy to increase its focus on low carbon products and/or services, or to invest in technology that drives energy efficiency and reductions in carbon intensity. The trends highlighted by physical climate scenarios selected could be used to develop new business approaches, such as a decarbonization strategy or strategies to reduce the physical impacts of climate change, such as infrastructure hardening. Another example of a way to communicate results is by developing a "Climate Roadmap" that lays a path to maintaining market position or business advantage as the transition to a lower carbon economy occurs. Key pillars of the Climate Roadmap can be identified with accompanying qualitative and where possible, quantitative metrics to measure progress over time.

## Looking Ahead

Uptake of the TCFD Recommendations appears poised to increase considering recent market developments. During a February 2020 speech, Mark Carney **noted** that work will be undertaken to determine the best approach to making climate disclosure mandatory in consultation with international standard setters (including the Financial Stability Board, the International Financial Reporting Standards and the International Organization of Securities Commissions) and national governments. The U.K. has also indicated a **willingness** to implement mandatory TCFD reporting and the U.K.'s Financial Conduct Authority is currently undertaking a market **consultation** regarding mandated TCFD disclosure on a "comply or explain" basis.

While in its early days of development, climate scenario analysis is set to become a key tool in the assessment of climate-related risks and opportunities. It will continue to be applied at different scales, ranging from global, to national, portfolio, company and even asset levels. The quantitative aspects of climate scenario analysis are still in development. More consistent, accurate and accessible data and methodologies are likely to develop in the next few years given increased attention and resources being devoted to this area by the global capital markets.

There is an important place for qualitative scenario analysis today – as a tool to enable the integration of corporate strategy and climate change. Increasingly, investors are asking companies to provide evidence that they have considered the strategic impacts of climate-related risks and opportunities on their business model and long-term value. Given the significant **support** for the TCFD Recommendations from capital markets participants, proactive companies are getting started on the underlying analysis required for scenario analysis – before it is made mandatory in the future.

## About ESG Global Advisors

ESG Global Advisors bridges the gap between companies and investors on environmental, social and governance (ESG) factors. A multi-disciplinary team with significant investor and corporate experience, we are uniquely positioned to offer expert advice to companies and investors on material ESG factors that drive long-term value, including climate change. We assist companies and boards of directors with:

- Understanding how investors integrate ESG factors into investment processes and stewardship
- Developing strategies for managing material ESG factors to generate superior long-term value
- Developing approaches to ESG-related disclosure and engagement with shareholders

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