Enhanced disclosures

Phase 2: Enhancements and Additions

A company interested in enhancing or expanding its climate-related financial disclosures may find expert users' views on the most useful disclosure elements useful in prioritizing its implementation efforts. Once the foundation is laid, a company could focus on the "top ten" disclosure elements, which expert users, on average, rate as extremely useful.

Metrics and Targets

- a Key metrics used to measure and management climate-related issues for past three+ years.
- b Scope 1 and 2 GHG emissions for past three+ years.
- c Climate-related targets related to GHG emissions, associated timeframes, and base year.
- c Key performance indicators used to assess progress against climate-related targets.

Governance

- a How the board considers climate-related issues in reviewing major capital expenditures, acquisitions, and divestitures.

Strategy

- a Material climate-related issues by sector and geography.
- b How these issues have affected business and strategy.

Source: TCFD Status Report 2020

Example: Eni

Annual Report 2019

Technological developments. The need to build a final energy consumption model with a low carbon footprint, will incentivize technologies aimed at capturing and reducing GHG emissions, producing hydrogen from gas as well as technologies for minimization of methane emissions along the Oil & Gas production value chain. These elements will support the role of hydrocarbons in the global energy mix. On the other hand, technological development in the field of renewable energy production and storage and efficiency of electric vehicles may impact the demand for hydrocarbons and therefore the business. Scientific and technological research is hence one of the levers of Eni's decarbonisation strategy; main areas of action are described in the Strategy and Objectives section.

Physical risks. Increasingly intense extreme/chronic climate phenomena in the medium to long term could damage plants and infrastructures, resulting in an interruption of industrial activities and increased recovery and maintenance costs. In relation to extreme phenomena, such as hurricanes or typhoons, Eni's current portfolio of assets, designed in accordance with current regulations to withstand extreme environmental conditions, has a geographical distribution that does not lead to concentrations of risk. The vulnerability of Eni assets to more gradual phenomena, such as rising sea levels or coastal erosion, is limited and it is therefore possible to identify and implement preventive mitigation measures. In addition to its commitment to ensure integrity of its operations, Eni is active on the issues of climate change adaptation, including aspects related to social and environmental impacts, with particular focus on assessing major vulnerabilities linked to physical risks and developing suitable guidelines for the implementation of adaptation actions in Countries where Eni has interests.

Example: Meridian Energy

Integrated Report 2020
Climate Change Disclosure 2020

Understanding how climate change impacts us

In FY20 in our TCFD report (using the guidelines published by the TCFD), and in our submission to the CDP, we for the first time evaluated the potential financial impacts of climate change on our business – both the physical impacts and the impacts on electricity demand from climate action policy. It's important that we understand this information internally as we make plans for the future, and it's increasingly of value to investors as they seek to understand which companies have better long-term prospects than others in the context of climate change.

Table 2. Top climate-related financial opportunities for Meridian Energy

	Top Opportunities		
Opportunity	Changes to inflow profile	Increased demand for electricity	Electrification of industrial heat and transportation
Type	Physical	Physical	Transition
Scale	Medium	Medium	Medium
Likelihood	More likely than not	Likely	Likely
Timeframe	Long-term (30 years)	Medium-term (5-10 years)	Medium-term (5-10 years)
Impacts	Annual and seasonal changes in inflow profile are likely to improve alignment between our generating capacity and projected changes in electricity demand.	Electricity demand in New Zealand is likely to increase from higher demand for cooling in summer and higher irrigation requirements in the agricultural sector, partially offset by lower demand for heating in winter.	The transition to a low-carbon future presents market opportunities for Meridian, including a projected increase in demand for renewable electricity driven by the electrification of industrial heat and transportation.
Financial implications	Projected changes to inflow profile are likely to align to projected changes in electricity demand.	Increased electricity demand may enable Meridian to grow our electricity generation and retail businesses.	Increased electricity demand may enable Meridian to grow our electricity generation and retail businesses.
Quantification	+$12 million	+$5 million	+$7 million
Methodology	Estimated potential financial impact is an annualised figure modelled over a 30 year time horizon. This is calculated using the difference between the modelled "no climate change" scenario and the Evolution scenario. There is significant uncertainty to this calculation.	Estimated potential financial impact is an annualised figure modelled over a 30 year time horizon. This is calculated using the difference between the modelled "no climate change" scenario and the Evolution scenario. There is significant uncertainty to this calculation.	Estimated potential financial impact is an annualised figure modelled over a 30 year time horizon. This is calculated using the difference between the modelled "no climate change" scenario and the Evolution scenario. There is significant uncertainty to this calculation.
Management response	Wholesale market team manages the changing inflow profile using a market optimisation approach informed by weekly inflow forecasts and analysis of short- to medium-term weather patterns.	To respond to the potential requirement for new renewable generation Meridian maintains a pipeline of development options.	Pursuing alternative forms of electricity demand across workstreams focussed on electrification of industrial heat and transport. Maintain a pipeline of development options.

Strategy

https://www.meridianenergy.co.nz/assets/Sustainability/Meridian-Climate-Change-Disclosures-TCFD-Report-FY20.pdf

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Example: Eni

Annual Report 2019

Technological developments. The need to build a final energy consumption model with a low carbon footprint, will incentivize technologies aimed at capturing and reducing GHG emissions, producing hydrogen from gas as well as technologies for minimization of methane emissions along the Oil & Gas production value chain. These elements will support the role of hydrocarbons in the global energy mix. On the other hand, technological development in the field of renewable energy production and storage and efficiency of electric vehicles may impact the demand for hydrocarbons and therefore the business. Scientific and technological research is hence one of the levers of Eni's decarbonisation strategy; main areas of action are described in the Strategy and Objectives section.

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Example: UBS

Annual Report 2020

Climate-related metrics 2020

	For the year ended			% change from
	31.12.20	31.12.19	31.12.18	31.12.19
Risk management				
Identified significant climate-related financial risk on balance sheet[1]	None	None	None	
Carbon-related assets (USD billion)[2]	5.4	6.1	7.5	(10)
Proportion of total banking products exposure, gross (%)	*1.9*	*2.3*	*2.8*	
Total exposure to climate-sensitive sectors (USD billion)[3]	38.7	35.2	36.1	10
Proportion of total banking products exposure, gross (%)	*13.7*	*13.3*	*13.5*	
Weighted carbon intensity of Climate Aware strategies (in tonnes CO_2e per USD million of revenue)[4]	68.2	74.5	89.6	(9)
Compared to weighted carbon intensity of composite benchmark (%)[5]	*(51.0)*	*(54.0)*	*(54.0)*	
Number of climate-related shareholder resolutions voted upon[6]	50	44	43	14
Proportion of supported climate-related shareholder resolutions (%)	*88.0*	*81.8*	*88.0*	
Opportunities				
Climate-related sustainable investments (USD billion)[7]	160.8	108.0	87.5	49
Proportion of UBS clients' total invested assets (%)	*3.8*	*3.0*	*2.8*	
Total deal value in equity or debt capital market services related to climate change mitigation and adaptation (CCMA) (USD billion)[8]	69.8	52.7	31.6	32
Total deal value of financial advisory services related to CCMA (USD billion)	29.1	34.5	24.9	(16)
Number of strategic transactions in support of Switzerland's Energy Strategy 2050	11	12	8	(8)
Own operations				
GHG footprint (kilotonnes CO_2e)[9]	75	104	132	(28)
Percentage change from baseline 2004 (target: –75% by 2020) (%)	*(79.0)*	*(71.2)*	*(63.4)*	

1 Methodologies for climate-related financial risk are emerging and may change over time, as will be described und
2 Banking products across the Investment Bank and Personal & Corporate Banking. IFRS 9 gross exposure including othe
transactions, cash collateral receivables on derivative instruments, financial assets at FVOCI, irrevocable committed prolo
starting reverse repurchase and securities borrowing agreements. As recommended by the TCFD, carbon-related assets are defined as assets tied to the energy and utilities sectors (Global Industry Classification Standard). Non-carbon-related assets, such as renewables, water utilities, and nuclear power, are excluded. For grid utilities, the national grid mix is applied. UBS methodology for carbon-related assets has been revised to analyze underlying commodities in our commodity trade finance business. As a result, we have restated the metric for 2018 and 2019 using the enhanced approach. 3 Banking products across the Investment Bank and Personal & Corporate Banking (IFRS 9). Climate-sensitive sectors defined as business activities that are rated as having high, moderately high, moderate, or moderately low vulnerability to transition risks. For more details, see "Scenario analysis" and the "UBS corporate lending to climate-sensitive sectors 2020" table in the "What" section of our Sustainability Report 2020, available from 11 March 2021. UBS methodology for climate-sensitive sectors has been revised to analyze underlying commodities in our commodity trade finance business. As a result, we have restated the metric for 2018 and 2019 using the enhanced approach. 4 Year-on-year decrease of carbon intensity is mainly driven by higher carbon targets of the investment strategy. Carbon intensity is based on scope 1 and 2 CO_2 emissions of investee companies, which often rely on third-party estimates. Metric has been expanded in 2020 to include all equity and fixed income funds with a proprietary Climate Aware strategy (active and rules-based). Metric is the assets under management (AUM)-weighted average of the weighted average carbon intensities of the portfolios. 5 The metric is the AUM-weighted average of the weighted average carbon intensities of the respective benchmarks. 6 This excludes proposals related to Japanese companies that included changes to the companies' articles of association. 7 Invested assets of products such as sustainably managed properties and infrastructure, and renewable energy. 8 Refer to "Calculating and reporting on climate change-related financing and advisory activities" in appendix 9 to our Sustainability Report 2020, available from 11 March 2021. 9 GHG footprint equals gross GHG emissions minus GHG reductions from renewable energy and CO_2e offsets (gross GHG emissions include: direct GHG emissions by UBS; indirect GHG emissions associated with the generation of imported / purchased electricity (grid average emission factor), heat or steam; and other indirect GHG emissions associated with business travel, paper consumption and waste disposal). A breakdown of our GHG emissions (scope 1, 2, 3) is provided in appendix 4 to our Sustainability Report 2020, available from 11 March 2021.

https://www.ubs.com/global/en/investor-relations.html

Metrics & Targets

Disclosure on resilience

Phase 3: Enhancements and Additions of Strategy Resilience

Once a company discloses information aligned with the TCFD's four recommendations and has had time to explore the use of climate-related scenario analysis, it may be ready to disclose the resilience of its strategy under different climate-related scenarios and make further enhancements to existing areas of disclosure.

Metrics and Targets

- a — How climate-related performance metrics are incorporated into remuneration policies.
- b — Scope 3 GHG emissions for past three+ years.
- c — Identification of climate-related targets as absolute or intensity based.
- c — Methodologies used to calculate or estimate climate-related targets.

Governance

- a — How the board considers climate-related issues when reviewing and guiding strategy.

Strategy

- a — Timeframes (short, medium, or long term) associated with material climate-related issues.
- b — How material climate-related issues have affected financial planning.
- b — How climate-related scenarios inform strategy/financial planning.
- c — Resilience of strategy to climate-related issues, including an indication of direction or range of potential financial implications.

Risk Management

- a — Whether company considers existing and emerging regulatory requirements related to climate change.

Source: TCFD Status Report 2020

Example: Unilever

Annual Report 2019

Understanding financial impact: scenario analysis

This section explains how scenario analysis helps us to understand the potential impact of climate change on our business in 2030 to inform our strategy and financial planning.

To further understand the impact that climate change could have on Unilever's business in the future, we performed a high-level assessment of the impact of 2°C and 4°C global warming scenarios. The 2°C and 4°C scenarios are constructed on the basis that average global temperatures will have increased by 2°C and 4°C in the year 2100. Unilever believes the world should seek to limit global temperatures to 1.5°C above pre-industrial levels. However, in line with guidance we have modelled scenarios based on 2°C and 4°C scenarios.

We focused the assessment on our business in 2030 assuming that we have the same business activities as we do today. While we understand that policy risk and physical impact can happen simultaneously, we made the following simplifying assumptions:

- In the 2°C scenario, we assumed that in the period to 2030 society acts rapidly to limit greenhouse gas emissions and puts in place measures to restrain deforestation and discourage emissions (for example implementing carbon pricing at $75-$100 per tonne, taken from the International Energy Agency's 450 scenario). We have assumed that there will be no significant impact to our business from the physical ramifications of climate change by 2030 – i.e. from greater scarcity of water or increased impact of severe weather events. The scenario assesses the impact on our business from regulatory changes.
- In the 4°C scenario, we assumed climate policy is less ambitious and emissions remain high so the physical manifestations of climate change are increasingly apparent by 2030. Given this we have not included impacts from regulatory restrictions but focus on those resulting from the physical impacts.

We identified the material impacts on Unilever's business arising from each of these scenarios based on existing internal and external data. The impacts were assessed without considering any actions that Unilever might take to mitigate or adapt to the adverse impacts or to introduce new products which might offer new sources of revenue as consumers adjust to the new circumstances.

The main impacts of the 2°C scenario were as follows:

- Carbon pricing is introduced in key countries and hence there are increases in both manufacturing costs and the costs of raw materials such as dairy ingredients and the metals used in packaging.
- Zero net deforestation requirements are introduced and a shift to sustainable agriculture e.g. Climate Smart Agriculture, puts pressure on agricultural production, raising the price of certain raw materials.

The main impacts of the 4°C scenario were as follows:

- Chronic and acute water stress reduces agricultural productivity in some regions, raising prices of raw materials.
- Increased frequency of extreme weather (storms and floods) causes increased incidence of disruption to our manufacturing and distribution networks.
- Temperature increase and extreme weather events reduce economic activity, GDP growth and hence sales levels fall.

Our analysis shows that, without action, both scenarios present financial risks to Unilever by 2030, predominantly due to increased costs. However, while there are financial risks which would need to be managed, we would not have to materially change our business model. The most significant impacts of both scenarios are on our supply chain where costs of raw materials and packaging rise, due to carbon pricing and rapid shift to sustainable agriculture in a 2°C scenario and due to chronic water stress and extreme weather in a 4°C scenario. The impacts on sales and our own manufacturing operations are relatively small.

We have therefore developed and piloted an approach to assess the impact of climate change on our key commodities, including soy and black tea.

https://www.unilever.com/Images/unilever-annual-report-and-accounts-2019_tcm244-547893_en.pdf

Example: AXA

Climate Report 2019

A First Estimate of AXA's Corporate Investments Warming Potential

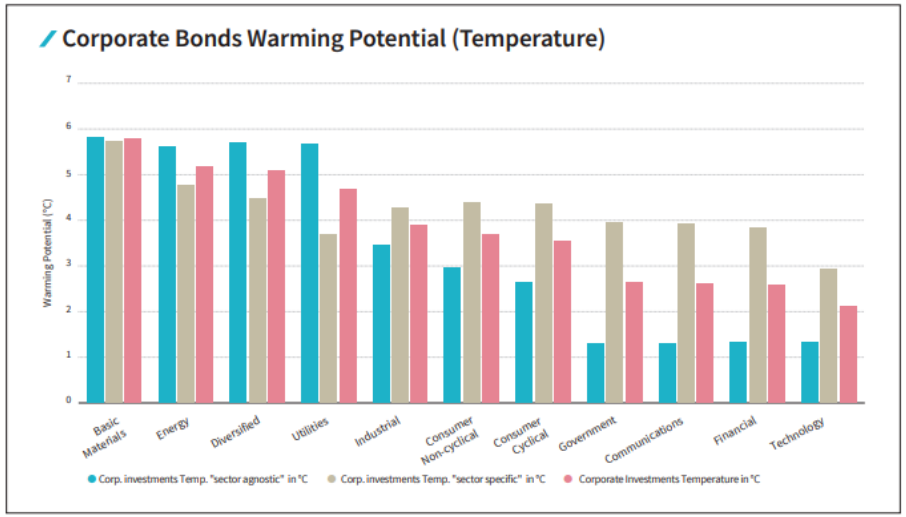
Based on the methodology described above, AXA's Corporate Securities (debt and equities combined) "Warming Potential" estimate stands in line with widely used market indices (BofAML Global Aggregate – Corporate and MSCI ACWI) of 3.3°C. It should come as no **surprise that these figures are above 2°C: this confirms that with today's public policies and business environment, and according to the "Warming Potential" approach tested here, AXA's operating investment universe is not aligned with the 2°C trajectory agreed during COP21**.

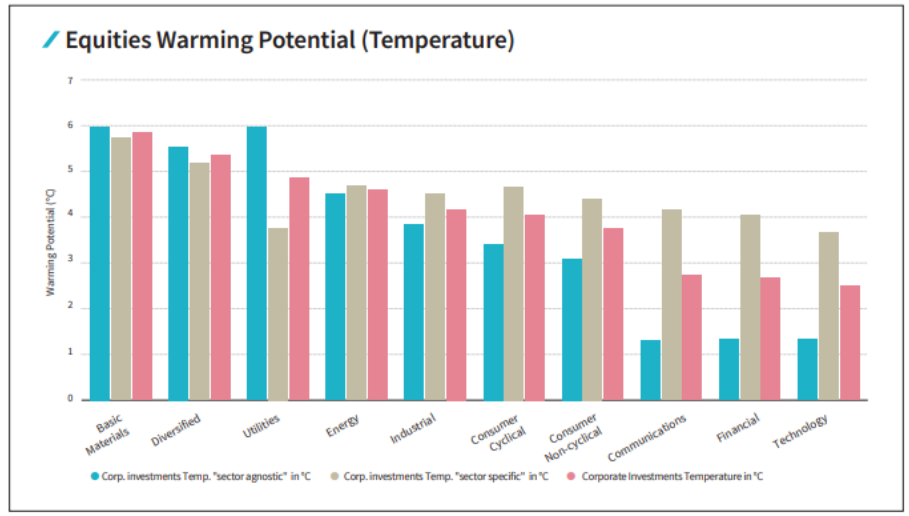
The graphs on this page show this analysis per sector and per asset class (corporate debt vs equities).

Overview of company-level climate-related "cost" metrics

Asset class	Transition cost *(% of total revenues)*	Physical Risks Cost *(% of total revenues)*	Green Revenues *(% of total revenues)*	"Company" cost of climate *(% of total revenues)*
Fixed Income	**-5.2**	**-4.7**	**4.1**	**-5.8**
Relevant benchmark: Bank of America Merril Lynch (BofAML)	*-4.7*	*-4.9*	*3.8*	*-5.8*
Equity	**-2.2**	**-4.0**	**6.6**	**0.4**
Relevant benchmark: MSCI World ACWI	*-3.9*	*-4.5*	*5.3*	*-3.1*
AXA Total Corporate Assets	**-4.6**	**-4.6**	**4.4**	**-4.8**

AXA's Corporate Investments' Warming Potential Sector Breakdown





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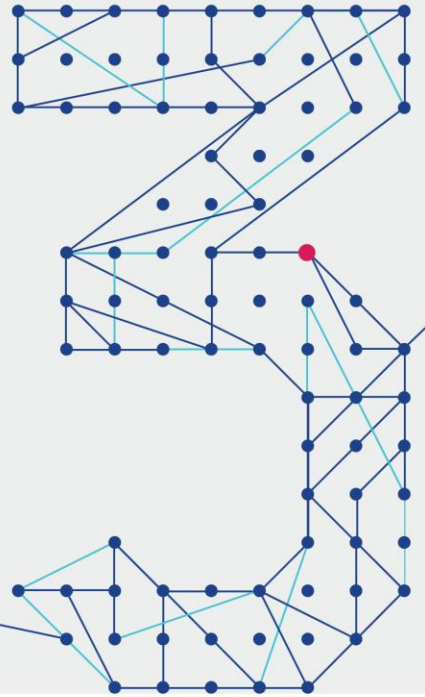
Disclosure challenges and special considerations



Challenges and special considerations

- Forward-looking data.
- Consistent and comparable data.
- Materiality and proportionality.
- “Decision-useful” information.
- Linking back to financial information.

Table C1

Characteristics of Climate-Related Risks

Different effects based on geography and activities	The effects of climate change and climate-related risks occur on **local, regional, and global scales with different implications** for different businesses, products and services, markets, operations, and value chains, among others.
Longer time horizons and long-lived effects	Some climate-related risks exist and play out **over time horizons that stretch beyond traditional business planning and investment cycles**. These risks and related impacts may occur as a result of decades-long changes in driving forces (e.g., greenhouse gas concentrations in the atmosphere) leading to climate-related physical or transition risk changes over the short, medium, and long term.
Novel and uncertain nature	Many of the effects of climate change have no precedent, limiting the ability to apply statistical and trend analysis based on historical data. **Climate change is a dynamic and uncertain phenomenon** and possible mitigation responses are also complex, with many unknowns such as the development and deployment of critical technologies and adaptation strategies as well as changing market and consumer behaviors.
Changing magnitude and nonlinear dynamics	Climate-related risks may manifest at different scales over time, with increasing severity and scope of impacts. Climate systems may exhibit thresholds and tipping points that result in **large, long-term, abrupt, and possibly irreversible changes**.[10] Understanding the sensitivities of tipping points in the physical climate system, as well as in ecosystems and society, is essential for understanding climate-related risks.
Complex relationships and systemic effects	Risks associated with climate change are **interconnected across socioeconomic and financial systems**. Such interconnected risks are often characterized by knock-on effects and systemic effects, requiring a multidimensional perspective to assess the short-, medium-, and long-term implications for a company.

Source: TCFD Guidance Risk Management Integration and Disclosure

Iterative and phased approach

Example: Commonwealth Bank of Australia

Annual Report 2018

We are taking a phased approach to identifying and managing climate risk. That means we are focusing on having the right policies in place, understanding risk, developing and implementing strategic responses, building internal and customer capability, and contributing to economy-wide initiatives.

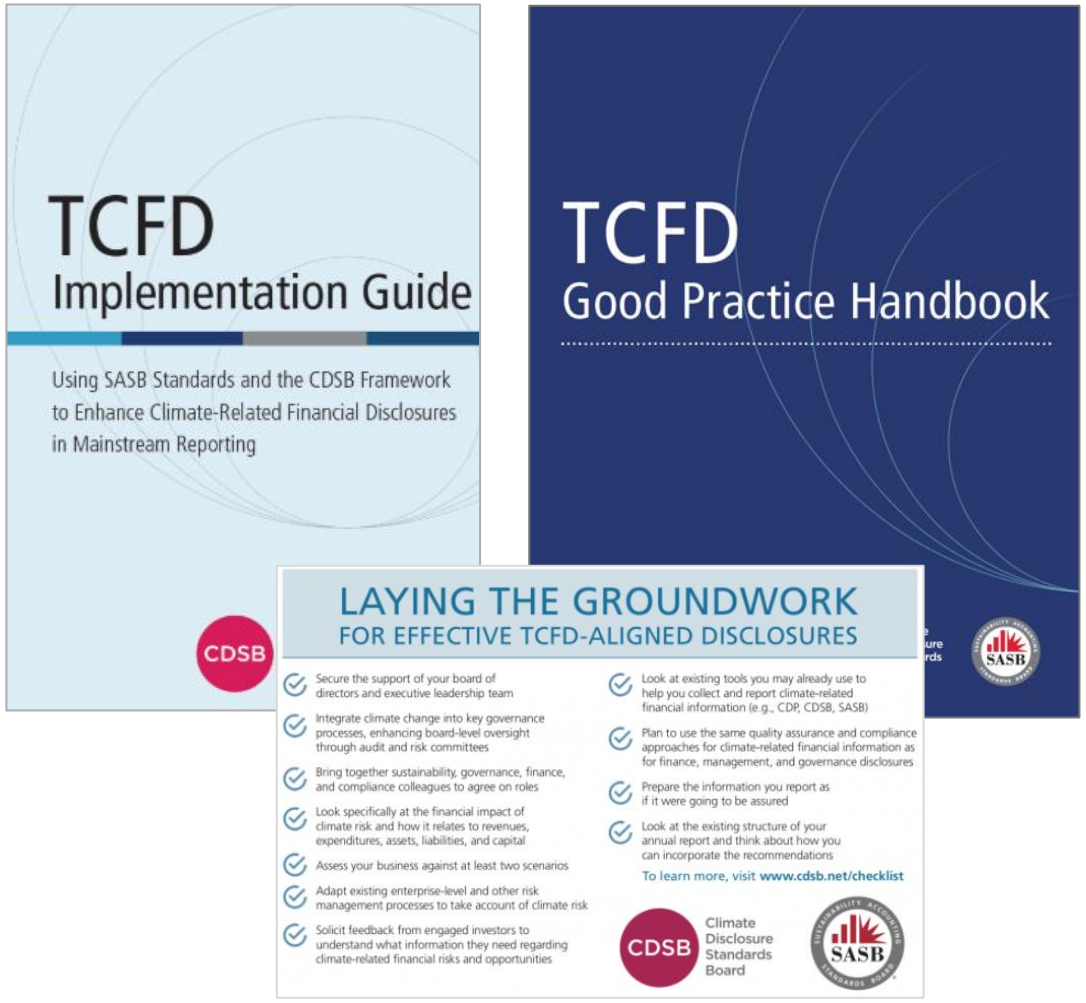
	Phase 1 Policy, due diligence, governance	Phase 2 Analysis of portfolio risks and opportunities	Phase 3 Extending scenario analysis, strategic responses, capability building
	Pre-FY18	FY18	FY19-20
Governance	• Climate Policy Position Statement[1] • Environment Policy[2] • Equator Principles III signatory[3] • ESG Lending Commitments[4] • Responsible Investing Framework[5]	• The Board governs climate risks and opportunities through the Risk Management Framework[7]	• Review our Climate Policy Position Statement • Update Responsible Investing Framework • Update investment-related ESG risk management policies
Strategy	• Commitment to support the objectives of the Paris Agreement	• Climate scenario analysis: 1. Business lending – transition risks 2. FirstChoice Australian Share Fund – transition risks 3. Retail (home lending) and insurance – physical risks • Portfolio-level strategic responses	• Climate scenario analysis: 1. Business lending – physical risks 2. Retail (home lending) and insurance – transition risks 3. Investment portfolios – transition and physical risks • Further develop portfolio-level strategic responses • Client engagement

Annual Report 2019

	Phase 1-2 Policy, due diligence, governance, analysis of portfolio risks and opportunities	Phase 3 Extending scenario analysis, strategic responses, capability building	Phase 4 Embedding climate considerations into strategy, business and risk management processes
	Pre-FY19	FY19	FY20-21
Governance	• Climate Policy Position Statement[1] • Group Environment Policy[1] • Equator Principles III Report[1] • ESG Lending Commitments[1] • Responsible Investing Framework[1] • The Board governs climate risks and opportunities through the Risk Management Framework[2]	• Developed a Group Environmental and Social Policy with updated climate commitments, including: – continuing to reduce our exposures to thermal coal mining and coal fired power generation, with a view to exiting the sectors by 2030, subject to Australia having a secure energy platform – supporting the development of existing and emerging technologies that enable an accelerated transition to a low carbon future	• Review the Group Environmental and Social Policy to ensure alignment with the rapidly evolving nature of environmental and social issues • Review the Group Risk Appetite Statement • Review of climate-related roles and responsibilities
Strategy	• Commitment to support the objectives of the Paris Agreement • Climate scenario analysis: – Business lending: transition risks – FirstChoice Australian Share Fund: transition risks – Retail (home lending) and insurance: physical risks • Portfolio-level strategic responses	• Climate scenario analysis: – Agribusiness lending: physical risks • Portfolio-level strategic responses • Client engagement	• Climate scenario analysis: – Business lending: physical risks for other key portfolios – Retail (home lending) and insurance: transition risks – Investment portfolios: transition and physical risks • Further develop strategic responses • Client and customer engagement

https://www.commbank.com.au/content/dam/commbank/about-us/shareholders/pdfs/results/fy18/cba-annual-report-2018.pdf

TCFD support



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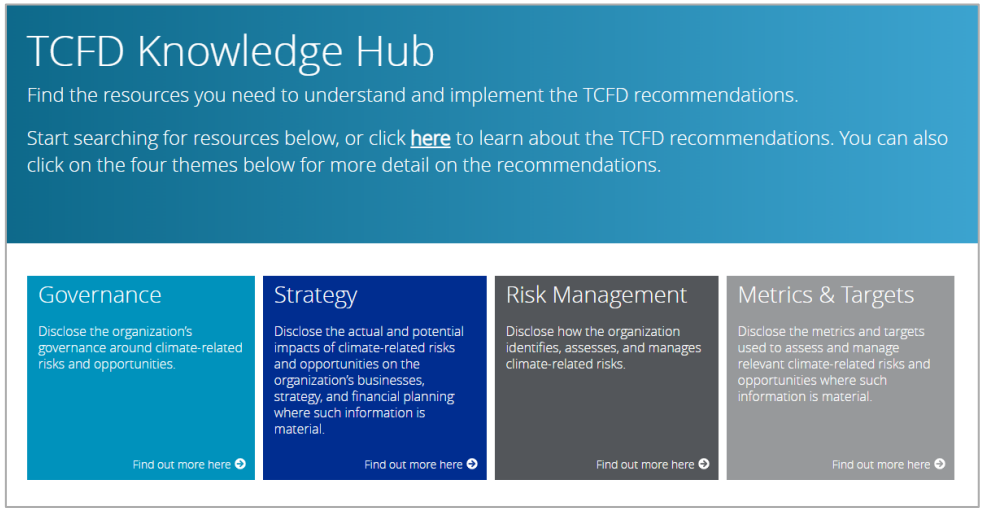

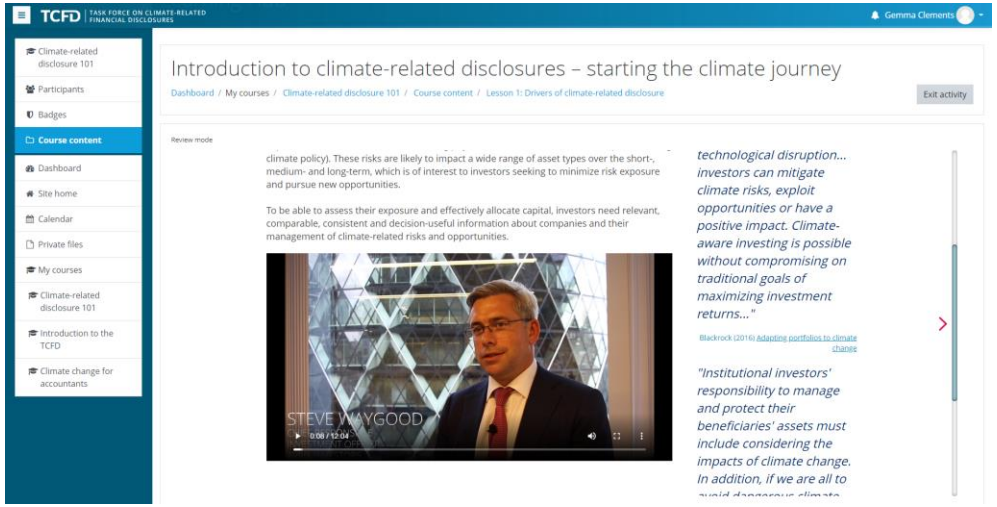

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Questions