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The Perspective

As scientists deliver ever-more-serious warnings about climate change, companies are beginning to size up the potential effects not only on their businesses and industries but across the entire global economy. Banks wouldn't seem to be on the frontlines of these emerging risks. But because they make loans and grease the wheels of commerce for clients in virtually every industry, all over the world, their exposure to climate change is potentially enormous.

The surface temperature of the Earth has risen at a record pace in recent decades, creating risks to life, ecosystems, and economies. Climate science tells us that further warming is unavoidable over the next decade, and probably after that as well. In this uncertain environment, banks must

act on two fronts: they need both to manage their own financial exposures and to help finance a green agenda, which will be critical to mitigate the impact of global warming. An imperative in both cases is excellent climate-risk management.

Climate Change and its impact on Banks

Climate change affects banks because of the impact it has on the value of assets used as collateral for loans and the incomes borrowers use to repay their loans. There is significant uncertainty about the magnitude of risks to banks from climate change. This is because of the uncertainty about how climate change will alter future weather patterns, how policies will change globally and how economies adapt.

Climate change impacts today's world. To prevent any permanent, devastating consequences, a fundamental change to a more sustainable growth path is required. Financial regulators recognise that such a change may impact the stability of economies, and financial institutions need to identify, quantify and mitigate the financial risks related to climate change where the financial sector is impacted. Financial institutions as well as regulatory authorities are exploring methods for quantifying these climate risks. The impact of climate change will prompt substantial structural adjustments to the global economy. Such fundamental changes will inevitably impact the balance sheet and the operations of banks, leading to both risks and opportunities.

According to the 11th Annual EY/IIF bank risk management survey released in 2021, over 91 per cent of the chief risk officers (CRO) and 96 per cent of the board members viewed climate change as the top emerging risk for financial institutions in the next five years. In a research report published in March 2022 by RBI titled 'Green Transition Risks to Indian Banks' there is a clear mention of the transition risk due to the cost of adjustment that falls in the production processes of industries that are directly or indirectly exposed to excessive use of fossil fuel.

On July 24, RBI Governor Shaktikanta Das announced that the central bank will soon issue a consultation

paper on climate risks for banks and financial sector. The intent is to seek stakeholder views and suggestions for a more informed and measured approach towards preparing the banking sector to internalise climate risk. The endeavour is in line with RBI's April 2021 decision to join as a member of Network for Greening the Financial System (NGFS) – a coalition that brings together central banks and supervisors working on climate and green finance issues from across the globe.

Climate Change Risks for Banks

The stakes of climate change are high for many industries: physical risks are beginning to materialize, regulatory pressures are increasing, new opportunities are emerging – and investors are demanding more transparency. The first step is understanding what, exactly, is at risk.

Financial risks: There is a growing consensus among policymakers and supervisors that climate change poses real financial risks. Evidence is building that transition and physical risks arising from climate change represent a material risk to the banking system and may even be a source of systemic risk to the financial system.

Physical risks: cover those that impact the premises and operations of the bank, its customers, and the wider economy. They include extreme weather events and long-term shifts in climate leading to the closing of retail branches or facilities, negatively impacting the creditworthiness of clients, and adversely affecting asset prices.

Transition risks: cover those that impact a bank's products and services as a result of the move toward a lower carbon economy. They include the extent to which a bank funds or has stakes in companies that emit greenhouse gases (GHGs), evolving stakeholder expectations, and associated legal or regulatory changes.

Managing Climate Risk

The impact of climate change over time will force major structural adjustments to the global economy

that will inevitably affect banks' operations and balance sheets. Responding to climate change will affect the business of a bank in its entirety: deciding which clients to lend to in the future, assessing which businesses to support through investments, determining what type of financial instruments to offer and even deciding how to remunerate staff. A business strategy that addresses climate risk will have real impacts. With all of these forces bearing down on banks, their leaders need to adopt comprehensive, firm-wide approaches to managing climate change risk. That requires integration across the entire risk management framework.

Historically, banks have approached climate change through the lens of Corporate Social Responsibility (CSR). With increasingly high financial stakes, growing external pressures, and new regulations, the pure CSR approach is no longer sufficient. Climate change has become a financial risk for banks and must be treated as such. Banks need to quantify climate factors across the business and put in place the tools and processes needed to take advantage of them effectively. At the same time, they must ensure that their operations are aligned with the demands of external stakeholders. The commercial imperatives for better climate-risk management are also increasing. In a competitive environment in which banks are often judged on their green credentials, it makes sense to develop sustainable-finance offerings and to incorporate climate factors into capital allocations, loan approvals, portfolio monitoring, and reporting. Some banks have already made significant strategic decisions, ramping up sustainable finance, offering discounts for green lending, and mobilizing new capital for environmental initiatives. Following approaches will support this transformation.

Build the foundations: Banks should urgently identify the processes, methodologies, and tools they will need to manage climate risk effectively. This entails embedding climate factors into risk and credit frameworks.

Formulate climate-risk governance: It will be of crucial importance for top management to set the tone

on climate-risk governance. Banks should nominate a leader responsible for climate risk; chief risk officers (CROs) are often preferred candidates. There is also a cultural imperative: responsibility for climate-risk management must be cascaded throughout the organization.

Consider all the what-ifs: Analysing the potential impacts of both physical risk and transition risk is critical for planning. Climate scenario analysis, essentially a "what-if" analysis, is a useful method to quantify all the potential exposures.

Build into strategic planning: Climate risks should pervade key business applications such as pricing or strategic planning. Measurement of risks and expected losses under different climate scenarios help identify potential downsides. At the same time, assessing the potential future market help bank executives identify promising lending opportunities and steer the organization.

Tailor business and credit strategy: Climate considerations should be deeply embedded in risk frameworks and capital-allocation processes. Many institutions have decided not to serve certain companies or sectors or have imposed emissions thresholds for financing in some sectors. Boards should regularly identify potential threats to strategic plans and business models.

Align risk processes: To align climate-risk exposure with risk appetite and the business and credit strategy, risk managers should inject climate-risk considerations into all risk-management processes, including capital allocations, loan approvals, portfolio monitoring, and reporting.

Get up to speed on stress testing: Scenario analyses and stress tests, which are high on business and regulatory agendas, will be critical levers in helping banks assess their resilience. In preparing for tests, they should first identify important climate hazards and primary risk drivers by industry, an analysis they can use to generate physical and transition-risk scenarios. These in turn can help banks estimate

the extent of the damage caused by events such as droughts and heat waves.

Focus on enablers: Banks often lack the technical skills required to manage climate risk. They will need to focus on acquiring them and on developing a strategic understanding of how physical and transition risks may affect their activities in certain locations or industry sectors. They should therefore budget for increased investment in technology, data, and talent.

Construct a climate-risk-management framework: Banks must aim to embed climate-risk factors into decision making across their front- and back-office activities and for both financial and nonfinancial risks including operational, legal, compliance, and reputational risks.

Protecting the balance sheet from uncertainty: As physical and transition risks materialize, corporates will become increasingly vulnerable to value erosion that could undermine their credit status. These, in turn, may have direct and indirect negative impact on banks, including an increase in stranded assets, uncertain residual values, and the potential loss of reputation of banks.

Reviewing the prudential framework for banks

The increasing evidence showing that climate change poses real financial risks, coupled with the fact that climate risk drivers may represent a source of systemic risk to the financial system, calls for addressing the gaps in the prudential framework. The prudential framework for banks is currently being scrutinised to determine whether it can sufficiently capture the unique features of climate-related financial risk. Given the challenges of capturing the impact of climate-related financial risks, some of the principles and methodologies underpinning the Basel Pillar 1 framework might not hold. In particular, the forward-looking aspects of climate risks and uncertainty about how these risks will manifest over different time horizons and business cycles poses a significant challenge in terms of properly capturing these risks. Some parts of the Basel framework are, on the contrary, backward-looking, as they rely on

consistent, historical data to gauge the relationships between risk factors and exposures, including under adverse economic conditions or unexpected events.

Climate Change : Opportunities for Banks

On the other side of the ledger, there are also opportunities for banks to boost revenue from climate change activity. Massive amounts of capital and new financial products will be required to fund the transition to a lower-carbon economy, creating fresh demand for bank services. In all, roughly \$1 trillion of new financing will be required annually to fund the transition. Banks that identify these opportunities can help reduce their overall risks and, potentially, boost their returns. Increasing awareness of climate risk within the banking industry will ultimately generate broad benefits for other industries – and for society as a whole.

Conclusion

As intermediaries and providers of capital, banks play a crucial role in economic development that now includes managing the physical and transition risks of climate change. The task is complex, and the models and assumptions needed to align the business with climate priorities will inevitably be revised and refined over time. However, as temperatures rise, speed is of the essence in managing the transition to a more sustainable global economy. Internalisation of climate risk factors by banks is very much on the agenda especially with RBI taking up the cudgels. However, given the complexity in climate risk modelling, the biggest challenge for a bank would be to measure the impact of climate risk while undertaking lending and investment decisions and further integrating that risk in the existing risk and valuation frameworks.

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