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Regulatory Leadership for a Net Zero Transition

CENTRAL BANKS AND FINANCIAL REGULATORS: LEVERS AND LIMITS

Insights Report 2022

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Executive summary

The final Intergovernmental Panel on Climate Change (IPCC) report in March 2022 left no doubt that climate change poses a clear and present danger for markets and the global economy.

It gave stark evidence of a world on track for 3 degrees Celsius, an unliveable world, absent urgent and systemic action. In such a world, stable inflation rates, financial stability, and fair and functioning markets would cease to exist. That puts climate – and arguably sustainability more broadly – squarely on the plate of central banks, supervisors and financial market regulators (termed collectively in this report as CBFRs).

The pace and scope of climate impacts are bringing the future into the present with unprecedented speed. Arguably, this is changing the terms and nature of the 'tragedy of the horizon' first identified by then-Governor of the Bank of England, Mark Carney (2015). In turn, that has implications for regulatory approaches that seek to ensure financial stability and price stability (for central banks and supervisors) and market integrity (for market/financial regulators and related agencies).

Early-moving CBFRs in the EU and UK are responding. They are identifying potential impacts and systemic financial risks associated with climate change, increasing expectations of supervised firms, producing new regulatory initiatives, and cooperating together to investigate mainstreaming sustainable finance. Governments in those jurisdictions are also stepping up ambition through the 2018 EU *Sustainable Finance Action Plan* and the 2021 UK *Greening Finance Roadmap*. These initiatives are contextualized by Paris Agreement objectives to make all finance consistent with a low greenhouse gas emissions and climate resilient development pathway pursuant to Article 2.1c.

This regulatory space is nascent. New legislation and regulations are just landing (with more to come) and regulators and regulatees alike are learning on the job how best to navigate, communicate, and evaluate expectations and progress.

In short, the climate-related financial regulatory space is Unprecedented, Uncertain and Urgent.

Any one of those factors would make for a challenging regulatory environment.

All three together is extraordinary.

The unprecedented nature of this regulatory space raises questions for CBFRs regarding to what extent they should intervene, and with what regulatory objectives, tools, and strategies for navigating challenges and ensuring impactful implementation.

This *Insights Report* addresses those questions by presenting key research findings about the experiences of early-moving CBFRs in the UK, France and the Netherlands to:

- Map this nascent regulatory space;
- Explore regulatory paradoxes, responses, challenges and implications for a timely net zero transition; and
- Provide a much-needed 'regulatory voice' in sustainable finance discourse.

Research methods combined documentary analysis with qualitative field-based research (multiple case study design and semi-structured interviews). Primary data were sourced from 30 anonymised interviews in those jurisdictions predominantly with relevant CBFR and government agencies (23 interviews) and some senior practitioners in regulated firms and academia for contextual background and data validity (7 interviews). Research questions focused on CBFR motivations, aspirations and justifications alongside regulatory objectives, challenges and normative preferences.

This *Insights Report* sets out findings in four focus areas:

(1) Legal Mandate;
(2) New Ways of 'Thinking and Doing' Climate-related Financial Regulating;
(3) Regulatory Tools: Disclosure; and
(4) Regulatory Tools Beyond Disclosure.

It identifies paradoxes in each focus area that CBFRs must navigate. It also presents emergent regulatory phenomena by aggregating and typologising practices and preferences.

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Any one of those factors would make for a challenging regulatory environment.

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Research Summary

01 LEGAL MANDATE: LEVERS AND LIMITS

PARADOX 1

Financial stability could be undermined if central banks act too quickly on green finance; yet financial stability will be undermined if they act too slowly.

PARADOX 2

Due to their mandate, central banks cannot be so proactive as to usurp governments or parliaments; yet they cannot wait until all the legal frameworks are concretised and all the right policy is in place before acting.

FINDING

CBFRs are responding with a twofold approach:

(1) Starting with a risk-based *protective approach*; and

(2) Moving cautiously into a new *legitimate promotional approach* that nudges government leadership and promotes coordination and cooperation to facilitate the transition without driving it.

02 NEW WAYS OF THINKING AND DOING

PARADOX 3

The climate crisis heralds unprecedented and dynamic impacts that require experimental and iterative regulating; yet the urgency of the crisis requires immediate and decisive action.

FINDING

Regulators are embracing experimentalism and cooperation, evidenced by the emergence of *regulator ecosystems for sustainable finance* (central banks, financial market regulators, government agencies).

Such regulator ecosystems will be key to countering the complexity of systems change and ensuring timely action along the full value chain which undergirds regulatory goals for net zero.

03 REGULATORY TOOLS: DISCLOSURE

PARADOX 4

Climate-related disclosure is key to the transition; yet myopic focus on it will undermine the transition.

FINDING

- Climate-related disclosure is a necessary first step for other regulatory activities,
- But it cannot deliver success on its own due to inherent shortcomings in practices and logistics,
- Focus must stay firmly on the normative objectives of reporting; disclosure must not be conflated with a regulatory outcome.

04 REGULATORY TOOLS BEYOND DISCLOSURE

FINDING

A multi-instrumental CBFR approach comprising complementary quantitative and qualitative tools is necessary and emerging. This includes:

- Mandatory disclosures that include transition plans, double materiality, and supply chain emissions;
- Taxonomy and anti-greenwashing regulations;
- Risk-based measures with cultural effects such as personal liability of directors; fit and proper person testing; capital requirements and weights;
- Qualitative instruments such as professional culture and conduct supervision; staff training and certification.

Further research regarding optimal combinations of tools in light of local context would be useful.

1. Legal Mandate

The legal mandate of CBFRs is a foundational issue in this regulatory space. It interconnects and underpins all themes in this study.

In broad terms, prudential regulation and monetary policy (by central banks and supervisors) aims to ensure price and financial stability; and securities and market regulation (by financial market regulators) aims to ensure properly functioning markets via integrity, transparency and fairness. Regulatory actions to fulfil those aims must not seek to substitute economic, fiscal and environmental policies by government. Doing so would conflict with CBFR mandate (being the legal bases and parameters of agency remit) and also, where relevant, their political independence to attain those objectives (that is, not expropriating elected government duties nor suffering undue government interference).

However, the urgency and scope of the climate crisis and its potential impacts have triggered two interrelated paradoxes regarding mandate.

Paradox 1: Financial stability could be undermined if central banks and supervisors act too quickly on green finance (Carney 2015); yet financial stability will be undermined if they act too slowly or not enough (Bolton et al 2020).

Paradox 2: Relatedly, this study identifies that central banks and supervisors cannot wait until all the legal frameworks are concretised and all the right policy is in place before acting; yet they cannot be so proactive as to usurp governments or parliaments.

The evidence shows that CBFRs must navigate a fine line to facilitate the transition without driving it:

- Governments are responsible for masterminding national net zero plans for a whole of economy transition, including decisive fiscal and economic policies to eliminate dependence on carbon-intensive activities/sources; and
- Complementary prudential, monetary and market regulatory tools will facilitate that transition. Specifically, CBFRs are taking a twofold approach to climate change within the parameters of their mandates:

(1) Starting with a risk-based *protective approach*; and

(2) Moving cautiously into a new *legitimate promotional approach* that nudges government leadership and promotes coordination and cooperation with government, other agencies, and stakeholders to facilitate a net zero and sustainable finance transition without driving it.

By so doing, CBFRs are comprising 'regulator ecosystems for sustainable finance' and demonstrating heightened levels of:

- Nudging government leadership and coordinating with government agencies (Treasury plus business, energy and/or pensions departments);
- Cooperation and collaboration with each other (domestically and transnationally); and
- Utilising their convening powers to enrol stakeholders at early stages in the regulatory process.

2. New ways of 'Thinking and Doing' Climate-Related Financial Regulating

Interviews revealed a common theme: the nascency, urgency and scope of the issues are requiring new ways of 'thinking and doing' the regulating in this space.

For some, that means adapting existing regulatory tools in new ways, such as extending risk-based measures or regulating corporate culture. For others, it means embracing the epistemological breaks heralded by climate change and adopting new tools.

In short, a key finding is that CBFRs are adopting experimental and cooperative ways of regulating as a response to this unprecedented space.

2.1 Regulatory Experimentalism

The flavour of experimentation pervaded all interviews and revealed another paradox for CBFRs:

Paradox 3: The climate crisis heralds unprecedented and dynamic impacts that require experimental and iterative regulating; yet the urgency of the crisis requires immediate and decisive action.

Respondent experiences gave rise to the following interrelated insights about the nature and objectives of experimentalism in this space:

- Just start: Commit, set a target, then sort out the pathway
- The learning is in the doing
- Adapt extant regulatory tools in new ways
- Adopt new regulatory tools in appropriate circumstances
- Regularly review tools in light of objectives and external conditions
- Accept that the beginning is bumpy
- Domestic 'regulator ecosystems for sustainable finance' are emerging and essential

The issue at stake is so big and potentially so disruptive... So it is a good time for experimentation; provided it doesn't take too long!'

Respondent (F6)

2.2 Regulator Ecosystems for Sustainable Finance

With few exceptions, previous literature has targeted central banks (rather than market regulators) and tends to treat them as unitary creatures. By contrast, this study makes two novel findings:

(1) **Central banks are a symbiotic component of a domestic *regulator ecosystem for sustainable finance.*** This interconnected regulatory matrix includes financial market regulators and government agencies such as Treasury, which has a coordinative function and holds the purse strings, plus business ministries, energy ministries, and other relevant entities such as pension authorities.

(2) **Alongside central banks, financial market regulators also have a key role in facilitating the transition due to their remit of maintaining properly functioning markets by ensuring market integrity, fairness, and transparency.** Indeed, due to their remit, market regulators are at the front line of scrutinising climate disclosures and will be increasingly responsible for supervising transition planning, preventing greenwashing, and ensuring the availability of green financial products for the increasing number of investors that want them.

The agencies within regulator ecosystems enjoy varying degrees of independence; yet the data revealed multiple interdependent interactions on climate-related financial issues within these ecosystems.

In this way, the domestic *regulator ecosystem for sustainable finance* is:

(a) transforming traditionally siloed attitudes and approaches; and

(b) enabling heightened levels of cooperative and collaborative engagement between regulators and other agencies.

Whilst cooperation and collaboration are sometimes required by law or government policy, it is also an organic response to an expansive and complex existential threat. Heightened regulator cooperation reflects changing external factors, namely increased government attention, stakeholder and societal expectations, and legal initiatives.

Moreover, in addition to *enhanced cooperation and collaboration amongst peers*, regulators are also demonstrating heightened *convening powers amongst stakeholders* to help initiate and implement new regulation. This is taking the form of advisory forums and working groups that comprise public, private and civil sector members to work through thorny issues such as lending exclusions, metrics and methodologies for portfolio alignment, anti-greenwashing standards, and mandatory transition plan templates.

Finally, domestic regulator ecosystems exist alongside transnational and international cooperation occurring through formal networks such as the NGFS and also informally through regulator conversations and professional relationships.

These emerging 'regulator ecosystem' responses are laudable and exciting. They will be essential for countering the inherent complexity of systems change and ensuring *contemporaneous and timely action along the full value chain* which undergirds regulatory goals of a whole of economy transition.

3. Regulatory Tools: Disclosure

Mandatory TCFD-based disclosure for listed companies and financial institutions is the current predominant regulatory tool in early-moving jurisdictions in this study.

– It seeks to provide information to stakeholders (investors, lenders, and insurers) on risks and opportunities posed to their business by climate change using forward-looking scenario analysis regarding governance, strategy, risk management, and metrics and targets.

– The move to mandatory disclosure in early-moving jurisdictions is seen as essential for mass uptake. Indeed, institutions with big and harmful exposures that are hard to reduce will rarely volunteer such information.

To some degree the focus on disclosure makes sense because, due to the nature of their mandates, CBFR activity focuses on identifying and managing risk to financial stability or to market integrity.

Yet the disclosure zeitgeist gives rise to another paradox in this space:

Paradox 4: Disclosure is key to the transition; yet myopic focus on it will undermine the transition

The data reveal a sobering message: Relying on disclosures to green a whole financial system would underestimate the complexity and urgency of economy-wide change and thereby undermine a timely transition. Such an assumption creates a veneer of meaningful action while obfuscating the real level of change required and crowding out complementary tools and tough decisions.

This study finds that:

– Disclosure is a logical and necessary first step in the transition process and a building block for other regulatory activities,

– But it cannot deliver success on its own in such a tight timeframe due to inherent shortcomings in disclosure-related practices and logistics,

– Therefore focus must stay firmly on the *normative objectives* of reporting; disclosure must not be conflated with a *regulatory outcome*,

– And a *multi-instrumental CBFR approach*, comprising complementary quantitative nd qualitative instruments, is necessary and emerging.

There are three Prongs or aspects to the logic of disclosure. Prong 1 (macro-economic logic) and Prong 2 (meso-market logic) have been driving unprecedented interventions by CBFRs around the world. Yet respondents in this study were clear that deep behavioural/cultural change is most likely to occur through Prong 3 (micro-firm level internal changes) within an entity or supply chain.

Indeed, all respondents across all three jurisdictions in this study agreed that **regulatory success will be demonstrated by cultural and behavioural change** whereas **tick-box compliance would signify regulatory failure.**

More specifically, the data show that ***fulfilling the promise of disclosure will require:***

(a) Internal cultural change in firms via inward reflection (Prong 3) plus credible threat of enforcement by regulators and market participants;

(b) The equal status and full integration of sustainability reporting with financial reporting so that climate change (and sustainability more broadly) can be mainstreamed into every decision; and

(c) Nesting disclosure within a suite of complementary legal and regulatory measures.

That in turn will require a number of moving pieces to fit together such as: interoperability between international reporting standards; domestic government policy (such as a carbon price, tax incentives, and outright prohibitions); together with CBFR interventions.

4. Regulatory Tools Beyond Disclosure

The stated aim of regulatory interventions is to mainstream climate change into every decision and every link along the investment chain to facilitate a net zero and sustainable finance transition by 2050. This study finds that a *multi-instrumental CBFR approach* will be needed and is emerging. Such an approach comprises complementary quantitative and qualitative tools, including:

- Mandatory disclosures that include transition plans, double materiality, and supply chain emissions;
- Taxonomy and anti-greenwashing regulations;
- Risk-based measures with cultural effects such as personal liability of directors; fit and proper person testing; capital requirements and weights;
- Qualitative instruments such as professional culture and conduct supervision; staff training and certification.

Several of the above tools (such as taxonomies and transition plans) are extremely new and still emerging, so regulatory practice is similarly unfolding. Moreover, different tools may emerge or exist elsewhere; and appropriate combinations of tools will depend on local context. Optimal instrument mixes are ripe for further research.

Regulatory tools discussed in this study that go beyond disclosure are grouped into two main categories: those that leverage disclosure; and risk-based measures, as discussed below.

4.1 Leveraging Disclosure – From Transparency to Assessment

The rising proliferation of spuriously green messaging within markets is confusing investors. Therefore it risks undermining the logic of disclosure and market integrity. This is prompting anti-greenwashing regulation and closer scrutiny by market regulators of public communications by firms. Two main areas of potential greenwashing in financial markets are emerging:

(1) *Misleading product claims and investment descriptions* in marketing materials and green bond or sales prospectuses. Current regulatory attention is focused here via taxonomies and national guidances; and

(2) *Incoherent or disingenuous 'engagement-only' strategies by lenders and investors*: this is an emerging issue that will require more attention. Initial regulator experiences highlight the importance of compulsory transition planning that includes feasible interim targets alongside taxonomies that can enable common terminologies amongst market participants.

4.2 Risk-Based Measures

Decreasing harmful finance alongside increasing green finance

To implement Article 2.1c of the Paris Agreement, regulatory measures are required to decrease flows of polluting and harmful finance (alongside incentivising green and sustainable flows at scale) in a very tight timeframe. This fact tends to get insufficient airtime in government policy discussions. It will require edicts and interventions well beyond market-based instruments like disclosure. Yet such measures are clearly required because fossil fuel finance by global banks, including GFANZ members, continues to outweigh green finance even despite climate pledges.

In addition to government leadership and policy interventions, extant measures at the disposal of central banks include capital requirements and risk weights such as a polluting penalising factor. Respondents in this study confirmed the likely future adaptation of traditional risk-mitigation and management tools for climate purposes. Yet the perennial caveat applies: risk-based reasons must undergird these measures; CBFRs cannot be perceived as seeking to move finance in a greener direction carte blanche. Forums such as the NGFS, ESCB and Basel Committee are exploring a broader suite of supervisory and regulatory measures.

Qualitative Measures: cultural and educational

The concept of 'regulating culture' via governance considerations, qualitative measures, and education has become acceptable since the 2008 global financial crisis. Clearly, director conscientiousness and good board decision-making is integral to risk management and mitigation, and therefore falls within supervisory remit.

Qualitative tools discussed in this study that are being successfully adapted to climate and sustainability risks include:

- **Board responsibility** via fit and proper assessments of incoming directors and ongoing monitoring of professional conduct and culture;
- **Officer personal liability** via a senior management accountability regime; and
- **Firm-diffuse knowledge** via training and certification schemes.

Further Research and Stakeholder Collaboration:

- *Needs and priorities in discussion with developing countries.* This is essential to honour the imperatives of a globally just transition, to action COP26 pledges, and to animate Art 2.1c of the Paris Agreement.
- *Regulatory impacts and institutional effects.* These require another 12-36 months to evaluate. They include responses by firms/financial institutions, progress on meeting regulatory objectives, and broader implications (scholarly and normative) of climate-related financial regulation.

Introduction

Undertaking a timely net zero transition implicates the regulation of financial markets and financial institutions.

It is becoming clear that containing global temperatures to 'well below 2˚C' and preferably 1.5˚C above industrial levels under Article 2.1a of the Paris Agreement cannot be met without making *all finance consistent with a pathway towards low GHG emissions and climate resilient development* pursuant to Article 2.1c. Yet currently, the global economy and finance flows are not so aligned and insufficient capital is flowing quickly enough to where it is needed and away from unsustainable domains. Indeed, there is a significant financing gap which public finance alone cannot bridge. It will require the mobilisation at scale of private capital and market finance. However, markets cannot voluntarily solve the climate crisis due to inherent limitations in market efficiency theory (Stern 2007) and business case logic (Bowman 2015). Thus, ambitious and effective climate-related financial efforts will require regulatory leadership. All of this means that the involvement of central banks, supervisors and financial market regulators (termed collectively in this study as CBFRs) are required to ensure an orderly transition, to help countries hit their net zero targets and, more broadly, to mainstream sustainable finance globally (Chenet et al 2019; Waygood 2021).

Concomitantly, CBFRs are increasingly concerned about the impact of climate-related risks – physical, transition and liability – on supervised firms and markets (NGFS 2019). Specifically, climate change represents 'the ultimate systemic risk' because firms cannot reduce exposure by hedging it at an individual level; they cannot 'diversify away from their exposure to the planet' (Hurley 2022; Bolton et al 2020). Financial stability has been incorporated into the post-global financial crisis mandate of many central banks, and the looming financial consequences of climate change represent an existential risk for the firms they supervise and market continuity generally (Carney 2015; Fisher 2019). Similarly, the climate crisis implicates the remit of financial market regulators which, broadly, is to ensure properly functioning markets via integrity, transparency, and fairness (I4CE 2020, 2021).

Yet there are complicating factors.

Timeliness. The final IPCC report (2022) has given the world until 2030 – less than 8 years – to implement transformational change that reforms energy reliance, re-designs business as usual, and stops system collapse.

Readiness. The 2020 Covid pandemic and 2022 Ukraine war have shone a bright light on system vulnerabilities and lack of readiness to meet net zero and sustainability imperatives. We must accept that a degree of disorder is probable due to the necessary speed in which a transition must now take place.

Early-moving CBFRs are responding (per Appendix):

- In 2015, then-Governor of the Bank of England (BoE), Mark Carney, was the first financial regulator to publicly identify that climate change presents systemic financial risks with potential to destabilise markets and induce a new global financial crisis.
- In 2017 the global Central Banks and Supervisors Network for Greening the Financial System (NGFS) was created to assist development of climate risk management in the finance sector, investigate mainstreaming finance to support the low-carbon transition, and define and promote best practices. Today the Banque de France (BdF) provides the NGFS Secretariat, the BoE chairs the Monetary Policy workstream, and the BdF and Dutch Central Bank (DNB) co-chair the Nature-related Risks workstream. Those three central banks, and the European Central Bank (ECB), are also implementing initiatives domestically.
- Early-moving financial market regulators in France, the UK, and the Netherlands have also stepped up focus on climate risks and engagement with firms, especially regarding new disclosure regimes and anti-greenwashing initiatives.

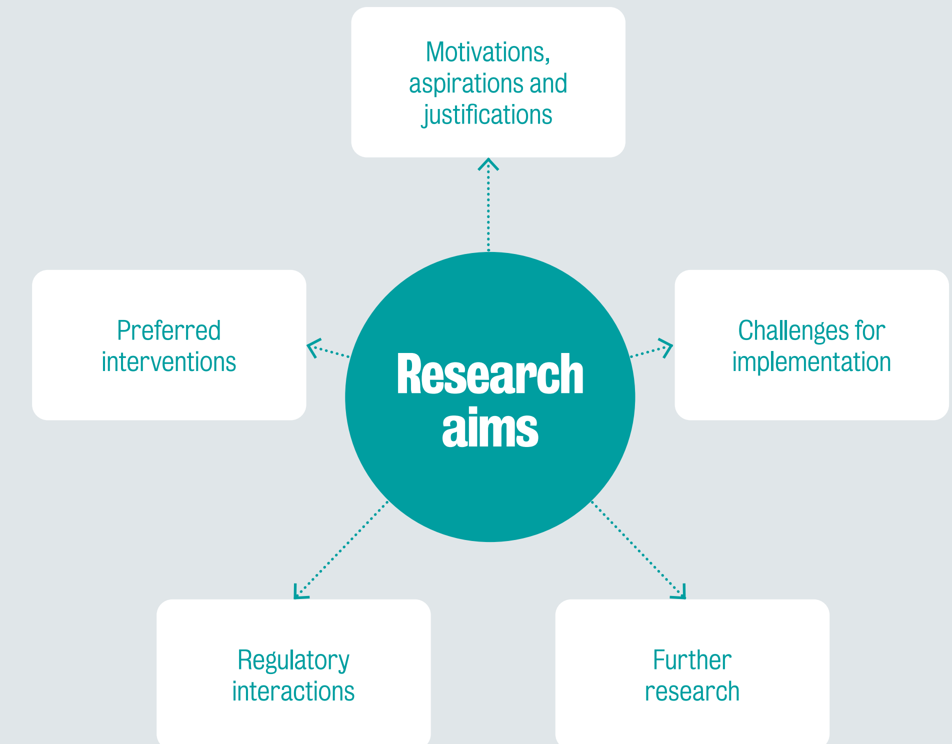
Moreover, CBFR efforts have been prompted by recent government agendas as set out in the 2018 EU *Sustainable Finance Action Plan* and the 2021 UK *Greening Finance Roadmap*. Those agendas are precipitating a cascade of new climate – and sustainability-related legislation and other regulation that applies to financial institutions and companies, thereby implicating CBFRs.

Research Aims

These climate- and sustainability-related financial interventions in the UK and EU are breaking new ground. **They are unprecedented in pace, scope and ambition; yet they are still emerging and therefore largely untested.**

Importantly, they give rise to questions for CBFRs regarding to what extent they should intervene, and with what regulatory objectives, tools, and strategies for navigating challenges and ensuring impactful implementation.

This *Insights Report* addresses those questions by presenting key research findings about the experiences of early-moving CBFRs in the UK, France and the Netherlands.



It cross-compares and aggregates the experiences, methods, and perceptions of those early-moving CBFRs to reveal the levers and limits of their interventions, including:

- *motivations, aspirations and justifications* through the lens of their own understanding of loyalty to mandate;
- preferred types and forms of *interventions*;
- practical and logistical *challenges for implementation;*
- and the dynamics of *regulatory interactions.*

It also identifies several issues outside the scope of this study that require further research.

In so doing, this *Insights Report* aims to:

– *Map a nascent regulatory space* – by evidencing what early-moving CBFRs have begun to do and where they seek to head.
– *Provide a 'regulatory voice' in sustainable finance discourse* – by translating front-line respondent experiences, given in their own words, to enable depth of understanding about the complex nature of aspirations, challenges and progress markers in this space.
– ***Enable reflection points for jurisdictions on the climate-related financial regulatory path and provide some inspiration for those beginning it.*** There are many reasons – cultural, political, bureaucratic, capacity-related – why regulatory tools and philosophies may not translocate elsewhere. But there is no doubt that learning about the experiences of early-movers can help others to navigate their own path through challenging terrain.
– *Prompt further research work and stakeholder collaboration:*
  - *Needs and priorities in discussion with developing countries.* This is essential to honour the imperatives of a globally just transition, to action COP26 pledges, and to animate Art 2.1c of the Paris Agreement.
  - *Regulatory impacts and institutional effects.* These require another 12-36 months to evaluate. They include responses by firms/financial institutions, progress on meeting regulatory objectives, and broader implications (scholarly and normative) of climate-related financial regulation.

This study focuses on climate change as the most developed risk-area to date. Yet nature-based and biodiversity concerns are also mentioned where relevant due to their rising prominence in the outcomes of the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26) in November 2021.

Research Methods

This study utilised a socio-legal methodology and qualitative research methods that combined documentary analysis with content and thematic analyses of empirical data gathered from semi-structured interviews as part of a multiple case study design (Braithwaite and Drahos 2000; Yin 2003).

Qualitative work is a necessary foundation for better understanding lived experiences, particularly in new and emergent areas, which can then be used to refine variables for later quantitative work. As noted by eminent regulatory theorists Peter Drahos and John Braithwaite, 'central banks have become repositories of data and experience concerning the management of global systems' (Drahos 2017: 775) and qualitative research can best tap that experience by 'listening to the wisdom of practitioners in regulatory agencies, business and advocacy groups to discover deep structures of theoretical meaning in their struggles' (Braithwaite 2017: 130).

In short, a qualitative empirical method best supported the overarching normative and phenomenological aims of this study: to investigate and map new terrain; and to reveal a much-needed 'regulatory voice' in sustainable finance discourse. Thus, primary data in this study were gathered using qualitative empirical methods (rather than a quantitative or survey-based approach) for two main reasons. First, qualitative inquiries are most appropriate for answering 'what and how' questions to provide a detailed and rich view of complex circumstances under-explored in the literature (Creswell 2013; Patton 2014; Marshall and Rossman 2010). Second, and relatedly, qualitative approaches are built to capture complex narratives of personal experiences and motivations (Marshal and Rossman 2010; Silverman 2006; Patton, 2014) which is particularly illuminating in professional contexts to answer 'why' questions. Specifically, an interview-based method enables description and analysis of 'the behaviour of humans from the point of view of those being studied' (Bryman 1988: 46).

In total, 30 respondents were interviewed during 2021-2022 comprising: 23 current and former members of relevant CBFRs and government agencies; and 7 senior practitioners in academia and industry (legal, pensions, insurance, banking, financial advisory). The sampling logic in a qualitative case study design is purposive not random (Yin 2003). This study targeted CBFRs in France, the UK, and the Netherlands being jurisdictions that are early-movers and considered in the literature as leading on climate-related financial regulatory initiatives. Accordingly, interviews in those jurisdictions were conducted predominantly with respondents from central banks and regulatory agencies being the focus of this study and, additionally, with some senior practitioners in regulated firms and academia to provide contextual background and data validity via triangulation. Research questions focused on CBFR motivations, aspirations and justifications alongside regulatory objectives and challenges through the lens of their own understanding of loyalty to their mandate and the normative principles underlying their choice/preference of regulatory actions and approaches.

A comparative review of legal and policy literature (scholarly and grey) facilitated empirically grounded analysis of interview data (Gunningham 2020). Data were analysed following Layder's (1998) adaptive theory method by taking prior theoretical ideas to inform and guide empirical research, and then moving back and forth between empirical induction and theoretical deduction (Scheff 1990) to generate novel theories and conceptual explanations. Interviews were transcribed manually to enable data immersion, and data were iteratively sifted, coded and compared to enable identification of key themes and initial findings (Miles and Huberman 1994), which were then reviewed and refined to become core findings as documented in this report.

Respondent organisations are noted under Acknowledgements to evidence research authenticity; however all interviews were conducted in confidence, and data are anonymously coded such that no names or quotes are attributed to any organisations.

FOCUS AREA ONE:

1

Legal Mandate

Due to their mandate, CBFRs must navigate a fine line to facilitate a net zero and sustainable finance transition without driving it.

They are taking a twofold approach as within their mandates (interpreted broadly or amended formally):

(1) Starting with a risk-based *protective*approach; and

(2) Moving into a new *legitimate promotional approach* that nudges government leadership and promotes coordination and cooperation with government, other agencies, and stakeholders.

Aspirationally, CBFRs see themselves as *part of* a coordinated political response in which:

– Governments are responsible for masterminding national net zero plans including fiscal and economic policies that eliminate dependence on fossil fuels; and

– Complementary prudential, monetary and market regulatory tools actively facilitate that transition.

Previous literature largely focuses on the role of central banks rather than market regulators and evinces dichotomous approaches that central banks can take in the face of the climate crisis (eg Campiglio et al 2018; Broeders and Schlooz 2021; Dafermos 2021; Schoenmaker 2021), broadly typologised in this report as protective or proactive. Arguably this dichotomy is also relevant for market/financial regulators in pursuit of their mandate to maintain properly functioning markets.

A Protective Approach treats climate change as a conventional risk management issue whereby a central bank should seek to protect its own balance sheet from physical and transition risks and encourage supervised firms to do likewise. It adheres to the market neutrality principle, a central banking tenet since the 1980s, to not distort free markets by favouring some sectors over others. The main concern under this approach is how to measure, manage and mitigate this new type of risk, these 'green swans' (Bolton et al 2020), given that traditional evidence-based historical modelling is not fit for purpose in the face of such deep and radical uncertainty. This has prompted 'a first epistemological break' (Bolton et al 2020) in thinking and doing in the financial sector whereby early-moving central banks, supervisors and also practitioners are adopting forward-looking scenario-based methodologies and conducting climate stress tests to assess the resilience of firms and the broader economy (Appendix).

A Proactive Approach is much more ambitious. It promotes a starring – but not solo – role for central banks to facilitate the transition to a low-carbon, environmentally sustainable and climate resilient economy; that is, actively greening the financial system. It also promotes the carbon neutrality principle in acknowledgement that so-called market neutrality inherently favours fossil fuel investments, which is then reflected on central bank balance sheets and serves only to embed systemic bias and an unsustainable status quo (Schoenmaker 2021; Schnabel 2021). Importantly, a proactive approach is predicated on the knowledge that climate risks will always remain largely unhedgeable unless systemic and structural transformation takes place (Bolton et al 2020). In other words, financial stability and arguably price stability are ongoingly threatened and will only get worse in a status quo system. This realisation has prompted 'a second epistemological break' regarding the CBFR role as evolving from a protective position to an active approach that seeks to build the resilience of complex adaptive systems in order to fulfil mandate (Bolton et al 2020).

Paradoxes:

Paradox 1

Financial stability could be undermined if central banks and supervisors act too quickly on green finance (Carney 2015); yet financial stability will be undermined if they act too slowly or not enough (Bolton et al 2020).

Paradox 2

Relatedly, due to their mandate, central banks and supervisors cannot wait until all the legal frameworks are concretised and all the right policy is in place before acting; yet they cannot be so proactive as to usurp governments or parliaments.

There is increasing acceptance that the proactive approach 'is the only approach in line with the climate emergency' (Dafermos 2021). Yet, arguably, the proactive approach does not replace a protective one but rather subsumes it; both are needed, as explained in Parts 3-4. The point is that protective measures only make sense in a broader context where they inform transition pathways along which institutional pieces are moving in a cooperative and coordinated way in the same direction toward a low-carbon, climate resilient and environmentally sustainable economy (think Article 2.1c). Certainly, there are concerns that delays by CBFRs to adopt or endorse a proactive approach will undermine collective efforts to avoid catastrophe (Dafermos 2021) while also undermining their own ability to deliver on their mandates of maintaining price and financial stability for central banks and market integrity for market regulators (Bolton et al 2020).

Yet a proactive approach is controversial. It raises the spectre of Financial Regulation as Usurper: that prudential and monetary regulation, and arguably also securities and market regulation, could substitute government economic, fiscal and environmental policies and thus conflict with CBFR mandate (being the legal bases and parameters of agency remit) and their political independence to attain those objectives (that is, not expropriating elected government duties nor suffering undue government interference).

1.1 Mandate and Climate Risk: The Protective Approach

Central Banks

All central bank respondents in this study accepted unequivocally that physical and transition risks and, increasingly, liability and litigation risks associated with climate change bring the notion of 'climate risk' well within their mandate. *'Risk is the key word for bringing climate change into the central banking world'* (D1) explained one respondent, for the simple reason that identifying and managing risks – namely to price/monetary stability on the one hand, and financial stability on the other hand – is at the heart of their remit.

Consistent with findings of the NGFS (2019), all central bank respondents in this study accepted that climate change creates risks to the economy, which creates implications for the finance sector, which in turn creates consequences for central bank objectives of monetary stability and financial stability: *'There should be no controversy about regulators taking into account the impact of climate change on their objectives. It's just like any other shock to the system. Like Covid, or the war in Ukraine. Such shocks affect the safety and soundness of your regulated firms: so what are you going to do about it?'* (E3).

Central bank balance sheets are directly vulnerable to climate risk through their asset purchase programmes (particularly government and/or corporate bonds) and credit operations (through counterparties and also collateral that are exposed to climate risks); and they are indirectly exposed through economy-wide impacts from climate risks that can disrupt macroeconomic conditions (Broeders and Schlooz 2021). Thus, as stated by one respondent: *'[The central bank] started by taking a protective approach because we need a strong balance sheet to credibly implement monetary policy'* (D3).

BOX 1

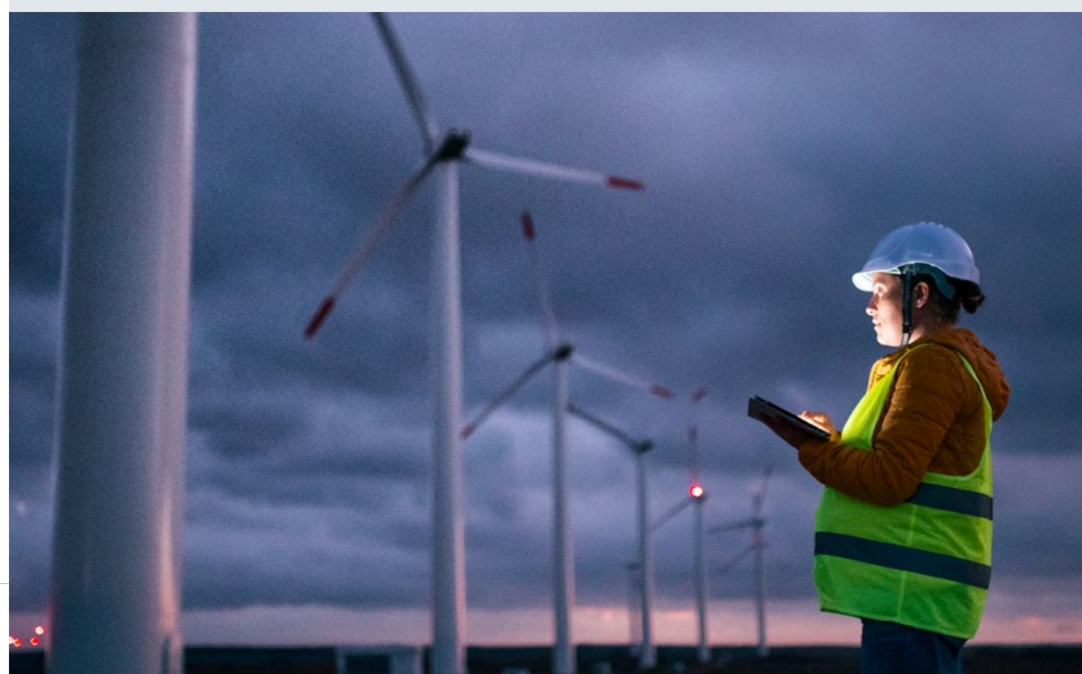
MANDATE AND INDEPENDENCE: UK AND EU CENTRAL BANKS

Operational and political independence is key to fulfilling mandate objectives for UK and EU central banks and supervisors:

- *Monetary policy* comprises a primary objective of maintaining price stability through low and stable inflation rates. In the EU, monetary policy also comprises a secondary objective to support EU general economic policies (without prejudice to the primary objective) under Art 127(1) of the Treaty on the Functioning of the European Union (TFEU).
- *Supervisory or prudential policy* has the objective of financial stability, which is achieved through microprudential (safety and soundness of individual financial institutions) and macroprudential (systemic resilience) financial regulation.
- *Within a national central bank,* responsibilities for price stability and financial stability are carried out by different teams. Using the language of respondents, monetary policy is done by the 'central bank side' of a central bank whereas prudential regulating is done by the 'supervisory side' of a central bank.

Specifically in the EU:

- As a response to the 2008 global financial crisis, the European Central Bank (ECB) became responsible for conducting monetary policy for the euro area and also for ensuring financial stability of the European banking system under the Single Supervisory Mechanism (SSM).
- Nonetheless, those responsibilities are shared with national central banks via joint supervisory teams, which together comprise the European System of Central Banks (ESCB) as governed by the TFEU and the Statute of the European System of Central Banks and of the European Central Bank.
- In practice, national central banks take the lead in those teams as they have specialist knowledge of local banks.
- Supervision of other financial institutions (such as insurers or pension funds) sits outside the SSM and is therefore undertaken solely by national authorities (CBFRs or other dedicated authority).



Yet for EU national central banks, such as BdF and DNB, there has been additional legal debate surrounding monetary policy mandate due to the distinction between the objectives they pursue (Bovenschen and Lieshout 2020; Dikau and Volz 2019) **(see Box 1).** Respondents explained how climate risk implicates both primary and secondary objectives of the EU monetary policy mandate in two ways: directly by influencing price stability (seen in 2022 due to concerns about energy scarcity); and indirectly because national central banks are compelled by the TFEU to support secondary objectives of the EU (ECB 2021).

The main difference between the two objectives is the latitude for national central bank proactivity. That is, given the nature of the secondary objective, national central banks must wait for the EU to provide relevant policy (such as the Green Taxonomy and disclosure regulations) which it can then support. By contrast, *'when a risk falls under our primary objective then it becomes part of our daily work and we have much more leeway to consider and act on it'* (D1). For that reason, respondents opined that the primary objective is the preferable bucket for climate risk.

This also partly explains why some EU national central banks do more than others in the climate/sustainability space even though they all come under the same treaty. National circumstances differ regarding institutional culture, legislative provisions, and policy discretions given to a central bank. For example, the objective to safeguard 'sustainable prosperity' in the DNB mission statement (and thus its operational framework) was included by the DNB Board and, as respondents explained, is therefore not a formal legal mandate ingredient but rather an important policy statement of intent and willingness by DNB itself.

Market Regulators and Other Agencies

A protective approach to climate risk and mandate was also deemed an appropriate starting point by other supervisory bodies in the regulator ecosystem for sustainable finance. This is because climate change presents risks to properly functioning markets in terms of integrity, transparency and fairness as investors try to gauge the greenness and thus risk exposure of products/assets/firms in a carbon-constrained economy. This is particularly relevant as markets heat up with competitive albeit spurious green marketing messages (see Part 4).

For example, one market regulator explained their purpose as a 'mission-driven regulator that operates in a risk-based manner', thus scanning the market for 'harmful and illegitimate' items and behaviours: *'We hope to not be a tick-box supervisor, so we look at where are the big risks – now or in future – and where it is harmful.'* (D2).

The risk-based approach is also relevant for regulatory agencies in pension and institutional investment markets. As one respondent described, regulation has forced market participants to make the link between climate change, stranded assets, and good governance: *'If you're managing someone's pension savings and you're not thinking about climate change as an existential risk to your scheme then [you] shouldn't be running a scheme'.* (E5).

1.2 Mandate for Facilitating a Green Transition

Levers

Seeking to measure, manage, and mitigate climate risk is not synonymous with making the financial system sustainable or addressing global warming (Caldecott 2020). Yet those latter actions are precisely what is needed to avert existential disaster to markets and the ecosystem services that sustain them.

However, taking a proactive role to accelerate sustainability in the financial system (by seeking to green the economy and/or disincentivise dirty investments) *without a dedicated mandate to do so* is highly problematic. This is because direct interventions by central banks may have distorting effects on financial markets, potentially conflict with other central bank objectives, place too much power in the hands of unaccountable institutions, and endanger institutional independence (Campiglio et al 2018; Dikau and Volz 2019; D'Orazio and Popoyan 2022).

Certainly, CBFR respondents in this study showed keen wariness of 'mission creep' whereby stepping into the shoes of government, parliament, or environmental protection authorities, would undermine both their legitimacy and independence. They showed little interest in acting carte blanche to create policy to save the world. In short, *'You can't as a regulator take actions to try and limit global warming if its outside of your remit and objectives, or if you don't have government support'* (E3).

Thus, moving beyond a protective approach requires:

1. Willingness on the part of the CBFR; and
2. (a) Broad interpretation of current legal mandate; or

   (b) Formal amendment to explicitly include greening/sustainability/net zero transition-related supervisory powers.

Examples of both interpretation and amendment were evidenced in this study **(see Box 2)**.

Broad interpretations and/or formal amendments of mandates have opened the door for 'regulator double materiality' by looking beyond the impact of climate change on a regulator and financial system to the regulator's impact on the financial system and global warming. This is a new frontier. As one respondent noted *'regulators have not been focused on that, but it is the only sensible risk mitigant for this type of systemic risk'* (E2). Indeed, the emergence of mandatory transition plans (see Part 4) can be regarded as *'the first foray of regulation starting to move into that impact [double materiality] side of things'* (E2).

Other agencies in the regulator ecosystem see their remit in similar light: *'The IPCC report is really good ammunition for us to deliver the message both internally and externally as to why all the things we're doing and committed to delivering are essential to the whole of economy journey that we're on'* (E1). Indeed, reflective of the French ACPR amendments, some UK business organisations are now advocating for government to give legal mandate and responsibility to more financial regulators to supervise implementation of net zero transition plans (Aldersgate 2022).

BOX 2

MANDATE: AMENDMENT VS INTERPRETATION

Amendment:

Since 2021, some governments have amended agency mandates to explicitly include climate and sustainability:

- Prompted by French *Energy and Climate Law 2019* (LEC), the French ACPR mandate was legally amended to upgrade its supervisory power to enable direct supervision and sanction of transition planning and climate/sustainability reporting.
- In the UK, the annual remits for BoE policy committees (the Monetary Policy Committee and Prudential Regulation Committee) were adjusted to reflect the government's economic policy objective for achieving 'strong, sustainable and balanced growth that is also environmentally sustainable and consistent with the transition to a net zero economy' (HM Treasury 2021). In so doing, Treasury acknowledged that pursuing price and financial stability is essential to achieving that economic policy objective and will include 'structural reform ...to transition to an environmentally sustainable and resilient net zero economy, including through regulation' (HM Treasury 2021).

Interpretation:

A powerful narrative can enable broader interpretation of existing mandates, without the need for amendment, as demonstrated by:

- Bank of England/Mark Carney's Tragedy of the Horizon speech that re-framed climate risk from a peripheral ESG matter to a material financial risk (Carney 2015);
- Bank of International Settlements (BIS)/Banque de France research that identified certain epistemological breaks to counter the unhedgeable nature of 'green swan' climate risks and advocated a new frontier of coordination (Bolton et al 2020);
- Framing by ECB members such as Frank Elderson and Christine Lagarde that promotes biodiversity as an interconnected risk within remit of central banks (since 2021).

In the words of one central bank respondent: *'Our mandate hasn't changed, we just try to elaborate on the definition of risk... As research develops we can get a better view on all the risks and integrate them into both our supervision and monetary policy as well as collateral framework'*. (D1).

Moreover, recent legal research contends that the ECB and other EU supervisory authorities have extant legal duties to account for climate and environmental impacts such that their mandates are already green and do not require legislative intervention (eg. Solana 2019; de Arriba-Sellier 2021).

Limits

Nonetheless, there are two main limits to CBFR promotional efforts in the sustainability space:

(1) Where a rapid green transition might jeopardise mandate objectives, for example, if all businesses suddenly divest from all hydrocarbons (gas) *'then that might be good for climate but tricky for financial stability'* (E7). Similarly, if climate considerations increase inflation then it becomes difficult for central banks to support EU policy under the secondary objective without prejudicing the first objective of maintaining price stability. Note however that, as mentioned above, central bank respondents consider the primary objective as the preferable bucket for climate risk.

(2) Even when legal limits are overcome, there are practical limits to the ability of CBFRs to drive a nation-wide net zero transition. This is the responsibility of elected leaders, as brought home by recent litigation that holds governments accountable for effective and timely climate action (ClientEarth 2022a; Urgenda 2019; generally Setzer and Higham 2021).

All respondents were clear that holistic planning is the domain of governments. *'So, sure, the [prudential authority] can lead the charge, it can say we know if we do all these things our firms can be safe and sound against climate risks, but that won't be enough on its own; it's the government's job to coordinate the strategy in order to ensure the net zero target is met nationally. You've got to have a plan drawn up centrally'*. (E3).

'The IPCC report is really good ammunition for us to deliver the message both internally and externally [that] all the things we're doing and committed to delivering are essential...'

Respondent (E1)

Some market regulators further pointed out that addressing climate change goes well beyond the requirements of transparency. It requires whole of economy change and thus attention to multiple sectors and issues such as housing, energy and carbon pricing. There is a need to re-adjust expectations about what disclosure levers can achieve (see Part 3-4) and for governments to step up. *'Politicians find it far more attractive to advocate transparency and hope that people then themselves make the right moves as opposed to giving proper incentives through regulation or price incentives'.* (D2).

1.3 An Emerging 'Legitimate Promotional Approach'

The central bank respondents in this study were clear that while it is within remit to indirectly steer investments and promote greening to diminish exposures to climate risk that undermine systemic financial stability (by, for example, helping the financial sector to reprice climate risks), they will not tell firms and financial institutions where to invest. That is, they will 'not drive the transition' (E7) or actively redirect capital away from legal activities that firms want to do. Such actions are deemed to be political and therefore the responsibility of elected governments via fiscal and economic policy.

More specifically, from a self-interest perspective, central banks do not want to be so proactive that they become first line of defence against climate change or rescuer of last resort in a carbon-constrained world: *'We don't need to give the impression that… central banks are here to clean up the mess [and that] they will put on a green supporting factor and a brown penalising factor, so job done!'.* (F2). Respondents were clear that national governments are responsible for centrally drawing up and coordinating a national net zero strategy, including making hard decisions about prohibitions and real economy changes required to meet them.

But by the same token, they realise that waiting for governments to take all the right measures would also 'create mess' for central banks: '*We must act pre-emptively because, if nothing is done, then in 10-15 years' time who will buy all the bad assets? It will be central banks again'* (F2), raising the spectre of the 2008 global financial crisis.

So here is the first set of paradoxes.

Paradox 1:

Financial stability could be undermined if central banks and supervisors act too quickly on green finance (Carney 2015); yet financial stability will be undermined if they act too slowly or not enough (Bolton et al 2020).

Paradox 2:

Relatedly, due to their mandate, central banks and supervisors cannot wait until all the legal frameworks are concretised and all the right policy is in place before acting; yet they cannot be so proactive as to usurp governments or parliaments.

These paradoxes create a fine line that CBFRs must navigate: facilitating versus driving change.

Recent literature identifies and explores the coordinative role of central banks, termed alliteratively by Bolton et al as 'contributing to coordination to combat climate change' (2020: 63) so as to fulfil their financial stability mandate over longer time horizons (Baer et al 2021).

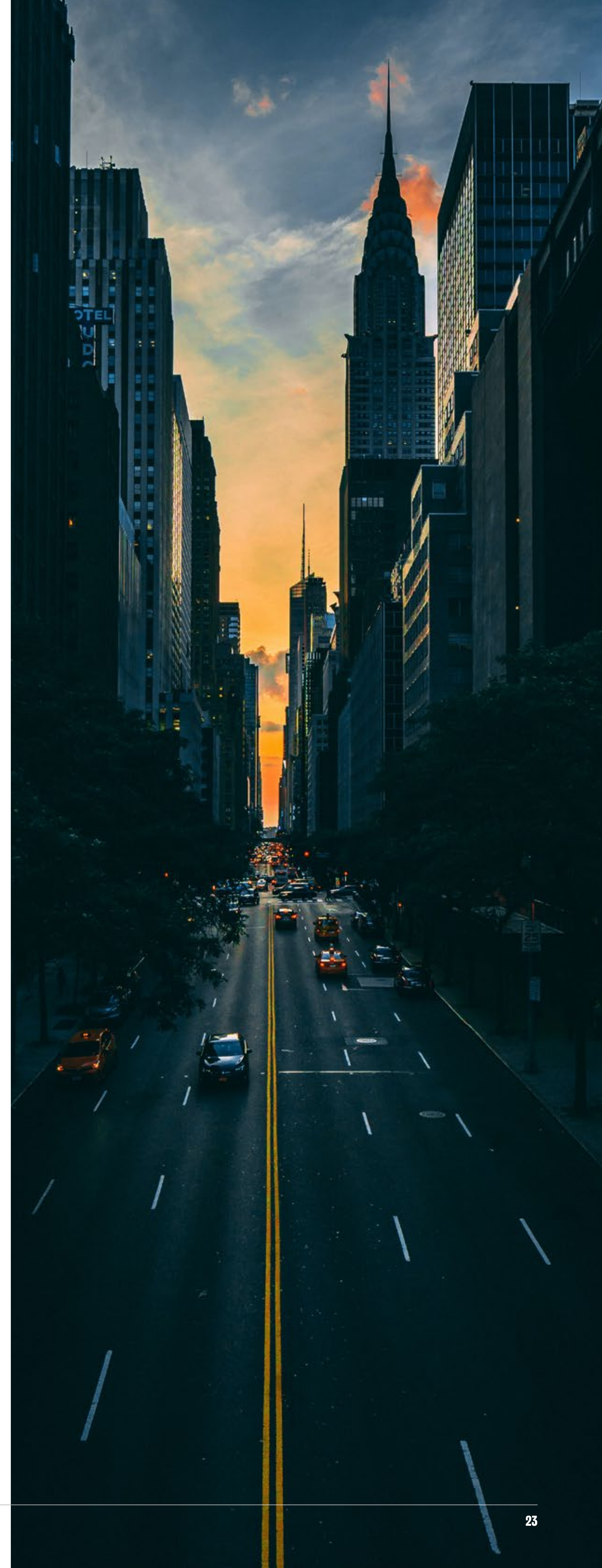
Signs that this is emerging were evidenced in this study, termed in this report as a *legitimate promotional approach,* whereby central banks are promoting and actively participating in coordination and cooperation with government and other agencies and stakeholders (but not driving or deciding it as that is government responsibility).

- CBFR respondents see themselves as part of a broader political response in which:
  (a) government fiscal policies are key to mitigating climate change and eliminating dependence on carbon-intensive activities/sources for a net zero transition; and
  (b) prudential, monetary and market regulatory tools act complementarily to actively facilitate that transition in line with mandate and government policy.
- Respondents in all jurisdictions highlighted the historical importance of central banks and in some cases market regulators in nudging government ambitions. This kind of leadership was demonstrated through role-modelling and educative contributions. As one respondent explained: *'The [central bank] got onto this first and the government is very grateful to the Bank for doing that'* (E3). Another respondent in a different jurisdiction noted that, in addition to being in charge of inflation, the central bank *'is also in charge of helping the government to find its priorities'* (F3).
- Indeed, even when climate and sustainability actions do not fall within their remit, CBFRs explained how it is in their interest to call for action on it, as a market regulator explained in the context of climate insurance: *'Things that go beyond that [mandate] we flag to government… [and] we can also be effective… by trying to persuade firms to do the right thing.'* (D2).

Respondents did not see these arrangements as an affront to independence but rather a statement of reality that *'We need to be moving together'* (F3). Specifically, '*there is no reason why governments can't work together with central banks on other issues outside of monetary policy'.* (E3). In other words, 'the principle of independence does not imply a total isolation from, or a complete absence of cooperation with the institutions and bodies' of the EC or within a nation state (de Boer and van't Klooster 2021: 13)

Some explained how the Covid crisis has made coordination more acceptable. Indeed, the speed and scope of the collective Covid response has shown it is possible to address a global crisis. Addressing the climate crisis will require exponential levels of cooperation between all system actors. This includes central banks, market regulators, Treasury/Government, the private sector and civil society – at domestic, transnational and international levels.

Exact ingredients or weightings in an optimal climate policy mix let alone optimal dynamics of any new institutional arrangement are yet to be evinced. Nonetheless, an emerging 'regulator ecosystem for sustainable finance' was evidenced in this study, comprising heightened levels of cooperation, collaboration and convening as explored in the next Part.



FOCUS AREA TWO:

2

New ways of thinking and doing

Regulators are embracing experimentalism and cooperation, evidenced by the emergence of regulator ecosystems for sustainable finance.

Such regulator ecosystems (central banks, financial market regulators, government agencies) will be key to countering the complexity of systems change and ensuring timely action along the full value chain which undergirds regulatory goals for net zero.

In addition, regulators are demonstrating heightened convening powers to engage other stakeholders to help initiate and implement new regulation.

2.1 Regulatory Experimentalism

Respondent experiences gave rise to five interrelated insights about the nature and objectives of experimentalism in this space.

Just start! Commit, set a target, then sort out the pathway

All respondents agreed: make the commitment first and then figure out the details. It would be counter to mandate and disingenuous to wait indefinitely for all the pieces to magically line-up while knowing that temperature and net zero targets cannot be met so late.

- *'In our monetary policy we have to do something today because we cannot wait until 2030…and then realise 'Oh by next year it [emissions] should be half'…We have to start doing something right now. So it [the path] is not concrete but the objective is clear and you cannot wait until the policy is there… or the legal frameworks are crystal clear… we have to already take steps to be sure that we will live up to the EU commitment; and the ESCB is part of the EU so we cannot turn a blind eye and do nothing. We have to act from today'.* (D1).
- *Even at Paris in 2015 they didn't know how to reach 1.5°C, they just knew it is what needs to be achieved. So they set that target and if they hadn't then it would not have been a gamechanger. So even though that approach is haphazard, arguably it is the right one: let's have the target first and then work out how to achieve it'.* (E3).

The learning is in the doing

Relatedly, the learning is in the doing. Naturally 'there is an element here of putting yourself out there to be shot at' (E3) but this is a new regulatory space requiring courage and curiosity (see Boxes 3 and 4). Regulators were clear that there are many variables and that change is rarely linear so it is better to be experimental than disingenuously definitive or pre-emptively concretise today's knowledge for tomorrow's problems.

'We are in a period where a lot of things are moving around. It is a time where perhaps there is some confusion and overlapping and experimentation too. The nature of the problem demands this experimental process. The issue at stake is so big and potentially so disruptive that we cannot pretend to have the answers yet. So it is a good time for experimentation; provided it doesn't take too long!' (F6).

Adapt, Adopt, Review

- *Adapt extant regulatory tools in new ways*

CBFRs are discussing and in some cases implementing extant regulatory tools in new ways, ranging from 'TCFD Plus' disclosure to climate-updated capital weights, individual Director responsibilities, and regulating firm culture (see Parts 3-4).

- *Adopt new regulatory tools in appropriate circumstances*

New tools discussed in this study include anti-greenwashing measures, mandatory transition plans, penalising or supporting factors, training and

Paradox:

Paradox 3

The climate crisis heralds unprecedented and dynamic impacts that require experimental and iterative regulating; yet the urgency of the crisis requires immediate and decisive action.

certification schemes (see Parts 3-4). More and different tools may emerge depending on local context.

– *Review regularly*

In order to speed up the experimentation process and adapt and adopt tools effectively, regular review must be built into regulatory cycles.

Certainly the 2022 IPCC report has given regulators *'pause to consider whether to accelerate or reprioritise – at this stage it's all too new to judge, but it is in the background'* (E1).

More pointedly, '*You can produce a long list of things of what you're doing in the name of net zero. But the crucial question is: How do you know that doing the items on that list will get you from where you are now to where you want to be?'* (E3).

Accept that the beginning is bumpy

Regulators and regulatees alike must accept that *'we are transitioning from the old economy to the new climate economy. And that's why it's so hard, uncertain and choppy at the moment, because we're living it, we're actually living through… the front end of the transition'* (E8).

Regulator Ecosystems are Key

As detailed below in Part 2.2, CBFRs are showing heightened levels of:

– Cooperating and collaborating together (domestically and internationally);

– Nudging government leadership and coordinating with government via Treasury and business/energy departments; and

– Utilising convening powers to connect and enrol stakeholders at early stages in the regulatory process.

BOX 3

LAW AS REGULATORY DRIVER: ARTICLE 29 OF THE FRENCH ENERGY AND CLIMATE LAW 2019 (LEC)

By including biodiversity alignment and double materiality, French *Article 29* LEC extends and improves upon first generation climate-related reporting requirements pioneered in Article 173 of the *Energy Transition for Green Growth Law 2015*. Moreover, to remedy 'the extreme heterogeneity of methodologies and emissions data generated by the application of Art 173' (Husson-Traore 2021), the Art 29 *Implementing Decree* provides detailed expectations of what firms must disclose, including explanations of methodology choice, data assumptions and time horizons; and giving quantitative targets through to 2030 that include direct and indirect emissions (Official Journal of the French Republic 2021). The Decree also gives new teeth to comply-or-explain reporting by requiring that entities who claim they are unable to provide such information must publish a 'continuous improvement plan' of tangible and corrective actions with an implementation timetable.

Respondents emphasised how this law is driving financial regulation. They described how Art 173 was the starting point for their climate work; that it helped to shape their regulatory approach and mentality. Art 29 was also described as 'a step forward' and 'a very important piece of law' (F6) that aligns with the EU SFDR and Taxonomy and gives legitimacy to progressive action by national financial regulators. *'Art 29 gives power to supervisors regarding climate reporting specifically. It upgrades the ACPR mandate and supervisory power to make it equivalent to AMF regarding sanctions for extra financial information of insurers'* (F5). That in turn enables direct control and supervision over new issues such as greenwashing: *'If false information could manipulate market values then we now have the legal power to sanction'* (F5).

2.2 Regulator Ecosystems

Data in this study reveal an emerging 'regulator ecosystem' response that involves domestic and transnational cooperation and collaboration. This is laudable and exciting. It will be essential for addressing the inherent complexity of systems change and ensuring timely and contemporaneous action along the full value chain that underpins regulatory goals of a whole of economy transition.

Specifically:

– **Central banks comprise a symbiotic component of a larger interconnected regulatory matrix, termed in this report as a domestic 'regulator ecosystem for sustainable finance', that includes market financial regulators and government agencies.** The latter are usually Treasury, which holds the purse strings and a coordinative function, plus business and energy ministries, and other relevant entities such as pension authorities.

– **In addition to central banks, financial market regulators also have an important role in facilitating the transition.** This is due to their remit of maintaining properly functioning markets by ensuring market integrity, fairness, and transparency. That means they are on the front line of monitoring disclosures and, increasingly, supervising transition planning, preventing greenwashing, and ensuring the availability of green financial products for the increasing number of investors that want them.

BOX 4

REGULATORY RESPONSIVENESS AND EVOLUTION: UK PENSIONS SCHEMES

The new *UK Pensions Schemes Act 2021* triggered new *Occupational Pension Schemes (Climate Change Governance and Reporting) Regulations 2021* requiring TCFD-aligned disclosures by trustees of certain occupational pension schemes, which includes emissions data on an 'as far as they are able' basis from 2022.

This wording 'as far as able' is new in mandatory reporting. It differs slightly from comply-or-explain language by recognising that, due to the nascency and inconsistency of reporting, trustees will initially be aggregating incomplete data about climate impacts on their scheme assets and liabilities for the purposes of metrics, quantification and scenario analysis (DWP 2021). As one respondent described it, this new language *'recognises the state of the market [is in flux] but that trustees need to act now regardless'* (E5). Coordinated initiation of new rules and legislation for companies and financial institutions will attempt to bridge data gaps between links in the investment chain and also develop practice when it comes to sourcing data. As such, this language will need to be reviewed against market progress to assess relevance and ensure ratcheting.

A respondent explained how the new regulations reveal an evolution in regulatory thinking regarding climate change and financial materiality. *'Initially, in so far as climate risks were considered, this could have been captured by fiduciary duty so there were no separate rules; but that didn't lead to sufficient consideration of climate-related risks as financially material – often they weren't even thought about. Then from 2019, as part of their Statement on Investment Principles, trustees were required to report on ESG policies with climate change named as a specific consideration but only if deemed financially material. Now, the 2021 governance and disclosure regulations are rooted in the assumption that climate change is financially material. It's not even in question. That debate is done and gone'. (E5).*

Moreover, the regulator ecosystem is **transforming traditional silo mentalities,** which respondents welcomed:

– '*We tend to think in siloes. We don't see financial regulation as a part of the economy as a whole. Even within the financial regulation space we tend to see individual links rather than the whole investment chain*'. (F4)
– *'A big challenge as a market regulator is trying to be across all sectors simultaneously. Each piece of legislation is very complicated, and regulators are very siloed'.* (F1)

The data reveal four main reasons why heightened cooperation and collaboration are emerging and essential in this space.

Shifting the status quo and stretching usual thinking/doing is hard work; lone voices are not heard

Several respondents described the central banking framework as inherently conservative and central bankers as *'people who are supposed to defend the existing institutional paradigm'* (F3). So presenting new ideas or ways of doing tasks, even within remit, can be met with resistance. One way of ameliorating this is by banding together with knowledgeable and respected senior experts in the financial world to present cogent and courageous thought leadership to help push the debate and thus 'the doing'. Often it begins with several individuals moving their own institutions forward. In the words of one central bank respondent: *'There was an alliance of individual people… that enable things to happen and [are] very progressive… [and] truly concerned about what's going on with climate change, truly concerned that it requires more than just measuring the risk and managing it.'* (F3).

Indeed, rather than lone individuals driving a climate agenda, the data revealed that *'institutional irrigation'* (F4) is required to mainstream sustainability knowledge and imperatives within CBFR agencies. This irrigation is occurring via networks, education, and agency structuring. For example, hub and spoke models can diffuse climate knowledge throughout an institution; and monthly calls between CBFRs and Treasury/finance departments help to coordinate and inform ecosystem parts of each other's sustainable finance work programmes and outputs. The goal is that *'Climate is mainstreamed into every decision of the [central bank] now… from the paper we purchase to assessing individual firm risk to evaluating the status of the economy'* (E7).

This field is so new, so urgent, so all-encompassing that regulators and regulatees must learn contemporaneously

Covering new ground in such a short time requires breaking down siloes, building brains trusts, exchanging knowledge, and seeing new intersections and perspectives.

– *'If you are interested in issuers why should you care about SFDR? But the reality is that SFDR is based on data provided by issuers. It's the same for the Taxonomy: it is meant to be applied to corporates but the reality is that asset managers and banks will disclose KPIs based on those taxonomies, so that will influence the dialogue. So we are trying to get everyone, including ourselves, up to speed on all these topics at the same time. It's a huge effort'*. (F1)
– *'This is a new area with specialist scientific underpinning so we are all grappling with it simultaneously – regulators, NGOs, industry, academia – we are all doing this from the ground up; no one actor has all the answers'.* (E1)

Cross-resourcing is required for technical and also moral support

Agencies are working with each other in their domestic regulator ecosystems to share technical task management such as scrutinising disclosures or enforcing supervisory remits. For example, in July 2019 the French Finance Minister declared that firms in Paris need to create coal exit strategies. ACPR and AMF are responsible for co-monitoring those commitments via multi-stakeholder Commissions that produce annual reports evaluating public commitments by firms and are now broadening scrutiny to other fossil fuels commitments (see Box 5).

Further, most agencies began with very few staff working on climate/ sustainability issues, which created the need for moral support: *'I contact my colleagues [market regulators in other countries] saying 'I need someone to talk to! How are you managing because I am just overheating, its like burnout!'* (F1). Increasingly, sustainability-related jobs within financial regulators are competing against similar posts in lucrative private sector firms. In other words, this space has become 'a hot market' (E1) which impacts upon employee hiring and retention for the public authorities that seek to regulate it.

A systemic challenge requires collective action

Attempting a whole of economy transition and mainstreaming sustainable finance in a short timeframe are systemic challenges; it is not possible for an individual or solo institution to carry or solve this alone. Respondents were explicit on this point: *'Coordination is key, as an individual regulator and to the larger goal of the vision, to making this work'* (E5).

A good example is the UK's proclaimed 'economy wide approach' to greening finance and reaching net zero, whereby climate-related regulations have been *activated in close coordination* for each link in the investment chain: asset managers, asset owners, companies, financial institutions (see Appendix). This is essential to success. In the words of a respondent: *'Occupational pension schemes couldn't do this work without other parts of the market doing it as well'* (E5). All market sectors need to have consistent understanding and language around climate risks, product offerings, and transition planning. It will not be possible to achieve overarching policy and regulatory goals otherwise (see Part 3).

Further, a strength of concerted institutional action is that once an aligned CBFR train is set in motion, it is hard to stop. So it has gravity in the face of political vicissitude. For example, the Conservative government that implemented the UK national net zero target has experienced internal dissidence from climate deniers and amidst energy security fears (Taylor and Horton 2022). Nonetheless, UK respondents reaffirmed their institutional commitment to net zero ambitions unless given an explicit edict to stop: *'The financial services industry as a whole is on this [net zero] track. Investors and where the money is going are ahead of political naysayers. So much work is going on, and those regulations are now in place, so we will carry on'* (E5).

2.3 Convening Stakeholders: Bringing law to life through pluralistic problem-solving

In addition to enhanced *cooperation and collaboration amongst peers*, regulators are also demonstrating heightened *convening powers amongst stakeholders*. Enrolling stakeholders in regulatory and governance processes is not new (Black 2003; Braithwaite and Drahos 2000). Yet in the climate/sustainable finance space it has assumed particular gravity and urgency. As stated by one respondent, *'In practice, in this field more than any other, we need to work collaboratively with industry and stakeholders to bring in expertise to deliver good solutions'* (E1).

Thus, in addition to producing insightful research, CBFRs are also enrolling expert stakeholders to help initiate and implement new regulation. This takes the form of advisory forums and working groups that can work through thorny issues such as lending exclusions, metrics and methodologies for portfolio alignment, anti-greenwashing standards, and mandatory transition plans. *'As a regulator we are road testing ideas earlier and sharing a lot more than we normally would… But we need to leverage lots of smart thinking to get better policy outcomes.'* (E1).

BOX 5

INFORMING BETTER REGULATORY OUTCOMES

Stimulated by French *Art 173 ETL* and *Art 29 LEC*, the ACPR and AMF jointly monitor and evaluate climate and coal related (net zero) commitments by financial institutions. They convene two advisory Climate and Sustainable Finance Commissions (for each authority), which comprise large banks and insurers, academics, and institutional bodies. These Commissions have helped to inform recommendations regarding exclusion of coal lending by banks, portfolio alignment for green investment, and carbon footprints of portfolios (ACPR-AMF 2020; AMF 2021) and have begun to evaluate fossil fuels and non-conventional sources more broadly. Similarly, the Scientific and Expert Committee of the Sustainable Finance Observatory includes public authorities, private sector finance, NGOs and academics to 'enhance understanding, tracking and evaluation of the financial sector's gradual transformation' (Observatoire de la Finance Durable n.d).

These advisory forums complement regulatory initiatives by curating members with diverse views to debate difficult issues. One respondent described the resulting recommendations from the Sustainable Finance Observatory committee as *'a genuine result of bargaining, consultation, and making concessions'* within the group (F6). Another respondent described the ACPR-AMF Commissions as *'very influential to regulatory progress'* because they create recommendations for decision makers (F4).

BOX 6

CONVENING PROOF-OF -CONCEPT EXPERIMENTS

Green FinTech

Convening stakeholders may also occur through 'regulatory sandboxes'. The sustainability cohort of the UK FCA Digital Sandbox pilot provided support to start-ups to develop and validate ways of improving transparency of ESG disclosures and product characteristics. Similarly, their Green FinTech Challenge 2021 builds on a successful pilot to help start-ups and tech providers navigate regulation and to support market testing of new products and services (FCA 2021a). These initiatives are enabling 'diversity of thinking and cross-fertilisation' and comprise part of a 'regulatory innovation toolkit' to assist firms and regulators to overcome some of the challenges arising during the net zero transition (E1).

Portfolio Alignment

In France, prompted by French Art 29 LEC and EU SFDR, regulators and practitioners are now figuring out how to measure Paris-alignment and portfolio footprints (carbon and biodiversity). Respondents explained the conundrum: *'There is growing focus on net zero portfolios. But how best to measure and manage the temperature of a portfolio?'* (F5) Similarly: *'Just excluding coal is not really doing sustainable finance. What does the portfolio look like once coal is excluded: is it any closer to Paris-aligned; how is it contributing to sustainability?'* (F6).

A big problem is the number of methodologies in this space that lead to wildly different portfolio temperature estimates ranging from 1.5 to 4.5 degrees. Work on metrics and methods is being conducted in several forums around the world. One response to the issue is a proof-of-concept experiment initiated by Caisse des Dépôts (the investment bank of the French government) together with some large insurers and institutional investors who ran a competitive tender process asking asset managers to propose innovative methods to achieve Paris-aligned portfolio management. Providing a total initial investment of €500mn, they chose 3 funds that use 3 different methodologies with the aim of learning which can actually deliver a green portfolio. Those funds were put in place at the start of 2021 and the investors are committed to follow them over 5 years. One respondent explained this as a 'concrete' experiment: *'How do the funds monitor and make choices in real life; how has the composition of the portfolio changed; what is the impact on the real economy? We can learn from this. Money has been put on the table [by private and public sector actors] to get evidence-based answers. They are not saying give us return on our investment. They are saying make this money work for the transition.'* (F6).

These groups comprise a mix of public, private and civil sector actors. They are taking various forms such as consultative committees convened by financial regulators and/or Treasury (e.g. Climate and Sustainable Finance Commissions convened by ACPR and AMF in 2019 to assist regulatory and supervisory missions; UK Transition Plan Taskforce launched by HM Treasury in 2022 to develop a gold standard for climate transition plans) to semi-private institutions undertaking targeted research on sustainable finance (e.g. Paris EUROPLACE 'Finance for Tomorrow' initiative).

Indeed, private sector financial institutions are discussing these very issues within their own circles. For example, in May 2022 the G20 Sustainable Finance Roundtable canvassed a range of topics including lessons learned by early-moving financial institutions for net zero target setting and transition plans. Moreover, private sector firms welcome the opportunity for co-regulatory efforts, as described by one respondent: *'Regulators need help in this space. Our team of ESG analysts dwarfs that of the [market regulator]. So it just makes sense to share information. We can't have siloed attitudes; we are better off working together on these issues. We often regard policy as something that is 'done to' people but here we have a chance to influence it.'* (E9).

Yet any close collaboration between regulators and regulatees raises the spectre of 'regulatory capture' of the public interest by special interest private firms (Drahos 2017). Supervisors showed keen awareness that regulatory conversations can quickly stray into lobbying and advocacy, and described how they seek to manage processes through evidence and diversity: *'We try to separate 'knowledge' from 'vested interests'. We do so by looking at the technical detail and evidence base for claims and suggestions. We also make sure to balance the diversity and technical expertise in advisory groups, to extend membership beyond just regulated firms.'* (E1).

FOCUS AREA THREE:

3

Regulatory tools: Disclosure

Regulatory success will be demonstrated by cultural and behavioural change whereas tick-box compliance would signify regulatory failure.

Focus must stay firmly on the normative objectives of reporting; disclosure *per se* must not be conflated with a regulatory outcome.

- Climate-related disclosure is a necessary first step for other regulatory activities.
- It cannot deliver success on its own due to inherent shortcomings in practices and logistics.
- It must be nested within a suite of complementary legal and regulatory measures.

Disclosure is the current predominant climate-related financial regulatory tool in G20 countries (D'Orazio and Popoyan 2022: Table 1).

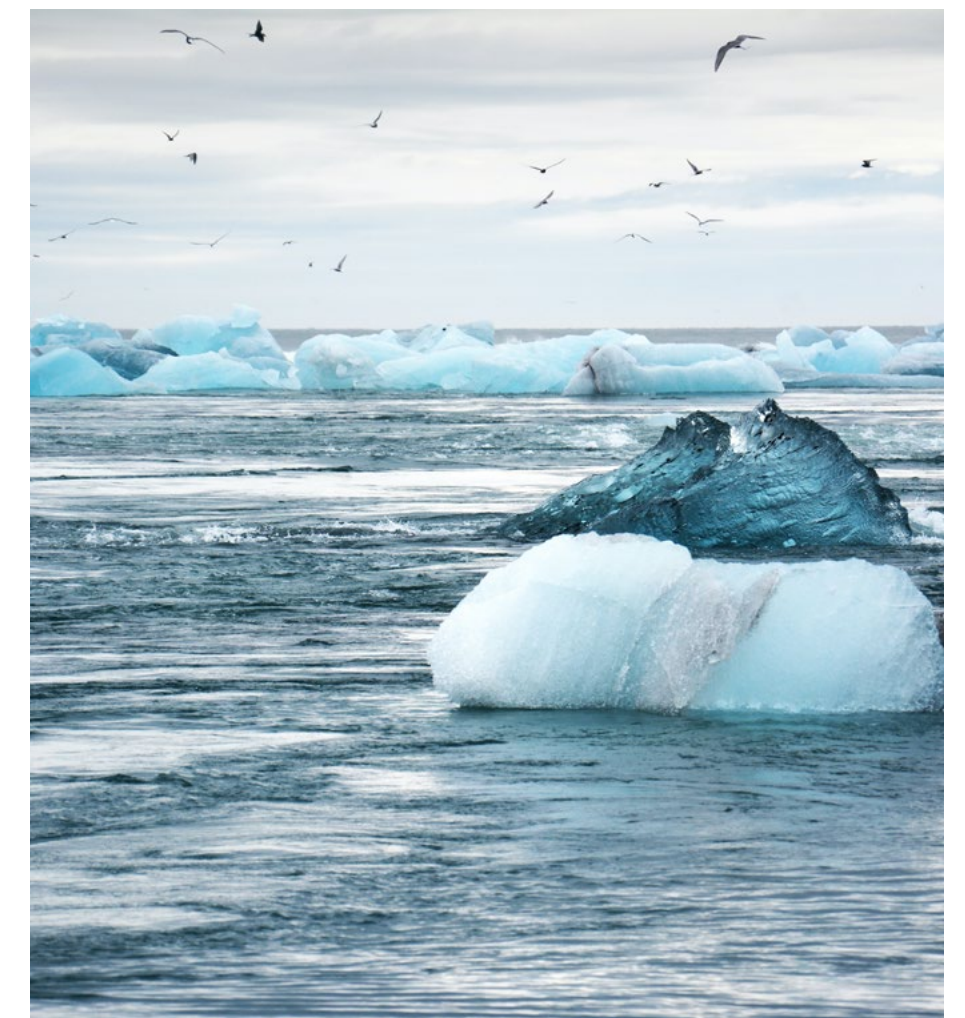
Indeed, climate-related reporting and disclosure by corporate actors and financial institutions has seen exponential proliferation at both national and international levels since 2017 final recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). Those recommendations encouraged individual firms to voluntarily provide information to stakeholders (investors, lenders, and insurers) on risks and opportunities posed to their business by climate change using forward-looking scenario analysis regarding governance, strategy, risk management, and metrics and targets.

The disclosure regulation space has moved quickly in scope of reporting and nature of legal obligation.

- Emphasis has shifted from historical entity-level greenhouse gas emissions and peripheral ESG/non-financial reporting to forward-looking climate-related risks and opportunities as financially material to business.
- We are entering an unprecedented phase of disclosing business plans for a net zero transition, including supply chain considerations and double materiality evaluations of business impact on the planet.
- In a relatively short time, the preferred regulatory form has morphed from a voluntary market-led exercise to a mandatory legislative regime.

Early-moving jurisdictions have identified that, for the logic of disclosure to create impact in actuality, the reporting mentality of business and regulators alike must shift radically from tick-box compliance to cultural change within firms and along the investment chain. Right now, we are in the liminal space between those two worlds. Details are in flux regarding sustainability classifications, reporting requirements and scope, and how different regulations will fit together. In short, how best to do it is still unfolding.

TCFD-based disclosure is the current predominant regulatory tool in both Europe and the UK. National regulators are taking different implementation approaches (MSCI 2022). Yet interviews evidence a move towards 'TCFD Plus' regulation and reporting.



Paradox:

Paradox 4

Disclosure is key to the transition; yet myopic focus on it will undermine the transition.

BOX 7

DISCLOSURE REGIMES IN THE EU AND UK

The EU and UK are introducing new legal frameworks for disclosure (see Appendix) that are unprecedented in scope and ambition but still emerging and thus far untested.

EU:

- The EU Green Taxonomy (economy-wide) and also the SFDR (for financial institutions) entered into force in July 2020 and March 2021 respectively and are foundational initiatives of the EU Sustainable Finance Action Plan and Strategy. They will mesh with the incoming CSRD (for companies) and the proposed CRDDD (regarding supply chains).
- Notably, under the CSRD, double material sustainability information will be included on the balance sheet thus eradicating financial/ESG distinctions; and digital tagging will be mandatory to enable machine readability with intent for vertical comparability (same company across different years) and horizontal comparability (different companies). In May 2022 the European Financial Advisory Reporting Group (EFRAG) proposed EU Sustainability Reporting Standards that will eventually be incorporated into CSRD.
- Overall, the EU Strategy seeks to encompass all key players in the investment chain and covers double materiality, corporate governance and supply chains.

UK:

- A suite of TCFD-aligned mandatory reporting requirements were introduced across the value chain during 2021-2022 and overseen, as relevant, by the FCA, the Pensions Regulator (TPR), the Department for Business & Industrial Strategy (BEIS), and the Department for Work and Pensions (DWP): FCA Listing Rules for premium listed companies and standard listed companies; FCA Rules for FCA-regulated asset managers and asset owners; Company regulations for UK-registered publicly quoted companies, large private companies and limited liability partnerships; Trustees regulations for trustees of certain occupational pension schemes.
- A proposed *Sustainability Disclosure Requirement (SDR) Framework* is yet to commence. It would build on TCFD-aligned disclosure regulation already in place (above). It is an ambition that represents Phase 1 of 'greening the financial system' and is described aspirationally as 'an integral part' of 'kick-start[ing] a green industrial revolution' (HM Government 2021: 2, 7).
- The first SDR step will be FCA proposals for investment product labelling/classification and associated sustainability-related disclosures due to be released for consultation later in 2022.
- The proposed SDR would involve UK adoption of reporting standards in development by the International Sustainability Standards Board (ISSB) due to be finalised by end-2022. The ISSB was established at COP26 to develop a comprehensive global baseline of sustainability disclosures for capital markets and will work together with the International Accounting Standards Board (IASB) to ensure compatibility with financial reporting standards. The hope is that this will put financial and sustainability reporting on equal footing to ensure commensurate outputs of quality, relevance, and audit rigor (Eccles 2022). It is unclear yet how it will interact with other standards in-development, notably the EU CSRD or US Securities and Exchange Commission (SEC) requirements. To this end, the ISSB has established a Jurisdictional Working Group to promote interoperability and a 'building blocks' approach to make the global baseline effective.

3.1 The Logic of Disclosure

The logic of disclosure is best visualised as a trident with three prongs (Bowman and Wiseman 2020):

Prong 1 **points to the macro-economic level.** Climate change presents systemic financial risks with potential to destabilise markets and induce a new global financial crisis (Carney 2015). Thus, the logic of this prong is that when investors have more information then markets can price risks earlier, with the result of a more orderly or graduated series of smaller price corrections over time (Fisher 2019). Moreover, for regulators, enhanced disclosure and transparency ought to enable assessment of whether supervised firms are 'financially viable, well-governed, regulatory compliant and resilient' (Summerhayes 2019) and thus regulators can evaluate the status of market health generally.

Prong 2 **points to the meso-market level.** For investors, access to accurate information regarding the past performance and future prospects of companies can inform capital allocation decisions and share prices. The logic of this prong is that, in a carbon-constrained world, a virtuous feedback loop can be perpetuated whereby investors increasingly invest in low-carbon targets and companies that provide additional 'green' assurances to the market receive competitive advantage in attracting investment (Fisher 2019). This logic also assumes that investors and shareholders will agitate for more and better information and, eventually, better climate action from companies (Eccles and Krzus 2017).

Prong 3 **points to the micro-firm level.** It is best summarised by the old accounting adage that 'what gets measured gets managed'. Firms need to internalise the climate-environmental externalities by putting them on the balance sheet and making them explicit. In this way the firm itself can see its own inputs, outputs, and impacts, and make informed decisions about where the inflection points for internal change reside.

It is Prongs 1 and 2 of disclosure logic that are driving unprecedented interventions by financial regulators around the world. Indeed, there is already some evidence of transmission effects along the lending chain to demonstrate that ESG performance of borrowers can be improved by mandatory disclosure on banks (Wang 2022). Yet the success of Prongs 1 and 2 will depend on data quality, anti-greenwashing measures, threat of enforcement, and investor/stakeholder diligence, as explored below.

Prong 3 is little discussed in the literature. Yet respondents in this study were clear that the behavioural/cultural change they seek is most likely to occur through this prong. In the words of one respondent: *'The impact of disclosure is not on the people who read it but the people who produce it… Trying to work out a plan means looking inwards and along the supply chain to identify the problem – where in operations or the supply chain do the bulk of emissions come from? – and possible solutions to address them and possible opportunities too.'* (E3).

It is clear that further research is needed as to how best to harness Prong 3, including strategic use of other risk-based measures and also qualitative instruments as explored in Part 4.

3.2 Fulfilling the Promise of Disclosure

What will success look like?

All respondents were clear that regulatory success will be evidenced by firm-level cultural and behavioural change whereas tick-box compliance would signify regulatory failure. *'Getting CEOs to take it [climate risk] seriously is the easy part. But we need a full cultural shift throughout organisations and all risk management processes. So behavioural change means organisational behavioural change and cultural shifts, not just one or two individuals seeing the light'.* (E7).

More specifically, the data show that fulfilling the promise of disclosure will require:

(a) Internal cultural change in firms via inward reflection plus credible threat of enforcement by regulators and the market;
(b) The equality and full integration of sustainability and financial reporting so that climate change (and sustainability more broadly) can be mainstreamed into every decision; and
(c) Nesting disclosure within a suite of complementary legal and regulatory measures.

How might financial regulation enable this to occur?

The doing is unfolding, but data in this study show that key tools include:

- Mandatory disclosures that include transition plans, double materiality, and supply chain emissions (below);
- Taxonomy and anti-greenwashing regulations (Part 4);
- Risk-based measures with cultural effects such as personal liability of directors; fit and proper person testing; capital requirements and weights (Part 4);
- Qualitative instruments such as professional culture and conduct supervision; staff training and certification (Part 4).

Levers of Disclosure

A Necessary First Step

Disclosure is a necessary first step in the transition process. In short, it is an important building block for other regulatory tools, and 'puts down markers' of how individual firms and the broader market are tracking while giving regulator ecosystems a 'cross-market view' of progress, gaps, and next steps (E5).

– Data provision (via reporting) and assessments (via scenario analysis and stress testing) will be key to accurately pricing risk, identifying vulnerabilities, and gauging distance to target:
  - *'Disclosure is a necessary pre-requisite to substantive actions such as coal exclusion and portfolio alignment regarding green investment'.* (F6)
  - *'Climate risk is not priced appropriately so gathering information enables the allocation of financial and physical resources in an optimal way... That can then lead to innovations in financial markets to handle these kinds of risks'.* (D3)

– If risk can be priced accurately then respondents hope it will enable wider opportunities 'to mobilise a lot more finance more quickly and more effectively into the areas we need it for net zero' (E4).

– Disclosure is also a 'building block for other regulatory activities' (D2), including:
  - risk-based and qualitative measures by financial regulators;
  - monitoring and enforcement by supervisors;
  - investor engagement, shareholder/beneficiary activism, civil society actions by stakeholders.

A Logical Tool

Depending on mandate and scope of supervisory powers, disclosure is currently the most logical and meaningful tool available to some regulators. Specifically, information provision and transparency are 'part of the DNA' of most financial market regulators (F1). As described by one respondent: *'We can't tell companies what to do about climate change; they must come up with that in line with government policy. We can only tell them what to do about disclosure: but that is a good way to see whether they have a [transition] pathway'* (F5).

To date the role of market regulators has received much less attention than that of central banks. Part of the reason is the perception that 'there are less levers for them to get involved' (E3) due to the nature of some of their regulated firms. For example: *'[asset managers] worry less about their prudential and business model risks because they're not managing their own capital but that of their clients. So the regulatory focus is all about consumer protection* (E3).

Yet this study finds that, due to the very nature of their remit, market regulators have a key role in facilitating the transition. The levers they can pull are crucial, especially as transition planning gains prominence and momentum. They will be at the front line of supervising transition planning, preventing greenwashing, and ensuring the availability of green financial products for the increasing number of investors that want them.

Mandatory Reporting

There was a clear sentiment amongst regulators that only mandatory reporting can ensure high enough levels of reliability, comparability, credibility, and mass uptake to be effective. Indeed, institutions with the biggest exposures that are hardest to reduce but likely to cause the most harm will rarely volunteer such information.

Double Materiality

In the EU, double materiality – impact of sustainability issues like climate and biodiversity on business plus impact of business on sustainability and the planet – will be required by the CSRD and is already required by French *Art 29 LEC* (see Appendix).

In the UK, the TCFD does not require double materiality and the ISSB is focused on single materiality being 'ESG information that drives valuation and matters to investors' (Eccles 2022). One respondent explained how a company's climate impacts will feed back to enterprise value and so will be caught by ISSB standards and must be included in reporting; yet it is uncertain to what extent other sustainability topics such as biodiversity or social issues can/will meet that threshold.

On this point, the concept of 'dynamic materiality' links single and double materiality whereby 'ESG issues that investors don't care about today can become ones they care about in the future' (Eccles 2022). This concept may help to bridge single to double materiality in the UK and elsewhere.

Supply Chain (Scope 3) Reporting

In most cases, the largest portion of total corporate emissions and cost reduction opportunities lie outside an entity's own operations. This is especially so for financial institutions that produce few emissions themselves but finance and invest in (and thus facilitate) carbon intensive entities and assets. Yet precisely because these 'Scope 3' emissions are not under direct control, they are rarely assessed or included in voluntary reporting due to the difficulty in data collection and quality.

Nonetheless, Scope 3 reporting will be required to implement Art 2.1c of the Paris Agreement. It is clear that calculating only Scope 1 and 2 emissions 'is no longer enough to strive for true carbon neutrality and radical change' (Ecometrica 2021).

Doing Scope 3 reporting will require 'increased quality of self-knowledge' (E8) regarding, for example, far-removed asset investments by banks, which speaks to the internal reflection required by Prong 3 to make real the promise of disclosure.

– In the EU, Scope 3 supply chain governance/reporting has been proposed under the CSDDD (see Appendix).

– In the UK, it is not mandatory because it is not required by TCFD. Nonetheless, some UK businesses are advocating for the government to expand the SDR Framework to mandate Scope 3 reporting from 2025 with preliminary guidance from financial regulators in 2024 in addition to allowing the integration of other sustainability impacts such as biodiversity over time (Aldersgate 2022). Moreover, ISSB proposals seek to bring Scope 3 onto a mandatory footing (subject to materiality assessment).

Mandatory Transition Plans

As identified in Part 1, an important finding of this study is that regulators are evolving from a narrow climate risk perspective to a legitimate promotional approach. Further evidence of this is the spotlight on mandatory transition plans for tracking net zero progress. Transition planning – for firms as well as national governments – will require concrete actions, metrics and targets of how entities and institutions will de-carbonise over specific horizons. This takes us well beyond 'mere disclosure' to the 'next wave' of regulation in this space (E8).

Transition plans are crucial for translating net zero commitments into action and thus helping to track economy-wide progress. COP26 pledges by GFANZ financial institutions and other firms have grand potential that must be made real. As such, regulators explained how they will be seeking *'clarity around the framework for translating commitments into action; for setting targets with near-term milestones, concrete strategic and business model actions sitting behind the targets, and then a methodology for being held to account by your investors and by society at large'* (E1).

This has never been done before. No agreed template or standard for high quality and effective transition plans yet exists; and regulatory approaches are embryonic and experimental.

– In the EU and indeed the world, French *Art 29 LEC* represents one of the first forays into transition planning. Although it does not explicitly require a company transition plan, the inclusion of double materiality and disclosures over specific horizons to 2030 regarding matters such as financial services provision, new products such as green bonds, and engagement policy/voting rights, all trigger the requirement of net zero targets. So *'doing Art 29 requires transition planning; it is more than just climate risk'* (F5). This law, alongside EU-level SFDR and CSRD, heralds radical change to climate-related financial disclosure. But, as with any new territory, it presents first-mover challenges for the regulators who are responsible for implementing it. See Box 8.

– In the UK, a new Transition Plan Taskforce has been tasked to develop a 'gold standard' sector-agnostic template by 2023 and then sector-specific templates. Its work will tie in with GFANZ and ISSB. See Appendix.

BOX 8

THE NEW FRONTIER OF TRANSITION PLANNING: *FRENCH ART 29 LEC*

Regulator Aims and Challenges

In keeping with their remit, French regulators are checking that the public commitments of firms are transparent, reliable and internally consistent under Art 29 LEC: *'At this stage we can only look for consistency between what the firm says it is doing and the actions it is taking; we cannot yet say whether those actions are aligned with Paris temperature goals or biodiversity.'* (F1).

There are many reasons why it is currently *'hard to challenge them [firms] on alignment'* (F1): robust methodologies for climate and biodiversity-related portfolio calculations are not yet settled; companies currently provide very little data with which to calculate biodiversity impacts and even climate-related data are variable; the Taxonomy is still in progress so a common sustainability language is not yet settled; it is uncertain which scenarios will most probably materialise; and companies are reticent to divulge strategies to competitors.

Regulators must also walk the line of experimenting within their mandate. *'We know we need to do something, and we are all doing something, but initially we are walking around at the edge. We started with the traditional stuff because that's known and relatively uncontroversial'* (F1). Yet their aim is to go further as developments in the field unfold: *'This is a work in progress. We see our role as evolving because stakeholder demand is evolving'* (F1).

Learnings

As a first step, regulators embarking on transition planning are collecting and categorising public commitments by firms regarding exit strategies/ divestment, engagement policies, client commitments, and new products such as green bond issuance and investment. They check to see how those commitments are presented: are they well-defined, are there clear dates, horizons, indicators by when actions will take place to meet those commitments; are there statistics of their fossil fuel exposures; are firms allocating resources (human and financial) into the transition; is any of that showing up on the balance sheet; are there dynamic balance sheet assumptions so that firms can change their balance sheets to accommodate shocks in scenarios?

But there are hurdles in these early days, especially around definitions, scope and methodologies. '*What is meant by 'coal'? There are different types! Some are more emitting than others, some can be easily eradicated, some cannot because its too expensive or the technology is not yet there to substitute with other energies. Once you know what you are trying to measure then what is the scope of activities? Is it only lending, or refinancing, financial services, types of products such as derivatives, direct financing of a firm or in the value chain? If different actors have in mind different meanings and understand these issues differently – more narrowly or more broadly – then… its like aggregating apples and oranges'* (F5).

Part of the solution is to enrol industry in developing common definitions and standard-setting; but that is not without caveats. *'We set up working groups with industry to reach consensus but it is hard to reach agreement on some of these issues. We adopted a 'best effort' basis to accommodate the disparity of where different firms are at. But that means setting the bar at the lowest common denominator. So we are trying to use alternative measures to force industry to come up with a range of acceptable methodologies.'* (F5).

Limits of Disclosure

The data show that disclosure is an important tool in the regulatory toolbox but it is not to be considered the only tool or a panacea in the climate-related financial space. In the words of one respondent: *'Disclosure is just the first brick of the house; it is not the entire building'* (F4).

Limits to disclosure were revealed in four main groupings: logistics, lags, legal form, and enforcement.

Logistics

There are many logistical issues in the disclosure space and much commentary about them. In interviews, the most discussed issues were data (availability and quality) and harmonising international reporting standards. In the words of one respondent: *'The quest for consistent data internationally is not an easy one; there are loads of frameworks out there…and its going to be a long road' (E4).* More bluntly, one respondent asked rhetorically *'So are you meant to make a difference based on crap data?'* (F1).

Nonetheless, respondents were clear that it's time to just get on with it. They are not letting the perfect get in the way of good: *'This is an existential crisis; we can't let data issues get in the way [of starting the journey]'* (E5).

Legal Form

The predominant legal form of mandatory disclosure in the EU/UK is comply-or-explain. This means that firms must either comply with all relevant provisions of a regulation or give reasons for why they have not so complied with certain provisions. Regulators and firms alike tend to defend comply-or-explain reporting in this nascent space: firms prefer flexibility; regulators appreciate that data are still insufficient and that everyone is still learning.

The problem is that comply-or-explain reporting may not be the best legal form for fulfilling the promise of disclosure.

- Empirical evidence regarding previous French *Art 173 ETL* showed that mandatory disclosure on a comply-or-explain basis does not guarantee compliance nor solve the issue of highly variable reporting quality (FourTwentySeven 2018) nor ensure firms will better assess risks and opportunities facing their portfolios (Novethic 2021).
- Indeed, these very concerns prompted the suite of detailed requirements in the new French *Art 29 LEC*. Specifically, Art 29 strengthens comply-or-explain flexibility by requiring investors who claim they are unable to provide all information to publish a continuous improvement plan.
- Similarly, the UK FRC conducted a review of reporting against the *2018 UK Corporate Governance Code* and found that firms were not properly utilising the comply-or-explain modality such that '"tick-box compliance" continues to be preferred over high quality reporting' as evidenced by 'boiler plate language, and ineffective reporting that lacks substance' which in turn undermines transparency and good governance (FRC 2021).

These concerns must be taken very seriously in the context of climate-related reporting given that regulatory success depends on cultural and behavioural change whereas regulatory failure is tick-box compliance.

It must be acknowledged that comply-or-explain reporting is not the only way. Indeed, the FCA has signalled that the introduction of ISSB aligned disclosures will be the time to shift climate disclosures from comply-or-explain to an absolute mandatory footing for listed companies. One respondent in another jurisdiction opined that disclosure regulation should become comply-and-explain in order to encourage meaningful reporting. Moreover, some countries elsewhere in the world are going further, for example New Zealand introduced the *Financial Sector (Climate-related Disclosures and Other Matters) Amendment Act 2021* to mandate TCFD-aligned climate reporting with no comply-or-explain exemption for publicly listed companies, large insurers, banks, non-bank deposit takers and investment managers. The very reason it took an absolute approach was to ensure consistent and comparable reports (Watt et al 2021).

As the world moves inevitably into mandatory disclosure regimes, the questions of legal form and regulatory impact are becoming ripe for review and new approaches.

Lags

Timeliness and know-how lags are significant challenges in this disclosure space.

- As one respondent noted *'this whole field will take a while to reach maturity'* given that passing and implementing regulation requires lead time and that regulated entities such as banks are inherently 'very slow moving' and 'incredibly conservative' (E2).
- For similar reasons, market regulators are not yet able to check disclosures for truth or accuracy, especially regarding net zero ambitions. Their approach is unfolding in several stages (see Box 9) and at this early stage they are looking for completeness, consistency and compliance with minimum regulatory expectations.
- EU CSRD and CSDDD are potential gamechangers but some respondents noted that it will be 2026 before they land fully and that practitioners, lawyers and accountants do not yet know how to implement them because the legal requirements are so far-reaching and unprecedented. The UK SDR roll-out faces similar challenges: *'Businesses need time to bed in and get this right. So there will be quite a significant teething period'* (E4).

Importantly, the TCFD Recommendations were not designed to achieve net zero or align markets to 1.5˚C or even 2˚C on their own (Waygood 2021; Caldecott 2020) nor do they reference entwined social imperatives like a just transition (Robins 2020). Respondents acknowledged these inherent limitations. Some opined that the gift of the TCFD is how it changed the corporate narrative by recasting climate change as a material financial risk and no longer a peripheral ethical issue, which thus paves the way for equal status with financial reporting and inclusion of other sustainability issues such as biodiversity. Others noted that the principles-based nature of TCFD reporting can deter tick-box compliance and encourage internal reflection and thus behavioural change. In this way, the TCFD is seen as 'a starting point' to 'build on and add things' (E3) because it is the most-adopted approach and thus provides a feasible 'stepping stone' (E1) to ratcheting. Bringing a 'TCFD Plus' approach to life, however, will require vigilance. As each cycle unfolds, regulatees must continuously ratchet up their actions and ambitions, and regulators must do likewise with their expectations and instructions.

Enforcement

To trigger substantial changes to re-pricing and firm behaviour, reporting and disclosure must be given consequence by regulators and along the investment chain, including:

- Financial regulators who set and/or enforce reporting rules and standards;
- Auditors and assurers of reported information;
- Stakeholders such as market actors and NGOs who rely on the information and need to be able to make sense of it (a point that is explored further in Part 4 regarding greenwashing).

The data reveal that the current stage of **supervisory regulatory activity** can be described as *evaluative, explorative and encouraging.* It is not punitive. This is due to the nascency of this area, including resourcing constraints and early-stage roll out. In short: *'You never go on inspection when the text is so new'* (F1).

- So in these early days, regulators are using French Art 29 LEC and EU SFDR to raise internal firm awareness: *'Right now, we are using this process to encourage companies to think about and assess climate risk and the transition, especially their exposure to companies in high-emitting sectors likely to end up with stranded assets* (F5).
- Similarly, UK regulators view the first year of SDR as a time of learning and 'building capabilities' for firms as they gather information (as far as they can); and regulators will be 'working with firms' to increase standards for higher-quality disclosures (E1).

More broadly, all supervisory authorities in this study subscribe to an enforcement ladder or pyramid approach (Ayers & Braithwaite 1992) whereby enforcement measures such as capital requirements, fines, prosecution and even naming-and-shaming is a last resort to be used sparingly. This approach applies equally to new climate-related expectations.

Most regulators preferred to lead with awareness-raising about incoming rules, supervisory expectations, and incentives for firms to act/comply. This is because 'not everything is yet in place' (D2); regulation is only just landing now and there is more to come. So a spacious approach to supervision is more constructive in these initial stages as both regulators and firms learn by doing.

- For example, in 2021 the Dutch AFM undertook a compliance investigation of asset managers regarding the SFDR. It provided general feedback on improvements to all asset managers in the Dutch market rather than naming and shaming individual firms. It will investigate banks, insurers and pension funds in 2022.
- The French AMF and UK FCA adopt similar approaches: *'Behind closed doors we ask companies to do more. In public we prefer to highlight good practices rather than name and shame'* (F1).
- Moreover, central bank respondents pointed out that any concerns are usually identified early due to the nature of the continuous supervisory cycle. In this way supervisors keep track of firms by receiving the usual reports and collecting any additional information via firm discussions and periodic review.

While all this may sound overly passive, supervisors in all jurisdictions pointed out that having a quiet chat with regulatees is often sufficient to improve behaviour. No firm wants undue supervisory attention.

Looking forward, the UK FCA and BoE have publicly stated they will come down hard on egregious breaches and French respondents were similarly explicit. But for now, regulators and supervisors are in the initial stages of receiving reports which are coming in waves/cycles, and need time to review those reports, then assess reporting quality, and then provide feedback, before doing it all again in the next wave/cycle: *'We are on a journey: the destination is not one to two years away; it will be constant iteration'* (E2).

It is important to note here that the role of **auditors and assurance providers** as enforcers of standards is not yet up to speed. They will be crucial to reliability and therefore integrity of climate-related disclosures. Indeed, IOSCO and the International Auditing and Assurance Standards Board (IAASB) are stepping up work to bridge this gap. Arguably auditors and assurance providers already have a quasi-regulatory role – something that is exemplified by the self-regulatory Dutch *2008 Corporate Governance Code* where auditors are responsible for operationalising it and 'get paid to do the regulatory side of the work' (D2).

However, studies show that:

- Most external auditors do not yet fully account for climate-related risks in financial statements even despite the significance of those risks and net-zero pledges by audited firms (Carbon Tracker 2021)
- Assurance in ESG/non-financial reporting is uneven due to lack of uniform standards unlike in financial auditing (Harper Ho 2017) and such assurance tends to favour managerial interests 'thereby eroding transparency' (Lipskyte and Koster 2018: 3).

Given that transparency is so key to market integrity, and that new regulations like the EU CSRD require enhanced assurance of sustainability risks, the prudence of auditors and assurers must also be scrutinised in forthcoming reporting cycles.

BOX 9

THE 'DOING' OF REGULATING DISCLOSURES

Financial regulators described an unfolding four-step process:

1. *Setting expectations.* Educating firms to help them understand new rules and legislation. Clarifying what it is that regulated entities are expected to do and by when.
2. *Descriptive analysis.* Once reports start coming in: typologising the kind of claims and commitments being made by firms. Are they in line with what is required by disclosure regulations? Do they reveal examples of good practice? Where would better reporting be expected next time?
3. *Normative analysis.* Are those disclosures true, correct and non-misleading?
4. *Alignment analysis.* Are the disclosed actions aligned with Paris temperature goals and biodiversity imperatives?

Regulators are currently focused on Steps 1 and 2 due to the nascency of this area.

Step 3 is just beginning to unfold and will become clearer in the next 12-36 months.

Step 4 is an ambition that is dependent upon market and international progress regarding data, methodologies, metrics, know-how, and broader interpretations of regulator mandate.

3.3 Disclosure is a Means not an End

The disclosure zeitgeist gives rise to another paradox in this space:

Paradox 4: Disclosure is key to the transition; yet myopic focus on it will undermine the transition

Most respondents have experienced some version of this paradox. For example:

- When describing the creation of greenwashing guidance (explored in Part 4), one market regulator opined that *'even when information is forced via SDFR to create transparency you provide a lot of ESG information on a product so it's hard for investors to really understand if that makes it a green product or not…That information, by itself, is not sufficient to help investor decision-making.'* (F1).
- Similar sentiments were expressed by a central bank supervisor: *'Our supervision is about numbers, about capital adequacy, but at the end it's all about people. People are making the choices, making the decisions. It's why we focus a lot on how are people making choices.'* (D5).

It is easy to become distracted by the phenomenon of 'datafication' which is at best a means of governance but certainly no substitute for decisions (Mai and Elsässer 2022), being the very human acts of interpretation and choice-making that will get us to 1.5˚C or not.

In summary, focus must stay firm on the *normative objectives* of reporting; disclosure must not be conflated with a *regulatory outcome.*

FOCUS AREA FOUR:

4

Regulatory Tools Beyond Disclosure

To mainstream climate/sustainability into decision-making, *a multi-instrumental CBFR approach comprising complementary quantitative and qualitative tools* is necessary (and emerging).

These include:

- Mandatory disclosures on transition plans, double materiality, supply chain emissions;
- Taxonomy and anti-greenwashing regulations;
- Risk-based measures with cultural effects e.g. personal liability of directors; fit and proper person tests; capital requirements and weights;
- Qualitative instruments e.g. culture and conduct supervision; training and certification.

4.1 Leveraging Disclosure: From Transparency to Assessment

As explored in Part 3 above, the new disclosure regimes in the UK and EU force a degree of transparency by requiring market actors to report on sustainability risks and impacts. Yet the *greenness assessment* of a company, asset or product is left up to readers of the data to interpret the disclosure. Unsurprisingly, a proliferation of spuriously green messaging within markets is confusing investors and now prompting the necessity for anti-greenwashing law and regulation.

These new issues sit squarely on the plate of financial market regulators because greenwashing undermines market integrity and fairness. It creates a false impression (knowingly or not) about the greenness or sustainability benefits of products or businesses and, as such, gives unfair advantage to non-green companies, misleads market actors who may then misallocate investments, and can ultimately entrench unsustainable economies whilst appearing to facilitate the transition.

Greenwashing is most apparent in marketing statements by producers in the real economy, such as claims of company 'reinventions' by BP and Total to achieve net zero by 2050 albeit without plausible plans to abandon their current business models; and such claims are now being challenged under consumer protection laws like the European *Unfair Consumer Practices Directive*, as implemented in France (ClientEarth 2022b).

Yet greenwashing is also manifesting in financial markets. Early-moving regulators described how they identified these risks when the market started 'over-heating' in 2020. One regulator remarked that *'we started seeing a lot of 'green' product and prospectus modifications submitted for our approval which prompted us to see there was a risk of mis-selling'* (F1).

Another explained that *'We saw that many products were exaggerating claims without sufficient transparency about how those claims were going to be achieved'* (E1).

Regulators are identifying two main areas of potential greenwashing in financial markets:

- *Misleading product claims or investment descriptions* in marketing materials and green bond or sales prospectuses; and
- *Incoherent net zero and engagement strategies* by lenders and investors.

Misleading Product Claims and Investment Descriptions

This category is starkly exemplified by regulatory investigations and police raids of DWS (an asset management unit of Deutsche Bank) as 'a high-profile early example of lenders facing legal consequences for greenwashing' due to allegations by its former chief sustainability officer that ESG-labelling and sales prospectuses of DWS funds were not meaningfully actioned by fund managers (Arons et al 2022).

This category is the current focus of regulatory attention via taxonomies and national guidances.

Taxonomies

The EU Taxonomy Regulation (Art 8) imposes disclosure obligations on financial and non-financial companies falling in scope of the NFRD and now the SFDR and incoming CSRD to report on how and to what extent their activities are associated with 'environmentally sustainable' economic activities as defined under the Taxonomy Regulation. In so doing, it aims to not only increase transparency in the market but also to prevent greenwashing (EC n.d). That obligation is also integrated into SFDR: firms must disclose how and to what extent financial products that '*promote* environmental or social

'The combination of the quantitative and the qualitative supervisory measures and instruments is, I would say, what makes you a very strong, powerful, influential, and a good supervisor'
Respondent (D5)

characteristics' (Art 8) or have 'sustainable investment as their *objective*' (Art 9) are aligned with the EU Taxonomy; that is, to what extent they are environmentally sustainable and address adverse impacts of their business on sustainability.

In addition to deliberations regarding a Red Taxonomy of outright unsustainable activities, the EC has proposed the creation of an Amber taxonomy to cover intermediate activities that are not yet green but neither environmentally harmful under the Do No Significant Harm principle. Some critics warn that an Amber category could encourage greenwashing and should therefore only be a short-term bridging step (Redgrave 2022).

In 2021 the UK announced creation of its own Green Taxonomy and a government consultation on Technical Screening Criteria is anticipated. UK respondents noted that they will watch the EU situation closely to learn how to navigate such contested new regulatory terrain.

National Regulatory Guidance

Taxonomies are crucial for settling a common language but, like disclosure regimes, require implementation and monitoring by national regulators. This was noted by IOSCO's Sustainable Finance Task Force which published a report on asset managers' sustainability-related practices and disclosures in November 2021 and is pushing for the asset management industry to adopt policies and practices to avoid greenwashing as a key focus area in 2022 (Flood 2021). The point is that domestic regulators must do the heavy-lifting to sift and supervise errant market messaging and, looking ahead, transition plans.

For this reason, the French AMF (2020) was the first market regulator to issue its own guidance on greenwashing that recommended 'minimum and measurable standards' on ESG product marketing by investment funds.

A respondent described the fraught process of breaking this new ground:

> *We introduced minimum criteria based on existing ESG labels. By setting minimum standards we took a preventative approach to prevent the very worst offences. I cannot tell you how much discussion we had around all that – both with industry and internally… there was this EU regulation coming with SFDR and any piece of domestic legislation creates barriers for the EU market, so there was that question; and the other question was whether we were setting the bar at the right level. But 1.5 years on it [the guidance] has proved to be useful.* (F1)

Looking forward, the French AMF will seek to monitor reporting against its own guidance together with new transparency requirements under the EU SFDR (Arts 8-9) for products claiming ESG or sustainable investment objectives. By contrast, the Dutch AFM anticipates further EU interpretation of SFDR, CSRD and Taxonomy complexities before turning to national initiatives, and will undertake firm consultations and consumer surveys to better understand domestic market expectations.

The UK FCA has embarked upon a similar journey to introduce sustainable investment labels and accompanying disclosures: *'The problem is that many products are exaggerating claims or not being transparent about how they intend to achieve their claims. So one theme of our regulatory strategy is trust; building trust in a Wild West market'* (E1). The UK has also established a Transition Plan Taskforce and is developing its own Taxonomy to ensure useful disclosures (at the front end) and interpretation of their greenness by stakeholders (at the back end).

Incoherent or Disingenuous Net Zero Strategies

Net zero promises by firms and financial institutions are coming under scrutiny since COP26. Notably, an international consortium of private finance actors under the banner of the Glasgow Finance Alliance for Net Zero (GFANZ), which together supervise US$130trillion of assets under management, promised to help deliver the multi-trillion dollar funding required for a net zero transition. It is a world first. Yet the faithfulness of that promise will be judged against how many trillions are mobilised to address global warming, and whether fossil fuel funding is exponentially reduced.

Thus, net zero planning raises questions about exiting fossil fuel financing and investments, and disengaging from high-emitting clients. For example, engagement-only strategies have been adopted by large multinational banks that claim their influence and expertise can assist lucrative fossil fuel clients to transition to low-carbon business models. Similar positions are taken by large institutional investors or investment management firms that, rather than divest entirely, prefer to lobby company boards and steward sustainable investment in their role as shareholders and proxy voters.

Certainly a case can be made for engagement rather than exit as a way to shepherd sectoral change management to thereby reduce underlying emissions rather than shifting dirty assets to other market participants with no resulting net reductions (Waygood 2018). In other words, there is limited overall benefit in cleaning up one's own room by moving dirty things to other parts of the same house.

Yet, since COP26, the authenticity of engagement-only strategies is increasingly coming into question. For example, HSBC is a prominent GFANZ member that has positioned itself as an established leader for a green and responsible transition. It has adopted a staunch engagement-only strategy; yet some senior members of HSBC have reportedly deflected the urgency of climate action in the finance sector thus revealing internal dissonance and undermining the bank's proclaimed sustainability agenda (Moulds 2021; Abelson and Wilson 2022).

This issue is beyond consumer protection laws for misleading marketing; this type of incoherent messaging relates to the *transition process itself* rather than ESG products. It is another compelling reason why regulations for mandatory Transition Plans – and subsequent scrutiny of those Plans by supervisors and other stakeholders – is now essential.

What that looks like is not yet clear. Certainly it would require banks and other financial institutions to set their own targets for meaningful engagement but will likely also require disengagement timelines in the face of client/company recalcitrance or insufficient progress.

Early forays into these questions have been triggered by legal and regulatory changes regarding transition planning.

- Early-moving regulators are starting to understand feasible horizons in genuine transition planning:
  - *'If a financial institution is really serious about having a net zero portfolio in 2050 then it is clearly contradictory to continue financing [carbon intensive] firms in 2040. This is due to inertia in emissions, you need at least 20-25 years to influence emissions. So if you say you will stop financing in 2040 it is very unlikely, unless you completely change your portfolio, that you will actually achieve net zero in 2050.'* (F5).
- Regulatees agreed that action in the next 7 years before 2030 is the imperative for firms, and that this requires regulatory oversight of transition planning to counter greenwashing: *'Net zero by 2050 is not possible without hitting at least 50% reduction of emissions by 2030… Regulators need to ensure that no one can claim a 2050 goal without commensurate short term action'.* (E9).
- In light of the proposed UK SDR framework and the Transition Plan Taskforce's Call for Evidence regarding potential elements of a gold standard transition plan, some UK financial institutions are now requesting guidance from the FCA on how to better steward the transition and the circumstances under which divestment is an appropriate last resort (Aldersgate 2022).

This is extremely new ground. EU and UK regulators are just now developing ways to gauge veracity of disclosures in addition to their consistency; and templates for effective transition plans are under development. Moreover, new regulation is still emerging, with some respondents opining that the EU Corporate Sustainability Due Diligence Directive (CSDDD) will be 'where the real change happens' (D2) due to its expanded gaze on value chain due diligence and risk management rather than just reporting and risk assessment.

How this will unfold for meaningful mandatory transition plans and stewardship/engagement strategies of finance actors is a new frontier.

4.2 Risk-Based Measures Beyond Disclosure

Regulatory initiatives explored in this report such as taxonomies (green and polluting), disclosure requirements (especially by financial institutions), and new approaches to scenario analysis, can help to inform and substantiate other risk-based measures including those discussed below.

Decreasing Harmful Finance Alongside Increasing Green Finance

To meet Article 2.1c, regulatory measures are required to decrease flows of polluting and harmful finance (not just incentivise green and sustainable flows at scale) in a very tight timeframe. This fact tends to get insufficient airtime in policy discussions. It will require edicts and interventions well beyond market-based interventions like disclosure. Yet it is clearly required because fossil fuel finance by global banks, including GFANZ members, continues to outweigh green finance even despite climate pledges by both financial institutions and countries (Banktrack 2022).

We cannot expect a clean bill of health by sprinkling some lettuce leaves amongst pounds of doughnuts.

Extant measures at the disposal of central banks have been discussed in detail elsewhere (eg Bolton et al 2020; Gunningham 2020) and include capital requirements and risk weights, among others. Yet the perennial caveat applies: risk-based reasons must undergird these measures; CBFRs cannot be perceived as seeking to move finance in a greener direction carte blanche at the risk of policy-making.

It must be noted that currently, adapting such measures to climate risk is hardly de rigueur: 'no climate-related macroprudential measure concerning capital requirements, leverage ratios or systemically important banks or liquidity requirements have been adopted in G20 countries' (D'Orazio and Popoyan 2022: 107).

Nonetheless, forums such as the NGFS, ESCB and Basel Committee are debating ideas and exploring methodologies for a broader suite of supervisory and regulatory measures.

- Respondents in this study confirmed the likely future use of traditional risk-mitigation and management tools for climate purposes;
- Some respondents emphasised that 'intrusive' regulating is needed more than new tools: *'you have to be prepared to go into a firm and tell them off and tell them to do something different'* to manage risks properly (E3);
- Regulatees are expectant too. For example, some UK businesses have requested that the PRA consult on potential changes to capital requirements to incentivise greater investment in low-carbon infrastructure in Q4 2022 (Aldersgate 2022).

Capital Requirements

Regulatory capital requirements help to ensure that firms can absorb future financial losses in the face of risk stresses. They are a 'key part of the supervisory toolkit' because they support the safety and soundness of individual firms and systemic financial stability (BoE 2021). International standards have been adopted by most G20 countries: Basel Pillars 1 (minimum capital requirements) and 2 (supervision of firms' risk management) cover the minimum level of regulatory capital that must be maintained by firms. Further buffers to cover other risks can be added in line with the EU Capital Requirements Directive (CRD) IV and/or domestic measures such as the UK PRA Buffer. Under this regime, supervisors can place a capital charge on firms they deem to have insufficient capital to cover their risks and potential losses.

Whether and to what extent these existing capital requirements encompass climate or environmental risks is under discussion. Respondents explained that supervisors can impose a capital charge for holding insufficient capital against fossil fuel lending because firms are 'failing to do risk management properly' (E3) but not because they are lending to undesirable industries. For these reasons, some supervisors already expect regulatees to hold sufficient capital against climate risks under the current capital regime (BoE 2021).

Nonetheless, central banks acknowledge that 'capital may have a bigger role to play' (BoE 2021) and entities such as the UK PRA and the European Banking Authority have published exploratory reports about whether changes are required to regulatory capital and prudential frameworks in the UK and EU respectively (PRA 2021; EBA 2022).

Risk Weights: Supporting vs Penalising Factors

Relatedly, a lively debate continues regarding possible imposition of 'climate-related risk differentials' into Pillar 1 capital requirements in the form of a Green Supporting Factor (to reduce capital requirements for banks with lower exposure to climate risks) and/or a Polluting Penalising Factor (to increase requirements for banks with higher exposure) (NGFS 2022; Bolton et al 2020).

Polluting Penalising Factor

It seems likely that a Polluting Penalising Factor will land in coming years. Respondents described increasing interest amongst supervisors in line with increasing risk in fossil fuels as stranded assets. Some opined that a Polluting Penalising Factor can already be dealt with under Pillar 2 and that firms should be holding more capital for riskier investments 'regardless of minimum requirements' (E3). Overall, a polluting weight fits comfortably within mandate as a risk-based tool to fix a mis-pricing problem and is seen as more feasible than a Green Supporting Factor because it is easier to calibrate and therefore implement.

Green Supporting Factor

By contrast, respondents expressed concern that a Green Supporting Factor might act to increase risk and undermine transition objectives. This is because there is no definitive evidence yet that green lending is less risky and, noting the minimal impact of the European SME supporting factor, it is uncertain that such a measure would stimulate green uptake (Bolton et al 2020).

Importantly, some respondents expressed concern that a Green Supporting Factor might inadvertently encourage political and market inaction:

- *'If I were a politician I would love a GSF [Green Supporting Factor] because you don't need to use your fiscal tool, it doesn't cost you any money, the central bank and supervisors are responsible for doing it so at the end of the day if there is a bubble then it is not your business...[And commercial] banks get a prudential discount...they could also do some greenwashing internally and they would reduce global risk weights. So everyone wins except possibly financial stability in a few years from now!'* (F2)

Qualitative Measures: Cultural and Educational

The concept of 'regulating culture' via governance considerations, qualitative methods, and certification schemes has become acceptable since the 2008 global financial crisis. Director responsibility and board decision-making is integral to risk management and mitigation, and therefore falls within supervisory purview. Thus, some central banks like BoE and DNB have adopted specific instruments to this end.

In other words, *'governance, culture, people are at the root cause of everything – in the right or wrong direction!'* (D5).

Fit and Proper Assessments alongside Professional Conduct and Culture Supervision

Benefits

The DNB and AFM have a legal duty to conduct *Fit and Proper Assessments* of incoming board members to supervised firms. Those Assessments now include knowledge of climate risks. The DNB also pioneered *Professional Conduct and Culture Supervision* which is now part of the ECB supervisory toolkit and is thus available in ESCB jurisdictions due to the joint regulatory arrangement between ECB and national central banks. *See Box 1 and Appendix.*

Respondents explained that, in practice, both initiatives are mutually supportive and reinforcing. Fit and Proper Assessments are a preventative or gate-keeping measure at the start of a supervisory process whereas Professional Conduct and Culture Supervision interventions are only required if problems emerge during the supervisory process. Thus, insights about board behaviour from the Professional Conduct and Culture Supervision team are 'valuable and relevant' for informing how the Fit and Proper Assessment team conduct upfront evaluations (D5).

Limitations

The time-consuming, resource-intensive and highly abstract nature of qualitative supervision makes the practice of it challenging. *'It is one thing to realise the importance of culture and people as drivers of future mismanagement but it is quite another thing to act on this [as a regulator] because it is quite subtle. [By contrast] Data are really concrete...and much less abstract than people'* (D5). More specifically, it is very hard to support a negative supervisory conclusion purely on application of abstract psychological concepts. Such a conclusion must evidence 'a legally sound decision that is objective' (D5).

Moreover, some industry respondents expressed skepticism about whether these measures actually motivate better decisions by boards, querying whether the fit and proper process is too superficial to be determinative and whether sitting in on a few Board meetings can accurately capture management dynamics.

Complementarity

For the reasons above, fit and proper testing is not used as a standalone tool but rather as part of the suite of supervisory instruments. *'It is just one instrument we use with the aim of making the finance sector aware of climate change'* (D5). Although fit and proper testing is important for raising awareness of climate risk, the 'main supervisory work' still occurs through traditional risk assessments and ongoing supervisory dialogue/reviews between supervisors and individual financial institutions.

Personal liability: Senior Management Regimes

Similar to the Dutch approach, the UK Senior Managers and Certification Regime (SMR) establishes the link between seniority and accountability but does so by individual officers assuming a 'duty of responsibility' to take reasonable steps to prevent or stop regulatory breaches in their area of responsibility. In 2019 the SMR was updated to include identifying and managing climate-related financial risks (see Appendix).

Respondents lauded this tool. One even described it as the regulatory tool that *'has had the biggest traction so far'* (E2) because personal accountability is a powerful motivator for directors to do the right thing. Indeed, positive changes have been most notable at firm governance level whereby director attitudes about climate are no longer tokenistic; it is treated seriously as a risk and opportunity to be addressed. A respondent explained that this tool was a *'gamechanger'* because it *'loosened the grip of the business case'* (E3).

Individual accountability is a very powerful lever and a positive beginning. The way forward from here, as identified earlier, is for behaviour and culture to shift throughout a whole organisation. *'I can't think of one role in a bank that's not in some way affected by the climate issue... Such a radical transition is required that it [climate] must be front and centre of business strategy and built into it'* (E2).

Mandatory Training and Certification Schemes

The data are clear about the importance of institutional irrigation of climate and sustainability-related knowledge to ameliorate:

- institutional memory loss (when individuals depart);
- short-sighted opportunism (jumping on the climate bandwagon without technical expertise), and
- misleading reporting rooted in ignorance rather than mendacity.

As explored in Part 2, institutional irrigation can occur in different ways. Certainly, proper training and education is key (Caldecott 2020), which some early-moving regulators are facilitating. For example, the French AMF is setting up a voluntary Professional Certification on Sustainable Finance for supervised firms. It will be offered alongside the mandatory AMF certificate (that must be studied by people with certain roles in firms) into which more sustainable finance subject matter has been added.

Looking forward, in the face of escalating existential imperatives, some respondents advocated for mandatory sustainability training for all employees (not just directors or titled roles) to get *'a basic knowledge of how the earth system works'* given that ecosystem services underpin financial markets (F4). The International Monetary Fund (IMF) leads the way here by holding a mandatory climate change course (30 hours) comprising elements of science, economics and law/regulation, which every employee must pass in order to get their bonus at the end of the year. In the words of one respondent, we need to reach a place where *'the people making decisions in firms and regulatory agencies are asking what is the impact of a business on planetary boundaries?'* (F4).

Key legislative and regulatory initiatives

EUROPEAN UNION

Overarching policy context. In March 2018 the European Commission published a 10-point ***Action Plan on Financing Sustainable Growth*** as part of its response to the Paris Agreement (EC 2018). Following the European Green Deal (2019) and the EU Climate Law (2021), the EC updated the Action Plan with a Strategy for Financing the Transition to Sustainable Economy (2021) to focus action in four areas: transition finance; inclusiveness; resilience; and global ambition. The Action Plan aims to reorient capital flows towards sustainable investment and leverage financial markets to address sustainability challenges, especially climate change, while fostering transparency and long-termism. See *Figure 1*.

The EU Green Taxonomy (in force in July 2020) is a classificatory tool for assessing economic activities as sustainable. It defines six environmental objectives against which an economic activity can be assessed as sustainable, if that activity contributes to at least two objectives without doing significant harm to any others. Mitigation and Adaptation reporting came into force in January 2022; the other four objectives are to follow in January 2023. Further guidance will be given in the forthcoming Regulatory Technical Standards (RTS).

The Green Taxonomy is significant for seeking to provide a common language across the investment chain in Europe with a view to guiding capital allocation, supporting risk assessment, increasing transparency, and mitigating greenwashing. Yet it has also attracted some criticism which reflects the complex and political nature of categorisation (e.g. classifying natural gas and nuclear as green transition activities). Red (polluting) and Amber (transitional) taxonomies are also under discussion.

With the aim of achieving greater market transparency, the **Sustainable Finance Disclosure Regulation (SFDR)** (in force in March 2021) requires financial market participants and advisers to publicly disclose (on their websites and through periodic reporting) how they integrate sustainability risks into their advice and decisions about investment and insurance. SFDR applies at two levels: the entity level where all entities must report on sustainability risks (with comply-or-explain clauses for small firms less than 500 employees); and the product level where entities offering ESG-related products must make additional disclosures depending on the product characteristics and objectives (Arts 8 and 9). SFDR on financial market reporting seeks to complement the forthcoming CSRD for company reporting; and to integrate EU Green Taxonomy definitions regarding 'sustainable economic activities'.

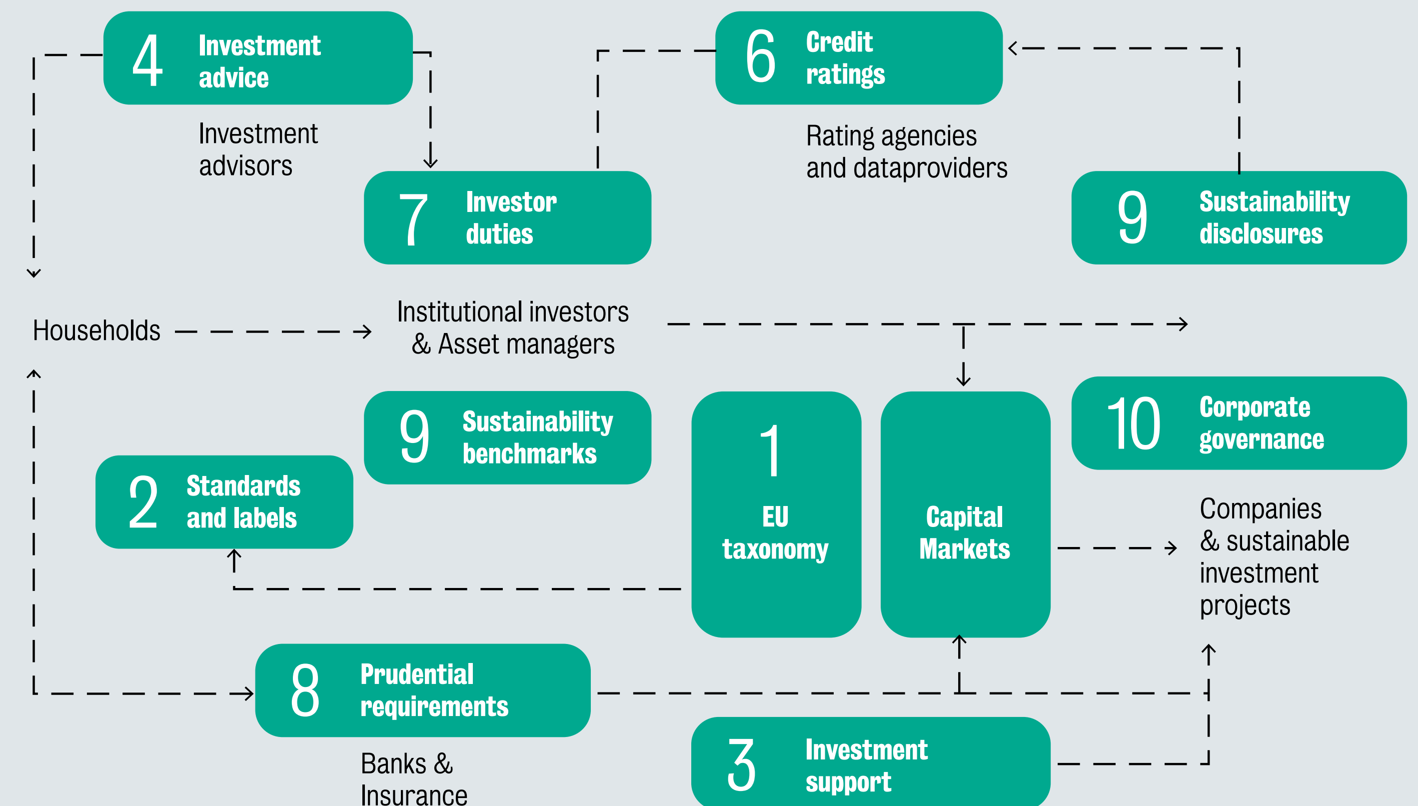
Corporate Sustainability Reporting Directive (CSRD) (proposed in April 2021; awaiting approval by the EC and European Parliament). From 2023 it will replace the current Non-Financial Reporting Directive (NFRD) to require all large companies (more than 250 employees and €40m in turnover and/or €20m in total assets) and listed companies (except micro-enterprises) to report on double materiality – sustainability risks (to business) and business impacts (on sustainability) – and alignment with the EU Taxonomy. It will also strengthen the assurance of sustainable reporting. It aims to provide financial market entities with the necessary data for SFDR reporting. It will also eventually incorporate EU Sustainability Reporting Standards currently under consultation via the European Financial Advisory Reporting Group (EFRAG). Proposed timeline if approved: EU Member States to adopt the CSRD into national law by end-2022; and companies to comply from 2024. Separate guidelines will be developed for unlisted Small-Medium Enterprises (SMEs).

The **Corporate Sustainability Due Diligence Directive (CSDDD)** (proposed in February 2022; under negotiation with the EC and European Parliament) aims to regulate large companies with global value chains. In-scope companies: Group 1 (more than 500 employees and €150 million in net turnover) and Group 2 (defined high-impact sectors with more than 250 employees and €40 million in net turnover). Companies would be obliged to identify, prevent and mitigate adverse environmental and human rights impacts connected with their own operations as well as those of their subsidiaries and supply chains (Arts 6-8, 10). Additionally, net-zero plans would be mandatory for Group 1 (Art 15). Directors would assume a duty to consider the consequences of their decisions on human rights, climate change and the environment; failure to so do could, amongst other things, impact their remuneration (Art 25). Companies in breach could be subject to fines and civil liability imposed by designated supervisory authorities (Articles 17, 20-22). If adopted, Member States will have two years to implement it into national law. Group 1 companies must comply first; Group 2 companies have a further two years.

The EU introduced **Climate Transition and Paris-Aligned Benchmarks Regulation** (in force in April 2020) to create two new benchmarks with objectives related to decarbonisation (including alignment with the 2˚C Paris Agreement goal), as well as a voluntary 'gold standard'. A proposed EU Green Bond Standard (currently under negotiation) would be aligned with the Green Taxonomy.

As a learning exercise for regulators and regulatees alike, the ECB conducted an **economy-wide climate stress test** in 2021 to assess the resilience of companies and banks to climate risks and a **supervisory stress test** in 2022 to assess banks' preparedness to climate-related financial and economic shocks.

Figure 1: Sustainable Finance Action Plan and Key Stakeholders



Source: Adapted from European Court of Auditors (2021): 11

France

France pioneered climate-related financial reporting legislation with **Article 173 of the Energy Transition for Green Growth Law 2015**. Article 173 preceded the Paris Agreement and the TCFD as the first time that institutional investors and financial institutions (not just listed companies) were required to report on a comply-or-explain basis about their risk exposure and strategy toward a low-carbon economy. **Article 29 of the Energy and Climate Law 2019 (LEC)** replaced Article 173 in 2021 and amended the *French Monetary and Financial Code* to enhance and expand the previous reporting regime. Reporting obligations now require information about alignment with Paris Agreement goals and EU Taxonomy classifications, as well as the percentage of financing activities connected to fossil fuels. Art 29 LEC also incorporates biodiversity; firms must disclose their strategies for reducing negative impacts and their alignment with the *UN Convention on Biological Diversity goals*. Additionally, they must disclose how their businesses *depend on* climate and biodiversity, as well as their impacts on same. This makes Art 29 LEC another pioneering initiative that codifies double materiality and aligns with EU-level CSRD and SFRD.

The ACPR was the first supervisor to pilot **climate stress tests** to assess financial risks associated with climate change to banks and insurers in 2020-21. The test was ambitious due to its long time horizon (risks were assessed over 30 years), methodologies and innovative hypotheses (notably its use of dynamic balance sheets). The ACPR also published a non-binding **Guide to Good Practices in Governance and Risk Management for the Banking Industry (May 2020)** and subsequently a **Climate Change Risk Governance** report **(February 2022)** about French insurers and reinsurers (ACPR 2022).

The AMF was the first market authority to publish a climate roadmap and create a new **Strategy and Sustainable Finance Unit** to implement it in 2018. Subsequently, it was the first financial market regulator to publish a **Position/Recommendation on Greenwashing** in response to the growth of investment management schemes and funds which incorporate ESG criteria (AMF 2020). In 2019 the ACPR and AMF started co-convening climate finance commissions to evaluate Article 29 progress and drive the financial and banking sector toward good practices.

More broadly, in 2019 France enacted broad-sweeping legislation to reform corporate law known as the **PACTE Law** (*Plan d'Action pour la Croissance et la Transformation des Entreprises* or Loi Pacte). It applies to small and large businesses and covers, amongst other things, director remuneration, auditor services, and employee representation and savings plans. It amends the *French Civil and Commercial Codes* to specify that corporate interests include social and environmental issues and encourages the integration of social objectives into corporate purpose. It enables companies to register as 'mission businesses' with potential liability if they breach their stated raison d'être.

The Netherlands

The **Dutch Sustainable Finance Platform** was an early initiative that led the way for biodiversity-related financial regulation. Established by DNB in 2016, it aims to forge cross-sectoral links, find ways to overcome obstacles to sustainable funding, and encourage sustainability through cooperation. Its members, ranging from financial institutions to government ministries, are divided into nine working groups including Climate Risks, Communications on Sustainability, and Biodiversity.

In 2020, DNB was the first central bank to perform an **energy transition risk stress** test on its own balance sheet following an economy-wide test in 2018 under the guidance of Frank Elderson (former DNB Executive Director of Supervision; current ECB Executive Board member). In so doing it became one of the first central banks to produce TCFD-aligned disclosure. It also published a non-binding guide on **Good Practice: Integration of Climate-Related Risk Considerations into Banks' Risk Management (2020)** which confirms that DNB expects banks to consider climate risk, due to its long-term nature, under Section 24a of the **Decree on Prudential Rules for Financial Undertakings (2006)** requiring Dutch banks to have robust, effective and comprehensive strategies to ensure that the level, composition and division their equity capital are in accordance with the size and nature of the risks they face, not only in the short term but also in the long term. 'Fostering a forward-looking and sustainable sector' is one of three focus areas in the **DNB Supervisory Strategy 2018-2022,** which seeks to systematically embed sustainability risks into supervisory practices.

The AFM was an early mover on double materiality reporting and has been investigating integrated reporting on social and environmental impacts since 2013. Most recently, its **Exploratory Study and Dialogue on the Use of Non-Financial Information (February 2021)** showed that institutional investors and analysts only make limited use of their non-financial information. This led AFM to recommend new legislation to improve firms' reporting.

DNB and AFM also employ qualitative measures to help assess safety and soundness of supervised firms. They have a legal duty to conduct ***Fit and Proper Assessments*** of incoming Board members to their supervised firms. In so doing they evaluate whether someone can meet the responsibility of directing a firm's strategy and corporate culture by assessing that person's technical knowledge, experience, skills and competencies. Assessments were updated after 2020 to include climate risk. Prospective directors must now demonstrate knowledge of climate risks by identifying, for example, relevant law and regulations, responsible company officers, and ways of managing those risks. The regulator will scrutinise the risk profiles of the company and the candidate to decide how deep and detailed the assessment ought to be, including whether an interview of the prospective board member is required. This mechanism for climate risks dovetails with ***Professional Conduct and Culture Supervision*** (PCCS) which the DNB pioneered in 2011, comprising qualitative assessment of the integrity, suitability, behaviour and culture of firms' board members. If problems emerge at a bank during the supervisory process, the PCCS Team will scrutinise Board meetings and participatory processes to identify root cases of potential risks in governance culture.

More broadly, the Netherlands was one of the first countries to establish a self-regulatory **Corporate Governance Code (2010)** which applies to Dutch listed companies to report on a comply-or-explain basis regarding sustainability considerations. The latest version (2016) introduced long-term value creation as a leading principle and enhanced the focus on stakeholders.

UNITED KINGDOM

Overarching Policy Context. Since holding the 2021 COP26 co-Presidency, the UK became the first major economy to enshrine a legal commitment to achieving net-zero in 2050 and has proclaimed an ambition to become the world's first Net Zero Financial Centre. It is adopting an economy-wide net zero approach.

The **Net Zero Strategy: Building Back Better** (October 2021) agenda sets out policies and proposals to decarbonise all sectors of the UK.

The Net Zero Strategy is supported by **Greening Finance: A Roadmap to Sustainable Investing (October 2021)** which articulates an ambition to green the financial system in three phases: informing investors and consumers (Phase 1), acting on the information (Phase 2), and shifting financial flows (Phase 3). The Greening Finance Roadmap focuses on ambitions under Phase 1, comprising proposals for a Sustainability Disclosure Requirement Framework (SDR), UK Green Taxonomy, and enhanced investor stewardship.

By seeking to harmonise reporting across the economy (companies, asset managers and asset owners, and investment products) in line with international disclosure baselines developed by the new International Sustainability Standards Board (ISSB), the UK strategic direction includes ambitions to build trust and transparency for the transition (see Figure 2).

During 2021, TCFD-aligned reporting along the investment chain was introduced pursuant to the UK government's **2020 Roadmap Towards Mandatory Climate-related Disclosures** (HMT 2020; FCA 2021c):

- *FCA Listing Rules (PS 20/17)* requiring TCFD-aligned disclosures by premium listed companies on a comply or explain basis (in force from 1 January 2021). The first disclosures against this Listing Rule were published early in 2022; and a thematic review was conducted by the FCA and FRC and published in July 2022 (FCA 2022; FRC 2022).
- Regulations pursuant to the new *Pension Schemes Act 2021* requiring TCFD-aligned disclosures by trustees of certain occupational pension schemes on an 'as far as they are able' basis: *Occupational Pension Schemes (Climate Change Governanceand Reporting) Regulations 2021 (2021/839)* in force 1 October 2021 phased by scheme size.
- *FCA Listing Rules (PS 21/23)* requiring TCFD-aligned disclosures by standard listed companies on a comply or explain basis (in force from 1 January 2022).
- *FCA Rules (PS21/24)* requiring TCFD-aligned disclosures at entity – and product-levels by asset managers and FCA-regulated asset owners (life insurers and pension providers) on an absolute mandatory basis (from 1 January 2022 phased by firm size).
- Regulations pursuant to the Companies Act 2006 requiring TCFD disclosures by UK-registered publicly quoted companies, large private companies and LLPs on a comply or explain basis: *The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022* SI 2022/31 in force 6 April 2022.

The proposed SDR is yet to commence. The stated aspiration is for it to build on TCFD-aligned reporting regulations already in place (above). The first SDR step will be FCA proposals for investment product labelling/classification and sustainability-related disclosures by asset managers and asset owners, due to be released for consultation later in 2022 (arising from Discussion Paper DP21/4 November 2021). The aim is to tackle greenwashing and help consumers make informed decisions on sustainable investments.

The UK government launched the **Transition Plan Taskforce** in April 2022 that comprises industry, academia and regulators to develop a 'gold standard' for transition plan disclosures. The Taskforce published a Sector-Neutral Framework for public comment in May 2022 with the aim of finalising a robust gold standard Framework by early 2023. The FCA has already referenced the TCFD's guidance on transition plans in its rules on climate-related disclosures for listed companies, asset managers and asset owners. The FCA is also actively supporting the work of the Transition Plan Taskforce and expects to draw on its outputs to strengthen its disclosure expectations in this area.

The UK is also developing its own **UK Green Taxonomy** which is intended to underpin the proposed SDR by setting out criteria that 'environmentally sustainable' economic activities must meet.

In 2019 the BoE PRA was the first prudential regulator to set out supervisory expectations for banks and insurers to manage the financial risks from climate change: the **2019 PRA Supervisory Statement Enhancing Banks' and Insurers' Approaches to Managing the Financial Risks from Climate Change (SS3/19)** requires banks and insurance companies to update senior management functions to cover the identification and management of climate-related financial risks. SS3/19 also require supervised firms to establish strategic plans that, amongst other things, enhance transparency through a robust disclosure approach, delineate clear roles and responsibilities for Boards regarding management of climate risk, use scenario analysis, and incorporate financial risks from climate change into risk management practice. Thus, SS3/19 builds climate risk into the **UK Senior Managers and Certification Regime (SMR)** by adding it to the list of controlled functions allocated to individual officers who assume responsibility for them (called Senior Management Functions) which are subject to a number of statutory and regulatory requirements as monitored by the PRA and FCA. In addition, senior management committees share collective responsibility. International banks active in the UK are also expected to consider climate risks.

> **We need to reach a place where *'the people making decisions in firms and regulatory agencies are asking what is the impact of a business on planetary boundaries?'***
>
> Respondent (F4)

Under the leadership of then-BoE Governor Mark Carney, the BoE PRA led the way in this field by sounding the alarm that climate risks are financial risks and a threat to an orderly transition to a low-carbon and climate resilient economy, and by classifying them into physical, transition, and liability risks (Carney 2015). In 2019 BoE led the way for climate stress tests by performing an exploratory exercise on the insurance industry. In June 2021 it launched the **Climate Biennial Exploratory Scenario (CBES)** to test the resilience of the entire financial system to physical and transition risks by exploring three possible scenarios – early action, late action and insufficient action to keep warming below 2°C – and showed that banks and insurers must do much more to manage their exposures to climate risk. BoE also uses its role as an investor through the **Corporate Bond Purchase Scheme (CBPS)** to incentivise firms to support of the climate transition.

The **Climate Financial Risk Forum (CFRF)** (established in March 2019) is co-chaired by the PRA and FCA and comprises members from private sector financial institutions. It aims to build capacity by producing industry-led guidances on the management of climate risk, disclosure, scenario analyses, data and metrics.

More broadly:

- The *Corporate Governance Code 2018* is a self-regulatory instrument encouraging directors of premium-listed companies to focus on the 'long-term sustainable success' of their firms (Principle E) and 'contribute to the society' (Principle A). In Corporate Governance Statements, Directors are required to disclose how they have applied the Principles on a comply-or-explain basis (FCA Listing Rules, LR 9.8.6(5)-(6)) so that shareholders can evaluate levels of compliance.
- The *Stewardship Code 2020* is a voluntary code which sets stewardship and reporting standards for asset managers, asset owners and service providers. Signatories ought to take ESG matters, including climate change, into account in investment decisions (Principle 7).
- *Section 172(1) Companies Act 2006* imposes a duty on directors to 'have regard' to a number of matters in decision-making, including long term consequences, community and environmental impacts, and business reputation when seeking to 'promote the success of the company'. Directors must also publish 'Section s.172(1) Statements' to disclose how they have considered these matters.

Figure 2: FCA ESG Strategy and Priorities

FCA WORK PROGRAMME – KEY THEMES

Transparency

- Enhance climate-related financial disclosures
- Promote global standards for sustainability reporting
- Improve transparency of performance on diversity & inclusion

Trust

Support fair and effective integration of ESG into financial market decision making, and trusted delivery of ESG-labelled securities, products and services.

Tools

- Influence internationally consistent outcomes in ESG
- Deliver an ambitious innovation programme
- Work closely with industry
- Collaborate with UK regulators and Government

Transition

- Intervene to underpin a market-led transition to a more sustainable future
- Encourage effective investor stewardship

Team

- Embed ESG considerations and net zero 'have regard'
- Communicate and 'role model'
- Continue 'systems thinking' research on the ESG landscapoe

Source: Adapted from FCA (2021b)

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ABBREVIATIONS

ACPR	Autorité de Contrôle Prudentiel et de Resolution
AFM	Dutch Authority for the Financial Markets
AMF	Autorité des Marchés Financiers
BdF	Banque de France
BEIS	UK Department for Business & Industrial Strategy
BoE	Bank of England
CBFRs	Central banks, supervisors and financial market regulators
CSDDD	EU Corporate Sustainability Due Diligence Directive
CSRD	EU Corporate Sustainability Reporting Directive
DNB	De Nederlandsche Bank
DWP	UK Department for Work and Pensions
EC	European Commission
ECB	European Central Bank
EFRAG	European Financial Advisory Reporting Group
ESG	Environmental, social and governance
ETL	French Energy Transition for Green Growth Law 2015
EU	European Union
FCA	UK Financial Conduct Authority
FRC	UK Financial Reporting Council
GFANZ	Glasgow Financial Alliance for Net Zero
HMT	Her Majesty's Treasury UK
IFRS	International Financial Reporting Standards Foundation
IPCC	Intergovernmental Panel on Climate Change
ISSB	International Sustainability Standards Board
LEC	French Energy and Climate Law 2019
NGFS	Network of Central Banks and Supervisors for Greening the Financial System
PRA	Bank of England's Prudential Regulation Authority
SDR	UK Sustainability Disclosure Requirement Framework
SFDR	EU Sustainable Finance Disclosure Regulation
SMR	UK Senior Management Regime
TCFD	Taskforce on Climate-Related Financial Disclosures
TFEU	The Treaty on the Functioning of the European Union
TPR	The Pensions Regulator (UK)
UK	United Kingdom
UNEPFI	United Nations Environment Programme Finance Initiative