Governing climate transition at banks and avoiding conflicts: recommendations for executives, boards, and regulators (and other stakeholders)

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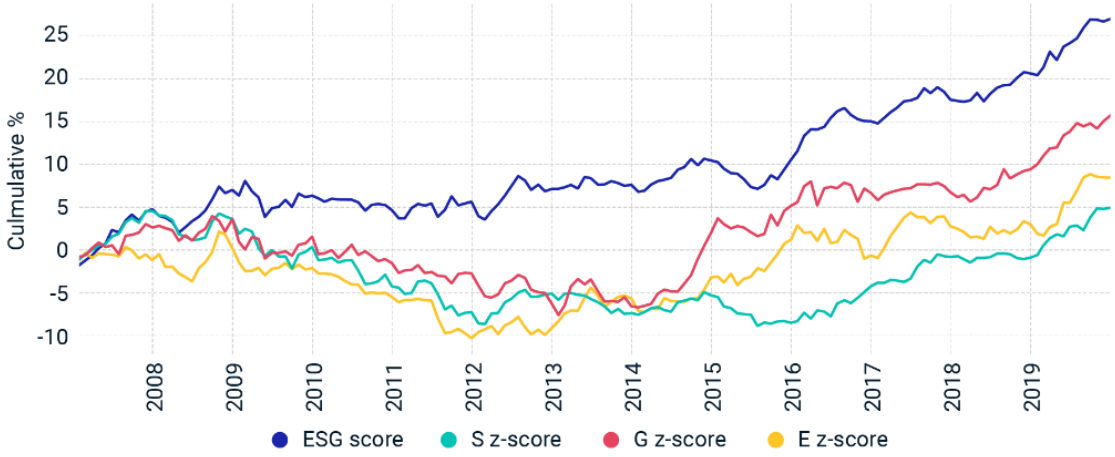
This paper was written by Tina Mavraki, Chartered Portfolio Director and Adviser, and represents Tina's views, not the views of the IoD.

Foreword

The analysis herein aims to combine best practices on climate with the on-the-ground deliberations of leading practitioners from the banking ecosystem. Accordingly, sixty-one (61) senior executives have contributed their insights, including board directors and officers, stewardship teams and investors, analysts, and advisers. Their input has been anonymised and used to synthesize a well-rounded view of the main governance challenges and enablers for climate implementation at banks. Evidently, dominant shareholder agendas and portfolio idiosyncrasies will dictate a unique pathway and pace for the climate maturity for each bank. Nevertheless, banks may seek to learn from their peers and climate-innovating clients, in order to make progress. The article has intentionally built on an established body of climate governance guidance, including the Corporate governance principles for banks, Good practices for climate-related and environmental risk management, How to Set Up Effective Climate Governance on Corporate Boards, and the "Environmental, Social & Governance (ESG) governance blueprint for banks" by the author of this article, which is in process of publication by the European Bank for Reconstruction and Development (EBRD). The most important take-away is that without a clear line of ownership, effective accountability, and successive checks and balances, banks will likely be hindered in effecting their climate transition. Analysis by research firm MSCI Is ESG all about the G?, which explores the respective impact of Environmental, Social, and Governance factors on companies' financial fundamentals and stock-price performance between 2006 and 2019, demonstrates this, already intuitive, point, as follows:

Performance Difference of Q5 and Q1 Quintile Portfolios in MSCI World Index



Source: MSCI ESG Research LLC. Data from the MSCI World Index (in USD).

Executive summary

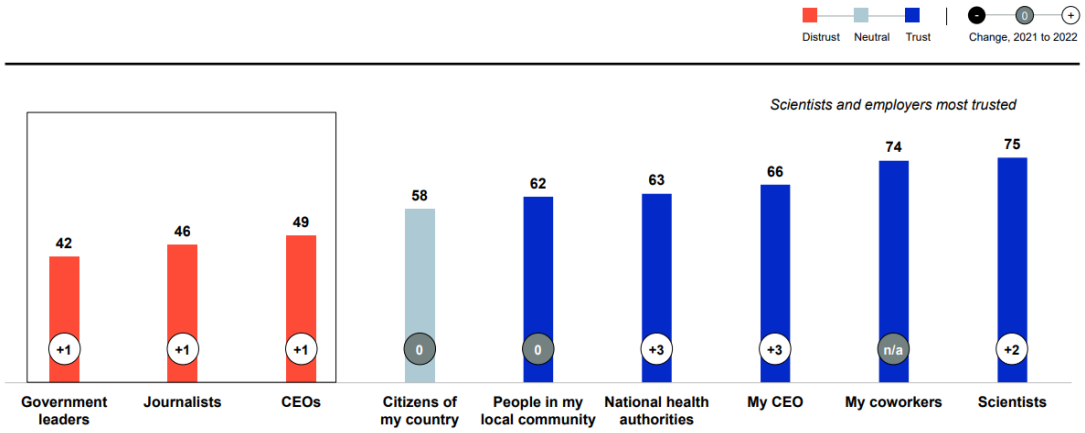
The analysis herein aims to refocus the key role of governance in climate transition at banks. Accordingly, the article proposes a set of interventions for effective accountability by banking leadership, as well as potential areas for intervention by the regulators, in the context of a more proactive leadership and accountability stance that is needed to speed up climate progress in the banking industry. The article proposes three operating principles to help respond to the adverse current macro environment and the early stage of development of climate infrastructure. Specific proposals are examined for the first, second and third lines of defence of banks respectively, all of which lead back to the pivotal role of a competent, engaged, and effective board. Finally, culture is identified as the driving force behind effective accountability. A transition and governance scorecard for banks is included in the Appendix, which can be referenced by all stakeholders. These governance recommendations are not meant to be examined in isolation, but more as part of a well-rounded plan to strengthen the banking organisation holistically in meeting its climate governance challenges.

1. The current backdrop:

Banks are currently contending with a series of adverse and structural issues with potentially widespread implications for their strategic direction and economic sustainability. To begin with, high structural inflation is running concurrently with a contraction in economic activity. Major supply chain disruptions and energy price spikes on account of globally escalating geopolitical tensions have significant impacts

on legal and compliance matters, payment processing, and counterparty risk management. Central banks are raising interest rates, while at the same time coping with levered central bank balance sheets and global asset deflation. A strong US$ dollar is adding further contractionary pressures, particularly to emerging markets and to US$ dollar-based funding systems. A contraction in consumer purchasing power is occurring at a time of increased partisan polarization and societal disenfranchisement, with negative implications for consumer behaviour. The last point was illustrated in the latest Edelman Trust Barometer 2022 report, as follows:

Percent trust



Source: 2022 Edelman Trust Barometer

As a consequence, banking leadership is called to adapt swiftly to an operating environment of heightening uncertainty and to position its business and operations optimally for the short and medium-term future. Unavoidably then, the process of integrating climate risks and opportunities into the bank's strategy and internal control framework is facing intense competition from other urgent and top-priority leadership matters.

This adversely-shaping macro environment is also likely impacting the pace of coordination and central planning for standardized climate analysis and management frameworks. Banking practitioners are consistently requesting: (a) the standardization of climate terminology, methodologies and systems; (b) the creation of reliable utility-scale solutions for climate data; and (c) state planning to instruct climate transition at the geographical and sectoral level, to help progress climate management. The RMI Center for Climate Aligned Finance, in its publication Identification, Access, and Use of Transition-Relevant Data and Metrics, summarized these requests (page 8), as follows:

Key Goals and Challenges to Identifying, Accessing, and Using Transition-Relevant Data and Metrics

Source: Center for Climate-Aligned Finance, 2022

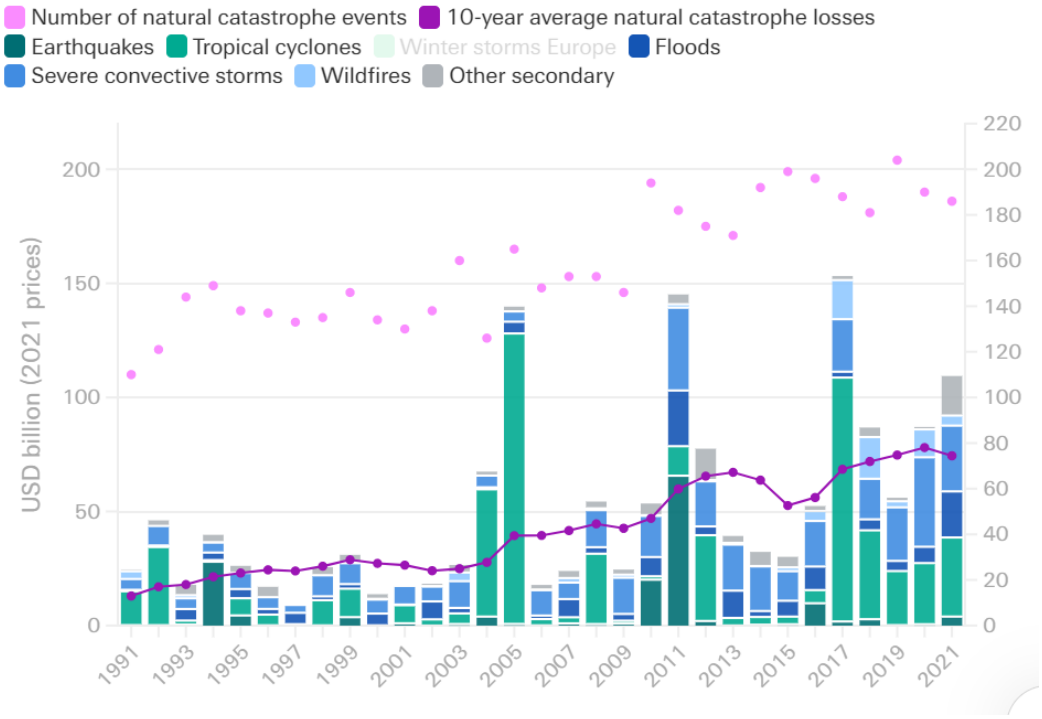
2. Setting the scene for climate

Against this unfavourable macro backdrop, the triad of climate physical, transition and liability risks continue to evolve at a rapid pace.

Climate risks, and liability risks in particular

Taking each risk in turn, physical risks are evidently materializing more frequently, severely, and non-linearly, with material economic consequences, in the form of: (a) operational disruptions; (b) higher costs; (c) a shorter useful life and/or stranding of productive and consumer assets; and (d) an adverse impact on financial performance and creditworthiness. Indicatively, historical insured loss data over the last 30 years provided by the Swiss Re Institute illustrate this point below:

A return to long-term trend – Global insured natural catastrophe losses by peril

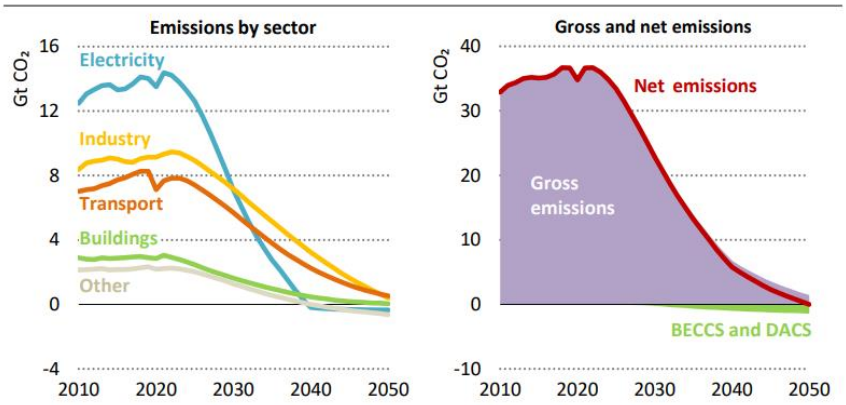


Source: Swiss Re Institute. Note: (a) primary perils: earthquake, tropical cyclone, winter storm Europe; (b) secondary perils: flood, severe convective storm, wildfire.

For transition risks, which are best approached through climate modelling, latest scenario analyses continue to signal transformational changes ahead. The World Energy Outlook (WEO) 2022 by the International Energy Agency indicates that "the power sector leads emissions reductions to 2030, but all

sectors contribute to the net zero emissions goal, with residual emissions in 2050 balanced by atmospheric removals", as follows:

Energy-related CO2 emissions by sector and gross and net emissions in the Net-Zero-Emissions (NZE) Scenario, 2010-2050



Source: WEO 22, page 126

Notes: CCUS = carbon capture, utilisation and storage technologies; BECCS = bioenergy equipped with CCUS; DACS = direct air capture and storage. Other includes agriculture and other energy transformation sectors.

More interestingly on liability risks, practitioner interviews suggest that managing the risk of greenwashing is taking an overwhelming proportion of board deliberations on climate. These have intensified on account of landmark cases pursued by the US Securities Exchange Commission (SEC) against BNY Mellon Investment Advisers Inc. on ESG-focused investment funds and material investigations into DWS Group and Goldman Sachs Asset Management. Caution has risen further on account of the recent reputational blow to HSBC Bank for its high-street advertising practices. The UK's Financial Conduct Authority (FCA), through its Consultation Paper on Sustainability Disclosure Requirements (SDR) and investment labels, indicated its intention to strengthen its supervision on green representations and labelling.

At the same time as monitoring regulatory developments on greenwashing, however, it is prudent for banking leadership to weight an also expanding number of precedent cases against shortfalls in discharging corporate fiduciary responsibility and statutory duty on account of climate. Indicative cases include McVeigh v. Retail Employees Superannuation Trust on failure to incorporate climate risks in investment decisions, and a "books and records claim" Abrahams v. Commonwealth Bank Australia, where the claimant sought disclosure of the bank's decision-making documentation on specific transactions which contravened its climate policies. While there are nuances regarding the specific legal implications of the UK Companies Act for directors, the combination of new climate disclosure rules (e.g., Task Force on Climate-Related Financial Disclosures (TCFD)) and upcoming reporting requirements from the application of International Sustainability Standards Board (ISSB) financial reporting standards (and

from the application of the Corporate Sustainability Reporting Directive (CSRD) in the EU) are likely to increase director liability considerably. The Bank of England (BoE) discussed Directors and Officers (D&O) insurance policies in its Climate Biennial Exploratory Scenario (CBES) exercise, which implies that the BoE is already alert to a potential spike in D&O claims (see the first hyperlink of this paragraph for references).

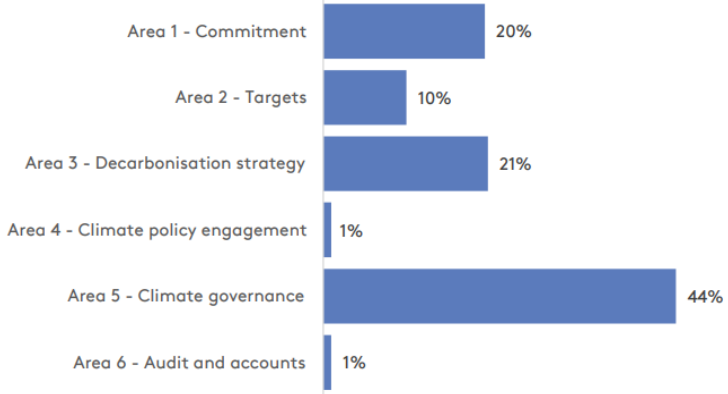
Core takeaway: In weighing liability risks, banking leadership should aim to ensure that legitimate fears of greenwashing sharpen, yet, do not derail the bank's greening process, lest this may lead to "green-squashing" and consequent company, director, and officer risk events.

The state of the banking transformation progress

Overwhelming feedback on climate transition is that it is sweeping and holistic across the bank's businesses, operations, physical footprint, and ultimately its culture. Specifically, climate transformation affects, inter alia, the bank's risk appetite statement, its core strategy, client engagement depth, and its entire internal control and risk management frameworks. In short, it transforms fundamentally the bank's three lines of defense. Linking this to the unravelling and complex aforementioned climate risks, one would logically conclude that there is little time left to set in motion the strategic planning and governance processes necessary to achieve this holistic transformation.

Regulatory feedback on the banks' progress on climate transition suggests that basic climate governance has been established at many banks. Accordingly, climate has been reflected, inter alia, through revised board structures, charters and papers, a global sustainability head and executive sustainability committee, ESG metrics in executive remuneration, and climate representatives across the bank's businesses and functions. However, the process of translating these governance interventions into a coherent business strategy, operational budget, and systems and processes remains significant work in progress. The recent report by the Transition Pathway Initiative Centre (TPI) and the Institutional Investor Group on Climate Change (IIGCC) An investor-led framework of pilot indicators to assess banks on the transition to net zero illustrates this point succinctly. Based on investor-led research and public disclosures of 27 banks across regions, it indicates the following rate of climate implementation progress:

Average percentage of sub-indicators that banks align with across the 27 banks assessed



Source: TPI online tool. Note: These are the mean scores across the 27 banks.

To reiterate, governance consists of both steering the bank's direction and monitoring its progress. Consequently, executive and non-executive governance have a strong mandate across the 6 Areas depicted above and significant milestones to reach.

Note: The bank transition and governance scorecard in the Appendix is based on these 6 Areas.

3. Three operating principles to refocus governance

Articulating clear operating principles will help to guide a renewed governance mandate. Insightful research and interviews recommend the following: (a) treating climate as a business and longevity issue; (b) gearing up to operate under a high degree of uncertainty; and (c) displaying a proactive and deliberate leadership style.

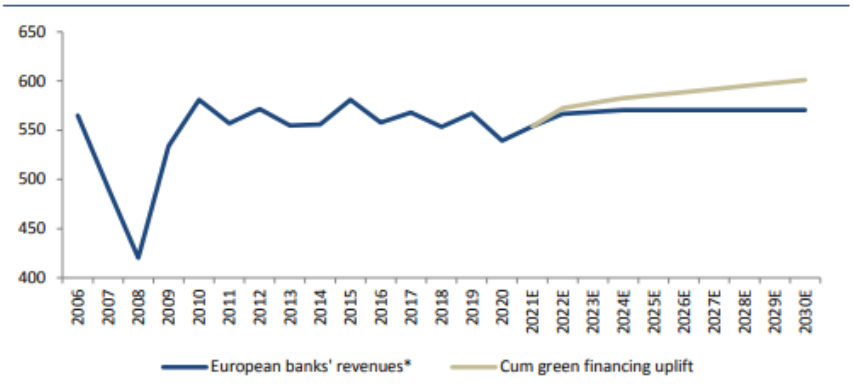
a. Treating climate as a business and longevity issue:

At a practical level, banks are commercial entities. In order to play a value-adding role in financing climate transition, they need to be able to translate their business values and strengths into a profit-oriented commercial plan to support their clients' and their own transition. This involves providing clear green profitability and stakeholder guidance over the immediate and medium-term horizon.

Accordingly, a clear single-point strategic short and medium-term business plan which integrates climate successively (and ultimately, seamlessly) into the fabric of the bank's affairs is easier to explain and to gain support for from its shareholders and the workforce which will deliver it. Ultimately, because it needs to be rooted in the reality of its clients' needs, a profit-oriented business plan will most likely increase profitable client touchpoints, create a strong green franchise, and reduce cumulative transition costs. This plan will also be easier to reflect congruently and consequentially in business and functional Key Performance Indicators (KPIs), the bank's operating and control environment including systems and processes, and its operating budget including Information Technology (IT), data management, and human capital investments.

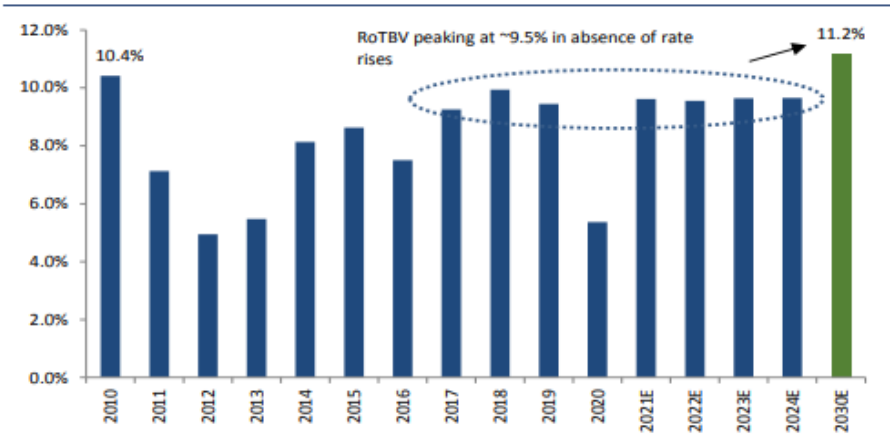
As a prospect for European banks, Autonomous Research in their September 2021 piece "Climate Risk: The Green Growth Opportunity", estimated that "over time that green financing would increase total annual global financing by +15% and current green financing volume by +280% to US$ 0.6 trillion per annum, potentially adding +150bps to the European banks' Return on Tangible Book Value (RoTBV) and +15-20% on the sector's valuation".

Green financing could at last lead to organic revenue growth for the European banks (€ billions)



*Source: Company data, Autonomous Research estimates. * actual estimates to 2024E, flat thereafter*

Green financing could boost European banks' ROTBV by 150bps, to levels not seen since the 2008-2009 Global Financing Crisis



Source: Company data, Autonomous Research estimates

b. Gearing up to operate under a high degree of uncertainty:

Given the nature of climate and the early stages of implementation, operating conditions are bound to remain less structured and information-deficient. At the same time, positioning for the future, and opacity in price and path discovery are the types of conditions under which banks would normally thrive financially. Strategically speaking, climate is best seen through this opportunity-based prism.

Banking leadership may be better served by deciding the direction of travel and shifting strategy in degrees, rather than focusing on razor-sharp precision in business projections. This means choosing to operate increasingly under strategic horizons, which involves nurturing emerging businesses at scale, as well as planting sufficient and diverse seeds for new markets. This strategy can take the form of, inter alia: (a) readying hydrogen, biofuels, carbon capture, batteries at-scale and other next-generation energy coverage teams within traditional coverage divisions; (b) structuring sophisticated transition lending solutions, providing adaptability-linked capex loans in capital markets, and offering blended finance structures; and (c) providing equity and first-loss capital solutions for greening businesses through investment banking and investment management divisions, thus creating greening add-on services and markets.

Moreover, banks may seek to create novel approaches for looking at their clients and helping them to monetize their climate transition pathways. Accordingly, from mapping sector emissions, banks can start modelling emissions across the clients' supply chains and looking at product systems, thus making more informed assumptions about emission interdependencies, and launching new greening products to address them. For instance, a bank can fund the equity base of a client's critical greening supplier under a long-term supply contract with that client. By helping to grow business and the profitability of the bank's client and their supplier, the bank can reduce its risks and generate more business.

c. Displaying a proactive and deliberate leadership style:

Navigating uncertainty requires proactive and thoughtful leadership interventions, in order to build resilience, retain organizational coherence, and, guide the bank's future deliberately. This requires promoting executives who are able to: (a) manage change without at the same time disrupting the bank's business continuity; (b) convince their teams and strengthen followership consistently; and (b) cascade plans and translate plans into tangible and profitable results. This sequence is called thought leadership, people leadership, and execution leadership, respectively.

At the operating level, proactive leadership requires: (a) a committed and cross-functional participation in decision-making to prevent disjointedness and break silos; (b) direct management feedback loops to ensure feedback is effective; (c) and leaning on big data to inform choices at the business and the operating level.

4. Proposed governance interventions:

The following sections outline a set of proposals for what proactive and deliberate leadership may look like for the first, second and third lines of defense. They also discuss key enablers to make leadership successful under the operating principles of navigating uncertainty while making a profit-oriented business case for climate.

i. First line of defence – the business:

Executive Management

Resolve and top sponsorship

For climate to become a core strategic business objective for the bank, it has to be agreed decisively by executive management, and be driven visibly and personally by the Chief Executive Officer (CEO). While this in itself is not a sufficient condition, interviews have confirmed unanimously that it is a necessary condition.

In practice this means that the bank's executive sustainability committee, which is a sub-committee of executive management and responsible for all core climate implementation decisions, has direct sponsorship from and a reporting line into the CEO, the relevant board committee(s) and the designated independent non-executive board director(s). These levels of seniority together send a clear message to the bank's governance structure about the strong commitment and intentionality towards climate at the bank.

Cross-functional collaboration

The executive sustainability committee is staffed with the most senior executive ranks of the bank's business divisions and core functions, including risk, finance, and operations. This is the principal decision-making forum where business, risk and the bank's operating budget work out together the bank's short (to 2025) and medium term (2026-2035) emission level and intensity targets, and respective transition plans to achieve them. The executive sustainability committee leans on the bank's central climate function to do the groundwork for its deliberations, yet doesn't delegate the responsibility to it. Inter-functional collaboration ensures that the plan is well-rounded, balanced, and congruent. The plan is presented to the board for extensive and informed deliberations for further interventions and approval.

Core governance takeaways: The executive sustainability committee's leadership clout, composition and top priorities are indicative of how climate matters will likely transpire at the bank. The background, seniority level, and reporting line of the global head of sustainability and the central sustainability function, both of which are responsible for supporting climate policy and targets, and feeding execution

guidance into divisions and functions respectively, are equally indicative of the bank's anticipated direction.

Trade-off management mechanisms

During the executive sustainability committee's deliberations, business and operational trade-offs are recognized openly and articulated clearly. Accordingly, the committee has to resolve:

(a) What immediate profits it has to sacrifice and how it will aim to replace them over the immediate and successive horizons. For this, it will have to portfolio-manage its exposures, choosing its "own best-suited winners" for sectors, transition activities, and clients, defining sanctions for delayed transitioning, and exit-planning for non-transitioning. "Own-best" signifies that each bank hosts a unique (and usually transferable) skillset from the strong franchises it has developed.

(b) What mechanisms it will adopt to calculate risk-adjusted returns, be it positive and/or negative balance-sheet weightings, increasing its liquidity and collateral buffers and provisions, adopting an internal price for carbon, creating a policy for carbon credits, or other. This will help to create a single reference framework for pricing products and services, and preserve the integrity of the risk function.

(c) What group policies will govern its climate metrics and KPIs, client engagement governance, data governance, scenario modelling, and how these policies will speak to each other. This will help to shape the role of the risk and compliance functions.

(d) What governance investments will be required in existing governance structures and committees, in order to harness client-transition information which is abundant in the bank, to feedback information, and incorporate it into updated targets, client limits, and exposures.

Answers will most likely come iteratively, as the deliberation process evolves continuously. The key success factor is to mark and communicate distinct stages in the bank's transition journey, aim for simplicity, and provide ample and clear forward-looking guidance to stakeholders. Failing to take a strong stance on tradeoffs tends to breed conflicts in the first line and between the first and second lines of defense, operational and liability costs, and dilutes business focus and results.

Committee effectiveness through a sense of ownership and cognitive diversity

It is key for this committee to have clear metrics for effectiveness. Here are some questions for the committee (and all executive committees at large) to consider:

- What were the material decision points, what were the main counterarguments, how much were core tradeoffs debated?

- What was the committee's composition, climate competence level, and what are the biggest and smallest shares of voice by business and function?
- How deep and broad was the data basis for decision-making, what were the sources, integrity and degree of confidence?
- How many material decisions were marked for further deliberation and what were the agreed next steps and time-to-completion?

Core governance takeaway: Cognitive diversity and a genuine sense of ownership are key for committee(s) effectiveness.

Climate business and risk metrics permeate the executive governance structure, from sub-executive committees on business performance (e.g., transaction, product approval, strategic clients) to sub-executive committees on risk (e.g., credit, reputation). Joint business and function membership in the sub-executive governance structure enables multiple touchpoints between executive and senior management. This ensures that climate decisions are rooted, that strong climate competencies are de facto developed, and that common and jointly sponsored frameworks are also embedded in the bank.

A commercial and nimble central sustainability function

To be effective, the thought leadership strength of the central sustainability function needs to translate into practical profit-oriented solutions. The central sustainability function works optimally when it supports tangibly the transformation of business divisions and functions through close collaboration with the divisional heads and the divisional climate product experts. The more it operates in a decentralized fashion, the bigger the sense of ownership and responsibility it imparts to respective divisions and functions. At the same time, the more effective business feedback it analyses from the divisions and functions, intelligence it garners from peers, and advocacy it drives through association memberships, the more insightful and forward-looking the direction it can contribute. Proactive engagement with policy-makers and regulators helps to unlock significant climate value, particularly in sensitive consumer sectors which rely heavily on central policy-making, planning, like housing. An example includes pursuing the avenue of a regulatory sandbox to increase peer banking collaboration for innovation). These points are also useful for command-and control-oriented banks.

It is important to align the (annual) goals of the central sustainability function and the businesses. A practical way to do this is to attach a "shadow profit account" to the function from green and greening activities generated.

Earlier stages of climate transformation will not necessarily be highly profit accretive, and remuneration mechanisms need to reflect that; otherwise, they may discourage and distort the sustainability function's and businesses' climate incentives. A solution to consider is to include carbon emission reduction, transition and climate compliance metrics into remuneration scorecards, referencing a market price for carbon.

Finally, within the context of leaning on advisory, accounting, and law firms, the more in-house resources and multiple skill-sets that are relied upon and utilized, the more expertise and competencies are developed and advanced within the bank.

Divisional Management

For large banks (by revenue and number of employees), divisions would effectively be run like mini-banks in their own right. There it would make sense to replicate sub-executive governance structures to ensure the cross-participation and cross-ownership between the front business lines and risk, finance, and operations on climate. Together they can coordinate divisional climate targets, pathways, metrics, KPIs, and budgets. From there, close coordination with the global executive committees and the central sustainability function ensures optimal sponsorship and translation of the top-line climate vision.

The role of the climate product experts

Divisional heads implement a strategy of pivoting, in consultation with the central sustainability function and dedicated climate product experts. Together, they clarify: new green and greening KPIs; mandate new green and transition products and services; create divisional pricing, engagement, and information tools; and operate a dedicated and disclosed budget. They cascade annual targets and performance plans throughout the division.

Climate product experts are primarily division subject-matter experts with production capabilities. They are heavily sponsored and incentivized accordingly, not just by the immediate profits they generate. They are measured by the penetration they achieve with clients, which is systematically measured through client surveys and interviews. They operate at scale and cross-pollinate expertise to the traditional product experts. They also coordinate with climate experts in adjacent divisions, which is made an explicit KPI.

Core governance takeaway: Climate product experts are not token sustainability representatives and do not have an administrative role. Their ultimate goal is to make their skills subsumed by their division.

Key metrics: Metrics track that there is sufficient breadth, diversity, and appropriate scale of investments in green and transitioning products and services. Demand-management products are also developed to help control their clients' physical footprint. This will ensure that divisions make investments which are commensurate in size to the bank's short-term targets. A portfolio approach helps to produce convex monetary fruits through momentum in cross-product and talent "research and development", market momentum and the development of a green franchise through an early-mover advantage, and systems and process synergies.

Core governance takeaway: While banks admittedly don't want to be "ahead of the pack" in green transition in an environment of high energy prices and high volatility, being ahead in greening activities

creates barriers to entry for their peers and the opportunity to be a standard setter. Consequently, there is a right balance to strike between these two opposing forces.

Client engagement governance

Client engagement is structured through a clearly referenced framework. It is conducted directly, not through proxies, and statistics are monitored and reported on systematically. Sector transition plans form the basis of the engagement framework. Client grading is done systematically and is a rich process; it makes reference to the client's product/service value chain and is forward-looking. It gets input from all parts of the bank servicing the client, especially directly client-facing staff, in order to harness information inter alia from funding, capital markets, and hedging activities, and get more accurate results; relying purely on sector and geography headlines may miss important nuances of specific client transition strategies. Client grading critically involves the risk and compliance functions in the process, in order to update target exposures across all risk factors and set specific engagement objectives within specified timeframes. The bank gets commitments from the client's executive governance structure, to ensure that the appropriate authorisations are in place and to trigger the right processes on the clients' side. Division and function heads coordinate cross-divisional client review meetings, to ensure that the bank updates a holistic and prospective view of the client' progress and update client watch-lists. Withdrawal criteria for financing, funding and hedging are specified clearly, and so are phase-out conditions for non-transition-plan-aligned activities and clients. These include, inter alia, setting a formal framework of exclusionary loan terms, adjusting client lines to focus them explicitly at accelerating clients' climate transitions, reducing exposure limits, tenors, and increasing pricing terms.

A note for stakeholders

Shareholders and funders can ask for more detailed and term-bound disclosures about bank's transition business plans. Detailed prescriptive policies, greening operating budgets, penetration level and progress metrics, and levers including greening remuneration plans, provide a more accurate basis to evaluate the bank's progress and prospective profitability.

Turning to the workforce, it has been consistently reported that younger employees (especially up to 35 years of age) are exerting a lot of pressure on banks to green-change. This is a force that senior management has to take into account deliberately in its planning and pace of execution. For this process, senior management has to also rely on data around the actual costs associated with workforce turnover (e.g., the cost of replacement) and "silent quitting" (i.e., loss of productivity).

Finally, banks are requesting that **regulators and policymakers** are more prescriptive. The more details included in transition plans and client engagement governance, the more statutory the content and expectations are from client engagement and management. This helps to facilitate challenging conversations with clients from high emitting sectors, commit results more efficiently and timely, and

helps to create a more even playing field in the banking community for carbon-heavy banking franchises. The more details on the connection between the first and the second lines of defense, the more prescriptive the risk framework mapping, and the expected banking leadership interventions in the internal control environment and the auditable domain. The European Central Bank's (ECB) report Results of the 2022 thematic review on climate-related and environmental risks, and consequent increased capital charges and binding requirements targeting specific banks, is already leaning in this direction and setting an example of proactive supervision on climate.

i. Second line of defense – risk and compliance:

Reportedly, the second and third lines of defense are significant areas for development at banks on climate. There is abundant guidance on integrating climate into the banks' risk management framework, including: (a) the UK Prudential Regulation Authority's (PRA) Thematic feedback on supervision of climate related financial risk and the Bank of England's Climate Biennial Exploratory Scenario exercise; and (b) research by the GARP Risk Institute and the UNPFI inter alia. Interviews have stressed the importance of integrating climate consistently and comprehensively into the bank's risk policy, risk framework, systems and processes, and governance structure, in order to create a single point of reference and a "single version of truth" for risk at the bank. Moreover, scenario modelling is evolving continuously to incorporate climate variables, and to capture their non-linear, long-term, and irreversible first and second-order effects. Since climate risks are being significantly underestimated, the risk function can reflect this through questioning model assumptions deliberately, investing in model validation capabilities, and potentially setting aside climate provisions. Finally, in cases where statutory definitions are not available, the risk and legal functions define and disclose key assumptions and in-house methodologies, and work from first principles, in order to progress risk planning and management. Also, together with compliance, they create the necessary governance and transparency processes to manage and avoid conflicts, and establish behavioural regulation at the bank. A few forward-looking considerations are worth considering below.

Revising the risk appetite statement

To get congruence at the bank, leadership starts from the foundations and clarifies consciously a meaningful climate-adjusted risk appetite statement. This captures the strategic climate objectives risk-takers are supporting, makes understood the material risks involved and the key drivers behind these risks, and helps to set and to keep within agreed limits. The climate-adjusted risk statement is all-encompassing, covering inter alia capital planning, liquidity, data, governance, and public disclosures. The concepts and language of climate risk take root deeply up and down the organisation; risk appetite language and risk culture permeate the banking organisation, its decision-making processes (e.g., enterprise risk framework, risk-adjusted metrics), and the understanding of its own performance.

A key consideration for regulators: A decision-ready, seniority-level and function-appropriate understanding of climate-related risks at banks is a key enabler for operationalising a bank's risk statement. Since the UK, EU, and US regulators have firmly established that climate is a core systemic risk, it follows that climate risk should be formally included in statutory conduct regimes. For the UK, climate should be embedded in the FCA Senior Managers and Certification Regime and Conduct Rules, and the PRA respective authorisations where applicable . Going one level upstream, it also follows that climate should be embedded in the CFA's Fit and Proper Test with reference to competence and capability. Banks are reportedly investing heavily on self-certification and university-based training across their workforce. Standardising competency-building and procuring minimum levels per function and seniority will safeguard the quality of climate risk management in the banking industry.

Instituting top-to-bottom governance for past and forward-looking climate risk capture

The legal and regulatory framework governing climate data gathering, structuring, validation and completeness, safeguarding, sharing, and reporting at large requires that banks have the ability to audit the results of any data analysis process, all the way back to the initial information landing into a data repository. Traceability requires transparency from ingestion to producing actionable climate data. The sheer volume of data requires cost effectiveness in use and speed of access.

Finance functions and board audit committees at banks are in the process of strengthening their policies and procedures to support accurate, comparable and consistent climate-related disclosures. This process, to be accurate, requires stating assumptions, and adjusting and qualifying financial reporting results for climate, with implications for asset valuations and provisions.

On a forward-looking basis, by going one level upstream and synching, correlating and mining climate data will be crucial not only for risk management, but also for upside risk capture. Climate data will enable banks to pursue a new business model of providing client behaviour-influencing product and risk-management services. This means positioning a proactive array of tailored and forward-looking services, including hedging (beyond carbon) and climate digitization to augment their clients' data-grounded decision making. Client management, then, becomes behavioural-based, not reactive, and the bank's risk function can get more visibility into clients' risks.

In essence, banks need a formal data and technology policy, strategy, governance, and a data and technology board committee to steer and monitor accordingly. Some forward-looking banks have reportedly mandated a formal data committee at their boards, signaling this strategic shift in their businesses.

Key governance point: Operational risk should be a key management priority alongside market, liquidity and other risk factors, and its level of sophistication should be commensurate to the complexity of the business.

Managing the tone in the middle

Equally important as the tone at the top is the tone in the middle. It is middle management that implements and will eventually condition the success of climate transition, especially for large banks running complex businesses. For this topic, there are three proposals that banks may consider, as follows:

- Procuring operational data mining for better climate business transformation management:

Related to business climate data-mining is the proposed intervention to mandate operational climate data-mining at the bank. The latter will help to monitor and increase the bank's transformation efficiency rate. To this end, the operations function can track monitor proactively metrics across the first and second lines of defense, including decision-to-execution time-cycles and the number of materiality-adjusted initiatives launched. This is referred to as managing the meta-data of the bank's climate transformation.

- Instituting a "shadow-profit" account for the compliance function:

On down-side management, the compliance function updates internal systems and processes to reflect clearly and coherently statutory and regulatory requirements, and the banks' climate policies. In this process, the compliance function can play an additional role by tracking the currency value it saves for the bank through its interventions. This would capture the opportunity cost of fewer open regulatory investigations, breaches or fines, all of which have an operational and reputational cost. This way, the compliance function can be repositioned as a cost and liability management business tool. With more data on cost saving, come reduced conflicts in the first line and between the first and second lines of defense. While it is important that this approach of tracking a shadow-profit doesn't compromise the integrity of the compliance function, it may bring a more business-oriented sense to the way it conducts itself and is treated by the banking organization.

- Business reviews:

Operational business reviews are usually procured in instances where banks are under formal regulatory investigation. These are by nature qualitative and less forensic than interventions by the internal audit function, and are based on executive interviews to determine systematic organisational and behavioural gaps and failures. A disciplined intervention by external and qualified governance experts like law firms can help to deep-dive into causalities, provide an independent viewpoint and check-lists, and give external assurance. This may be a particularly valuable option for management when sweeping climate-change is underway.

Appointing the CRO to the board of directors

Governance theory suggests that directors formally delegate management of the bank to the executives, while retaining the ultimate responsibility. It also stresses that a directorship entails a distinct set of

responsibilities from those of executive management; it is not "an executive promotion". It follows that given the principal objective of establishing a climate risk culture, a permanent seat for the CRO at the board can have the following benefits: (a) impress climate risks more clearly on non-executive board directors making them more engaged and proactive; and (b) elevate the view-point of the CRO to treat risk more strategically in the context of running the bank's business.

A note for stakeholders: Investors can push banks to adopt an internal price for carbon, and positive and negative climate risk-weighting in the banks' balance sheets, seeing that each addresses liquidity and capital adequacy, respectively. Ultimately, this is the direction that regulators will likely be taking, especially as there is more clarity on the magnitude of climate risks. Consequently, it makes sense for banks to start gearing up for this development, and to test-drive their practices, especially given the thin liquidity of carbon markets. Both points have extensive literature cover.

ii. Third line of defence – internal audit function:

What "good looks like"

At a developed stage of climate transition, the internal audit function checks the bank's: (a) performance against (b) its stated climate targets and policies in reference to the adequacy and robustness of (c) its internal risk framework, systems and processes. The purpose of the internal audit function for climate is to ensure that there is consistency, accuracy, and completeness between the three, and to help propose mitigating actions to fill any gaps.

Areas of cover abound. Indicatively, the internal audit function reviews:

a) for finance, the annual disclosures and processes in relation to adopted climate frameworks (e.g., TCFD);

b) for risk, the modeling validation process (e.g., according to the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) scenarios) and the incorporation of stress-tests feedback;

c) for compliance, embedding systems and processes basis regulatory guidance, stress-test feedback, the bank's climate policies and controls (e.g., augmenting know-your-client processes), and statutory obligations (e.g., in reference to the UK Treasury's Transition Plan upcoming guidance);

d) for executive remuneration and the group remuneration policy, the process of setting targets and the awarding of executive incentives;

e) for business, the process of setting KPIs, plans and targets, and checking annual performance against them; and

f) for the board, the accuracy and process of updating dashboards and the bank's risk map.

In instances where statutory frameworks are not available, the internal audit function checks that the bank has adopted credible processes. As an example, the internal audit function reviews external data-sourcing procurement processes, and reviews external assurances on climate data, IT, systems, models, etc.

The current status

Currently, climate targets and policies are just in the process of implementation, and the auditable climate object hasn't been sufficiently developed. Consequently, the main focus of the internal audit function at most banks presently is to check that the right governance processes are being adhered to in arriving at targets and policies, and that management is putting sufficient infrastructure in place to meet upcoming regulations. Tracking and updating an assurance checklist with the guidance of the Chartered Institute of Internal Auditors (IIA) and with the aid of external advice, as the scope of the internal audit function's work expands continuously, is a core deliverable of the internal audit function.

Additionally, the internal audit function can currently play a significant role in protecting banks against the risk of greenwashing by checking the process of making formal external communications (e.g., in producing marketing material and making representations to investors, etc.). Similar to that, it can review the application of relevant frameworks to ensure the integrity of green, transition, and sustainability products (e.g., with regards to green criteria, and use of proceeds covenants in lending products).

Regarding KPIs and metrics, the number of open inquiries, average time-to-closure weighted by financial materiality, and degree of control automation and access to information are important operational KPIs. Equally important impact metrics, however, include: (a) the number of formal and informal quality interactions with executives; (b) communication of the essence of key audit findings and consolidated main points; (c) feedback from executives to gage key message penetration and revisit the communication strategy accordingly; and (d) how well the internal audit function works with the risk function and how much the two lines cross-rely on each other for their mutual audit findings. Finally, quality and regular interaction with the regulator and relevant governing bodies should be a core accountability of the function.

Key governance point: Issuing an audit report should be viewed as the beginning of an audit review, with subsequent stages comprising engagement, communication and tracking of prioritization of remedial action by executives.

Addressing climate competences through a formal climate certification process, and upskilling technology capabilities are key areas for further development. Given the sheer volume of work

anticipated, continuous access to quality and complete automated data, and big data mining will be key enablers of assurance provided by this function.

Key governance point: Boards will be relying heavily on the internal audit function to get assurances that climate transition is organized adequately, and effected accurately, consistently and completely. As a result, the board and the audit committee in particular will want to sponsor visibly significant capacity and capability upgrades in the internal audit function and to mandate a commensurate budget for these upgrades.

A note for stakeholders: Investors and regulators can procure a climate checklist list of internal assurances by the internal audit function of banks. Standardizing this checklist will provide a safeguard for the banking industry at large.

5. Back to the board:

The catalytic roles of the tone at the top, senior sponsorship and visible signaling on climate have been stressed throughout this article. Otherwise, if one overlays regulatory climate obligations on lukewarm or sideways leadership on climate, it is easy to imagine how what should have been business and operational tradeoffs, now become acute and chronic conflicts within the bank.

As in other instances, the "tragedy of the horizon" applies also to commercial and investment banks. Reporting cycles are short and the pressure to produce positive returns for what is an inherently risky business is intense. Average CEO and executive tenors have declined (note: more up-to-date research is needed for the banking industry) with turnover going up too; short-term targets to 2025 will likely not affect the tenor of many current senior banking executives.

To counter this, banks can lean more heavily on the active steering and monitoring of a climate-competent and engaged board, whose 9-year layered tenor should cover the biggest part of the medium-term timeframe to 2035. The board can also embark on greening the bank's executive remuneration practices.

Below are some thoughts for boards to consider for strengthening their steering and oversight on climate matters.

Procuring and disclosing climate board competencies

The topic of board committee structures will no doubt be covered by other articles in this FCA discussion paper. A relevant point to raise here is that each board committee already has a climate accountability: the audit committee for disclosures and the internal control environment; the remuneration committee for procuring climate-related incentives; the nominations committee (or talent as it is now being

repositioned) for attracting and retaining the right talent pool; and the culture committee for conditioning intentionality and agility, as will be discussed below.

Taking one step back, however, stronger board engagement on climate matters starts from securing and updating sharp resident climate capabilities. The aforementioned proposal to update the FCA's Fit and Proper Test for climate would be particularly impactful for the board chair and chairs of the audit, risk and nominations committees. Additionally, if the board and audit chairs are made accountable for direct and frequent engagement with the regulator and policy makers on climate matters alongside executive teams, their capabilities are bound to rise sharply and propagate to the rest of the board. Moreover, disclosing a detailed skills-map of board capabilities is a way for boards and stakeholders to appreciate gaps in top leadership with reference to the bank's future strategic needs, including climate. These considerations are likely to help upgrade the level and number of climate capabilities on the board and filter into a deeper, more sophisticated and more frequent cover of climate matters on the board agenda, board papers and board dashboards (including the risk map). Otherwise, climate tokenism cannot muster appropriate attention at the board.

A note for the regulator and shareholders: At a more institutional level, nomination practices in other jurisdictions may offer interesting insights. For instance, in Sweden shareholders and the board chair are responsible for nominations, instead of a board nominations committee. The point is particularly relevant in the case of a large and dispersed shareholder base, what is referred to as "an ownerless environment", where it is difficult for shareholders to get critical mass behind their engagement on climate. More generally, the principle of more direct shareholder engagement is worth considering. Accordingly, shareholders may update and agree a list of required competencies with the board nominations committee, which would guide new director and officer appointments. This way, shareholders would not rely on reactive interventions in the annual board re-election process, which require considerable majority to be effected. This institutional intervention will also confer the benefit of establishing more direct avenues to condition climate competencies and performance at the board.

Mandating more engaged boards

Interviewees have underlined the value of directors developing informal networks to get the pulse of the bank on climate and to discern material issues which may not be reflected in board papers. Chairs who encourage the practice of non-executive directors "walking the floor" and engaging across ranks note an elevated level of confidence to influence the climate board agenda and to mandate additional content in board papers.

On a more experimental note, financial services advisory firms have noted the benefit of instituting junior boards in their organisations. Junior boards comprise middle-management executives from the workforce who feed to the main board recommendations from the tone they experience and the

demographics they represent. If climate has a positive generational bias in favour of younger members of the workforce, then main boards can benefit from an enlarged view point via interaction with junior boards. Collateral benefits, in addition to increasing cognitive and physical diversity, include deeper workforce engagement and alignment, and grooming a talent pool for leadership succession.

Building further on the practice of learning from adjacent industries, bank boards may draw valuable lessons from the deeper engagement practices of successful private equity-led boards. Well-functioning majority-independent private equity-led boards tend to have a much deeper understanding of the affairs of their portfolio companies, and procure more timely and relevant interventions. Banks may consider which practices may be suitable for them to adopt for climate and what additional time commitments these practices would require of their directors. Time availability and the level of director fees are practical matters that banks can address with an eye to a successful transition.

Board performance

Practically speaking, board performance is very much about asking the right questions on climate matters, but also getting adequate answers, and sound and timely resolutions. More engaged boards may want to track statistics about the nature of their deliberations, also known as the "meta-data" of board meetings. This can help to gage the instances and the materiality in metrics like, inter alia: (a) executive failures, major executive target misses, and points of contention that are brought to the board for genuine deep-dives, honest feedback and effective steering; (b) topics for approval that are sent back to the executive body for further work; (c) time allocation to steering versus monitoring; and (d) deep-dives with the executive body's core advisers to get up to speed with material issues at the bank. Metadata can help to shed light to the nature, depth, and impact of board interventions.

More generally on performance, a good practice is for boards to commit to annual thematic aspirations at the board and the committee level, principally modelled by the board chair who sets the tone. Additionally, the board can designate specific areas of focus for individual non-executive directors, beyond their general accountabilities. An example of such a practice emanating from the Financial Reporting Council's (FRC) Code includes designating a non-executive board director for workforce matters. These annual aspirations and area designations would be the equivalent to what KPIs are to executive management and would make deeper routes in specific strategic themes. For climate this practice will likely help to align better the tone and rhythm of the board and executives. This practice will help to individuate climate priorities, define what success will look like for the year ahead, and condition the board's focus and energy-levels overall. It will also lead to more specific climate milestones and more forward guidance for stakeholders. Chairs who have adopted these practices reported deeper director engagement on climate, while at the same time, preserving non-executive boundaries.

At an institutional level, providing formal guidance on the content and depth of annual bank board evaluations, beyond existing guidance on accountabilities provided by the FRC, may help to unearth

structural issues and areas for timely intervention. This can take the form of a guiding note or a checklist by the regulator emanating from annual engagements with board chairs and senior executives or stress tests.

Long-Term Incentive Plans (LTIP) in executive remuneration

The topic of executive remuneration will no doubt be covered extensively in this FCA discussion paper. Some useful guidelines for executive remuneration include to: (a) institute higher weightings in favour of Long-Term Incentive Plans (LTIP) and add explicit emissions and transition targets, and compliance metrics (b) include climate metrics in Short-Term Incentive Plans (STIP) in view of the truism that to get longer-term results, action needs to start now; (c) procure quantitative, right-way-round and ambitious metrics, which are simple, measurable, comparable and disclosed. As already discussed, climate metrics need to go well beyond executive remuneration and be included in the bank's remuneration policy targeting the first line of defense.

Remuneration has frequently been cited as the main avenue to influence climate implementation at banks. A key point to note, however, is that without setting the foundations through clear targets, detailed plans, and robust internal controls, remuneration alone is bound to create conflicts within the first line of defence (e.g., judging what should constitute priority), and between the first line and the other two lines of defence (e.g., specifying and measuring risk-adjusted returns).

6. A final note on climate governance – the central role of culture

By all accounts, while governance is a critical component of climate implementation at banks, it is not an all-encompassing solution. Instead, governance may be better described as the "cladding of corporate intentionality". Corporate intentionality is the overarching corporate purpose which guides the bank's direction in delivering profits consistently and sustainably, and the values which emanate from this purpose. Both corporate purpose and values are best encapsulated by corporate culture, i.e., "the way that things are done around here". The cladding of corporate intentionality is the thread of accountabilities that translates intentionality into specific actions and tangible results at the bank.

For climate-leading banks, interviews have highlighted, inter alia: (a) the national cultural traits of these banks' domicile towards climate (e.g., Scandinavia, the Netherlands, etc.); and (b) the climate agenda of their dominant shareholders (see, state, multilateral corporations, large cooperative ownership base etc.), as the catalytic forces for the early adoption of climate implementation strategies. Moreover, to a large degree, these strong cultural traits towards climate were evidently some of the principal forces that attracted "the right people at the bank's helms" of these climate-leading banks. These executives had the early vision to pursue climate transformation and the tenacity to drive change through successive layers of resistance. The natural effect of momentum, in turn, attracted more key climate talent to these banks, creating a virtuous circle of climate impact and innovation.

While banking leadership cannot influence the cultural traits of its domicile or shareholders, it can, nevertheless, exert considerable control over the banking organisation's endogenous cultural traits. The health of a bank's endogenous corporate culture can be measured by the degree of divergence between its espoused and prevalent culture. To put it the other way round, if the bank's corporate culture is not climate-fit for purpose, then its set of accountabilities, systems and processes would barely be able to instruct the bank's direction without stumbling on stalling or obstructive executive behaviours.

For climate-readiness specifically, the bank's health index can be reflected in the authenticity, permeability and longevity of the corporate narrative towards climate matters. Good governance practice for bank boards suggests reflecting positive leadership traits in culture dashboards. To be clear, good-employment-leaver statistics and feedback from workforce pulses tend to capture the effects rather than the causes of leadership quality. Instead, insightful parameters of positive leadership tend to highlight the medium and long-term momentum of decision-making (i.e. the speed and mileage of decisions), and resilience, adaptability, and trust attributes in the banking organization, which are particularly important in uncertain environments and are necessary conditions for innovation. Interestingly, interviews also confirmed the causal relationship between positive leadership, innovation and climate performance. To this effect, banking leadership is advised to consider innovation metrics for its culture dashboard.

Concluding remarks:

Governance for climate implementation at banks is a multi-dimensional subject that requires deep and lateral business thinking, and assertive initiatives to make climate targets effective. Banks can take the time to decide consciously which of the aforementioned proposals will fit their idiosyncratic circumstances best and help their organisations to gear up for what is expected to be a long and uneven path towards climate management.

Appendix: Bank transition and governance scorecard

a) Consistent with a 1.5°C scenario;

b) including all material business segments (5% of total revenues or financed emissions), inter alia, investment banking (e.g., lending, debt and equity underwriting, advisory services), global markets (e.g., trading and intermediation), retail and commercial banking (e.g., individual, corporate client banking, and insurance), and asset and wealth management (e.g., investments and advisory);

c) including high-risk sectors according to TPI's list of coverage,

d) evaluate and disclose the bank's:

1. Public commitments to achieve net zero emissions (including scope 1, 2, 3) by 2050 or sooner: a) explaining omissions, if any.
2. Short-term (up to 2025) and medium-term targets (2026-2035) for reducing their material financed emission levels and intensity by segment and industry breakdown: g) explaining omissions, if any; h) including scope 3 emissions at least for short term targets, specifying methodologies to avoid double-counting; i) incorporating the downstream part of the oil and gas value chain; j) setting energy demand reduction targets; k) using sector-specific reference climate scenarios and providing adequate disclosures where in-house scenarios are used.
3. Client engagement activities: a) explaining omissions, if any; b) referencing specific transition plans and client governance engaged, and engagement outcome statistics; c) scoring clients according to engagement outcomes; d) including asset management (through direct engagement instead of proxy voting guidelines) and wealth management divisions; e) specifying financing withdrawal criteria and phase-out conditions for non-aligned:

i. activities - setting exclusionary loan terms, and providing climate-linked credit lines explicitly aimed at accelerating clients' transitions;

ii. clients - including client watch lists; and

iii. sectors where applicable - e.g., phasing out of coal, and progressively oil and gas fields, deforestation, and peatland conversion financing;

l) specifying green financing acceleration targets and strategy, referencing specific green taxonomy definitions and degree of alignment with a national, regional, or global governing body.

4. Exposures to their financed emissions, especially in high-risk sectors:

a) specifying their data sources and architecture, statistics and commentary indicating their assumptions, associated degree of confidence regarding accuracy and depth of data cover;

b) breaking down by sub-sector, by physical and transition risks, in absolute and in percentage currency terms (of total exposure);

c) referencing recognised carbon accounting tools, such as PCAF;

d) disclosing their offsetting policy and specific offsetting and sequestration statistics;

e) conducting 1.5°C scenario analysis by:

iv. referencing regulatory authorities and central bank guidance;

v. providing qualifications on modelling assumptions;

vi. including physical and transition risks; and

vii. disclosing quantitative results, including, inter alia, credit exposure at risk, monetary losses from physical events;

f) disclosing mitigation actions from scenario analysis results;

g) disclosing stress test results and quantifying associated capital adequacy and liquidity provisions.

5. Direct and indirect lobbying and advocacy activities:

a) disclosing their Paris Agreement-aligned climate lobbying and advocacy position, and degree of alignment with their lobbying activities, including inter alia, meetings with regulators, presenting policy submissions, and making political donations;

b) disclosing their trade association memberships and how the latter align with the goals of the Paris Agreement;

c) disclosing their processes to ensure that their trade associations lobby in accordance with the Paris Agreement.

6. Governance:

Board

a) skills-mapping of the board's competencies, explicitly referencing climate;

b) designating an ESG/climate board committee and/or updating all committee charters (i.e., risk, audit, nominations/talent management/culture, remuneration) to cover steering and monitoring of all climate-related matters;

c) updating the corporate risk map to incorporate all climate risk categories (i.e., physical, transition, liability) with explicit reference to short-and medium-term climate targets and KPIs;

d) appointing the Chief Risk Officer to the board of directors, elevating their fiduciary and statutory duties;

e) updating executive remuneration and the group remuneration policy to include clear, comparable, measurable climate metrics, and explicitly link 10-20% of executive remuneration (including short and long-term incentive plans) to financed emissions reduction targets and transition targets

f) providing details on culture dashboards, gauging climate penetration

First Line (Second Line)

a. disclosing executive management and divisional climate designates:
    i. with clear strategies, short and medium-term implementation metrics and targets;
    ii. explicit senior sponsorship;
    iii. clear reporting lines which enable the coordinating efforts across banking divisions;
b. setting dedicated executive climate/ESG committees, setting clear accountabilities, targets, strategy, and metrics, by integrating business and risk managers across levels of seniority
c. updating all executive and divisional committee structures for climate matters, including, inter alia, risk, capital allocation and credit, reputation, product development, deal approval, client coordination

Second Line

a. updating risk dashboards for all climate categories at the divisional and successive seniority levels
b. disclosing a business and operational data policy and specifying an associated data governance, escalating to a dedicated data board committee

c. approving operating budgets, and short and medium targets and metrics d. updating and enforcing policies, systems and processes (including know-your-client requirements) and regulatory requirements, with an eye to prospective changes Third Line a. updating a climate scorecard for finance, risk, compliance, business, external assurances b. tracking open inquiries and associated time-to-closure on climate matters; c. checking data and systems accuracy, integrity and degree of cover, checking access to continuous climate data;
7. Climate risk metrics in financial statements, including: a. critical accounting assumptions and judgements; b. external auditor assurance to incorporate the effect of climate in financial disclosures; c. material sensitivities for a 1.5°C pathway provided in the notes to the financial statements.