

Fiscal Policy and Financial Behaviour in India: The Role of Institutional Context.

Abstract:

This study examines how India's 2019 expansionary fiscal policy influenced saving and borrowing behaviour across states with differing institutional environments. Using state-level data on Scheduled Commercial Bank (SCB) deposits and credit from 2018–19 to 2021–22, the analysis adopts a comparative pre–post approach to evaluate changes in financial behaviour. Institutional density—measured by recognised higher-education institutions per 1,000 square kilometres—is used as a proxy for institutional capacity, including financial awareness and access to formal systems.

The findings indicate that the effects of fiscal expansion were not uniform across states. Medium institutional density states exhibited the most significant behavioural adjustment, with strong growth in deposits accompanied by a decline in borrowing intensity. High institutional density states maintained consistently conservative borrowing patterns, while low institutional density states showed limited change, reflecting structural constraints in financial access and institutional capacity.

Overall, the results suggest that fiscal expansion reinforced existing financial behaviour rather than transforming it. The study highlights the importance of institutional context in shaping the transmission of fiscal policy and suggests that targeted institutional improvements—particularly in banking access, financial literacy, and administrative capacity—are necessary to enhance policy effectiveness.

1. Introduction

Fiscal policy is used to influence economic activity, but its effects on saving and borrowing behaviour depend on institutional conditions. In a diverse economy like India, regional differences in financial development and institutional capacity can lead to varied responses to policy changes.

In September 2019, the Government of India introduced a major expansionary fiscal policy to stimulate economic growth. While its macroeconomic objectives are well established, its impact on financial behaviour across states remains less clearly understood, particularly in the context of regional institutional differences.

This study examines how saving and borrowing behaviour responded to the 2019 fiscal expansion across Indian states with varying levels of institutional density. Institutional density—measured using recognised higher-education institutions per 1,000 square kilometres—is used as a proxy for broader institutional capacity, including financial awareness and engagement with formal financial systems. While this does not directly measure financial literacy, it captures structural factors that influence financial decision-making at the regional level.

Using state-level banking data and a comparative pre–post approach, the study identifies patterns in financial behaviour across different institutional contexts, focusing on changes in deposits, credit, and borrowing intensity.

This study seeks to understand how India's 2019 expansionary fiscal policy influences saving and borrowing behaviour across Indian states with different levels of institutional capacity.

2. Literature Review

Fiscal policy and saving–borrowing behaviour

Economic literature has extensively examined how expansionary fiscal policy affects saving and borrowing behaviour through income and expectations. Keynesian theory suggests that fiscal expansion raises disposable income and aggregate demand, which may increase both credit use and savings. However, empirical evidence shows that private financial responses are often more complex and context-dependent.

Olivier Blanchard and Roberto Perotti (2002), in *An Empirical Characterisation of the Dynamic Effects of Changes in Government Spending and Taxes on Output*, demonstrate that fiscal shocks can produce varied effects depending on institutional and macroeconomic conditions. Their findings suggest that the transmission of fiscal policy is not uniform, reinforcing the importance of structural context.

More recent research challenges the assumption that fiscal expansion necessarily leads to increased borrowing. Atif Mian, Ludwig Straub, and Amir Sufi (2020), in *The Saving Glut of the Rich and the Rise in Household Debt*, show that fiscal measures can strengthen household balance sheets by increasing deposits while slowing the growth of borrowing, particularly during periods of uncertainty. This suggests that expansionary fiscal policy may simultaneously encourage saving and moderate borrowing behaviour.

Overall, the literature indicates that while fiscal expansion operates through income channels, the direction and magnitude of financial responses depend heavily on institutional and financial conditions. Based on this, the study hypothesises that states with stronger institutional environments will exhibit more pronounced adjustments in saving and borrowing behaviour following fiscal expansion, while institutionally weaker states will show limited change.

Regional variations in the implementation of fiscal policy

An increasing body of research shows that fiscal policy does not affect all regions equally. Emi Nakamura and Jón Steinsson (2014), in *Fiscal Stimulus in a Monetary Union*, demonstrate that regional fiscal multipliers vary significantly due to differences in local economic structures and financial systems. This highlights that identical fiscal policies can produce different outcomes depending on regional conditions.

In the Indian context, Lekha Chakraborty and Bibek Debroy Dash (2017) show substantial inter-state variation in fiscal capacity and economic outcomes. Their findings suggest that national fiscal policies are transmitted unevenly across regions, reinforcing the need for state-level analysis when evaluating policy effectiveness.

Institutions, education, and financial behaviour

Institutions play a critical role in shaping financial behaviour by influencing access to formal banking systems, information availability, and long-term economic participation. Douglass North (1990), in *Institutions, Institutional Change and Economic Performance*, argues that institutional frameworks are fundamental in determining long-run economic outcomes, including patterns of financial engagement.

In empirical research, broader institutional proxies are often used when direct measures of financial literacy are unavailable. Thorsten Beck, Asli Demirgüç-Kunt, and Maria Soledad Martinez Peria (2007) find that stronger institutional and educational infrastructure is associated with greater use of formal financial services and more efficient financial intermediation. Importantly, they show that improved institutions do not necessarily increase borrowing, as financially developed regions may rely more on accumulated savings than credit.

This is particularly relevant for analysing Indian states, where differences in institutional capacity may influence not only access to finance but also the balance between saving and borrowing behaviour.

Research gap

Although existing literature establishes that fiscal policy influences saving and borrowing behaviour, and that these effects vary across regions and institutional contexts, few studies combine all three dimensions—fiscal policy, institutional variation, and financial behaviour—at the state level in India.

This gap is partly due to data limitations. Most studies either focus on national-level aggregates, which mask regional heterogeneity, or examine institutional factors and financial behaviour separately without linking them to a specific fiscal policy shock. As a result, there is limited empirical evidence on how fiscal expansion interacts with institutional environments to shape regional financial outcomes within a large and diverse economy like India.

This study addresses this gap by using state-level banking data alongside an institutional density proxy to analyse how India's 2019 expansionary fiscal policy influenced saving and borrowing behaviour across different institutional contexts. By integrating these dimensions, the study provides a more nuanced understanding of fiscal policy transmission at the regional level.

3. Data and Variables

This study uses state-level financial and institutional data to examine how India's 2019 expansionary fiscal policy influenced saving and borrowing behaviour across regions. The focus is on formal financial indicators that capture aggregate behaviour within the banking system and institutional characteristics that shape the transmission of fiscal policy.

Data Sources

Data on saving and borrowing behaviour are obtained from the Economic Survey of India, which provides state-wise information on deposits and credit of Scheduled Commercial Banks (SCBs). SCB data are widely used in empirical studies of regional financial behaviour in India, as they capture the majority of formal banking activity across states.

Information on the institutional environment is also sourced from the same dataset, which reports the number of recognised higher-education institutions by state. This is used to construct a measure of institutional density that reflects the availability of formal educational infrastructure.

All datasets cover the period from 2018–19 to 2021–22, allowing for a comparison of pre-policy and post-policy outcomes.

Variable Definitions

Saving behaviour is proxied using total SCB deposits at the state level. Deposits represent the accumulation of financial savings within the formal banking system and serve as an aggregate indicator of saving behaviour among households and firms.

Borrowing behaviour is measured using total SCB credit, which captures the volume of loans extended by scheduled commercial banks within each state. This reflects borrowing activity within the formal financial sector.

SCB deposits and credit are standard proxies in Indian regional financial studies because Scheduled Commercial Banks account for the majority of formal financial intermediation across states. However, these measures exclude informal saving and borrowing practices, cooperative banking activity, and household-level variation. This is particularly important in low institutional density states, where informal credit markets may constitute a significant share of financial activity, meaning that observed levels of borrowing may understate total credit use.

The institutional environment is measured using the number of recognised higher-education institutions per 1,000 square kilometres. This variable captures institutional density and access to formal educational infrastructure, which is interpreted as a proxy for broader institutional capacity, including financial awareness and engagement with formal systems. While this does not directly measure financial literacy, it reflects structural conditions that influence financial behaviour at the regional level.

A per-area measure is used rather than a per-capita measure to allow for consistent comparison across states with large differences in geographical size and population distribution. In the Indian context, where population density varies significantly across regions, a per-capita measure may overstate institutional access in densely populated states while understating spatial availability in geographically larger states. The per-area approach therefore better captures the physical presence and accessibility of institutions within each region.

Unit of Analysis

The primary unit of analysis is the Indian state. State-level aggregation allows the study to capture regional heterogeneity in financial behaviour and institutional context while remaining consistent with the availability of banking and institutional data.

The analysis focuses on the period 2018–19 to 2021–22, with 2018–19 serving as the pre-policy baseline and 2021–22 representing the post-policy recovery period. Intermediate years affected by the COVID-19 shock are treated as contextual and are not used as primary comparison points.

Delhi (NCT) is treated separately from other states due to its exceptionally high institutional density and distinctive economic structure. Its small geographical area and concentration of national administrative, financial, and educational institutions result in financial indicators that are not comparable with those of other states. Including Delhi within broader state groupings would skew group averages and distort cross-state comparisons; it is therefore analysed as a structural outlier.

4. Methodology

This section outlines the empirical strategy used to answer the research question: how did India's 2019 expansionary fiscal policy influence saving and borrowing behaviour across states with different institutional environments? As it explains the research design, the basis for grouping states, and the analytical techniques used to examine changes over time. The focus is on identifying patterns in key variables such as deposits, credit, and the credit–deposit ratio rather than establishing causal relationships.

Research Design

This study adopts a quantitative, comparative pre–post research design. State-level data on banking activity and institutional presence are analysed to identify changes in financial behaviour before and after the 2019 fiscal expansion.

The pre–post structure allows for a comparison of financial indicators across time, while the comparative framework enables differences between institutional groups to be examined.

Number of Recognised Educational Institutions - per 1000 sq. km

State	2018- 2019	2019-2020	2020- 2021	2021-2022
Delhi (NCT)	210	212	202	216
Gujarat	13	14	14	14
Karnataka	26	29	29	30
Kerala	47	49	47	49
Madhya Pradesh	8	12	10	10
Maharashtra	22	23	22	23
Punjab	30	30	28	29
Tamil Nadu	26	28	28	29
Telangana	22	23	23	23
West Bengal	21	22	23	24
Uttar Pradesh	33	37	38	40
Haryana	31	31	31	32
Rajasthan	11	12	13	13
Assam	8	9	9	9
Bihar	11	11	14	15

State	Institutions per 1000 sq. km (2021–22)	Group
Assam	9	Low
Madhya Pradesh	10	Low
Rajasthan	13	Low
Gujarat	14	Low
Bihar	15	Low
Maharashtra	23	Medium
Telangana	23	Medium
West Bengal	24	Medium
Tamil Nadu	29	Medium
Punjab	29	Medium
Karnataka	30	High
Haryana	32	High
Uttar Pradesh	40	High
Kerala	49	High
Delhi (NCT)	216	Outlier

The analysis is observational rather than causal. It does not attempt to control for all confounding variables or isolate the precise effect of fiscal policy. Instead, it identifies correlations and broad patterns in how financial behaviour evolves across differently structured institutional environments. These patterns provide indicative insights and highlight areas for further causal investigation.

Institutional Density Grouping

States are classified using institutional density, calculated as the number of recognised higher-education institutions per 1,000 square kilometres. This measure is used to distinguish between states with relatively stronger and weaker institutional environments.

The grouping of states is based on institutional density values from the 2021–22 period, which is influenced by data availability, as this represents the most recent and complete set of institutional data available within the dataset. Using the latest available data ensures that the classification reflects the most up-to-date institutional conditions across states. Given that institutional characteristics change gradually over time, this approach is unlikely to distort comparisons across periods and instead provides a stable basis for grouping.

The choice of a post-policy year for classification reflects the aim of capturing stable institutional conditions rather than short-term fluctuations. Institutional density changes gradually over time, and by 2021–22 it reflects the most complete and updated measure of institutional infrastructure available within the dataset. Using the pre-policy year could risk classifying states based on incomplete or transitional institutional development, whereas the later period provides a more representative snapshot of underlying institutional capacity.

Higher-education institutions are used as a proxy because they are associated with broader institutional development, including literacy, financial awareness, administrative capacity, and skilled labour. These factors collectively influence participation in formal financial systems and the responsiveness of saving and borrowing behaviour to policy changes.

Analytical Approach

There are three phases in the analysis process.

First, group-wise averages of deposits, credit, and credit–deposit ratios are calculated for low, medium, and high institutional density states. This provides a clear comparison of financial behaviour across institutional contexts.

Second, credit–deposit (C–D) ratios are analysed to evaluate how effectively deposits are converted into credit within each group. The C–D ratio serves as an indicator of borrowing intensity and financial intermediation.

Third, scatter plots and simple regression analysis are used to examine the relationship between deposits and credit across groups. This allows for a visual and quantitative assessment of how saving and borrowing are related before and after the policy period.

A pre-post comparison is then conducted between 2018–19 and 2021–22 to identify changes in financial behaviour following the fiscal expansion. The years affected by the COVID-19 shock are included for continuity but are treated as contextual rather than central to the analysis. Observed fluctuations during this period are interpreted cautiously, as they may reflect temporary economic disruptions alongside policy effects.

5. Data Analysis

Pre-policy saving and borrowing behaviour (2018–19)

This subsection establishes the pre-policy baseline for saving and borrowing behaviour across institutional density groups using state-wise deposits and credit of Scheduled Commercial Banks (SCBs) for 2018–19. All states are classified using the institutional density groupings defined in the post-policy period to ensure consistency over time.

Medium institutional density states recorded the highest average deposits (₹898,747 crore) and credit (₹860,135 crore) in the pre-policy period. Their high credit–deposit ratio of 95.70% indicates a strong balance between saving and borrowing, suggesting an active and well-integrated financial system prior to the fiscal expansion. This implies that these states entered the policy period with both high financial participation and a strong capacity to convert savings into credit.

High institutional density states exhibited substantial average deposits (₹649,389 crore) but significantly lower average credit (₹368,020 crore), resulting in a credit–deposit ratio of 56.67%. This reflects a more conservative financial profile characterised by stronger saving buffers and lower reliance on borrowing. The presence of this pattern before the policy period suggests that such behaviour is structural rather than policy-induced.

Low institutional density states showed much lower average deposits (₹352,979 crore) and credit (₹224,048 crore), with a credit–deposit ratio of 63.48%. While borrowing relative to deposits appears moderate, the low absolute values indicate limited financial depth and weaker integration into the formal banking system. It is also likely that informal financial activity plays a larger role in these states, meaning that formal banking data may understate total borrowing behaviour.

Delhi (NCT) stands out with exceptionally high average deposits (₹1,144,642 crore) and credit (₹1,076,998 crore), along with a credit–deposit ratio of 94.09%. This reflects its role as a national financial and administrative centre, and supports its treatment as a structural outlier rather than a comparable state economy.

Overall, the pre-policy evidence shows clear variation in financial behaviour across institutional contexts. Medium-density states displayed the highest levels of financial intermediation, high-density states maintained conservative borrowing patterns, and low-density states faced structural limitations in formal financial access. Establishing this baseline is essential for interpreting post-policy changes, as it allows subsequent shifts to be understood as adjustments to existing patterns rather than entirely new behaviours.

For 2018-19			
Group	Average deposits (₹)	Average credits (₹)	Credit–Deposit Ratio (%)
Low	352,979	224,048	63.48
Medium	898,747	860,135	95.70
High	649,389	368,020	56.67
Delhi (NCT)	1144642	1076998	94.09

Table 1: Pre-policy averages (2018–19)

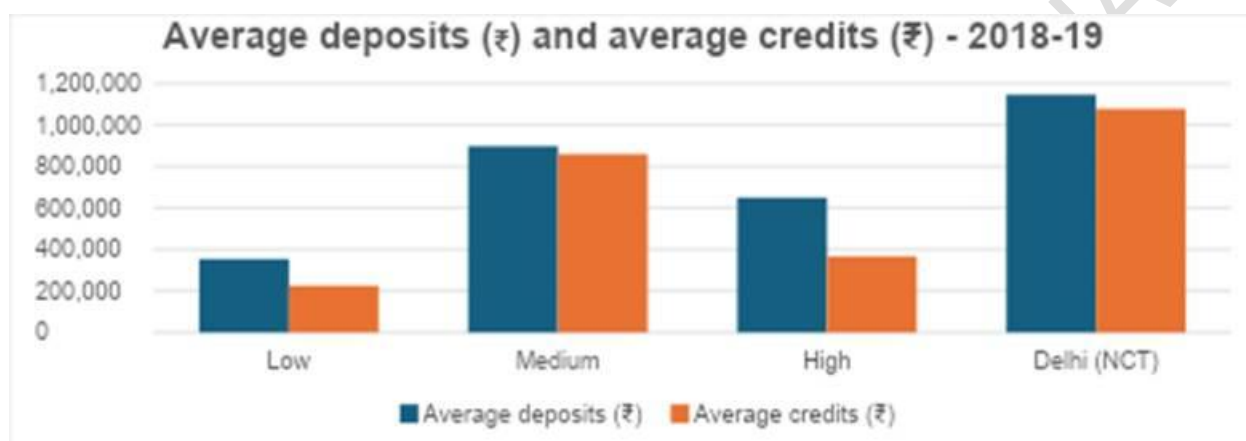


Figure 1.1: Deposits vs Credit (2018–19)

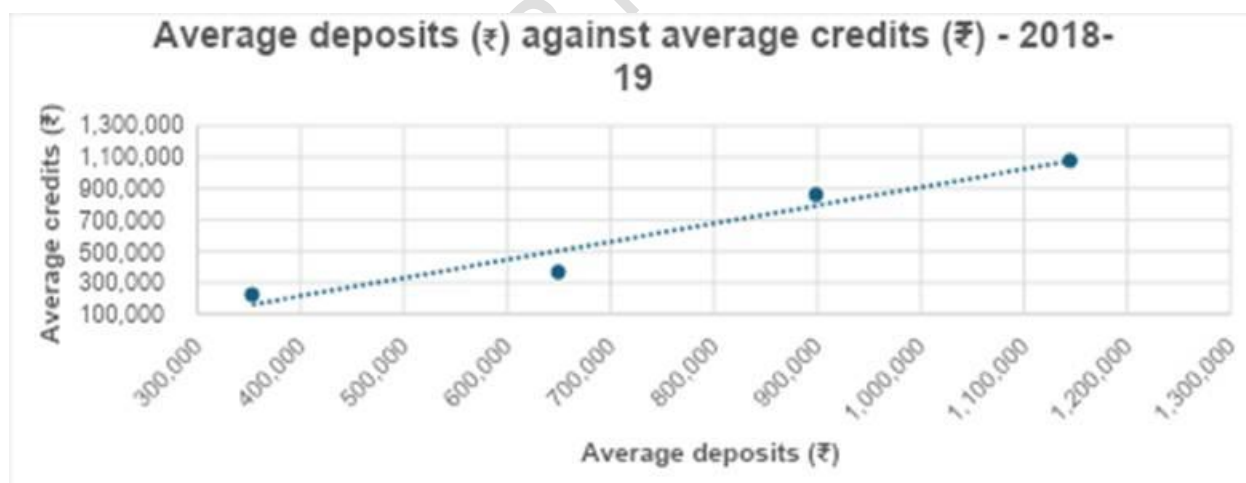


Figure 1.2: Deposits vs Credit (2018–19)

The scatter plot of average deposits versus average credit for 2018–19 shows a strong positive relationship across institutional density groups. Groups with higher deposits also tend to exhibit higher credit levels, indicating that saving capacity is closely linked to borrowing activity within the formal banking system.

The fitted regression line has a high coefficient of determination ($R^2 = 0.9444$), suggesting that variations in deposits explain a large proportion of the variation in credit across groups. The slope of the regression line (1.1535) indicates that increases in deposits are associated with more than proportional increases in credit, reflecting a highly responsive pre-policy financial system.

However, the dispersion of points across groups provides additional insight. Medium institutional density states lie close to the regression line, indicating balanced and efficient financial intermediation. High institutional density states fall below the expected credit levels given their deposits, reinforcing the presence of conservative borrowing behaviour and stronger savings buffers. Low institutional density states cluster at lower levels of both deposits and credit, highlighting weaker financial depth and limited engagement with the formal banking system.

While the strong statistical relationship suggests efficient financial intermediation, it should be interpreted with caution. The analysis is based on a small number of grouped observations, and therefore the high R^2 may overstate the strength of the relationship. Nevertheless, the pattern provides a useful baseline for assessing how the saving–borrowing relationship evolves in the post-policy period.

Post-policy saving and borrowing behaviour (2021–22)

The post-policy period reveals notable shifts in financial behaviour across institutional density groups, with the most significant change observed in medium institutional density states.

Medium institutional density states recorded the highest average deposits (₹1,225,069 crore) and credit (₹1,036,580 crore), indicating continued strong engagement with the formal banking system. However, their credit–deposit ratio declined to 84.61% from 95.70% in the pre-policy period. This suggests that while both saving and borrowing increased in absolute terms, deposits grew faster than credit, reflecting a moderation in borrowing intensity. Rather than indicating reduced financial activity, this pattern points towards increased precautionary saving alongside sustained but more cautious borrowing.

High institutional density states continued to display a conservative financial profile. Despite a rise in average deposits (₹920,029 crore), average credit remained comparatively low (₹486,803 crore), resulting in the lowest credit–deposit ratio of 52.91%. This persistence suggests that financial behaviour in these states is structurally driven, with fiscal expansion reinforcing existing preferences for saving rather than stimulating additional borrowing.

Low institutional density states showed modest increases in both deposits (₹465,695 crore) and credit (₹299,490 crore), with a relatively stable credit–deposit ratio of 64.33%. The limited change indicates that structural constraints—such as weaker banking penetration and institutional capacity—continue to restrict the transmission of fiscal stimulus through the formal financial system. It is also likely that informal financial activity remains significant in these states, meaning that changes in formal banking indicators may not fully capture shifts in overall financial behaviour.

Delhi (NCT) again exhibits exceptionally high deposits (₹1,400,864 crore) and credit (₹1,315,663 crore), with a consistently high credit–deposit ratio of 93.92%. This reflects its role as a national financial and administrative hub, further supporting its classification as a structural outlier.

Overall, the post-policy evidence suggests that while fiscal expansion increased financial activity across all groups, its effect on borrowing behaviour varied significantly depending on institutional context. Medium-density states adjusted their financial behaviour most noticeably, high-density states maintained conservative patterns, and low-density states remained structurally constrained.

For 2021-22			
Group	Average deposits (₹)	Average credits (₹)	Credit–Deposit Ratio (%)
Low	465,695	299,490	64.33
Medium	1,225,069	1,036,580	84.61
High	920,029	486,803	52.91
Delhi (NCT)	1,400,864	1,315,663	93.92

Table 2: Post-policy averages (2021–22)

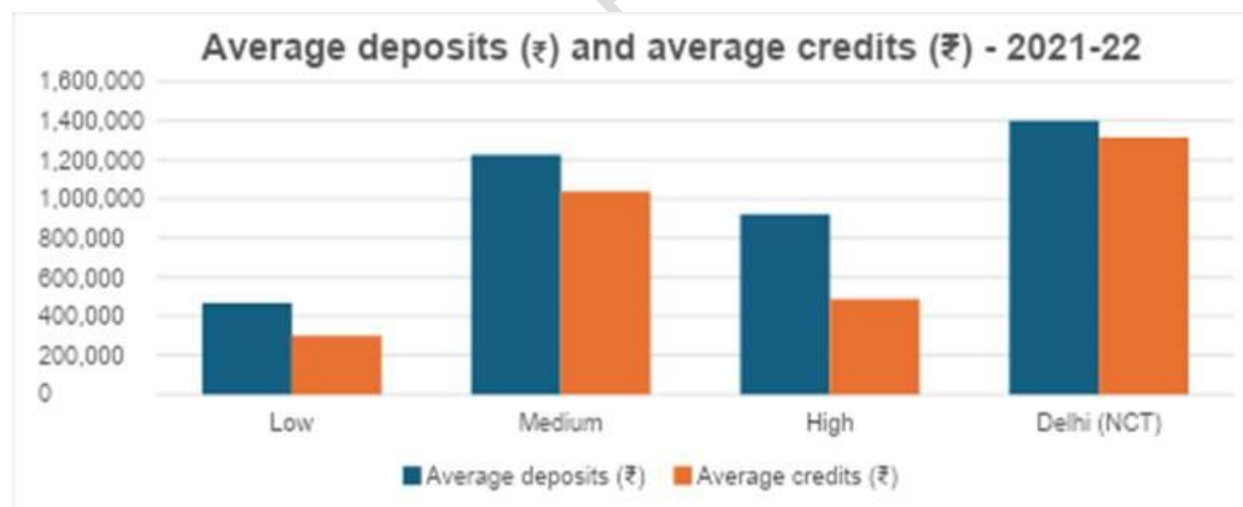


Figure 2.1: Deposits vs Credit (2021–22)

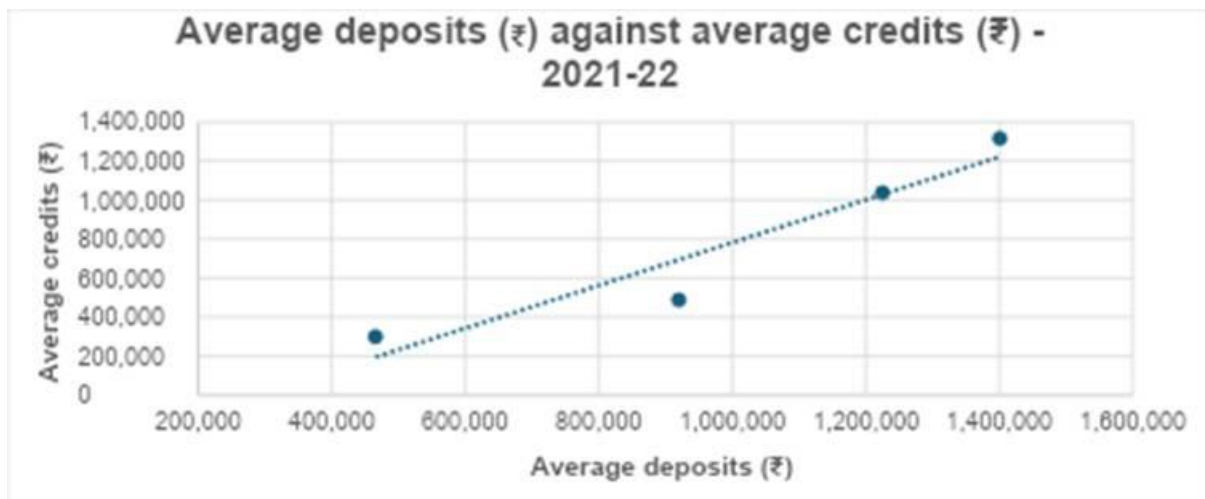


Figure 2.2: Deposits vs Credit (2021–22)

The scatter plot of average deposits and average credits for 2021–22 demonstrates a strong positive correlation between saving and borrowing across institutional density groups in the post-policy period.

Savings capacity is still a major factor in determining borrowing behavior in the formal banking system, as evidenced by the fact that those with greater average savings also have higher average bank credit. The regression line's strong coefficient of determination ($R^2=0.9064$) indicates that the variation in average deposits may account for more than 90% of the variance in average credit across groups.

The regression line's slope (1.0982) is less than that of the pre-policy relationship, indicating a slowdown in borrowing intensity relative to savings. This suggests that while fiscal expansion encouraged more financial activity, it did not directly result in increased borrowing during the post-policy era. Medium institutional density states are near the fit line, indicating balanced financial intermediation, with savings actively being converted to credit in a cautious manner.

Higher institutional density states are below the expected credit levels based on their deposits, which again suggests relatively conservative borrowing behaviour and stronger savings buffers.

Low institutional density states are clustered at a lower deposit and credit level, and demonstrate less financial depth and less reaction to fiscal stimulus.

Overall, the post-policy scatter plot indicates that India's expansionary fiscal policy reinforced the positive association between saving and borrowing and fostered more financial caution.

Pre- and post-policy comparison across institutional density groups

In order to investigate how India's 2019 expansionary fiscal policy spread throughout diverse institutions, this subsection displays the link between saving and borrowing behaviour among institutional density groups during the pre-policy era (2018–19) and the post-policy recovery period (2021–22). Differences are interpreted as shifts in financial behaviour rather than compositional impacts when institutional groups are maintained across time.

Medium Institutional Density States

Medium institutional density states exhibit the most pronounced behavioural adjustment following fiscal expansion. While these states already demonstrated strong financial activity in the pre-policy period, the nature of that activity changed in the post-policy phase.

Average deposits increased substantially, while credit continued to grow at a slower rate, resulting in a noticeable decline in the credit–deposit ratio. This shift suggests that fiscal expansion was associated with increased saving alongside more cautious borrowing behaviour. Rather than encouraging excessive credit expansion, the policy appears to have strengthened financial buffers while maintaining access to credit.

This responsiveness indicates that medium-density states occupy an intermediate institutional position: financial systems are sufficiently developed to transmit policy effects effectively, but not so mature that behaviour becomes fixed. As a result, households and firms in these states are more able to adjust saving and borrowing decisions in response to macroeconomic changes.

High Institutional Density States

High institutional density states show a markedly different pattern. Across both periods, these states maintain consistently low credit–deposit ratios, reflecting structurally conservative borrowing behaviour.

Although deposits increased significantly following fiscal expansion, borrowing did not rise proportionately. This suggests that households and firms in these states used additional income primarily to strengthen savings rather than expand credit use.

The persistence of this pattern indicates that financial behaviour in high-density states is not highly responsive to fiscal policy in behavioural terms. Instead, fiscal expansion appears to reinforce existing preferences for financial stability and lower leverage, consistent with more mature financial environments.

Low Institutional Density States

Low institutional density states exhibit minimal change in financial behaviour between the pre- and post-policy periods. While both deposits and credit increased slightly, the credit–deposit ratio remained broadly stable.

This limited response suggests that structural constraints—such as lower institutional capacity, weaker banking access, and reliance on informal financial systems—continue to restrict the transmission of fiscal policy. As a result, fiscal expansion has a muted effect on both saving and borrowing behaviour in these states.

The persistence of these constraints highlights the importance of institutional development in enabling policy effectiveness, as financial behaviour cannot adjust significantly in the absence of sufficient structural support.

Overall, the pre- and post-policy comparison shows that financial responses to fiscal expansion were not uniform across institutional contexts. Medium institutional density states were the most responsive, exhibiting a shift towards higher saving relative to borrowing, while high-density states maintained structurally conservative behaviour and low-density states remained constrained. This suggests that institutional conditions play a central role in determining how fiscal policy translates into financial behaviour.

Role of COVID

These findings should be interpreted with caution, as the post-policy period coincides with the COVID-19 shock, which independently influenced financial behaviour. During periods of economic uncertainty, households and firms tend to increase precautionary saving and reduce borrowing, which may contribute to the observed decline in credit–deposit ratios, particularly in medium and high institutional density states.

As a result, it is difficult to fully separate the effects of fiscal expansion from pandemic-related behavioural changes within the current research design. While the consistent patterns across institutional groups suggest that structural factors play a key role, part of the observed shift towards higher saving may reflect temporary responses to uncertainty rather than long-term behavioural change.

This limitation reinforces the need for cautious interpretation and highlights the importance of future research using methods that can better isolate causal effects.

Pre- and post-policy comparison of the credit-deposit ratio

The credit–deposit ratio provides a concise measure of borrowing intensity relative to savings and is therefore a useful indicator for comparing financial behaviour across institutional environments before and after fiscal expansion. Table 3 and Figure 3 compare credit–deposit ratios across institutional density groups for the pre-policy period (2018–19) and the post-policy recovery period (2021–22).

Medium Institutional Density States

Medium institutional density states exhibit the most pronounced change over time. Their credit–deposit ratio declines from **95.70% in 2018–19** to **84.61% in 2021–22**, indicating a substantial reduction in borrowing intensity relative to savings. This shift suggests that expansionary fiscal policy was associated with stronger savings accumulation alongside continued credit activity, rather than an increase in leverage. The magnitude of this decline highlights the responsiveness of medium-density states, where institutional conditions allow households and firms to adjust financial behaviour in response to macroeconomic policy.

High Institutional Density States

High institutional density states display a smaller but consistent decline in the credit–deposit ratio, from **56.67%** to **52.91%**. This persistence of low borrowing intensity across both periods reinforces the interpretation that conservative financial behaviour in these states is structural rather than policy-driven. Fiscal expansion appears to have reinforced existing preferences for savings and financial stability rather than altering borrowing patterns.

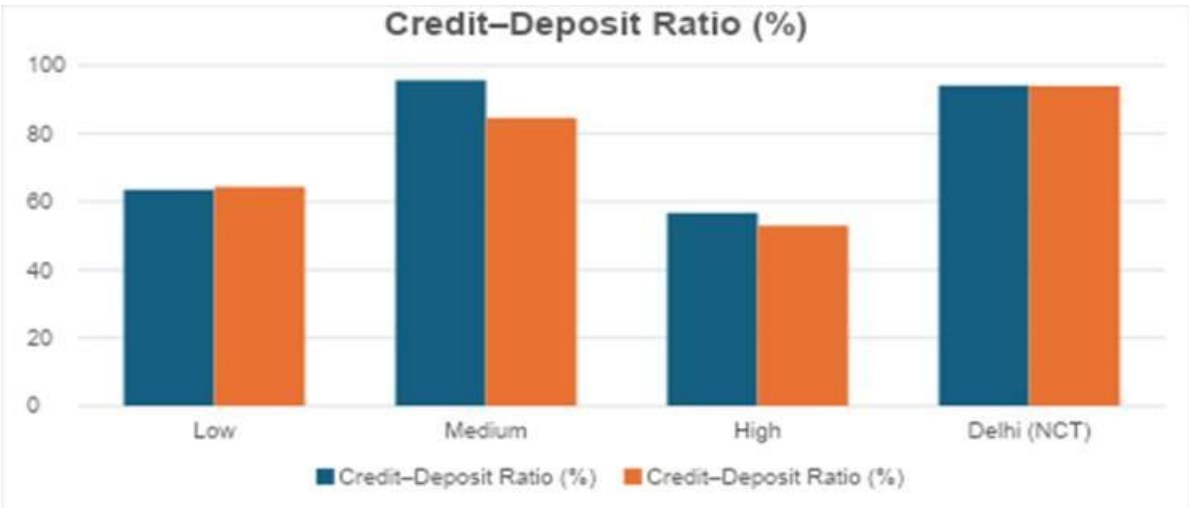
Low Institutional Density States

Low institutional density states show minimal change in the credit–deposit ratio, which increases marginally from **63.48%** to **64.33%**. Despite modest growth in both deposits and credit, the near-constancy of the ratio indicates that fiscal expansion had a limited impact on the relative use of borrowing in these states. Structural institutional constraints continue to limit the effectiveness of fiscal policy transmission through the formal banking system.

Delhi (NCT) maintains a consistently high credit–deposit ratio across both periods, declining only slightly from **94.09%** to **93.92%**. This stability at very high levels reflects Delhi's unique role as a financial and administrative hub, where deposits are rapidly intermediated into credit. As such, its behaviour is not directly comparable to that of other states and further justifies its treatment as a structural outlier.

Overall, the comparison of credit–deposit ratios across periods demonstrates that India's 2019 expansionary fiscal policy did not produce uniform changes in borrowing intensity across states. Instead, the extent and direction of change depended on institutional context, with medium-density states exhibiting the greatest behavioural adjustment, high-density states displaying persistent conservatism, and low-density states remaining constrained. This reinforces the conclusion that the institutional environment plays a central role in shaping how fiscal policy translates into saving and borrowing behaviour. However, these findings should be interpreted with caution, as the COVID-19 shock may have influenced financial behaviour independently of fiscal policy.

However, part of this decline may also reflect precautionary saving behaviour during the COVID-19 period, making it difficult to fully attribute the change to fiscal policy alone.



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536 Figure 3: Credit-deposit ratio comparison

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Credit-Deposit Ratio (%)		
Group	2018-2019	2021-22
Low	63.48	64.33
Medium	95.7	84.61
High	56.67	52.91
Delhi (NCT)	94.09	93.92

Table 3: Credit-deposit ratio comparison

6. Discussion

The findings of this study highlight the central role of institutional context in shaping how expansionary fiscal policy translates into saving and borrowing behaviour across Indian states. While India’s 2019 fiscal expansion aimed to stimulate economic activity broadly, the observed financial responses were uneven across regions, suggesting that policy effectiveness depends not only on income effects but also on the institutional environment through which fiscal stimulus is transmitted.

Why institutions matter for fiscal transmission

Institutions influence fiscal transmission by shaping access to financial systems, confidence in formal banking, and the capacity of households and firms to respond to policy-induced income changes. States with stronger institutional environments—proxied in this study by higher densities of recognised higher-education institutions—tend to exhibit deeper financial systems, better information dissemination, and greater engagement with formal financial products.

The findings show that medium institutional density states were the most responsive to fiscal expansion, displaying meaningful adjustments in both saving and borrowing behaviour. This suggests that these states occupy an intermediate institutional position: financial systems are sufficiently developed to transmit policy effects effectively, but not so mature that behaviour becomes rigid.

In contrast, low institutional density states face persistent structural constraints—such as weaker banking penetration and reliance on informal finance—which limit the ability of fiscal stimulus to influence financial behaviour. High institutional density states, while financially developed, appear less responsive in behavioural terms due to already established financial norms and preferences.

Addressing the hypothesis

The study initially hypothesised that states with stronger institutional environments would exhibit more pronounced changes in saving and borrowing behaviour following fiscal expansion. However, the findings only partially support this expectation.

While institutional context clearly shapes financial responses, it is medium institutional density states—not the highest density states—that exhibit the most significant behavioural adjustment. This suggests that beyond a certain level of institutional development, financial behaviour becomes more stable and less responsive to short-term policy changes.

As a result, the relationship between institutional strength and responsiveness appears non-linear. Moderate levels of institutional development may maximise responsiveness to fiscal policy, whereas very high levels may be associated with more entrenched and stable financial behaviour.

Why fiscal policy reinforced patterns rather than transformed them

A key finding of this study is that India's 2019 expansionary fiscal policy largely reinforced pre-existing financial behaviour rather than fundamentally transforming it. Across all institutional density groups, the relative ranking of borrowing intensity remained broadly unchanged between the pre- and post-policy periods.

This outcome reflects the fact that fiscal policy operates within existing structural and institutional frameworks. While fiscal expansion can increase income and liquidity, it cannot rapidly alter deeply embedded financial habits or institutional constraints.

In high institutional density states, households and firms appear to have used additional income to strengthen savings rather than expand borrowing, consistent with preferences for financial stability. In low-density states, structural limitations—such as weaker access to formal banking—restricted the transmission of fiscal stimulus. As a result, fiscal policy amplified existing tendencies rather than equalising financial behaviour across regions.

Interpreting the credit–deposit ratio

The credit–deposit ratio provides insight into how households and firms allocate additional income between saving and borrowing. A decline in this ratio, as observed in medium and high institutional density states, indicates that deposits grew faster than credit.

Behaviourally, this reflects increased precautionary saving rather than reduced financial activity. In the context of post-2019 fiscal expansion—combined with the uncertainty created by the COVID-19 shock—households and firms likely prioritised liquidity and financial resilience over increased borrowing.

In medium institutional density states, the decline in the credit–deposit ratio reflects a balanced adjustment: savings increased significantly while borrowing continued at a more moderate pace. This suggests a responsive financial environment where agents adjust behaviour without disengaging from credit markets.

In high institutional density states, persistently low credit–deposit ratios indicate a structural preference for saving over borrowing, consistent with more mature financial systems. In low institutional density states, the relative stability of the ratio suggests that structural constraints limited behavioural change, reinforcing the idea that institutional capacity is central to policy transmission.

These findings align with existing literature, including the argument by Emi Nakamura and Jón Steinsson that fiscal effects vary across regions, and evidence from Thorsten Beck and co-authors that stronger institutions shape financial participation. In the Indian context, institutional density appears to influence not only the magnitude but also the nature of financial responses to fiscal policy.

Overall, movements in the credit–deposit ratio suggest that India’s expansionary fiscal policy did not trigger widespread borrowing-led expansion. Instead, households and firms across most institutional environments responded by prioritising savings, reducing relative borrowing intensity, and strengthening financial resilience. This behavioural response helps explain why fiscal policy reinforced existing financial patterns rather than transforming them and underscores the importance of institutional context in shaping economic decision-making.

7. Limitations

While this study provides useful insights into the relationship between fiscal policy, institutional context, and saving and borrowing behaviour across Indian states, several limitations should be acknowledged.

Data Limitations

First, the analysis relies on aggregate state-level data, which masks heterogeneity within states. Differences in household income, access to banking services, and sectoral composition are not captured, meaning the findings reflect broad regional patterns rather than individual or household-level behaviour.

Second, the study is constrained by a relatively small number of observations, particularly after grouping states by institutional density. This limits the reliability of statistical relationships observed in the analysis and reduces the scope for formal hypothesis testing. With a larger sample—such as district-level data or a longer time series—it would be possible to apply more robust econometric techniques and test for statistical significance more reliably. As a result, the findings should be interpreted as indicative patterns rather than statistically robust conclusions.

Third, the use of banking aggregates captures activity within the formal financial system but excludes informal saving and borrowing, which remain significant in parts of India. This may lead to an incomplete representation of overall financial behaviour. This is particularly significant in low institutional density states, where informal credit markets may account for a substantial share of borrowing, meaning that the study may underestimate total borrowing behaviour in these regions.

Conceptual Limitations

A key conceptual limitation lies in the use of institutional density—measured by the number of recognised higher-education institutions per 1,000 square kilometres—as a proxy for financial literacy. While this captures aspects of institutional capacity and awareness, it does not directly measure financial literacy or household-level financial decision-making. As a result, differences attributed to institutional context may partly reflect other unobserved factors such as income levels, urbanisation, or variations in banking infrastructure. Population-based indicators would provide a more accurate measure of institutional reach, but the absence of recent census data constrains this approach.

In addition, the study adopts a pre–post comparative design without a formal identification strategy, meaning it cannot isolate the causal impact of the 2019 fiscal policy from other macroeconomic influences, including the COVID-19 shock. The results, therefore, reflect associations rather than causal effects. This means that observed changes in saving and borrowing behaviour cannot be definitively attributed to the 2019 fiscal policy, as other factors—particularly the COVID-19 shock—may have influenced financial behaviour during the same period.

The most significant limitation is the reliance on institutional density as a proxy for financial literacy, as it directly influences how states are classified and how behavioural differences are interpreted, but despite this, the study’s comparative framework still offers useful insights into how fiscal policy interacts with institutional environments to shape regional financial behaviour.

Future research could address these limitations by using micro-level household data or district-level data, which would allow for a more detailed analysis of financial behaviour across different income groups and regions. In addition, applying casual identification strategies, such as a difference-in-difference approach comparing states with varying levels of institutional development before and after the policy would help isolate the specific impact of fiscal expansion from other macroeconomic factors.

Future research could also incorporate direct measures of financial literacy and banking access, rather than relying on institutional proxies, to better capture the mechanisms through which fiscal policy influences saving and borrowing behavior. Such approaches would provide a more precise understanding of how institutional development interacts with fiscal policy and would strengthen the ability to draw casual conclusions.

8. Conclusion

This study examined how India's 2019 expansionary fiscal policy influenced saving and borrowing behaviour across Indian states with different institutional environments. The analysis shows that the effects of fiscal expansion were not uniform across regions but were strongly conditioned by institutional context, as proxied by the density of recognised higher-education institutions.

The findings indicate that medium institutional density states were the most responsive to fiscal expansion. These states experienced substantial growth in both deposits and credit, alongside a decline in the credit-deposit ratio, suggesting that households and firms increased savings while maintaining cautious borrowing. In contrast, high institutional density states displayed persistent financial conservatism, with borrowing intensity remaining low across both periods. Low institutional density states showed limited behavioural change, indicating that structural institutional constraints restricted the transmission of fiscal stimulus through the formal banking system. Delhi (NCT) remained a structural outlier due to its unique financial and administrative role.

Overall, the results suggest that India's expansionary fiscal policy reinforced existing saving and borrowing patterns rather than transforming them. While fiscal expansion increased the scale of financial activity, it did not fundamentally alter relative borrowing behaviour across institutional environments. This highlights the importance of institutional capacity in determining how macroeconomic policy translates into financial outcomes.

From a policy perspective, the findings imply that fiscal expansion alone may be insufficient to stimulate borrowing-led growth in regions with weaker institutional foundations. Targeted improvements in banking access, financial literacy, and institutional capacity may be necessary to enhance the effectiveness of fiscal policy. At the same time, in more developed institutional environments, fiscal policy may play a stabilising role by strengthening savings rather than encouraging additional leverage.

However, these conclusions should be interpreted with caution, as the analysis does not isolate the causal impact of fiscal policy and the post-policy period overlaps with the COVID-19 shock, which may have independently influenced financial behaviour.

Future research could build on this study by using micro-level data or applying causal identification strategies—such as difference-in-differences approaches—to better isolate the impact of fiscal policy across regions. Such work would provide a clearer understanding of how institutional development interacts with macroeconomic policy in shaping financial behaviour.

In conclusion, this study highlights the importance of viewing fiscal policy through an institutional lens. Understanding how institutional environments shape saving and borrowing behaviour is essential for designing policies that achieve balanced and regionally inclusive economic outcomes.

Appendix

Raw State-wise Data

State-wise SCB deposits (2018–19 to 2021–22)

State	2018- 2019	2019- 2020	2020- 2021	2021- 2022
Delhi (NCT)	1144642	1210108	1238245	1400864
Gujarat	640358	674922	738912	830161
Karnataka	835662	934364	1061242	1256023
Kerala	441923	495762	545024	607649
Madhya Pradesh	341433	368951	396779	453372
Maharashtra	2292825	2607845	2807751	3163108
Punjab	347797	379577	410987	459027
Tamil Nadu	716716	798738	899038	1008731
Telangana	417817	458581	498184	605468
West Bengal	718580	779291	827832	889011
Uttar Pradesh	953578	1041507	1144902	1277878
Haryana	366393	409974	475352	538565
Rajasthan	334008	379008	420150	474438
Assam	134287	147091	164299	173014
Bihar	314811	353169	375707	397492

State-
credit
to

wise SCB
(2018–19
2021–22)

State	2018- 2019	2019- 2020	2020- 2021	2021- 2022
Delhi (NCT)	1076998	1300026	1365110	1315663
Gujarat	483921	532150	552428	580273
Karnataka	582491	651149	692032	750843
Kerala	282034	326846	354384	378762
Madhya Pradesh	222153	250692	274405	307614
Maharashtra	2450160	2744200	2863779	2926015
Punjab	220941	228853	234738	252685
Tamil Nadu	813600	880961	966506	1025781
Telangana	448649	487495	516131	564592
West Bengal	367323	385465	408144	413827
Uttar Pradesh	392666	444368	475157	530106
Haryana	214888	250429	260619	287499
Rajasthan	255728	308471	334449	369374
Assam	57186	65150	70625	80871
Bihar	101253	122446	135679	159318

State-wise recognised higher-education institutions (per 1,000 sq. km)

State	2018- 2019	2019- 2020	2020- 2021	2021- 2022
Delhi (NCT)	210	212	202	216
Gujarat	13	14	14	14
Karnataka	26	29	29	30
Kerala	47	49	47	49
Madhya Pradesh	8	12	10	10
Maharashtra	22	23	22	23
Punjab	30	30	28	29
Tamil Nadu	26	28	28	29
Telangana	22	23	23	23
West Bengal	21	22	23	24
Uttar Pradesh	33	37	38	40
Haryana	31	31	31	32
Rajasthan	11	12	13	13
Assam	8	9	9	9
Bihar	11	11	14	15

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