



Bank Bodhi

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The Quarterly Macro-Scan & Micro-perception Newsletter

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SNAPSHOT

- **This Quarter, We Reflect On**
 - As the international trade order becomes uncertain, data on the impact of US tariffs for major countries suggests sharp impacts for growth and employment going ahead
 - India exports to US, both as % of GDP and in growth terms, suggest a substantial exposure: there may be sharp setbacks and rejig of business decisions for many firms.
 - Export strategy needs to be revisited: potential in the innovation led areas remains untapped.
- **Growth and Industrial momentum**
 - Realized GDP growth consistently exceeds SPF forecasts, reflecting cautious expectations rather than sudden acceleration.
 - Growth surprises are explained by steady consumption, episodic investment spikes, and persistent services-sector strength rather than broad-based private capex revival.
 - Sectoral divergence remains pronounced, with services anchoring growth, industry improving unevenly, and agriculture acting as a recurring drag on aggregate momentum.
 - Disinflation has eased macroeconomic constraints
- **External Sector Dynamics**
 - Indian rupee remained in focus in the previous quarter with global trade uncertainty, consequent worsening trade balance and capital outflows
 - Depreciating pressures on rupee is likely to continue with dollar strengthening on the cards, as well as driven by setbacks to trade
 - Reported RBI intervention has helped contain volatility but may have crucial domestic liquidity repercussions
- **Credit Outlook**
 - Overall bank credit is lacklustre but there are green shoots which can be leveraged
 - Gold loans and Lending to Micro and Small industries has a high probability of synergistic effect

- **Money Supply and Liquidity**
 - Aggregate liquidity remained ample during Q3 FY2026.
 - RBI's calibrated liquidity operations were effective in anchoring overnight money market rates close to the policy rate.
 - The relatively higher volatility in the Weighted Average Tri-party Repo Rate (WATR) compared to the Weighted Average Call Rate (WACR) raises questions for the regulator regarding market structure and transmission.
- **Financial Market Developments**
 - Equity markets moved higher; however, the undertone remains cautious. The upcoming result season and the Trump tariffs may keep the market volatile.
 - Bond markets seem to be uncomfortable with the longer-term issuances as the yields move higher.
 - Repo rate cut along with the OMO announcement did not have expected positive impact and yields hardened by 15 bps after the December monetary policy
- **Technology in Banking: Emerging Developments**
 - AI data security risks often begin with small, overlooked design and access decisions rather than major system failures.
 - Recent industry incidents show that logs, prompts, third-party platforms, and inherited dependencies can expose sensitive banking data.
 - Banks must apply lifecycle-wide AI controls, including visibility, continuous monitoring, fine-grained access, encryption, and regulatory alignment.
- **Lending Trends Perceptions: Why They Matter & How Measured**
 - Aggregate credit data alone may be insufficient to understand the demand side and structural constraints: we discuss the intuition behind qualitative credit surveys by major central banks.
 - Reliance on surveys comes from the need for forward-looking, qualitative information directly from lending institutions, carrying nuances of loan officers' perceptions
 - Proposed methodology for a lending trends survey in the Indian context, utilizing the branch level sampling frame, is discussed.

MACRO-SCAN

1. THIS QUARTER, WE REFLECT ON:

TARIFFS AND NEW TRADE ORDER

SMITA ROY TRIVEDI

As we step into 2026, India stands at a pivotal moment on the pathway towards *Viksit Bharat*. Domestically, we are buoyed by benign inflationary trends, robust public spending, and largely resilient growth; yet, we carry the baggage of a vulnerable international order and a premonition of greater economic uncertainty on the global front.

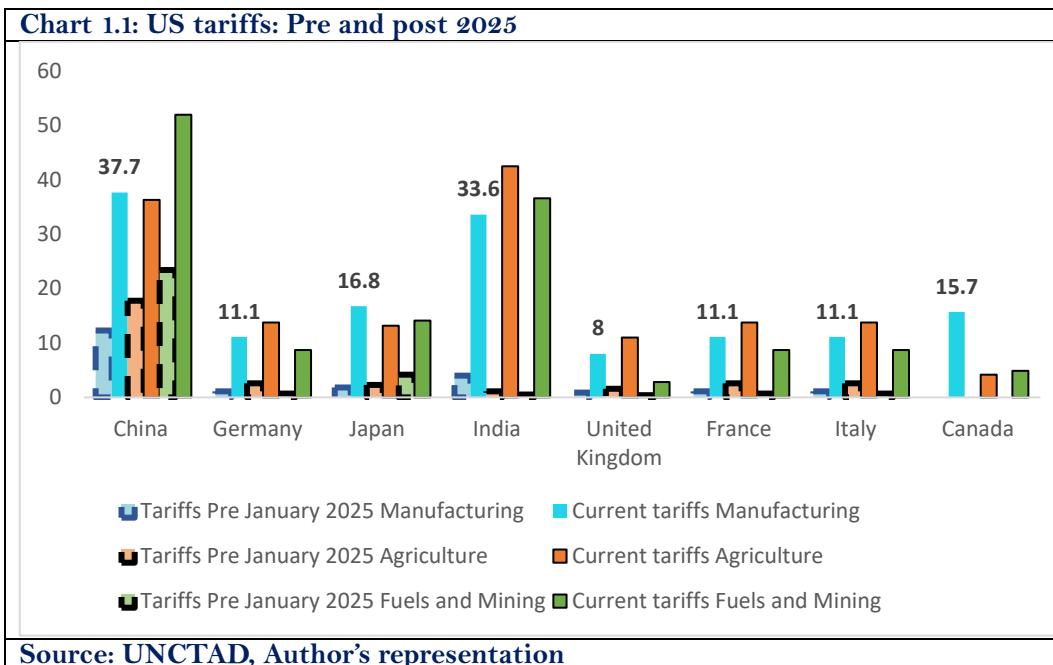
While international cooperation historically has seen its fair share of crises, it has never looked so perilous. Just as the trade chessboard seemed settled, one player began moving the king at will: and the world seemingly stood watching. Just when we thought tariffs were the one thing the world had agreed upon after years of GATT and the WTO, Liberation Day tariffs laid fresh the rules of the game.

The response, as always, for economic entities was to dig into resilience, as a price of failing policy order. However, it is now clear that the extended catastrophic impact of tariffs is just being felt, and circumvention and under-invoicing that continue to define trade responses cannot avert declines in incomes, employment and investment. We talk here of the extent of the impact and why a change in the overall strategy for exports is necessitated.

What is the likely impact?

To highlight the extent of the impact, Chart 1.1 shows the US tariffs (pre 2025 and post 2025) on the select top performers in terms of GDP. The trade weighted tariff index is shown for manufacturing, agriculture and fuels & mining. We can see India, China and Canada have had the sharpest increase in tariffs. Agriculture and fuels and mining which recorded lowest tariffs earlier, face prohibitive rates now.

The tariffs imposed by the US highlighted a strange global paradox: US ranks abysmally low in terms of trade openness with trade as % of GDP around 25% for the US, compared to the major European powers (like France, Germany, Italy, UK as also Canada) who all score above 60%. Yet, given the sheer quantum of US GDP, the direct and indirect exposure from a fall in exports to the US is still substantial for the rest of the world.



For India, the percentage share of exports to US being substantial, at 20% of total exports, the setback could be significant. Chart 1.2 shows the India's exports to the US as percentage of total exports (right axis) and the YoY growth rates in exports (left axis). While the post covid period growth rates appear significant due to the base effect, the share has remained quite stagnant till last year, as can be seen from the Chart 2. We can see that the exports to US had registered a good increase in 2024-25, which will mean sharp setbacks and rejig of business decisions for many firms.

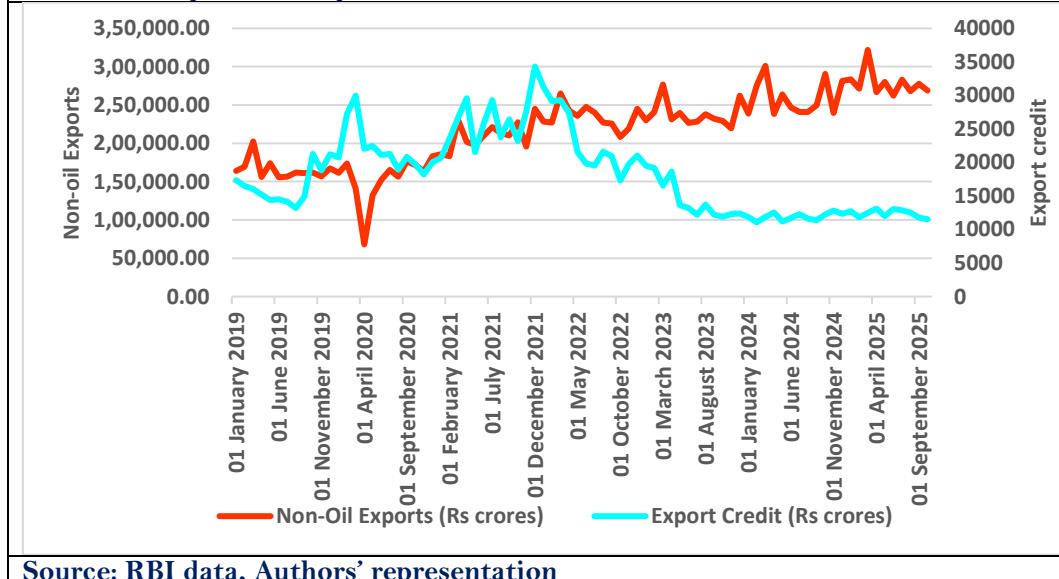
Chart 1.2: India's export to the US



Source: [Trade Statistics, Ministry of Commerce and Industry](#), Author's calculations

Importantly, the Indian exports have remained subdued for some time now, in spite of a sharply depreciating rupee. This in turn has also kept the credit growth muted as can be seen from Chart 1.3. As of now, while we have strong areas of exports, the diversification of exports gives much to be desired: there is a dependence on service exports while potential in merchandise exports remains untapped.

Chart 1.3: Export and export credit movement



Source: [RBI data](#), Authors' representation

Table 1.1 shows the top 10 exported commodities: here again, there is a heavy dependence on oil and petroleum exports, followed by gems and jewellery. Strong capabilities exist in the export of electrical and electronic goods and machinery, as also pharma products, which still contribute less than desired to the export basket. However, these sectors need innovation led growth momentum which in turn requires a focussed approach towards R&D, public-private investment, and capacity-building. Till date the potential of Indian exports in the innovation led areas remains untapped.

Table 1.1: Top ten merchandise exports from India

<i>Commodity</i>	<i>% Share In Total (2024)</i>
Mineral Fuels, Mineral Oils & Products of Their Distillation; Bituminous Substances; Mineral Waxes	17.1
Electrical Machinery & Equipment & Parts Thereof; Sound Recorders & Reproducers, Television Image & Sound Recorders & Reproducers, Parts & Accessories	9.06
Nuclear Reactors, Boilers, Machinery & Mechanical Appliances; Parts Thereof	7.37
Natural Or Cultured Pearls, Precious or Semi-Precious Stones, Precious Metals, Metals Clad with Precious Metal, & Articles Thereof; Imitation Jewellery; Coin	6.73
Pharmaceutical Products	5.29
Vehicles Other Than Railway or Tramway Rolling Stock, & Parts & Accessories Thereof	5.01
Organic Chemicals	4.76
Cereals	2.75
Iron & Steel	2.34
Articles Of Apparel & Clothing Accessories, Not Knitted or Crocheted	1.86
Source: UN Comtrade	

What could be the policy response?

What should then be the Indian strategy then going ahead? Other than negotiation, and yes, keeping negotiations open despite the lukewarm response from the other side is equally important, trade will have to be looked at in a different way.

First, focus on **Innovation-based trade**: new trade theories have shown how innovation can play a key role in developing comparative advantage for trade. Indeed, innovation-embedded products yield greater value addition

and higher profitability. Firm-level innovation allows new varieties to emerge in similar products and sustain trade even among similar economies.

Second focussed investment in product lines fostering innovation-based trade is much needed and will also attract much needed FDI in these areas. Recent evidence clearly shows innovation and intangible capital now have become cornerstones to comparative advantage, with advanced economies trading differentiated and innovation-intensive goods and services within global value chains. However, to create comparative advantage in these product line, large-scale and sustained investment is important (Table 1.2).

Table 1.2: Emerging areas of opportunities

Sector / Value Chain	Global Demand	India's Capability
Biologics, Biosimilars & Medical Devices	<u>Demographic shift towards aging and rising healthcare costs</u> in the US, EU, and Japan will lead to demand for cost-effective products	<u>Strong base in generics exists, yet research and innovation required</u> as also regulatory compliance to support growth in generics, biosimilars, and advanced biologics
Semiconductor Design, Electronics Hardware & Advanced Manufacturing	<u>Supply-chain diversification</u> and <u>reshoring</u> in US, EU, & East Asia; will lead to demand for chips and electronics	Possess strength in chip design, embedded systems, and electronics assembly; need to move up the value chain & <u>build end-to-end semiconductor manufacturing</u>
Rare Earth-Based Products & Clean-Energy Components	With energy transition in advanced economies <u>increased demand for Electronic Vehicle (EVs), renewables, and storage technologies</u>	Identified rare-earth reserves; engineering capability; growing EV and renewable energy ecosystem, <u>sustained support required</u>

Source: Refer to Article links, author's presentation

Third, while banks in India, well versed with export finance can play a vital role in handholding firms in newer areas of manufacturing, appraisal skills and monitoring in these areas need to be robust. Financing requirements span long-term in innovation-led value chains, given their capital intensity, long gestation periods, and exposure to global markets.

The need of the hour for banks therefore is to

- align credit assessment frameworks to the innovation-driven exports and global value chains
- create board-level internal policy guidelines for these emerging areas of financing, and

Finally, guidance from the central bank on financing to innovation-based exports lines will create the right signals for the banks to go ahead.

One of the first steps is, of course, getting the growth momentum right. As argued by Balu Pawde in Section II, there are green shoots in manufacturing and growth is well supported at this point by household consumption. To keep the momentum going, manufacturing sector must remain the focus, so that fall in employment does not drag consumption. Getting growth right is crucial as our external sector continues to be vulnerable with a worrying trade balance and depreciating rupee, as discussed by the author in Section III.

On the Credit side, the momentum in manufacturing sector is, on the positive side, being well maintained by credit growth increasing to these sectors. Green shoots need to be leveraged as argued by Elizabeth James in Section IV. Importantly, liquidity is being adequately maintained in the system, which would be crucial to keep the credit momentum. Debaditya Mohanti shows in Section IV how pockets of stressed liquidity are being balanced by the central bank.

The Financial markets reflect the mixed signals on growth and liquidity with bond yields staying up and equity markets pensive, the story presented by Yashveer Singh Rawat in Section VI. While the banking sector juggles with these macroeconomic dynamics, a revolution seethes underneath as banks gear up for the AI wave. Pramod Mane discusses the data security risks in AI and its implications in Section VI. To support the understanding of the macro-dynamics, a closer look at micro-perceptions of participants is required. In Micro perceptions, we bring you the rationale and methods for looking at micro-perceptions, focussing on lending trends.

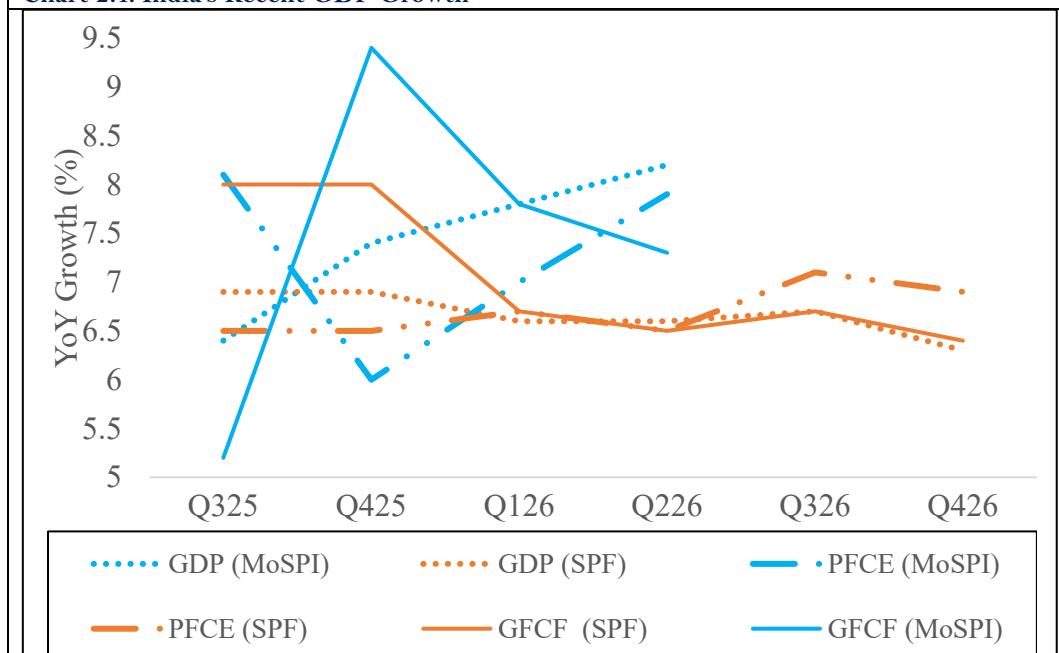
2. GROWTH AND INDUSTRIAL MOMENTUM

BALU PAWDE

In this section, we attempt to understand the recent economic growth from the composition and sectoral view and what the trajectory may hold for the near-term performance. As is much discussed, the Q2 of FY 2026 came with favourable growth surprises where real GDP grew at 8.2% and the inflation was much below the target range of 2-6%.

This recent experience can be most transparently read from Chart 2.1, which tracks year on year growth in real GDP from MoSPI alongside projections from RBI's Survey of Professional Forecasters (SPF), while also plotting growth in Private Final Consumption Expenditure (PFCE) and Gross Fixed Capital Formation (GFCF) in both realised and expected terms. Over the observed quarters, realised GDP growth has consistently outperformed the expected GDP growth from SPF. In fact, there is persistent gap between realised numbers and expectations in most of the variables discussed here and the realised numbers often outperform the expectations.

Chart 2:1. India's Recent GDP Growth



Sources: MOSPI, RBI, Author's representation, SPF is Survey of Professional Forecasters (RBI)

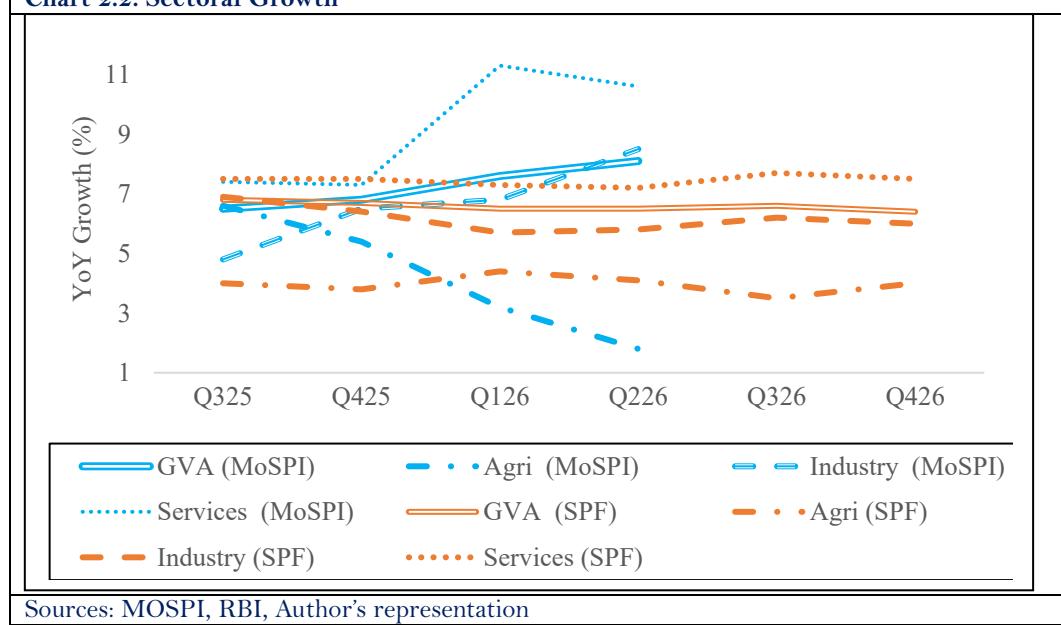
What explains celebrated outperformance of the recent economic growth vis-à-vis expectations?

The internal composition of growth, shows that the PFCE grew marginally although GFCCF exhibited marginal decline in growth momentum over Q1 and Q2 of FY26 and this decline is consistent with the SPF expectations. It is clear that for the Q1 and Q2 of FY 2026, the growth surprise was supported by household consumption (along with public capex & sectoral growth spurts). The growth numbers in the coming quarters will tell us more about the resilience of household consumption vis-à-vis other components.

Does sectoral decomposition have more to offer?

Chart 2 shows that the earlier discussed outperformance of GDP growth during Q2 of FY26 was supported by growth in industry and was sustained by prevailing high growth rates of service sector. During Q1 and Q2 of FY26, the realised growth of industry and services consistently outperform the expectations of SPF. The realised growth in agriculture and allied sector however decelerated sharply while SPF projections for this sector remained relatively stable. Chart 2.2 thus makes clear that headline GDP strength coexists with sectoral divergence, explaining why aggregate growth remains robust even as rural and agriculture-linked segments lag.

Chart 2.2. Sectoral Growth

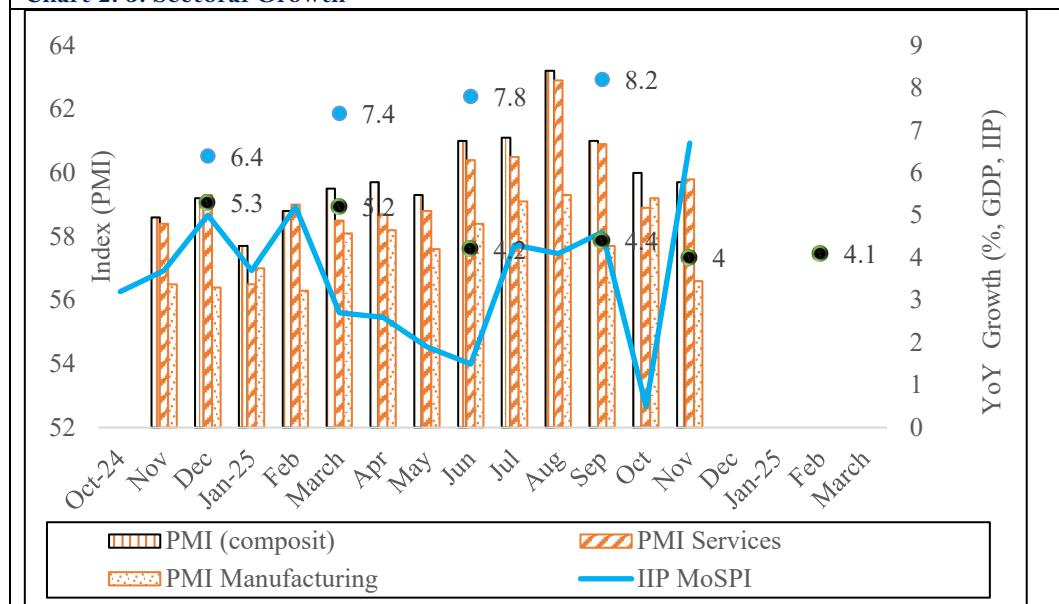


Expectations and high-frequency signals, captured in Chart 2.3, help bridge the gap between sentiment and output. PMI indices for the recent period show sustained business confidence. In contrast, IIP growth plotted in the same chart is visibly volatile, dipping sharply around October before rebounding strongly in November. The IIP also indicates that industrial production supported the outperformance of GDP growth during Q2 of FY26.

Inflation dynamics in Chart 2.4 completes this story. Both headline CPI & WPI inflation has consistently fallen over the past year; WPI inflation hovering around negative territory during Q2 and Q3 of FY 2026. The realised inflation is consistently below the SPF expectations which mirrors the GDP pattern seen in Chart 2.1. Low inflation has helped relax a binding constraint, enabling uptick in household consumption to translate into realised output.

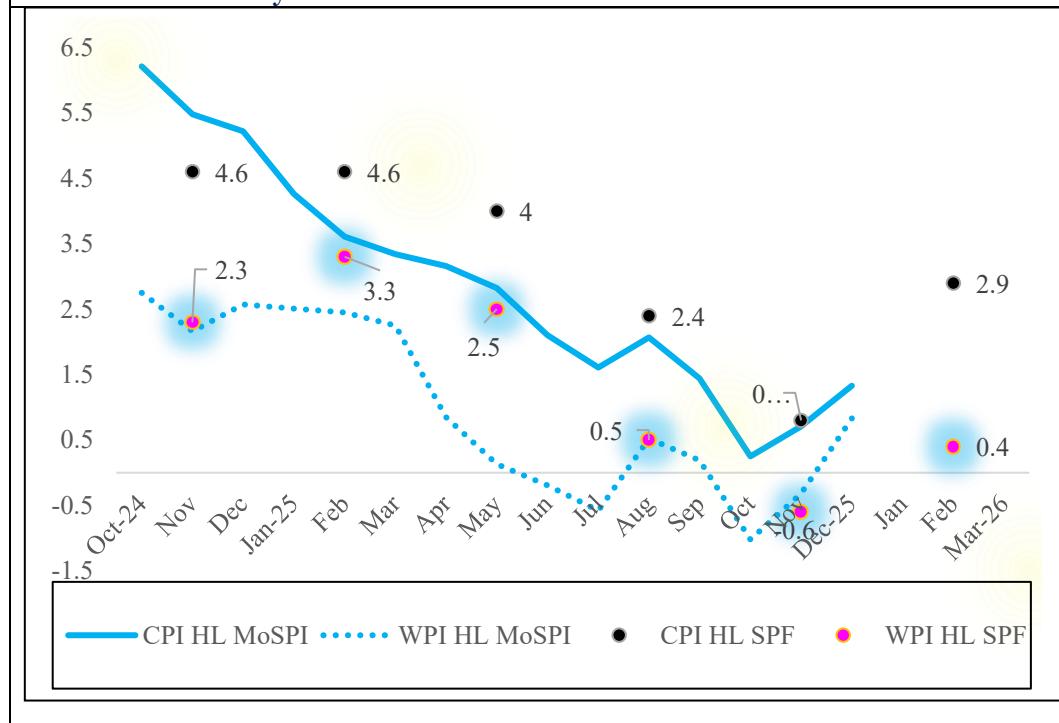
What does this imply for the near term? SPF projections extending into Q3 and Q4 FY26 show GDP growth moderating slightly, PFCE remaining stable, and GFCE easing further. Services growth is expected to cool but remain the dominant driver, while industry may improve further. Inflation expectations show normalisation rather than renewed disinflation. Taken together, the expectations point to continuity without acceleration where growth remains resilient, but the scope for repeated upside surprises may become narrower as outcomes slowly converge toward expectations. Subsequently, the credit demand may remain broad based but uneven with services and industry led growth supporting retail and MSME lending. Considering the inflation expectations, the interest rate environment may continue to remain benign.

Chart 2: 3. Sectoral Growth



Sources: MOSPI, RBI, Author's representation

Chart 2:4. Inflation Dynamics



Sources: MOSPI, RBI, Author's representation

3. EXTERNAL SECTOR DYNAMICS

SMITA ROY TRIVEDI

On the external front, all eyes were on the rupee in the last quarter and will be steadfastly so as India navigates choppy trade waters. Indian rupee breached ninety (90) on Dec 2nd 2025, and as on date (Jan 22, 2026) inches precariously close to 92. While the RBI intervention helped to have a resistance around the 90-mark, rupee continues to be vulnerable. Going forward, we expect this pressure to continue.

First, as Chart 3.1 shows, there has been sustained depreciation in the currency from July 2025 onwards, which continued in tandem with the dollar weakening as seen from the DXY index movement. As rupee continues to hover above the 90-mark, the dollar index rising or finding support is likely to put greater pressure on rupee.

Chart 3. 1: Rupee and Dollar index



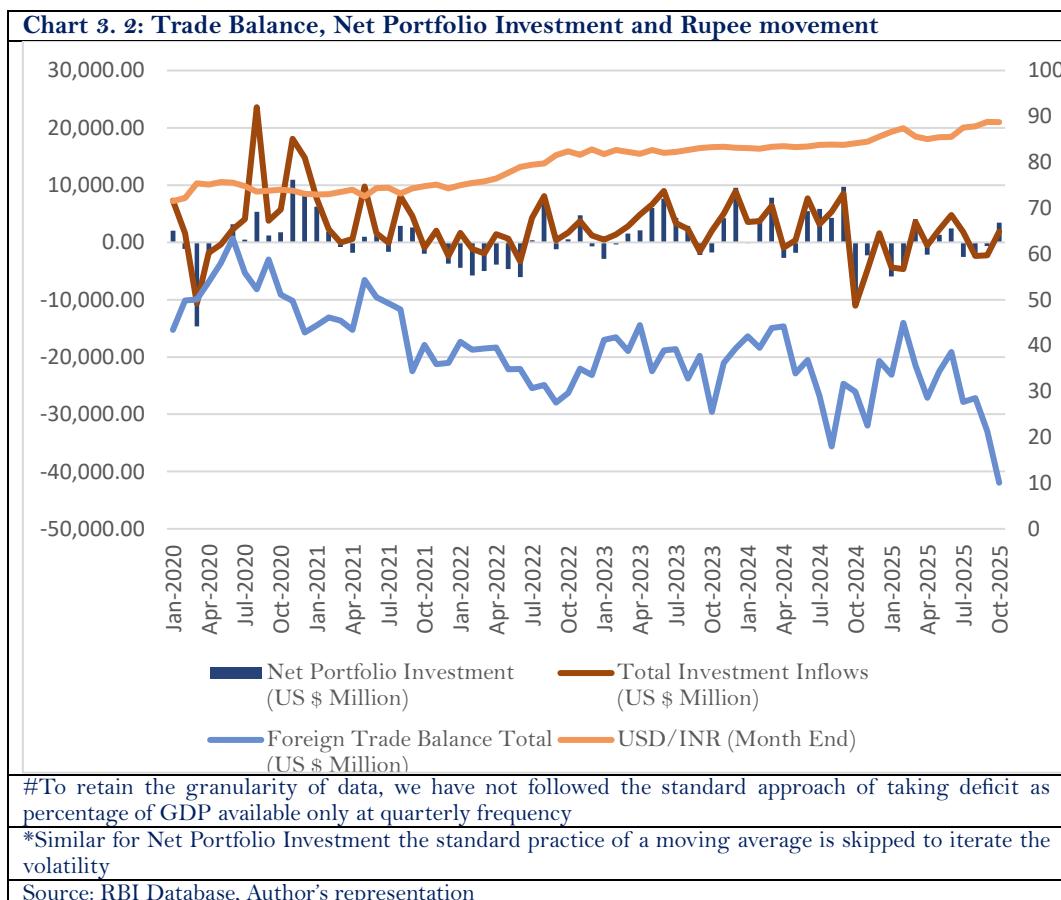
Source: LSEG

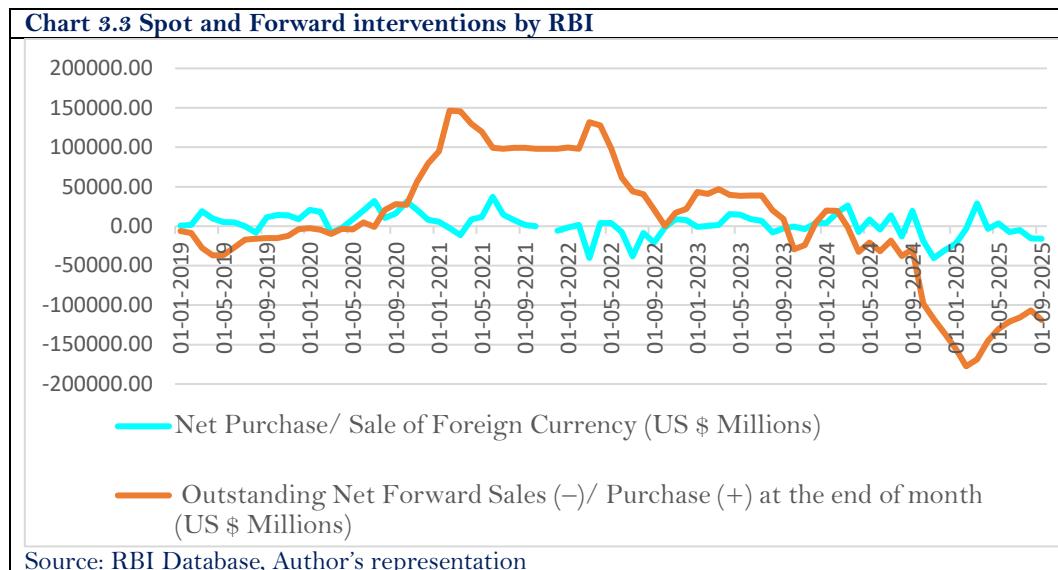
Second, trade balance (exports minus imports) has worsened in the last six months. The tariffs imposed by the US led to an initial surge in exports in the months leading up to the August deadline but it is likely exports to US will see setbacks as uncertainty around tariffs continue. On the import side, the consistent fall in crude prices (Brent Spot) has helped contain the trade deficit, and any upward momentum in crude will further put pressure on rupee.

Third, the capital flows have not been helpful for the Indian rupee. FII flows (Net Portfolio Investment) have frequently turned negative in 2025 (Chart 3.2), with sharp falls in end- 2025. FIIIs pulled out more than Rs 5000 crores f in the first two session of 2026, suggesting the pressure on rupee will continue.

While reported RBI intervention in forex market has continued, it has been balanced by forward market intervention and recent FX swaps to push rupee liquidity. Selling dollars on the spot side, leads to a fall in rupee liquidity which the central bank balances through forward market actions.

Table 3.3 gives the spot and forward market interventions in rupee and importantly as much as it has helped prevent repercussions on the domestic side, it leads to build up of future liabilities. This suggests strategies for long-term recoup of export competitiveness and export growth is the need of the hour as also argued in the Section I.





4. CREDIT OUTLOOK

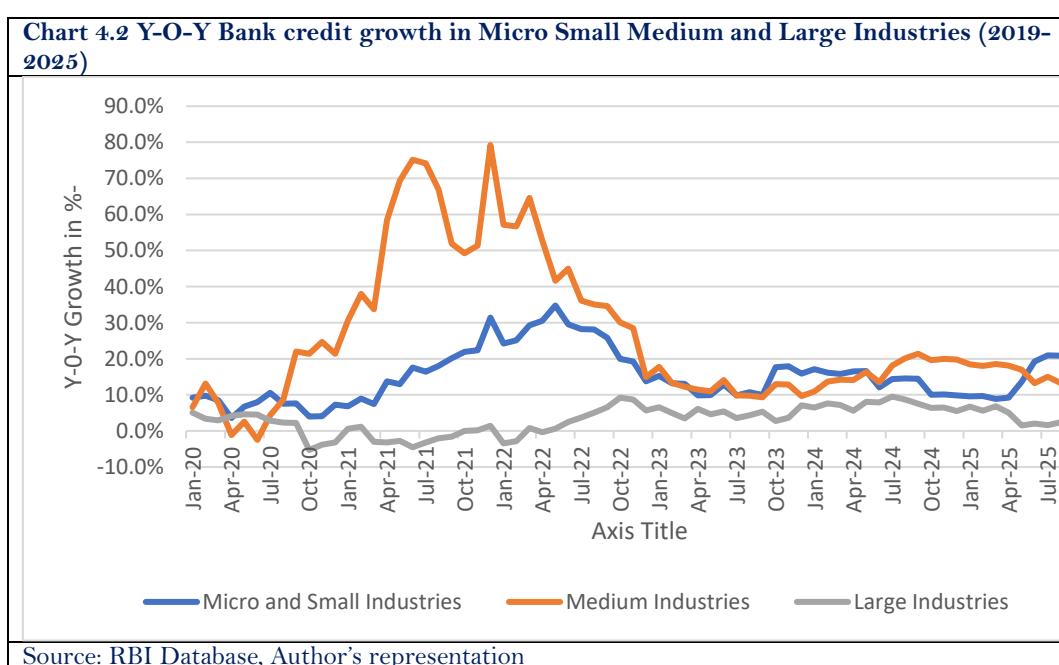
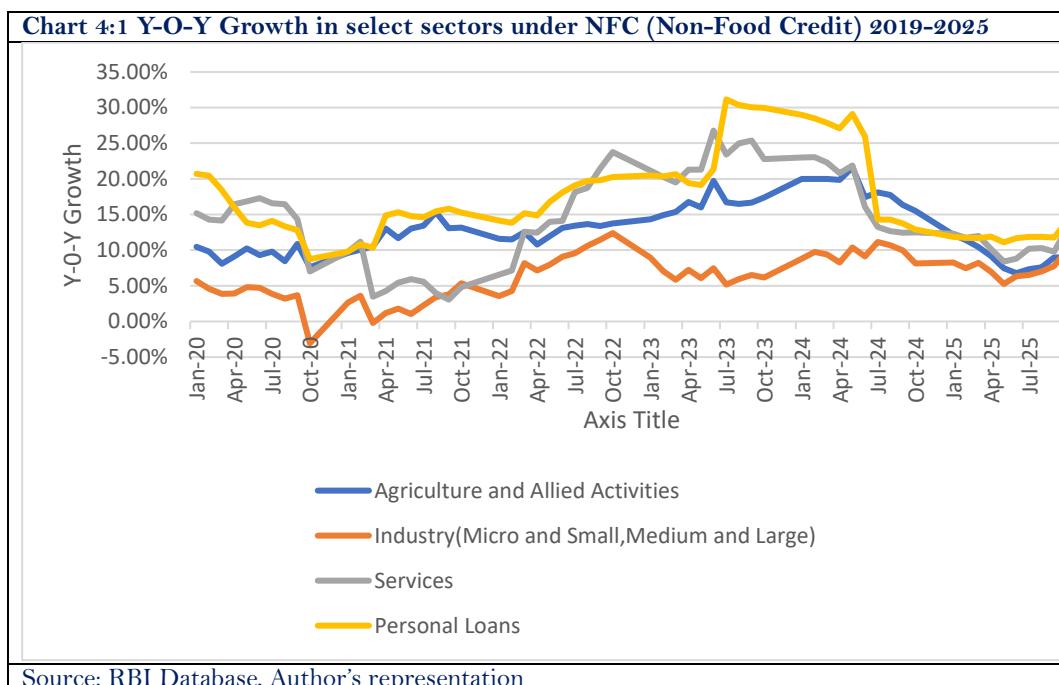
ELIZABETH JAMES

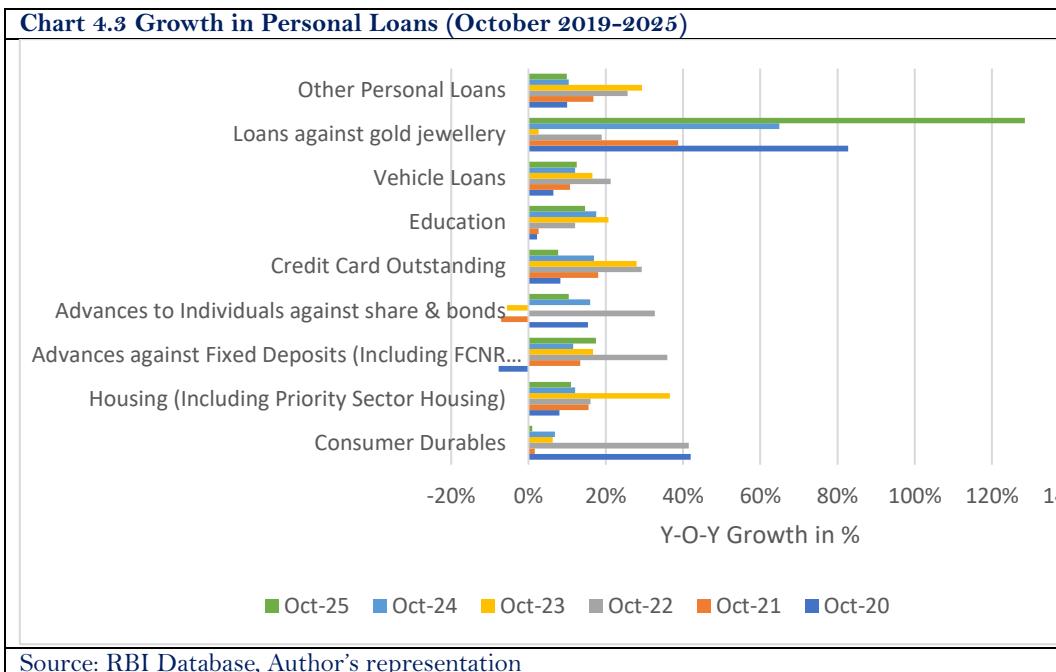
Growth in bank credit to major sectors like Agriculture and Allied Activities, Industry, Services and Personal loan (which contributes to 95% of total NFC (Non-Food Credit) remained lacklustre in FY 2026, though the growth was in double digits under some sub sectors but less compared to FY 2025. Credit to Industry in totality (Micro, Small, Medium and Large) does not show an impressive growth as credit to large industries has seen a deep deceleration and because the quantum of credit to large industries is more in total credit to Industry, hence the not so impressive growth is depicted in Chart 4.1.

The reasons mostly argued is that a structural shift is being noticed in the way corporates are raising funds. For instance in July-September 2025 commercial papers worth Rs.4.41 lakh crores were issued which was a whopping 15% higher than a year ago's Rs.3.84 lakh crore, and that corporates are cash rich and they have ready access to debt and equity markets. The segment that steals the limelight from the large industries in attracting credit is the MSME (Micro Small and Medium Enterprises) and within it the spot light is on the Micro and Small enterprises as per Chart 4.2. And the reason being an improvement in asset quality, with NPAs falling 3% for micro units, 28% for small enterprises in FY 2025 backed by focussed efforts from government and restructuring measures.

Moving to services sector the Y-o-Y growth was 9.8% in FY Sept 2026 which was way below 12.4% in FY Sept 2025. But the growth showed an improvement in Oct 2026 through marginal progressing from 12.5% in FY Oct 2025 to 13% and one of the major reasons being increase in credit to NBFCs. Growth in personal loans (gamut of retail loans) in totality started showing a declining trend from FY Sept 2025 itself, though the curbs to curtail unbridled growth in other personal loans in FY 23 by way of increasing the Risk weights in lending to NBFC from 100 to 125% was reversed. But across some sub sectors under personal loan there is seen magnanimous growth viz in gold loans YO-Y in Oct 2025 to the tune of

129% as seen in Chart 4.3 which coincides with the rally in gold prices. This uptick can be attributed to lenders preference for secured lending and an easy and convenient form of borrowing for the customers. The growth trajectory of gold loans had started from 2019-20 by playing a significant role in meeting the working capital requirements of MSME except in Oct 2023 Y-O-Y fall to the tune of 3% was seen. Further loans to agriculture and allied sectors have also declined to single digits in FY Oct 2026.





Though overall credit growth has slowed down, there are some encouraging trends which can be leveraged by banks and other financial institutions. For instance, as loan against gold and loans to micro and small enterprises, are increasing, banks can capitalise on this growth by projecting gold loans for micro and small borrowers as a pragmatic way to obtain quick loans without lengthy procedures and excessive paper work. This will help MSME borrowers to act quickly during peak demand, meeting urgent cash requirements and supplier deadlines. Co lending opportunities can be leveraged to penetrate market and share risk. Consumption loans can be projected as all-purpose loans which can be used by the customer to meet any and all of his requirement without the obligation of reporting end use of funds.

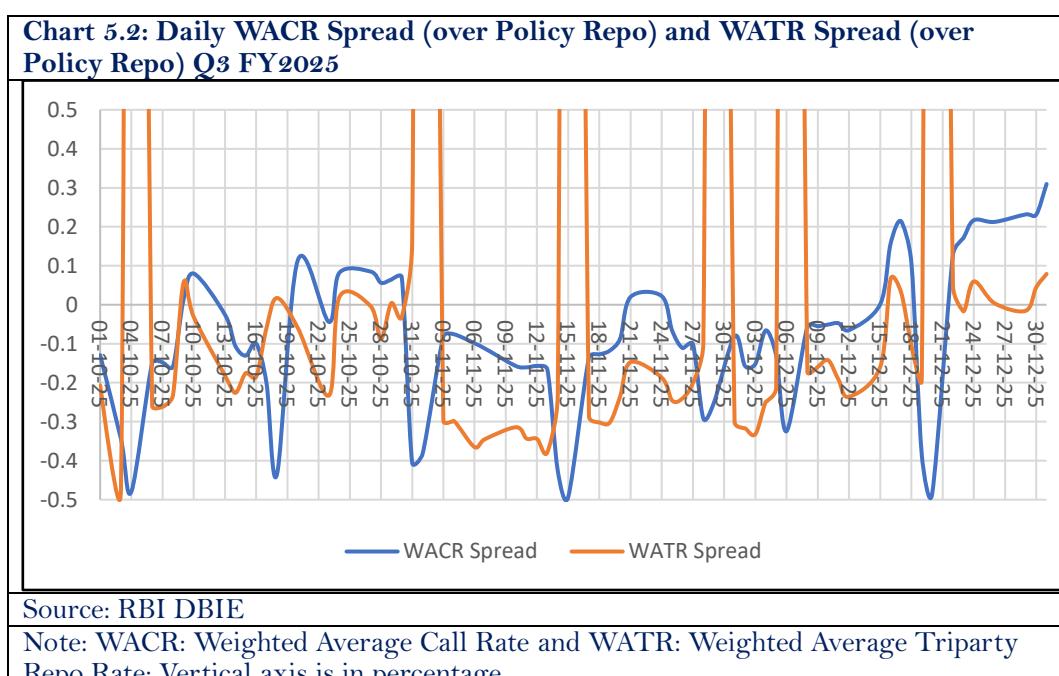
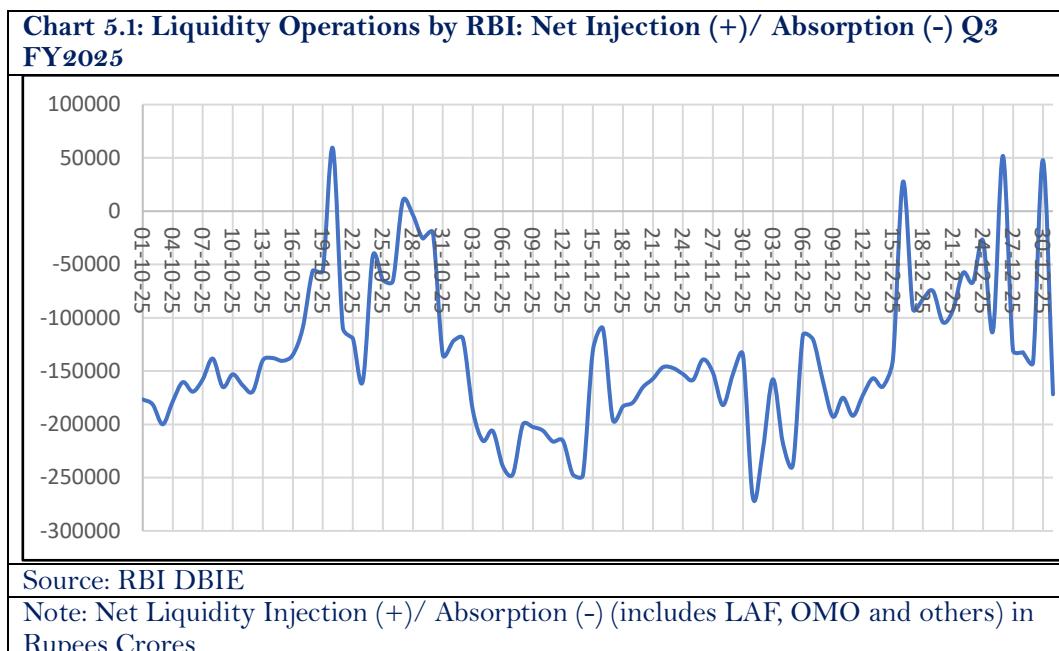
Finally, it is argued that Indian market is moving forward to the next phase of financial growth which is affordable and smart credit which the government and the financial institutions are striving to make it happen.

5. LIQUIDITY AND MONEY MARKET

DEBADITYA MOHANTI

Liquidity dynamics during Q3 FY2025 (Oct-Dec 2025) mostly revealed a surplus liquidity condition, with a relatively stable transmission of the money market rate. Chart V.A highlights that system liquidity has been primarily in absorption mode during Q3 FY2025, suggesting persistent surplus liquidity conditions. The average net liquidity absorption was around Rs.1.38 lakh crore, marginally lower than Rs.1.50 lakh crore in Q2 FY2025. Although some instances of liquidity injections were visible, which is reflected in the figure of maximum injection of Rs. 59,112 crores, they are temporary and mainly manage short-term frictions. On the other hand, the median value of net liquidity showed that the liquidity absorption has increased in Q3, which supports the view that the regulator would maintain a persistent surplus liquidity condition through active liquidity management using LAF, OMO, and other instruments.

From the chart 5.1 and the table 5.1, it can be seen that the money market rates continued to be strongly anchored by the policy rate. Chart 5.2 shows that on average, the Weighted Average Call Rate (WACR) mostly hovers below the policy rates, barring a few instances. The mean value of WACR spread has been reduced to -9 basis points in Q3 FY2025 from -14 basis points in Q2. This shows the conscious efforts to align the interbank rates with the policy repo. Interestingly, the volatility, which has been measured in terms of standard deviation, remained unchanged over the two quarters at 19 basis points, showing stable overnight market conditions in the past six months.



In contrast, the Weighted Average Triparty Repo Rate (WATR) of the collateralized funding segment has shown greater volatility at about 1.4 percentage points in Q3. However, the average WATR spread over the policy rate remained broadly stable at around 28 basis points over the two quarters. There are occasional spikes that have been observed in the triparty repo rates, with the maximum spread of about 5 percentage, this may be due to an issue related to the market structure of secured and unsecured markets rather than systemic stress.

Table 5.1: Summary Statistics

	Q₃ FY2025 (WACR Spread)	Q₂ FY202 5 (WACR Spread)	Q₃ FY202 5 (WATR Spread)	Q₂ FY202 5 (WATR Spread)	Q₃ FY2025 (NLIQ)	Q₂ FY2025 (NLIQ)
Mean	-0.09	-0.14	0.28	0.26	-137781.93	-150102.57
Median	-0.09	-0.12	-0.18	-0.17	-152106.82	-122540.36
Maximum	0.31	0.23	5.25	5.16	59112.00	16897.00
Minimum	-0.49	-0.59	-0.47	-0.50	-268926.28	-430886.00
Std. Dev.	0.19	0.19	1.43	1.39	69465.32	87795.74
Obs	68.00	69.00	68.00	69.00	92.00	92.00

Source: Author's estimates

Note: WACR Spread and WATR Spread (figures in percentage); NLIQ: Net Liquidity Injection (+)/ Absorption (-) (includes LAF, OMO and others) in Rupees Crores;

Q₃FY2025: Oct-Dec 2025 & Q₂FY2026: Jul-Sep 2025

Overall, from the evidence shown in charts and tables, it can be suggested that the aggregate liquidity remained ample during the past two quarters. RBI's calibrated liquidity operations were effective in anchoring the overnight money market rates to the policy rate. However, the relatively higher volatility in the WATR compared to the WACR does raise a question for the regulator, and it may be worth probing more closely into the market structure of the collateralised funding segment.

6. FINANCIAL MARKET DEVELOPMENTS

YASHVEER SINGH RAWAT

The equity markets saw some positivity build on the back of news flows in terms of an agreement between Russia & Ukraine on ending the war which would have led to the reduction on the punitive tariffs of 25% on India as we trade with Russia.

News report suggesting a breakthrough in the tariff deal with the US also brought more cheer and market tested the High of 26277 made on 27-Sep-2024 to make a new High of 26325 (01-Dec-25). The market however, could not sustain itself as no clarity emerged on the war as well as the tariff deal and went into a sideways consolidation within a range of 25800-26200 thereon closing the year at 26129.

As we enter into the Q4 (Jan-Mar 26), the market would be looking at fresh triggers as the result seasons starts around mid-January. Autos & Metals were the sectors which were favored whereas the FMCG continued to trail. On technical charts the Nifty seems to continue the uptrend within a channel, currently trading at 25655 and seems to test the lower bound of the up-trending channel. The MACD indicator wherein the lines again seem to Diverge along with a trendline break on the RSI seem to suggest some pressure on the Nifty and it may test lower levels of 25500 in the near term.

Chart 6. 1: NIFTY 50



Source: LSEG

Bond markets saw some upward pressure on the yields on the back of lesser appetite for longer tenor bonds from the insurance companies and bank

treasuries. We also saw an auction cancellation by the central bank as the markets bid higher showing a cautious discomfort with the higher yields. In the corporate bond markets also, we saw some of the PSU insurers like NABARD and REC cancelling their auctions as the market bid the yields higher.

Monetary policy (Dec 3-5, 2025) cutting the Repo rate by 25 bps along with the announcement of an OMO of Rs 50K crores could not put the yields under check and we saw the 10 Year security (6.48% 2035) touching 6.70% on 23-Dec-25. An announcement of OMO to the extent of Rs 200K crores to be conducted in fore tranches brought some respite to the yields and they closed the quarter (31-Dec-25) at 6.59%. As we move into the last quarter of the current financial year, we would see a big supply of INR 500K crores from the state development loans which would keep the yields under pressure.

On technical charts (Monthly timeframe) the 10-year yields (IN10YT=RR) seem to be trading sideways in a symmetrical triangle formation and the current trajectory seems to be on the upside. The momentum indicators MACD which shows a crossover as well as RSI wherein we see a trendline break to the upside, seem to suggest pressure on the yields to the upside. We may expect the yields to trade higher and test 6.80% on the upside going forward.

Chart 6.2 Bond yields



Source: LSEG

7. TECHNOLOGY IN BANKING: EMERGING DEVELOPMENTS

PRAMOD MANE

Many times, when the topic of risk in AI is being discussed, people think in terms of one major failure. The truth is that the data security risks in AI are more likely to start small. They can begin in small ways, like in design elements or in the forced access policies that come from priorities relating to convenience and expeditiously integrating.

In banks, this trend will not start with massive failures. It will begin with minute considerations, like access convenience features or rushed system integration. These minute considerations will gradually build up. Below, there would be illustrations of how minute considerations at banks could start to cause serious problems with data security.

Table 7.1 What Recent Incidents Are Quietly Telling Banks

Incident	What Went Wrong	Why It Matters for Banks
<u>DeepSeek Database Exposure (2025)</u>	Logs and metadata were left exposed	Logs can reveal more than core databases if not protected
<u>Snowflake Customer Incidents (2024)</u>	Stolen credentials were reused	Third-party platforms need bank-grade identity controls
<u>OpenAI Chat Exposure (2023)</u>	Session isolation failed	AI conversations should be treated as sensitive records
<u>Google DeepMind Healthcare Data Issues (2022)</u>	Data was retained without clarity	Retention rules must be clear before AI goes live
<u>Apache Log4Shell Vulnerability (2021)</u>	A common library became an entry point	AI systems inherit risks from shared dependencies
<u>Clearview AI Exposure (2020)</u>	Internal assets and datasets were exposed	High-risk data needs stricter vendor oversight
<u>Facebook Ad Research Inference (2019)</u>	AI inferred sensitive traits	Privacy risks can arise even without direct data collection

Source: [Cloud Security Alliance](#)

Learning to Banks

So, what can banks really learn from these cases. Well, when we step back and look each of them, several patterns become difficult to overlook. These cases suggest that most of the problems do not arise because banks ignore security in total. They arise because AI systems behave differently, and traditional controls are not always extended far enough.

But what can banks really learn from such cases. Well, if we look at each such case, there are definitely some patterns that are hard to ignore. It appears that most such issues don't actually result from ignoring security in its entirety. It results from the differences in behavior between AI and traditional security controls that are not expanded to their limits.

The first step is visibility. Banks by implementing data lineage tracking and model version control can see where data comes from, how it is used, and what finally goes into a model. By this, teams can trace an output back to a dataset, a prompt, or a configuration instead of guessing, if something goes wrong. Version control also ensures that only approved models and updates are used, reducing confusion during audits or incidents.

But is visibility alone enough? Crucially, AI systems (unlike traditional systems) do not remain static once deployed, but rather evolve as data patterns continue to change, user behaviour shifts, thus, risks subtly emerge. Hence, banks need regular models monitoring even after their deployment. This may help them to be able to identify such changes before they lead to damage to their customers, regulatory trouble, or before their reputations are affected.

With traditional systems, access control focus is on customer data, but with AI, as models evolve, access controls also need closer attention. For instance, prompts, API calls, intermediate outputs, and logs can all contain sensitive information. Which is why access control needs finer tuning so that banks see only what they truly need, and nothing more.

Since banks work with external vendors and have also been adopting cloud platforms recently, another lesson for the banks is to ensure the security of sensitive data. Hence, it is crucial for banks to maintain data sovereignty. And that can be achieved by using encryption techniques. With this additional layer of protection sensitive data should remain secure whether it is stored, moving between systems, or being processed.

Next lesson for banks is to treat AI systems like any other critical banking system, means, aligning AI data pipelines with change management and patching. In practice, this requires that any modification whether to a data source, a model, or the pipeline code itself should go through a formal review, testing, and approval procedure before being deployed during a scheduled maintenance window.

Finally, reviewing regulatory compliance at each stage of the AI lifecycle means checking not just the final model, but every step that leads to it. And in the context of banking, the processes involved in collecting and training data, deployment, as well as the after-use processes, must consider and address the relevant expectations around privacy, security, and regulatory requirements.

MICRO-PERCEPTIONS

LENDING TRENDS PERCEPTIONS: WHY THEY MATTER & HOW MEASURED¹

SMITA ROY TRIVEDI & BALU PAWDE

The year 2025 saw a sustained effort from the central bank to infuse liquidity and boost growth: with the policy rate cut by 125 basis points, cumulative 100-basis point CRR cut, and a series of OMO and FX swaps with an estimated total of 12 lakh crore released in the system. However, credit offtake remained muted, and growth of credit to the large enterprises far from optimum. While the supply side factors to the credit offtake can be analysed using available secondary data, the demand side factors impacting credit remain less explored. In this context, we argue here for the need for a micro-perception survey to understand perceptions related to credit trends and present a brief methodology of a proposed credits trends survey.

Recognising that aggregate credit data alone may be insufficient to understand the demand side and structural constraints, most of the major central banks have institutionalised qualitative credit surveys. These include Federal Reserve's *Senior Loan Officer Opinion Survey (SLOOS)*, the European Central Bank's *Bank Lending Survey (BLS)*, the Bank of Japan's *Senior Loan Officer Opinion Survey*, and the Bank of England's *Credit Conditions Survey*. The reliance on surveys comes from the need for forward-looking, qualitative information directly from lending institutions, carrying nuances of loan officers' perceptions, information not observable in supervisory returns or monetary statistics. For a comparative overview, Table 1 presents methodological differences between these surveys.

In the Indian context there is no such survey to the best of our knowledge. We therefore propose to bring to the forefront forward-looking insights into bank behaviour pertaining to credit, which will precede shifts in real credit growth and investment. The survey is planned at a quarterly interval

¹ Based on [NIBM Working Paper WP56/2026](#)

covering loan professionals across scheduled commercial banks in India focussing on *Loan demand by borrower type (corporate, SME, retail)*, *Reasons for changes in loan demand* and *Lending standards and non-price terms*.

Table 1: Comparison of loan surveys from the leading central banks

Survey Name (with Start year; Frequency)	Sample Size & Respondents	Sample Design & Coverage	Key Focus	Significance
Senior Loan Officer Opinion Survey (SLOOS); Federal Reserve	Around 60-80 banks; senior loan officers at large U.S. banks and U.S. branches of foreign banks	Purposive, systemically representative; covering majority of U.S. commercial & industrial and household lending	Changes in credit standards, loan terms, spreads, and loan demand (net tightening/easing)	Strongly forward-looking; widely cited in FOMC deliberations; no public microdata
Bank Lending Survey (BLS); European Central Bank	Around 150 banks; senior credit managers / loan officers	Stratified by country and bank size; weighted by lending volumes; covering 70-80% of euro-area bank lending	Credit standards, loan demand, pricing & non-price terms	Focus on SME module; diffusion indices; integral to ECB projections & FSR
Senior Loan Officer Opinion Survey: Bank of Japan	50 large private banks; senior loan officers	Fixed panel (reviewed periodically); largest lenders by loan volume; 75% of private bank lending	Loan demand, credit standards, spreads over funding costs	Forward looking; modelled on Fed SLOOS
Credit Conditions Survey (CCS); Bank of England	Around 30 to 40 major banks and building societies	Market-share-based sampling by product segment (mortgages, corporates, SMEs)	Availability of credit, pricing, collateral and non-price terms	Separate panels by loan category; aligned with Inflation Report & FSR cycles

Source: [Roy Trivedi \(2026\), NIBM Working paper](#).

The proposed survey, planned at the pan-India level with a stratified sampling frame would help to glean insights about variation in credit appetite across bank groups, sectors and regions. The proposed methodology is stratified sampling design, which divides the population into mutually exclusive and policy-relevant strata (in this case by bank size, and geography) and then draws samples within each stratum, using probability-based methods. The pilot in line with the above-mentioned methods is launched, and results of the same is proposed to be presented in this section in April 2026.

LIST OF ABBRVIATONS

- **DXY** – US Dollar Index
- **FII** – Foreign Institutional Investor
- **GATT** – General Agreement on Tariffs and Trade
- **GDP** – Gross Domestic Product
- **GFC** – Global Financial Crisis
- **GFCF** – Gross Fixed Capital Formation
- **IN10YT=RR** – Reuters Instrument Code (RIC) for India 10-year Government Bond Yield
- **INR** – Indian Rupee
- **MACD** – Moving Average Convergence Divergence
- **MoSPI** – Ministry of Statistics and Programme Implementation
- **MSME**-Micro, Small and Medium Enterprises
- **NFC**-Non-Food Credit
- **NBFC**-Non-Banking Financial Company
- **OMO** – Open Market Operations
- **PCFC** – Pre-shipment Credit in Foreign Currency
- **PFCE** – Private Final Consumption Expenditure
- **RBI** – Reserve Bank of India
- **RSI** – Relative Strength Index
- **SPF** – RBI's Survey of Professional Forecasters
- **TREPS** – Tri-party Repo (Treasury Bills Repurchase) / Tri-party Repo Dealing System
- **WACR** – Weighted Average Call Rate
- **WTO** – World Trade Organization

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