

# Non-Performing Assets in Indian Banking in the 2010s

## The Role of Infrastructure and Public-Private Partnerships

RAKESH MOHAN AND DIVYA SRINIVASAN

Infrastructure development is critical to economic growth, serving as the backbone of trade, industry, and overall societal progress. In India, the financing of infrastructure projects has been a joint effort between the government, the private sector, and banks. The introduction of public-private partnerships (PPPs) in the late 1990s was intended to enhance private sector participation and efficiency in infrastructure development. However, the financial viability of some of these projects has been questioned due to the rising levels of non-performing assets (NPAs) in the banking sector. This study empirically analyses the impact of bank infrastructure financing on NPAs, investigating whether public sector banks (PSBs) are involved in poor lending decisions and exploring the structural risks inherent in infrastructure projects.

Following independence, India's infrastructure was largely underdeveloped, requiring significant public investment. The push for Development Finance Institutions (DFIs), such as Industrial Development Bank of India (IDBI) and Industrial Credit and Investment Corporation of India (ICICI), facilitated industrial growth. However, after the financial sector reforms in the 1990s, DFIs were phased out, leaving commercial banks as the primary lenders for infrastructure projects. With a sevenfold increase in infrastructure investment requirements projected by the India Infrastructure Report (1996), the government turned to PPPs to share financial burdens. Over time, private investment in infrastructure surged, particularly between 2007 and 2014. However, the subsequent financial stress in these projects contributed to a sharp rise in bank NPAs.

Subsequently, Indian banks have been the dominant providers of corporate credit, with infrastructure absorbing a significant share of non-food credit. Unlike developed economies where bond markets play a role in infrastructure financing, India's underdeveloped corporate bond market has constrained alternative sources of funding. Banks, especially PSBs, have remained the primary lenders, leading to significant asset-liability mismatches due to the long gestation periods of infrastructure projects.

The early 2010s witnessed a twin balance sheet crisis as gross NPAs (GNPAs) in scheduled commercial banks rose from 2.5% in 2010–2011 to 11.2% in 2017–2018. PSBs were particularly affected, with NPAs rising to 14.6%, compared



to 4.7% for private banks. Four major factors contributed to this crisis: the fall in commodity prices, which led to significant financial distress in sectors reliant on commodities like metals; prolonged regulatory forbearance, which allowed unsustainable credit exposure; corporate governance failures in both banks and borrowing firms; and failures in PPP infrastructure projects, particularly in power and roads, which experienced severe financial stress.

Analysis of data from the Insolvency and Bankruptcy Board of India (IBBI) indicates that 50% of corporate debt defaults under insolvency resolution stem from the infrastructure sector, highlighting the sector's significant contribution to the overall NPA problem in Indian banking.

PSBs have disproportionately lent to the infrastructure sector compared to private banks. A sectoral credit analysis reveals that power and roads received the highest bank exposure, aligning with the sectors that later exhibited significant financial stress. Despite the high-risk nature of infrastructure lending, PSBs continued financing these projects due to policy mandates and a lack of alternative infrastructure financing institutions. Using proprietary project-level data, a comparative analysis of firms with PSBs as lead bankers versus private banks showed that before lending, firms selected by PSBs had healthier financial conditions than those chosen by private banks. However, post-lending, the financial health of PSB-backed firms deteriorated significantly, suggesting weak monitoring rather than poor initial screening.

Several structural challenges make infrastructure projects inherently risky. In the power sector, overcapacity emerged due to the overestimation of demand, while fuel supply disruptions and coal shortages further exacerbated financial stress. The lack of long-term power purchase agreements (PPAs) with State utilities created revenue uncertainty, and the financial distress of power distribution companies (Dis-Coms) led to a cascading effect on the power sector. In the roads, highways, and bridges sector, land acquisition delays, slow environmental clearance processes, overleveraging, and poor financial health of private developers led to frequent defaults. Furthermore, while PPP projects promised efficiency, they often faced cost overruns and maintenance issues.

The failure of large infrastructure projects and rising NPAs have led to successive rounds of bank recapitalisation by

the government. Between 2008–2009 and 2021–2022, PSBs received capital infusions totalling Rs 4.03 trillion. Under the Indradhanush plan (2015), the government estimated that PSBs would require Rs 1.8 trillion in capital support. A more aggressive recapitalisation effort followed in 2017, with Rs 2.11 trillion earmarked for stressed banks, primarily financed through recapitalisation bonds. However, the necessity of recapitalising banks undermines one of the primary objectives of PPPs, which is to reduce fiscal pressure on the government. Instead, much of the financial burden has shifted back to the public sector, raising questions about the effectiveness of infrastructure financing strategies.

To prevent future banking crises and ensure sustainable infrastructure financing, several policy recommendations emerge. Strengthening alternative infrastructure financing mechanisms is crucial, including the development of a deeper corporate bond market to reduce dependency on bank lending and encouraging institutional investors such as insurance companies and pension funds to participate in infrastructure financing. Project appraisal and monitoring need improvement, with enhanced due diligence in infrastructure lending by banks and stricter monitoring mechanisms post-lending to ensure financial discipline. The PPP model must be reformed to reduce dependence on government guarantees, establish more effective risk-sharing mechanisms, and introduce dynamic contract structuring to adjust for unforeseen project risks. Bank governance and incentives must also be revamped, improving governance frameworks within PSBs to enhance lending decisions and aligning lending incentives with project performance rather than loan disbursement targets. Finally, strengthening specialised financial institutions like the National Bank for Financing Infrastructure and Development (NaBFID) and India Infrastructure Finance Company Ltd. (IIFCL) will help to better assess long-term infrastructure risks and promote credit enhancement schemes to attract private investment in infrastructure projects.

The Indian twin balance sheet crisis of the 2010s underscores the critical role of infrastructure financing in determining financial stability. While private sector participation in infrastructure development remains crucial, it must be accompanied by stronger financial oversight, institutional reforms, and improved risk management strategies. Addressing the structural issues in infrastructure financing will not only reduce NPAs in banks but also ensure sustainable long-term economic growth.

## About the authors



**Rakesh Mohan** is President Emeritus and Distinguished Fellow at CSEP.

Prior to this, he was President and Distinguished Fellow, CSEP from October 2020 till May 2023. In March 2024, he was appointed to serve on the World Bank Group's Economic Advisory Panel. He has been a member of the Prime Minister's Economic Advisory Council (EAC-PM) since October 2021.

Prior to joining CSEP, Dr Mohan was Senior Fellow in the Jackson Institute for Global Affairs, Yale University and was also Professor in the Practice of International Economics and Finance at the School of Management at Yale University, 2010-12. He has also served as Distinguished Consulting Professor at Stanford University in 2009. Dr Mohan was also a Distinguished Fellow with Brookings India.

He has been closely associated with the Indian economic reforms process from the late 1980s. He was Executive Director on the Board of the International Monetary Fund, Deputy Governor of the Reserve Bank of India, Secretary, Economic Affairs, and Chief Economic Adviser of the Indian Ministry of Finance, and Economic Adviser in the Ministry of Industry.

He was also Chairman of Government committees that produced the influential reports on infrastructure: The India Infrastructure Report (1996), The Indian Railways Report (2001) and The India Transport Report (2014).

He has authored three books on urban economics and urban development; two on monetary policy: *'Monetary Policy in a Globalized Economy: A Practitioner's View'* (2009), and *"Growth with Financial Stability: Central Banking in an Emerging Market"*. His most recent book (edited) is *"India Transformed: 25 Years of Economic Reforms"*.



**Divya Srinivasan** is a former Research Associate with the Economic Growth and Development vertical.

At CSEP, she worked extensively on identifying the structural causes of stress in India's financial sector, and has also engaged with a broader set of issues, including trade, economic growth, and banking. Her research interests lie at the intersection of macroeconomics, finance, and public policy.

Divya holds a master's degree in economics from the Delhi School of Economics. She is currently an economist with a leading private sector financial institution.

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6, Dr Jose P. Rizal Marg, Chanakyapuri, New Delhi - 110021, India



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