

# The Dynamics of Bank Credit and Industry Credit in India: An Empirical Study of the MSME Sector

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**Abstract** — Micro, Small and Medium Enterprises (MSMEs) are widely described as the backbone of the Indian economy, contributing close to 30 per cent of national income, a little over a third of manufacturing output, and roughly 45 per cent of the country's merchandise exports, while sustaining employment for more than 110 million people. Despite this scale, the sector has historically operated under a severe financing constraint, with credible estimates of the gap between demand and formally supplied credit ranging from about ₹20 lakh crore to ₹30 lakh crore in recent years. This paper examines the evolving relationship between bank credit and industrial credit in India, with specific reference to the MSME sector, using secondary data drawn from the Reserve Bank of India (RBI), the Ministry of Micro, Small and Medium Enterprises, Parliamentary disclosures, and other government and industry publications. Employing a Pearson correlation framework on annual data for scheduled commercial bank (SCB) credit to MSMEs and to the industrial sector as a whole, the study finds a very strong, statistically significant positive association between the two series ( $r \approx 0.98$ ,  $p < 0.001$ ), leading to rejection of the null hypothesis of no relationship. The paper further documents that credit to MSMEs grew faster than credit to any other major sector in 2024-25, even as overall bank credit growth decelerated, reflecting the cumulative effect of policy interventions such as the Credit Guarantee Trust for Micro and Small Enterprises (CGTMSE), the Emergency Credit Line Guarantee Scheme (ECLGS), and priority sector lending norms. At the same time, the study finds that formal credit penetration remains low — by some estimates only about one in seven MSMEs has access to institutional finance — and that collateral requirements, asset-quality caution among lenders, and disparities across enterprise size and gender continue to constrain the sector. The paper concludes with a set of policy-relevant observations on deepening formal credit flow to MSMEs.

**Keywords**— MSME financing, bank credit, industry credit, Pearson correlation, priority sector lending, credit guarantee schemes, India.

## I. INTRODUCTION

The Micro, Small and Medium Enterprises sector occupies a position in the Indian economy that is disproportionate to the average size of the individual units that make it up. As of 2025, government figures place the sector's contribution to gross domestic product at around 30 per cent, its share of manufacturing output at roughly 35 per cent, and its contribution to exports at close to 46 per cent, while it continues to be the second-largest employer in the country after agriculture, providing livelihoods to well over 110 million people. Beyond these headline numbers, MSMEs function as a mechanism of regional balance, drawing economic activity into tier-2 and tier-3 towns, absorbing first-generation entrepreneurs, and acting as ancillary suppliers to larger industrial value chains. The formalisation of the sector has accelerated markedly since the launch of the Udyam Registration Portal in July 2020 and the subsequent Udyam Assist Platform in January 2023, which together had recorded more than 7.3 crore registrations by the end of 2025, and further widened through the revision of MSME classification thresholds effective 1 April 2025, which raised investment and

turnover limits and allowed enterprises to grow without immediately losing MSME-linked benefits.

Notwithstanding this economic weight, the sector's expansion has long been constrained by inadequate and untimely access to institutional credit. Multiple independent assessments converge on the existence of a large financing gap. A 2022 Parliamentary Standing Committee on Finance report estimated the MSME credit gap at approximately ₹20-25 lakh crore. A 2025 report by Deloitte placed the gap at around ₹25 lakh crore as of March 2025 and noted that only about 14 per cent of MSMEs had access to formal credit. A subsequent study by the Small Industries Development Bank of India (SIDBI), conducted with Crisil Intelligence, estimated the addressable gap at closer to ₹30 lakh crore, or roughly a quarter of total debt demand from the sector, with the shortfall considerably higher for medium enterprises and for women-owned businesses. These figures, while not identical in method or scope, tell a consistent story: even as the absolute volume of formal credit flowing to MSMEs has grown substantially, demand has grown at least as fast, if not faster, leaving a persistent and economically significant gap.

Against this backdrop, the present paper examines the specific empirical relationship between credit extended by scheduled commercial banks (SCBs) to the MSME sector and credit extended by the same banks to industry as a whole, over a period spanning roughly the last decade and a half. The choice of this relationship is motivated by a simple but underexamined question: does the growth of institutional credit to MSMEs move together with the growth of industrial credit more broadly, and if so, how strong is that co-movement? A strong positive relationship would suggest that MSME credit deployment behaves as an integral, rather than residual, component of overall industrial financing by the banking system — a finding with implications for how credit policy, priority sector norms, and guarantee schemes are designed and sequenced.

### **1. Research Objectives**

- To examine trends in the financial performance of scheduled commercial banks in extending credit to the MSME sector between the mid-2000s and 2025-26.
- To analyse the scale, composition, and adequacy of financial support extended by banks and allied institutions to Indian MSMEs.
- To empirically test the relationship between bank credit to MSMEs and bank credit to the industrial sector as a whole, using correlation analysis.
- To identify the structural and policy factors that explain observed trends, and the persistent challenges that continue to limit credit access for smaller enterprises.

## **II. LITERATURE REVIEW AND RESEARCH GAP**

A substantial body of research and official inquiry has examined MSME financing in India from different vantage points. One recurring theme is the scale of informal dependence. The Reserve Bank of India's Expert Committee on MSMEs, chaired by U.K. Sinha (2019), was constituted specifically to propose long-term solutions to the sector's financial sustainability after RBI's own assessment found that the overwhelming majority of MSMEs, particularly at the micro end, continued to rely on non-institutional sources of finance and lacked the documentation, credit history, or collateral that formal lenders typically require. This concern has persisted: a 2023 industry study cited MSME credit penetration in India at around 14 per cent, compared with substantially higher levels in economies such as the United States and China, and the 2022 Parliamentary Standing Committee on Finance similarly noted that less than 40 per cent of MSMEs accessed credit through formal financial channels,

leaving the remainder dependent on costlier and less reliable informal sources.

A second strand of literature concerns the determinants of credit access at the firm level, particularly collateral and enterprise size. RBI's Mint Street Memo on MSME sector credit and exports (2018) documented that non-bank financial companies (NBFCs) had, over the preceding years, grown their share of MSME credit at a faster pace than banks, partly because of more flexible underwriting criteria, even though their loan books carried different risk characteristics. More recent industry analyses reinforce this pattern: private sector banks have been projected to grow MSME lending at around 15 per cent annually against roughly 10 per cent for public sector banks, while NBFCs, with an estimated assets-under-management of about ₹4.4 lakh crore in MSME lending in 2024-25, have been expanding their MSME books at close to 20 per cent annually, outpacing both categories of banks. This divergence in lending behaviour by institution type is consistent with earlier findings that public sector banks, bound more tightly by risk-averse underwriting and priority sector obligations, have historically carried a higher share of sub-prime MSME borrowers than private banks or NBFCs.

A third strand relates to the role of policy instruments — credit guarantee schemes, priority sector lending mandates, and emergency support windows — in shaping the volume and composition of MSME credit. The Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE), priority sector lending norms requiring banks to direct a defined share of adjusted net bank credit toward priority sectors including MSMEs, and the Emergency Credit Line Guarantee Scheme (ECLGS) launched in May 2020 under the Aatmanirbhar Bharat package (and operational until March 2023) have each been credited in official reviews with supporting the post-pandemic recovery in MSME credit flow. At the same time, the 46th Report of the Standing Committee on Finance of the 17th Lok Sabha found that despite these guarantee mechanisms, a majority of MSME borrowers continued to be asked for collateral, suggesting that banks remained cautious about fully relying on government guarantees even where borrowers were formally eligible for collateral-free lending.

Most of this literature, however, examines either the financial performance of scheduled commercial banks in isolation, or the credit-access experience of MSMEs as reported through surveys and committee testimony. What is comparatively less common is empirical work that directly and quantitatively tracks the co-movement between bank credit specifically directed to MSMEs and bank credit to the industrial sector as a whole, over an extended multi-year time horizon, using a

formal statistical test. This is the specific gap this paper attempts to address: rather than treating MSME credit and aggregate industrial credit as separate narratives, it tests whether the two series move together closely enough to be treated, statistically, as reflecting a single underlying credit cycle, and discusses what that finding implies for policy design.

### III. RESEARCH METHODOLOGY

This study is exploratory and diagnostic in nature and relies entirely on secondary data. No primary survey of enterprises or lenders was conducted; instead, the paper draws on statistics published by the Reserve Bank of India (including its Sectoral Deployment of Bank Credit releases and Financial Stability Reports), the Ministry of Micro, Small and Medium Enterprises, replies furnished by the Ministry of Finance and Ministry of MSME in the Lok Sabha and Rajya Sabha, reports of the Parliamentary Standing Committee on Finance, and studies published by SIDBI, Deloitte, and other recognised industry bodies.

The MSME Development Act was enacted in 2006, and the intended reference period for this study runs from the years immediately following the Act's implementation through to 2025-26. In practice, a single, continuously reported annual series for both bank credit to MSMEs and bank credit to industry as a whole is not uniformly available in the public domain for every intervening year, because reporting formats, sectoral classifications, and enterprise-size definitions have each been revised more than once over this period — notably around 2015, again from January 2019, and most recently with the classification revision of April 2025. To preserve data integrity, this paper therefore uses eight annual data points for which matched, officially sourced or officially reported figures could be verified for both variables (financial years ending March 2010, 2011, 2015, 2016, 2017, 2023, 2024 and 2025), rather than interpolating a full 20-year series artificially. Three of the sixteen industry-credit figures used (marked with an asterisk in Table 1) were derived by applying RBI-published year-on-year growth rates to the nearest officially reported absolute base figure, since the absolute level for those specific years was not independently published in the sources consulted; all other figures are as directly reported.

Two variables are used. The first, denoted  $Y$ , is the outstanding credit extended by scheduled commercial banks specifically to the MSME sector, expressed in ₹ lakh crore, as reported by RBI and cited in Parliamentary replies. The second, denoted  $X$ , is the outstanding credit extended by scheduled commercial banks to industry as a whole (large, medium, small and micro industrial units combined), as published under RBI's Sectoral

Deployment of Bank Credit series. The null hypothesis ( $H_0$ ) tested is that there is no relationship between bank credit to MSMEs and industry credit; the alternative hypothesis ( $H_1$ ) is that a statistically significant relationship exists. The Pearson product-moment correlation coefficient ( $r$ ) was computed between the two series, with statistical significance assessed at both the 5 per cent and 1 per cent levels, using standard two-tailed tests.

### IV. TRENDS IN MSME FINANCING AND BANK LENDING

The evolution of formal credit support to MSMEs has been shaped by a succession of policy interventions layered on top of one another over nearly two decades. The Priority Sector Lending (PSL) framework, which requires domestic scheduled commercial banks to direct 40 per cent of adjusted net bank credit (or credit-equivalent amount of off-balance-sheet exposure, whichever is higher) toward defined priority sectors, has consistently included MSMEs as a core category, effectively acting as a floor on the sector's share of bank lending. The Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) has, over time, expanded the scale of collateral-free lending it underwrites, reducing (at least on paper) the collateral burden on smaller borrowers, and the Pradhan Mantri Mudra Yojana (PMMY), launched in April 2015, extended collateral-free loans of up to ₹20 lakh to micro-enterprises and self-employed individuals. In May 2020, the Emergency Credit Line Guarantee Scheme (ECLGS) was introduced under the Aatmanirbhar Bharat package to help MSMEs meet operational liabilities during the pandemic-induced disruption; it remained operational until March 2023 and is widely credited with preventing a sharper contraction in MSME credit during that period. More recently, the PM Vishwakarma

Scheme, launched in September 2023, extended collateral-free loans of up to ₹3 lakh with interest subvention to artisans and craftspeople across eighteen traditional trades.

The cumulative effect of these measures is visible in the recent growth trajectory of MSME credit. According to RBI's Financial Stability Report, credit to MSMEs grew by 14.1 per cent in 2024-25, comfortably outpacing growth in credit to industry excluding MSMEs (6.9 per cent), services excluding MSMEs (11.2 per cent), agriculture (9.1 per cent), retail (11.7 per cent), and overall non-food bank credit (10.8 per cent). As a direct consequence, the share of MSME credit within total non-food bank credit rose to 17.7 per cent by March 2025. In absolute terms, government data placed scheduled commercial

bank credit to MSMEs at ₹16.96 lakh crore in 2022-23, rising to ₹22.04 lakh crore in 2023-24 and ₹26.43 lakh crore in 2024-25 — a near 56 per cent increase over just two years. Reflecting this momentum, the Ministry of Finance set an MSME lending target of ₹17.31 lakh crore for public sector banks alone for 2025-26, a 19.5 per cent increase over the ₹14.49 lakh crore expected outstanding for 2024-25, with individual banks such as the State Bank of India and Punjab National Bank assigned growth targets in the range of 23 per cent.

This growth has not been confined to banks alone. Non-banking financial companies, with an estimated MSME loan book of around ₹4.4 lakh crore in 2024-25, have been expanding their MSME exposure at close to 20 per cent annually — faster than either public or private sector banks — reflecting their comparative advantage in flexible underwriting for borrowers with thin credit files. Taken together, formal institutional credit to MSMEs (banks and NBFCs combined) has been estimated at over ₹31 lakh crore as of 2024-25, though this still leaves a substantial gap relative to estimated addressable demand. At the same time, credit-quality indicators have generally improved alongside this expansion: RBI's Financial Stability Report noted that the share of sub-prime borrowers in the SCB MSME portfolio fell from 33.5 per cent in June 2022 to 23.3 per cent in March 2025, and the SMA-2 ratio (an early indicator of stress) moderated from 1.3 per cent to 0.8 per cent over the same period — suggesting that the recent expansion in MSME credit has, so far, not come at the cost of a broad deterioration in asset quality, even though public sector banks continue to carry a higher share of sub-prime exposure than private banks or NBFCs.

## V. EMPIRICAL ANALYSIS AND RESULTS

Table 1 presents the compiled annual data used for the correlation analysis. As explained in the methodology, three industry-credit figures (marked with an asterisk) were derived by applying officially reported year-on-year growth rates to the nearest verified absolute base figure, while all other entries are as directly reported by RBI, the Ministry of Finance, or Parliamentary replies.

| Financial Year<br>(end-March) | SCB Credit<br>Outstanding to<br>MSME Sector (₹<br>lakh crore) | SCB Credit<br>Outstanding to<br>Industry, Overall (₹<br>lakh crore) |
|-------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|
| 2009-10                       | 2.78                                                          | 13.00                                                               |
| 2010-11                       | 3.76                                                          | 16.37                                                               |
| 2014-15                       | 9.61                                                          | 26.59*                                                              |
| 2015-16                       | 9.96                                                          | 27.31*                                                              |

|         |       |        |
|---------|-------|--------|
| 2016-17 | 10.70 | 26.79* |
| 2022-23 | 16.96 | 35.00* |
| 2023-24 | 22.04 | 39.17  |
| 2024-25 | 26.43 | 42.30* |

Applying the Pearson correlation test to this compiled dataset ( $n = 8$ ) yields a coefficient of  $r \approx 0.98$ , with an associated two-tailed p-value well below 0.001. Since this p-value is far smaller than both the 5 per cent and 1 per cent significance thresholds, the null hypothesis ( $H_0$ ) — that there is no relationship between bank credit to MSMEs and industry credit — is rejected with a high degree of confidence. The coefficient of determination ( $R^2$ ) associated with this relationship is approximately 0.96, indicating that variation in aggregate industrial credit explains almost all of the year-to-year variation in MSME credit over the period studied, at least within this compiled sample. A simple linear regression of MSME credit on industry credit yields a positive slope, consistent with the interpretation that increases in overall industrial credit deployment by the banking system have, historically, been accompanied by proportionate or more-than-proportionate increases in the specific sub-component directed to MSMEs.

It is worth being precise about what this result does, and does not, establish. A strong Pearson correlation between two time series that have both grown substantially in nominal terms over a decade and a half is consistent with several distinct underlying mechanisms: it may reflect a genuine causal channel in which overall credit expansion by the banking system disproportionately benefits MSMEs once macro-credit conditions ease; it may reflect the fact that both series are driven by common third factors, such as overall GDP growth, inflation, and monetary policy stance; or it may partly reflect the mechanical effect of the MSME classification broadening in 2020 and again in 2025, which reclassified some previously non-MSME borrowers into the MSME category and mechanically inflated reported MSME credit alongside the broader industrial base. The correlation analysis therefore should be read as strong evidence of co-movement rather than as proof of a specific direction of causation, an important caveat given the exploratory, secondary-data-based design of this study.

## VI. DISCUSSION AND CHALLENGES

The empirical finding of a strong positive association between MSME credit and industry credit is broadly consistent with the policy narrative that has accompanied the sector over the past five

years: successive governments have treated MSME credit expansion as inseparable from, rather than incidental to, the broader agenda of industrial credit growth, and the data suggest that lenders' behaviour has followed this framing. When overall industrial credit conditions have tightened — as during 2020-21, when industry credit contracted marginally — MSME credit growth has also slowed; when conditions have eased, as in the years following the pandemic, MSME credit has grown faster than most other segments. In this sense, robust bank lending to industry as a whole appears to function as a leading indicator, and possibly a precondition, for stronger MSME-directed lending and, by extension, for MSME investment and output.

Nevertheless, the aggregate correlation should not be read as evidence that the underlying financing constraint facing individual MSMEs has been resolved. Several persistent hurdles remain visible in the data and in official reviews of the sector. First, formal credit penetration remains low in absolute terms: even after several years of double-digit credit growth, independent estimates put the share of MSMEs with access to formal credit at only around 14 per cent, implying that the great majority of enterprises, particularly at the micro end, continue to depend on informal, and typically costlier, sources of finance. Second, collateral requirements have proven more persistent than guarantee schemes were designed to allow for; the 46th Report of the Standing Committee on Finance found that most MSME borrowers were still being asked to furnish collateral even where they qualified for nominally collateral-free government-backed schemes, suggesting that lender-side risk aversion, rather than the absence of guarantee instruments, remains a binding constraint. Third, the financing gap is not evenly distributed: SIDBI's 2025 study found the addressable credit gap to be proportionately higher for medium enterprises (around 29 per cent of demand) and markedly higher for women-owned businesses (around 35 per cent of demand) than for the sector as a whole, and found that the trading segment, owing to its working-capital-intensive and typically collateral-poor nature, faced the widest gap of any business activity. Fourth, a meaningful share of MSMEs — reportedly over a third of those surveyed by SIDBI — remain unregistered on the Udyam platform altogether, often citing lack of awareness or apprehension about regulatory scrutiny, which excludes them from many of the credit-linked benefits described in this paper. Finally, aggregate bank credit growth itself has shown signs of deceleration since mid-2024, with private sector bank credit growth in particular slowing to its lowest pace since FY21 according to SBI's research desk; should this deceleration deepen, the strong co-movement documented in Section 5 implies that MSME credit growth could decelerate in tandem, even if the sector's underlying credit needs continue to expand.

### Policy Implications

Several policy directions follow from the trends and constraints discussed above. First, given the persistence of collateral demands despite existing guarantee mechanisms, there is a case for strengthening lenders' confidence in the CGTMSE guarantee itself — for instance, through faster claim settlement and clearer risk-sharing rules — so that collateral-free norms translate more consistently into actual lending practice. Second, the evident success of cash-flow and data-based underwriting approaches used by NBFCs and fintech lenders suggests that scaling the Account Aggregator framework and GST-linked lending models within the banking system could help address the information asymmetry that has historically excluded thin-file micro-enterprises from formal credit. Third, the disproportionately wide credit gap facing women-owned and medium enterprises, and the unregistered segment of the sector, indicates that generic priority sector targets may need to be supplemented with more targeted sub-quotas or dedicated guarantee windows for these specific segments. Fourth, continued strengthening of SIDBI's equity base and its role as a nodal institution for Udyam-linked financial applications, as recommended by the Parliamentary Standing Committee, would help consolidate the institutional architecture supporting MSME credit rather than leaving it fragmented across multiple schemes. Finally, given the sensitivity of MSME credit growth to overall industrial credit conditions found in this study, monetary and prudential policy that stabilises aggregate credit cycles may have an outsized, and currently underappreciated, stabilising effect on MSME financing specifically.

## VII. CONCLUSION

This paper set out to examine the relationship between bank credit and industry credit in India with specific reference to the MSME sector, using secondary data compiled from RBI, the Ministry of MSME, Parliamentary disclosures, and independent industry studies. The empirical analysis finds a very strong and statistically significant positive correlation between scheduled commercial bank credit to MSMEs and scheduled commercial bank credit to industry as a whole over the years for which matched official data could be verified, leading to a clear rejection of the null hypothesis of no relationship. This finding is consistent with the observation that MSME credit has, in recent years, grown faster than credit to almost any other major sector, supported by a layered set of policy interventions including priority sector lending norms, the CGTMSE guarantee scheme, PMMY, ECLGS, and PM Vishwakarma, alongside rapid formalisation through the Udyam ecosystem.

At the same time, the study cautions against reading this aggregate correlation as evidence that MSME financing constraints have been resolved. Formal credit penetration remains low by international comparison, collateral requirements persist in practice despite guarantee mechanisms designed to remove them, and the financing gap remains markedly wider for women-owned enterprises, medium enterprises, and unregistered units than for the sector on average. Future research building on this study could usefully extend the time series as more granular RBI archival data becomes available, disaggregate the analysis by enterprise size and by public-sector versus private-sector versus NBFC lenders, and examine causal direction using techniques such as Granger causality once a sufficiently long, continuously defined series becomes available following the 2025 MSME classification revision.

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