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ध्येय

संस्थान का ध्येय मूलतः शिक्षण, प्रशिक्षण, परीक्षा, परामर्शिता और निरंतर विशेषज्ञता को बढ़ाने वाले कार्यक्रमों के द्वारा सुयोग्य और सक्षम बैंकरों तथा वित्त विशेषज्ञों को विकसित करना है।

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Mr. Biswa Ketan Das
*Chief Executive
Officer,
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As we approach the year-end, let us reflect on our collective journey, celebrating our achievements, and setting the stage for an even more successful future. In the face of tumultuous global landscape, our organization has demonstrated resilience, adaptability, and unwavering determination.

The theme of this issue of Bank Quest is of utmost importance, not just to our organization, but to the entire world, “Climate Risk and Sustainable Finance”. Mahatma Gandhi has foreseen the coming years when he said, “Earth has enough for everyone’s need but not for everyone’s greed”. Our planet Earth has served us since ages and as its inhabitants it is our time to payback. We are at a critical juncture in history, where the decisions we make today will have a profound impact on the generations to come. Climate change is no longer a perceived threat, it is a reality that is affecting communities, economies, and businesses worldwide.

The first article under the theme of this issue is penned by Ms. Namita Vikas, Founder & Managing Director, auctusESG on “Demystifying Sustainable Finance and Climate Risks for Indian Banks”. The author has discussed the importance of sustainable finance in the light of climate change and have highlighted significance of addressing climate risks for Indian Banks.

The next article on the theme of this issue is on “Synergizing Blue Finance and Ocean Governance: A pathway to a Thriving Blue Economy for India”, jointly written by Ms. J. Sneha Jayalakshmi, Research Scholar, Department of Commerce, Bharathiar University, Coimbatore & Dr. M. Sumathy, Professor and Head, Department of Commerce, Bharathiar University, Coimbatore. In this article, the authors have explored the potential of blue finance and ocean governance in Indian context.

Our next article is authored by Mr. P R V Rama Karthik, Manager, Reserve Bank of India on “Role and Relevance of Account Aggregators (AA) in the Digital Ecosystem”. The author has written about the framework of Account Aggregators and their responsibilities. The author had concluded that the success of AA Model in the long run depends upon optimising the balance between innovations they bring to the table along with the regulatory compliance.

There are several school of thoughts highlighting that the bond market in India is still in a nascent stage. In order to increase awareness in this area, we are publishing an article titled “Deepening of the Government Bond Market” written by Mr. Subhash Karmakar, Senior Manager and Faculty, Bank of India. The author has given an in-depth analysis of Government bond market in India. According to the findings of author, there is a strong

positive correlation between GDP and loans of different maturity periods implying the vibrant role of Government Securities for GDP growth.

This issue also features two articles in Hindi. The article on “भारत को सशक्त करता डिजिटल लेनदेन” is authored by Dr. Sanjai Kumar, Assistant General Manager (OL), Reserve Bank of India. This article describes various facets of digital transactions and concludes that the acceptability and growth of UPI transactions is one of the prominent achievements of the year 2023.

The article on “आधारभूत संरचना के विकास की चुनौती” is written by Mr. Sanjay Madhukar Nafde, Former Chief Manager, State Bank of India. The author has discussed the challenges for development of basic infrastructure.

In this issue, we are also publishing a summary of Diamond Jubilee & C.H. Bhabha Banking Overseas Research Fellowship Report (2020-21) on “Asymmetric information and market failure in bank-NBFC co-lending model” by Dr. Bibekananda Panda, Assistant General Manager (Economist), State Bank of India.

In my opinion, addressing climate risk and promoting sustainable finance is not just a moral obligation; it is an economic imperative. By embracing sustainability, we can future-proof our investments, protect our communities, and preserve the planet for future generations.

The new year is approaching. Let us begin it with a commitment to embark on the journey towards a more sustainable and resilient future.

I wish you all a very Happy & Prosperous New Year !

Biswa Ketan Das



 **Namita Vikas***

Demystifying Sustainable Finance and Climate Risks for Indian Banks

Introduction

The concept of sustainable finance is a multifaceted domain that has evolved significantly over the recent years. Sustainable finance is a suite of financial mechanisms strategically designed to enhance economic growth, while addressing environmental concerns and incorporating considerations of social and governance dimensions. At its core, this approach emphasizes transparent disclosure of Environmental, Social and Governance (ESG) risks that could impact the financial system. Moreover, sustainable finance involves adept governance of financial and corporate entities to effectively mitigate such risks. Essentially, it encompasses the mobilization of financial resources to promote inclusive growth, aligning financial strategies with broader ESG objectives.

The primary objective of sustainable finance lies in the integration of ESG factors with decision-making processes, aiming to champion sustainable development and tackle urgent global challenges such as climate change, biodiversity loss, social inequality and human rights concerns. In doing so, sustainable finance goes beyond merely considering financial returns, emphasizing the broader impact of investments on environment, society and corporate governance. This approach acknowledges the interconnected nature of economic, social and environmental issues, emphasizing the importance of addressing them comprehensively for achieving sustainable and inclusive development.

The global sustainable finance market is expected to grow from USD 3.6 trillion in 2021 to USD 23 trillion by 2031 (Confederation of Indian Industry [CII], 2023). Growth in sustainable finance and product issuances has been rapid globally, with ESG-oriented Assets Under Management (AUM) rising steadily as well. Globally, ESG-related AUM are expected to strike USD 33.9 trillion by 2026 from USD 18.4 trillion in 2021 (PricewaterhouseCoopers [PwC], 2022), while sustainable debt issuances globally are at USD 448 billion as of H1 2023. Although this is down 15% on a YoY basis, it remains in line with the USD 859 billion in issuances seen in CY2022. This growth puts cumulative issuances at over USD 4 trillion.

Green bond issuances have been substantial globally, worth USD 279 billion by H1 2023, that constitutes 62% of the total pie, while the cumulative amount of Green, Social and Sustainability (GSS+) bonds issued reached USD 3.8 trillion by the end of 2022 (Climate Bonds Initiative [CBI], 2023). Interestingly, in H1 2023, green bond deals supporting low-carbon energy have been on the rise, more than those originating from fossil fuel companies, which demonstrates a transition that is underway.

Importance of sustainable finance in the context of climate change

The earth's climate naturally changes over time due to unpredictable natural forces. Yet, various independent studies strongly indicate that human

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activities, especially since the Industrial Revolution, significantly contribute to worsening climate change. As per the UN Intergovernmental Panel on Climate Change [IPCC] Synthesis Report (2023), human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming. Global surface temperatures in 2011-2020 reached 1.1°C above 1850-1900 levels.

A report from the Indian Ministry of Earth Sciences (2020) states that India has seen a rise in average temperature, decreased monsoon precipitation, increased extreme temperatures, droughts, sea levels and more severe cyclones since the mid-twentieth century. The impact of these changes was notably felt throughout the past year, with heightened climate incidences. Scientific evidence links these changes to human activities, emphasizing the need for immediate, large-scale reduction in greenhouse gas emissions.

Simultaneously, the global recognition of climate change as a financial risk for banks is growing (Financial Stability Board [FSB], 2022). The uncertainty surrounding the timing and severity of climate-related and environmental risks poses a direct threat to the safety, stability and resilience of individual Regulated Entities (REs) and consequently, to the overall stability of the financial system. It is imperative that REs consistently address and manage the risks and opportunities arising from climate change and environmental degradation. Moreover, the escalating threat of climate change, coupled with physical damage concerns, evolving market perceptions and a shift towards more environmental-friendly products and services, amplifies the prominence of financial, reputational and strategic risks.

Empirical data shows that in 2021 and 2022, over 300 natural disasters occurred globally, that inflicted

economic damages of about USD 300 billion (Reuters, 2023). Tropical countries such as India are increasingly exposed, with damages caused by climate-related disasters in Asia estimated at USD 36 billion last year (World Meteorological Organization [WMO], 2023). Therefore, capital needs to flow with urgency into ecological, social or economic systems, in response to actual or expected climatic stimuli and its effects. This would substantially reduce climate change costs and advance a range of other economic benefits.

Globally, the initiatives to confront climate change have been gaining momentum across various jurisdictions, with an increasing number of central banks considering or actively pursuing actions aligned with their mandates. Moreover, climate change risk is progressively being recognized as a significant threat to financial stability, both in advanced and emerging economies. Consequently, there is a pressing requirement for a robust framework to systematically identify, assess and manage risks associated with climate change.

In addition to the imperative of mitigating risks arising from extreme climate events, there is a growing emphasis on steering the financial system towards green financing. This transition is crucial, considering the broader social and developmental objectives of the country.

Significance of addressing climate risks for Indian banks

Recognizing the significance of addressing climate-related risks is imperative for Indian banks as the repercussions extend across multiple dimensions. Climate-related risks encompass potential threats arising from climate change with substantial economic and financial consequences. These risks manifest through two primary channels: physical risks and transition risks.

Physical risks involve economic costs and financial losses stemming from the increasing frequency and severity of extreme climate-related weather events, longer-term gradual shifts in climate and indirect effects such as the loss of ecosystem services. Geographical variations further influence the impact of physical risks, with potential stresses on expected cash flows and risks to collateral value.

For instance, local or regional weather events may strain cash flows to Regulated Entities (REs), while chronic flooding or landslides pose risks to collateral value held against loans. Severe weather events can also damage a RE's physical property and data centres, affecting its ability to provide financial services.

Transition risks, on the other hand, arise from the shift towards a low-carbon economy and are influenced by climate-related policies, technological advancements and shifts in public sentiment. Mitigation policies, technological innovations and changing customer preferences can significantly impact the economy and financial system. For Indian banks, this necessitates strategic considerations such as potential reduction in financial valuations, changes in credit ratings and the adoption of energy-efficient practices.

Moreover, liability risks may emerge as parties seek to recover losses incurred from physical or transition risks. Therefore, a proactive approach to manage and mitigate these climate risks is crucial for the resilience and sustainable operation of Indian banks in an evolving financial landscape.

Climate change demands focused attention and distinctive management due to several unique characteristics. Firstly, its impact is extensive, affecting various businesses, sectors and geographies. Secondly, while there is certainty that a combination of physical and transition risks will

occur, the exact timing, outcomes and pathways are uncertain and unevenly distributed globally. This unpredictability challenges the efficacy of historical data and traditional risk assessment methods. Lastly, the concentration of greenhouse gas emissions in the atmosphere holds irreversible consequences for the planet and the actions taken today will determine the magnitude and nature of future impacts. As a result, collective efforts from central banks, financial market participants, businesses, households, Governments, and sectoral regulators are crucial in addressing and mitigating these risks.

The realization of physical and transition risks hinges on intricate non-linear dynamics, interacting in complex and deeply uncertain ways. While climate-economic models have limitations, forward-looking methodologies can help uncover potential vulnerabilities. Given the collective responsibility for addressing climate change, there is a growing expectation on the financial sector, tasked with allocating capital resources and channelling finance, to actively support the transition.

Banks need to integrate climate-related risks into various risk processes, including credit concentration, underwriting, reputational and strategic risks. Consideration of these risks is vital in preparation of the Internal Capital Adequacy Assessment Process (ICAAP) document under Pillar 2, as outlined in the Master Circular on Basel III Capital Regulations by Reserve Bank of India [RBI] (2023). Recognizing the evolving nature of climate-related financial risks, their inclusion in ICAAPs also needs to be iterative and progressive. Analytical gaps can be addressed by adapting methodologies and data analysis as these risks mature over time.

Global Regulatory Landscape

International sustainable finance regulations

encompass a range of initiatives and frameworks, aimed at integrating ESG considerations into financial practices on a global scale. Global Reporting Initiative (GRI), for instance offers a standardized approach for sustainability reporting across various sectors.

Foundational Sustainable Finance Frameworks include the Principles for Responsible Banking (PRB) led by United Nations Environment Programme Finance Initiative (UNEP FI) and UN Principles for Responsible Investment (PRI), provide solid groundwork for sustainable finance. PRB focuses on integrating sustainability principles into banking operations, while PRI offers guidelines for incorporating ESG factors in investment decisions. The Task Force on Climate-related Financial Disclosures (TCFD), established by Financial Stability Board (FSB), complements these efforts by emphasizing the disclosure of information related to climate-related financial risks and promotes transparency in reporting.

Two recent developments need to be mentioned. One is the Taskforce on Nature-related Financial Disclosures (TNFD), which is a framework for disclosures on evolving nature-related dependencies, impacts, risks and opportunities. Secondly, in June 2023, the International Sustainability Standards Board (ISSB) issued its first two IFRS Sustainability Disclosure Standards, IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2 Climate-related Disclosures. These reporting frameworks align with broader global goals, including UN SDGs and serve as a guiding framework for developing sustainable finance strategies on an international scale. With the latest developments in IFRS S2 for reporting standards, TCFD would be subsumed under IFRS and its elements that have emerged over the years and completely integrated with this standard. TNFD is

aligned to IFRS-ISSB, which encourages integrated climate and nature reporting.

European Union Sustainable Finance Initiatives too, have been underway. The EU has been at the forefront with its Sustainable Finance Action Plan. This plan includes key regulations such as EU Taxonomy Regulation, Sustainable Finance Disclosure Regulation (SFDR) and EU Green Bond Standard. These initiatives set a precedent for comprehensive frameworks, contributing significantly to the global push for environmentally conscious financial practices.

Globally, Carbon Pricing Initiatives and Risk Management Frameworks have gained momentum with International agreements such as the Kyoto Protocol and the Paris Agreement that have been underscoring the importance of addressing climate change through financial mechanisms, including carbon pricing initiatives. Risk management frameworks such as Equator Principles have been providing a structured approach for evaluating environmental and social risks in project finance. These collective efforts aim to enhance the resilience of financial systems against climate-related challenges.

Collectively, these international sustainable finance regulations contribute to a growing ecosystem that not only encourages financial institutions and businesses to adopt sustainable practices, but also pushes them towards embedding climate related risks and opportunities at the core of banking. Undoubtedly, the evolving landscape of sustainable finance plays a pivotal role in shaping the future of global finance.

Indian regulatory landscape

The Indian financial sector is gradually moving towards incorporating sustainable finance/climate transition, both in terms of risks and opportunities.

On the regulatory front, there has been much traction

over the past couple of years. The Ministry of Finance has been instrumental in setting up the Taskforce on sustainable finance in 2021, with focus on 4 elements - (I) Sustainable Finance Roadmap (II) Taxonomy (III) Regulatory Framework for Sustainable Finance (Regulations, Resilience and Disclosures) and (IV) Development of Report on Global and Domestic Best Practices on Sustainable Finance - essentially involving all relevant ministries. The taskforce involved various ecosystem players, to understand the existing landscape and eventually emerge with a common unified approach to sustainable finance.

Capital market regulator led ESG disclosures through Business Responsibility and Sustainability Reporting (BRSR) that has laid emphasis on a level of transparency and quantification. It mandates disclosure of material ESG risks and opportunities, financial implications and approaches to mitigate or adapt to the risks. These mandatory sustainability disclosures are required to obtain reasonable assurance for listed entities on 49 core KPIs within BRSR Core, which was introduced in a phased approach from FY2023-24 and is slated to enhance the quality of disclosures.

Further, measures like Stewardship Code for institutional investors are not only making the relationship between investors and their shareholders more prominent, but also emphasizing on ESG and climate as a priority, which enhances the accountability of institutional investors.

Revisions to green bond issuance guidelines with third-party assurance requirements for pre-use of proceeds, project evaluation and post-issuance stages, are set to contain green washing and provide clarity on the impacts achieved versus claims. Further, granularizing on bond categories, with additions of blue, yellow (solar) and transition bonds, would enable asset tagging and are expected to diversify

the bond issuance base and boost investment in these new securities.

The introduction of five new categories comprising exclusions, integration, positive screening, impact investing and sustainable objectives under ESG mutual fund schemes, would boost ESG investing in India. Further, within the ESG space, Rating Providers' regulation, outlining procedural requirements, disclosure obligations and guidelines, including India-specific parameters and a separate category of Core ESG Rating, would bring in market standardisation and put a stop to ESG rating shopping. This would address factors like a fragmented ESG rating market, low correlation between different ESG ratings, credibility of existing frameworks and significant divergence in ESG ratings for the same entity.

On banking regulations, RBI's formation of a Sustainable Finance Group (SFG) within its Department of Regulation is evidence of the regulators' priorities on climate risk management, including climate scenario analysis and stress testing. A potential regulation in this space would enable banks to assess their true exposure to climate risks and mitigate these at speed. RBI's recent Currency and Finance report (2023) emphasised on the state of climate risks in India, including high exposure of Indian banks to transition risk sectors like energy, transport, and metals. It prioritised climate and made references to the criticality of climate risks disclosure and climate scenario analysis, thus indicating the regulator's intent to embed climate within the macroeconomic and financial developments in India.

The introduction of framework for green deposits has provided a boost to green financial product development, with clear set rules on deployment of capital raised, thus, dissuading any erroneous claims on environmental impact or preventing greenwashing. This also includes bank loans up to a limit of INR 30

crore (USD 3.6 million) to borrowers for renewable energy generation. Since this is under Priority Sector Lending (Press Information Bureau [PIB], 2023), it serves as an effective channel to accelerate capital flows directly into climate interventions.

Towards India's net zero commitments of 2070, the recent announcement by Ministry of Power through its Energy Conservation (Amendment) Bill 2022, of establishing a framework for a Carbon Trading system, is a welcome move to create a national platform and jumpstart a domestic market for carbon credit trade.

All these regulatory initiations have led to growth in sustainable finance product development and deployment, with emergence of several debt and equity sustainable finance instruments that take ESG or climate considerations and its impacts into account. The categories include Green, Social, Sustainability and other labelled bonds (GSS+), sustainability linked loans or bonds and ESG-oriented mutual funds, ETFs or private equity funds. Moreover, this has also fuelled innovative structures such as blended finance and credit enhancement mechanisms in order to reduce the risks arising from nascent climate related sectors and increase their bankability.

The Indian market has been gradually but steadily growing. The total size of the Indian green, social and sustainability market stood at USD 19.5 billion as of December 2021 (CBI, 2022). This growth is mainly led by green bonds issued in India, aggregating at USD 6 billion in 2021 (SustainableFitch, 2023), led by Indian Renewable Energy companies. India also saw a rise in ESG-oriented equity mutual funds in 2020, with AUM by 10 ESG equity mutual funds at USD 1.24 billion in March 2023 (CNBC, 2023). However, it saw a YoY decline of 17% and a weakening in its uptake from 1.1% in March 2021 to 0.7% in March 2023, as

a percentage of total equity mutual funds.

We must also call out Indian Government's inaugural Sovereign Green Bond, that raised USD 1 billion, at a lower cost than conventional debt. India has a huge financing opportunity that needs to be leveraged with a strategic and futuristic approach, cutting across financial products, technologies and markets. A call for India's own taxonomy to define sustainable finance is not only critical to meet this capital demand, but also casts a notable focus on social and just transition guidelines. This places a unique emphasis on the human dimension and distinguishes India in its global sustainable finance endeavours.

Challenges in sustainable finance for Indian banks

While regulations and mandates have emerged, these have not led to the expected growth of sustainable finance and supply of capital continues to remain below requirements for India's energy and nature transitions. Initially, the green bonds market did scale up for utility and industrial projects, however, it has only accounted for 3.8% of the overall outstanding corporate bonds market as of January 2023 (Economic Times, 2023). It majorly remains dominated by corporate issuances and not by banks that continue to be key source of funds for large projects. This is on account of lack of authentic, reliable data and tools, capacity to identify, assess and price climate risks, develop indicators to quantify material exposures, assess links between climate and traditional risks and undertake green asset-tagging for sectors or end-uses. All this is further intensified by lack of clear definitions for green and sustainable finance. Further, technology risks such as uncertainties in solar panel energy storage and weather dependency make it challenging for financial institutions to evaluate and manage financial risks.

Limited information on environmental performance hinders the creation of finance structures.

Maturity mismatch in green or climate projects, dominated by short to medium-term investments is evident, particularly in banks relying on short-term deposits. The absence of reliable green financial policy frameworks and higher borrowing costs for green bonds pose significant challenges. Additionally, market infrastructure development for climate risks mitigation instruments is lagging. This development can be facilitated through consideration in public policy formulation, ensuring capital availability and creating an environment that incentivizes corporate collaborations in this direction.

It is estimated that India needs USD 10 trillion in financing across energy, mobility and industry to meet its net zero goal by 2070 (Climate Policy Initiative, 2023). However, the sustainable finance market has not expanded in line with the demand. This may imply that a “greenium” is also not yet visible, as sustainable capital base has not yet reached a critical mass domestically to merit price discovery of sustainable variants versus conventional products. Further, the real quantum of capital deployed to these projects also remain unknown, given the lack of a classification or unified standards.

Banks face challenges in incorporating climate considerations into their decision-making and capital allocation processes. Availability of quality climate related data and its integration in risk and valuation frameworks is difficult. Obtaining necessary granular and timely data on climate vulnerabilities, estimating changes and monitoring impacts hinders Financial Institutions (FIs) from prioritizing capital for climate sectors. Instead, they tend to allocate funds to conventional projects with readily available data or proven risk-return models. The limiting factors that

urgently need attention include:

1. **Data Deficiency:** The lack of authentic, accurate and granular quantitative data impedes informed decision-making, particularly for private sector financial flows. Developing and utilizing technology and AI-led tools that enhance physical risk assessment is essential and requires access through a common agency that provides data at affordable costs and is reliable.
2. **Climate Risk Navigation:** FIs struggle to navigate climate risks and translate them into risk pricing for ex-ante debt due to poor data availability and data complexity, often impeding prompt detection of vulnerabilities in capital intensive projects and its integration into mainstream risk assessment.
3. **Incentives and Risk Covers:** The absence of incentives or risk covers, coupled with procedural delays in releasing guarantees, creates uncertainty around project viability and its Return on Investment (RoI). Streamlining access and reducing uncertainties are critical for encouraging capital flow to vulnerable sectors.
4. **Skill Gaps:** The lack of skill sets among credit and risk managers to comprehend complex climate risks arising from climate change or rapidly evolving technologies acts as a deterrent for FIs to lend to sectors undergoing such transitions.
5. **Regulatory Framework:** The absence of a mechanism or regulation mandating the integration of climate risks into banking processes like Enterprise Risk Management (ERM), Risk Assessment Framework (RAF) and Risk Management System (RMS) poses a challenge. Additionally, there are no mandates from a Priority Sector Lending (PSL) standpoint

to deploy climate finance, as the predominant focus remains on financial feasibility, leading to a limited spread of capital for climate projects. Addressing these challenges is crucial for banks to effectively contribute to sustainable and climate-resilient finance.

Recommendations

The transformation of the banking sector in the face of evolving climate challenges demands a comprehensive approach spanning systemic, institutional and individual levels. This involves the development of a sustainable finance architecture guided by a strategic and forward-looking “risk-return-impact” vision. Key components of such a strategy would include integrating Sustainable Finance, ESG and climate risks into lending decisions, as well as strategically divesting from high carbon portfolios, while directing investments towards climate-positive projects, including technology-driven climate-smart agriculture.

Sectoral focus emerges as another critical aspect, urging banks to seize opportunities in high-impact, carbon-positive sectors. Aligning with India’s emphasis on renewable energy, sustainable infrastructure and net-zero commitment creates a prime investment environment and contributes to its sustainability goals and addressing the rising demand for sustainable finance.

Decarbonization and aligning with India’s Nationally Determined Contributions (NDCs) provide pivotal dimensions and banks need to set emission targets by mapping and reducing financed emissions that are almost 700 times higher than a bank’s own footprint. Allocating capital appropriately to high carbon emitting sectors and increasing debt to clean sectors such as renewable energy, e-mobility, water, green buildings, climate smart agriculture, green

urban infrastructure would become imperative. This approach not only protects investments but also positions banks to proactively safeguard against future risks and generate positive impacts.

For banks, data is essential for risk assessment and reduction. Digital frameworks supporting climate integration in risk and valuation processes are key. Therefore, large-scale investments in data strengthened systems and tools, enhancing climate risk evaluation and financing, become essential, thus, enhancing data authenticity, integrity and credibility.

Risk management and compliance constitute core elements, urging banks to conduct climate-related risk assessments at key operational junctures, adhere to ISO standards and respond adeptly to regulatory pressures. Embracing a 360-degree approach that represents an overarching risk identification, measurement and management system that integrates climate, would encourage banks to go beyond traditional risk-return frameworks is essential. This not only, safeguards against future risks but also positions the Indian financial system as a leader in sustainable finance, contributing positively to the environment and society.

Leveraging successful innovative financing that can draw capital at speed for climate sectors becomes imperative. Beyond impact investing, credit enhancements, blended finance, developmental finance assistance or grants, a need for catalytic capital investments or risk cover instruments that have proven to deliver on the security that banks seek are important. Towards this, expanding the role of national and state level Development Finance Institutions (DFIs) would be critical. Articulating climate related objectives at an institutional level would also help mobilize additional finance by leveraging international finance.

Human resource development emerges as a crucial pillar, necessitating the enhancement of workforce skills to include holistic ESG and climate risk analysts. Skill enhancement and training initiatives aligned with adoption of the three lines of defence model, ensuring a comprehensive and integrated approach to risk management would lead to banks contributing effectively to India's economic growth.

This multifaceted approach would ensure a holistic transformation that resonates throughout the banking sector, fostering resilience and sustainability in the face of complex and evolving climate challenges.

Finally, a systemic approach to include market standardisation such as a taxonomy, risk management instruments and currency hedging mechanisms by Government and incentivisation would be key to accelerate sustainable finance and climate transition.

Conclusion

In essence, demystifying sustainable finance and climate risks for Indian banks involves embracing a paradigm shift that aligns banking practices with the imperatives of a rapidly changing world. As financial institutions evolve to meet the challenges posed by climate change, adopting a proactive and integrated approach becomes not only a necessity but also an opportunity for innovation and leadership. By incorporating these comprehensive recommendations, Indian banks can fortify their resilience to climate-related risks and serve as key contributors to sustainable development. This transformative journey would further safeguard the financial sector from emerging threats and ensure a positive impact on the environment, society and the broader economy. In demystifying the complexities of sustainable finance, Indian banks have the potential not just to adapt but to thrive in an era where sustainability and financial viability go hand in hand.

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Diamond Jubilee and CH Bhabha Banking Overseas Research Fellowship (DJCHBBORF) for the year 2023-24

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Synergizing Blue Finance and Ocean Governance: A pathway to a Thriving Blue Economy for India



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 Dr. M. Sumathy**

Abstract

The “blue economy” concept has become popular recently as societies around the world seek more sustainable and ethical ways to use the resources of our planet. The blue economy is a comprehensive and ground-breaking strategy for sustainable development that places a strong emphasis on the wise use and conservation of maritime resources. In relation to oceans and coastal areas, it aims to achieve a balance between social justice, environmental preservation and economic prosperity. However, realizing the full potential of the blue economy requires a concerted effort to ensure the sustainable use of marine resources. This is where blue finance and ocean governance come into play.

By synergizing blue finance and ocean governance, India can create an enabling environment for the growth of a thriving blue economy. This will require a holistic approach that addresses the economic, social and environmental dimensions of blue economy development. This paper explores the potential of blue finance and ocean governance to support the development of a thriving blue economy in India.

Introduction

Globally, investors, financial institutions and issuers are becoming more interested in the burgeoning field of blue finance in climate finance. The possibility

to guarantee the availability of clean water, protect underwater habitats and promote a sustainable water economy is fantastic. Modern financing tools, in particular, Blue Bonds and Blue Loans, raise capital and channel it toward projects like managing water and wastewater, cutting down on ocean plastic pollution, regenerating marine habitats, promoting sustainable shipping, eco-friendly travel, or developing offshore renewable energy. Economic expansion, growth in employment, increased food security, the use of sustainable energy sources and biodiversity preservation are just a few advantages that the blue economy offers. It preserve the long-term survival of oceans and coastal areas by encouraging appropriate practices.

The seas, which make up more than 70% of the Earth’s surface, are vital to maintain life on Earth. As the challenges of climate change, overfishing and pollution loom larger, effective ocean governance has become imperative. This governance framework encompasses policies, laws and international agreements aimed at regulating the use and protection of marine resources. One key instrument in this endeavor is blue finance, a dynamic approach that mobilizes financial resources to support sustainable ocean-related initiatives.

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Source: <https://blueeconomycrc.com.au/about/>

Blue Finance: Unleashing the Financial Tides

At the heart of effective ocean governance, the innovative concept of blue finance lies. This term refers to a suite of financial instruments and strategies tailored to fund sustainable ocean initiatives. It recognizes that economic prosperity and environmental stewardship are intimately linked in the maritime domain.

One of the primary avenues for blue finance is impact investing. This involves allocating capital to projects and enterprises that generate measurable positive environmental and social outcomes. In the context of oceans, impact investing may support ventures focused on sustainable fisheries, marine conservation and coastal resilience. These investments not only generate returns but also foster long-term benefits for both ecosystem and community.

Furthermore, green bonds and sustainable debt instruments have gained prominence as tools to channel capital towards environmentally responsible projects. These financial instruments, often issued by Governments, development banks, or private corporations, raise funds earmarked for activities like marine habitat restoration, clean energy in maritime transportation and climate-resilient coastal infrastructure.

Need for Blue Finance

The term “blue” finance for climate-smart marine-related projects connects developers with investors having interest in water projects. Bonds that focus on a single category, such as blue bonds, comes under “thematic bonds.” Investments in Blue bonds are increasing as the investment in thematic bonds are rising. Investors with interest in social impact or change like sustainable coastal tourism, fishing, port development or drinking water sources may be drawn to blue bonds. Ocean freight companies, for example, may be willing to pay more to purchase “blue” carbon credits to offset their emissions if it means they can continue to make money from water resources.

The need for funding to restore, preserve and safeguard maritime environment has been exacerbated by factors such as pollution, overfishing, unsustainable tourism and climate change. The “blue economy,” or economic activity that depends on marine environment, is anticipated to employ 40 million people globally by 2030. The 14th United Nations Sustainable Development Goal (UNSDG) is to “Conserve and sustainably use the oceans, seas and marine resources for sustainable development” is supported by investments in the Sustainable Blue Economy (SBE).

Additionally, blue funding meets UNSDG Goal 6: “Ensure access to water and sanitation for all.” In this sector, more funding is required. According to the World Bank, 4.2 billion people lack access to properly managed sanitation services and 2.2 billion people lack access to clean drinking water.

The availability and accessibility of funding channels is essential for the long-term growth of India’s blue economy. Blue finance, encompassing instruments such as blue loans and blue bonds, has become a vital catalyst for securing funding for ocean-based

initiatives and thus, achieving economic development, social inclusiveness and environmental preservation.

The need for blue finance is particularly acute in India, given its vast coastline, rich marine resources and its dependence on the blue economy for livelihoods and economic development. Blue finance can help to bridge the financing gap for blue economy projects, which are often perceived as risky or illiquid by conventional investors.

Blue loans and blue bonds can be used to finance a wide range of blue economy activities, such as marine renewable energy, sustainable fishing, aquaculture, coastal tourism and marine biotechnology. These instruments can also be used to support investments in ocean governance and marine conservation.

The prominence of India's blue economy cannot be overstated. It contributes significantly to India's GDP, provides employment to millions of people and plays a vital role in food security. The blue economy's sustainable development is essential for achieving India's goals of inclusive growth and sustainable development.

The three pillars of the blue economy are economic growth, social inclusion and environmental sustainability. Blue finance can play a critical role in supporting all three pillars by financing investments that generate economic returns, create jobs and protect the marine environment.

For the blue economy to grow sustainably, there must be effective ocean governance. Ocean governance encompasses the laws, policies and institutions that manage human activities in the marine environment. Strong ocean governance is needed to ensure that blue economy activities are conducted in a sustainable and equitable manner.

Blue loans and blue bonds

Due to the fact that blue finance is a subset of green

finance, projects that are being examined for blue bonds and loans should satisfy the requirements for green bonds and loans in addition to having a special focus on "blue" uses of revenues. Much like the process for issuing green products, the method for issuing blue bonds or loans is similar. Organizations can utilize a recognized definition for loans, such as the IFC's Guidelines for Blue Finance, to decide whether or not possible loans and investments can be categorized as "blue."

Importance of India's Blue Economy

According to the World Bank, the term "blue economy" refers to the "sustainable use of ocean resources for economic growth, improved livelihoods and jobs while preserving the health of the ecosystem." The vast array of ocean resources that are available to the nation and that may be used to produce goods and services, as well as their connections to economic growth, environmental sustainability and national security, are generally referred to as the "blue economy." Thanks to the blue economy, India and other coastal nations have a vast socio-economic potential to utilize ocean resources effectively for the good of society.

The demand for products associated to the ocean, such as seafood and energy production, has increased, fueling the growth of the global Blue Economy, which now has an estimated US\$ 3-6 trillion in annual global turnover.

The term "blue economy" in India refers to the entire system of ocean resources as well as the economic infrastructure built by people in the marine, maritime and onshore coastal zones within the country's legal jurisdiction. Due to its extensive maritime interests, India's Blue Economy idea is complicated and has a significant impact on the nation's economic progress. About 4% of India's GDP comes from the blue economy, which is expected to grow if the system

is enhanced. It is envisaged the contribution of blue economy would grow from single digit figures to double digit growth in our nation's GDP. The decade 2021-2030 has been announced by United Nations as the decade of Ocean Science for sustainable development.

In order to assure economic growth and sustainability as well as national security, the plan includes coastal management services, marine amenities, ocean resources and physical infrastructure for maritime economic development. India's two most lucrative blue economy sectors are mining and fishing. Polymetallic nodules and polymetallic giant sulphides are two mineral occurrences in the Indian Ocean that are of interest to developers. Polymetallic nodules are used for golf to tennis ball sized nodules with nickel, cobalt, iron and manganese that grow over millions of years on the ocean floor and are often found at depths of 4-5 kilometers. In 1987, India received exclusive authorization to examine polymetallic nodules in the Central Indian Ocean Basin. Since then, it has built two mine locations and explored four million square miles.

The coastal economy is crucial to the livelihood of more than 4 million fishermen as well as coastal communities. The second-largest producer of fish in the world, India boasts a fleet of 2,50,000 fishing vessels. India has a great marine position thanks to its 7,517 kilometers of coastline. The nine states of India have access to the ocean. In FY21, 541.76 million tons were handled in India's 200 ports, 12 of which are significant ports, with Mormugao Port in Goa handling the largest amount at 62.6%.

Additionally, significant components of India's blue economy are ship-building and shipping. By 2035, the modal share of coastal shipping, which is currently about 6%, might rise to 33%. The Indian Ocean region is essential to India's economic development because the majority of the country's oil and gas originates from the sea. This reliance is predicted to

increase dramatically by 2025.

The Indian Ocean's Blue Economy has grown into a significant commercial route. It is the world's third-largest body of water covering 68.5 million square kilometers. The countries that border the ocean are also home to nearly one-third of the world's population and have abundant mineral and energy resources. India is bound by the United Nations Convention on the Law of the Sea (UNCLOS) to carry out important international obligations in the Indo-Pacific, including search and rescue, seabed mining and anti-piracy. It also maintains a strong diplomatic presence in the region. Last but not least, the 14,500 km of internal waterways in the country are expanding quickly, increasing the exposure and reach of the blue industry. The first containerized shipment has already passed through the Protocol between India and Bangladesh.

Another pressing issue related to the ocean is climate change with its impact being felt most strongly in polar regions. Climate change is exerting its most pronounced effects on polar regions getting warmer, notably the Arctic, Antarctic and in the Himalayas.

Three pillars of Blue Economy

The three pillars of the blue economy are economic, social and environment and it is frequently seen as being interrelated. It aims to strike a balance between environment preservation, social equality (such as employment and poverty reduction) and economic growth. Long-term sustainability is ensured by this trilateral strategy.

The economic, social and environment components serve as the three intertwined pillars that support sustainable development in the blue economy. These pillars offer a thorough framework for juggling environmental protection, social equality and economic development in the context of our oceans and coastal areas.

I Economic Pillar: Navigating Prosperity

Utilizing the enormous economic potential of oceans and coastal regions while guaranteeing appropriate resource management is the foundation of the blue economy. The important elements include:

Marine Industries: It refers to a variety of fields, including aquaculture, maritime transportation, offshore energy and marine biotechnology. The blue economy wishes to endorse innovation, economic growth and job creation by maximizing these sectors.

Resource Efficiency: The economic pillar's primary tenet is resource efficiency. It entails using marine resources responsibly, cutting down on waste and pollution and maximizing the benefits the oceans provide.

Sustainable Business Practices: Encouragement of enterprises to embrace sustainable business practices, such as eco-friendly technologies and green supply chains, is a key component. Businesses that are sustainable not only prosper economically but also help to protect the environment.

II Social Pillar: Community Empowerment

Within the framework of the blue economy, the social pillar emphasizes the value of social fairness and community well-being. Its essential parts consist of:

Livelihoods: Millions of people around the world, particularly in coastal areas, rely on sustainable marine sectors for their subsistence. The social pillar ensures that these means of subsistence are safe, equitable and inclusive.

Local Engagement: It encourages local involvement and decision-making, acknowledging that local communities should have a say in how maritime resources are managed and used.

Social Inclusivity: In order to ensure that men and women in the blue economy have equal opportunities and access to benefits, the social pillar promotes

gender equality and inclusivity.

III Environmental pillar: Protecting Our Oceans

The health and resilience of seas and coastal ecosystems are of the utmost importance. The important elements include:

Conservation of Biodiversity: It is crucial to save marine biodiversity. This pillar promotes the protection of marine habitats, threatened species and the general harmony of marine life.

Ecosystem Resilience: It is crucial to foster resilience in the face of pollution, climate change and habitat destruction. Ecosystem health is influenced by policies like marine protected areas and sustainable fishing methods.

Environmental Stewardship: The environmental pillar is centered on ethical resource management and minimizing the ecological impact of human activities. It acknowledges that a healthy ocean ecosystem is necessary for human and economic well-being.

Ocean Governance

Ocean governance is the coordinated management of the world's oceans for the purpose of preserving their biological diversity, ensuring the environmentally responsible exploitation of their marine and coastal resources and protecting the environment. Ocean governance should be vertically integrated across all levels of governance because it requires the involvement of Government organizations, private sector, NGOs, academics, scientists, etc. as well as horizontally integrated across all levels of governance within an integrated system with reciprocal collaboration and coordination.

The Imperative for Ocean Governance

The need for robust ocean governance has never been more pressing. Overfishing has led to depleted

fish stocks, endangering livelihoods and exacerbating food security concerns. Pollution from land-based sources and maritime activities has resulted in degraded ecosystems and marine biodiversity loss. Furthermore, the impacts of climate change, such as rising sea levels and ocean acidification, pose unprecedented threats to coastal communities and marine habitats.

The Ocean governance provides a structured framework to address these challenges. It entails a multi-faceted approach, involving Government, international organizations, non-Government entities and local communities. Through mechanisms like marine protected areas, quota-based fisheries management and pollution control measures, ocean governance seeks to balance human activities with the preservation of marine ecosystems.

Conclusion

In conclusion, the economic, social and environment pillars of the blue economy, all work together to promote sustainable growth. The blue economy offers a comprehensive strategy for improving the health of oceans and coastal regions for future generation by balancing economic growth, social inclusiveness and environmental stewardship.

The Ocean governance and blue finance represent twin pillars in our collective effort to safeguard the

health of oceans. As we confront the escalating challenges of climate change, overexploitation and pollution, their significance cannot be overstated. By embracing robust governance frameworks and harnessing the power of blue finance, we embark on a path towards a future where our oceans thrive, sustaining life for generations to come. The time to act is now, for the oceans are not only our heritage but also the legacy we leave for the world.

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IIBF Inter Bank Quiz Contest-Banking Chanakya

The 3rd edition of the Inter Bank Quiz Contest-Banking Chanakya 2023 has successfully commenced w.e.f. 25th September 2023. The first phase of the event comprising the online preliminary and quarter-finals have been successfully completed during the month of September-October' 23. The National finale is scheduled to be held on January 20, 2024 at IIBF's Corporate Office, Mumbai which will be played between the Zonal Champions. Please visit our website - <https://www.iibfbankingchanakya.com> / for further updates on the same.



P R V Rama Karthik*

Role and Relevance of Account Aggregators in the Digital ecosystem

Introduction

The genesis of the Account Aggregator framework can be traced back to Master Direction- Non-Banking Financial Company - Account Aggregator (Reserve Bank) Directions, 2016 that enabled the creation of a new type of Non-Banking Financial Company (NBFC) known as Account Aggregator (AA). The envisaged purpose of this new class of NBFCs is to act as digital platform, where the customers can provide explicit consent to sharing their financial information from Financial Information Providers (FIPs) to Financial Information Users (FIUs).

The RBI defines Account Aggregator as, “A non-banking financial company with business of providing the service of retrieving or collecting financial information pertaining to its customer and consolidating, organizing and presenting such information to the customer or any other financial information user. Further, Account Aggregators shall not use consolidated statement/report in other means and will be only for use of the customer.”

The idea of Account Aggregator framework is not only limited to the data available with RBI regulated entities but also the financial information of the customers as defined by RBI’s Master Direction that are scattered across different intermediaries under the purview of various financial regulators.

Status of Implementation of AA Framework

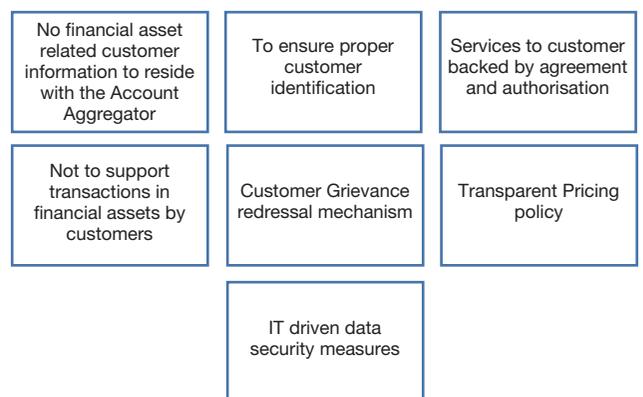
Since the release of RBI circular in 2016, the AA ecosystem is growing rapidly ever after. As of Feb 2023:

- Nine entities own operational license issued by RBI and eight other entities obtained in principle-approval.
- 31 FIPs and 143 FIUs are onboarded.
- More than 4.55 million customers have used AAs to give consent and successfully shared data from their existing FIPs to potential FIUs.

Responsibilities of an Account Aggregator

As per RBI guidelines, the responsibilities of AA are charted below:

Chart 1: Responsibilities of an Account Aggregator



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The views expressed in the article are personal and not the views of the Reserve Bank of India.

Global Experience of AA

The idea of Account Aggregators is a relatively new concept and there are only limited international precedence. Some of the Global experiences are listed below:

- a) **Europe:** The European Union has implemented the Payment Services Directive 2, which requires banks to open up their customer data to third-party providers, including account aggregators.
- b) **United States:** There are several companies that offer account aggregator services, allowing users to view their financial accounts at one place and track their spending and savings.
- c) **Australia:** The Government has launched the Consumer Data Right, which enables customers to access and share their banking data with third-party providers, including account aggregators.
- d) **Singapore:** In Singapore, the Government has launched the Financial Data Exchange (FDX), which is a standard for secure data sharing between financial institutions and third-party providers, including account aggregators.

What is AA Framework

The generic process flow of AA framework includes three stages, a) Public to AA b) FIP to AA and c) AA to FIU. It is to be noted that these stages can operate in two ways. To illustrate, user can either provide the consent on own or AA can prompt the user to decide on the consent request.

Chart 2: What is AA Framework

The minimalist pictorial representation of the AA framework is provided below:

Stage 1 *Public to AA*

- Securing electronic consent from the customers on what type of data to be shared and for what period.

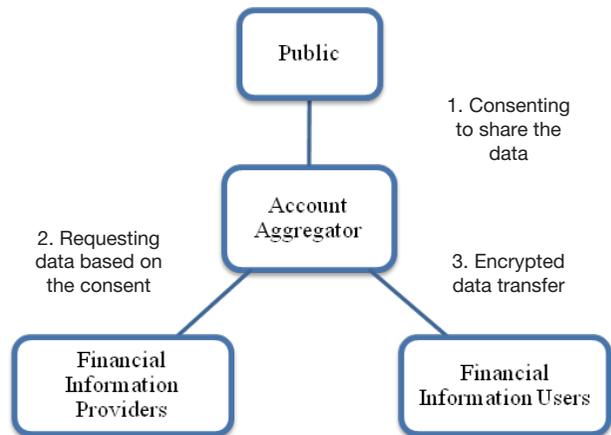
Stage 2 *FIP to AA*

- AAs act as consent managers and request data to the respective FIPs where the relevant customers' data are stored. Based on the request, FIPs transfer the necessary data in a secured manner. FIPs can be any financial institutions or the Government databases.

Stage 3 *AA to FIU*

- AAs transfer the data received from FIPs to FIUs that are typically regulated by one of the four financial sector regulators (RBI, SEBI, IRDAI and PFRDA) and which offer services and products to the customers based on the available data.

Chart 3: Pictorial representation of AA



Role and Relevance of Account Aggregators

Open Banking-Data as a public good

India Stack is a set of digital technologies, platforms and tools to unlock the economic primitives of identity, data and payments at population scale. Some of the famous digital goods under the fold of India Stack include Aadhar, Unified Payments Interface (UPI), e-KYC (electronic Know Your Customer) etc. The latest addition to India Stack is a centralised consumer consent framework for data-sharing through the AA model.

Account Aggregators empower the customers to

provide the FIUs to access their savings accounts' history in order to avail their services. However, it is not necessary that the customers must maintain account with the respective FIUs. Data access can be granted to any of the regulated entities. Platform with such traits satisfy one of the core principles behind open banking i.e. interoperability across institutions.

Integrating the customers' accounts to one AA user account, insists the need for the FIUs to connect with all AAs rather than forcing the customers to open separate bank accounts for each FIU/lender. AA ecosystem in India uses standard open Application Programming Interface (API) and protocols to access and share data with any AA or regulated financial entities ensuring interoperability between the market players. Thus, AAs bring interoperability into the digital ecosystem and ensure the democratisation of customers' data maintained with the banks by providing the control with customers and not with the participating entities.

Fraud Prevention

Many of shady digital lending applications typically use customers' personal information without their consent and thus, created a negative sentiment into the digital lending ecosystem. The advent of Account Aggregators plays a crucial role in tackling these fake lending applications as AA platform. These illegal lending companies lure the public with convenience, quick processing of loans and easy disbursement of credit. AA ecosystem has access to the bank data of the customers and operate with the consent of the customers.

The common frauds such as tampering of bank statements submitted by the borrowers result in enhanced credit cost (increase in NPA) and operational cost (investigating the fraud). With AA framework, such types of frauds are eliminated as the lenders will receive authentic data from the borrowers' bank account in a secured and untampered format.

Financial Inclusion

The business model of Account Aggregators contributes to financial inclusion efforts by bridging the supply side concerns of Financial Service Providers (FSPs) by making the relevant data available for them to take an informed decision. Enhancing the quality of credit while reaching out to under-served customer groups will make the financial inclusion schemes effective and sustainable.

Lenders can extend the credit to the borrowers based on verified data such as GST invoices, bank statements, securities information and cash flow statements. AA framework opens the world of credit to MSMEs.

Some of the public sector banks launched a pilot program to implement AA in phygital mode. Phygital mode is the combination of physical and digital means to reach the customers. Phygital mode employs bank's employees to create a trust quotient with the customers, especially who are not tech-savvy and digital channel to deliver the services so that customers experience the advantages of digital disruptions.

Transition to Formal Economy

FSPs are wary of new customers who are availing the credit for the first time in the formal system. The major reason is that FSPs can't perform the 'credit checks' on the new customers due to data unavailability. Thus, vicious cycle of informal economy acts as a resistance in allowing a new customer to avail formal credit. With the advent of AA framework, an alternate mechanism of credit appraisal based on the varied data available of the customers has become feasible. With the growth of AA architecture, the formalization of the economy enlarges.

Based on customer's financial asset information and

GST returns, FIUs can assess the repaying capacity of the borrowers. The quantum of the loan can be decided on the additional inputs such as statement of fixed deposits, demat accounts and mutual funds holdings.

Credit Pricing

When the financial institutions offer loans to under-served customers, the new customers, who are availing credit for first time, are treated as high-risk profiles and high interest rates are charged as a common practice. AA network helps in assessing the creditworthiness of the borrowers in non-traditional ways which will enable the customers to avail loans at lesser interest rates. It serves the FSPs to make better lending decisions and process the loan applications faster.

The cost of processing the loan application reduces owing to decreased manual intervention resulting in benefits to the customer in terms of lower processing fee.

Innovative Products

The data management and handling of AA ecosystem is currently, restricted to only entities regulated by four financial sector regulators as these entities are governed by respective regulators guidelines. Going forward, AA ecosystem boosts innovation in the products offered to the untapped customer segments. With the growth in the customers, growth in the business is an inevitable causal effect.

Portfolio Monitoring

Lenders can gather data on the movements in customers' accounts on regular basis after obtaining consent through recurring bank statement pulls.

It will also act as early warning signals to predict ensuing difficulties of the customers in repayment. Such systems lower the default rates, improve the collection efficiency and boost the profitability of the lending institution.

Wealth Management

AA platform can facilitate viewing of consolidated financial holdings of a person to provide customised wealth management solutions. Recurring pull-on bank's statements and financial assets may open opportunities to personalise the margin call for the customers.

Insurance and Pension

Estimation of customer's income based on declaration can be replaced by more robust data collection and authentication through AA platform. Policy premium computation based on the risk assessment of the customers will become more scientific and data driven. The retirement planning can be based on consumption data to arrive at the optimal pension amount for an individual. The requirement of the health insurance can be suggested to the customers based on existing policies and other banking transactions pertaining to medical expenses.

From the lenders' perspective, reliable information about customers' existing insurance policies such as adequacy of coverage can be assessed to understand the risk profile of the customers.

MSME Financing

As per standing committee on "Strengthening Credit Flows to the MSME Sector", MSME sector contributes around 30% to India's GDP, 45% to its manufacturing output and 48% to exports. The sector employs around 11 crore people. However,

the credit gap in the MSME sector is estimated to be around ₹20-25 lakh crore. While the MSME loans are usually backed by property collateral, AA framework builds up information collateral based on robust data sharing mechanism. GST Sahay for MSMEs has been enabled to share bank statements with AAs. Along with it, when GST data are made available, it will bridge the credit gap in the MSME sector.

Of the loans distributed through AA, more than 50% of the lending have been to MSMEs in form of unsecured and small ticket size loans. Though at nascent stage, the leverage of the data is proving to be sufficient to satisfy the lenders in extending the loans to the MSMEs without demanding collateral.

Challenges and Way Forward

- a) The persisting data inequity affect customers in the financial sector. Particularly, for the vulnerable group of the societies, in form of limited user choices.
- b) Technical glitches at AA's end can result in breach of privacy of the individuals' financial and non-financial information at mass scale, if prescribed cyber security requirements are not properly implemented. The responsibilities of the AAs, FIUs and FIPs, during the time of breach, need to be clearly demarcated for the purpose of reporting and timely intervention.
- c) With such large sensitive customer information available with the FIUs, it may be used for unintended business purposes such as profiling the customer, targeted advertising etc. The issue of data ethics arising out of the interconnected systems may become more glaring. The potential use of the customers' data by FIUs needs to be monitored for adherence to the extant guidelines.

Strong technical solutions to address this risk must be developed to ensure privacy is protected after entities receive information from AAs.

- d) Advanced analytics such as machine learning, artificial intelligence etc. by the FIUs carry the risk of perpetuating biases and prejudices in the system, discriminating specific category of population. Thus, the oversight of these institutions must assess the model risk and ethical risk.
- e) While the entire ecosystem is customer-data centric, additional layers of protection along with electronic consent may strengthen the respect to the user privacy.
- f) The AA is required to prescribe a time limit within which the FIU must obtain the information from the transient store of the aggregator. However, the guidelines need to include a method to enforce the transience of the storage.
- g) The entire architecture of AA is based on consent through internet. In India, internet penetration in rural areas is at 37.74%. Thus, it is essential to come up with a consent mechanism for feature phone users.
- h) The responsibilities of regulated entities have enhanced considering the inherent cyber risk that comes along with Technology Service Providers (TSPs) while providing technical assistance to participants of AA ecosystem.

Conclusion

The potential transfers of bank account statements through AA for varied use cases across the four financial sectors are estimated to reach an annual transaction volume of 1 billion by 2025 and 5 billion by

2027. It is projected that 58% of the total transactions are used for underwriting purposes by 2027. As the system grows rapidly with emerging business models and customers support gain currency, it is important to mitigate the externalities associated with the innovation, especially in cyber space. In the long run, the key for the success of the model depends on how the balance is maintained optimally throughout, between the wheels of innovation and conformity to regulatory guidelines in spirit.

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- https://en.wikipedia.org/wiki/Internet_in_India



BANK QUEST THEMES

The themes for “Bank Quest” are identified as:

1. January – March, 2024: Leveraging technology for effective credit appraisal
2. April – June, 2024: Risk Management in Banks – Beyond Regulations
3. July – September, 2024: Emerging trends in International Trade and Banking
4. October – December, 2024: Emerging opportunities for savings and investments
5. January – March, 2025: Cyber Risk Management



 Subhash Karmakar*

Deepening of the Government Bond Market

Introduction

India is one of the emerging economies in the world with an ever-growing Bond Market. The size of the Bond Market as on December 2022 stood around \$1.8 trillion out of which the size of Government Securities market was around \$1.2 trillion and \$0.6 trillion as Corporate Bond Market.

If we recall the events of Global Financial Crisis 2008 and COVID-19 period, the Indian Economy has been resilient. The Bond Market in India is dominated by Government Securities and Corporate Bonds.

Deeper bond markets may help in infrastructure growth, accelerate economic growth and help in the upliftment of millions from poverty.

The Reserve Bank of India (RBI) has defined "Government Security" (G-sec) as security created and issued by the Government for the purpose of raising a public loan or any other purpose as notified by the Government in the Official Gazette and having one of the following forms.

- a) a Government Promissory Note (GPN) payable to or to the order of a certain person; or
- b) a bearer bond payable to a bearer; or
- c) a stock; or
- d) a bond held in a Bond Ledger Account (BLA).

The bond market, particularly, the Government Bond Market has been expanding due to the fact that Financial Institutions in India have to maintain certain amount of Government Securities as per their statutory requirements. The Government Bond Market is mainly monitored by the Government

Securities Act, 2006 and Government Securities Regulations 2007 and the Government Securities are mainly regulated through RBI. Investors are attracted towards G-Sec due to their safety, good return and liquidity.

The Corporate Bonds, on the other hand, are debt obligations, where the investors are investing in Company which is issuing the bond. The Company in turn pays interest at stated rates.

The Government, SEBI and RBI has been active to increase the Corporate Bond market in India.

The Government Bond market is increasing its volume since the last ten years and if we take a closer look there is 13.60% Compound Annual Growth Rate (CAGR) in the bond market in India. The importance of G-Sec also lies in the fact that domestic debt market accounts for about 74% of the GDP.

As per data released by Clearing Corporation of India, the outstanding Government securities stands at Rs.133.786 lakh crores as on March 2022.

So, from the data and facts it is evident that the role of Government bonds has been important for the overall growth of the economy and in near future, they are going to be very vital depending upon the attractive returns.

In this paper, we shall discuss the importance of Government Bonds, their relationship with growth of the economy as well as their maturity and ownership pattern, so that the bond market growth characteristics are captured. Section 2 deals with the Government Bonds, their maturity patterns and Yield at various maturities, Section 3 discusses the

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Stability of Bond Yields and its importance, Section 4 deals with the role of Bonds in growth of GDP and changes in their ownership pattern over the last 5 years and Section 5 is Conclusion.

Government Bonds in India

Bonds are the instruments through which investors invest their money by providing loan to an enterprise for a definite period with a definite interest rate.

According to Reserve Bank of India "A Government Security (G-Sec) is a tradeable instrument issued by the Central Government or the State Governments. It acknowledges the Government's debt obligation. Such securities are short-term (usually called treasury bills, with original maturity of less than one year) or long-term (usually called Government bonds or dated securities with original maturity of one year or more). In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs). G-Secs carry, practically, no risk of default and hence, are called risk-free gilt-edged instruments."¹

In order to meet the temporary liquidity mismatch, Government of India issues Treasury Bills (T-Bills) which are having a maturity of less than 365 days, generally, maturity of 91 days, 182 days and 364 days. The T-Bills do not carry any interest rate but are issued at a discount.

But, on long-term basis, Government issues bonds or Government Securities which are having a maturity period of 5-40 years and they are carrying fixed or floating interest rates which are paid half-yearly.

The various types of bonds issued in India (As per Reserve Bank of India) are:

- a) Fixed Rate Bonds: Bonds which carries a fixed rate of interest till maturity of the Bond.
- b) Floating Rate Bonds: They are those bonds which do not have a fixed coupon rate or interest rate.

- c) Capital Indexed Bonds: These bonds are related to the inflation index in order to protect against inflation.
- d) Inflation Indexed Bonds: These are the bonds where the principal amount is protected against inflation.
- e) Bonds with Call/Put Option: These are the bonds where the issuer of the Bonds can call back the bonds or the investor has the option to transfer the bonds to issuer.
- f) Recapitalisation Bonds: The Government of India has issued recapitalisation bonds for some specific Public Sector Banks in 2018.
- g) Sovereign Gold Bonds: These are paperless gold bonds issued by Government of India at specific intervals where face value depends on the gold rates and redemption is done after certain period at the gold rate prevailing at that time. Interest is also being paid on the face value of the bond.

The major players in the Government Bond market includes the Commercial banks including Nationalised Banks, Insurance companies and the Primary dealers. Other participants include co-operative banks, regional rural banks, mutual funds, provident and pension funds. Foreign Portfolio Investors (FPIs) are allowed to participate in the G-Secs market within the quantitative limits prescribed from time to time. Corporates also buy/sell the G-Secs to manage their overall portfolio.

According to the latest report "India's central bank plans to allow lending and borrowing of Government bonds as it seeks to deepen the nation's \$1 trillion debt market and this will provide alternate avenues for the investors."²

From the table 1, the Yield growth of the Indian Government Bond Market is evident.

From the table 1, the yield has only dropped during the COVID-19 period around 31.12.2020.

¹ <https://www.rbi.org.in/commonman/English/scripts/faqs.aspx?id=711#1>
² Source: Bloomberg, February 8, 2023.

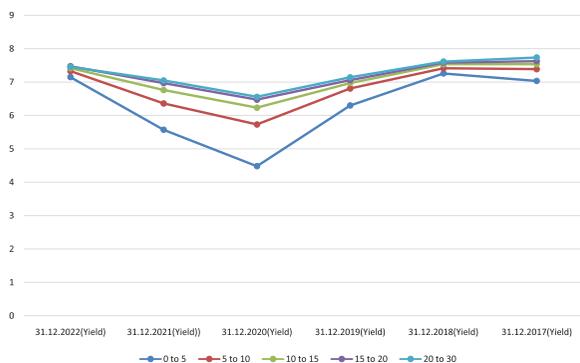
Table 1: Yield (%) of Various Bonds at Different Maturity Periods across Years

Maturity Profile(In Years)	31.12.2022(Yield)	31.12.2021(Yield)	31.12.2020(Yield)	31.12.2019(Yield)	31.12.2018(Yield)	31.12.2017(Yield)
0 to 5	7.1492	5.57	4.4797	6.2989	7.2581	7.0342
5 to 10	7.327	6.36	5.7309	6.8066	7.413	7.3888
10 to 15	7.4176	6.76	6.2337	6.9671	7.5344	7.5334
15 to 20	7.4736	6.97	6.4737	7.0573	7.584	7.6273
20 to 30	7.4584	7.05	6.5587	7.1418	7.6125	7.7371

Source: Clearing Corporation of India Limited (CCIL)

It is also observed that the yields are higher at higher maturity levels (Beyond 10 years) thus, complementing the fact that outstanding securities are higher at maturity levels of more than 10 years. The details can be depicted in the following graph.

Figure 1: Yield Chart at Various Periods



The yield on the Indian 10-year Government bond rose to 7.36%, in February 2022, after inflation in India accelerated more than expected in January, while the Reserve Bank of India raised interest rates by the expected 25bps to 6.5% and maintained a hawkish stance leaving the door open for further increase. Market participants had mostly bet on a final borrowing costs hike in the current tightening cycle. The central bank also kept its stance unchanged on the withdrawal of accommodation and said it would allow banks to borrow and lend Government bonds to increase liquidity in the market. Early in the month, the Government presented its Union Budget for the 2023-24 financial year, setting borrowing at INR 15.43 trillion, below broad estimates of INR 16 trillion.³

So, it is important to set a benchmark for pricing of assets and the Government Bond Market with liquid securities can provide such a Benchmark pricing so that hedging against the interest risk may be done.

Considering the yield of various countries related to bonds of 10-Year maturity, it is also observed that the Yield in India has been higher as compared to other countries, making it one of the attractive investing options. In the following table, the Yields of 10-year maturity of various countries have been depicted.

Table 2: 10-Year Maturity Bond Yields of Different Countries as on December 2022

Country	Yield (in %)	YoY growth (in %)
Brazil	13.36	2.17
Russia	11.02	1.39
Turkey	10.99	-9.92
South Africa	9.98	0.88
Mexico	9.00	1.22
India	7.35	0.67
New Zealand	4.37	1.55
Italy	4.32	2.41
Greece	4.24	1.58
United States	3.78	1.81
Australia	3.76	1.60
Spain	3.52	2.23
United Kingdom	3.49	1.96
South Korea	3.44	0.73
Portugal	3.37	2.22
Canada	3.26	1.30
France	2.94	2.19
Netherlands	2.76	2.32
Germany	2.46	2.23
Switzerland	1.39	1.08
Japan	0.50	0.28

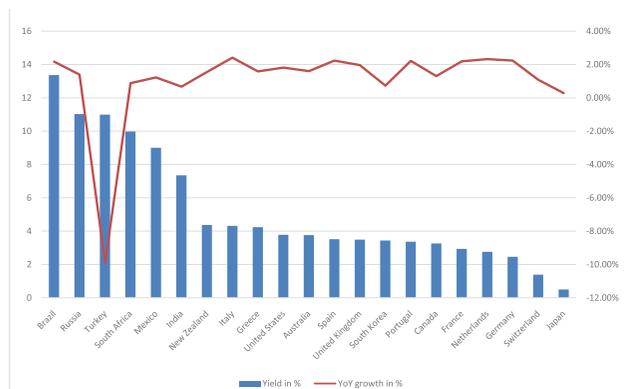
Source: Trading Economics

³ Source: <https://tradingeconomics.com/india/government-bond-yield>

From the table 2, it is seen that India is having a moderate as well as attractive yield as compared to other countries.

The results can be depicted in the following graph.

Figure 2: Yields of 10 years Maturity bonds of Different Countries



From the above facts, it is observed that the yields are more or less moderate as well as no negative growth is observed in yearly perspective.

In the coming sections, we shall find out the stability of the bond yields in India.

Stability of Bond Yields and Its importance

From the above sections, it has been clear that the Government Bonds are going to play a vital role in the development of the economy.

But, in order to gain insights, first of all we shall look into the Bond yields of 10-year maturity. In order to do this, we analyse the data for the period of 2006-2022.⁴

Accordingly, in order to find the stability of the bond yields, we again classify the data in to the following periods:

- The Global Financial Crisis period: January 2008-December 2008
- The COVID-19 period: January 2020-December 2020
- The overall period: January 2006-December 2022

The daily fall in the Yields (in %) have been captured and the fall in the daily yields have been classified into following groups:

- Above 5% fall in Yield
- 4.99%-4.00% fall in Yield
- 3.99%-3.00% fall in Yield
- 2.99%-2.00% fall in Yield
- 1.99%-1.00% fall in Yield

Thereafter, the probabilities of these fall in Yields have been worked out based on the number of observations. The stress periods have been included in the study where we have considered the Global Financial Crisis Period as well as the COVID-19 pandemic phase in order to find out the effects of these stress periods. The Yields of 10-year maturity bonds have been considered due to their importance as well as outstanding volume.

Table 3: Probability of fall in Bond Yield (Daily) of 10-Years Maturity for January 2008-December 2008

% fall in Bond Yield	No. of Observations (A)	Total no. of Observations (B)	P(A/B)
Above 5%	0	249	0
4.99%-4.00%	1	249	0.004016
3.99%-3.00%	4	249	0.02
2.99%-2.00%	12	249	0.05
1.99%-1.00%	21	249	0.08
Less than 1.00%	94	249	0.38
Overall Fall	132	249	0.53

From the table, it is observed that the fall in yield beyond 3.00% is nominal and the overall fall is 53% considering the stress situation.

Table 4: Probability of fall in Bond Yield (Daily) of 10-Years Maturity for January 2020-December 2020

% fall in Bond Yield	No. of Observations (A)	Total no. of Observations (B)	P(A/B)
Above 5%	0	245	0.00
4.99%-4.00%	0	245	0.00
3.99%-3.00%	1	245	0.00408
2.99%-2.00%	4	245	0.02
1.99%-1.00%	17	245	0.07
Less than 1.00%	106	245	0.43
Overall Fall	128	245	0.52

⁴ Source: Investing.com

During the period of 2020, it is observed that again the fall beyond 3.00% is nominal and the overall fall is 52% which is more or less close to the period of 2008.

So, it is evident that during stress periods also, the fall in the yield of bonds with maturity of 10 years has been close to 50% and rest 50% accounted for the rise in yield which speaks of the stability of the yields during such occasions.

Now, we shall find out the probability of fall in the bond yield during the overall period of 2006-2022 in order to ascertain the average fall.

Table 5: Probability of fall in Bond Yield (Daily) of 10-Years Maturity for January 2006-December 2022

% fall in Bond Yield	No. of Observations (A)	Total no. of Observations (B)	P(A/B)
Above 5%	2	4289	0.0005
4.99%-4.00%	1	4289	0.0002
3.99%-3.00%	11	4289	0.0026
2.99%-2.00%	48	4289	0.01
1.99%-1.00%	173	4289	0.04
Less than 1.00%	1757	4289	0.41
Overall Fall	1992	4289	0.46

It is observed that any fall in Yield beyond 3% is nominal and majority of the fall in Yield is less than 1% which accounts for 41%. So, the fluctuations in the Bond Yield have been minimal which is below 1% which speaks of the yield stability over the years.

GDP and Government Bonds and Relation to their Maturities and Ownerships

The G-securities, as observed, are one of the major contributors for fuelling the growth of the economy as well as they are having a role in the growth of country's GDP.

Table 6: Gross Domestic Product (GDP) and Total Securities Outstanding with Maturity Pattern

(Figures in Rupees Crore)

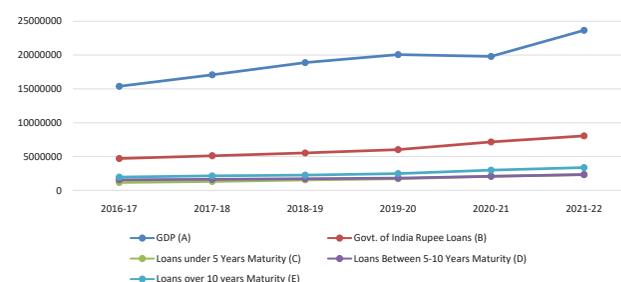
Year (FY)	GDP (A)	Govt. of India Rupee Loans (B)	Loans under 5 Years Maturity (C)	Loans Between 5-10 Years Maturity (D)	Loans over 10 years Maturity (E)
2016-17	15391669	4714244	1180431	1569350	1964398
2017-18	17090042	5124459	1340935	1646763	2136690
2018-19	18899668	5547726	1568024	1731423	2248210
2019-20	20074856	6021713	1744446	1807400	2469802
2020-21	19800914	7168451	2102066	2077827	2988493
2021-22	23664637	8059986	2361926	2322947	3375048

Source: RBI

The following data on GDP and Central Government of India bonds shall provide a clear cut picture of the details.

From the observations, we had to find out the relationship between GDP and Loans Outstanding. In order to find out the relationship between the two, we need to find out the Correlation Coefficient between them.

Figure 3: Relationship between GDP and Govt. of India Rupee Loans at Different Periods



From the figure, it is quite clear that the relationship between the growth of GDP and loans at various maturity periods are positive. Further, we derive the Correlation Coefficients between them in the table 7.

Table 7: Correlation Coefficients between the GDP and Govt. of India Rupee Loans (FY 2016-17 to FY 2021-22)

Parameters	Parameters	Correlation Coefficient
Govt. of India Rupee Loans (B)	GDP (A)	0.93
Loans under 5 Years Maturity (C)	GDP (A)	0.94
Loans Between 5-10 Years Maturity (D)	GDP (A)	0.92
Loans over 10 years Maturity (E)	GDP (A)	0.92

From the table, it is quite clear that there is a very strong positive correlation between GDP and Loans of different maturity periods implying the vibrant role of Government Securities for GDP growth.

Now, we shall explore the ownership pattern of the Central Government Securities over the years in order to ascertain the growth in various sectors.

Table 8: Ownership Pattern of the Government Securities over Various periods (in per cent)

	2017	2018	2019	2020	2021	2022
1. Reserve Bank of India (own account)	14.65	11.62	15.27	15.10	16.20	16.62
2. Scheduled Commercial Banks (i+ii+iii+iv)	40.46	42.68	40.28	39.79	37.55	37.55
i) State Bank of India	9.12	8.59	7.64	6.83	5.48	5.48
ii) Nationalised Banks	13.62	12.35	10.20	12.82	14.51	13.11
iii) Other Scheduled Commercial Banks	16.63	20.67	21.52	19.41	16.86	18.19
iv) Regional Rural Banks	1.09	1.08	0.91	0.73	0.70	0.78
3. Co-operative Banks	2.70	2.57	2.29	1.90	1.82	1.81
4. Primary Dealers	0.16	0.29	0.31	0.39	0.27	0.29
5. Insurance Companies	22.90	23.49	24.34	25.08	25.30	25.89
6. Financial Institutions	0.81	0.90	1.05	0.53	1.00	0.94
7. Mutual Funds	1.49	1.00	0.35	1.43	2.94	2.91
8. Provident Funds	6.27	5.88	5.47	4.72	4.44	4.60
9. Corporates	1.05	0.91	0.97	0.81	1.06	1.47
10. Foreign Portfolio Investors	3.53	4.35	3.22	2.44	1.87	1.56
11. Others	5.98	6.30	6.46	7.82	7.55	6.35
11.1 State Governments	1.92	1.94	2.00	2.05	1.69	1.82

Source : RBI

From the table 8, it is observed that the percentage of mutual funds have increased to nearly double, though Scheduled Commercial

Banks and Insurance Companies are playing an important role having the majority of the ownership. So, ample opportunities are lying with gilt mutual funds. Moreover, for further deepening, investment in Government Bonds may be made mandatory for Pension funds which holds a major chunk of investments.

Conclusion

From the observations and discussions, the following points have emerged:

- The yields of the bonds are more or less stable even during stress periods mainly with variations of less than 1% on daily yields. So, the Government Bonds may be considered as a long-term as well stable source of income. We may set a benchmark regarding the Government Bond Yield so that it may act as a standard for pricing of other assets.
- If we consider the growth of GDP and growth of Government Securities, we observe that upto 10-years maturity securities and greater than 10-years maturity, Government Securities are correlated in the same way (0.92). So, bonds upto 10-years maturity may play a vital role contributing to the growth of GDP on long-term basis.
- If we observe the ownership pattern of the securities, we find that proportion of mutual funds have doubled in the last five years. So, further augmentation should be focussed on gilt mutual funds with a stable yield in order to make them more attractive. We can also increase the investment of defined contribution Pension funds for deepening of the bond market.

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- 3) *Autobiographical note and photograph:*
A brief autobiographical note should be supplied including full name, designation, name of organization, telephone and fax

numbers, and e-mail address (if any), or last position held, in case of retired persons. Passport size photograph should also be sent along with the submission.

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- 6) *Tables:*
Use of tables, wherever essential, should be printed or typed on a separate sheet of paper and numbered consecutively using Arabic numerals (e.g. Table-1) and contain a brief title. In the body of the article, the position of the table should be indicated on a separate line with the words 'Insert Table 1'.
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डॉ. संजय कुमार*

भारत को सशक्त करता डिजिटल लेनदेन

पैसा मनुष्य के लिए हमेशा से ही उपयोगी रहा है और धन-दौलत ही सशक्तीकरण का पैमाना रहा है। धन के इसी महत्व को रेखांकित करते हुए राजा भरतृहरि ने कहा था - 'सर्वेगुणाः काञ्चनमाश्रयन्ते'। फिर आज का युग तो आर्थिक युग है जहाँ सब कुछ अर्थ से ही संचालित होता है। समय के साथ धन के स्वरूप और लेनदेन के माध्यम में भी बदलाव आया है। शुरु-शुरु में जब मुद्रा का चलन नहीं था तो लोग गायों को विनिमय के माध्यम के रूप में प्रयोग करते थे। क्रमशः अनाज, स्वर्ण, रजत, कौड़ी, धेला आदि विनिमय का माध्यम बने। कालांतर में धातु मुद्रा का आविष्कार हुआ और सोने, चाँदी, तांबे, कांसे आदि से निर्मित सिक्कों के माध्यम से लेनदेन संपन्न होने लगा। फिर कागज़ी मुद्रा का दौर आया जिसने लेनदेन को और भी अधिक सुविधाजनक बना दिया। उन्नीस सौ अस्सी-नब्बे के दशक में जब सूचना प्रौद्योगिकी ने दस्तक दी तो इसने अन्य के साथ-साथ बैंकिंग लेनदेन के तौर-तरीकों को भी बदलकर रख दिया। सूचना प्रौद्योगिकी ने बैंकिंग को न केवल भारी-भरकम लेखा-बहियों और शाखाओं की चारदीवारी से बाहर निकाला, अपितु उसे डिजिटल बैंकिंग के रूप में सार्वभौमिक एवं सार्वकालिक बनाया। इसने जहाँ एक ओर भौतिक मुद्रा की आवश्यकता को समाप्त किया, वहीं भुगतान पद्धति को द्रुतगामी बनाकर आर्थिक क्रियाओं के संचालन को भी तेज किया है। इसके कारण अर्थव्यवस्था के तीव्र विकास का मार्ग भी प्रशस्त हुआ है। इंटरनेट की बढ़ती पैठ, स्मार्टफोन की सुलभता, सस्ता डेटा और टेक-सेवी होती नई पीढ़ी आदि ऐसे कारक हैं जिनके कारण डिजिटल लेनदेन बहुत ही तीव्र गति से भौतिक लेनदेन को

प्रतिस्थापित कर रहा है। यह न केवल व्यक्तियों/प्रतिष्ठानों के लिए अत्यंत उपयोगी सिद्ध हो रहा है, अपितु देश के सशक्तीकरण की आधारशिला भी तैयार कर रहा है। डिजिटल लेनदेन किस तरह से देश को सशक्त कर रहा है, पर विस्तार से प्रकाश डालने के पूर्व डिजिटल बैंकिंग और डिजिटल लेनदेन के विविध आयामों पर विहंगम दृष्टि डाल लेना प्रासंगिक होगा।

डिजिटल बैंकिंग क्या है?

डिजिटल का शाब्दिक अर्थ है, अंकों से सूचना देना। प्रौद्योगिकी के संदर्भ में डिजिटल उस इलेक्ट्रॉनिक पद्धति को कहते हैं जो दो अवस्थाओं (पॉज़िटिव अर्थात् 1 और नॉन-पॉज़िटिव अर्थात् 0) में डेटा उत्पन्न, संग्रहीत और संसाधित करती है। वहीं डिजिटल बैंकिंग का आशय पारंपरिक बैंकिंग सेवाओं का स्वचालन है। डिजिटल बैंकिंग बैंक के ग्राहकों को इलेक्ट्रॉनिक/ऑनलाइन प्लेटफॉर्म के माध्यम से बैंकिंग उत्पादों और सेवाओं तक पहुंचने में सक्षम बनाती है। यह भौतिक रूप से होने वाले सभी बैंकिंग परिचालनों जैसे - धन अंतरण, बचत खाता प्रबंधन, ऋण प्रबंधन, यूटीलिटी बिलों का भुगतान, चेक प्रबंधन, बैंक स्टेटमेंट, बीमा, निवेश, बैलेंस पूछताछ आदि को डिजिटलाइज़ करने की प्रक्रिया है ताकि बैंकिंग सेवाओं के उपभोक्ताओं को इनके लिए बैंक शाखा में जाने की आवश्यकता न पड़े। यह सभी कागज़ी कार्रवाइयों जैसे चेक, पे-इन स्लिप, डिमांड ड्राफ्ट आदि से मुक्ति के साथ-साथ चौबीसों घण्टे बैंकिंग सुविधाएं उपलब्ध कराने का भी उपक्रम है। भारत में प्रचलित कुछ प्रमुख डिजिटल भुगतान पद्धतियाँ हैं: बैंकिंग कार्ड, यूएसएसडी,

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आधार सक्षम भुगतान प्रणाली, यूपीआई, मोबाइल वॉलेट, भारत इंटरफेस फॉर मनी, बैंक प्रीपेड कार्ड, प्वाइंट ऑफ सेल, मोबाइल बैंकिंग, इंटरनेट बैंकिंग आदि। जब हम डिजिटल लेनदेन की बात करते हैं तो इसका आशय उस लेनदेन से है जहाँ वस्तुओं/सेवाओं आदि के लिए भुगतान नकदी की बजाए इलेक्ट्रॉनिक पद्धति से किया जाता है।

डिजिटल लेनदेन और राष्ट्र का सशक्तीकरण

डिजिटल लेनदेन जहाँ नागरिकों के लिए सुविधाजनक और उपयोगी सिद्ध हो रहा है, वहीं यह राष्ट्र के सशक्तीकरण का हेतु भी बन रहा है। इस पहलू को हम निम्नलिखित बिंदुओं के माध्यम से समझने का प्रयास करेंगे :

हर समय लेनदेन: शाखा बैंकिंग में जहाँ लेनदेन का समय निश्चित होता है, वहीं डिजिटल लेनदेन कहीं से, कभी भी किया जा सकता है। इसके कारण ग्राहकों के उस समय की बचत हुई जो बैंक शाखा जाकर लेनदेन करने में खप जाता था। यही स्थिति कारोबारी लेनदेन के मामले में भी है। जब भौतिक रूप से भुगतान होता था तो व्यक्ति किसी व्यावसायिक प्रतिष्ठान/दुकानदार आदि को दुकान/प्रतिष्ठान खुलने पर ही भुगतान कर पाता था, किंतु जब से डिजिटल लेनदेन की व्यवस्था शुरू हुई वह अपनी सुविधानुसार किसी भी समय भुगतान कर पा रहा है। पहले यदि किसी दूरस्थ आपूर्तिकर्ता से माल मंगाना होता था तो उसे एडवांस में पैसा भेजना पड़ता था। पैसा चेक, ड्राफ्ट या किसी व्यक्ति के जरिए भेजा जाता था जिसके कारण पैसा पहुँचने और माल प्राप्त होने में पंद्रह-बीस दिन लग जाते थे। इस विलंब के कारण कभी-कभी फुटकर कारोबारी बाजार की अनुकूल परिस्थितियों का फायदा उठाने से वंचित रह जाते थे। पर जब से डिजिटल लेनदेन शुरू हुआ, वह नेफ्ट, आरटीजीएस, आईएमपीएस, यूपीआई जैसे किसी भी माध्यम से पलक झपकते पैसा भेज सकता है और माल डिलीवरी की प्रक्रिया को तुरंत प्रारम्भ करा सकता है। डिजिटल लेनदेन से जहाँ लोगों का समय, श्रम और आने-जाने का खर्च बच रहा है, वहीं समय की इस बचत का उपयोग वे अपने कारोबार या अन्य उत्पादक गतिविधियों में कर पा रहे हैं। जब व्यक्ति

चौबीसों घण्टे लेनदेन कर सकता हो, तो जाहिर है कि वह चौबीसों घण्टे कारोबार भी कर सकता है। कारोबार अवधि में विस्तार होना, आर्थिक गतिविधियों का विस्तार है और इसका सीधा फायदा अर्थव्यवस्था को पहुंचता है।

लेनदेन की लागत में कमी: डिजिटल लेनदेन मुद्रा के भौतिक लेनदेन और अन्य कागजी लेनदेनों (जैसे चेक, ड्राफ्ट आदि) के मुकाबले काफी सस्ता है। जब डिजिटल लेनदेन नहीं था, तो भुगतान के लिए व्यक्ति को ईंधन अथवा किराया खर्च करके बैंक जाना पड़ता था और यदि बैंक-ड्राफ्ट आदि बनवाना हो तो उसके लिए कमीशन अलग से अदा करना पड़ता था। इसके अतिरिक्त सरकार को जहां नोट/सिक्का आदि के मुद्रण/ढलाई का खर्च वहन करना पड़ता था, वहीं बैंकों को लेनदेन हेतु चेक, ड्राफ्ट और अन्य दस्तावेजों का मुद्रण कराना पड़ता था। सबसे बड़ा खर्च मुद्रा के परिवहन, रखरखाव और उस हेतु नियोजित कर्मचारियों के वेतन भत्तों पर होता था। डिजिटल लेनदेन ने इन सभी प्रकार के खर्चों पर लगाम लगाई है और इसके कारण धन की जो बचत हुई है, उसका उपयोग अन्य विकासात्मक गतिविधियों पर कर पाना संभव हुआ है।

आधारभूत ढाँचे की बचत/संसाधनों की बचत: डिजिटल बैंकिंग के कारण बैंक शाखाओं में ग्राहकों का आवागमन घटा है जिससे न तो शाखा के लिए अधिक स्पेस की आवश्यकता रही और न ही अतिरिक्त काउंटर खोलने हेतु आवश्यक फर्नीचर, विद्युत उपकरण आदि लगाने की। संसाधनों की यही बचत गैर-बैंकिंग प्रतिष्ठानों में भी हुई है। उदाहरण के लिए पहले बिजली, पानी, टेलीफोन, गैस आदि के बिलों, टिकट बुकिंग, स्कूल फीस, विभिन्न प्रकार के कर आदि जमा करने के लिए तमाम काउंटर खोलने पड़ते थे, किंतु जब से डिजिटल लेनदेन शुरू हुआ इनकी आवश्यकता ही न रही। डिजिटल लेनदेन के कारण संसाधनों की बचत केवल सरकारी क्षेत्र तक ही सीमित नहीं है, अपितु निजी क्षेत्र भी इससे खूब लाभान्वित हुआ है। मिसाल के तौर पर आज ऑनलाइन ऑर्डर पर माल की आपूर्ति होना आम बात हो गई है जिससे निजी प्रतिष्ठानों में भी ग्राहकों की आवाजाही घटी है। इसके कारण उन्हें भी

चमचमाते एयरकंडीशंड शोरूम, दुकान आदि के लिए बड़े स्पेस की आवश्यकता नहीं रही। वे किसी दूरस्थ जगह पर स्थित गोदाम आदि से ऑनलाइन आर्डरों पर सप्लाई करने लगे। इसके कारण भूमि, बिजली, पानी जैसे संसाधनों की बचत हुई है। दुर्लभ संसाधनों की बचत करना भी राष्ट्र निर्माण का काम है।

लेनदेन में पारदर्शिता: नकद लेनदेन में जहाँ लेनदेन की हर समय रसीद या साक्ष्य मिल पाना मुश्किल है, वहीं डिजिटल लेनदेन अपने आप में एक रसीद है। चूँकि भुगतान इलेक्ट्रॉनिक माध्यम से होता है, अतएव, लेनदेन की पूरी श्रंखला को ट्रैक किया जा सकता है। इसके कारण भुगतान प्राप्ति से जुड़े तमाम तरह के विवादों से मुक्ति मिली है और क्रेता-विक्रेता, सेवा प्रदाता- उपभोक्ता के संबंध बेहतर हुए हैं और परस्पर भरोसा बढ़ा है। दूसरी बात लेनदेन के लेखांकन को लेकर है। भुगतानकर्ता और भुगतान प्राप्तकर्ता दोनों को प्रत्येक लेनदेन के लेखांकन के लिए किसी भी प्रकार के कागज़, कलम, डायरी या इस हेतु किसी मुनीम आदि को रखने की आवश्यकता नहीं है। हर लेनदेन स्वतः ऐप और खाते में परिलक्षित हो जाता है और उसकी रीयलटाइम में अकाउंटिंग होती रहती है।

त्वरित भुगतान: कहते हैं कि पैसा जितना तेजी से घूमता है, आर्थिक क्रियाएँ भी उतनी तेजी से चलती हैं। पहले जब पैसा भौतिक रूप से या चेक/ड्राफ्ट के माध्यम से भेजा जाता था तो उसे गंतव्य तक पहुँचने में काफी समय लग जाता था। इस अवधि के दौरान वह निष्क्रिय पड़ा रहता था। गंतव्य तक पहुँचने के बाद ही वह उत्पादक गतिविधियों में नियोजित हो पाता था। किंतु डिजिटल लेनदेन के कारण पैसा एक छोर से दूसरे छोर पर तत्काल पहुँच जाता है जिससे आर्थिक चक्र सतत प्रवर्तनशील रहता है। किसी भी देश के स्थायी विकास के लिए वहाँ आर्थिक गतिविधियों का निरंतर चलायमान रहना अत्यंत आवश्यक है।

सुरक्षित और सुविधाजनक भुगतान: नकद भुगतान के मामले में भुगतान प्राप्तकर्ता को कई बार काफी दूरी तय करनी पड़ती है जिसमें पैसे की चोरी, लूटपाट अथवा जान

जोखिम में पड़ने की संभावना भी रहती है। वहीं डिजिटल भुगतान काफी सुरक्षित है क्योंकि लेनदेन करने के लिए इसमें कई स्तरों पर प्रमाणीकरण की आवश्यकता होती है। इसके अलावा नकदी लेकर चलना अपने आप में असुविधाजनक है, खासकर तब जब छोटे मूल्यवर्ग के नोट अथवा बड़ी मात्रा में सिक्के हों। वहीं डिजिटल लेनदेन के मामले में आपका स्मार्टफोन ही पर्याप्त है जिसे आप वैसे भी साथ लेकर चलते हैं। दूसरी गौर करने वाली बात यह है कि नकदी आधारित लेनदेन में जहाँ रुपए गिनने में समय लगता है, वहीं जाली नोटों की आशंका भी बनी रहती है। जबकि डिजिटल लेनदेन फटाफट हो जाता है, इसमें न तो रुपए गिनने का झंझट, न हिसाब लगाने का और न ही जाली नोटों की कोई संभावना है। सबसे अच्छी बात यह है कि जब से डिजिटल लेनदेन प्रारंभ हुआ है तब से चिल्लर न होने का बहाना बनाकर दो-चार-दस रुपए की चपत लगाने वालों के मंसूबों पर भी पानी फिरा है। उदाहरण के लिए जब नकदी आधारित लेनदेन होता था तब यदि कोई बिल 491 रुपए का आता था तो 500 रुपए का नोट देने पर वह छुट्टे न होने का बहाना बनाकर 9 रुपए की चपत लगा देता था। पर डिजिटल लेनदेन के मामले में तो दशमलव अंकों में भी भुगतान किया जा सकता है। डिजिटल लेनदेन ने कारोबारियों को जेब कतरने या पैसों की चोरी हो जाने के भय से मुक्त किया है जिसके कारण वे देर रात तक आवागमन करने में सक्षम हुए हैं। इससे उनके कारोबार का दायरा और समय बढ़ा है जिसका सकारात्मक प्रभाव प्रत्यक्षतः उनकी आमदनी और परोक्षतः देश की अर्थव्यवस्था पर पड़ा है।

ई-कामर्स की जीवनरेखा: आज ई-कामर्स का चलन जोरों पर है और यह डिजिटल बैंकिंग के कारण ही संभव हुआ है। वास्तव में लोगों को सशक्तीकरण का सबसे अधिक आभास ई-कामर्स के कारण ही हुआ है। आज डिजिटल लेनदेन की बदौलत कोई व्यक्ति घर बैठे रोजमर्रा के उपयोग की सभी चीजें मंगा सकता है। किसी को उपहार उसके पते पर डिलीवर करा सकता है। अब से बीस-तीस बरस पहले तक कोई कल्पना भी नहीं कर सकता था कि

घर बैठे भोजन, पेय अथवा साग-भाजी मंगाई जा सकती है। लेकिन ई-कामर्स ने इसे संभव कर दिखाया है जो डिजिटल लेनदेन की कड़ी की बदौलत ही संभव हुआ है। अब तो दूर देश में बैठा व्यक्ति अपने घर पर स्थित बच्चों या परिवार के सदस्यों को खाद्य पदार्थों की ऑनलाइन डिलीवरी करा सकता है। वह कहीं से, कभी भी किसी के लिए टिकट बुक कर सकता है, उसके यूटीलिटी बिलों का भुगतान कर सकता है। इसके कारण लोगों के भ्रमण का दायरा विस्तृत हुआ है, उनमें आत्मविश्वास जगा है और दूसरों पर निर्भरता घटी है। आज उसका स्मार्टफोन बैंक भी है और कैश भी है। दूसरी ध्यान देने वाली बात यह है कि ऑनलाइन शॉपिंग और डिजिटल लेनदेन के चलते लोगों का सड़कों पर आवागमन कम हुआ है जिसके कारण भीड़, जाम, पर्यावरण क्षरण और प्रदूषण-जन्य बीमारियों व तदजन्य मानसिक तनाव में कमी आई है। समग्र रूप से देखा जाए तो डिजिटल लेनदेन ने लोगों को हर प्रकार से सशक्त किया है।

कर राजस्व का ज़रिया: किसी भी राष्ट्र के सशक्तीकरण के लिए उसका वित्तीय मोर्चे पर अव्वल रहना बहुत ज़रूरी है। वित्तीय सुदृढ़ता के लिए सरकार के आमदनी के स्रोत अच्छे होने चाहिए। इन स्रोतों में कर-राजस्व आमदनी का सबसे बड़ा स्रोत होता है। जब लोग डिजिटल लेनदेन करेंगे तो रुपया कहाँ से आया और कहाँ गया इसका पता चलेगा। इससे बहुत सारे लोग कर के दायरे में आएंगे और तमाम प्रकार की कर-चोरी रूकेगी। इससे कालेधन पर अंकुश लगेगा। किसी भी देश के सशक्तीकरण के लिए उसकी अर्थव्यवस्था में पारदर्शिता का होना अत्यंत आवश्यक है क्योंकि वित्तीय और मौद्रिक नीतियाँ औपचारिक अर्थव्यवस्था को ध्यान में रखकर बनाई जाती हैं। यदि अर्थव्यवस्था में कालाधन अधिक होगा तो कीमतें स्थिर रखने की सरकार और केंद्रीय बैंक की नीतियाँ प्रभावकारी नहीं होंगी। कीमतों में अस्थिरता की सबसे अधिक चोट गरीब तबके पर पड़ेगी। कर-राजस्व बढ़ने से सरकार के पास गरीबों/वंचितों को समावेशी प्रगति का सहयात्री बनाने हेतु पर्याप्त आर्थिक संसाधन होंगे। अंतर्राष्ट्रीय श्रम संगठन ने 1944 में अपने फिडेल्फिया घोषणा पत्र में कहा था कि दुनिया में यदि किसी

भी कोने में गरीबी है तो वह अमीरी के लिए सर्वत्र खतरा है।¹ भारत जैसे दुनिया के सबसे अधिक आबादी वाले देश में जहाँ लगभग 25% लोग गरीबी रेखा से नीचे हैं², में राष्ट्र के सशक्तीकरण के पूर्व जन-जन का सशक्तीकरण बहुत आवश्यक है और इस काम में डिजिटल लेनदेन की महती भूमिका है।

भ्रष्टाचार पर अंकुश: डिजिटल लेनदेन के कारण उन सभी प्रकार के भ्रष्टाचार पर अंकुश लगा है जिनकी नकद लेनदेन के मामले में काफी संभावना रहती थी। लाभार्थियों और लक्षित उद्देश्यों के लिए धन बगैर किसी रिसाव के गंतव्य तक पहुंच रहा है। इससे जनता का जहाँ एक ओर प्रणाली में भरोसा बढ़ रहा है, वहीं ठोस विकास की अवधारणा भी मूर्त रूप ले रही है।

अर्थव्यवस्था में मांग को बढ़ावा देना: अध्ययनों से पता चला है कि नकद मुद्रा खर्च करने में लोगों को जो झिझक रहती है, वह डिजिटल लेनदेन में नहीं होती है क्योंकि उसे पैसा हाथ से जाते हुए नहीं दिखता है। इसके अलावा नकदी के प्रति जो मोह या संचय की भावना रहती है, वह डिजिटल लेनदेन में नहीं होती है, लिहाजा लोग धड़ल्ले से खर्च करते हैं। लोगों के खर्च करने से अर्थव्यवस्था में मांग को बढ़ावा मिलता है। मांग उत्पादन को प्रेरित करती है और इससे रोजगार व आय का सृजन होता है जो पुनः मांग को बढ़ावा देता है। किसी भी अर्थव्यवस्था की मज़बूती के लिए वहाँ मांग का बने रहना बहुत आवश्यक है। आज डिजिटल ऋण की परंपरा भी चल पड़ी है। खासकर जब आप ई-कामर्स प्लेटफार्म से घरेलू उपयोग की कोई चीज़ खरीद रहे होते हैं तो 'बाय नाउ पे लैटर' जैसे ऑफर भी दिए जाते हैं। इससे व्यक्ति पैसा न होते हुए भी खरीदारी करने में सक्षम हो जाता है। डिजिटल ऋण की सुलभता जहाँ प्रत्यक्ष तौर पर क्रय क्षमता को बढ़ा देती है, वहीं परोक्षतः यह मांग को सहारा देती है।

सुशासन और शांति कायम रखना: नकद आधारित लेनदेन जहाँ कालेधन में इजाफा करता है, वहीं यह अवैध गतिविधियों को पोषित करने का जरिया भी बनता है।

¹The ILO Declaration of Philadelphia, 1944

²<https://niti.gov.in/sites/default/files/2020-05/press-note-poverty-2011-12-23-08-16.pdf>

आपराधिक घटनाओं को अंजाम देने, तस्करी, ड्रग्स तथा अन्य गैर-कानूनी गतिविधियों के लिए लेनदेन अकसर नकद रूप में किया जाता है जिसके कारण लेनदेन की पूरी श्रृंखला को ट्रेस कर पाना मुश्किल होता है। इसके अलावा सीमा पार से आतंकवादी गतिविधियों की फंडिंग में भी प्रायः नकदी का इस्तेमाल होता है। जब सभी लेनदेन डिजिटल होंगे और अर्थव्यवस्था नकदी रहित होगी तो एक ओर जहाँ अवैध गतिविधियों की फंडिंग रुकेगी, वहीं लेनदेन के सूत्रों को जोड़ते हुए अपराधियों तक भी पहुँचा जा सकेगा। किसी भी देश की सतत् प्रगति के लिए वहाँ शांति और सुशासन का होना बहुत जरूरी है और डिजिटल लेनदेन इस उद्देश्य को पूरा करने में बखूबी कारगर है।

विदेशों में लोकप्रिय होती भारतीय डिजिटल लेनदेन पद्धति: यदि भारत के डिजिटल लेनदेन के आंकड़ों पर गौर करें तो पाते हैं कि वर्ष 2022 में नकदी रहित लेनदेन में यूपीआई लेनदेन का हिस्सा 77% था। आज यूपीआई की लोकप्रियता केवल भारत के भीतर ही नहीं है, बल्कि अंतरराष्ट्रीय पटल पर भी इसकी कामयाबी का डंका बज रहा है। इसकी खूबियों से प्रभावित होकर विश्व के कई देश अपने यहाँ लेनदेन में इस माध्यम को जगह दे रहे हैं। इस कड़ी में संयुक्त अरब अमीरात, नेपाल, भूटान, श्रीलंका, सिंगापुर एवं फ्रांस का नाम उल्लेखनीय है। विदेशी धरती पर यूपीआई की स्वीकार्यता के कारण डॉलर जैसी विदेशी मुद्राओं पर हमारी निर्भरता घटेगी और रुपए में भुगतान को बढ़ावा मिलेगा। इससे विदेशी मुद्रा की मांग घटेगी। विदेशी मुद्रा की बचत हमारे भुगतान संतुलन की स्थिति को अनुकूल बनाएगी जिसके कारण देश की साख में बढ़ोतरी होगी। जब किसी देश की साख सुधरती है तो वह विदेशी निवेशकों के लिए आकर्षण का केंद्र बन जाता है और इससे विकास को एक नई गति मिलती है।

डिजिटल लेनदेन- कतिपय चुनौतियाँ

हालांकि डिजिटल लेनदेन को लोग काफी तेजी से आत्मसात कर रहे हैं पर इसके सम्मुख कुछ चुनौतियाँ भी हैं। इन चुनौतियों में सबसे बड़ी चुनौती अशिक्षा है। भारत में

लगभग 25% जनसंख्या अशिक्षित है³ उसके लिए भौतिक बैंकिंग कर पाना ही मुश्किल है, डिजिटल बैंकिंग तो दूर की कौड़ी है। दूसरी बड़ी समस्या गरीबी है, जिसके कारण हर कोई स्मार्टफोन, लैपटॉप, टैबलेट, कंप्यूटर जैसे डिजिटल गैजेट्स खरीद नहीं सकता। चूँकि डिजिटल लेनदेन के लिए डिजिटल डिवाइस होना आवश्यक है, अतएव इनके अभाव में बहुत से लोग डिजिटल लेनदेन की व्यवस्था को अपना नहीं पा रहे हैं।

साइबर सुरक्षा के प्रति जागरूकता का अभाव तथा साइबर धोखाधड़ी की बढ़ती घटनाएँ भी डिजिटल लेनदेन को हतोत्साहित कर रही हैं। भारत की विशाल जनसंख्या के अनुपात में साइबर सेल काफी कम हैं, और जो हैं भी वहाँ साइबर विशेषज्ञों की कमी है। बैंकों एवं अन्य वित्तीय संस्थानों तथा पुलिस के बीच बेहतर समन्वय का अभाव भी साइबर धोखाधड़ी को फलने-फूलने का अवसर प्रदान कर रहा है।

लोगों की कर-चोरी की प्रवृत्ति भी डिजिटल लेनदेन की राह में एक बड़ा रोड़ा है। आज भी बहुत से कारोबारी अपने वास्तविक टर्न-ओवर को छिपाने के लिए नकदी आधारित लेनदेन को तरजीह दे रहे हैं। ऐसे कारोबारियों के साथ लेनदेन करने वाले लोग मजबूरन नकदी का इस्तेमाल कर रहे हैं।

यद्यपि डिजिटल लेनदेन के मार्ग में उपर्युक्त अवरोध अवश्य हैं, पर आज के प्रौद्योगिकी-प्रधान दौर में डिजिटल लेनदेन के बगैर काम चलने वाला नहीं है। आज की टेक-सेवी पीढ़ी जब हर काम को डिजिटली करना पसंद कर रही है तो फिर लेनदेन के लिए वह मैन्युअल तरीका क्यों अपनाए। फ्रांसीसी कवि और उपन्यासकार विक्टर ह्यूगो ने कहा था कि पृथ्वी पर कोई शक्ति उस विचार को नहीं रोक सकती जिसका समय आचुका है। उनकी यह बात डिजिटल लेनदेन के मामले में भी प्रासंगिक है। आज यदि एक मामूली-सा रेहड़ी पटरी वाला क्यूआर कोड रखे हुए है, तो वह इसलिए क्योंकि उसे मालूम है कि इसके अभाव में वह बिजनेस खो देगा।

³<https://www.census2011.co.in/>

निष्कर्ष

अंत में सारांश के तौर पर कहा जा सकता है कि डिजिटल लेनदेन आज मनुष्य के लिए वरदान से कम नहीं है। इसने न केवल लोगों की जिंदगी को आसान किया है, बल्कि उनका आत्मविश्वास भी बढ़ाया है। जब लोगों का आत्मविश्वास बढ़ता है तो उसका सकारात्मक प्रभाव उनकी कार्यक्षमता और संस्थानों की उत्पादकता पर पड़ता है। इसने संस्थानों में मानव संसाधन के साथ-साथ अन्य संसाधनों के विवेकपूर्ण उपयोग का मार्ग प्रशस्त किया है और सरकार के कर-राजस्व में इज़ाफा किया है। जब देश के नागरिक और संस्थाएं सशक्त होती हैं, तो देश स्वतः सशक्त होने लगता है। भारत में डिजिटल लेनदेन का भावी परिदृश्य बहुत ही उत्साहजनक है। यहाँ जैसे-जैसे आम लोगों के बीच

स्मार्टफोन का चलन बढ़ता जाएगा, वे डिजिटली सक्रिय होते जाएंगे और रोजमर्रा से जुड़े तमाम क्रियाकलापों में डिजिटल लेनदेन को अपनाते जाएंगे। यह कहना ग़लत न होगा कि नई सोच का यह नया भारत अब उपलब्धियों के नए-नए प्रतिमान गढ़ रहा है। यदि वर्ष 2023 की दो महान उपलब्धियों की बात की जाए जिसने विश्व समुदाय का भारत की ओर ध्यान आकृष्ट किया है, तो उनमें से एक है चंद्रयान-3 की सफलता और दूसरा है, यूपीआई लेनदेन की व्यापक स्वीकार्यता। भारत में बहुत ही अल्प समय में डिजिटल लेनदेन ने सफलता की जो ऊँचाइयाँ हासिल की हैं, वह न केवल देश के लिए गर्व का विषय है अपितु अंतर्राष्ट्रीय समुदाय के लिए भी अनुकरणीय है।



13th R. K. Talwar Memorial Lecture

The Indian Institute of Banking & Finance (IIBF) organizes the R. K. Talwar Memorial Lecture every year, in association with the State Bank of India (SBI) since 2007. The lecture is organised in memory of Shri. R. K. Talwar, who was the Chairman of SBI from 1969 to 1976. This year, the 13th R. K. Talwar Memorial Lecture will be held on 16th February 2024 at SBI Auditorium, Nariman Point, Mumbai. The lecture will be delivered by Dr. V. Anantha Nageswaran, Chief Economic Adviser, Government of India.



आधारभूत संरचना के विकास की चुनौती

संजय मधुकर नाफडे*

भारत ने इस वर्ष विश्व की पाँचवीं बड़ी अर्थव्यवस्था बनने का गौरव प्राप्त किया जबकि उसका सकल घरेलू उत्पाद 3740 बिलियन डॉलर को पार कर गया, इस प्रकार उसने ब्रिटेन की अर्थव्यवस्था को पीछे कर दिया। यद्यपि वह प्रति व्यक्ति सकल घरेलू उत्पाद के मामले में अभी भी कई देशों से पीछे है। देश ने वर्ष 2027-28 तक 5000 बिलियन अमेरिकी डॉलर की अर्थव्यवस्था बनने का लक्ष्य तय किया है जिसे पूर्ण करना भारत के अब तक की विकास यात्रा में एक मील का पत्थर साबित हो सकता है। पिछले दो-तीन वर्षों में कोविड व रूस यूक्रेन युद्ध सहित कई समस्याओं के साथ ही पूरी दुनिया पर आर्थिक मंदी के अंदेसे को देखते हुए भारत अपनी प्राथमिकताएं नए सिरे से तय करने में लगा हुआ है, लेकिन उसे अपना नीति निर्धारण सुनिश्चित करने के साथ ही उसमें बदलाव करने की आवश्यकता है जिससे कि वह दुनिया की पहली तीन आर्थिक महाशक्तियों में अपना स्थान बना सके, जिसके परिणामस्वरूप ही भारत देश वैश्विक बाजार व भू-राज नैतिक परिदृश्य में अपना स्थान बना सकता है। इसमें दो राय नहीं हो सकती कि भारत को आत्मनिर्भर बनना भी आवश्यक है, इससे वह अपनी अर्थव्यवस्था और घरेलू बाजार को अधिक प्रतियोगी बना सकता है। चूंकि भारत एक विकासशील देश है जिसके पास संसाधनों की एक सीमा है अतः इसका उपयोग उसे सावधानी से करने की आवश्यकता है। इन परिस्थितियों में भारत को उन महत्वपूर्ण क्षेत्रों की पहचान करना आवश्यक है जो अगले पांच वर्षों में उसके विकास के उद्देश्य को सही लक्ष्यों व योजनाओं के साथ चलने में समर्थ हो सकते हैं। भारत की यह विशेषता ही है कि देश की अर्थव्यवस्था के

तमाम क्षेत्रों में जो आस्तियां एवं परिसंपत्तियाँ हैं, वह मात्र कारखानों, विशाल भवनों या मशीनरी के भौतिक ढांचे के रूप में ही नहीं हैं, जिनका उपयोग सामान और सेवाओं के उत्पादन के लिए किया जाता है बल्कि मुख्य रूप से भारत की युवा आबादी और सामाजिक पूंजी जैसे कि स्वास्थ्य और शिक्षा के साथ ही उसके विशाल प्राकृतिक संसाधन के रूप में भी है जो इस विकास की प्रक्रिया में अपना योगदान करते हैं। लेकिन यह ध्यान रखना आवश्यक है कि इन सभी परिसंपत्तियों की उत्पादकता बहुत कुछ इस बात पर निर्भर करती है कि मूलभूत ढांचे के क्षेत्र के विकास में इसका उपयोग किस प्रकार होता है। इसी को दृष्टिगत करते हुए व भारत के मूलभूत ढांचा क्षेत्र के विकास की प्राथमिकता को ध्यान में रख कर पिछले वर्ष (2022-23) के केंद्रीय बजट में कनेक्टिविटी बढ़ाने वाली उन परियोजनाओं को पूरा करने के लिए बड़े पैमाने पर पूंजीगत व्यय की व्यवस्था की गई थी, जो भारत को सतत् विकास की ओर ले जाने का मार्ग प्रशस्त कर सकती है, चालू वर्ष (2023-24) के बजट में भी 75000 करोड़ रुपयों का प्रावधान किया है।

हम जानते हैं कि मूलभूत ढांचे का विकास आर्थिक प्रगति की अनिवार्य शर्त है, इससे उत्पादकता बढ़ती है और तमाम आर्थिक क्षेत्रों में उत्पादन की लागत कम होती है, पर्याप्त रूप से मूलभूत ढांचा उपलब्ध होना और उसका सटीक ढंग से चलना, देश के विकास की प्रक्रिया में महत्वपूर्ण भूमिका अदा करता है। उत्पादन में विविधता व नवोन्मेष लाना, प्रतियोगिता को बढ़ावा देकर व्यापार को बहुआयामी रूप प्रदान करना, पर्यावरण सुरक्षा को मूलभूत कारकों में शामिल करना तथा आमदनी से जुड़ने वाले कारकों में

*सेवानिवृत्त मुख्य प्रबंधक, स्टेट बैंक ऑफ इंडिया।

सुधार लाकर बहुआयामी गरीबी के स्तर को सुधारना इसके महत्वपूर्ण कारक है, हालांकि भारत के मूलभूत ढांचे की विकास यात्रा ऐतिहासिक रूप से योजना को लागू करने की खामियों व असफलताओं की शिकार रही है। इसके अलावा भारत में हर क्षेत्र के लिए मौजूद नियमों की जटिलताओं ने भी देश में कारोबार के विकास पर विपरीत प्रभाव डाला है। इन चुनौतियों से निपटने के लिए एक व्यापक योजना पर अनवरत काम करने की आवश्यकता है जिसे कि निरंतर एवं बहु आयामी निगरानी के माध्यम से पूरा किया जा सकता है। निश्चित रूप से इन अवसरों को समग्र और कुशल तरीके से लाभ उठाने के लिए भारत को अपने पुराने अनुभवों से सीख लेनी होगी, तभी देश बेहतर भविष्य का निर्माण करने में सफल होगा।

मूलभूत ढांचे में निवेश और विकास

किसी भी देश के मूलभूत ढांचे में निवेश प्रमुख रूप से सरकार के द्वारा किया जाता है। सरकार इसका संचालन और रख-रखाव भी करती है। यह सारा व्यय पूंजीगत व्यय (capex) के तहत आता है और अर्थव्यवस्था में उत्पादक संपत्तियों के निर्माण का काम करता है। वैसे तो सरकार का किसी भी प्रकार का व्यय फिर चाहे वह राजस्व व्यय हो या पूंजीगत व्यय मांग पैदा करके उच्च स्तर के आर्थिक विकास को गति देता है। लेकिन दोनों तरह के व्यय का असर बिल्कुल भिन्न होता है। राजस्व व्यय, अर्थव्यवस्था में सीधे तौर पर मांग का कारक है जो मांग को उत्पन्न करता है जो कि अंततः तेज़ आर्थिक विकास को गति देता है हालांकि इससे अर्थव्यवस्था की उत्पादक क्षमता में कोई इज़ाफ़ा नहीं होता है। वहीं दूसरी तरफ़ सरकार जब मूलभूत ढांचे के विकास के लिए पूंजीगत खर्च करती है, तो इससे न केवल सीधे तौर पर ठोस मांग पैदा होती है बल्कि इससे उत्पादकता में सुधार आता है और उत्पादन की लागत कम होती है। इन बातों के चलते निजी निवेश बढ़ता है और उनके लाभ की दर में वृद्धि होती है। यह बात भारत के संदर्भ में भी सही साबित होती है। इसे एक उदाहरण से समझा जा सकता है कि जब सरकार एक रुपए का राजस्व व्यय (सीधे लोगों के खाते में भुगतान) करती है, तो उससे

औसतन एक रुपए के बराबर ही अतिरिक्त आमदनी बढ़ जाती है। वहीं सरकार जब पूंजीगत व्यय में एक रुपए खर्च करती है तो ऐसा अनुमान है कि इससे आमदनी औसतन 2.45 रुपए बढ़ जाती है।

इसके अलावा विपरीत आर्थिक परिस्थितियों के दौरान वित्तीय व्यय में वृद्धि होने से आय के चक्र को बढ़ावा मिलता है। लेकिन देखा यह गया है कि कुछ अंतर्राष्ट्रीय दबावों एवं अनुबन्धों के चलते दूसरे विकासशील देशों की तरह भारत द्वारा अपने व्यय पर लगाम लगाने की कोशिशें उसके पूंजीगत व्यय को भी सीमित कर देती हैं, ताकि बजट घाटा एक सीमा से आगे न बढ़े। इसका व्यापक असर होता है और अर्थव्यवस्था के उत्पादन एवं वृद्धि में कमी आती है। इसीलिए राजस्व व्यय का उपयोग व्यापक आर्थिक स्थिरता लाने के उद्देश्य से देश के सकल राष्ट्रीय उत्पाद में पूंजीगत व्यय की हिस्सेदारी को संतुलित बनाना बेहद अहम हो जाता है। हमें यह ध्यान में रखना होगा कि भारत के लिए आने वाले पच्चीस वर्ष (जिसे की अमृतकाल भी कहा गया है) अत्यंत महत्वपूर्ण साबित होने वाले हैं, यह वह समय है जब कमजोरियों से मुक्ति पाने व अपनी शक्तियों पर ध्यान देने की आवश्यकता है। निश्चित रूप से भारत की युवा आबादी इसमें एक महत्वपूर्ण भूमिका का निर्वाह कर सकती है।

यह कहा जा सकता है कि जहां मूलभूत ढांचे में निवेश के लिए पूंजीगत व्यय की मांग बहुत अधिक होती है और इस व्यय से आमदनी में वृद्धि की संभावनाओं पर लम्बे समय बाद प्रभाव होता है। लेकिन इससे मूलभूत संरचना का निर्माण तीव्र गति से होता है। इसके अलावा मूलभूत ढांचे के विकास में तय समय-सीमा के तहत लक्ष्य आधारित निवेश भी बहुत अहम होते हैं। पहले की तरह मूलभूत ढांचे की मात्रा पर जोर देने के बजाय, इसकी गुणवत्ता और कुशलता सुधारने को बढ़ावा देने के लिए विश्व बैंक ने तीन बड़े उपाय सुझाए हैं। इन उपायों में कारोबार के मूल सिद्धांत जैसे कि प्रबंधन की स्वायत्तता देने जैसे सूत्र भी शामिल हैं, मूलभूत ढांचे को और अधिक प्रतिस्पर्धी बनाने के लिए इसमें निजी और सार्वजनिक क्षेत्र की भागीदारी बढ़ाना और ग्राहकों समेत सभी साझेदारों की जिम्मेदारी और जवाबदेही

में बढ़ोतरी करना शामिल है। यह ध्यान रखना जरूरी है कि पर्याप्त जवाबदेही के बिना यह क्षेत्र बेहद अकुशल साबित हो सकता है और इसकी क्षमता का पूरा उपयोग नहीं किया जा सकता है।

भारत की प्राथमिकताएं क्या होना चाहिए?

भारत के तमाम सभी आर्थिक क्षेत्रों में निजी क्षेत्र की हिस्सेदारी लगातार बढ़ती जा रही है एवं ऐसी स्थिति में व्यवसाय के लिए उत्कृष्ट मूलभूत ढांचे की जरूरत बेहद महत्वपूर्ण हो गई है। इस मामले में सरकार के सभी अंगों को अधिक ध्यान देने की जरूरत है। मूलभूत ढांचे के क्षेत्र में मुख्य रूप से सड़क, जल मार्ग के साथ ही रेल और वायु सेवाओं के व्यापक जाल और डिजिटल सेवाओं के विस्तार के साथ ही वैकल्पिक ऊर्जा का विकास शामिल है। वैसे तो भारत में पूंजीगत व्यय (सरकार के कुल खर्च के एक हिस्से के तौर पर) लगभग 23% ही है जो कि वैश्विक पैमानों से बेहद कम है। लेकिन पिछले पांच वर्षों के दौरान मूलभूत ढांचे के विकास से जुड़ी परियोजनाओं में लगातार वृद्धि दृष्टिगोचर हो रही है। मूलभूत ढांचे का क्षेत्र सरकार की बड़ी प्राथमिकताओं के दायरे में आ गया है। 2019 से 2023 के दौरान स्थायी व सतत आर्थिक प्रगति और देश के विकास के लिए इस क्षेत्र में 1400 बिलियन डॉलर के अनुमानित व्यय का अंदाजा लगाया गया है। इसके लिए भारत ने मूलभूत ढांचे के विकास के लिए कई क्षेत्रीय साझीदारों और विशेष रूप से जापान के साथ भी हाथ मिलाया है। यह कदम मूलभूत ढांचे के विकास को बढ़ावा देकर अपनी 'एक्ट ईस्ट' नीति के एजेंडे को मजबूती से आगे बढ़ाने में सहायक सिद्ध हो सकता है। इससे उम्मीद यही की जा रही है कि भारत अन्य क्षेत्रों के साथ अपनी अर्थव्यवस्था को अपने व्यावहारिक एवं व्यापारिक साझीदारों के साथ कार्यकारी समन्वय के साथ जोड़ेगा। इससे लेन-देन की लागत तो कम होगी ही, साथ ही तमाम देशों के साथ सामान और सेवाओं का बिना किसी बाधा के आदान-प्रदान भी हो सकेगा।

डॉलर मजबूत होने के कारण आयात बढ़ने की आशंका के बीच सरकार को यह लगता है कि वह राजकोषीय घाटे को

सीमित करने में सफल होगी। वर्ष 2023 में राजकोषीय घाटा 6.71 प्रतिशत रहा था। अर्थव्यवस्था में तेजी का संकेत इस बात से मिलता है कि जीएसटी के संग्रहण में लगातार वृद्धि हो रही है (जून 2023 में 1,61,497 करोड़ रुपये तथा अक्टूबर 2023 में बढ़कर 1,72,000 करोड़), हालांकि यह महंगाई के कारण भी हो सकता है। देश में आर्थिक गतिविधियों के तेज होने के संकेत के रूप में उद्योगों को दिए जाने वाले कर्ज में लगातार वृद्धि हो रही है। भारतीय रिजर्व बैंक के आंकड़ों के अनुसार एसएमई व बड़े उद्योगों को दिया जाने वाला ऋण बढ़कर जुलाई 2023 के अंत तक 32.82 लाख करोड़ रुपये हो गया है। देश की आर्थिक विकास की दर के बारे में विभिन्न विचार व्यक्त किए जाते रहते हैं, अनेक अर्थशास्त्रियों का विचार है कि यह वृद्धि अगर 7 से 7.5 प्रतिशत के बीच भी रहती है तो एक रिपोर्ट के अनुसार वर्ष 2030 तक देश के प्रति व्यक्ति आय 70% तक बढ़कर 4000 डॉलर हो सकती है जिसके फलस्वरूप देश का सकल घरेलू उत्पाद कोई 6 ट्रिलियन के आसपास होगा, जिसका आधे से अधिक हिस्सा घरेलू खपत से प्राप्त होगा। उल्लेखनीय है कि वर्ष 2001 में भारत की प्रति व्यक्ति आय मात्र 460 डॉलर ही थी। इसी वृद्धि दर से वर्ष 2047 तक भारत देश एक मध्य आय वाला देश बनने में समर्थ हो सकता है, ऐसी स्थिति में देश की अर्थव्यवस्था का आकार बीस लाख करोड़ डॉलर होगा व आय प्रति व्यक्ति दस हजार डॉलर प्रतिवर्ष हो सकती है।

इंडिया कम्पीटिटीवनेस इनिशिएटिव की एक रिपोर्ट का हवाला देना यहां उचित होगा क्योंकि इसमें कई मानकों का इस्तेमाल कर प्रतिस्पर्धी क्षमता का आकलन किया गया है। रिपोर्ट के अनुसार समय के साथ भारत में गरीबी तो कम हुई है परंतु असमानता में चिंताजनक वृद्धि हुई है और देश की सम्पत्ति कुछ सीमित धनाढ्य वर्ग के हाथ में केंद्रित होती जा रही है। जहां देश में प्रति कर्मचारी सकल घरेलू उत्पाद में आए बदलाव के आधार पर उत्पादकता में वृद्धि हुई है, लेकिन श्रम का यथोचित प्रबंधन नहीं किया जा सका है, क्योंकि भारत कृषि व श्रम शक्ति भागीदारी से अधिक लोगों को श्रम के लिए जुटाने में सफल नहीं हो पाया है। जहां

एक ओर बड़ी कम्पनियों ने उत्पादकता वृद्धि को गति दी है, वहीं दूसरी ओर छोटी व कमजोर भारतीय कंपनिया, जिनकी सकल घरेलू उत्पाद व रोजगार में बड़ी हिस्सेदारी है, में समस्याएं बनी हुई है। एक नियोजित प्रक्रिया के अंतर्गत देश में उच्च गुणवत्ता की कंपनियों का उभार हुआ है। प्रतिस्पर्धा बढ़ने के साथ ही इनकी गुणवत्ता व लाभप्रदता भी बढ़ी है, सर्वाधिक उल्लेखनीय कार्य वर्ष 1991 से 1999 के बीच हुआ, सीमा शुल्क में कमी का इसमें बड़ा योगदान रहा है। देश में संस्थागत सुधारों की दिशा में अभी भी बहुत कुछ करने की आवश्यकता बनी हुई है।

हालांकि परिवहन और डिजिटल संयोजकता के मूलभूत ढांचे के विकास में भारी निवेश के साथ ही भारत में केंद्र और राज्यों की सरकारों के तमाम विभागों के बीच कुशल तालमेल बढ़ाने की भी आवश्यकता है। वैश्विक मानकों की तुलना में भारत में लॉजिस्टिक्स की लागत बहुत अधिक है। इसकी वजह कुछ ऐसी बाधाएं हैं जो लंबे समय से चली आ रही हैं और जिनका तुरंत समाधान निकालने की आवश्यकता है। तभी जाकर 'पीएम गति शक्ति नेशनल मास्टर योजना' के अंतर्गत मूलभूत ढांचे के विकास की परिकल्पना को आपसी तालमेल से साकार किया जा सकेगा और इससे मल्टी-मॉडल परिवहन नेटवर्क के जरिए एक सिरे से दूसरे सिरे तक बिना बाधा के संपर्क को सुनिश्चित किया जा सकेगा और औद्योगिक क्षेत्रों के विकास को बढ़ावा दिया जा सकेगा, जो आर्थिक प्रगति और विकास में योगदान दे सकेंगे। इसके साथ ही सतत विकास के एजेंडे के तहत प्रधानमंत्री गति शक्ति नेशनल मास्टर योजना के माध्यम से औद्योगिक विकास और पर्यावरण

संबंधी चुनौतियों के बीच बेहतर तालमेल स्थापित करना भारत की अर्थव्यवस्था को हरित परिवर्तन की राह पर भी ले जा सकने में समर्थ होगा। एक अन्य चिंताजनक तथ्य उभरकर सामने आता है, वह यह है कि जहां ग्रामीण इलाकों से शहरी क्षेत्रों की ओर पलायन लगातार बढ़ रहा है लेकिन शहरीकरण की प्रक्रिया एवं वहाँ उपलब्ध सुविधाओं में कोई सुधार नहीं हो पा रहा है। आने वाले समय में भारत के लिए सबसे अहम कार्य मूलभूत ढांचे के विकास से जुड़ी परियोजनाओं में भारी निवेश की कोशिशों और उन्हें समय पर पूरा करने के लिए आवश्यक तत्वों के बीच समन्वय बैठाना होगा। मूलभूत ढांचे के विकास के लिए आवश्यक और आपस में जुड़ी इन चुनौतियों से समग्र रूप से निपटकर ही भारत अगले एक दशक के दौरान अपने विकास की संभावनाओं को साकार कर सकेगा।

स्रोत

- नीति आयोग
- भारतीय रिज़र्व बैंक के विभिन्न सूचना पत्र तथा विभिन्न समाचार पत्रों की सामग्री
- इकोनोमिक टाइम्स
- <https://www.businessstoday.in/latest/economy/story/centres-fiscal-deficit-narrows-down-to-64-of-gdp-meets-set-budgeted-target-383647-2023-05-31>
- <https://pib.gov.in/PressReleasePage.aspx?PRID=1936636>



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Summary of Diamond Jubilee & CH Bhabha Banking Overseas Research Fellowship (DJCHBBORF) Report, (2020-21)

on

Asymmetric information and market failure in Bank-NBFC co-lending model

By:

**Dr. Bibekananda Panda,
Assistant General Manager (Economist), State Bank of India.**

The Co-Lending Model (CLM) that came into force in November 2020 allows banks to lend to priority sector borrowers in collaboration with Non-Banking Financial Companies (NBFCs). The revised CLM carries forward the Reserve Bank of India's (RBI) earlier co-origination loan scheme, which was launched in September 2018 to ease the liquidity crunch triggered by the IL&FS crisis. CLM is envisioned as one of the important pillars for financial inclusion which is a critical facilitator of inclusive and sustainable development. The scheme has a lot of potential in the lending ecosystem since it combines the advantage of banks' low cost of funding with the agility and reduced cost of operations of NBFCs. As a result, the loan is affordable and accessible to the end user. It benefits the whole ecosystem as CLM allows banks to create priority sector assets through CLM partners without committing extra resources. Similarly, NBFCs gain from creating a high-quality loan book while maintaining their yields and profitability. The benefit of low cost of financing from banks and reduced cost of operations of NBFCs is passed on to the final recipient via the all-inclusive rate or weighted average blending rate which is close to the lending rate charged by the banks.

CLM assumes that there is a perfectly competitive credit market and all lenders are equally informed about the borrowers, which is not practical in many relevant markets. Despite its inherent advantages, the CLM had a slow start. There are a few factors

hindering the growth of the CLM in India. Apart from operational issues including IT system integration, development of a common credit policy, reconciling repayment schedules, bureau reporting, simultaneous credit risk assessment, hypothecation, servicing and escrow management etc., one of the major hurdles for the CLM is the trust deficit between the lending partners which is limiting the product development. As trust deficit reduces the efficiency of the CLM, banks and NBFCs need to address the issue to make the CLM successful. While NBFCs are confident of their reliable customer selection and due diligence process, banks untrust NBFCs' borrower selection and credit assessment process due to various reasons. When the lending partners are a bank and an NBFC, the appraisal criteria are substantially different. Given the varying nature of assessment, a significant number of borrowers falls outside the credit sanction criteria.

With higher rejection rate, NBFCs are convinced that if they share sub-prime proposals with banks, there is high probability that banks will reject those. Hence, either by preference or by compulsion, subprime borrowers are solely financed by NBFCs. But the initial behaviour of the NBFCs in sharing high-risk proposals is anchored in the behaviour of banks and they follow stringent underwriting process. NBFCs are selective in choosing a borrower in CLM as the rigid process followed by banks ends up with a higher rejection rate. As both the lenders has the options to underwrite

separately, the customers' Turnaround Time (TAT) is also impacted. Furthermore, the amount of monitoring is greater when the bank is the primary lender.

Trust deficit among the lending partners might be getting triggered by the asymmetric information and ultimately leading to market failure. To understand the anomalies in the CLM ecosystem, the study aims at understanding the concerns of all stakeholders (Banks, NBFCs and HFCs) on the issue of asymmetric information as a constraint in the CLM credit market growth. It also tries to assess whether the loan pricing of CLM by banks is competitive.

The current study is the first of its kind in the CLM in India. The literature on the subject is fairly limited due to its distinctiveness and timing. Apart from newspaper reports, there is little credible literature on the subject to date. Additionally, there is no publicly available statistics on CLM in India. Under such a scenario, the study is an honest attempt to understand the nuances of the CLM market through stakeholder interaction and feedback; hence, the study is primary research in nature. A total of sixteen (16) banks (9 PSBs & 7 PvSBs) and twenty (20) NBFCs/HIFCs/Fintechs which are into the CLM business are surveyed for the study.

Summarising the feedback received from banks shows that the preferred CLM for banks is the one where NBFCs on-board the borrower and banks underwrite the loan later. The cash flow approach is the preferred appraisal method for banks. Banks find CLM riskier than their normal credit portfolio and in the absence of CLM, banks do not entertain the same borrowers. Banks opine that in most of the cases the risk profiling of the CLM borrowers is not aligned with banks' credit policy. To hedge against risk, banks charge a higher premium upfront when pricing the CLM proposals. NBFCs are treating the CLM as a fair-weather partnership to survive from liquidity crunch and revert to their on-book lending as soon as the liquidity situation improves. Moreover, larger NBFCs are absent in the CLM. On an average, 24% of the CLM proposals are rejected by partner banks, and bank specific rejection rates widely vary from 10% to 45%. This is mainly

as NBFCs are flexible compared to banks in their underwriting process. Additionally, the absence of the required documents as per banks' existing guidelines inflates the rejection rate under CLM.

The extra cost incurred in underwriting, loan servicing, towards risk premia, etc., inflate the blended rates most of the times but based on the risk profile and costs incurred, pricing is most competitive in CLM. Though banks charge high premium to CLM borrowers, those premiums are account specific based on the risk profiling and not generic. Banks are comfortable with NBFCs retaining a minimum of 20% of the loan share on their books. Credit rationalisation is a common phenomenon in CLM and banks regularly persuade NBFCs to rationalise the quantum of credit. Even though the CLM has been in place for two and half years, banks and NBFCs often complain that the operational process has not yet been fully synchronised.

Summarising the feedback received from NBFCs/HFCs shows that NBFCs prefer the model where they onboard the borrower and banks underwrite later on. The preferred appraisal method for NBFCs is the cash flow approach, the same as for banks. Unlike banks, NBFCs find the CLM portfolio less risky. Activity-wise segregation shows that while underwriting and sanctioning are simultaneously undertaken by banks and NBFCs, post-sanctions, follow-up and recovery are taken care of by NBFCs. Some of the banks have onboarded Fintech for their niche credit assessment technique and digital platform. The initial operational glitches are almost addressed and both banks and NBFCs are quite comfortable with the process. However, it has always been a challenge when an NBFC ties-up with a new banking partner. On an average, it takes 1-2 quarters for the system to be fully integrated with a new partner. NBFC's decision of whether the borrower to be fully financed by NBFC or to be considered under CLM solely depends on the quantum of the credit. The Unique Selling Propositions (USPs) of NBFCs in CLM business are their robust credit appraisal mechanism, strong local footing, robust recovery mechanism and analytics-based credit assessment process, etc.

Due to the engagement of two or more very distinct lending organisations with diverse processes, policies, technology systems and risk management practices, CLM provides some challenges. Integration of underwriting, disbursement and collection processes has taken longer time and yet has failed to bridge all gaps. Greater co-ordination among lenders is required, including the seamless integration of their technological systems, not only to accomplish the CLM's objective but also to ensure a smooth customer experience. The platform integration eliminates the need for integration with Core Banking Solution (CBS) and each of the lender Loan Management System (LMS) programmes. Because the credit evaluation criteria for the bank and the originator are different, the underwriting policy must be digitised for a system-based review. Understanding the nuances of the CLM is crucial for the long-term sustainable credit growth in India.

Both banks and NBFCs need to consider CLM as a joint venture. There should be a common journey and long-term vision. Once the credit quality is established and it is demonstrated that CLM can bring the money back with robust system in place, banks will welcome it. Banks are pricing the risk upfront which is positive. Trusting each stakeholder is important and aligning interests and considering it as a joint venture is crucial. Frictions need to be minimized through building trust. NBFCs' ability and nimbleness to adjust to banks' policies is important as well. CLM provides a unique opportunity for banks and NBFCs to work together to improve their approach to lending to priority sectors. It has tremendous scope and the regulator may extend the scope of the CLM model to non-priority sectors as well.



DECLARATION FORM

The Editor,
Bank Quest,
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Tower I, 2nd Floor, Kiroli Road, Kurla (W), Mumbai - 400 070.

Dear Sir / Madam,

Re : Publication of my article

I have submitted an “_____” for publication at your quarterly journal Bank Quest.

In this connection this is to declare and undertake that the said article is my original work and that I am the author of the same. No part of the said article either infringes or violates any existing copyright or any rules there under.

Further, I hereby agree and undertake without any demur; to indemnify and keep the Institute (IIBF) indemnified against all actions, suits, proceedings, claims, demands, damages, legal fees and costs incurred by the Institute arising out of infringement of any copyright /IPR violation.

Yours faithfully,

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IIBF invites papers under Micro Research 2023-24

Indian Institute of Banking & Finance (formerly The Indian Institute of Bankers) was established in 1928 and is working with a mission “to develop professionally qualified competent bankers and finance professionals primarily through a process of education, training, examination, consultancy/ counselling and continuing professional development programmes”. One of the objectives of the Institute is to promote research relating to operations, products, instruments, processes, etc. in banking and finance and encourage innovation and creativity among banking and finance professionals. ‘Micro Research’ is a sort of an essay competition for members of the Institute (bankers) to present their original ideas, thoughts and best practices on areas of their interest. This initiative was started in 2004-05. Since then, the Institute invites Micro Research papers every year, on topics identified by the Research Advisory Committee of the Institute.

The competition is open to life members of IIBF, who are presently working in banks and financial institutions. In this regard, the Institute invites Micro Research papers for the year 2023-24 on the following topics. (See important clause on copyrights below¹)

1. Climate Risk – Whether banks are ready for transition.
2. Growing role of Fintech companies in financial sector – Issues and Challenges.
3. Central Bank Digital Currency – A SWOT Analysis.
4. Financial Frauds – How to alleviate customer grievances.
5. Operation Risks faced by banks – Causes & Mitigation.
6. Credit Risk and Loan Default Prediction.
7. Cryptocurrencies- Appropriate Regulation.

The essays/papers will be judged on their content/ relevance and originality. The authors of the accepted papers will be rewarded with a citation and cash prize ranging from Rs. 5,000/- to Rs. 15,000/- depending on the merit of the paper. The copyrights of the selected essays/papers will lie with IIBF.

All the interested members of the Institute may submit the soft copy of the Micro Research papers in English with the word limit of 5000 words or 10 – 12 pages (A4/ Times New Roman / Font size 12) in MS Word format through email to kratika@iibf.org.in

The last date for submission of the paper is **28th February, 2024**. Applicants must mention following details on the front page of their papers:

Name	
Membership No.	
Topic	
Designation & Employer	
Correspondence address	
Mobile no./ Landline no.	
Email ID	

Applications without membership numbers/ incomplete details will not be considered.

Phone: 022 - 68507062/68507033

¹ Candidates may please note that copying materials as it is from various sources should completely be avoided. Wherever information used in the essay is taken from other sources, the author should acknowledge and provide complete reference of the source. It should be ensured that there is no violation of copyrights, if any.

IIBF invites proposals under Macro Research 2023-24

The Indian Institute of Banking & Finance (Estd: 1928) is working with a mission "to develop professionally qualified competent bankers and finance professionals primarily through a process of education, training, examination, consultancy/counselling and continuing professional development programmes". One of the objectives of the Institute is to promote research relating to Operations, Products, Instruments, Processes, etc. in Banking and Finance and to encourage innovation and creativity among banking and finance professionals. With this in view, in 2003, the Institute had started to fund research studies on selected areas in banking and finance, known as 'Macro Research', the term macro suggesting the scope of the research and to distinguish it from the other research initiative of the Institute namely the 'Micro Research'. Under the Macro Research scheme, the Institute invites proposals from research scholars from universities, colleges and banks to take up research in identified areas.

Topics for Macro Research

The Institute encourages empirical research in which, the researchers can test their hypothesis through data (primary/secondary) from which, lessons can be drawn for the industry (banking & finance) as a whole. In this regard, the Institute invites Macro Research Proposals for the year 2023-24 on the following topics. (See important clause on copyrights below¹)

1. Application of Artificial Intelligence in Banking.
2. Social Media Marketing of financial services.
3. Future of Financial literacy in India.
4. MFIs: Role & future prospects as an enabler for financial inclusion.
5. Impact of IBC, 2016 on Stressed Asset resolution.
6. A Vision plan for Indian Banking for 2047.

7. Growing Importance of Urban Co-operative Banks.

Who can participate?

Teams sponsored/identified by research organizations/institutes, as well as individuals presently serving in banks/corporates/research organizations/institutions having a proven track record, are eligible to apply. Research proposals from bankers are specially encouraged. The individuals applying under this scheme should not be more than 58 years as on 28.02.2024.

The winners of the macro research award during the last three years (2021-22, 2020-21 and 2019-20) are not eligible to apply for the research award. Also, those winners of macro research who have been awarded twice in the past 10 years are not eligible to apply. If the research is undertaken by individuals, the proposal should be routed through their organizations after taking requisite permission, wherever applicable.

Research Proposal

The Research Proposal/s submitted should, among others, focus on the research objective/s, hypothesis, research design, methodology and execution plan of the proposed project.

Evaluation

The Research proposals will be evaluated in terms of its objective, relevance and methodology. Action points flowing from the research for policy making, should be clearly listed out in the final research report to be submitted. The track record of the research organizations/researchers submitting the proposal is also taken into account for awarding the research. All the research proposals will be prima facie considered for suitability and final selection will be made after the

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short listed researchers make a presentation to the members of the Research Advisory Committee (RAC) of the Institute.

Research Grant

The selected research project carries a cash award of Rs.2,50,000/- (Rupees two lakh and fifty thousand only). On commencement of the project a part (25%) of the award money will be given by way of advance as per the request of the researcher. The balance will be disbursed only on acceptance of the final report. In case a report is found unacceptable during the midterm review and final review, the research organization/researcher will not be paid the balance amount. In case a research organization/researcher abandons the project mid-way, they would be required to refund the advance availed together with interest at the prevailing MCLR of the State Bank of India (SBI).

Size of research report

Around 200-250 pages

Time frame

After completing the research work, the final research report should be submitted within a **maximum period of six months** from the time the project is awarded. **In case of delay in submission of report, the award may be forfeited.** The copyrights of the report will lie with IIBF. The report in part or full, cannot be

reproduced in any form without prior approval from IIBF.

Applicant research organizations/researchers are required to submit typed proposals in English along with a brief bio-data highlighting their experience in conducting similar research. The front page of the proposal should contain following details:

Name	
Designation	
Address	
E-mail	
Phone No	
Title of Research Proposal	
Major Objective/s of Research	

The last date for submission of the proposal is **28th February 2024. The soft copy of the proposals can be sent at kratika@iibf.org.in**

The Director of Academic Affairs, Indian Institute of Banking & Finance, Kohinoor City, Commercial-II, Tower-I, 2nd Floor, Behind Kohinoor Mall, Off. L.B.S. Marg, Kurla (West), Mumbai-400 070
Phone: 022-68507062/68507033

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13	CAIIB-Optional	English	Central Banking	2023	Macmillan Education India Pvt. Ltd.	720
14	Certificate Examination in Anti-money laundering and Know Your Customer	English	Anti-Money Laundering And Know Your Customer	2023	Macmillan Education India Pvt. Ltd.	445
15	Certificate Examination in Foreign Exchange Facilities for Individuals	English	Foreign Exchange Facilities For Individuals	2017	Macmillan Education India Pvt. Ltd.	473
16	Certificate Examination in Micro Finance	English	Micro Finance	2014	Macmillan Education India Pvt. Ltd.	365
17	Certificate Examination in Prevention of Cyber Crimes & Fraud Management	English	Prevention Of Cyber Crimes & Fraud Management	2017	Macmillan Education India Pvt. Ltd.	245
18	Diploma In Urban Co-operative Banking	English	Cooperative Banking-Principles, Laws & Practices	2017	Macmillan Education India Pvt. Ltd.	315
19	Diploma In Urban Co-operative Banking	English	Management And Operations Of Co-Operative Banks	2017	Macmillan Education India Pvt. Ltd.	445
20	Diploma In International Banking	English	International Banking - Legal & Regulatory Aspects	2017	Macmillan Education India Pvt. Ltd.	245
21	Diploma In International Banking	English	International Corporate Finance	2017	Macmillan Education India Pvt. Ltd.	290
22	Diploma In International Banking	English	International Banking-Operations	2017	Macmillan Education India Pvt. Ltd.	285
23	Certificate Examination in Strategic Management & Innovations in Banking	English	Strategic Management & Innovations In Banking	2021	Macmillan Education India Pvt. Ltd.	450

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25	Certified Accounting & Audit Professional - (RPE)	English	Bankers' Handbook On Auditing	2018	Taxmann Publication Pvt Ltd	750
26	Certified Credit Professional	English	Bankers' Handbook On Credit Management	2023	Taxmann Publication Pvt Ltd	1300
27	Certified Banking Compliance Professional	English	Compliance In Banks	2017	Taxmann Publication Pvt Ltd	1135
28	Certificate Course in Digital Banking	English	Digital Banking	2019	Taxmann Publication Pvt Ltd	400
29	Certificate Course in Ethics in Banking	English	Ethics In Banking	2018	Taxmann Publication Pvt Ltd	475
30	Debt Recovery Agent Examination	Marathi	Handbook On Debt Recovery	2019	Taxmann Publication Pvt Ltd	400
31	Debt Recovery Agent Examination	Tamil	Handbook On Debt Recovery	2019	Taxmann Publication Pvt Ltd	470
32	Debt Recovery Agent Examination	English	Handbook On Debt Recovery	2023	Taxmann Publication Pvt Ltd	540
33	Certificate Examination For Business Correspondents / Facilitators	Assamese	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	520
34	Certificate Examination For Business Correspondents / Facilitators	Bangla	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	540
35	Certificate Examination For Business Correspondents / Facilitators	Gujarati	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	500

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37	Certificate Examination For Business Correspondents / Facilitators	Malayalam	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	650
38	Certificate Examination For Business Correspondents / Facilitators	Marathi	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	475
39	Certificate Examination For Business Correspondents / Facilitators	Oriya	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	530
40	Certificate Examination In Inclusive Banking (Payments Banks)	English	Inclusive Banking (Payments Banks)	2019	Taxmann Publication Pvt Ltd	345
41	Certificate Examination For Business Correspondents / Facilitators	Tamil	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	730
42	Certificate Examination For Business Correspondents / Facilitators	Telugu	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	570
43	Certificate Examination For Business Correspondents / Facilitators	English	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	500
44	Certified Information System Banker	English	Information System For Banks	2017	Taxmann Publication Pvt Ltd	645
45	Certificate Course On Resolution Of Stressed Assets With Special Emphasis On Insolvency And Bankruptcy Code, 2016 For Bankers	English	Certificate Course On Resolution Of Stressed Assets With Special Emphasis On Insolvency And Bankruptcy Code, 2016 For Bankers	2020	Taxmann Publication Pvt Ltd	400
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49	Certificate Examination in IT Security	English	IT Security	2017	Taxmann Publication Pvt Ltd	425
50	Certificate Examination in IT Security	Hindi	IT Suraksha	2019	Taxmann Publication Pvt Ltd	400
51	Certificate Examination For Small Finance Banks	Hindi	Laghu Vitt Bank	2019	Taxmann Publication Pvt Ltd	870
52	Advanced Wealth Management	English	Managing/Marketing Of Financial Services	2015	Taxmann Publication Pvt Ltd	335
53	Certificate course on MSME	English	Micro Small And Medium Enterprises	2022	Taxmann Publication Pvt Ltd	750
54	Certificate Course for Non-Banking Financial Companies	English	Non Banking Financial Companies	2017	Taxmann Publication Pvt Ltd	615
55	Certified Credit Professional	Hindi	Rinn Prabndhan Par Banker Pustika	2021	Taxmann Publication Pvt Ltd	975
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IIBF - PUBLICATION LIST

Sr. No	Examination / Other Books	Medium	Name of the Book	Edition	Published by	Price (Rs.)
58	Advanced Wealth Management	English	Securities Markets & Products	2015	Taxmann Publication Pvt Ltd	595
59	Certificate Examination For Small Finance Banks	English	Small Finance Banks	2018	Taxmann Publication Pvt Ltd	865
60	Certificate Examination In Inclusive Banking (Payments Banks)	Hindi	Smaveshi Banking (Payments Banks)	2019	Taxmann Publication Pvt Ltd	345
61	Certificate Examination For Business Correspondents / Facilitators	Hindi	Inclusive Banking Thro' Business Correspondents	2018	Taxmann Publication Pvt Ltd	540
62	Diploma in Treasury Investment and Risk Management	English	Treasury Management	2023	Macmillan Education India Pvt. Ltd.	860
63	Other Publications	English	Shri R.K. Talwar Memorial Lectures (2007-2021)	2022	Taxmann Publication Pvt Ltd	400

Bank Quest included in UGC CARE List of Journals

The University Grants Commission (UGC) had established a “Cell for Journals Analysis” at the Centre for Publication Ethics (CPE), Savitribai Phule Pune University (SPPU) to create and maintain the UGC-CARE (UGC – Consortium for Academic and Research Ethics). IIBF’s Quarterly Journal, Bank Quest has been included in UGC CARE list of Journals.