CFRF CLIMATE FINANCIAL RISK FORUM

CLIMATE FINANCIAL RISK FORUM GUIDE 2020

DISCLOSURES CHAPTER

June 2020

Contents

This chapter represents the output from the cross-industry Disclosures Working Group of the Climate Financial Risk Forum. This document aims to promote understanding, consistency and comparability by providing guidance on the disclosure of climate-related financial risks.

This Climate Financial Risk Forum (CFRF) guide has been written by industry, for industry. The recommendations in this guide do not constitute financial or other professional advice and should not be relied upon as such. The PRA and FCA have convened and facilitated CFRF discussions but do not accept liability for the views expressed in this guide which do not necessarily represent the view of the regulators and in any case do not constitute regulatory guidance.

1 Introduction

Purpose

The Disclosures chapter provides practical recommendations for financial institutions wishing to meet good practice expectations for public climate-related financial disclosures. It draws on good practice examples from industry as well as guidelines set by relevant and respected industry bodies. It has been produced by the Disclosures Working Group, which is part of the PRA/FCA Climate Financial Risk Forum, and is designed to be read in conjunction with outputs from other cross-industry working groups convened by the Climate Financial Risk Forum, in particular the Scenario Analysis and Risk Management chapters.

Scope

The chapter forms part of a suite of broader guidance for financial institutions to use to identify, assess, manage and communicate climate-related financial risks and opportunities. While aimed at UK financial institutions, it takes into account the current state of play in the global market and the changing policy and regulatory environment in the UK and globally.

The guidance should be relevant for all sizes and types of financial institution as climate change is an issue that should concern everyone, whether a listed or unlisted; financial or non-financial firm; retail or institutional client; or regulator. It should be emphasised that the aim of this chapter is not to provide a mandatory 'to do' list for firms to follow. Rather, it provides guidance on what firms *could* be doing to strengthen their public climate-related financial disclosures, which firms can then use to develop their own approach. While smaller firms may not have the capacity and resources to make disclosures as extensive as those made by larger firms – particularly in relation to the range of metrics suggested – some disclosure is still desirable, as it is a means to ensure both they and the users of their disclosures have considered the climate-related financial opportunities and risks they face.

Similarly, green investment and lending specialists should aim to disclose in line with their mainstream peers. These firms remain exposed to physical climate-related financial risks, and indeed may still be exposed to risks from regulatory changes: these need to be understood and managed. In addition, by holding green finance providers to the same disclosure standards as mainstream institutions, disclosures present an opportunity to help address 'greenwashing' and to ensure consistency and comparability across the industry.

The chapter is split into the following topics which were considered the most relevant for climate risk management:

- State of play on disclosures and how we approached developing the advice
- Key messages for approaching good practice climate-related financial disclosures
- Disclosures on governance and strategy (common to all financial institutions)
- Disclosures by asset managers
- Disclosures by banks
- Disclosures by insurers
- Suggested timeline to implementation
- Gaps and barriers
- UK legal frameworks for disclosure [Annex 1]

Background

Decisions made by financial institutions but also corporates, end investors and consumers are all important to help accelerate the transition to a net zero carbon and climate-resilient society. Corporates operating in the real economy are arguably directly responsible for how capital is allocated to new economic activity that will add to or subtract from the already dangerously high levels of greenhouse gases (GHGs) accumulated in the atmosphere. Banks also make important capital allocation decisions about lending to individual assets, companies and sectors.[1] Insurers facilitate this through underwriting project and business risks. Asset owners and asset managers (which also include insurers) also have an important influencing role in how that capital is deployed as shareholders of corporates and banks and even each other and as providers of capital through public credit and private markets.

Within this complex network of relationships, those wishing to assess and manage climate related financial risk are particularly dependent on the information disclosed to them by third parties. Financial firms such as asset managers, banks and insurers rely on disclosures from the wide range of corporates that they invest in, lend to or insure. These disclosures inform the financial firms' identification, assessment and management of their own climate-related risk and/or the climate-related risks of the financial products that they manage on behalf of clients.

In turn, financial firms must then decide what information to disclose to their own stakeholders, for example their investors, the credit rating agencies that assess them, the customers of their financial products and regulators.

This chapter focuses on this second category of disclosure, that is, the information on climate-related risk provided to external audiences by financial firms once they have taken steps to assess and manage these risks.

Central to the recommendations made is the concept that climate-related financial disclosure by financial firms should provide audiences with useful information, typically to inform decision making.

Good quality disclosures across the board can help market participants better

1 Building societies are also important players in the housing market.

identify where climate-related financial risk and opportunity exist.[2] This will, it is hoped, accelerate the process of climate-related financial risk and opportunity being fully incorporated into pricing signals, in turn helping to facilitate an orderly transition to a net zero carbon and climate-resilient economy. With this condition satisfied, an amelioration of systemic risk relating to climate change from the financial system and a growth in trustworthy green finance products would be expected.

Disclosures should be the outcome of a process of change to governance, risk management and business strategy to build the resilience of the disclosing firm to the financial impacts of a changing climate. If done well they are part of a process to ensure the right people across the business (likely to be drawn from risk management, strategy, business development, audit, finance, marketing, executive leadership and board members as well as sustainability and corporate responsibility) are involved in discussions about how business strategy and risk management need to evolve to respond to the risks and opportunities posed by climate change.

Audiences of climate change-related disclosures will be interested in using them to understand how financial institutions are identifying, assessing and managing these risks, in order to better inform their own decision-making. These disclosures are therefore both a tool for a financial institution's management team to understand, measure and reduce negative impacts and an input for decision-makers such as investors and clients who are considering these issues.

High-quality disclosures can be viewed as a competitive advantage for firms. It shows how aware they are of the full range of risks (transition, physical and litigation), what they are doing to mitigate and/or reduce them and also the opportunities created by the transition to a low-carbon and climate-resilient economy. Investors, regulators and consumers should therefore value high-quality disclosure, while recognising that the transparency disclosures generate is only part of the process of tackling the systemic risks posed by climate change. Over time, users of disclosures should themselves build up further expertise in interpreting climate-related financial risk disclosures.

> "We have no time to lose: some disclosure is better than none and I hope we provide a practical and useful guide to getting started. The key message is start simple and add complexity over time."

Saker Nusseibeh CBE (CEO, The international business of Federated Hermes and CFRF Disclosures Working Group Chair)

2 They can also help regulators and governments better identify and target further market interventions.

2 State of play on disclosures and how we approached developing the advice

The Task Force on Climate-Related Financial Disclosures (TCFD) has developed a widely accepted global voluntary set of recommendations for consistent, comparable, comprehensive and decision-useful climate-related disclosures.[3] The TCFD is the hub of the climate-related disclosures debate and is therefore was the obvious starting point from which to develop this guidance for UK firms.

The latest TCFD Secretariat figures published in January 2020 indicate that, since the publication of the original TCFD report in 2016, over 900 public- and private- sector organisations had announced their support for the TCFD recommendations. The latest TCFD status report indicates that disclosures of climate-related financial information have increased since 2017 but remain insufficient for investors' needs. There are currently no specific and mandatory reporting requirements for TCFD-type disclosure or climate change-related risks in the UK. As a result, custom and practice in relation to climate change disclosures has varied. Currently only partial disclosure across all four TCFD categories of governance, strategy, risk management and metrics/targets are the norm, with limited disclosure on potential financial impacts and little detail provided on the resilience of business strategies to different plausible future climate states.

However, we also note that in the UK there are well-established general reporting requirements under UK law, including the UK Companies Act; UK Accounts Regulations; Streamlined Energy and Carbon Reporting (SECR); Capital Requirements Directive (CRD) IV; Capital Requirements Regulation (CRR) I; Solvency II for insurers; IAS/IFRS Rules; UK Corporate Governance Code and Listing Rule 9; Companies (Miscellaneous Reporting) Regulations 2018; and UK Stewardship Code 2020 that require companies to disclose material issues, including in relation to environmental matters, which covers climate change. In addition, regulatory expectations are rapidly changing for firms based in the UK[4], with a range of new and emerging requirements including: obligations for large listed companies, as well as banks and insurers, deriving from the EU Non-Financial Reporting Directive (NFRD) to report on environmental matters which may include climate change; the Prospectus Regulation; the new EU Sustainability Disclosures Regulation; the Shareholder Rights Directive II (SRD II); CRD V and CRR II affecting banks and investment firms; and Investment Firms Directive and Investment Firms Regulation. In the UK, the PRA Supervisory Statement (SS3/2019) also sets out new and enhanced expectations relating to how banks and insurers manage the financial risks from climate change. In December 2019, the PRA also published a discussion paper: The 2021 biennial exploratory scenario on the financial risks from climate change. In March 2020,

3 The TCFD guidance has both emerged from and influenced existing and widely-used market frameworks and standards such as those of CDP, CDSB, IIRC, GRI and SASB.

4 Since many UK-based financial firms have registered products in EU-jurisdictions, notably but not limited to Ireland, EU obligations will remain in place irrespective of the eventual outcome of the UK-EU Trade Deal.

the FCA published a consultation on proposals to introduce new rules requiring certain listed issuers to make climate-related disclosures aligned with the TCFD's recommendations.[5] Finally, the HMG Green Finance Strategy set out an expectation for all listed companies and large asset owners to disclose in line with the TCFD recommendations by 2022.[6]

In light of this changing regulatory context, this guidance includes reference to some pending developments that will change expectations around financial institutions' disclosures. A detailed analysis of the UK legal frameworks for disclosure that sets out what needs to be disclosed and by whom; the purpose of disclosures; the judgements to be made in assessing materiality; where disclosure may be made; and the liability and litigation risks that may apply is shown in Annex 1.

5 www.fca.org.uk/publication/consultation/cp20-3.pdf

6 HMG (2019) Green Finance Strategy; Transforming finance for a greener future. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf

3 Key messages for approaching good practice climate-related financial disclosures

The guidance is based on the seven principles for effective climate-related financial disclosures set out in the TCFD recommendations, namely that disclosures should:

- Represent relevant information;
- Be specific and complete;
- Be clear, balanced, and understandable;
- Be consistent over time;
- Be comparable among companies within a sector, industry, or portfolio;
- Be reliable, verifiable and objective; and
- Be provided on a timely basis.[7]

Financial institutions are still at an early stage in meeting the expectations set by these principles, in part due to limitations imposed by lack of/poor quality data, limited availability of tools/methodologies and lack of capacity. Some key lessons are emerging, however, that this guidance draws upon.

Determine and focus on the objectives of disclosure

There are several purposes for which financial firms may make, or be required to make, climate-related financial risk disclosures. They are:

- Management of systemic risk;
- Nudging the market from brown to green investment flows over time;
- Identification of the risk profile of individual institutions;
- Information to facilitate investor preferences; and
- Support for strategic management of transition – i.e. mitigation of the risk of cliff edges and bubbles emerging from the transition.

'Audiences' of the disclosures will, in the main, be interested in the specifics of how financial institutions are identifying, assessing and managing climate-related financial risks in order to better understand the risk versus reward profile of the firm and better inform their own decision-making. For this reason, preparers should keep front of mind the need to ensure disclosures are decision-useful to the different users of those disclosures. This means they should focus on what is material for the respective audiences of disclosure, which sometimes may not align with what the preparer themselves might consider material (see Figure 1).

7 TCFD (2017) Recommendations of the Task Force on Climate-related Financial Disclosures – Final Report. Appendix 3 www.fsb-tcfd.org/wp-content/uploads/2019/06/2019-TCFD-Status-Report-FINAL-053119.pdf

Figure 1. Differences in perspectives between Preparers and Users

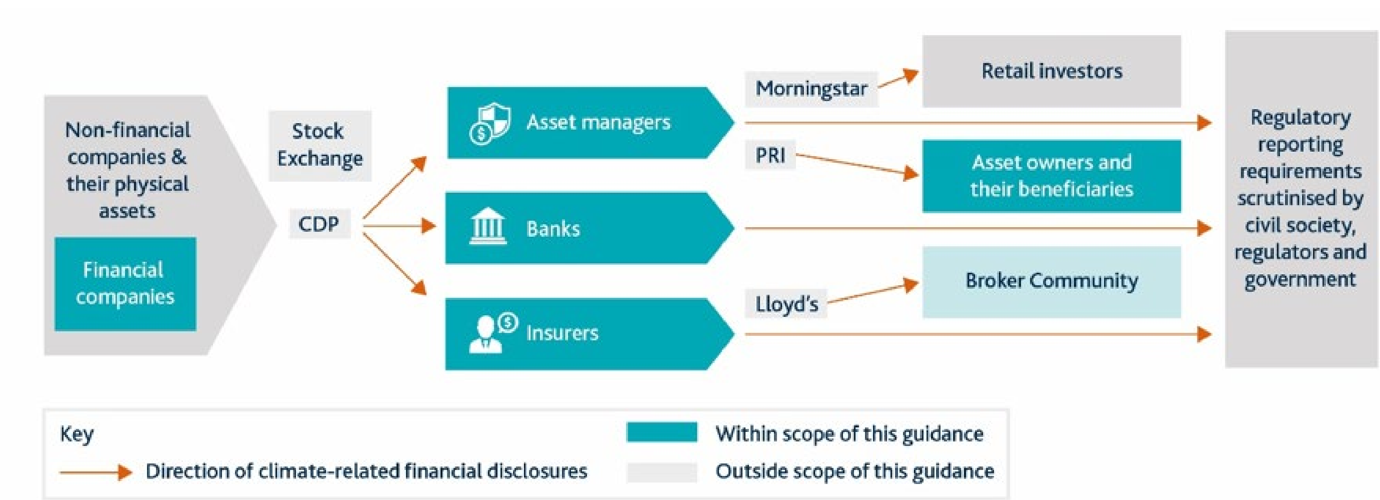
Governance	Strategy	Risk Management	Metrics and Targets
Preparer View Climate is embedded in our processes so it is challenging to discuss separately in our governance disclosures	**Preparer View** Disclosing scenario analysis assumptions is difficult due to their inclusion of confidential business information	**Preparer View** Climate is integrated into our normal risk management processes and therefore does not require separate disclosure	**Preparer View** GHG emissions or carbon footprint metrics are not reflective of our climate-related risks of opportunities
User View The most useful element of disclosures on governance is information on how companies integrate climate-related risks into the governance framework and the associated roles and responsibilities	**User View** Information on the scenarios and assumptions used, as well as financial impact of climate-related issues on the organization would improve the usefulness of disclosures	**User View** The most useful element of disclosures on risk management is information on how companies measure and manage climate-related risks	**User View** Information on GHG emissions is a useful element of climate-related financial disclosures

Source: Recommendations of the Task Force on Climate-related Financial Disclosures – Final Report June 2017

Acknowledge and address the needs of different audiences

The 'disclosure ecosystem' (see Figure 2) is complex and intertwined. As a result, it is of utmost importance to have the needs of the audiences for disclosure in mind whilst identifying what information to disclose and how to disclose it (including where to disclose and whether to disclose at group or entity level – see 'Choosing where to report' below).

Figure 2. The Disclosure Ecosystem (non-exhaustive and simplified)



Although firms are unlikely to have a complete picture of how their disclosed information will be used, it is likely that audiences will focus on the following:

- The potential for absolute financial loss (due to climate-related financial risk the audience faces due to exposure to the firm and/or its financial products);
- The potential for relative financial loss (through exposure to the firm and/or its financial products compared to peers);
- The potential for the firm to mitigate these risks through effective strategy; and
- The potential for the firm to adapt to future developments in these areas through effective governance and strategy changes.

In addition, audiences within the regulator community are likely to be interested in the firm's current and future expected position with respect to managing climate-related risk/opportunity. Further comments on the likely requests and requirements of key audiences are presented in Box 1.

Manage the evolving opportunities and expectations for disclosure

Firms should be prepared to start with 'simple' disclosures and add complexity over time, signalling their intention to broaden and deepen the decision-useful information they provide as the organisation's understanding of climate change risk evolves and new inputs and processes are developed. Over time, increasing amounts of quantitative information are likely to be added to disclosures to complement qualitative disclosures.

Disclosure should be dynamic. Metrics and targets should aim to be comparable over time to enable users of disclosures to understand the firm's general direction of travel. Ensure the methodology underpinning metrics and targets is described in detail (in footnotes or online) so that users can assess consistency and comparability of targets and metrics and understand strengths and weaknesses. This will facilitate consistency and comparability, improve understanding of factors impacting analysis and ensure changes to methodologies used in future reports can be easily explained.

For full disclosure, firms may consider both the risk that climate change poses to their business model and operations but also the risk that the firm's lending, investment and underwriting choices pose to the climate. The former is generally well accepted; the latter is very much an emerging space. However, to future-proof disclosures both should be considered, especially for firms covered by the forthcoming EU Sustainability Disclosures Regulation.

The importance of transparency and issues of cost and competitiveness

In current good practice disclosure (examples of which we have included in this report), the disclosing parties 'show their workings'. Quantitative metrics, while aiding accountability, have limited usefulness without qualitative disclosures alongside to aid understanding of an organisation's approach. Thus, current good practice is to provide both quantitative and qualitative reporting with transparency around the inputs and assumptions used to generate outputs.

A transparent approach to reporting will include disclosures in relation to:

- The methodology used in any analysis, including in relation to metrics (including clear definitions of boundaries, outputs, tools, and consultants used for the analysis);
- The assumptions that have informed the analysis that is being disclosed;
- The current limitations (including coverage, missing information, estimated data); and
- The purpose of any metrics disclosed and what they aim to measure.

Given the challenges involved, reporting entities will also gain insights from the process of clearly articulating methodologies (and also actually understanding methodologies where third party providers are used), limitations and assumptions underlying the disclosures made.

In the context of increasing requests for information from users of disclosures, firms will inevitably need consider:

- The cost of sourcing, checking and compiling the data; and
- The possibility that the firm's competitors could benefit from the information the firm discloses.

Clear guidance from standard setters and/or regulators can help resolve such considerations.

Box 1. Informational requirements of key audiences

Investors (by which we mean here shareholders and investors exposed to the balance sheet of a firm, rather than clients), both public and private, will focus on firm-level disclosures to determine whether the firm is resilient to climate change and the impending market transition (whether orderly or disorderly). The focus will be on whether the firm, its business model and its revenues will remain robust regardless of transition pathway and physical risks and, if not, what changes the firm is implementing as a result. Investors may also wish to know what role firms are playing to help or hinder the climate transition (for example through provision of finance or insurance to assets that perpetuate a high carbon economy). Translation to financial impact on revenues/assets/ liabilities under different scenarios is therefore useful.

Clients of asset managers both retail and institutional (including investors in pooled funds as well as separate account clients) will be primarily interested in product level disclosure – i.e. whether the product fits with their financial needs but also investment beliefs/values. However, given much of the management of climate-related financial risk will happen at organisational level, sophisticated investors – institutional clients – will also look at firm level disclosures to determine whether the firm as a whole has appropriate governance and risk management systems in place. Retail interest is growing as society increasingly 'wakes up' to the climate emergency. The clients of banks and insurers are the 'users' of financial products and so the flow of information will largely be in the other direction (from clients to banks/insurers) to allow the financial firms to accurately assess and price their risk. However, prospective and current clients may wish to know whether banks and insurers are adequately managing climate-related financial risks and opportunities to ensure they are resilient. As with asset management clients, clients may also be interested in how the financial institution aligns with their values as awareness of climate change risk grows.

Credit Rating Agencies will look at firm level disclosures and have the same information needs as shareholders/bondholders. They will find it most convenient for information to be disclosed in public reports – as any material not available will need to be obtained through questionnaires/interviews. Disclosure of the strategic preparedness of the firm for the transition is likely to be important. Translation to financial impact on revenues under different climate scenarios is likely to be useful.

Fund raters will look at fund level information. As with Credit Rating Agencies, they will find it most convenient if information is disclosed publicly (for example, in the audited fund report). Any missing information will need to be followed up with the questionnaires/interviews.

Regulators will also look at both product and firm level disclosures as a source of information on climate-related financial risk management. However, regulators will primarily look at the disclosures with a keen eye for quality and clarity. High quality disclosures support market discipline and ensure that risks are priced correctly and that markets function efficiently.

Civil society is an important driver of the climate action debate and key means of exercising accountability in the disclosures landscape. While noting they are likely to develop their own methods to analyse and ranks efforts by firms, they will likely be interested in firm level disclosures, focusing on accountability i.e. what firms are actively doing to drive the transition/build climate resilience through their provision of finance/insurance and how this benchmarks to sector good practice.

Selecting metrics and targets

Over the past decade, a wide array of metrics of climate related financial risk has emerged, with the result that many providers of and audiences for disclosed information are overwhelmed and/or confused. Given the complex and dynamic nature of this area of risk, it is likely that, without early convergence, this array is likely to widen. Similarly, in the absence of best practice regarding targets, there is inconsistency in the metrics which financial firms are adopting to measure their residual risk, with the result that audiences are typically struggling to assess the relative merits of the approaches of individual firms due to a lack of comparability.

In the short-term it is suggested that regulators allow the financial sector time to experiment with and develop consensus on the choice of metrics for disclosure. This is likely to be facilitated and accelerated by guidelines set by respected industry bodies. During this period, regulators may decide to indicate the principles by which they would like to see metrics selected, for example, to include reference to:

- The analysis and decision-making process that should underpin disclosure;
- Use of qualitative versus quantitative information (with encouragement to develop the latter);
- The need to ensure forward-looking statements comply with wider market regulations;
- The importance of considering longer-term as well as short-term timeframes;
- The need to explain the uncertainty in information being disclosed;
- The need for the information to be important to a reasonable investor in making an investment decision and/or its absence would significantly alter the mix of information available (very detailed information involving competitive risk to disclosing entity should be avoided);
- The ability to be applied across sectors and geographies; and
- The importance of comparability (over time e.g. year-on-year, against benchmarks, industry/sector standards or averages, and against targets).

Disclosers will, of course, also need to ensure that forward-looking statements comply with wider market regulations.

In the meantime, this guidance sets out recommendations for three categories of metrics.[8] These are:

- Basic metrics: widely used; methodologies are available today.[9]
- Stretch metrics: some use; methodologies are at an early stage of development/acceptance in the market.
- Advanced metrics: likely to be useful but methodologies not yet developed.

The suggestions for metrics are drawn from: TCFD recommendations on the categories of metrics to disclose in relation to transition risk and opportunity as well as physical risk and existing good practice; sector-specific recommendations from the Non-Financial Reporting Directive guidelines; SASB; PRA Discussion Paper The 2021 Biennial Exploratory Scenario on the Financial Risks from Climate

8 Note that the Risk Management chapter of this guide also suggests metrics, which are selected and categorised according to their use in the internal risk management process. Whilst there are some overlaps with the metrics suggested in this chapter, this chapter focuses on the public disclosure of decision-useful metrics for the audiences of disclosure.

9 This split is based on the existence and acceptance of methodologies. There may be data gaps even for basic metrics. This issue is covered further in the Gaps and Barriers section under 9.1.

Change[10]; and PRA Supervisory Statement SS3/19.[11] These are therefore metrics that all financial institutions should aim to disclose, as considered relevant, in light of changing regulatory expectations and the needs of the audiences of disclosure.

As with all disclosures, it is important for disclosing entities to make clear the purpose of the metrics and describe the methodologies (including critical input parameters), assumptions/analytics choices and tools used to calculate/estimate the metrics. Any known limitations should be reported and updated annually. The materiality and context of the results should be explained with accompanying narrative.

Targets can be used to underpin a firm's strategy for shifting the business to help deliver a net zero and climate-resilient global economy. This guidance focuses on metrics but not targets, for which there is very limited coverage in the market. Over time we would expect this to change since targets can more easily emerge once key risk indicators and metrics are in place. The issue of disclosure of targets should therefore be revisited as norms evolve.

Choosing where to report

Firm-level disclosures – Given the range of different audiences likely to use climate-related financial disclosures by financial institutions, an efficient and cost-effective approach to addressing different audiences' needs can be to disclose firm-level information in consolidated, publicly available reporting. Where the public reporting mechanism selected is the Annual Report and Accounts, this has the benefit of leveraging of existing control and audit processes that provide assurances over the accuracy of reporting12. Notwithstanding where such information is disclosed, the TCFD is unequivocal that the disclosures should adhere to the same robust governance and risk management processes as for financial information included in the annual report. (It is worth noting auditors will require climate change-related training in order to effectively undertake their audit functions.)

A firm and its regulator's view on materiality of climate change to the business will have a direct impact on where and how it chooses to publicly report. The PRA's April 2019 Supervisory Statement identifies the financial risks posed by climate change as relevant to the PRA's objectives, and describes the financial risks from physical and transition risk factors as relevant to multiple lines of business, sectors and geographies meaning that their full impact on the financial system may be larger than for other types of risks, and is potentially non-linear, correlated and irreversible. Arguably this identifies climate change as a material risk, which implies that disclosures should be made in supervised firms' Annual Report and Accounts.

10 www.bankofengland.co.uk/-/media/boe/files/paper/2019/the-2021-biennial-exploratory-scenario-on-the-financial-risks-from-climate-change.pdf?la=en&hash=73D06B913C73472D0DF21F18DB71C2F454148C80

11 PRA (2019) Supervisory Statement SS3/19: Enhancing banks' and insurers' approaches to managing the financial risks from climate change www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/supervisory-statement/2019/ss319

12 It is inefficient to duplicate reporting of the same information in multiple sources; thus firms – especially multinational firms - may instead choose to signpost disclosures made elsewhere.

Following its Feedback Statement on Climate Change and Green Finance (October 2019) in March 2020, the FCA published a consultation on proposals to require all commercial companies with a premium listing to either make climate related disclosures consistent with the approach set out by the Taskforce on Climate-related Financial Disclosures (TCFD)or explain why not. The FCA further notes it will consider consulting on extending this rule to a wider scope of issuers.[13] Improvements to issuers' disclosures, as discussed above, are an important foundation for further measures to improve climate-related disclosures by regulated firms. The approach the FCA takes will also need to be coordinated with other regulators and with ongoing work at the EU level on the Sustainable Finance Disclosure Regulation, which, it is worth noting, has mandatory disclosure requirements.14 (This is because the majority of UK-based fund managers have products that are registered in EU countries.) Accordingly, while currently there remains flexibility for individual firms in this area, it is expected that regulatory requirements will be clarified in due course. Given this is a complex and important topic for firms to consider, it is discussed in more detail in the gaps and barriers section (Section 9).

In the case of multinational firms, they may wish to rely on parent company disclosures and refer to/supplement this with additional disclosures at legal entity level as appropriate if a specific material risk is identified. This may depend on the audiences for disclosures – for example, local regulators may require entity-level disclosures, whereas investors in the parent company are likely to be interested in group-level disclosures.

Product level disclosure – The appropriate place to make product level disclosures is included in the relevant asset manager, banks (including building societies) and insurers sections (Sections 5-7) below.

The next five sections (Sections 4-7) focus on what financial institutions should be disclosing. The first two sections cover governance- and strategy-related disclosures, which are common across all types of financial institution. The guidance then moves on to cover specific risk management- and metrics-related disclosures, which are split out into recommendations for asset managers, banks (including building societies) and insurers. It should be noted that detailed guidance on undertaking scenario analysis and risk management can be found in separate chapters of this guidance.

"Central to the recommendations we have made is the concept that climate-related financial disclosure by financial firms should provide audiences with information that can be usefully integrated into financial decision making."

Saker Nusseibeh CBE (CEO, The international business of Federated Hermes and CFRF Disclosures Working Group Chair)

13 www.fca.org.uk/news/press-releases/fca-announces-proposals-improve-climate-related-disclosures-listed-companies
14 FCA (2019) Climate Change and Green Finance: Summary of responses and next steps, October 2019. Available at: www.fca.org.uk/publication/feedback/fs19-6.pdf

4 Disclosures on governance and strategy

Governance

Governance disclosures[15] are useful to enable audiences to assess board oversight and management of climate-related risks and opportunities within the business.

As a starting point, financial institutions should describe the governance and operational arrangements in place. In particular, firms should disclose the board's role in overseeing climate-related issues. This should include:

- **Responsibility:** explaining where primary responsibility for climate issues sits at board level, for example: with the board as a whole; with nominated individual board members; or with particular board-level committees such as the risk committee or an investment sub-committee. If responsibility sits with particular individuals or committees, firms should disclose how climate issues are reported to the wider board.
- **Frequency:** the frequency with which the board and/or relevant committees are informed about and discuss climate-related issues, and whether it is a recurring agenda item. This may include whether and how frequently the board has received training on climate risk.
- **Integration:** how the board integrates climate-related financial issues into strategy-setting, risk management policies, budgeting and business planning, and whether there is a board-approved multi-year implementation plan in place.
- **Monitoring:** how the board oversees progress against climate-related metrics and targets.

Case Study: Aviva's Climate-Related Financial Disclosure 2018[16]

Aviva set out in their report a clear governance structure, noting the Group Chief Risk Officer and Group General Counsel and Company Secretary are the executive sponsors overseeing this disclosure. At Board level, the Board Risk Committee and Board Governance Committee oversee management of climate-related risk and opportunity. The report states that climate change is classified as a key risk. The Board Risk Committee met 5 times in 2018; the Board Governance Committee met four times in 2018.

15 See the Risk Management chapter for detailed guidance on risk governance.
16 Aviva (2018) Climate-Related Financial Disclosure 2018

The governance and strategy disclosures are mutually reinforcing. In the Strategy section of the report Aviva set out how climate-related financial issues are integrated into strategy setting, including through integration into investment considerations. Example heat maps are published and key metrics such as carbon foot-printing of investments, operational carbon emission and portfolio warming potential are published and used to monitor risks.

Financial institutions should also set out where responsibility for climate-related risks and opportunities lies within the organisation below board level and the processes for managing them, including:

- **Processes:** what processes are in place to ensure that climate-related financial risks and opportunities are monitored, assessed and managed (including where climate-related risks sit within a firm's risk management processes), and that management is informed about climate-related issues.
- **Management:** who is responsible for managing these processes on a day-to-day basis, and roles and responsibilities across the business; and how and with what frequency regular exchange between the relevant business units (which may include risk management, investment/underwriting and actuarial functions, corporate strategy, business development, audit, finance, marketing, sustainability, corporate responsibility executive leadership and board members) is facilitated. For example, this could be through the establishment of a cross-functional climate change committee that includes representatives of all relevant business units. Firms should disclose where staff with responsibility for managing climate-related processes in the organisation are located, including whether there are dedicated environmental social and governance (ESG)- or climate change-focused personnel.
- **Reporting lines:** how outcomes from risk monitoring feed into board-level decision making and into analysis of the business model, corporate strategy, risk framework and policies and financial planning, and how these are adjusted to take account of climate-related risks and opportunities.
- **Service providers:** how the organisation ensures that their policies in relation to climate change risk management are implemented by any external service providers (for example, investment consultants or external asset managers).
- **Timings:** the target number of years to complete the integration of climate-related financial risk management. The expecting timing of ongoing reviews of systems and data.
- **Remuneration:** how remuneration is linked to climate-related targets and any relevant time scales linked to roll out.
- **Training:** whether additional training has been provided to staff, and if so the nature of the training and which staff took part.

Strategy

The key task is for financial institutions to articulate their firm level strategy on how they identify, assess and manage climate-related risks and opportunities. This should include information about the climate-related risks and opportunities identified over the short, medium and long term (clearly specifying what is meant by these different time horizons). Formalising climate change strategies, commitments or guidelines can help articulate and clarify expectations and outline how they will be achieved. For this reason, information regarding how the Board considers and assesses the issue of climate change (as described in section 4.1 above) is key. The resilience of the organisation's strategy should also be described, informed by the results of scenario analysis which explores the potential impact of a range of climate-related scenarios. More detailed guidance on scenario analysis can be found in the relevant chapter of this guidance.

An organisation can develop its strategy for tackling climate-related risks either before undertaking its risk assessment and management processes (to inform the approach) or after, once the initial risk assessment is complete. Either way, the strategy should be informed by and stress-tested against scenario analysis. Once the strategy has been developed and risk management processes are in place, details should be provided on the impact which the risk assessment process has had on business decision-making at the firm level. The approach should be periodically refreshed.

Case study: Commonwealth Bank of Australia Annual Report 2018[17]

The Bank discloses extensive details of how risk management and scenario analysis has informed their strategy. They disclose information relating not only to risk but potential climate change opportunities they see emerging from the low carbon transition. These are identified as relating to sustainable finance, global environmental markets and products and services. In addition, in 2017 they committed to a climate finance target of AUS $15bn by June 2025.[18]

17 Commonwealth Bank of Australia (2018) Annual Report 2018; Becoming a simpler, better bank www.commbank.com.au/content/dam/commbank/about-us/shareholders/pdfs/results/fy18/cba-annual-report-2018.pdf

18 The target is on the basis of total committed exposures as at 30 June 2025, not a cumulative financing target

Suggested metrics to report

Table 1 sets out metrics that all financial institutions may consider using to report on matters of governance and strategy on an annual basis. As appropriate, the suggested metrics should be accompanied with commentary providing additional detail and/or context.

Table 1. Suggested metrics relating to governance and strategy - all institutions (note not all categories include basic, stretch and advanced metrics, reflecting the varying levels of experimentation in the market)

Category	Suggested metrics	Purpose
Governance	**Basic**	
	• Number of board/committee meetings per year in which climate-related issues have been a substantive agenda item	• Indication of incorporation of climate risk into governance
	• Number of events held per year to train board members and management on climate-related issues	• Indication of level of understanding of climate change issues and at what level of seniority within the firm
	Stretch	
	• Adjustments to executive remuneration paid during a specific year to reflect performance against specified climate change-related targets	• Identifies use and alignment of financial incentives to improve firm level resilience to climate change
Strategy (including firm-level engagement)	**Basic**	
	• Number of memberships of external bodies/organisations/ initiatives pursuing climate-related policy and/or advocacy initiatives	• Indication of engagement with policy makers on broader market risk
	• Proportion of portfolio[19] held at the end of a specific year (a) for which climate change risk metrics have been requested and (b) for which metrics of an acceptable quality have been provided	• Indication of integration of climate risk and opportunity in portfolio/products

19 In this context, 'portfolio' means public or private assets under management (for asset managers), loan book/ bond underwriting activities (for banks, building societies) or underwriting activities (for insurers). Proportion of portfolio could be expressed, as applicable, as both (a) the fraction of holdings (e.g. 15 companies out of a portfolio of 47) and (b) the percentage of the portfolio (e.g. 45% of the loan book by value). For those with more complex business models, absolute figures could be disclosed where proportion of portfolio calculations are not feasible.

	• Proportion of portfolio held at the end of a specific year with which the firm has engaged on climate-related risks and opportunities has been a substantive topic[20]	• Indication of activity undertaken to mitigate climate risks originating at investee company/ client level
	• For asset managers only, proportion of portfolio held at the end of a specific year in which climate-related risk has been a topic for voting in relevant asset classes. This can be aggregated to firm level as appropriate	• Indication of activity undertaken to mitigate climate risks originating at investee company
	Stretch	
	• Results of scenario analysis/ stress testing expressed in terms of earnings or value at risk	• Indication that financial implications of climate-related risk/opportunity are understood

Specific metrics that asset managers, banks and insurers may consider using to report on are covered in the following sections.

20 This could include for example, for asset managers engagement and voting-related metrics such as Paris Agreement-aligned voting records; % assets for which climate change is an engagement topic; quantified progress versus milestones on engagement objectives; number of failed engagements leading to divestment. For banks and insurers, it could include % clients engaged with on climate-related issues.

5 Disclosures by asset managers

Disclosures relating to risk management processes and metrics/targets by asset managers (including asset management arms of insurance companies, banks and so on) are still at an emergent stage[21]. Most disclosures are qualitative, relating to climate governance, risk/opportunity statements and – at a high level – risk management processes. Quantitative disclosures, where they exist, tend to focus on GHG reporting. These could be described as *climate-related* disclosures rather than *climate-related financial* disclosures.

The next step for the industry is to move toward climate-related financial disclosures, with a focus on forward-looking assessments of risk and their translation into impact assessments. The details of how to do this are set out in the risk management and scenario analysis guidance. This section summarises disclosure good practice, including both qualitative and quantitative disclosures relating to risk assessments undertaken at the firm and at the product (by which we mean strategies, funds and segregated mandates)[22] level.

Firm level disclosures

Narrative reporting is key to provide context. Where metrics are used, their purpose should be explained. Metrics should be retained and tracked to demonstrate progress with an explanatory narrative report. Any known limitations should be reported and updated annually.

Risk management disclosures – asset managers should disclose the process by which they have identified, assessed and managed climate change-related financial risks and opportunities to themselves as firms and as managers of the financial assets of others, as well as the extent to which these processes are integrated in mainstream risk management practice and processes. This includes information about the process for assessing the size and potential scope of climate-related financial issues, and the process through which they seek to mitigate the identified risks. Disclosures should qualitatively describe the process in place and report on how different metrics are used to assess different risks.

- **Operational risk management disclosures** – At the firm level, qualitative and quantitative information should be provided relating to the asset manager's business operations, both in terms of risk management processes (for example, inclusion of physical climate change impacts in operational risk assessment and management, and details of adaptation measures) and reducing the financial institution's own operational GHG emissions (for example, information about operational and travel carbon emissions). Key risk indicators (KRIs) can be used to set benchmarks and then track progress.

21 This statement also holds true for insurers more generally and for banks.
22 We use the term 'product' hereafter as short hand.

- **Public engagement risk management disclosures** – Firm level efforts on advocacy to change the market framework and engagement with investee companies (for example on their capex plans and risk management processes) should be disclosed. Such efforts can be collaborative or bilateral. Asset managers should point to their stewardship reporting for more information, in addition to disclosures in the annual report and, where relevant, sustainability report. Qualitative examples of outcomes from engagement across asset classes can complement key metrics.

Case study: The international business of Federated Hermes - Climate-Related Financial Disclosures Report and Engagement Report 2019[23]

The international business of Federated Hermes disclosed how it integrates climate change into its investment processes, advocacy and engagement in a number of key documents. The 2019 Climate-Related Financial Disclosures Report included an overview of advocacy and engagement activities. This was supplemented by the more detailed EOS at Federated Hermes Annual Review: Voting And Engagement Highlights, which included disclosures of climate change engagement highlights and progress in delivering engagement objectives.

- **Investment risk management disclosures**
  - Top-down scenario analysis - such as the PRA's climate scenarios (which would need to be adapted for asset managers[24]), firm's own scenarios or off the shelf tools - can be applied to investment risk macroeconomic models. If and how they are applied should be disclosed alongside how the information is used by relevant individuals within the business and for what purpose.
  - If there is a uniform application across strategies of risk management processes, including application of scenario analysis to bottom-up asset-level analysis, the methodology, results and usage of such processes should be disclosed at a firm level. Disclosure of such bottom-up analysis will provide a 'heatmap' of potential areas of climate-related financial risks across the firm's strategies, based on quantitative information. If there is no such uniform application of risk management processes across strategies, this should be made clear in the disclosures.
  - See the separate Scenario Analysis chapter for further guidance on using top-down and bottom-up models.

23 The international business of Federated Hermes (2019) Climate-Related Financial Disclosures Report https://www.hermes-investment.com/no/wp-content/uploads/2020/03/tcfd-report-hermes-19.pdf
EOS at Federated Hermes (2019) Annual Review: Voting and Engagement Highlights https://www.hermes-investment.com/ukw/wp-content/uploads/2020/02/eos-annual-review-2019.pdf

24 Bank of England Discussion Paper (2019) The 2021 biennial exploratory scenario on the financial risks from climate change

Product level disclosures

Where to disclose

Product level disclosures on climate-related issues are important to ensure alignment with client needs and investment objectives, and to help clients better understand their own risks and potential exposures. These will need to be considered for inclusion in key fund documents as well as, where appropriate, information provided to clients directly. The most appropriate place for such disclosures will depend on whether the disclosure relates to information that does not need to be regularly updated, which we refer to as 'static' information, or information that it would be useful to update, which we refer to as 'dynamic' information.

Static information will include more long-term structural elements, for example relating to investment philosophy/approach; governance arrangements; the processes in place to manage climate-related risk; and key targets the product has, for example green investment targets or targets to reduce GHG emissions. Fixed documents such as the prospectus, fund supplement and Investment Management Agreement (for segregated mandates) should only contain this kind of information because they are not regularly updated. For any new products, this information should be included from inception.

Dynamic disclosures are those which are more variable and short-term including data and reporting against KRIs, for example, GHG intensity within a client portfolio. These should be included in documents that are routinely updated. This approach also allows information to be published for existing products. Although the key information document (KID) would be an appropriate place to reports KRIs and achievement of any targets, this would require regulatory change. However, asset managers should report dynamic information in audited fund report and accounts, funds factsheets, monthly fund commentaries and on their website.

These documents and the website are publicly available and so can also be used by audiences beyond clients who are interested in product level disclosures (for example fund raters). Further information may be made privately available for institutional clients with segmented mandates through bespoke client reports. In line with changing regulatory expectations, disclosures should aim to include climate change risks and opportunities related to products but also risks that the assets held in the funds/segregated mandates pose to the outside world (adverse impacts).

What to disclose

Where risk assessments are applied at a product level (i.e. in relation to potential adverse impacts of climate change on investee companies and their contribution to climate change), processes and tools used should be disclosed alongside the results of risk assessments. This includes information about bottom-up asset-level modelling and analysis. Information should ideally be included on which scenarios were selected and why; what inputs and assumptions they included; and whether they are bought from third parties or developed in house; what purpose they serve, how and for whom within the business. High-level information should also be provided on how the analysis is used internally, for example by credit/equity analysts to understand who are potential winners and losers within sectors and therefore default/performance risk; by portfolio managers to understand how climate change risk/opportunity could affect fund performance and inform sector weighting, stock selection/index design and engagement and so on. Finally, information should be provided on the frequency with which scenarios are reviewed/updated along with limitations to these scenarios and input data.

Public engagement, in relation to stewardship and advocacy, where undertaken at a product level can also be disclosed, using the same metrics suggested at a firm level.

Suggested metrics to report

Table 2 sets out metrics that asset managers may consider using to report on their products on an annual basis. Over time, firms should aim to aggregate their information on product-related risks to create metrics that describe the composite risk at the firm level. This could include, for example, the sensitivity of their cash flow under different transition/non-transition pathways. Guidance on this type of disclosure is outside the scope of this document. Throughout, where relevant, the appropriate ranges and confidences in modelled losses should be published.

Table 2. Suggested metrics relating to risk analysis - asset managers (note not all categories include basic, stretch and advanced metrics, reflecting the varying levels of experimentation in the market)

Category	Suggested metrics	Purpose
Transition risks & opportunities	**Metrics applying to products**	
	Basic	
	• Financed (Scope 3) greenhouse gas emissions by product (comprised of scope 1 and 2 emissions of investee companies plus scope 3 emissions of investee companies where these are significant compared to other sources of emissions[25]) in $MtCO_2e$	• Necessary to underpin assessment of climate risk in portfolio; indication of exposure to transition risk in existing portfolio
	• Weighted average carbon intensity of each product in MtCO2e/£m[26] AUM compared to the benchmark where possible and appropriate.[27] Can be aggregated to the firm level.	• Indication that overall exposure to transition risk in existing portfolio is being assessed; indication of exposure to transition risks in existing portfolio; comparison to benchmark provides an indication of relative market risk

25 GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Category 15 Investments. Investments are categorized as a downstream scope 3 category because providing capital or financing is a service provided by the reporting company.

26 Throughout this guidance, firms should choose the most appropriate currency for disclosure.

27 This metric can be applied to equity, credit, real estate and infrastructure portfolios. Comparison to the benchmark most appropriate for equity but may be possible to apply to credit portfolios.

	• Proportion of product[28] reporting against disclosure good-practice, e.g. CDP, TCFD, SASB, CDSB	• Indication that investee companies are aware of exposure to climate-related risk/opportunity and have governance in place to disclose
	Stretch	
	• Proportion of product with explicit and credible climate change risk mitigation plans, e.g. alignment with a 'transition pathway' or committed to science-based targets	• Indication that investee companies or clients are aware of exposure to and attempting to mitigate climate risks
	• Proportion of product with exposure to companies with fossil fuel revenues[29] [30]	• Indication of awareness of transition risk exposure; indication of transition risk exposure of existing portfolio
	• Proportion of product invested in low carbon opportunities[31]	• Indication of awareness of transition opportunity exposure; indication of transition opportunity of existing portfolio
	• Proportion of sovereign bonds held in the portfolio issued by countries with net zero 2050 targets[32]	• Indication of awareness of transition risk/opportunity exposure; indication of transition risk/opportunity exposure in existing portfolio
	• Quantitative, scenarios-based impairment metrics developed using a range of scenarios (e.g. carbon prices or transition pathways) including potential impact on revenues, costs and asset values	• Indication of quantified financial exposure to risk and opportunity
	• Portfolio warming potential of products in °C	• Indication of an awareness of adverse impacts generated by existing portfolio
	In addition to disclosing metrics on their products, asset managers should report on the greenhouse gas emissions (scope 1 and 2) arising directly from their own operations.	

28 In this context, 'proportion of product' should be expressed, as applicable, as both (a) the fraction of the product (e.g. 15 companies out of a portfolio of 47) and (b) the percentage of the product (e.g. 45% of the portfolio by value).

29 This includes revenues from extracting, processing, producing or distributing fossil fuels.

30 Alternative metrics include % of carbon-related assets in portfolio, £ value of exposure to fossil fuel dependent companies or absolute fossil fuel power generation (GWH).

31 Metrics could include holdings in climate change mitigating sectors; companies with >x% revenues from renewables; investments in climate mitigation or adaptation according to the EU taxonomy.

32 This metric relates to transition opportunities rather than transition risk. Physical risks (which are captured by the exposure to key indicators of physical risk by geography) are likely to be more relevant for sovereign credit than transition risk.

Physical risks	Advanced	
	• Proportion of product highly exposed to key indicators of physical risks, by geography/ sector	• Indication of concentrations of physical risk in existing portfolio
	• Quantified weather-related losses for real estate/ infrastructure assets	• Indication that risk assessment systems are in place and indication of impact of adverse weather on revenues
	• Quantitative, scenario-based impairment metrics (e.g. using forward looking, location-specific models describing environmental hazard) including potential impact on revenues, costs and asset values	• Indication of quantified financial exposure to risk

6 Disclosure by banks

Disclosures by banks are currently more advanced than those by insurers or asset managers, due to legislation and other regulatory initiatives. These include Article 173 of the French Energy Transition law, which came into effect on 1 January 2016 and includes extensive requirements for firms to measure their GHG footprint, assess exposure to transition risks and to physical risks and portfolio alignment with a 2°C pathway etc (but without being prescriptive about how this is done). Another example is the UK PRA's stronger supervisory attention to and oversight of climate-related financial risks.

The most advanced banks are now describing the methodologies used for scenario analysis and lending exposure to high carbon sectors, but this is generally not widespread. Generally, there is limited comparability between banks, in part because there are no standardised methodologies and metrics in place.

This section summarises a good practice approach to risk assessment and management disclosures - qualitative and quantitative. It applies both to those banks with large and complex assets as well as banks operating in less diverse markets, covering the firm's banking books, trading books and debt and equity underwriting activities. Banks with asset management operations should also refer to the guidance on asset management disclosures (Section 5).

Building societies are also regulated by the PRA and so facing enhanced supervisory attention to and oversight of climate-related financial risks. Given the primary business focus of building societies on mortgage lending and manifestation of the growing flood risk in the UK, physical risk is the predominant concern, although there may be issues relating to transition risk (such as building obsolescence in the face of tightening energy efficiency standards). Building societies can approach disclosures in the same fashion as is laid out for banks but adopting a proportionate approach that best fits their more straightforward portfolios of assets and narrower range of risks faced.

Firm level disclosures for banks

As for asset managers, narrative reporting by banks is key to provide context. Where metrics are used, their purpose should be explained. They should be retained and tracked to demonstrate progress with an explanatory narrative report. Any known limitations should be reported; they should be updated annually.

Risk management disclosures – Users of disclosures will want banks to disclose the process by which they have identified, assessed and managed climate-related financial risks and opportunities, as well as the extent to which these processes are integrated in mainstream risk management practice and processes. This includes information about risk identification and assessment; how the firm envisages the opportunities and risks, including the prioritisation of risks and their likelihood and impact; changes to strategy to capitalise on a changing climate and related opportunities; what scenarios are being used to understand what might affect the firm's sustainability, profitability and viability, and how; how impact is measured; and the challenges and the success of its strategy through strategically aligned, reliable, transparent metrics and financially-relevant information.

- **Operational risk management disclosures** – As for asset managers and insurers, at the firm level, qualitative and quantitative information should be provided relating to the banks' business operations, both in terms of risk management processes (for example, inclusion of physical climate change impacts in operational risk assessment and management, and details of adaptation measures) and reducing the financial institution's own operational GHG emissions (for example, information about operational and travel carbon emissions,). KRIs can be used to set a benchmark and then track progress.
- **Public advocacy risk management disclosures** – Firm level efforts on advocacy to change the market framework should be disclosed. Such efforts can be collaborative or bilateral. Banks can also disclose information about client engagement, while considering their client confidentiality obligations.
- **Lending risk management disclosures** – Banks evaluating risks on a sector-by-sector basis, should select and disclose the metrics that reflect relevant climate-related financial risks for a given portfolio and sector – and state why. Banks with large and complex assets, as well as banks operating in less diverse markets should adopt a risk-based approach to focus first on the most relevant risk types/asset classes/industry sectors/geographies. For example, the firm might develop or use metrics for one sector e.g. power generation, and add others over time. It is useful to disclose the rationale for choosing where to start. Green/brown division of assets can be used as a metric to show how important high-carbon sectors are to the bank, but a green asset is not necessarily low risk. The definition of 'green' and 'brown' used by the bank should be transparent.
- Following on from this high-level approach, the following more detailed disclosures are suggested.

Processes

- Description of process of integrating climate change into risk processes (including credit, market, liquidity, operational).
- Description of monitoring tools/KRIs used.

Risk identification

- Description of most affected sectors and asset classes – noting significant concentrations of credit exposure to carbon-related assets.
- Disclosure of what proportion of assets have been assessed in depth for physical and transition risks.
- Disclosure of quantified exposure to transition and physical climate-related financial risks identified in lending and other financial intermediary business activities identified. Graphics can be helpful. Heat maps showing areas of high, medium or low risk, or a materiality matrix can be useful representations of a bank's assessment of identified risks.
- Description of the scope of scenario analysis conducted, and what percentage of portfolios has been assessed. This should include details of

the scenarios used over what time horizons and which governance bodies/functions use the results of risk assessment and scenario analysis to inform decision-making.

Risk mitigation

- Description of actions taken to mitigate material risks, which could include for example new exclusion policies, updated statement of risk appetite, new lending targets and client engagement efforts. Include information on whether/how this might have changed business strategy in relation to client engagement and talent strategy.
- In due course, disclosure of the resilience of the bank's balance sheet and strategy in the face of a range of climate scenarios, including a 2°C/1.5 °C scenario, reported in quantitative metrics and in terms of key material risks identified. This could include reporting on the proportion of business with corporate clients with science-based targets
- Description of monitoring tools/KRIs used.

Case study: Commonwealth Bank of Australia Annual Report 2018

Commonwealth Bank of Australia have provided a comprehensive overview of how they have integrated climate change into credit risk assessment for their home lending and insurance portfolios. They disclose how they use scenario analysis and its limitations. They also publish details of the potential adverse impacts on demand and valuation of properties in areas affected by climate risk and the potential credit risk of high climate risk properties. Finally, they disclose how they consider climate-related financial risk in business lending, agribusiness and wealth management – reporting on estimated annual losses to customers and the estimated percentage of portfolio considered high risk out to 2060.[33]

Product level disclosure

At the product level, lending presents opportunities to actively facilitate the transition to a climate-resilient and low carbon economy. Thus, on the opportunity side, firms should also be disclosing – at firm and (where appropriate) at product level - steps taken to actively facilitate the shift to a net zero economy and to build resilience to physical climate risks through product design.

Example products could be those aimed at the institutional market – such as green bonds – but also new retail product offerings such as green mortgages, loans or ISAs. There is a general expectation that the market will shift from the

33 Commonwealth Bank of Australia (2018) Annual Report 2018; Becoming a simpler, better bank. www.commbank.com.au/content/dam/commbank/about-us/shareholders/pdfs/results/fy18/cba-annual-report-2018.pdf

current voluntary to mandatory standards (a good example is the case of evolving green bonds standards in the EU). Product providers should seek to provide evidence of how proceeds positively contribute to a climate-resilient economy and setting out the methodology and assumptions used to identify and assert these claims. Detailed disclosures are most likely to be required in relation to bond issuance by the bank, in which case the bank may need to consider climate-related financial risks appropriate to the issuing entity, and green loans or green bond issuance where there may also be ongoing reporting on use of proceeds and/or impact.

The most appropriate place for such disclosures will depend on whether the disclosure relates to information that *does not* need to be updated, which we refer to as 'static' information, or information that it *would be* useful to update, which we refer to as 'dynamic' information.

Suggested metrics to report

Table 3 sets out metrics that banks may consider using to report on an annual basis. Over time, firms should aim to aggregate their information to create metrics that describe the composite risk at the firm level. This could include, for example, the sensitivity of their cash flow under different transition/non-transition pathways. Guidance on this type of disclosure is outside the scope of this document. Throughout, where relevant, the appropriate ranges and confidences in modelled losses should be published.

Table 3. Suggested metrics relating to risk analysis – banks (note not all categories include basic, stretch and advanced metrics, reflecting the varying levels of experimentation in the market)

Category	Suggested metrics	Purpose
Transition risks & opportunities	**The following metrics may apply to the firm's banking books, trading books and debt and equity underwriting activities (referred to as the 'portfolio').**	
	Basic	
	• Proportion of portfolio[34] with exposure to companies with fossil fuel revenues[35] [36]	• Indication of awareness of transition risk exposure; indication of transition risk exposure of existing portfolio
	• Proportion of product held in low carbon opportunities[37]	• Indication of awareness of transition opportunity exposure; indication of transition opportunity of existing portfolio

34 In this context, 'proportion of portfolio' should be expressed as % of gross or net lending.
35 This includes revenues from extracting, processing, producing or distributing fossil fuels.
36 Alternative metrics include % of carbon-related assets in portfolio, £ value of exposure to fossil fuel dependent companies or absolute fossil fuel power generation (GWh).
37 Metrics could include loans to companies in climate change mitigating sectors; companies with >x% revenues from renewables; investments in climate mitigation or adaptation according to the EU taxonomy.

	• Proportion of sovereign bond underwriting undertaken for countries with net zero 2050 targets[38]	• Indication of awareness of transition risk/opportunity exposure; indication of transition risk/opportunity exposure in existing portfolio
	• Proportion of clients reporting against disclosure good-practice e.g. CDP, TCFD, SASB, CDSB	• Indication that investee companies or clients are aware of exposure to climate- related risk/opportunity and have governance in place to disclose
	Stretch	
	• Proportion of clients (lending/ securities underwriting) with explicit and credible climate change risk mitigation plans, e.g. alignment with a transition pathway or committed to science-based targets	• Indication that clients are aware of exposure to and attempting to mitigate climate risks
	• Proportion of securities underwriting revenue from carbon-related business[39]	• Indication of revenues that may be exposed to high transition risk
	Metrics that the bank has identified as reflecting relevant climate-related financial risks for a given portfolio, sector and/or geography as appropriate for its business model (for example, fuel mix of power generation clients if relevant) should also be disclosed.	
	Advanced	
	• Financed (Scope 3) portfolio greenhouse gas emissions (comprised of scope 1 and 2 emissions of clients (including for debt investments and project finance), plus scope 3 emissions of investee where these are significant compared to other sources of emissions) for a particular sector or geography in $MtCO_2e$[40]	• Indication of exposure to transition risk in existing portfolio
	• Weighted average carbon intensity of the portfolio in $MtCO_2e$/£m[41] financed emissions for particular sectors or geographies, according to the bank's prioritisation of risks	• Indication that overall exposure to transition risk is being assessed; indication of exposure to transition risks in existing portfolio

38 This metric relates to transition opportunities rather than transition risk. Physical risks (which are captured by the exposure to key indicators of physical risk by geography) are likely to be more relevant for sovereign credit than transition risk.

39 For banks with capital markets business.

40 GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Category 15 Investments. This category is applicable to investors (i.e., companies that make an investment with the objective of making a profit) and companies that provide financial services. Investments are categorized as a downstream scope 3 category because providing capital or financing is a service provided by the reporting company. The Platform Carbon Accounting Financials (PCAF) builds upon the GHG Protocol's technical guidance for calculating GHG emissions financed by loans and investments. Work is underway to create a global carbon accounting standard covering all major asset classes and is expected to be complete in 2020.

41 Throughout this guidance, firms should choose the most appropriate currency for disclosure.

	• Quantitative, scenarios-based impairment metrics developed using a range of scenarios (e.g. carbon prices or transition pathways) including potential impact on revenues, costs and asset values	• Indication of quantified financial exposure to risk and opportunity
	• Portfolio warming potential of portfolio in °C	• Indication of an awareness of adverse impacts generated by existing portfolio
	In addition to disclosing metrics on the products that they manage, banks should report on the greenhouse gas emissions (scope 1 and 2) arising directly from their own operations.	
Physical risks	**Stretch**	
	• Proportion of portfolio highly exposed to key indicators of physical risks e.g. mortgages secured on property in 100-year and 200-year flood plains, according to the bank's prioritisation of risk, by geography/sector	• Indication of concentration of risk in existing portfolio
	• Credit risk exposure of portfolio in relation to key indicators of physical risk, according to the bank's prioritisation of risk, by geography/sector	• Indication or concentration of risk in existing portfolio
	Advanced	
	• Quantitative, scenario-based impairment metrics (e.g. using forward looking, location-specific models describing environmental hazard) including potential impact on revenues, costs and asset values	• Indication of quantified financial exposure to risk

7 Disclosures by insurers

Physical, transition and liability climate risk are all likely to be of concern to insurers - and so all three should be considered.

This section focuses specifically on the underwriting activities of insurers. It sets out a good practice approach to developing qualitative and quantitative risk management disclosures. The guidance applies both to the primary and reinsurance markets. It should be noted climate change considerations should be integrated into both the asset management and underwriting activities of insurers, and indeed into any lending activities that might be undertaken. . (For details on disclosures for the firm's relevant on or off-balance sheet assets (e.g. investment portfolios, an asset management arm or lending activities), see **Sections 5** and **6**, respectively.)

To date, climate change-related disclosures by the insurance sector mainly relate to assets rather than liabilities, i.e. on the asset management rather than the underwriting side of the business. Going forward it will be important for insurers to consider how climate change-related risks to both sides of the balance sheet may compound each other. Insurers are unique in facing a double jeopardy from climate change in that underwriting of activities that exacerbate climate change will eventually impair firms' abilities to match assets to the liabilities that sit on the balance sheet as a result of underwriting activities. Of course, this duality of identity, both as an investor and an underwriter, offers increased opportunities for insurance firms to engage with clients as both insurance providers and as shareholders.[42]

Insurers should seek to understand and disclose their exposure to climate change-related underwriting risks and opportunities and how they may change, and be managed, over time. For example, how products such as property insurance in the UK may be affected by the increase in physical risks from more frequent and severe flooding and how they will seek to manage those risks, including through lobbying for public policy changes.

While the industry has developed decent capacity in modelling extreme weather and natural disaster-related risk, these models predominantly use backward looking data and are not universally applied. Even within insurance of real assets, modelling capacity is used to assess risk in relation to insured property but not infrastructure. In addition, most natural catastrophe (nat cat) models have a short-term focus of 1-2 years due to their pricing and also the management of accumulation risk.[43] Finally, obvious but true: modelling severe weather-related (nat cat) risk, such as tropical storms, flooding events and wildfires, is not the same as modelling climate change risk.

A continuation of this short-term approach to considering the impacts of a changing climate, risks a disorderly market transition through a cliff-edge repricing of coverage or even a withdrawal of insurance altogether as perils

42 And, where relevant, as lenders.
43 In property-casualty (P&C) insurance, accumulation risk refers to the total combined risks that could be involved in a single loss event (involving one or more insured perils).

change. In addition, insurers, by not disclosing a more strategic view of climate-related financial risk and opportunity, are likely to miss the opportunity to facilitate a proactive discussion with clients and government/environmental regulators on catalysing an orderly transition to a net-zero carbon and climate-resilient economy.[44] Thus, as with other financial industry sectors, more internal capacity, the availability of better and forward looking data and models and a wider range of tools is likely to be needed to fully identify, manage and disclose climate change-related physical and transition risks and then in due course climate change-related financial disclosures.

As with asset management and lending, assessing the impact of climate change on insurers' underwriting decisions or the impact of underwriting decisions on climate change is a nascent discipline. There are efforts underway to develop methodologies to measure carbon intensity of portfolios, but these can be difficult to apply in practice. This is because not all underwriting activity is equal either in terms of contributing to climate change and creating climate change-related risk or the fundamental insurable risks being changed by ongoing climate change. For example, life insurers need to consider climate change related losses but won't be directly contributing to them through underwriting activities. General insurers (home and vehicle insurance etc.) are also more likely to be responding to than contributing to climate change risk. Life and general insurer disclosures will focus on their understanding and changing business strategy in response to altered losses. Large commercial insurers, Lloyd's and the broker market along with reinsurers may be, through underwriting activities in the real economy, directly contributing to climate change risk and so should be working toward disclosing how they are understanding, managing and responding to both risk and opportunity.

Firm level disclosures

As for asset management and banking activities, narrative reporting in relation to underwriting activities is key to provide context. Where metrics are used, their purpose should be explained. They should be retained and tracked to demonstrate progress with an explanatory narrative report. Any known limitations should be reported; they should be updated annually.

Risk management disclosures – Users of information want insurers to disclose the process by which firms have identified, assessed and managed climate-related risks and opportunities to themselves as insurers, within the primary or reinsurance market, as well as the extent to which these processes are integrated in mainstream risk management practice. This includes information about risk identification and assessment; how the firm envisages the opportunities and risks, including the prioritisation of risks and their likelihood and impact; changes the firm identifies to make to capitalise on a changing climate and related opportunities; what scenarios are being used to understand what might affect the company's sustainability and viability, and how; how impact is measured; and the challenges and the success of its strategy through strategically aligned, reliable, transparent metrics and financially-relevant information.

44 This includes in relation to where protection gaps in insurance coverage might emerge due to climate-related financial risk and stronger public-private cooperation is needed.

- **Operational risk management disclosures** – As for asset managers and banks, at the firm level, qualitative and quantitative information should be provided relating to the insurer's business operations, both in terms of risk management processes (for example, inclusion of physical climate change impacts in operational risk assessment and management, and details of adaptation measures) and reducing the financial institution's own operational GHG emissions (for example, information about operational and travel carbon emissions). KRIs can be used to set a benchmark and then track progress.
- **Public engagement risk management disclosures** – Firm level efforts on advocacy to change the market framework and engagement with client companies (in particular within the commercial insurance space) for whom underwriting is provided should be disclosed. For example, this could include engaging contacts in client companies highly exposed to the climate transition on how the business plans to evolve to become Paris Agreement-aligned (for example by disclosing science based targets); the need to build climate-resilient infrastructure; or dialogue with government and regulators on existing or emergent climate-related insurance protection gaps. Such efforts can be collaborative though industry associations or bilateral. They should also include disclosures relating to situations where risk is deemed so high that underwriting is no longer feasible to provide, alongside a rationale for the withdrawal of business.
- **Underwriting risk disclosures**[45]
  - From a top down perspective, the PRA has already prescribed a climate change scenario-related stress test and Lloyd's also prescribes annual realistic disaster scenarios. However, these approaches are more akin to stress tests than the kind of scenario modelling envisaged by the TCFD. This is because they apply a snapshot of how resilient an institution is to specific modelled climate change-related impacts at one particular point in time rather than taking a dynamic and long-term approach to modelling future scenarios. Insurers and reinsurers, but also syndicates and brokers, should therefore disclose what they are doing to start to develop a longer term modelled view of how physical risks but also transition and litigation risks might affect their businesses in the face of a successful or unsuccessful transition to a net zero carbon economy by 2050.
  - In terms of disclosures, firms should set out the process for undertaking scenario analysis, taking into consideration different climate-related scenarios, including physical and transition (including litigation) risk scenarios, and the rationale and limitations of the chosen approach. For physical risks, explain how climate change assessment differs from traditional natural catastrophe assessment.
  - As scenarios become better developed, firms should seek to disclose how the results from the scenario analysis used to understand the resilience of the organisation's current business strategy have impacted on key decisions and how strategies might change to address such potential risks and opportunities identified
  - From a bottom up perspective, insurers will need to start evaluating risks on a line-of-business, sector-by-sector and geographic basis and should select and disclose the metrics that reflect relevant climate-

45 As noted earlier, for guidance on disclosures on asset management and lending activities refer to Sections 5 and 6, respectively.

related financial risks but also opportunities for a given portfolio, industry sector and geography – and state why they have chosen the selected approach. Insurers with large and complex underwriting portfolios, as well as those operating in less diverse markets, should adopt a risk-based approach and focus first on the most relevant risk types/industry sectors/geographies. For example, the firm might develop or use metrics for one sector e.g. oil and gas exploration or power generation and add others over time. It is useful to disclose the rationale for choosing where to start. A heatmap of green/brown division of businesses or assets being underwritten can be used to show how important high-carbon sectors are to the underwriter. However a green asset is not necessarily low risk given the broad nature of climate change risk and over time a value chain dimension will need to be layered into green/brown analyses.

- Once this process is underway, firms should disclose the process for integrating priority climate-related risks and opportunities into underwriting processes across the business (considering relevance to the nature of the business) over the short, medium, and long term. They should set out an understanding of physical but also transition and liability risk, including where and how it might emerge from the underlying portfolio insured. Firms should also state the anticipated impact of climate-related financial risks and opportunities on firm business, strategy and financial planning. Incorporate the material outcomes of climate-related financial risk scenarios into underwriting decisions.
- Given the fragmented nature of the industry and key role played by Lloyd's in the UK insurance market, Lloyd's should both disclose a house view on these issues and work with syndicates and their brokers to similarly develop a view on sector-by-sector risks and encourage disclosures by them.

Following on from this high-level approach, the following more detailed disclosures are suggested that could be adopted over time:

- Description of process of integrating climate change into risk processes and taxonomies (including actuarial, underwriting, credit, equity, market, liquidity, operational, pricing and reserving, and natural catastrophe risk).
- How, where possible, insights from asset management operations are integrated into underwriting and vice versa.
- Description of monitoring tools/KRIs used.
- Description of most affected business activities – noting significant concentrations of credit exposure to carbon-related assets.
- Disclosure of what proportion of underwriting activity has been assessed in depth for physical, litigation and transition risks.
- Disclosure of quantified exposure to transition and physical climate-related financial risks identified in underwriting business activities identified. Graphics can be helpful.
- Disclosure of whether materiality matrix models have been used, including as a 'heat map', to show exposure to risk versus risk score (H/M/L). Include information on whether/how this might have changed business strategy in relation to client engagement and talent strategy.
- Description of the scope of scenario analysis conducted, and length of time over which scenarios are run (e.g. 5, 10, 15 years out) and what percentage of underwriting activities has been assessed. This should include details of

the scenarios used over what time horizons and which governance bodies/functions use the results of risk assessment and scenario analysis to inform decision-making.
- In due course, disclosure of the resilience of the insurers balance sheet and strategy in the face of a range of climate scenarios, including a 2°C/1.5°C scenario, reported in quantitative metrics and in terms of key material risks identified. This could include reporting on the proportion of underwriting provided to corporate clients with science-based targets.
- Description of actions taken to mitigate material risks, which could include example new exclusion policies, updated statement of risk appetite, new underwriting targets and client engagement efforts.
- Where third party models have been used, this should also be disclosed.
- Aggregate exposure to climate-related financial risk, both physical and transition, across underwriting and asset ownership should be calculated and disclosed.

Product-level disclosures

At the product level, general and corporate insurance in particular presents opportunities to actively facilitate the transition to a climate-resilience economy. For example, replacing damaged items covered under insurance with more sustainable and resilient versions of the original (such as rebuilding property to a higher energy efficiency and flood-resilience standard). Thus, on the opportunity side, firms should also be disclosing – at firm and (where appropriate) at product level, steps taken to actively facilitate the shift to a net zero economy and to build adaptation and resilience to physical climate-related financial risks through product design, risk engineering and claims services.

Suggested metrics to report

Table 4 sets out metrics that insurers may consider using to report on an annual basis. Insurers should select metrics that are most appropriate to the lines of business they are in. Over time, firms should aim to aggregate their information to create metrics that describe the composite risk at the firm level. This could include, for example, the sensitivity of their cash flow under different transition/non-transition pathways. Guidance on this type of disclosure is outside the scope of this document. Throughout, where relevant, the appropriate ranges and confidences in modelled losses should be published.

Table 4. Suggested metrics relating to risk analysis – insurers (note not all categories include basic, stretch and advanced metrics, reflecting the varying levels of experimentation in the market)

Category	Suggested metrics	Purpose
Transition risks & opportunities	**The following metrics apply to the firm's underwriting activities (note that for the firm's relevant on or off-balance sheet assets (e.g. investment portfolios), firms should refer to the asset management guidance section 5c)**	
	Basic	
	• Proportion[46] of underwriting activities that incorporate climate-related risks into the underwriting process	• Indication of level of assessment of overall exposure to climate risk
	• Number and value (e.g. net premiums) of climate-related (such as related to energy efficiency and low carbon technology) underwriting products offered	• Indication of awareness of transition opportunity exposure; indication of transition opportunity exposure
	• Proportion of underwriting activities for firms reporting against disclosure good-practice e.g. CDP, TCFD, SASB, CDSB	• Indication that clients are aware of exposure to climate-related risk/opportunity and have governance in place to disclose
	Stretch	
	• Proportion of underwriting activities for firms with explicit and credible climate change risk mitigation plans, e.g. alignment with 'a transition pathway' or committed to science-based targets	• Indication that clients are aware of exposure to and attempting to mitigate climate risks
	• Proportion of underwriting activities for firms/assets exposed to fossil fuel revenues[47] [48]	• Indication of awareness of transition risk exposure; indication of transition risk exposure of existing underwriting activities
	Metrics that the insurer has identified as reflecting relevant climate-related financial risks for a given product, sector and/or geography as appropriate for its business model (for example, fuel mix of power generation activity underwritten if relevant) should also be disclosed.	

46 In this context, 'proportion of activities' should be expressed, as applicable, as both (a) the fraction of activities (e.g. 15 companies out of a portfolio of 47) and (b) the percentage of the activities (e.g. 45% of the underwriting book by value).

47 This includes revenues from extracting, processing, producing or distributing fossil fuels.

48 Alternative metrics include % of carbon-related assets underwritten, £ value of exposure to fossil fuel dependent companies or absolute fossil fuel power generation (GWH) by underwritten activities.

	Advanced	
	• Financed (Scope 3) greenhouse gas emissions at portfolio level[49] related to underwriting activities (which may include scope 1 and 2 emissions related to underwriting activities, plus scope 3 emissions related to underwriting activities where these are significant compared to other sources of emissions), according to the insurer's prioritisation of risks, in $MtCO_2e$[50]	• Indication of exposure to transition risk for existing underwriting activities
	• Quantitative, scenarios-based impairment metrics developed using a range of scenarios (e.g. carbon prices or transition pathways)	• Indication of quantified financial exposure to risk and opportunity
	In addition to disclosing metrics on their underwriting activities, insurers should report on the greenhouse gas emissions (scope 1 and 2) arising directly from their own operations.	
	Basic	
Physical risks	• Proportion of underwriting activities exposed to identified key indicators of physical climate risk. e.g. Probable Maximum Loss (PML) of insured products from weather-related natural catastrophes	• Indication of concentrations of risk for existing underwriting activities
	• Actual natural catastrophe and severe weather-related losses by business unit across the financial institution – gross and net (after reinsurance)	• Indication that risk assessment systems are in place and indication of impact of adverse weather on profit
	• Impact of natural catastrophe and severe weather-related losses on combined operating ratio	• Indication that risk assessment systems are in place and indication of impact of adverse weather business resilience is understood
	• For life insurers, concentration of risk by geographic region e.g. % by region	• Indication of concentrations of risk for existing underwriting activities

portfolios should remain separate from any other carbon footprinting measures, such as that of investment portfolios

50 The GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Category 15 Investments does not yet provide specific methodology for insurance portfolios. The CRO Forum (http://www.thecroforum.org) is working on a carbon footprinting methodology to quantify carbon emissions in (re)insurance portfolios. The proposal is to use average carbon intensity (tonnes CO2e per $M revenue) of a portfolio of (re)insurance transactions which would be most consistent with TCFD metrics. Specific carbon intensity measures for certain industry sectors and insurance lines of business have also been proposed.

	Stretch	
	• Increase granularity of physical risk exposure e.g. by total amount of monetary losses attributable to insurance pay-outs from (1) modelled natural catastrophes and (2) non-modelled natural catastrophes, by type of event and geographic segment (net and gross of reinsurance)	• Indicates financial impacts of climate change on business resilience and firm's maturing understanding of such impacts
	Advanced	
	• Quantitative, scenario-based impairment metrics (e.g. using forward looking climate/natural catastrophe models)	• Indication of quantified financial exposure to climate risk
	• In due course once scenario analysis is embedded, actual versus expected weather-related losses under different scenarios by business unit	• Indicates financial impacts of climate change on business resilience and firm's maturing understanding of such impacts
	• For non-life insurers, potential annual average loss and 1:100 year Return Period Aggregate Exceedance Probability (AEP) at different points in time using a range of scenarios. Life insurers could show best estimate liabilities, risk margin, transition measures on technical provisions (TMTP) and other liabilities.[51]	• Indication of concentrations of risk for existing underwriting activities

There are good examples of risk management disclosures in the insurance sector, such as Aviva and AXA's climate-related financial disclosures. However, these are mainly on the asset management side. On the underwriting side, the Hiscox Group disclosures stand out.

Case study: Hiscox Group Climate Report 2019[52]

On underwriting disclosures, HISCOX have provided information relating to how they model physical risk losses and disclosed a high level overview of their risk management framework and their ORSA framework. They publish a box plot and whisker diagram of modelled losses and realistic disaster scenarios.

51 See Discussion Paper: The 2021 biennial exploratory scenario on the financial risks from climate change December 2019.

52 Hiscox Group (2019) Climate report. www.hiscoxgroup.com/sites/group/files/documents/2019-07/Hiscox-Climate-Report-2019_2.pdf

8 Suggested timeline to implementation

This guidance proposes a two-stage phased implementation (see below). While asset managers, banks and insurers are facing different emergent regulatory expectations, the timelines over which it is expected that rules changes will be in place are broadly similar. For example, in the UK, the 2019 Green Finance Strategy set out the expectation that large asset owners (clients of asset managers) and listed companies (which will include many asset managers, banks and insurers) should disclose in line with the TCFD recommendations by 2022. In addition, further ESG disclosure obligations on banks and for investors (both at firm and fund level) will come into force through 2021 and 2022. For many financial institutions, therefore, Phase 1 of disclosure will need to be implemented by 2021 and Phase 2 by 2022. While technical details on the exact form of these reporting requirements are yet to emerge fully, the TCFD recommendations provides some insights into how to future proof developing an approach to disclosure on the financial risks from climate change. Firms not caught under these new reporting obligations can, of course, opt for a slower implementation timelines.

Phase 1: Focus on high level, mainly qualitative, disclosures
Suggested timeline to complete this phase is mid-2021

- **Governance:** Put in place and disclose governance arrangements – board oversight and management roles, for example arrangements for an appropriately staffed cross-business climate change working group.
- **Pathfinder strategy and risk management work:** Assess what actions are already in place and develop and disclose a firm-level strategy. Agree and start to implement risk analysis processes to assess the climate-related financial risks and opportunities the firm faces, disclose the process by which this is undertaken and start to disclose basic metrics.
- **Disclose strategy and risk management processes:** As risk assessment and management becomes more in depth, disclose metrics for monitoring material risks. Disclose proportion of assets analysed. Publish charts/graphic representations of high-level risk 'heat maps'. Develop stretch metrics that are used to measure and monitor exposure to the identified risks.

Phase 2: Focus on adding quantitative disclosures and complete roll out

Suggested timeline for this phase is mid-2021 to end of 2022

- **Disclose financial resilience and targets:** Disclose financial impacts from scenario analysis, demonstrating an assessment of resilience to climate-related financial risks at firm and, where relevant, product level, set targets for the firm and disclose qualitative information and quantitative, ideally stretch level (and as possible advanced) metrics.
- **Roll out complete:** Full disclosure, including targets and commitments (including on executive remuneration) that the firm is deploying to actively contribute to achieving a net zero carbon economy by 2050.

9 Gaps and barriers

This section summarises the key gaps and barriers facing financial institutions making decision-useful climate change-related financial disclosures.

Limited and/or poor quality data

Confidence in data remains a challenge. The ideal is for disclosure information to be specific and complete; clear, balanced and understandable; reliable, verifiable and objective, and time-bound. However, currently there is limited reliability and coverage of input data relating to both physical and transition risk. This is the case even for some of the metrics categorised in this chapter as 'basic'. For example, across the board, scope 3 greenhouse gas data (i.e. indirect emissions that occur in a company's value chain) are not comprehensive and yet are essential for financial institutions to understand climate-related financial risks they are exposed to in many sectors, for example oil and gas. Disclosure by private companies in particular is often lagging or entirely absent. It is hoped that the strengthened guidance on climate-related financial reporting, for example the UK government's expectations that all listed issuers and large asset owners will be reporting in accordance with the TCFD's recommendations by 2022, will, in due course, address this.

However, given the urgency of the climate emergency, incomplete or missing data should not become a reason for inaction. Some disclosures are better than none. Financial institutions should, however, make clear in their disclosures their methodologies and assumptions, alongside any limitations and potential inaccuracies of the input data and the indicative nature of any forward-looking analysis. By describing these uncertainties, reporting entities can seek to limit their liability exposure for the risks associated with these uncertainties. Commitments should be made by regulators not to penalise financial institutions for limitations on input data, especially where reasonable efforts have been made to ensure the data are as complete and robust as possible. Section 5 of the Annex provides more detail on liability and litigation risks.

Where data are missing other methods can be used. Reasonable efforts could include estimating emissions (and disclosing where such estimations have been used and the methodology used for calculation) and/or routinely-used questionnaires to get the data needed to input into risk assessments. This is an especially useful approach for investment/lending/underwriting to private companies, where disclosure can be limited or non-existent.

There are ongoing initiatives to improve disclosure and standardisation of the corporate disclosures that financial institutions use as input data for their own analysis and disclosures, including the Corporate Reporting Dialogue's Better Alignment Report.[53] Initiatives to improve focus on decision-useful information, streamline reporting requirements for firms and improve clarity for investors are welcome.

53 Corporate Reporting Dialogue (2019) Driving Alignment in Climate-related Reporting. https://corporatereportingdialogue.com/publication/driving-alignment-in-climate-related-reporting/

Many risk assessment tools inadequate and/or potentially misleading

Given the emergent nature of climate change-related risk assessments, new tools are emerging from a range of third party providers. The lack of transparency around assumptions and methodologies of some of these off-the-shelf models creates difficulty in fully disclosing limitations of these tools. In addition, given the complexity of climate-related risks, they may provide only partial solutions – several, for example, only look at fossil-fuels-based transition risks and opportunities, not at second order effects. The impact of such limitations can be amplified across the financial industry if a particular provider of tools or data is used widely by financial institutions.

Lack of standardisation of metrics and methodologies

As noted in Section 3, there are significant issues with non-standardisation of metrics. Confounding this are issues with the non-standardised calculation methodologies. For example, there is no standardised methodology for calculating financed emissions; tracking green finance, or energy transition finance; or indeed even standard definitions of high-carbon sectors (beyond high-level TCFD definitions).

Going forward, there would be value in regulators putting in place these key definitions, facilitating a convergence of methodologies and setting out basic expectations with respect to the principles laid out above, but, in addition, advice on basic reporting metrics that should be adopted by banks, asset managers and insurers.

Considerations of materiality

One of the challenges with responding to climate change is around materiality. The International Accounting Standards Board (IASB) defines information as material 'if omitting, misstating or obscuring it could reasonably be expected to influence the decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity.[54] What is material in any particular case is always a matter of judgement. It is not fixed, and the things that are deemed to warrant disclosure may change depending on both internal and external circumstances.

Some firms may be reluctant to include climate changed-related financial disclosures in their financial filings unless it meets financial materiality thresholds or is material to investors (i.e. 'if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements').

54 www.iasplus.com/en/news/2018/10/definition-of-material

Despite this, it is increasingly the case that financial institutions are stating climate change-related risk is of material importance to them. This was reinforced in November 2019 by the IASB in guidance on climate-related disclosures[55]. Firms must disclose all material risks (including material climate-related risks) in their mainstream report in accordance with existing obligations under the Companies Act.

In addition to disclosing all material risks in mainstream reports, as a first step firms that are not comfortable with reporting all climate-related financial information in their financial and strategic reports may wish to start with standalone reporting (as this may carry with it a lower risk perception from financial institutions). However, as the TCFD unequivocally states, such disclosures should be subject to the same robust governance processes for reviewing such information as would apply to financial information included in the mainstream report.

Looking ahead, the UK Government has set out an expectation that all listed companies and large asset owners should disclose in line with the TCFD by 2022. TCFD recommends disclosures on governance and risk management take place, regardless of financial materiality, and that disclosures on strategy and metrics and targets take place where material. By 2022, firms should include all material climate-related financial disclosures and TCFD disclosures on governance and risk management (regardless of materiality) into audited financial statements and/or existing regulatory reporting, such as that mandated by Capital Requirements Regulation in particular Pillar III disclosures.[56] The issue of materiality is discussed in more detail in Annex 1 Section 3.

Further clarity on how to approach the questions of where to disclose/materiality can be provided by financial supervisors. The PRA's April 2019 Supervisory Statement arguably identifies climate change as a material risk, thus effectively ending the materiality debate if regulated firms adopt this interpretation.[57] A similar move from the FCA, following its March 2020 consultation on requiring all commercial companies with a premium listing to make climate related disclosures consistent with the TCFD on a comply or explain basis, could help facilitate a consistent approach to reporting from other regulated firms.

A further gap of note is a capacity gap in the ability of auditors to actually audit climate-related financial disclosures effectively.

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55 www.iasplus.com/en-gb/news/2019/11/ifrs-and-climate-related-disclosures The guidance stated that whilst climate-related risk may not feature explicitly in the IFRS Standards, investors have made it clear that climate-related risks are important in their decision making. Therefore, due to the implication of the materiality definition and the Practice Statement, companies may need to consider such risks in the context of their financial statements rather than solely as a matter of corporate social responsibility reporting. This is in line with IASB's guidance on Making Materiality Judgements, which sets out that external factors, including investor expectations, may make some risks 'material' and may therefore warrant their disclosures in financial statements, regardless of their quantitative impact.

56 Banks (in common with asset managers and insurers) already have requirements under Pillar III disclosures to set out their approach to material risks and to ensure that the risk profile is comprehensive (CRR article 431). This could arguably mean that firms should be disclosing today climate-related financial risks and their approach to risk management and mitigation Under CRR II (article 449a), banks will be required to disclose specific information in relation to ESG risks from June 2022 onwards. This publicly available document sets out the key risks that the firm takes and how they manage and mitigate them and how much capital the firm holds for the risks it takes. Pillar III disclosures are used by investors and develop over time as techniques and risk management change so this should be seen as a good starting point for climate-related financial risk disclosure development. It would be advisable for firms to begin implementing climate-related financial risk disclosures now rather than waiting until 2022.

57 PRA (2019) Supervisory Statement SS3/19: Enhancing banks' and insurers' approaches to managing the financial risks from climate change www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/supervisory-statement/2019/ss319

Competitiveness concerns

Another barrier or perceived barrier to financial institutions disclosing climate-related financial information is the potential competitive disadvantage that may arise. This may vary depending the level of detail disclosed, and in particular if reporting suggests an outlier position, either positive or negative. Firms are unlikely to make disclosures at a level of granularity that would cause competition concerns, however introducing minimum expectations around disclosures could (i) help provide comfort to firms, since many disclosing at the same time are likely to be in a similar position and (ii) enable those that have invested ahead of time and are well positioned to gain market visibility and reward for their efforts.

Annex 1: The UK legal frameworks for disclosure

This Annex gives a non-exhaustive description of the key legal frameworks for disclosure of climate-related risks by financial entities in the UK. The table appended to this Annex lists roughly 20 regulatory reporting requirements which each capture ESG factors either specifically or as part of general disclosure. It does not attempt to capture the many voluntary regimes in place.

The reporting landscape is crowded and comprises a matrix of: (i) existing reporting rules covering environmental risks, strategy, governance and related matters; (ii) comply or explain-based reporting provisions and multiple sources of guidance and best practice recommendations encouraging voluntary climate-related disclosures; and (iii) incoming regulations regarding the provision of ESG and sustainable finance information.

With this context in mind, in adding to this area of corporate and financial regulation, it is important to consider the proportionality and coherence of the reporting requirements. This means considering carefully the purpose of disclosures, their intended audience and the connected issue of what remedies and liabilities should arise if disclosure is not made, or is not fit for purpose.

Section 1 below and the Appendix summarise **what needs to be disclosed and by whom**, under existing and prospective reporting obligations applicable at an entity level to UK-incorporated banks, insurers and asset managers under UK (including EU) law. Some of these obligations apply under specific sectoral regulations. Others apply under company law or to listed entities, regardless of business sector. Entities that are incorporated in other jurisdictions or whose securities are not admitted to trading on a regulated market may not be subject to the requirements that apply only to UK incorporated or listed entities. Non-UK group entities may have to comply with other requirements under their own national laws. Section 2 considers the **purpose** of disclosure in different contexts and Section 3 the judgements to be made in assessing **materiality**. Section 4 considers **where** disclosure may be made. Section 5 discusses the **liability and litigation risks** that may apply to climate reporting. Section 6 provides some concluding thoughts on ensuring that, as it continues to evolve, the matrix of disclosure requirements is clear and fit for purpose for both users and disclosers.

1. Existing and prospective reporting obligations

Who is required to report?

Reporting requirements applicable to UK entities stem from multiple sources, which makes for a complex matrix of reporting obligations. These have developed incrementally over a number of years, and the ESG policy agenda continues to extend the volume and scope of disclosures required. Rules may apply by reference to the form of entity through which business is carried on, whether its securities are publicly traded, or a combination of both. Rules may also apply by reference to the type of business carried on. The primary sources of reporting obligations include: company or environmental law, accounting standards, securities markets regulation and financial services sector regulation. Reporting may be required at parent company level or at the level of operating or issuing entities, or at fund or product level.

What must be reported on?
The policy behind a reporting obligation will ideally determine in a coherent manner what must be reported on and the purpose of reporting, together with the location of reporting. However, policymakers' desire to influence behaviours and satisfy the demands of a wide range of potential stakeholders has not necessarily been matched by a similarly calibrated means of reporting. For example, annual reports of companies are primarily aimed (under UK law) at informing shareholders for the purposes of stewardship and, in the case of publicly traded companies' investors, for the purpose of their investment decisions. Over recent years, increasing amounts of disclosure requirements have been required in a variety of locations and which are intended not just for shareholders or investors but for wider stakeholders. These have been driven by social policy, with governments using transparency and disclosure as a way of nudging companies and/or their directors to focus on particular priorities (examples include gender diversity, gender pay gaps and modern slavery, as well as climate-focused energy and emissions reporting). This transparency may correlate to changes in the interests and scrutiny of investors but does not necessarily correspond directly to investors' or other users' specific concerns.

Summary of key obligations and recommendations
The table in the Appendix sets out a high-level summary of key sources of reporting obligations that include climate related information for UK entities, who they apply to, and the context and purpose of the reporting obligation. The table summarises the entity level reporting obligations, and does not consider disclosures that may need to be made specifically to customers, or in relation to certain products.

As this table shows, there are numerous separate requirements, but also a considerable degree of overlap among some of them. It may seem efficient to meet all the obligations of reporting in a single place. However, this may overlook the fact that each obligation has a specific audience, purpose and objectives, and liability regime, as discussed below.

2. Purpose

UK reporting obligations derived from different sources may have, implicitly or explicitly, different purposes. These purposes may drive the location of required reporting. Reporting may also service multiple purposes: for example, companies that are admitted to trading on a regulated market, are required to publish their annual report to shareholders and also to investors (both existing and potential) via regulatory information services. Some additional requirements are imposed on entities that are considered "public interest entities" (a category whose membership is determined by size, type of business and/or admission to trading on a regulated market). Many of these different requirements overlap in that they result in the same information being disclosed, but reporting entities need to be aware of the different purposes the information is serving.

Different materiality thresholds will apply to different requirements because what is considered material depends on the intended audience to whom the report is directed and the purpose for which the information is being used. The following examples illustrate this.

Strategic Report
The strategic report of a parent company should include information at a strategic level that is material to the group as a whole. Materiality will be judged on the basis of the size of the business or risk relative to the group as a whole, as well as with reference to the purposes of the strategic report, which include enabling an understanding of the development and performance of the business for existing and in some cases potential shareholders. The purpose of an annual report (which includes the strategic report) is to provide information needed by shareholders to make resource allocation decisions (to buy, to sell, to hold) and for stewardship purposes (e.g. deciding how to vote on resolutions at annual general meetings such as the election of directors and executive remuneration). The strategic report, including the stand-alone Section 172 statement, also has an explicit purpose of helping shareholders assess how the directors have performed their duty to promote the success of the company. [58] The Section 172 statement requires directors to specifically describe how they have fulfilled this duty while having regard to the stakeholders and other matters, including impacts on the environment, specified in that Section.[59]

In the case of certain companies, including traded companies, the strategic report must also include a non-financial information statement which enables shareholders to understand both the impact of environmental matters on the company and the impact of the company's business on the environment. This includes consideration of factors such as climate change.[60]

If subsidiaries within the group prepare strategic reports, there may be more granular disclosure at the subsidiary level, as the same criteria will apply to the materiality of risks within each subsidiary (including group entities below that subsidiary).

Financial reporting
Financial reporting has the objective of providing financial information about the relevant entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity.

Prospectuses
In the context of prospectuses, the audience is investors, as prospectuses are produced at the point of an offering of securities or admission of securities to trading on a regulated market. The detailed mandatory contents of prospectuses, which include general risks, as well as environmental risks (where relevant) that impact an issuer's business, are subject to the overarching obligation to include 'necessary' information, being information which is material to investors for the purposes of making an informed assessment of, among other things, the financial position and prospects of the issuer.

58 Section 414C(1) of the Companies Act 2006
59 Section 414CZA of the Companies Act 2006
60 Section 414CA of the Companies Act 2006. The non-financial information statement is derived from the Non-Financial Reporting Directive (Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups).

Product specific disclosures
Incoming EU rules requiring product specific disclosures for customers of financial institutions regarding sustainability factors have a variety of approaches. For example, the Sustainable Finance Disclosures Regulation will require financial market participants to include several types of sustainability-related disclosures in the pre-contractual information they provide to clients about products marketed as having environmental or social characteristics – such as how environmental or social characteristics of a product are met and whether any index used as a reference benchmark is consistent with those characteristics. The overall intended purpose of these types of disclosures is to ensure investors in financial products can make informed investment decisions based on sustainability factors if they wish to do so.

Pillar III reporting
Financial institutions already have requirements under Pillar III disclosures to set out their approach to material risks and to ensure that the risk profile is comprehensive. This could arguably mean that firms should be disclosing today climate-related financial risks and their approach to risk management and mitigation. This publicly available document sets out the key risks that the firm takes and how they manage and mitigate them and how much capital the firm holds for the risks it takes. Pillar III disclosures are used by investors and develop over time as techniques and risk management change so this should be seen as a good starting point for climate-related financial risk disclosure development. Under CRR II (article 449a), banks will be required to disclose specific information in relation to ESG risks from June 2022 onwards.

3. Materiality

As a general principle, materiality is important not only to ensure that sufficient information is included in a report or document, but also to avoid the risk of the document becoming overcrowded with information such that important information is obscured. The Financial Reporting Council, for example, emphasises the need for meaningful and informative reporting which sheds light on matters of strategic importance and which is consistent with the size and complexity of the business.

What is material in any particular case is always a matter of judgement. It is not fixed, and the things that are deemed to warrant disclosure may change depending on both internal and external circumstances. In relation to financial reporting, the International Accounting Standards Board (IASB) defines information as material ''if omitting, misstating or obscuring it could reasonably be expected to influence the decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity.

Climate-related disclosure that may be material to investors are likely to evolve over time for a variety of reasons, including as a result of changes in the operations of the relevant entity, and in mandatory disclosure requirements that apply to the markets in which the reporting entity operates. In particular, disclosure will develop by reference to an evolving market understanding of, and government attitudes towards, climate change, fossil fuels, opportunities for renewable technologies and the 'energy transition' which may impact the way in which an entity operates its business in the future.

In relation to product disclosures, the level of information necessary to achieve their objective as described above is not always clear. Whilst the detail of these disclosures under the Sustainable Finance Disclosures Regulation is still to be set out in Level 2 measures (which may modify the situation), the Regulation does not provide a consistent concept of 'materiality' linked to making informed decisions. For example, whilst disclosures under the Regulation in relation to 'sustainability risk' are defined to only include ESG risks that would have an actual or potential 'material' negative impact on the value of the investment, certain disclosures in relation to 'sustainability factors' generally refer to the 'principal adverse impacts' on these factors. How this plays out in practice remains unclear.

4. Location of disclosure

A coherent reporting framework should consider both materiality and the right place to include relevant disclosure for the intended audience, to avoid the risk of obscuring disclosure in a particular type of report or investor document with information that is not material in its context.

When considering where information is best disclosed, one approach would be to address reports to the different stakeholder audiences. However, audiences may overlap (e.g., shareholders and investors) and overlapping requirements risk reporters having to produce, and users having to read, multiple reports covering similar information, as well as increasing the risk that information is not presented in a consistent manner.

A case can therefore be made for reviewing the various overlapping information requirements to ensure that users of reports are not receiving information that is not material to them in light of the purpose and target audience of the particular report.

When considering the introduction of new reporting requirements, it is important to also consider the location of prescribed disclosure, not only to ensure that the information reaches its target audience in an effective manner, but also because the different liability regimes that attach to information in different contexts can affect the cost to the information provider of disclosing that information.

The NFRD currently requires certain companies to disclose their non-financial information either in the management report (accompanying the accounts), or by exception in a separate document. The UK implementation of the NFRD (via the Companies Act), however, requires the information to be included in the strategic report. This means that in the UK, non-financial reporting is explicitly governed by the purpose of the strategic report, as well as the directors' responsibilities, auditor review, and the third party liability regime that attaches to the strategic report, which would not apply if it was in a separate location.

5. Liability and litigation risks

An effective disclosure regime requires the possibility of effective remedies or sanctions being imposed for failures to make proper disclosure.

Sources of Potential Liability
Given the multiple regimes under which entities may be required to make climate-related risk disclosures, reporting entities are exposed to various sources of potential liability. Each disclosure regime (whether based on general legal principles or statutory regimes applicable to specific types of disclosure) has its own principles attaching to who may be held responsible for disclosure, who may bring a claim and what the potential sanctions may be. In many cases, there may be multiple possible liabilities arising in relation to a single disclosure failure, although the nature and extent of liability will generally depend on whether the failure was deliberate or inadvertent, how material it was and who has suffered harm as a result.

Annual report liability regime
For example, a single failure by a UK company to disclose a climate-related risk in its annual report could potentially involve a range of liabilities under UK law and regulation, including:

- criminal liability for breach of provisions of CA2006;
- civil liability of its directors to the company for false or misleading statements (limited by s 463 CA2006);
- liability of the company to investors either under general principles of liability for misstatement (for example fraud or tort) or under statutory provisions; and
- sanctions imposed by the Financial Conduct Authority (**FCA**) for listing rules breaches, transparency rules breaches or for market abuse.

In particular, directors may be personally exposed to liability in relation to the preparation of reports and accounts, including criminal sanctions relating to the preparation of these documents under the Companies Act and, in the case of companies with publicly traded securities, under the FCA's rules.

Each of these potential forms of liability is subject to specific provisions of company law and/or the Financial Services and Markets Act 2000 (**FSMA**) as well as the general law. For example, the statutory liability regime under section 90A and Schedule 10A FSMA (see further below) limits the extent of issuer and director liability in relation to information published by entities whose securities are admitted to trading on a securities market.[61]

Any liability, whether criminal, administrative or civil, will of course depend on the nature of the failing and the degree of culpability of those responsible.

61 The statutory regime under FSMA contrasts with the position under the general law for the reports and accounts of unlisted companies, where a merely negligent statement or omission may give rise to liability to members who have suffered loss, with the purpose of the accounts disclosure generally being regarded as stewardship rather than to allow the reader to make an informed investment decision (although other responsibilities may be specifically assumed on a case by case basis).

Prospectus liability regime
The UK statutory liability regime in relation to prospectuses reflects higher standards and/or risk expected at the point at which an issuer offers new securities or is admitted to trading on a regulated market. The compensation regime under section 90 FSMA makes persons responsible for a prospectus (which may include the issuer and its directors) liable to pay compensation for losses incurred as a result of untrue or misleading statements or omissions of matters required to be included in the prospectus. This is subject to defences involving reasonable care, so that in effect liability only arises if the issuer or other responsible persons are deliberate, reckless or negligent in respect of material information.

Further examples where liability regimes have been tailored to suit the nature of particular disclosure requirements include the specific regimes relating to prospectus summaries and key investor information documents for collective investment schemes. In recognition of the limitations imposed by the requirements for brevity, no civil liability is imposed unless a summary, when read with the rest of the prospectus, is misleading, inaccurate or inconsistent or does not contain key information.[62]

Product related liability regime
In relation to other disclosures at product level, banks, asset managers or insurers may be subject to liability under applicable sector specific regulatory requirements. The liability for disclosures that breach these requirements can range from fines levied by the regulators to claims by investors and customers (e.g. through claims for breach of statutory duty under section 138D FSMA or for misrepresentation). It is important to note in relation to this that action for disclosures may not just relate to the specific rules on ESG disclosures, but also more general regulatory requirements, such as those to ensure that communications are 'fair, clear and not misleading'.

Liability in relation to forward looking statements
The need to create a proportionate liability regime, especially in the context of forward-looking statements, has been recognised by policy makers. For example,

- in the UK, the statutory liability regime under Schedule 10A FSMA for regulated information (including annual reports and accounts) published to investors was introduced to reduce the likelihood of defensive and bland reporting and of speculative litigation. It excludes liability of issuers or directors to any person except in cases of fraudulent or reckless omissions or misstatements by directors. This regime overrides other bases of liability such as common law claims in tort, but does not preclude the imposition of regulatory sanctions (for example under the FCA's Listing Rules, currently under review regarding new TCFD reporting expectations, or Transparency Rules) or the statutory restitution scheme under FSMA whereby the FCA may provide for investors to be compensated for losses. It also does not preclude civil or criminal penalties, liability under contract or where specific responsibility had been assumed for the accuracy of information.
- in the US, a forward -looking statement accompanied by sufficient cautionary language is typically not actionable because a reasonable investor could not have found the statement to be materially misleading.

62 Section 90(12) FSMA; see also Section 90ZA FSMA

Potential risks overseas

Directors and companies are frequently operating in international markets. Therefore, when considering the risks associated with climate-related disclosures, it is also necessary to consider potential liabilities that could arise under the laws of other jurisdictions. Prevailing conflicts of law regimes tend to specify that jurisdiction and applicable law are determined by the place where the damage is suffered (potentially the country where an investor read and relied on an alleged misleading statement). UK regimes may shape liability in other jurisdictions by defining expectations of disclosure but without being able to extend the protection of statutory safe harbours beyond the jurisdiction of the UK.

For example, climate-related disclosure will be viewed principally through a materiality lens in the US. As a general matter, public companies may be liable under US federal securities law for disclosures if the disclosure includes a materially false or misleading statement or if the disclosure omitted material facts. Shareholders asserting a securities fraud lawsuit would have to prove an intent to deceive; causation between the alleged misrepresentation or omission and the purchase or sale of a security; economic loss; and a causal connection between the plaintiff's reliance and economic loss. CEOs and CFOs are open to liability as the individuals who 'control' the company and are held responsible for any materially false or misleading statements. Directors of a public company could also be subject to liability based on such disclosure reflecting any disregard of the board's oversight responsibilities. Climate change disclosures can also give rise to litigation under consumer protection and antifraud statutes, as well as state and federal government investigations.

Qualifications to disclosure to limit liability risk

Given the uncertainties inherent in anticipating policy and market responses to climate change, reporting entities are likely to wish to describe the assumptions on which their reporting is based and to qualify their disclosures by articulating factors such as:

- the pace and nature of change in climate and energy policy and regulation;
- developments in climate change science;
- the pace and direction of technological development;
- the rate of investor, public and government acceptance of the energy transition and related investment needs;
- the emergent nature of the data sets by which climate impacts can be measured and the regional differences in available data and data quality; and
- the predictive limitations of scenario analysis.

These qualifications are appropriate because financial entities are being asked not only to describe risks but also to provide relevant metrics to quantify them in respect of the operations of their customers. They will also need to anticipate policy actions across the world to the extent these may impact on their interests. While descriptions of the governance around climate-related financial risk will relate to current and existing practices, much of the other information required is forward-looking and speculative. It requires businesses to look beyond the usual timescales of business planning and financial forecasting and inevitably involves increased levels of uncertainty. In this context, it is reasonable to be clear as to the limitations of the disclosure that can be provided.

6. Relevance of these factors to climate change disclosures

Climate-related financial disclosures are an emerging class of disclosures, which are expected to be useful to a broad audience. In their emerging form, unlike existing reporting on greenhouse gas emissions which is backward looking, they will include forward looking information, over longer timescales than purely financial reporting considerations have previously required. As a result, this reporting will carry more uncertainty than most current areas of disclosure.

In developing this Annex, we identifiedup to 20 separate reporting regimes under which climate disclosure might be required. Each of these reporting regimes will have its own intended audience, purpose and liability profile. Lawmakers have developed liability regimes for these regimes, so as to ensure that investor and consumer protection regimes provide clarity and transparency without exposing companies or others responsible to unreasonable risks. One obvious area for consideration in relation to the introduction of new requirements is whether the current crowded landscape could be made clearer with fewer overlapping requirements. .

Many existing liability regimes applicable to reporting have not been developed for the purpose of broader disclosure aimed at a wide range of stakeholders. This does not mean that it would always be inappropriate to include information for wider stakeholders in documents such as annual reports. However, in the case of other documents, where the disclosure attracts the greatest risk of liability, such as prospectuses, a more restrictive approach may be appropriate, and careful consideration should be given to the consequences of mandating disclosure of future climate-related risks (particularly where quantitative information is sought) where the disclosure is speculative, subjective and cannot be verified to the same standards as other information. Therefore, where new regulatory regimes are developed for climate-related disclosures, the quality of available information, the intended audience and purpose of reporting, and the liability that attaches to different types of disclosure documents should be considered in designing the regime and mandating where disclosure may be required and the consequences that should flow from omissions or errors in reporting.

Two general legal principles should be borne in mind in framing disclosures. First, a judgement of materiality must be based on what the 'reasonable user' would consider to be material, as a reporting entity cannot be expected to take into account the different characteristics and subjective opinions of each individual member of the universe of potential investors or stakeholders. Second, information for investors should be material to their making an informed investment decision at the time the disclosure is provided, rather than being required to cater for a variety of future, potential climate-related outcomes that may be relevant to the 'reasonable investor' making an informed investment decision at a future date. While these principles could be regarded as implicit, it is helpful for disclosure rules to make them explicit.

Even where no specific legal sanctions attach, directors will be aware of the effect on their company's reputation and investors' confidence of poor disclosure. Disclosure outside the strategic report or the annual report, for example in a separate report or on a website, may be an option to encourage organizations to become comfortable with more fulsome climate-related disclosure obligations. This could allow disclosure to be focused on distinct audiences and accompanied by a fuller explanation of underlying data, qualifications and assumptions than would be practicable in the context of other locations, while the methodologies mature.

By describing these uncertainties, reporting entities can seek to limit their liability exposure for the risks associated with these uncertainties. Disclosure of methodologies and assumptions, alongside a description of the reporting entity's assessment of climate-related risks, is likely to provide better quality disclosure, in the sense of it being more detailed and useful to a broader range of users. It may also be that standard forms of disclosure or methodologies are developed that can enable approximate comparisons of data across sectors or geographies. These may be more suitable and useful for website or standalone reporting formats than for inclusion in existing regulatory disclosure forms.

Reconciling the various reporting requirements (both mandatory and otherwise) to ensure greater coherence and objectivity is likely to assist everyone delivering, using and overseeing the provision of climate related disclosures. Regulators, reporting entities and other stakeholders will wish to take particular care in considering whether and how to mandate climate change related disclosure in those documents which carry the greatest risk of liability. Any climate disclosure required in these should be subject to the same tests for inclusion and be capable of verification to the same standard as other information in the rest of the document.

Appendix 1: UK Entity Level Reporting Requirements

Requirement *Source*	**Compulsory?** *Voluntary or compulsory*	**Who?** *Who has to disclose*	**What?** *Disclosure content*	**Why?** *Purpose of disclosure*	**Where?** *Location*
Existing Requirements					
Shareholder Rights Directive II (adopted in the UK including through the provisions of SYSC and COBS made by FCA Instrument 2019/68)	Compulsory requirement but often "comply or explain"	Institutional investors (which include insurers) and asset managers	Requires disclosures on shareholder engagement policies and implementation, and disclosures on, *inter alia*, how investment strategies are consistent with the profile and duration of liabilities (particularly long-term liabilities). Also requires certain disclosures by asset managers to institutional investors.	To help investors understand the stewardship approach of institutional investors and asset managers.	Generally, disclosures are published on the firm's website.
Solvency II	Compulsory but do not explicitly need to include climate change	Insurers	Requires disclosure of the insurer's risk management, governance and overall solvency needs. Requires disclosure of qualitative and quantitative information about their material risks. In so far as the financial implications of ESG factors are incorporated into the insurer's risk assessment and management, these could form part of this disclosure.	Seek to promote market discipline around prudential requirements.	Part of "Pillar 3" disclosures
Capital Requirements Directive IV and Capital Requirements Regulation	Compulsory but do not explicitly need to include climate change	Certain banks and investment firms (which can include investment banks and asset managers)	Similar to the above, firms are required to set out their approach to material risk and to ensure that the risk profile is comprehensive. These could include disclosures of the financial implications of ESG factors.	Seek to promote market discipline around prudential requirements.	Part of "Pillar 3" disclosures
PRA Supervisory Statement SS3/19	Disclosure not compulsory	Banks and insurers	Encourages banks and insurers to make disclosures of how climate-related risks are	To enhance transparency on firms' approaches	Noted that firms may already be required to make

			integrated into governance and risk management processes.	to climate-related risks.	disclosures as part of "Pillar III' discloses or their strategic report but does not specify where additional disclosures should be located.
UK Companies Act 2006 s.414A and s.414C (implementing the Accounting Directive)	Compulsory	UK incorporated companies (unless qualifying as small). Parent companies and any of their UK qualifying subsidiaries must each produce a strategic report	Strategic report must include general disclosure of principal risks facing company	Purpose is to inform shareholders how the directors have fulfilled their duty to promote the success of the company under section 172 as well as to inform investors of the business's development and performance and the risk facing it	Forms part of company's annual report and accounts.
UK Companies Act 2006 s.414C(7)	Compulsory	UK incorporated companies which are quoted companies	Strategic report must include information on environmental matters and policies, including the impact of the company's business on the environment	As above	As above
UK Companies Act 2006 s.414CZA	Compulsory	UK incorporated companies which prepare a strategic report (unless they are entitled to rely on a medium-sized company exemption)	Strategic report must include a stand-alone Section 172 statement which describes how the directors had regard to certain matters (including environmental impacts) when carrying out their duty to promote the success of the company	As above	As above

UK Companies Act s.414CA (implementing the EU Non Financial Reporting Directive (which amended the Accounting Directive)	Compulsory	UK incorporated companies which are traded companies, as well as banks or insurance companies with more than 500 employees	Non-financial information statement must include information on environmental, employee, social, human rights, anti-corruption and anti-bribery matters. This includes details on the company's business model, policies in relation to these matters and their outcomes; due diligence processes; the principal risks and impacts of the company's business on such matters and how they are managed.	As above (non-financial information statement forms part of strategic report).	As above
UK Accounts Regulations - Streamlined Carbon and Energy Reporting	Compulsory (comply or explain)	UK incorporated companies - Quoted companies (of any size) and 'large' unquoted companies and LLPs (large means those entities meeting two of following three criteria: a turnover of £36 million or more, a balance sheet of £18 million or more, 250 employees).	Carbon emissions and energy efficiency reporting	Promoting reduction in emissions	Disclosure required in directors' report.
IAS/IFRS	Compulsory	UK incorporated traded companies	Financial information reporting standards	Information must be included if material to existing and potential investors, lenders and creditors in making decisions about providing resources	Accounts and related information

DTR 4 (implementing the Transparency Directive)	Compulsory	Issuers admitted to trading on a regulated market	Information required includes principal risks and (for annual reports) key performance indicators, including (where appropriate) information relating to environmental matters	To enable investors to understand the development, performance and position of the issuer's business	Annual and half yearly reports
Prospectus Regulation	Compulsory	An issuer making a public offer of transferable securities or applying for admission of transferable securities to a regulated market	Specific requirements include disclosure of principal risks, which may include environmental risks where relevant, and any environmental issues that impact on use of tangible fixed assets	Prospectus must include the information material to an investor for making an informed assessment of the position and prospects of the issuer	Prospectus
Market Abuse Regulation	Compulsory	Issuers admitted to trading on a regulated market or MTF, or whose financial instruments are traded on an OTF	Inside information (being information relating to an issuer which, if it were made public, would be likely to have a significant effect on the prices of financial instruments)	To ensure that investors are not misled and avoid the possibility of insider dealing	Announcements to market on ad hoc basis
UK Corporate Governance Code and Listing Rule 9	Compulsory/comply or explain	Premium listed companies	Reporting requirements include giving a fair and balanced assessment of prospects over long term; and principal risks, how board identifies emerging risks and how risks are managed	To support good governance and assist investors to evaluate and engage with companies	Annual report

UK Stewardship Code 2020	Voluntary	Signatories to the code (which include many large asset managers and insurers)	Requires signatories to disclose against their stewardship activities, which may include disclosures of how ESG factors have been considered.	To promote transparency on the stewardship approaches of asset owners and asset managers.	Will be included in Stewardship Code report.
Incoming or Prospective Requirements[8]					
Sustainable Finance Disclosures Regulation	Compulsory	A wide range of "financial market participants" who provide financial products, including asset managers and insurers, along with intermediaries who provide advice	Alongside certain product specific and client disclosures, financial market participants and advisors will be required to publish up-to-date policies on the integration of sustainability risks in the investment decision-making process.	To enable investors to understand how financial product providers take into account sustainability risks.	Policies on integration of sustainability risks need to be published on the firm's website.
Investment Firms Directive and Investment Firms Regulation	Compulsory	Certain investment firms (which can include asset managers and investment banks)	Requires investment firms falling within certain thresholds to disclose "ESG-related risks", "physical risks" and "transition risks".	To enable the market to understand how firms consider ESG related risks as part of their prudential requirements.	Will be included in "Pillar 3" disclosures.
Capital Requirements Directive V and Capital Requirements Regulation 2	Compulsory	Certain banks and investment banks	Requires banks and investment banks falling within certain thresholds to disclose "ESG-related risks", "physical risks" and "transition risks".	To enable the market to understand how firms consider ESG related risks as part of their prudential requirements.	Will be included in "Pillar 3" disclosures.

[8] It is also worth noting the FCA is consulting on new TCFD-aligned disclosure rules for premium listed issuers (CP20/3).

New draft Listing Rules 9.8.6R(8), 9.8.6BG and 9.8.6CG (FCA CP 20/3)	Compulsory / Comply or explain	UK premium listed companies (including sovereign-controlled companies and overseas companies with a premium listing) (excluding closed-ended investment funds and open-ended investment companies)	Requires premium-listed commercial companies to state whether they have made disclosures consistent with the recommendations and recommended disclosures of the Taskforce on Climate-related Financial Disclosures (TCFD) in their annual financial report - and, if not, why not.	To promote greater transparency about how issuers of listed securities may be impacted by climate-related risks and opportunities and help to ensure that securities are more accurately priced and markets work well.	Will be included in annual reports.
Non-Financial Reporting Directive 2014/95/EU (NFRD)	Depends on the outcome of the consultation whether this will be compulsory	Organisations covered by the NFRD (at present, this applies to large public interest entities but the scope of the NFRD may be extended following consultation to cover other types of organisations)	The European Commission is consulting on whether the NFRD Directive should be amended to require (among other things) disclosure of information about other non-financial matters (at present, it requires information about the environment, social and employee issues, human rights, and bribery and corruption), whether there should be stronger assurance requirements for non-financial information, whether the EU should develop its own non-financial reporting standard and if so whether this should be based on existing reporting standards such as the Sustainability Accounting Standards Board (SASB), the Global Reporting Initiative (GRI) or the International Integrated Reporting Framework (IIRF)), and whether the scope of the NFRD should be extended to other	To promote greater transparency and comparability of non-financial information to assist investors and other stakeholders.	Will be included in non-financial information statements.

			types of organisations other than large public interest entities.		
Taxonomy Regulation	Depends on implementation by the UK	Organisations covered by the NFRD (at present, this applies to large public interest entities but the scope of the NFRD may be extended to cover other types of organisations)	Requires disclosure of how, and to what extent, the organisation's activities are associated with environmentally sustainable economic activities, and, in respect of non-financial undertakings, the proportion of their turnover derived from products or services associated with environmentally sustainable economic activities and the proportion of their capital and operating expenditure related to assets or processes associated with environmentally sustainable economic activities.	To promote greater transparency and comparability of non-financial information to assist investors and other stakeholders.	Will be included in non-financial information statements.

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