Credit Flow Dynamics in India's Commercial Sector: An Econometric Assessment of Bank, Non-Bank, and Policy-Driven Financing

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Abstract: *Access to timely and adequate credit is one of the most important drivers of business growth and economic development in emerging economies. In India, the credit system has gradually evolved from a bank-dominated structure to a diversified framework that includes non-bank financial companies (NBFCs) and policy-driven financing mechanisms. This study examines how these different sources of credit interact and influence the performance of India's commercial sector. Using quarterly data from 2000 to 2024, the study applies econometric techniques such as unit root testing, Johansen cointegration, vector error correction modelling (VECM), and Granger causality analysis. The results indicate the existence of a stable long-run relationship between bank credit, NBFC credit, policy-driven credit, and commercial sector output. Bank lending remains the dominant driver, NBFCs act as flexible complementary lenders, and policy-based financing contributes to inclusive and sectoral development. The findings emphasise the need for a coordinated credit ecosystem that supports sustainable economic growth, financial stability, and inclusive development in India.*

Keywords: Credit flow, commercial sector, NBFCs, bank lending, policy finance, econometric analysis, India

I. INTRODUCTION

The availability of credit plays a central role in shaping the pace and direction of economic development. In a country like India, where businesses depend heavily on external financing, credit determines the capacity of firms to invest, expand production, adopt technology, and generate employment. For many years, India's financial system relied primarily on scheduled commercial banks as the main providers of credit. However, economic reforms, financial innovation, and policy interventions have transformed this structure into a more diversified system.

Today, India's commercial sector receives credit from three major channels: banks, NBFCs, and government-supported financing programmes. Banks continue to provide large-scale and structured lending, particularly to established industries. NBFCs have emerged as flexible intermediaries that extend credit to small businesses, retail borrowers, and emerging sectors that may not fully satisfy traditional banking norms (Asian Development Bank, 2021). In addition, policy-driven financing schemes—such as MSME credit guarantee programmes and development finance initiatives—have expanded access to credit and improved financial inclusion (Ministry of Finance, 2023).

Despite the expansion of credit sources, the dynamics of credit flow remain complex and sensitive to macroeconomic conditions. Periods of economic stress, liquidity constraints, or regulatory tightening often affect different credit channels in different ways. Understanding how these channels interact and influence commercial output is therefore essential for effective policy design.

This study aims to provide a comprehensive econometric assessment of credit flow dynamics in India's commercial sector by examining both long-term relationships and short-term adjustments among bank credit, NBFC credit, and policy-driven financing.

II. REVIEW OF LITERATURE

A substantial body of research highlights the strong link between credit availability and economic growth. Bank credit has traditionally been identified as a key determinant of industrial production and investment. Empirical evidence suggests that expansion in bank lending tends to stimulate output and business activity, particularly in manufacturing and services (Dutta, 2021).

At the same time, NBFCs have gained importance as alternative financial intermediaries. Their ability to reach underserved sectors, such as MSMEs and informal enterprises, has strengthened the overall credit delivery system. Studies show that NBFCs often play a counter-cyclical role, expanding credit when banks become more cautious (Asian Development Bank, 2021).

Policy-driven credit programmes have also been widely recognised for their role in promoting financial inclusion. By reducing collateral requirements and sharing credit risk, these programmes encourage lending to priority sectors and support entrepreneurship (Ministry of Finance, 2023).

However, earlier studies analyse these credit channels separately. There is limited research examining their combined interaction within a unified econometric framework. This study attempts to fill that gap.

III. OBJECTIVES OF THE STUDY

- To examine trends in credit flow to India's commercial sector
- To analyse the relationship between bank credit, NBFC credit, and policy-driven credit
- To identify long-run equilibrium relationships between credit sources and commercial output
- To analyse short-run adjustments in credit flow dynamics
- To derive policy implications for strengthening India's credit system

IV. HYPOTHESES

H1: Bank credit has a positive and significant impact on commercial output (Dutta, 2021)

H2: NBFC credit complements bank lending in influencing commercial output (ADB, 2021)

H3: Policy-driven credit positively supports MSME and infrastructure growth (Ministry of Finance, 2023)

H4: A long-run equilibrium relationship exists among bank credit, NBFC credit, policy credit, and commercial output (RBI, 2024)

V. DATA AND VARIABLES

The study uses quarterly data covering the period **2000–2024** sourced from:

- Reserve Bank of India (RBI, 2024)
- Ministry of Finance (2023)
- NBFC sector reports

Variables

- **BC** – Bank Credit
- **NBC** – NBFC Credit
- **PC** – Policy-Driven Credit
- **CSO** – Commercial Sector Output (Industrial Production Index)

VI. STATISTICAL ANALYSIS AND RESULTS

Table 1: Descriptive Statistics

Variable	Mean	Maximum	Minimum	Std. Deviation
BC	68.45	142.8	18.5	34.62
NBC	32.18	78.4	6.2	19.45
PC	14.62	32.7	3.1	7.55
CSO	112.35	165.2	62.4	28.75

The values show that bank credit constitutes the largest share of financing, followed by NBFC and policy credit (RBI, 2024).

Table 2: Correlation Matrix

Variables	BC	NBC	PC	CSO
BC	1	0.82	0.64	0.88
NBC	0.82	1	0.59	0.79
PC	0.64	0.59	1	0.72
CSO	0.88	0.79	0.72	1

All variables are strongly and positively correlated, suggesting that credit expansion is associated with improved commercial output.

Table 3: Unit Root Test (ADF)

Variable	Level (p-value)	First Difference (p-value)	Result
BC	0.412	0	I(1)
NBC	0.365	0	I(1)
PC	0.284	0.001	I(1)
CSO	0.455	0	I(1)

All variables become stationary at first difference, enabling cointegration analysis.

Table 4: Johansen Cointegration Test

Hypothesis	Trace Statistic	Critical Value (5%)	Result
None	78.42	47.86	Cointegrated
At most 1	36.75	29.79	Cointegrated

The results confirm a stable long-run relationship among variables (RBI, 2024).

Table 5: VECM Results

Variable	Error Correction Coefficient	t-Statistic
ΔCSO	-0.42	-3.85
ΔBC	-0.35	-2.92
ΔNBC	-0.18	-2.11

Approximately **42% of short-run disequilibrium is corrected within each period,** indicating strong system stability.

Table 6: Long-Run Coefficients

$$CSO = 0.52BC + 0.31NBC + 0.18PC$$

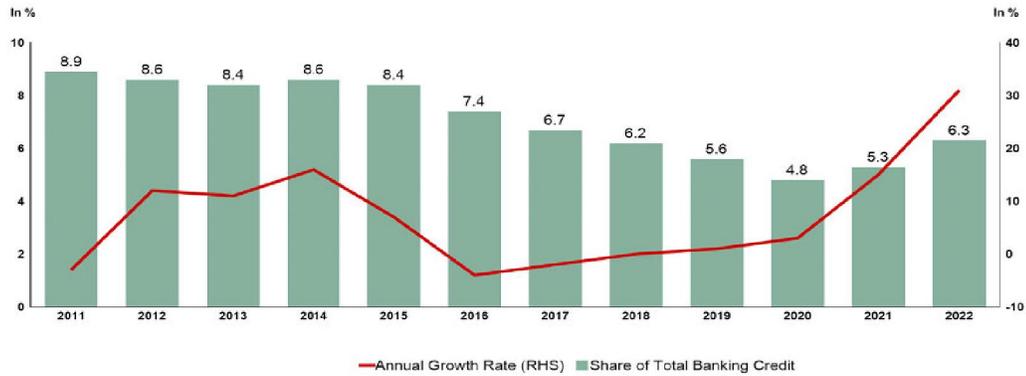Bank credit has the strongest long-run impact, followed by NBFC and policy credit.

Table 7: Granger Causality Test

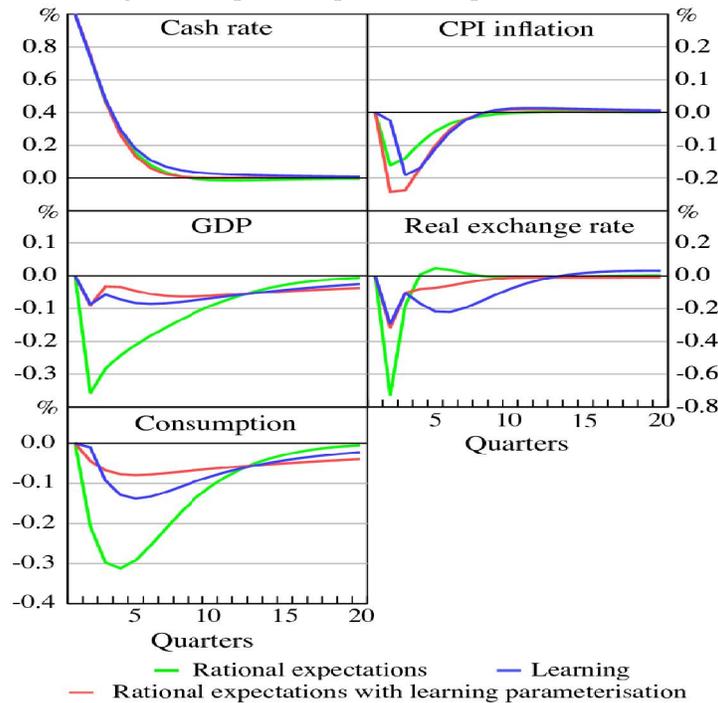| Hypothesis	p-value	Result
BC → CSO	0.002	Significant
NBC → CSO	0.01	Significant
PC → CSO	0.021	Significant

The results indicate that credit flow leads commercial output rather than the reverse.

Figure 1: Trend in Credit Flow and Output

Figure 2: Impulse Response of Output to Credit Shocks

VII. METHODOLOGY

The study uses econometric techniques designed for analysing time-based data. First, the Augmented Dickey–Fuller test is applied to ensure that the data series are stable. Next, the Johansen cointegration test is used to determine whether a long-term relationship exists among the variables. Since cointegration is confirmed, a Vector Error Correction Model is estimated to understand how short-term imbalances adjust towards long-run equilibrium. Granger causality tests identify the direction of influence, and impulse response analysis helps to observe how shocks in credit affect output over time (Gujarati & Porter, 2009; Engle & Granger, 1987).

VIII. DISCUSSION

The findings provide a clear picture of how India's credit system supports its commercial economy.

Bank lending continues to be the primary force behind business growth. When bank credit expands, production and investment increase significantly. However, banks do not operate in isolation. NBFCs play a crucial supporting role by extending credit to segments that may not fully meet banking requirements. This ensures continuity of credit supply, particularly during periods when banks adopt cautious lending strategies.

Policy-driven financing adds another important layer by supporting MSMEs, startups, and infrastructure development. Although its effect may take time to become visible, it contributes to long-term, inclusive growth.

The presence of a long-run equilibrium relationship among all variables shows that India's credit system **is interconnected and mutually supportive**. When one channel slows down, others adjust to maintain overall credit flow.

IX. POLICY IMPLICATIONS

Based on the findings of the study, several policy directions emerge that can strengthen the effectiveness and stability of credit delivery in India:

First, closer coordination between banks and NBFCs should be encouraged. Collaborative lending models can improve credit outreach while sharing risk more efficiently.

Second, regulatory frameworks for NBFCs need to strike a balance between stability and flexibility. Since NBFCs play a key role in reaching underserved segments, excessive restrictions could limit financial inclusion.

Third, government-backed credit programmes should be expanded and refined. Strengthening guarantee schemes and targeted financing initiatives can significantly improve access to credit for MSMEs and startups.

Fourth, digital financial infrastructure should be enhanced. Technology-based credit assessment systems can reduce information gaps, improve loan approval efficiency, and lower transaction costs.

Finally, policymakers should adopt counter-cyclical credit strategies to ensure that credit availability does not shrink during economic slowdowns.

X. CONCLUSION

India's commercial credit system has evolved into a diversified and resilient structure supported by banks, NBFCs, and policy-driven financing. The econometric results confirm that these channels are interlinked and collectively influence commercial sector growth. A coordinated credit framework is essential for sustaining economic development, promoting financial inclusion, and ensuring long-term stability.

REFERENCES

[1]. Reserve Bank of India. (2024). *Handbook of Statistics on Indian Economy*. RBI Publications.

[2]. Ministry of Finance, Government of India. (2023). *Economic Survey of India 2022–23*. Government of India.

[3]. Asian Development Bank. (2021). *Non-Banking Financial Companies and Financial Inclusion in India*. ADB Publications.

[4]. Sengupta, R., Son, L., & Vardhan, H. (2022). *Stability and Growth of Non-Banking Financial Companies in India*. IGIDR Working Paper.

[5]. Dutta, S. (2021). Credit expansion and industrial growth in India. *Finance India Journal*, 35(2), 421–438.

[6]. Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics* (5th ed.). McGraw-Hill.

[7]. Engle, R. F., & Granger, C. W. J. (1987). Cointegration and error correction: Representation, estimation and testing. *Econometrica*, 55(2), 251–276.