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Editorial

I am delighted to present the April-June 2024 (Vol LIII No. 1) issue of Prajnan. This special issue is focused on Climate Risk and Climate Finance. It consists of five full-length invited articles. The topics span a broad spectrum of issues from the perils of climate risk to global regulations, gender diversity, green marketing, and the impact of transition risk. We are grateful to the eminent academicians and practitioners who agreed to contribute to this volume.

The first article is entitled '**Addressing Climate Risks: Indian Vulnerabilities**'. It is written by Anup Sinha and Runa Sarkar. The authors introduce the concept of climate risk and explore avenues to address the problem, with particular reference to India. They analyse the nature, types and complexity of climate risk and its impact on life and property. The paper presents various frameworks employed in climate risk management. It discusses how climate action plans or strategies may be derived from risk dashboards. In the Indian context, the study highlights the nature and severity of climate risk as well as the myriad policy responses. The article sets the backdrop to the contributions that follow in the volume.

The second paper is '**Climate Risk and Green Finance: Central Bank Initiatives Around the World with Special Reference to India**'. The author, Sunil Nair, outlines the climate risk management initiatives taken by the global standard-setting bodies and central banks across the world. The article notes that institutions like the Basel Committee on Banking Supervision, Financial Stability Board, and the Network for Greening Financial Systems have made important contributions in this domain. Many central banks have come out with *(a)* broad guidelines on climate risk, *(b)* disclosure requirements for banks and FIs, and *(c)* framework for scenario analysis of banks and FIs under their jurisdiction. In India, the RBI has undertaken various initiatives in the area of climate risk management. From its initial emphasis on climate risk as part of Corporate Social Responsibility and Sustainable Development strategies of banks to recent integration of climate risks with financial stability monitoring, RBI has made great strides. At present, it is engaged with *(a)* a broad framework for acceptance of Green Deposits, *(b)* a disclosure framework on Climate-related Financial Risks, and *(c)* guidance on Climate Scenario Analysis and Stress Tests. Likewise, the GOI has also emerged with a Sovereign Green Bond issuance in 2023. The paper underscores the need for close co-ordination and collective action by global standard-setting bodies, central banks, and national governments.

The third paper is '**Green Marketing Capability: A Missing Link in Environmental Quest**', by Prithwiraj Nath and Angsaya Siepong. Green marketing capability (GMC) is one of the important factors that can explain the performance difference in the formulation and pursuit of green marketing strategies. This study develops a theoretical framework to explain *(a)* what constitutes GMC, *(b)* how firms differ in the way they approach GMC, and *(c)* what is the ideal GMC configuration to achieve the best possible green performance. It proposes that firms can be classified into three groups based on how they approach GMC: opportunity seekers that excel in both

sensing and execution capabilities and act as green market prospectors; conservative compliants that lag in both these aspects and act as green market defenders; and critical adopters that lay medium emphasis on green market sensing and execution activities and maintain a balanced "wait and see" approach. The insights from this article are crucial to banks and FIs which aim to offer green deposits, green bonds, and green loans.

The fourth article, entitled '**Gender Diversity, Environmental Concerns and Bank Risk-taking: Evidence from India**', is by Saibal Ghosh. Utilising data on domestic banks from 2011-20, the paper examines the impact of gender diversity on bank risk in the presence of climate concerns. Employing the Paris Agreement as a natural experiment, it finds that gender diversity does not suffice to lower bank risk-taking. The results are manifest more strongly in case of market-based risk measures and differ across bank ownership. The analysis sheds fresh light on how climatic concerns could play out in a bank-based financial system such as India at a time when gender diversity concerns have gained centre stage.

The final contribution is '**Impact of Climate Transition Risk on Firm-Level Credit Risk: The Case of India's Steel Companies**', by Tasneem Chherawala. The paper designs a forward-looking default probability measure to quantify transition risk for carbon-intensive companies. It establishes, using this metric for Indian steel companies, that extreme transition shocks from global climate mitigation policies can substantially worsen firm-level credit risk. The extent of impact depends upon the company's unique profile in terms of business, carbon footprint, and emission reduction plans. The metric – climate-adjusted EDF – finds a large number of potential applications in internal climate-related financial risk assessment. Policy makers and financial market regulators can also adopt the metric for conducting climate stress tests at the sectoral and macro levels.

We invite original research articles in all areas of banking and finance. Please submit your papers, comments, and suggestions to editor_prajnan@nibmindia.org.

With warm regards,

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Addressing Climate Risks: Indian Vulnerabilities

Anup Sinha
Runa Sarkar

All nations and communities are exposed to a variety of risks associated with climate change. These risks are becoming increasingly evident. Societies must be aware of these and the vulnerabilities emerging from them, along with their likely location and intensity of occurrence. This paper, keeping the Indian context in focus, reviews the nature of the major risks, and discusses some of the problems associated with measurements of vulnerabilities and exposure. Standard measurement techniques do not always work for climate risks. There are some threats that have to be addressed globally, some at the national level, and many others regionally and locally. There are issues of reliability of data and incompleteness of information. Managing these challenges imply processing all the available knowledge to build action plans and policies. We conclude with an assessment of where India stands as a nation in terms of managing its vulnerabilities and mitigating the impact of impending climate risks.

Climate Risk and Green Finance: Central Bank Initiatives Around the World with Special Reference to India

Sunil T S Nair

The threat of climate change has alarmed policymakers around the world. This paper takes a close look at the measures adopted by international standard setting bodies and central banks, for the mitigation of climate risk. It discusses various initiatives by global bodies on roadmap preparation, scenario analysis and sustainable finance. It outlines the directives related to disclosures and good practices on climate risk management issued by central banks around the world. It presents the Indian experience – the endeavour by RBI, on climate risk and climate finance, with particular reference to green deposits, disclosure requirements and scenario analyses and stress tests. The article emphasizes on the need for all policymakers to work together, in order to address the imminent perils of climate change.

Green Marketing Capability: A Missing Link in Environmental Quest

Prithwiraj Nath
Angsaya Siepong

Academic and practitioner literature shows that all firms do not achieve similar outcomes in formulating and pursuing green marketing strategy. Hence, what makes some firms more successful than others is of crucial importance. Green marketing capability (GMC) is one of the important factors that can explain the performance difference. This study develops a theoretical framework to explain (1) what constitutes GMC, (2) how firms differ in the way they approach GMC, and (3) what is the ideal GMC configuration to achieve the best possible green performance. We propose that firms can be classified into three groups based on how they approach GMC: opportunity seekers that excel in both sensing and execution capabilities and act as green market prospectors; conservative compliants that lag in both these aspects and act as green market defenders; and critical adopters that lay medium emphasis on green market sensing and execution activities and maintain a balanced "wait and see" approach.

Gender Diversity, Environmental Concerns and Bank Risk-taking: Evidence from India

Saibal Ghosh

Utilising data on domestic banks from 2011-2020, we examine the impact of gender diversity on bank risk in the presence of climate concerns. Employing the Paris Agreement as a natural experiment, we find that gender diversity does not suffice to lower bank risk-taking. These findings are manifest more strongly in case of market-based risk measures and differ across bank ownership. Viewed from this standpoint, the analysis sheds fresh light on how climatic concerns could play out in a bank-based financial system such as India at a time when gender diversity concerns have gained centre stage.

Impact of Climate Transition Risk on Firm-Level Credit Risk: The Case of India's Steel Companies

Tasneem Chherawala

Our paper designs a forward-looking default probability measure to quantify transition risk for carbon-intensive companies. Using this metric, we establish that for Indian steel companies, extreme transition shocks from global climate mitigation policies can substantially worsen firm-level credit risk. The extent of impact depends upon the company's unique profile in terms of business, carbon footprint, and emission reduction plans. The metric – climate-adjusted EDF – finds a large number of applications in banks' internal climate-related financial risk assessment. Policy makers and financial market regulators too can adopt the metric for conducting climate stress tests at the sectoral and macro level.