A changing climate for business: an introduction to the TCFD

4th July 2019

pwc

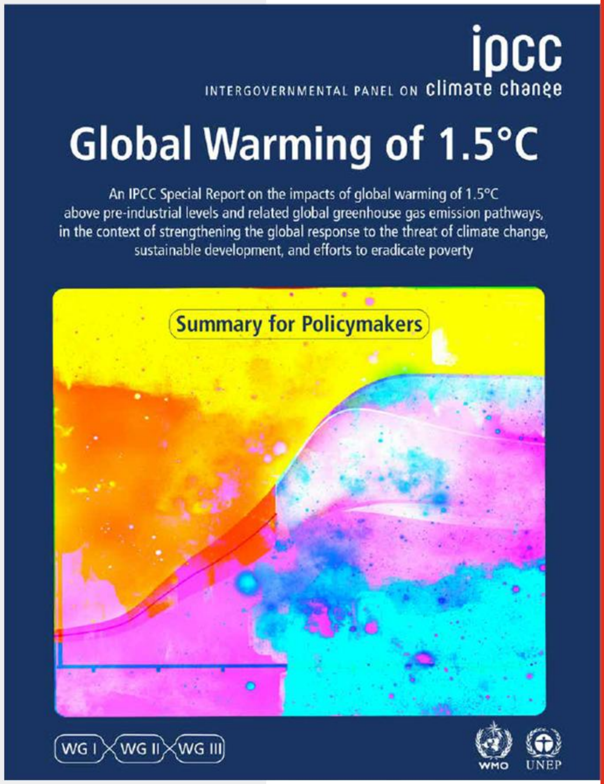
Agenda

1. Climate change in context
2. Introducing the TCFD recommendations
3. Myth-busting
4. Introducing the Climate Governance Principles
5. What next?

Climate change in context

IPCC Special Report on 1.5 degrees

- Current warming since 1850-1900 is +1°C
- Broadly, impacts of 2°C are ‘substantially’ worse than 1.5°C e.g. food production, health, infrastructure, migration
- Poor & vulnerable are disproportionately affected
- All 1.5°C pathways require rapid emissions reductions (including carbon removal) to net zero
- The next 12 years are critical

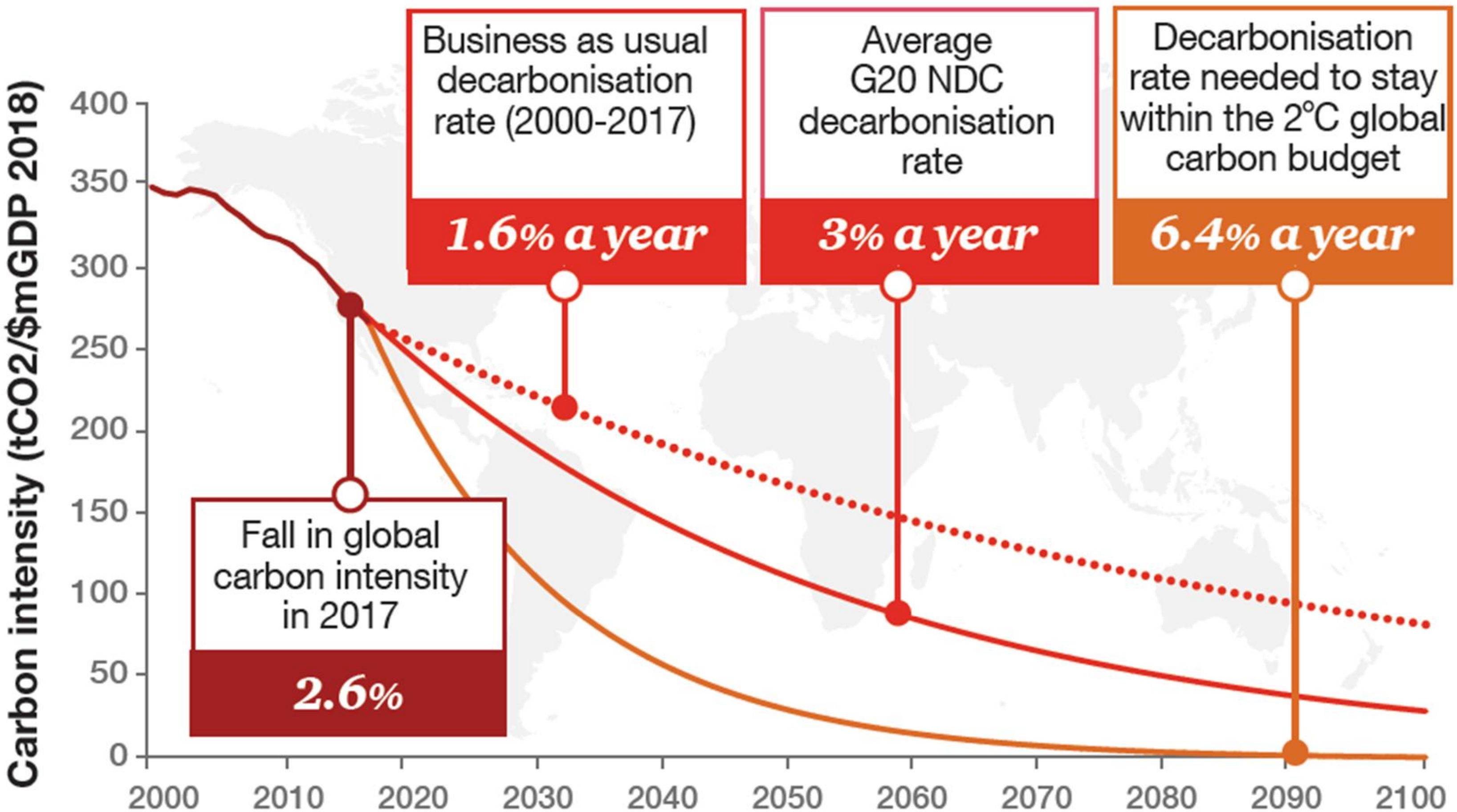


“

All pathways limiting global warming to 1.5ºC imply deep emissions reductions, carbon dioxide removal... and significant upscaling of investment in mitigation options.”

IPCC Special Report
October

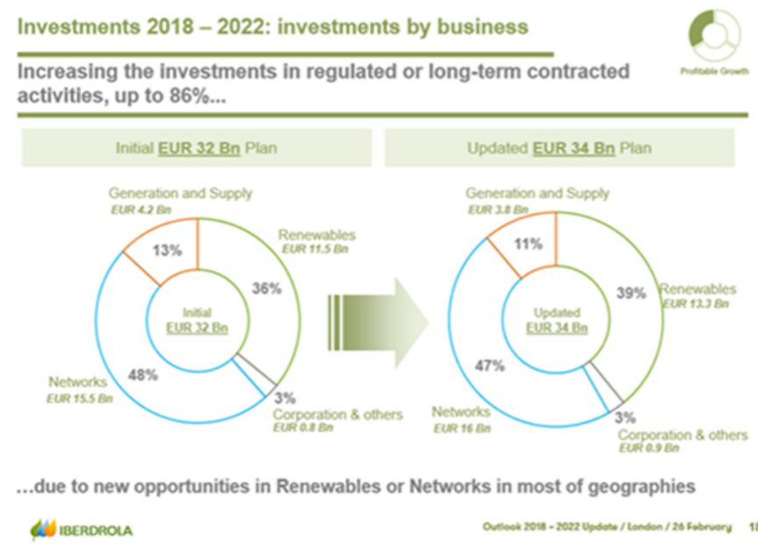
Figure 1: Low Carbon Economy Index 2018: Transition pathways

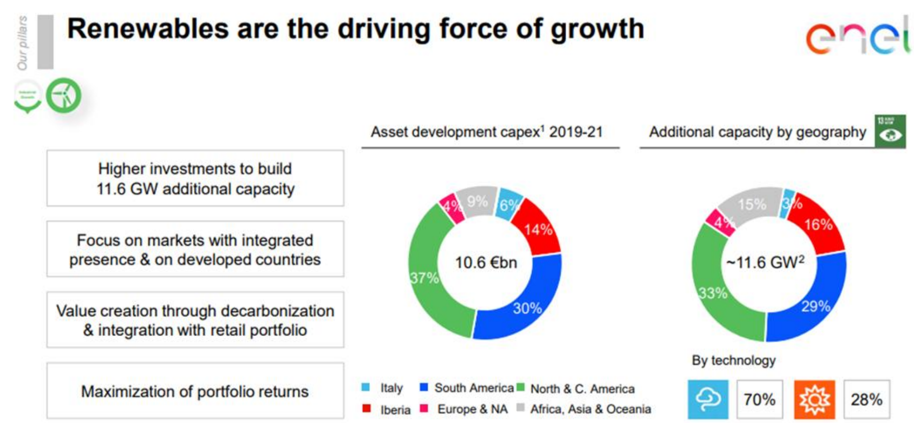


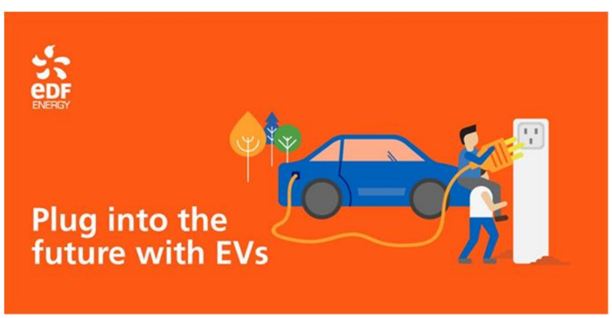
Sources: BP, Energy Information Agency, World Bank, IMF, UNFCCC, National Government Agencies, PwC data and analysis.

An example of what's needed: Energy Transition

- Expected 2050 net zero statutory instrument in the UK
- Decarbonise electricity (renewables, CCS)
- Electrify the energy system (especially transport)
- Decarbonise heat and liquid fuels (biofuels, biogas, CCS, electricity)
- Demand management - smart customer solutions, EE, network infrastructure (transmission, storage & distribution)







Climate chaos?


Mark Carney tells global banks they cannot ignore climate change dangers

Financial sector warned it risks losses from extreme weather and its stakes in polluting firms

Mark Carney arriving for IMF and World Bank meetings in Washington earlier this month. Photograph: James Lawler Duggan/Reuters

The global financial system faces an existential threat from climate change and must take urgent steps to reform, the governors of the Bank of England and France's central bank have warned, writing in the Guardian.


Donald J. Trump
@realDonaldTrump

Global warming has been proven to be a canard repeatedly over and over again. on.wsj.com/H7ob9d The left needs a dose of reality.

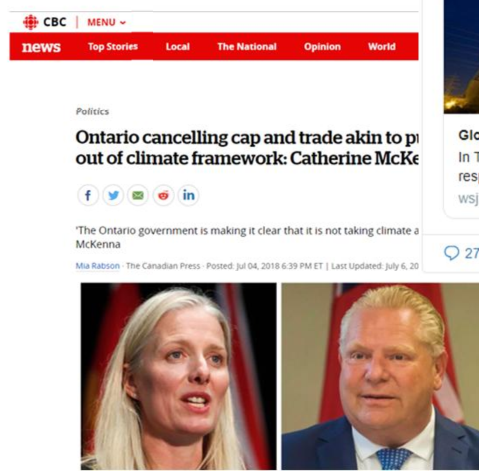
83 7:43 PM - Mar 28, 2012

Global Warming Models Are Wrong Again

In The Wall Street Journal, William Happer writes that the observed response of the climate to more CO2 is not in good agreement with

wsj.com

271 people are talking about this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Politics

Ontario cancelling cap and trade akin to pu out of climate framework: Catherine McKe

'The Ontario government is making it clear that it is not taking climate a McKenna

Mia Rabson · The Canadian Press · Posted: Jul 04, 2018 6:39 PM ET | Last Updated: July 6, 20

Pressure from investors is growing

Exxon, Chevron to Face Climate Change Pressure From Investors

Bloomberg

City investors push for BP to be more open on climate change policy

Shareholder resolution to be voted on at the company's annual meeting next week

The Guardian

UK edition

'Use your influence': Climate Action 100+ investors urged to step up lobbying efforts

Climate Action 100+

Global Investors Driving Business Transition

BP faces climate protests at investor meeting, Shell gets boost

REUTERS

PwC

Introducing the TCFD recommendations

An introduction:
Task Force on Climate-related Financial Disclosures (TCFD)

- The Task Force on Climate-related Financial Disclosures (TCFD) is an advisory body set up by the G20 to address concerns around insufficient disclosure of climate-related risks and opportunities for businesses.
- The Task Force is made up of 32 members, including PwC Partner Jon Williams, drawn from a range of industries and countries, with key perspectives as reporters of information or users of such information.
- The Task Force published its final recommendations in June 2017 which are intended to apply to all companies with listed debt or equity in the G20, and additionally to asset managers and asset owners (recognising that these organisations are typically unlisted).

"The right information allows sceptics and evangelists alike to back their convictions with their capital."

Mark Carney, Chair of Financial Stability Board and Governor of the Bank of England

What are the TCFD recommendations?

The TCFD disclosure recommendations are for all industries, as set out at a high-level below. There are also **specific implementation guidance for banks** outlining expected actions for the industry.

A	***Governance*** *Disclose the extent of board and management's oversight of climate-related risks and opportunities.*
B	***Strategy*** *Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.*
C	***Risk Management*** *Disclose how the organization identifies, assesses, and manages climate-related risks.*
D	***Metrics & Targets*** *Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.*

The Task Force has produced additional guidance that underpins these four broad recommendations. This can be found on the TCFD website. Refer to the Annex titled Implementing the Recommendations of the TCFD and a Technical Supplement titled The Use of Scenario Analysis.

Key climate-related risks for financial institutions

Banks should consider how the crystallisation of risks could impact both sides of the balance sheet, as well as the extent to which risks are correlated. The TCFD classify material risks into 6 categories.

Policy & Legal risk: Compliance costs; stranded assets; restrictions & limitations on carbon intensive assets; climate-related litigation claims

Market risk: Shifts in supply and demand for certain commodities and products; viability of certain business models; credit rating implications

Technology risk: Write-offs for investments in disrupted technologies; required investment in new technologies; process change costs to accommodate new technologies

Acute physical risk: Event-driven extreme weather impacts; disruptions to operations, transportation, supply chains etc; damage to physical assets and impacts on insurance liabilities

Chronic physical risk: Longer-term shifts in climate patterns, e.g. rising mean temperature, water stress; degradation or limitations on resource availability e.g. labour, natural resources etc

Reputation risk: Damage to brand value or reputation resulting in lost revenue and additional expenditures e.g. corporate affairs

Specific TCFD recommendations for the banking sector

The TCFD stresses that users of climate-related financial disclosures need to be able to distinguish among banks' exposures and risk profiles so that they can make informed financial decisions.

Risks and opportunities

- Describe significant **concentrations of credit exposure to carbon-related assets**
- Consider disclosing **climate-related risks (transition and physical) in lending** and other financial intermediary business activities.

Risk management

- Consider **characterising climate-related risks** in the context of traditional banking industry risk categories such as credit risk, market risk, liquidity risk, and operational risk.
- Consider describing any **risk classification frameworks** used (e.g., the Enhanced Disclosure Task Force's framework for defining "Top and Emerging Risks").

Metrics and targets

- Provide the metrics used to **assess the impact of (transition and physical) climate-related risks** on their lending and other financial intermediary business activities in the short, medium, and long term.
  - Metrics provided may relate to credit exposure, equity and debt holdings, or trading positions, broken down by:
    - Industry
    - Geography
    - Credit quality
    - Average tenor
- Provide the amount and percentage of **carbon-related assets relative to total assets** as well as the amount of lending and other financing connected with climate-related opportunities.

Specific TCFD recommendations for the asset management sector

The TCFD stresses that users of climate-related financial disclosures need to be able to distinguish among asset managers' exposures and risk profiles so that they can make informed financial decisions.

Strategy

- Describe **how climate-related risks and opportunities are factored** into relevant products or investment strategies.
- Describe how each product or investment strategy might be **affected by the transition to a lower-carbon economy.**

Risk management

- Describe engagement activity with investee companies to encourage better disclosure and practices related to climate-related risks
- Describe how material climate-related risks for each product or investment strategy are identified, assessed and managed.

Metrics and targets

- Describe **metrics used to assess climate-related risks and opportunities** used in each product or investment strategy. Where relevant, also describe how these metrics have changed over time
- Provide **metrics considered in investment decisions** and monitoring
- Provide the **weighted average carbon intensity** for each product or investment strategy
- Provide other metrics believed to be useful for decision-making and a description of the methodology used.

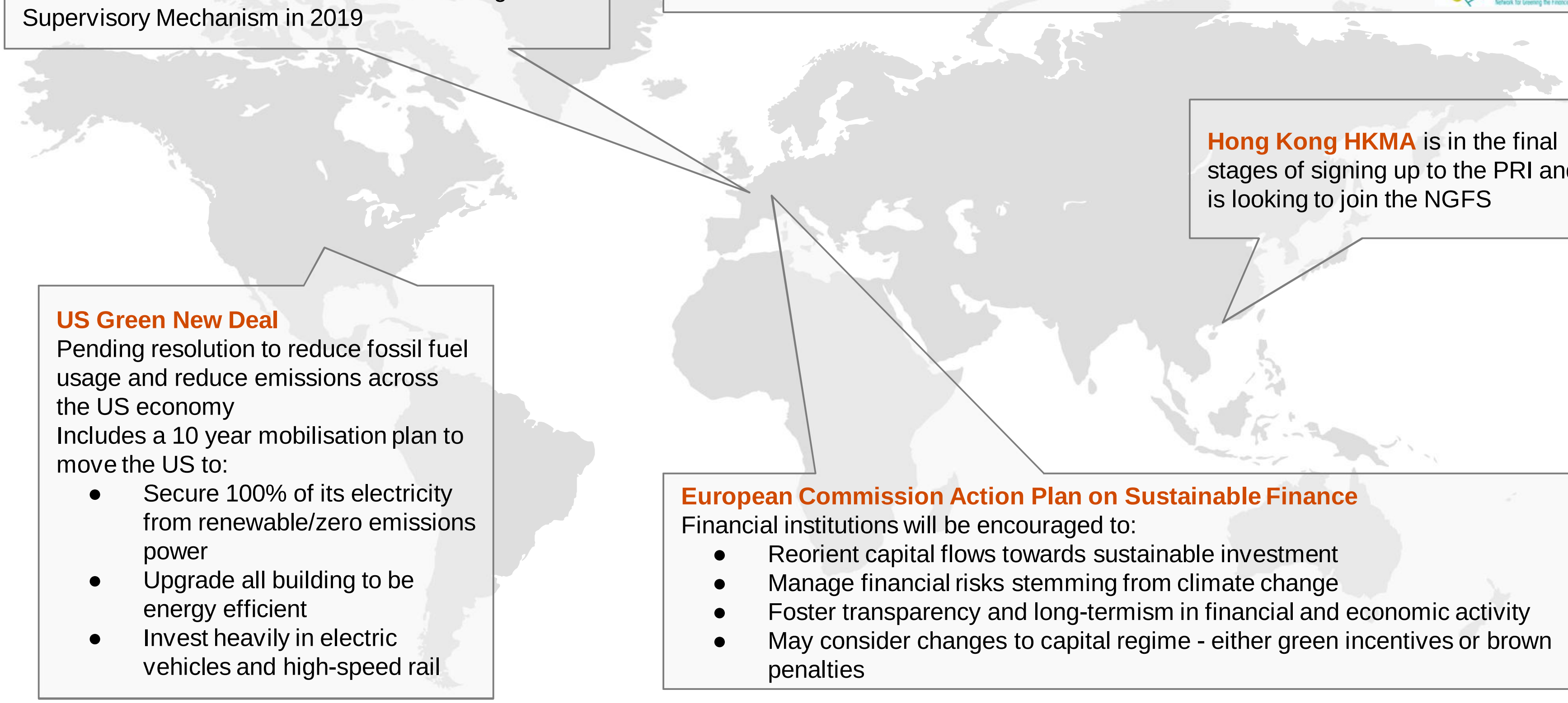
Global regulatory landscape

Regulatory action is increasingly aligned at a global level. Building on the momentum of the TCFD, the NGFS in particular will drive consistent global standards on climate-related risks for FS institutions.

Network for Greening the Financial System (NGFS) (Global Central Banks and Supervisors)
Steering committee members include UK, France, Singapore, Mexico, Netherlands, China, Germany, Morocco and Sweden
Recent recommendations include:

- Integrate climate-related risks into financial stability monitoring and micro-supervision
- Achieve robust and internationally consistent climate and envir related disclosure

European Central Bank formally acknowledged climate-related risk for the first time in its Single Supervisory Mechanism in 2019



Hong Kong HKMA is in the final stages of signing up to the PRI and is looking to join the NGFS

US Green New Deal
Pending resolution to reduce fossil fuel usage and reduce emissions across the US economy
Includes a 10 year mobilisation plan to move the US to:

- Secure 100% of its electricity from renewable/zero emissions power
- Upgrade all building to be energy efficient
- Invest heavily in electric vehicles and high-speed rail

European Commission Action Plan on Sustainable Finance
Financial institutions will be encouraged to:

- Reorient capital flows towards sustainable investment
- Manage financial risks stemming from climate change
- Foster transparency and long-termism in financial and economic activity
- May consider changes to capital regime - either green incentives or brown penalties

The UK PRA has set out its expectations for banks

The PRA wants to see banks take a strategic, holistic and long-term approach, considering how climate-related risks might impact all aspects of the risk profile

The PRA has issued its final Supervisory Statement and supporting Policy Statement on how banks should manage climate-related risks. The following measures are expected of firms:

- Allocation of responsibility for identifying and managing financial risks from climate change to the relevant **Senior Management Function(s)** (SMF(s)) most appropriate within the firm's organisational structure and risk profile.
- Implementation of **stress testing and scenario analysis to inform risk identification** and understand the short-term and long-term financial risks climate change presents to their business models.
- Material exposures to climate risks should be included within the **ICAAP.**

From July to September 2019 PRA plans to conduct **market-wide stress tests, including climate scenarios for the first time for insurers.** The PRA has indicated that stress tests for banks are likely to follow.

The PRA's Supervisory Statement takes immediate effect: firms should take action now

Making sure boards are engaged and equipped
Conduct a climate governance review to understand whether existing governance structures can be made more robust, and provide climate governance training to the board. Identify a suitable SMF(s) to have specific responsibility and appropriate support for identifying and managing climate risks. *The PRA expects firms to submit an updated SMF Form by 15 October 2019*

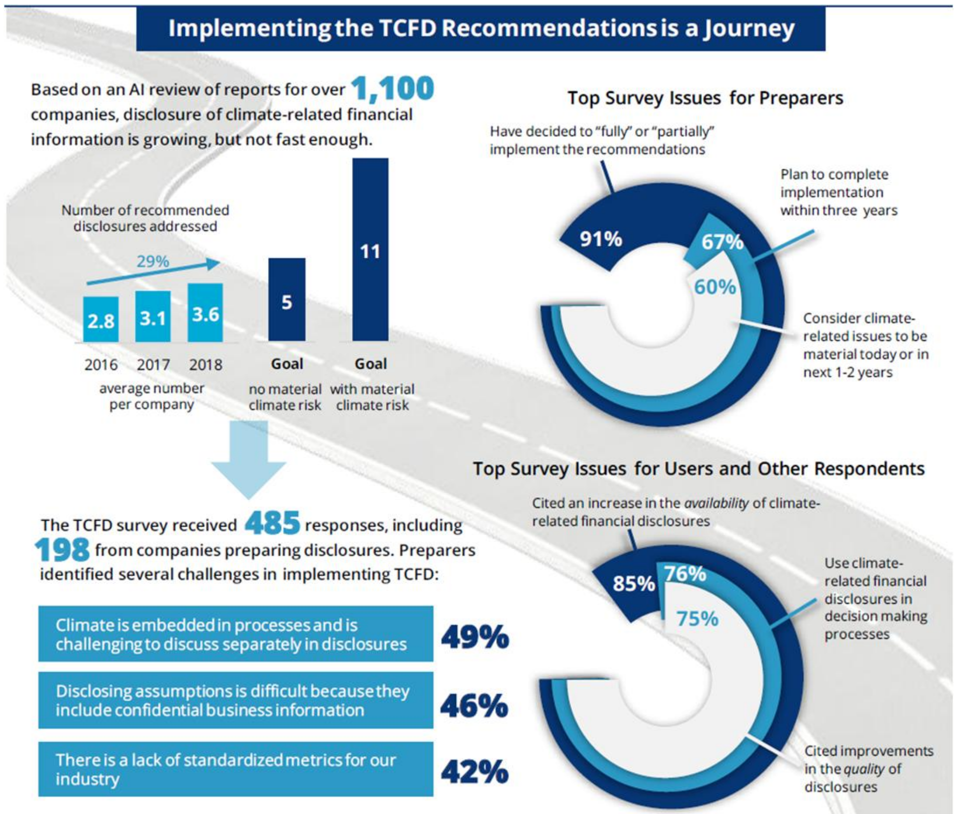
Embedding climate into risk management
Review and updating risk management frameworks, policies, management information and board risk reports to include consideration of climate risk

Conducting scenario analysis
Begin work on scenario analysis to provide a long-term and strategic view of how business models and operations could be impacted by physical and transition risks

Mark Carney on the TCFD

Since the June 2017 launch (see below) TCFD supporter organisations have risen from c.100 to 785 as at June 2019

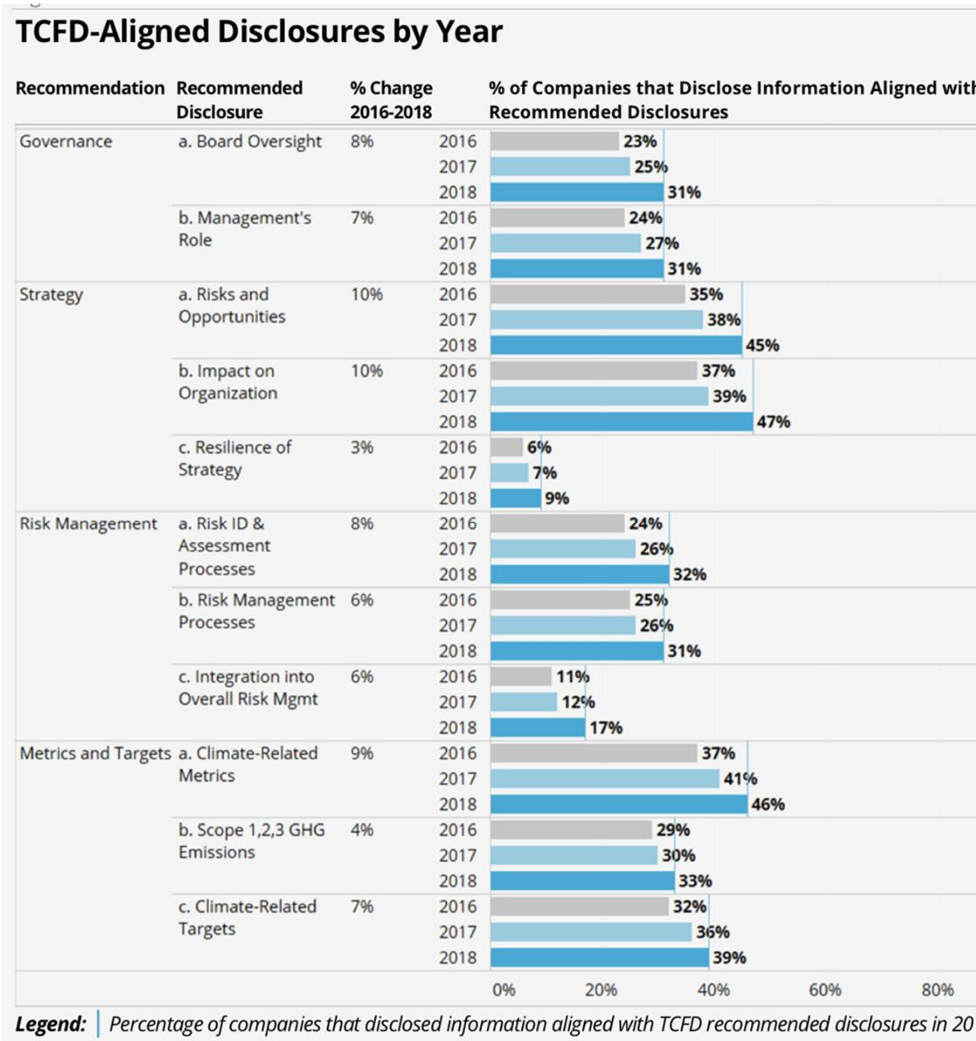
TCFD Status Report 2019



Key findings:

- Disclosure of climate-related financial information has increased since 2016, but is still insufficient for investors
- More clarity is needed on the potential financial impact of climate-related issues on companies.
- Of companies using scenarios, the majority do not disclose information on the resilience of their strategies
- Mainstreaming climate-related issues requires the involvement of multiple functions

TCFD status report update June 2019

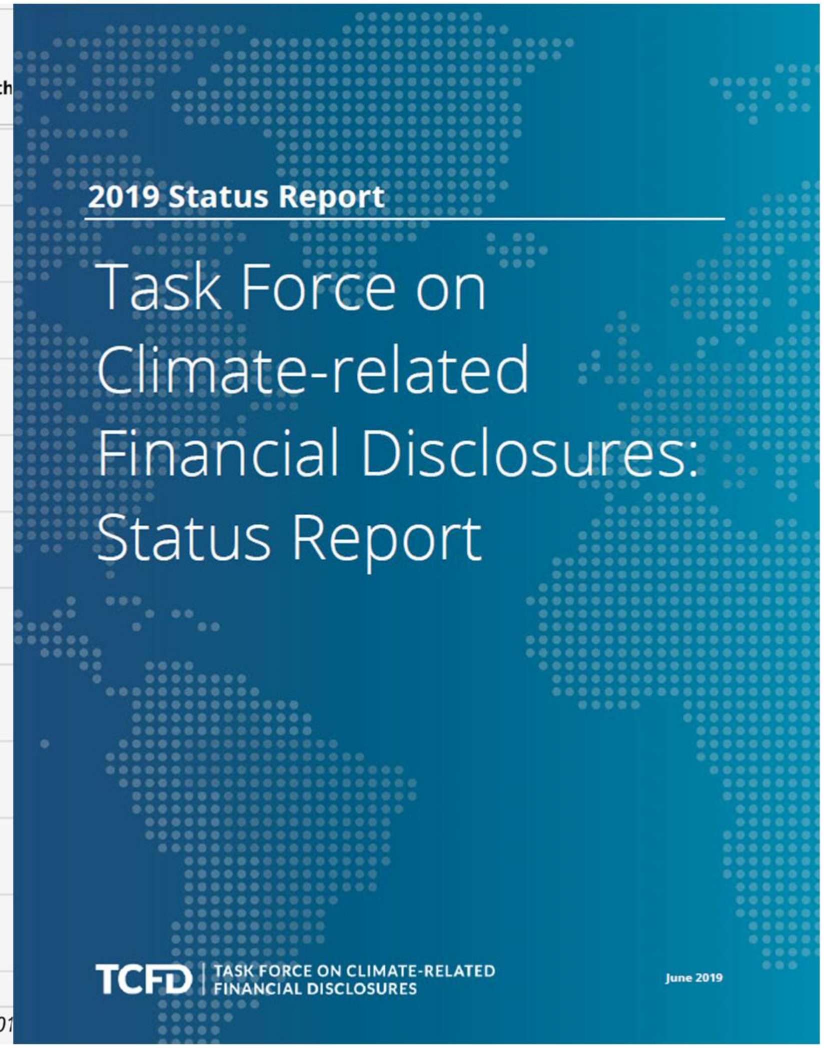


TCFD-Aligned Disclosures by Year

Recommendation	Recommended Disclosure	% Change 2016-2018	Year	% of Companies that Disclose Information Aligned with Recommended Disclosures
Governance	a. Board Oversight	8%	2016	23%
			2017	25%
			2018	31%
	b. Management's Role	7%	2016	24%
			2017	27%
			2018	31%
Strategy	a. Risks and Opportunities	10%	2016	35%
			2017	38%
			2018	45%
	b. Impact on Organization	10%	2016	37%
			2017	39%
			2018	47%
	c. Resilience of Strategy	3%	2016	6%
			2017	7%
			2018	9%
Risk Management	a. Risk ID & Assessment Processes	8%	2016	24%
			2017	26%
			2018	32%
	b. Risk Management Processes	6%	2016	25%
			2017	26%
			2018	31%
	c. Integration into Overall Risk Mgmt	6%	2016	11%
			2017	12%
			2018	17%
Metrics and Targets	a. Climate-Related Metrics	9%	2016	37%
			2017	41%
			2018	46%
	b. Scope 1,2,3 GHG Emissions	4%	2016	29%
			2017	30%
			2018	33%
	c. Climate-Related Targets	7%	2016	32%
			2017	36%
			2018	39%

0% 20% 40% 60% 80%

Legend: *Percentage of companies that disclosed information aligned with TCFD recommended disclosures in 201*



How sectors compare

Disclosure by Industry: 2018 Reporting

Recommendation	Recommended Disclosure	Banking (104)	Insurance (147)	Energy (128)	Materials & Buildings (213)	Trans-portation (223)	Ag., Food, & Forest (166)	Technology and Media (63)	Consumer Goods (82)
Governance	a. Board Oversight	48%	29%	38%	37%	25%	22%	19%	29%
	b. Management's Role	54%	35%	32%	35%	18%	26%	17%	40%
Strategy	a. Risks and Opportunities	51%	39%	57%	50%	39%	40%	38%	50%
	b. Impact on Organization	55%	26%	64%	65%	34%	45%	25%	52%
	c. Resilience of Strategy	20%	12%	13%	12%	5%	4%	2%	6%
Risk Management	a. Risk ID & Assessment Processes	52%	30%	38%	41%	23%	24%	24%	22%
	b. Risk Management Processes	46%	33%	42%	39%	17%	26%	19%	23%
	c. Integration into Overall Risk Management	32%	16%	21%	18%	11%	9%	17%	21%
Metrics and Targets	a. Climate-Related Metrics	51%	27%	49%	63%	36%	45%	37%	55%
	b. Scope 1,2,3 GHG Emissions	42%	22%	39%	41%	29%	26%	29%	38%
	c. Climate-Related Targets	50%	24%	45%	53%	32%	30%	24%	51%

e review population

Legend: *Low to high percentage of disclosure*

Myth-busting

Myth-busting: barriers to action

Corporate myths around climate risk remain widespread

01 It's too long-term to consider today

02 It's not material today

03 We are doing it already

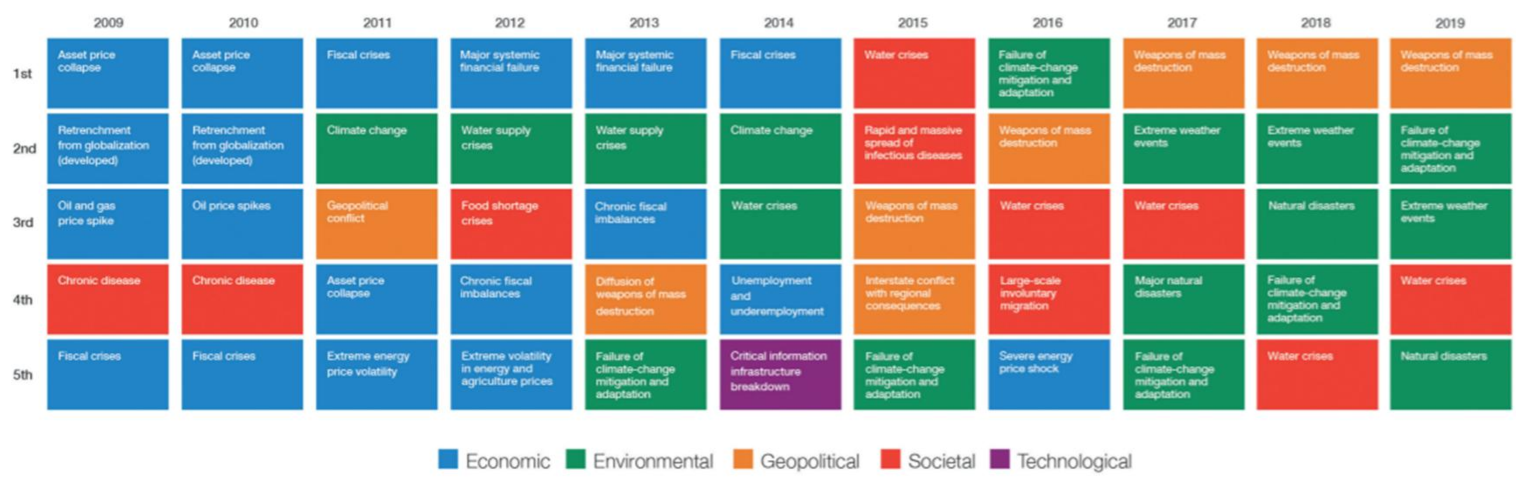
04 Investors don't care

Introducing the Climate Governance Principles

Climate Governance Initiative

Background

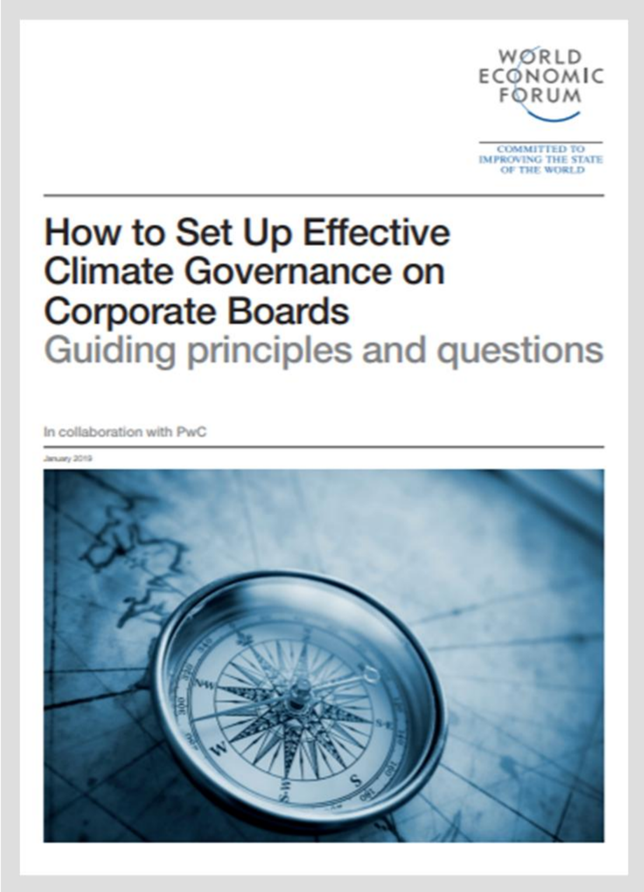
- Launched by the World Economic Forum following encouragement by various Chairpersons and members of Boards of Directors.
- Seeks to equip boards to develop and supervise business strategies that support the transition to a low-carbon economy, consistent with the ambition of the Paris Agreement, with an appreciation for the inherent challenges.



Climate Governance Initiative

"How to Set Up Effective Climate Governance on Corporate Boards: Guiding principles and questions"

- A set of practical guiding principles and questions to guide the development of good climate governance.
- Designed to help board members practically assess and debate their organization's approach to climate governance and frame their thinking about how to improve their approach.
- Builds on existing corporate governance frameworks as well as other climate risk and resilience guidelines.
- Drafting process involved extensive consultation with over 50 executive and non-executive board directors, among others.



The Role of Corporate Governance

The Risk

- Long-term board stewardship responsibility to shareholders
- Large climate-driven shifts to business landscape are expected/already in motion
- Many organisations lack the focus on climate governance to respond effectively

- Competitive 'first mover' advantage for organisations with strong climate governance
- Greater ability to identify and mitigate emerging strategic & operational risks
- Greater ability to compete in new markets, e.g. low-carbon technology

The Opportunity

Climate Governance Principles

Climate Accountability

Under its stewardship role the board should be **accountable for long-term resilience**, including climate-related changes to the business landscape.

Subject Command

The board should have **sufficiently diverse skills and experience** to recognise, debate and take informed decisions on climate-related threats and opportunities.

Board Structure

The board should determine the most effective way to integrate climate considerations into its **structure and committees**.

Materiality Assessment

The board should **oversee management's materiality assessment** of short and long-term climate risks and opportunities, and also management's responses to these.

CGI Principles

Strategic Integration

The board should **draw upon management information** to ensure that climate informs strategic investment planning, decision making and risk management.

Incentivization

The board should ensure that **executive incentives are aligned** to promote the long-term prosperity of the company, including climate-related targets and indicators where appropriate.

Reporting & Disclosure

The board should ensure that material climate-related risks, opportunities and strategic decisions are **consistently and transparently reported to stakeholders**, particularly to investors and regulators

Exchange

The board should maintain **regular dialogue** with peers, policy-makers, and key stakeholders, sharing knowledge, e.g. reporting best practice, regulatory changes & emerging risks.

What next?

What Next?

Potential next steps to assess climate governance:

01 Get climate on the Board agenda

02 Understand your current alignment with TCFD recommendations

03 Assess the quality of current climate governance

04 Test strategic integration of climate change

Next steps on climate

Potential next steps	What are the benefits
• Disclosure reviews – Corporate reporting alignment with TCFD • Scenario-based analysis of organisation performance under given conditions – Modelling 2 degree world, 4 degree world, etc. • Governance reviews – A risk-based approach considering corporate governance in place around climate change – Evaluation of governance practices against World Economic Forum principles	1. Understanding of existing processes and controls around climate governance & reporting 2. Clarity of board-level versus committee-level governance practices 3. Understanding climate risk and opportunities; identifying risk management gaps 4. Identifying opportunities to establish market leading practices 5. Competitive advantage around climate adaptation

Our suggested approach

Implementing the TCFD's recommendations is a journey that we see companies taking over the course of 2-3 years. This is driven by a balance of regulatory and investor pressure and the realities and complexities of implementation.

Establish baseline and ambition

1. Analyse gaps
Understand your current disclosures and how they compare to the TCFD ask.

2. Peer review
Understand where your peers and the market are positioned and headed.

3. Define ambition and develop plan
Understand where you want to be positioned.

Develop an implementation plan and create the right governance structures around its delivery.

Plan and implement

4. Implement plan (tactical)
Start with tactical responses such as governance reviews and materiality assessments which are essential to successful implementation.

5. Implement plan (strategic)
Initiate more strategic responses such as scenario analyses and quantifying risk maps. Start to integrate climate risks into your company's existing risk management framework.

Embed and report

6. Embed
Ensure that staff are trained on new policies and ***processes***.

Communicate the shift in thinking on climate risk.

7. Report
Disclose LBG's progress in your journey towards meeting TCFD recommendations.

A practical first step - the TCFD diagnostic tool

In order to formulate your approach, a practical first step is to **understand how your existing public disclosures align with the TCFD recommendations and where priority areas to address might lie**.

To help companies do this, we have developed a proprietary tool to assess and score the maturity of a company's existing disclosures and practices relating to management of climate-related issues.

The tool contains a series of questions addressing each TCFD recommendation. The questionnaire is completed based on a review of a company's public disclosures. This could be supplemented with a review of your peers' public disclosures and a more in-depth look at your internal practices.

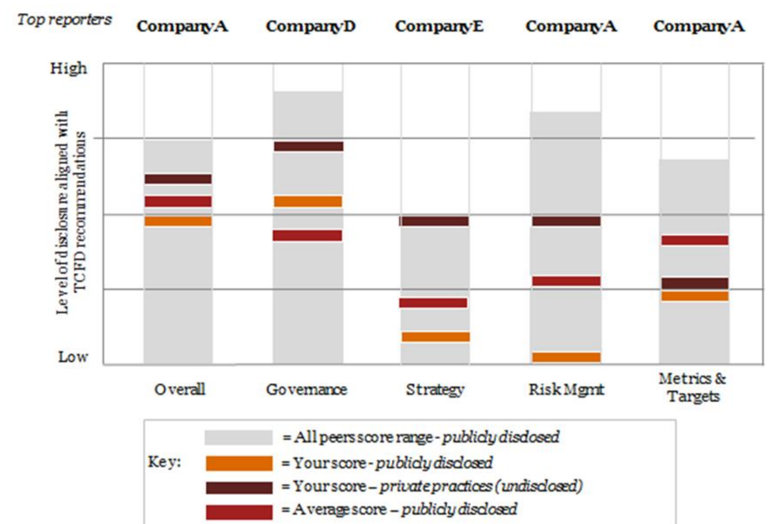
This will provide you with:

- ★An initial assessment of the alignment between your public reporting and the TCFD recommendations;
- ★An understanding of how you are positioned against your peers; and
- ★Considerations for what actions are needed to address the TCFD recommendations.

TCFD area	Example TCFD recommended disclosures	Readiness
Governance	Board's oversight of climate-related risks and opportunities	
	Management's role in assessing and managing climate related risks and opportunities	
Strategy	Climate-related risks and opportunities identified over short, medium and long term	
	Impact of climate-related risks and opportunities on business, strategy and financial planning, based on scenarios including 2°C scenario	
Risk management	Processes for identifying and assessing climate related risks	
	Processes for managing climate-related risks	
	Integration of processes for identifying, assessing and managing climate-related risks into overall risk management	
Metrics and targets	Metrics used to assess climate-related risks and opportunities, including the impact of risks on lending in the short, medium and long term	
	Carbon emissions and climate risk levels, including scope 1, 2 and (if appropriate) scope 3 emissions and the amount of carbon-related assets relative to total assets	

TCFD "readiness" Higher ↕ Lower

Example outputs

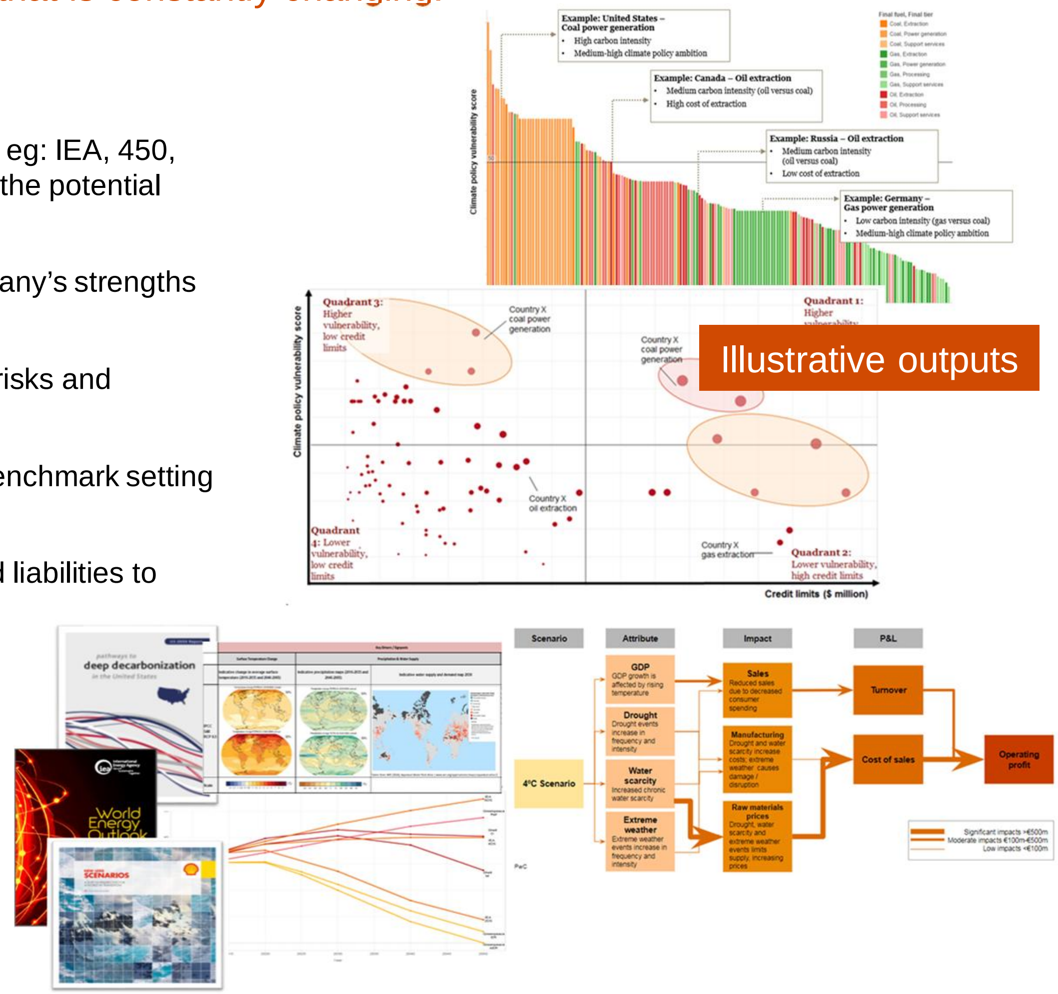


Using scenarios analysis to assess climate risks

A forward-looking strategy, that is robust and considers different climate scenarios, determines the long-term viability of a company in a world that is constantly changing.

To help companies do this, we can:

- Conduct a scenario review of existing scenarios eg: IEA, 450, Shell, Greenpeace, IPCC RCP 8.5, and assess the potential implications of a 2°C world vs. BAU
- Conduct market analysis to leverage your company's strengths and prepare for market disruption
- Develop and test strategies that respond to the risks and opportunities presented by climate change
- Support strategic planning including goal and benchmark setting and evaluation
- Advise on managing your portfolio of assets and liabilities to ensure alignment with your climate strategy



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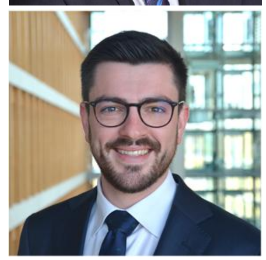
Q&A

Thank you
&
keep in touch!

Valérie Arnold
Corporate Responsibility & Sustainability Partner
+352 49 4848 2285
valerie.arnold@pwc.com

Kenny Panjanaden
TCFD Leader
+352 49 4848 6078
kenny.panjanaden@pwc.com

Shehzad Ahmad Sahib
Senior Manager
+352 49 4848 3668
shehzad.ahmad.sahib@pwc.com



Jan Rosetzky
Senior Associate
+352 49 4848 2522
jan.rosetzky@pwc.com

Also, keep an eye for our follow-up e-mail. Among others, a link to our dedicated TCFD website will be provided with more news.

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Appendices

1

TCFD Recommended Disclosures

Governance

A *Disclose the extent of board and management's oversight of climate-related risks and opportunities.*

What the TCFD says

Companies are asked to disclose the extent of the board and management's oversight of climate-related risks and opportunities. This includes the process and frequency by which board committees, such as the audit committee, are kept informed and how climate change issues are considered when reviewing the company's performance, strategy and business plans. The audit committee's role in overseeing climate-related financial disclosures should be the same as with any other financial disclosure.

What we are seeing

Investors are increasingly demanding "climate competent" boards. Global asset manager BlackRock stated that it expects "the whole board to have demonstrable fluency in how climate risk affects the business". Large pension funds such as CalPERS and CalSTRS are requesting appointment of directors with climate change expertise to their portfolio companies.

Shell has tied its executive compensation to climate metrics. Up to 10% of bonuses is linked to greenhouse gas emissions.

Key questions

1) Do board members have a clear picture of the company's exposure to climate risks *beyond physical impacts*?
2) Does the board have access to current and relevant climate expertise?
3) Are the right governance structures in place to manage climate risks and capture opportunities?
4) Is the audit committee sufficiently informed on the strategic, business and financial implications of climate change?
5) Is the audit committee satisfied that the financial statements appropriately reflect material climate risks?

We can help

★ Review existing governance structures and integrate climate issues, allowing appropriate oversight

★ Support board and executive awareness and education on climate issues, including briefing papers and high level analysis of business exposure

★ Conduct internal and external stakeholder engagement to assess views on climate risks and opportunities to guide management decisions

Strategy

B *Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.*

What the TCFD says

Companies are asked to disclose what climate-related risks and opportunities they are exposed to and how this will impact them, e.g. by affecting demand for their products and services or their supply chain - these could potentially impact the income statement and balance sheet. Most importantly, companies are asked to conduct forward-looking scenarios on how their businesses will perform in a world where global warming is kept at 2°C.

What we are seeing

Shareholder requests for companies to publish their "2°C transition plan", i.e. how the business plans to manoeuvre as the world transitions to a low carbon economy, are increasing. Oil and gas companies BP, Shell, Statoil and Chevron are amongst the latest companies who have published such analysis in response to shareholder resolutions. Whilst the oil & gas sector has been the prime target thus far, we anticipate pressure on other sectors will grow. BHP Billiton, a global mining company with coal interests has published results from its scenario analysis.

Key questions

1) Have you conducted a strategic review of how climate change could impact its business (and its funded pension schemes)?
2) Does the executive team have an understanding of the potential impacts of future scenarios, including a 2°C world, on its business model in the next 3, 5, or 10 years?
3) Does the company's strategy today incorporate the implications of such scenario analysis?
4) Have you considered the opportunities presented by climate adaptation and mitigation activities to your business model in different geographies?

We can help

★ Conduct scenario analysis to assess the potential implications of a 2°C world vs. BAU

★ Conduct market analysis to leverage your company's strengths and prepare for market disruption

★ Develop and test strategies that respond to the risks and opportunities presented by climate change

★ Support strategic planning including goal and benchmark setting and evaluation

★ Advise on managing your portfolio of assets and liabilities to ensure alignment with your climate strategy

Risk Management

C

Disclose how the organisation identifies, assesses, and manages climate-related risks.

What the TCFD says

Companies are asked to disclose how they identify, assess and manage climate-related risks and specifically, how the management of climate-related risks is integrated into existing risk management frameworks. The TCFD believes that climate risks are material for many organisations and its framework should help companies evaluate these risks.

What we are seeing

Broadening understanding that climate change generates more than just physical impacts. As the world attempts to mitigate climate change, it creates transition risks which start at the business end but will wind its way up the investment chain. The UK's Financial Reporting Council has identified climate change as one of three principal risks that companies should consider in their annual reports. Prudential regulators, including those in the UK and EU, Canada and Australia, have expressed concern about the potential for this to become a systemic risk for economies.

Key questions

1) Do you have a clear picture of your company's exposure to climate risk?
2) Are there processes for prioritising climate risks and determining their relative materiality?
3) Do you have effective risk management processes in place that integrate climate change into enterprise risk management frameworks?
4) Does your risk or investment committee have adequate oversight of climate risks?
5) Are you able to explain these risks, and your management of them, to investors and regulators?

We can help

★ Identify and assess the material climate risks facing your organisation overall or at the asset, business unit, or geographic levels

★ Determine, on a qualitative or quantitative basis, the company's exposure to climate risks to guide management decision-making

★ Design risk management processes to address climate risks and integrate into overall enterprise risk management systems

★ Support awareness and education of risk managers on the risks posed by climate change and the company's risk management processes

Metrics and Targets

D

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

What the TCFD says

Companies are expected to disclose metrics and set targets that are aligned with the risks and opportunities they have identified as material for their business. Guidance also specifically asks for companies to disclose their Scope 1 and 2 greenhouse gas emissions, and if appropriate, Scope 3 as well. This is in recognition of the fact that rising emissions are still a key driver of global warming, and big emitters are, arguably, subject to greater transition risk.

What we are seeing

Companies are continuing to combine their financial and non-financial reporting into annual reports or self-declared integrated reports, with 91% (2013: 86%) of reports having some form of assurance on their sustainability disclosures, through external assurance or internal audit assurance.

63 companies in the FTSE100 currently get assurance over non-financial data and PwC provides assurance over 21 of these.

Key questions

1) Have you got the right data and systems in place to capture all the information needed to disclose?
2) Are you confident that the data you are disclosing is complete and accurate and a true reflection of your business?
3) Would your systems and data hold up under scrutiny by an investor or other key interested stakeholder?
4) Are you comfortable that your baseline targets are correct and an accurate measure on which to base future performance?
5) Have you identified metrics and targets that are genuinely material to your business and meaningful for your investors?

We can help

★ Define reporting aims and target audiences

★ Identify suitable climate-related financial metrics and best practice

★ Quantify carbon footprint at the product, process or organisational level

★ Advise on the design and implementation of data gathering and reporting systems which are credible and auditable

★ Harmonise reporting practices for global organisations and reconcile multiple standards

★ Engage stakeholders and collect feedback

★ Provide independent internal or external assurance

2

- WEF Climate Governance Principles

Principle 1

Climate accountability on boards

What does this principle mean?

The board is ultimately accountable to shareholders for the long-term stewardship of the company. Accordingly, the board should be accountable for the company’s long term resilience with respect to potential shifts in the business landscape that may result from climate change. Failure to do so may constitute a breach of directors’ duties.

Sample guiding questions:

- Do your board directors consider the risks and opportunities associated with climate change as an integral part of their accountability for the long-term stewardship of the organisation?
- Do your board directors feel confident in their abilities to explain their decisions as informed by the best available information on climate risks and opportunities?

Principle 2

Command of the (climate) subject

What does this principle mean?

The board should ensure that its composition is sufficiently diverse in knowledge, skills, experience and background to effectively debate and take decisions informed by an awareness and understanding of climate-related threats and opportunities.

Sample guiding questions:

- What steps has your board taken to test that its composition allows for informed and differentiated debate as well as objective decision-making on climate issues?
- Who is responsible for climate change at board level and are these individuals in positions that will allow them to influence board decisions (e.g. committee chairs)?
- What steps is your board taking to ensure it remains sufficiently educated about the relevant climate-related risks and opportunities for its business?

Principle 3

Board structure

What does this principle mean?

As the stewards for long-term performance and resilience, the board should determine the most effective way to integrate climate considerations into its structure and committees.

Sample guiding questions:

- Has your board determined how to effectively integrate climate considerations into the board committee structures? Are they integrated into (an) existing committee(s)? Or, are they addressed by a dedicated specific climate/sustainability committee?
- How does your board ensure that climate considerations are given sufficient attention across the board (e.g. being discussed in the audit, risk, nomination or remuneration committees)?

Principle 4

Material risk and opportunity assessment

What does this principle mean?

The board should ensure that management assesses the short-, medium- and long-term materiality of climate-related risks and opportunities for the company on an ongoing basis. The board should further ensure that the organization's actions and responses to climate are proportionate to the materiality of climate to the company.

Sample guiding questions:

- Is climate considered in company-wide assessments of material risks and opportunities in the short, medium and long term?
- How does your board ensure that the company's response to climate change is aligned to the materiality and proportionality of the issue to the business?
- Are different climate scenarios being included to inform the assessment of climate change materiality at your organization?

Principle 5

Strategic and organizational integration

What does this principle mean?

The board should ensure that climate systemically informs strategic investment planning and decision-making processes and is embedded into the management of risk and opportunities across the organization.

Sample guiding questions:

- Does your corporate strategy include a holistic climate strategy informed by scenario analysis, i.e. climate risk mitigation and adaptation as well as business continuity and opportunities?
- Are climate considerations incorporated into the strategic planning, business models, financial planning and other decision-making processes?
- How does the board ensure that climate risks and opportunities are identified, mitigated, managed and monitored across the company?

Principle 6

Incentivization

What does this principle mean?

The board should ensure that executive incentives are aligned to promote the long-term prosperity of the company. The board may want to consider including climate-related targets and indicators in their executive incentive schemes, where appropriate. In markets where it is commonplace to extend variable incentives to non-executive directors, a similar approach can be considered.

Sample guiding questions:

- Is the company’s management incentivization scheme designed to promote and reward sustainable value creation over time?
- Are any climate targets and/or goals integrated into management’s incentivization model? . If so, how do these targets and/or goals relate to other management incentives? Are there any inconsistencies or contradictions in relation to the other incentives?

Principle 7

Reporting and disclosure

What does this principle mean?

The board should ensure that material climate-related risks, opportunities and strategic decisions are consistently and transparently disclosed to all stakeholders – particularly to investors and, where required, regulators. Such disclosures should be made in financial filings, such as annual reports and accounts, and be subject to the same disclosure governance as financial reporting.

Sample guiding questions:

- Does your organization operate in jurisdictions with mandatory climate-related reporting? Is the board aware and informed about potential mandatory climate-related reporting requirements?
- Does the organization report against relevant voluntary climate-related reporting frameworks in your jurisdiction? If not, has the board considered the potential risks associated with failing to do so?
- Does the board feel confident that the level of climate-related disclosure is proportionate to the materiality of climate-related risks and opportunities at the company and complies with any mandatory reporting requirements?

Principle 8

Exchange

What does this principle mean?

The Board should maintain regular exchanges and dialogues with peers, policy-makers, investors and other stakeholders to encourage the sharing of methodologies and to stay informed about the latest climate-relevant risks, regulatory requirements etc.

Sample guiding questions:

- How does your board maintain its awareness about good climate-governance practices?
- Is the board kept regularly informed of, does it approve, and does it supervise consistent conduct of the company's industry and public policy engagement?
- How does the board ensure that climate risks and opportunities are being adequately discussed with investors, where legal and governance arrangements allow for such a dialogue?

Thank you
&
keep in touch!

Valérie Arnold
Corporate Responsibility & Sustainability Partner
+352 49 4848 2285
valerie.arnold@pwc.com

Kenny Panjanaden
TCFD Leader
+352 49 4848 6078
kenny.panjanaden@pwc.com

Shehzad Ahmad Sahib
Senior Manager
+352 49 4848 3668
shehzad.ahmad.sahib@pwc.com

Jan Rosetzky
Senior Associate
+352 49 4848 2522
jan.rosetzky@pwc.com

Also, keep an eye for our follow-up e-mail. Among others, a link to our dedicated TCFD website will be provided with more news.

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