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SPEECH

*Regulation by RBI: Some Reflections**

Shri Sanjay Malhotra

Prof. Ram Singh, Director, Delhi School of Economics, Prof. Pami Dua, distinguished faculty of the Delhi School of Economics, assembled dignitaries and dear students. Good afternoon.

I am pleased to be here at the Delhi School of Economics (DSE) to deliver the Second V.K.R.V. Rao Memorial lecture. The late Professor Rao was not only a distinguished scholar - being one of the first three Ph.Ds in Economics from Cambridge University and winning the prestigious Adam Smith Prize in 1935 - but also an eminent institution builder. He served as member of the Planning Commission and Union Education Minister. For his outstanding contribution to public policy and economic research, Professor Rao was awarded the Padma Vibhushan in 1974. It is an honour to deliver a lecture in the memory of such a distinguished personality.

DSE is an august institution that has made stellar contributions in the economic development of our country. The people who have studied, researched, or taught here have had profound influence in shaping economic policy in India over the years. We, at the Reserve Bank of India too have benefited immensely given that many students have joined the Bank. Many of them have risen to the upper echelons of the Bank's management over the years. I thank Prof. Ram Singh and DSE for giving me this opportunity to address you all at this prestigious institution.

You all have been in my thoughts for the last few days. You are all very bright and intelligent, having got admission to this prestigious institution, through a rigorous selection process. I have been thinking about you because you are the future leaders of our country. I have been pondering about what I should speak to you bright men and women. India looks up to you to shape and influence public policy and economic research in our country, as many of your predecessors have done.

Considering the erudite audience, I have chosen to speak on regulation making, because regulations are pervasive. They represent an invisible fabric that enables markets to function, protects consumers, and maintains the delicate balance between innovation and stability. I have structured my speech into five parts – (i) the role of regulation in public policy, (ii) how financial regulation is different and critical, (iii) RBI's objectives of regulation, (iv) RBI's key principles of regulation, and finally (v) some challenges in regulation making. I hope this will trigger some interest for research in this area among the students and faculty.

I. Role of Regulation in Public Policy

You are all aware that while markets are powerful engines of growth and efficiency, they can fail and when they do, the consequences can be severe. Regulations attempt to address market failures caused due to a variety of reasons: information asymmetry, externalities, natural monopolies, systemic risks, and consumer protection, to name a few. Regulation is a pragmatic response to the inherent limitations of unregulated markets in specific contexts.

II. Financial Regulation: A Different Paradigm

Financial regulation operates in a fundamentally different framework compared to other sectoral regulations. This difference stems from three unique characteristics of financial markets.

First, financial institutions are interconnected in ways that non-financial entities rarely are. If a bank fails, it has a cascading effect - depositors lose savings,

* Lecture delivered by Shri Sanjay Malhotra, Governor, Reserve Bank of India at the Second V.K.R.V. Rao Memorial Lecture, Delhi School of Economics, New Delhi, November 20, 2025

inter-bank markets freeze, credit supply contracts, and payment systems falter. This impacts the entire economy, which can feed into a systemic crisis. The 2008 global financial crisis in the Advanced Economies (AEs) demonstrated this with devastating clarity.

Second, financial institutions are inherently fragile due to maturity and liquidity transformation. Banks accept short-term deposits and make long-term loans. This transformation is economically valuable but creates vulnerability. A loss of confidence can trigger bank runs, converting liquidity problems into solvency crises within days. Unlike a manufacturing unit that can be shut down temporarily, a bank facing a run must be resolved immediately, or contagion spreads.

Third, financial markets are prone to procyclicality and herd behaviour. During booms, risk is under-priced, lending standards deteriorate, and asset bubbles form. During busts, credit vanishes precisely when it is most needed. This amplification of business cycles distinguishes financial markets from most other sectors. The procyclical behaviour and its amplification effects on economic volatility are well recognised.

These characteristics explain why financial regulation is more complex, and more consequential than regulation in other sectors. It is not merely about protecting individual consumers and promoting efficiency - though these are of paramount importance - but also about safeguarding systemic stability and, by extension, the entire economy.

III. RBI's Objectives of Regulation

I will now spell out RBI's main objectives of regulations.

The foremost priority and key objective is to ensure financial stability in the system. Financial Stability is defined as a "condition in which the financial system – comprising of financial intermediaries, markets and market infrastructure – is capable of withstanding shocks and the unravelling of financial imbalances, thereby mitigating the likelihood of disruptions in the financial intermediation process which are severe enough to significantly impair the allocation of savings to profitable investment opportunities"[1].

For us in the Reserve Bank, financial stability remains the north star, because we realise that short term growth achieved at the cost of financial stability can have bigger consequences for long-term growth. Research shows that financial instability may not only more than offset the gains of higher short-term growth, but also make recovery more distressful and longer.

Although financial stability remains the bedrock, there are other objectives, occasionally overlapping, yet distinct. These, inter alia, include:

a. Prudential aspects, for example liquidity and capital requirements, to ensure safety and soundness of financial operations in the interest of all stakeholders, especially, depositors;

b. Conduct related measures for consumer protection;

c. Assistance in law enforcement, e.g., prevention of money laundering; and

d. Broad socio-economic objectives, e.g., lending to priority sectors.

IV. RBI's Key Principles of Financial Regulation

As I mentioned in one of my past speeches[2], there are five key principles of our regulation making: preference for principle-based formulation; proportionality; consultation; evidence and data-based; and lastly, regular review. Let me briefly touch upon these principles to elaborate their importance.

[1] Financial Stability Review, ECB (December 2006)

[2] Inaugural Address by Shri Sanjay Malhotra, Governor, Reserve Bank of India at the FIBAC 2025 Conference, Mumbai, August 25, 2025

Preference for Principle-based Regulation vis-a-vis Rule-based Regulation

First is the idea of principle-based regulation. Principle-based regulation focuses on outcomes. It uses high-level general statements or principles. These principles are designed to be applicable across a wide range of circumstances. It often contains explanations of the intent behind the principle and qualitative rather than quantitative terms.

In contrast, rule-based regulation uses specific statements to define requirements that entities must meet. These necessarily focus on specific areas and tend to use quantitative terms. If one was to draw an analogy with parenting, the explicit to-do list made by parents in early formative age is akin to "rule-based regulation" and the broad guidance given as the child grows older is akin to "principle-based regulation".

The global discourse on regulatory simplification, argues for principle-based regulations over rule-based approaches, for simplicity over exhaustive specification. The logic is compelling: complex rules create compliance cultures rather than risk management cultures. They invite gaming and arbitrage. Moreover, they become outdated as markets evolve.

Principle-based regulation reduces the potential for 'creative compliance', avoids the 'tick-box approach', and obviates the need for frequent updations. However, principle-based regulation, while simple, is subject to interpretation risk. Principles without clear standards can lead to inconsistent application and regulatory capture. This may also significantly increase cost of compliance for regulated entities due to the requirement to form their own policies with detailed rationale.

We often face a question as to which approach is better. There is no straight-forward answer to this, even though we prefer principle-based regulation. And that's why you would observe that while we are moving towards a principle-based regulatory regime, most of our regulations are hybrid - a combination of rules and principles. The proposed expected credit loss (ECL) framework for provisioning norms, announced in October this year[3], is a good example of this evolution. The framework combines principles for provisioning with rule-based prudential floors to avoid misuse and misinterpretation.

The challenge for us is to achieve "optimal simplicity" - regulation that is as simple as possible but no simpler, to paraphrase Einstein.

Proportionality

Coming to the second principle, proportionality, it is an emerging feature of more rationalised regulatory frameworks across the world. Indian financial system comprises a diverse set of financial institutions and banks with varying scales of operation, levels of complexity and extent of risks. It is therefore natural that our regulations are proportionate in measure. The principle of proportionality is like a customised set of risk-sensitive regulations, balancing the costs and benefits based on the risk implication of the institutions concerned.

This fundamental principle reflects duly in our policy formulation across and within groups of entities. For example, the idea of proportionality has been embedded in the regulatory architecture for NBFCs in the form of scale-based regulations; tier-based structure for cooperative banks; and higher capital requirements for domestic systematically important banks (D-SIBs). Similarly, proportionality is also reflected in differential treatment of banks as compared to the NBFCs on several parameters including granularity of exposure, liquidity and capital requirements. Proportionality is kept in mind even for differential risks perceived by similar

[3] Draft "Reserve Bank of India (Scheduled Commercial Banks-Asset Classification, Provisioning and Income Recognition) Directions (Oct 2025)

entities, for example, different capital requirements are prescribed for different types of loans and other exposures keeping in view their differential risks. All of these buttresses the point I mentioned earlier that proportionality is a "customised set of risk-sensitive regulation".

Consultation

The third principle is consultation. We realise that triangulation is a must. We appreciate that we do not have the monopoly for knowledge. Consultation has been an integral part of our decision making. It explicitly embeds accountability and transparency, which are important to us as a public authority. It bridges information asymmetry. It enables us to look at things through the eyes of others and see many more dimensions. Consultation improves our regulation making. At the Reserve Bank, we have institutionalised this requirement in our framework[4]. Every major regulation is proposed in draft form for public consultation.

Evidence-based Approach

The fourth element is to make regulations evidence-based, as far as possible. Evidence-based policymaking refers to the method of policy development that prefers facts and credible, relevant evidence, over opinion, intuition, anecdotes and common sense to take decisions.

While we may not have at our disposal the rigorous approach of randomised controlled trials, the principle is certainly inspired by it. We try to look for evidence on what works and what not. This may sometimes be difficult and challenging because of non-availability of local data. In such cases, we use international standards, which are customised to our context and conditions. Let me give a few examples of evidence-based regulation making.

One, the revised guidelines on project finance, emerged from a careful study of default rates, recovery rates, and the cash flow characteristics of such lending by banks. Two, the increase in the run-off factors for digital deposits under the refined liquidity coverage ratio (LCR) requirements for banks demonstrates another example of evidence-based regulation. Three, we increased the risk weights on bank credit to NBFCs in view of certain emerging risks in this segment post-covid; these were subsequently restored to original weights, once the evidence suggested so.

Regular Review

The fifth element is regular review. Regulations need to change when the context changes. However, there is a stickiness to regulation because of regulators' proclivity to adhere to status quo. A variety of well-recognized behavioural phenomena aid in explaining such a bias: common cognitive biases and risk aversion tend to advantage the status quo. In laboratory experiments, for instance, psychologists find that framing specific options as the status quo result in those options being selected far more frequently than when there is a neutral framing of the options. Banking regulators' behaviour is no different. Claudio Borio, former senior official of Bank for International Settlements, observed that, "The fear of going against the manifest view of markets can have a powerful inhibiting effect." The International Monetary Fund in discussing regulators' implementation of macroprudential policy tools, also notes "biases in favour of inaction."

Roberta Romano of Yale Law School contends that there is an Iron Law of Financial Regulation: following financial crises, Congress enacts legislation that increases financial regulation. She terms them as a regulatory ratchet. You are all aware that the ratchet effect describes a process or an economic phenomenon that, once set in motion, is difficult to

[4] Framework for Formulation of Regulations (May 2025)

reverse, similar to how a mechanical ratchet moves in one direction only. Similarly, Romano contends that new statutes are layered atop existing laws and new regulations are grafted onto existing ones, creating an increasingly complex and opaque regime.

This calls for a periodic review of regulations. The FSDC under the chairpersonship of the Finance Minister has decided that all financial regulators conduct a review of all regulations every 5-7 years. We too have started the process.

A number of measures[5] that we announced in October, this year are a result of the review of the regulations. Some of these regulations were framed to meet the twin balance-sheet problem post the Global Financial Crisis, in the wake of aggressive fiscal and monetary stimulus. The regulatory and supervisory frameworks have been strengthened since then. The performance and health of the banking sector is much improved. As a result, these regulations needed to be reviewed and accordingly they were reviewed and finetuned.

V. Challenges in Regulation Making and Enforcement

Having covered the main principles of regulation making, I will now describe the challenges that we face in this regard. Creating effective regulation is an exercise in navigating multiple tensions. Let me highlight five of them.

Balancing Cost-benefit Trade-offs

The first challenge is to balance the cost-benefit trade-off. While regulations do offer benefits in terms of stability, consumer interest, etc, they come with a cost. Economic interest warrants increasing efficiency, and promoting innovation. We recognise that just like there are no free lunches, regulation too is not devoid of costs. There are trade-offs between the benefits and efficiency.

We keep this trade-off in mind while formulating regulations. We attempt to strike the right balance, keeping in view the benefits and costs of each and every regulation. This has been embedded in our regulation making framework, which we formalised in May this year.

Before releasing draft or final guidelines, we thus try to estimate direct and indirect impact of our proposed regulations. Where exact calculations are difficult, we tend to rely on estimates. This helps us finetune the measures to ensure that cost of regulation is not weighing down the benefits disproportionately.

The Boundary Problem: What Should Be Regulated?

A subset of the cost-benefit trade-off is whether to regulate or not. Financial innovation continuously creates entities and activities at the regulatory perimeter. Stablecoins, cryptos, buy-now-pay-later schemes, etc. challenge traditional regulatory categories. Should they be banned, tolerated, or brought within regulatory frameworks?

This is a deep question, which needs judgment about the balance between potential benefits and risks. The rapid pace of innovation means that this judgement needs to be made continuously so that regulatory approaches evolve and keep pace with the needs of the times. The RBI has not only kept pace with the development but has been proactive in this regard, adopting a balanced and prudent approach. It adopted a cautious approach to cryptocurrencies contrasts while taking an enabling stance towards regulated digital innovations like UPI or digital lending.

The Innovation-Stability Trade-Off

A related dilemma is how much innovation to permit when its risks are not fully understood. Excessive caution stifles beneficial innovation and can drive activities underground. Excessive

[5] Statement on Developmental and Regulatory Policies, RBI (Oct 2025)

permissiveness can allow risks to accumulate and even threaten financial stability.

The RBI's regulatory sandbox approach represents an attempt to balance the trade-off - creating controlled environments where innovations can be tested under regulatory oversight before being scaled. However, questions remain about the optimal design of such sandboxes, the criteria for graduation, and the balance between experimentation and protection.

Procyclicality in Regulation

Fourth, sometimes regulations themselves can amplify business cycles. Emerging markets face particularly acute procyclicality challenges because capital flows amplify domestic cycles. Mark-to-market accounting forces institutions to recognize losses during downturns, potentially triggering fire sales. Capital requirements, if not designed carefully, can force deleveraging precisely when credit is most needed. Provisioning norms that respond to current conditions rather than expected losses create procyclical dynamics.

The Basel III framework attempts to address this through countercyclical capital buffers - requiring banks to build capital during booms that can be released during stress. The RBI has implemented these provisions, but there are questions about their calibration from time to time.

Regulatory Forbearance vs. Strict Enforcement

The fifth challenge every regulator faces is with regard to implementation when strict enforcement of standards seems to threaten broader stability. The temptation towards forbearance - temporarily relaxing requirements - is understandable but dangerous. It can allow problems to fester, create moral hazard, and undermine regulatory credibility.

India has grappled with this dilemma. Repeated restructuring schemes for stressed assets and loan waivers, while providing short-term relief, delayed recognition of fundamental problems. The RBI's shift towards tighter enforcement, including the Insolvency and Bankruptcy Code's prompt resolution provisions, reflects this approach. Yet, the COVID-19 pandemic prompted temporary regulatory relief measures, as is the case with trade-related regulatory measures taken recently. These illustrate that context matters.

Our approach towards forbearance is clear: forbearance should be exceptional, time-bound, and transparent. It should not become a substitute for addressing underlying problems.

VI. Conclusion: Regulation as an Evolving Discipline

Let me now conclude. The intent of my detailed treatment of this topic today was to expose you to a relatively diverse set of issues, igniting your interest in the area of regulation making.

As you advance in your academic and professional journeys, I encourage you to view regulation not as a static set of rules but as an evolving discipline that responds to changing markets, technologies, and risks. Effective regulation certainly requires technical expertise, but also judgment, humility about what regulators can and cannot achieve, and constant learning.

The Reserve Bank of India is trying to continuously adapt. We are vigilant and alert to emerging risks and evolving conditions. We are encouraging innovation while being mindful of our regulatory objective of safeguarding systemic stability. We are trying to simplify regulations where possible while maintaining necessary safeguards. We are strengthening coordination with other regulators while respecting jurisdictional boundaries. We are trying to enforce rules consistently while recognizing that circumstances sometimes warrant flexibility.

These tensions cannot be permanently resolved - they must be continuously managed. Managing this requires not just regulators but informed citizens, responsible financial institutions, engaged scholars, and yes, bright students like yourselves who will shape the future of Indian financial system. Achieving good regulatory outcomes is almost always a collaborative effort: by the government, amongst regulators, the regulated, and the broader community.

I wish all of you a great success in all your endeavours.

Thank you. *Namaskar. Jai Hind.*

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*The Evolving Facets of Regulations**

Shri Sanjay Malhotra

I am delighted to be here amongst all of you in the SBI Banking and Economics Conclave. I sincerely thank Chairperson, SBI for providing me this opportunity to address the leaders of the banking and finance in the country. This Conclave is happening at a time when we are navigating a world of continued uncertainty, geopolitical realignment, and rapid technological change. This brings not only a host of challenges but also many opportunities.

I recall that about a year ago, when I addressed this Conclave in my capacity as Revenue Secretary, I spoke about tax reforms. In my address today, I propose to dwell on the recent regulatory measures the RBI has taken. Earlier, we had issued the Regulation making Framework. We follow a consultative process, do an impact analysis and provide the objectives of the regulations. In the spirit of this framework, I wish to shed some more light on the objectives and the rationale of the major regulations.

The Purpose of "Regulation"

In this context, I would also like to reiterate what I said in my first MPC statement in February this year. The interest of the national economy demands financial stability. For us in the Reserve Bank, financial stability remains the north star, for short term growth achieved at the cost of financial stability can have bigger consequences for long-term growth. Research shows that financial instability may not only more than offset the gains of higher short term growth, but also make recovery more distressful and longer.

At the same time, economic interest warrants increasing efficiency, and promoting innovation, which too is our duty. We recognise that just like there are no free lunches, regulation to enhance stability too is not devoid of costs. There are trade-offs between stability and efficiency.

I had assured that we will keep this trade-off in mind while formulating regulations. I had mentioned that it will be our attempt to strike the right balance, keeping in view the benefits and costs of each and every regulation. The recent regulatory proposals strive to maintain this balance - the balance between the drive to innovate and grow and the duty to protect.

Moreover, in a rapidly evolving banking system, underpinned by technological advancements of tectonic magnitude, no regulator can afford to situate the system at a point in time. The role of the regulator is to guide its evolution within guardrails that ensure stability, fairness, and resilience.

In India, this philosophy has found steady expression in RBI's approach towards regulation, what might be called ***responsive conservatism*** - a model that prizes stability yet remains open to reform.

The Backdrop

In this context, it would be germane to briefly recap the developments over the past decade in the Indian financial system.

Post GFC, in the wake of aggressive fiscal and monetary stimulus, the ensuing regulatory forbearance sowed the seeds of the *"twin balance sheet"* problem - overleveraged corporates and stressed bank balance sheets. Coupled with the manifestation of external sector vulnerabilities, India got clubbed among the so-called "Fragile Five."

Guided by the principle "*never waste a good crisis*", the period from 2014 led to a foundational surgery to restore the long-term health of the financial system.

* Keynote Address by Shri Sanjay Malhotra, Governor, Reserve Bank of India at the 12th SBI Banking & Economics Conclave - 2025, Mumbai, November 7.

This was driven by a series of regulatory measures aimed at recognition, resolution and recapitalisation of the banking system. The Asset Quality Review (AQR), initiated in 2015, compelled banks to recognise the true state of their loan books, bringing hidden NPAs onto balance sheets. Significant improvements were also brought about in the supervisory framework.

Simultaneously, Prompt Corrective Action (PCA) framework helped restore the health of weak banks. It was followed by consolidation of 27 public sector banks into 12 by 2020. These measures were complemented by a massive recapitalisation programme, which strengthened capital buffers and restored their capacity to resume healthy lending.

The introduction of IBC in 2016, and the pursuant resolution paradigm introduced through out of court workout mechanisms, have fundamentally transformed India's credit culture.

Parallelly, major reforms were undertaken to strengthen monetary and macroeconomic stability, including the adoption of a flexible inflation-targeting regime, deepening of forex markets, and the gradual liberalisation on the capital account.

The recent past has also seen structural transformation of financial intermediation into a sophisticated and layered system. Nimble FinTechs and NBFCs now assume a greater role in sourcing and origination. Development of capital markets and credit risk transfer channels such as securitisation now provide a conduit for risk transfers. The Project Finance Directions issued recently, address risks arising from regulatory approvals and availability of land. The proposed forward-looking ECL provisioning will help early recognition of deterioration in asset quality.

Moreover, Indian banks today are far more mature than they were a decade ago. To put this in perspective, credit and deposits have expanded to almost 3 times[1]. Capital buffers have strengthened too - the CRAR rose from 13.5 per cent as on 31st March, 2015 to 17.5 per cent as on 31st March, 2025 with CET-1 increasing from 10.43 per cent to 14.73 per cent during the same period. Asset quality has also improved. GNPA and NNPA have reduced to 2.3 per cent and 0.5 per cent in March 2025 after rising to highs of 11.2 per cent and 5.96 per cent respectively in March 2018. Profitability of banks has enhanced significantly. Between FYs 2017-18 and 2024-25, Return on Assets increased from -0.24 per cent to 1.37 per cent, and Return on Equity jumped from -2 per cent to 14 per cent. Regulation cannot ignore this performance, these changed realities.

This evolution implies that prudential rulebooks too should evolve in a calibrated manner as banks are now stronger and supervision more alert even as alternative risk-bearing pillars have deepened and market-based risk transfer mechanisms have become more effective.

The recent regulatory measures need to be seen in the backdrop of these developments. Let me now elaborate on a few measures.

Capital Market Exposure (CME)

I will first talk about the draft guidelines on capital market exposure. The proposals to enhance the limits for lending to individuals against securities and rationalise the norms for lending to capital market intermediaries are part of the normal process of review, seeking to reset the limits, set way back in 1999. Importantly, the revision in limits has been accompanied by a more structured Loan to Value (LTV) framework, sensitive to the risks of the underlying securities.

[1] **Source:** Compiled from RBI DBIE Returns
Bank deposits: 2015 – 85.33 Lakh crore; 2025 – 225.8 Lakh crore
Bank credit: 2015 – 65.36 Lakh crore; 2025 – 182.43 Lakh crore

The proposed removal of limits on loans against debt instruments, while retaining the regulatory limits for equity instruments, recognises the fundamental difference between the two instruments from a risk perspective. The key risk a debt instrument carries is credit risk, and just like loans, credit risk is expected to be managed as part of the broader credit risk management framework. An additional comforting factor is that only listed and investment grade debt securities are proposed to be permitted as collateral. This rationalisation is also expected to foster a virtuous positive feedback loop for the development of the bond market.

As regards acquisition finance, it is acknowledged as an integral element of an evolved financial system, that helps in better allocation of financial resources. Recognising its need, non-bank players such as NBFCs and bond markets are already allowed to provide such funding. Removal of the restriction on banks will benefit the real economy. The proposed guardrails like limiting bank funding to 70 per cent of deal value, limits on debt to equity ratio, aggregate exposure limits relative to Tier-1 capital, and eligibility criteria will contain concentration and credit risks, thereby ensuring safety while allowing banks and their stakeholders to reap benefits of additional business.

Market Mechanism for Large Borrowers

Let me now turn to the withdrawal of the Specified Borrower Framework.

This framework was instituted almost a decade ago, in a very different financial environment. This is a unique measure, which perhaps no other country that has implemented the Large Exposure framework (LEF), at the bank level, has. At that time, the banking system was grappling with elevated levels of stress, which is no longer the case. The tier 1 capital of the scheduled commercial banks has increased 3.2 times from about 8 lakh crore rupees in 2016 to more than 26 lakh crore rupees in the last ten years. On the other hand, overall share of exposure of the banks to corporates has considerably reduced since then. The regulatory landscape, as mentioned earlier, too has evolved significantly. The large exposure framework, which is aligned with international best practices, is now well-established and the supervisory tool kit is vastly improved. Therefore, it is proposed to substitute the blanket risk weights and provisions in the extant framework with better monitoring and risk management by the banks.

Reduction in Risk Weights for Infrastructure exposures of NBFCs

Coming to risk weights for infrastructure exposures of NBFCs, I would like to highlight that the proposal seeks to prescribe risk weights on the basis of the risk profile of the exposures. However, certain conditions have to be satisfied to qualify for a lower risk weight: one, there is a set of qualitative criteria that has to be fulfilled ab initio, including a suitable covenant to protect the interest of creditors through the tenor of the exposure; and two, a principal repayment criteria that would demonstrate a reasonable performance track record before risk weights can be lowered.

Revision in ECB norms

As regards, the External Commercial Borrowing (ECB) framework, these measures come against the backdrop of a strong external sector. India's current account recorded a surplus of USD 13.5 billion (1.3 per cent of GDP) in Q4 FY25, followed by a modest deficit of USD 2.4 billion (0.2 per cent of GDP) in Q1 FY26. Foreign exchange reserves stand at about USD 690–700 billion, sufficient to cover nearly 11 months of merchandise imports. Capital account remains robust. Net inflows to India under foreign investment (FDI and FPI), external commercial borrowings and NRI deposits stood higher at USD 30.4 bn during

April-July 2025 than USD 26.8 bn in the same period last year. Our projections show that capital flows will remain quite strong during the rest of the year as well.

The recalibration of the ECB framework is a natural step in India's financial evolution - grounded in strong fundamentals, guided by prudence, and inspired by confidence in the economy's capacity to engage with global finance on its own terms.

The removal of all-in-cost ceilings will encourage competitive rates and promote prudent hedging behaviour. Expansion of the universe of eligible lenders will improve pricing efficiency.

Linking the borrowing limits to the borrower's net worth under automatic route links ECB to the strength of the borrower, while enhancing ease of doing business. This limit and the overall soft ceiling of total outstanding ECBs at 6.5 per cent of GDP will mitigate the risks of excessive external leverage.

Moreover, I wish to clarify that ECBs are proposed to be permitted only for FDI-compliant real estate projects and remain prohibited for speculative real estate activity such as land or property trading.

Epilogue

Appropriate and incremental regulations

To summarise, all these measures are balanced and appropriate, built on the bedrock of a banking system that has been systematically fortified over the last decade, with financial stability remaining the unwavering cornerstone of our policy architecture. All the changes are incremental in nature. As Shakespeare would say, *we are moving wisely and slow; they stumble that run fast*[2]. At the same time when we aspire to become a developed nation, while we move with caution, we need to display courage. Again, I am reminded of Shakespeare's line[3]: *Tis dangerous to take a cold, to sleep, to drink; but … out of this nettle, danger, we pluck this flower, safety.* So, these measures do reflect fresh thinking, but are incremental and do not introduce any sea change.

Regulation as a whole

Moreover, no regulatory measure can be understood in isolation. Each measure has to be seen in the continuum of regulatory evolution and not in isolation. These proposals must be read against the broader regulatory scaffolding, which mitigates the risks. Together, the regulations create a multi-layered defence, to keep systemic risk in check. Analysing merely one regulation without understanding the complete regulatory landscape risks missing the forest for the trees.

Amendments based on experience

Let me also highlight that the higher responsibilities placed on the banks are based on their past performance. This is on account of the improved governance and prudent decision-making by the banks over the last decade. As highlighted earlier, capital buffers are stronger, profitability better, and asset quality much improved. Regulation has to evolve keeping in mind the realities of time and the performance of the banks.

Promote learning and discovery

Moreover, no regulator can, or should, substitute for boardroom judgment, especially in a diverse country such as ours. Each case, each loan, each deposit, each transaction is different, with varying risks and opportunities. We need to allow the regulated entities to take decisions based on merits of each case, rather than prescribing a one size fits all rule. This will enable regulated entities to experiment and innovate, learn and improve.

Regulations with guardrails

At the same time, wherever we are allowing hitherto prohibited activities, or reducing restrictions,

[2] Romeo & Juliet, Shakespeare
[3] Henry IV, Part 1.

we have provided sufficient guardrails to ensure safety and prudence.

Regulation and supervision go hand in hand

I may also mention that the role of a regulator is like that of a gardener whose job does not stop with providing the "enabling environment" for the growth of the plants. The gardener keeps on monitoring the growth *of the plant and prune unwanted growth to shape a collective orderly beautiful garden.* RBI has ample tools - risk weights, provisioning norms, countercyclical buffers - to contain emerging risks. History shows our readiness to act, as seen most recently in the macroprudential measures of increasing risk weights on consumer credit in November 2023. Needless to say, supervisory actions have always enabled effective backstops to *prune unwanted growth and shape a robust and resilient banking system.*

Finally, let me emphasise that most of these are measures are in the form of drafts issued for formal consultation. These have been issued after great deliberation, informal consultation and thought, accompanied with detailed impact assessment, and while they do reflect the broad direction, they are not final. We will finalise them after taking inputs from all stakeholders.

Consumer grievance redress

Before I conclude, let me also touch upon the changes introduced with respect to consumer grievances. The Reserve Bank has maintained a persistent focus on enhancing customer service standards and strengthening grievance redressal systems.

In this direction, the Internal Ombudsmen framework in larger REs is proposed to be improved. The Reserve Bank Ombudsman Scheme is also being further fine-tuned to enhance its efficacy.

To sustain the regulator's efforts, it is imperative that regulated entities address customer grievances through mechanisms that are fair, transparent, timely, and without undue cost. The regulated entities may please assess the quality of customer service through periodic and regular thematic studies. In addition, effective Root Cause analysis of the grievances may also be conducted to identify systemic issues, process gaps and repetitive grievances and remedial measures taken.

I would request the MD&CEOs and other top executives present here for their full support and their personal attention in ensuring that the proposed changes, when they are made final, are implemented not only in letter but also in spirit.

Conclusion

To conclude, I would like to emphasise that our approach is calibrated: granting banks greater commercial leeway for growth, innovation and ease of doing business, while ensuring that risks are minimised and financial stability is maintained.

We have set ourselves an ambitious goal of becoming an advanced economy by 2047. The financial sector has a large role to play in it. RBI remains steadfastly committed to this goal. We will ensure that our financial system evolves responsibly to support innovation, growth, and long-term economic resilience.

I am sure that the deliberations in this Conclave will help in taking forward this developmental agenda. I commend SBI for this initiative and wish the Conclave a huge success.

Thank You. Jai Hind.

*Transformational Technologies and Banking: Key Issues**

Shri T Rabi Sankar

Shri Setty, Chairman, SBI, Shri Amara, MD, SBI, distinguished leaders and members of the financial fraternity. It gives me immense pleasure to be a part of what feels like, and perhaps is, the nerve centre of the Indian financial system.

The theme of the Conclave 'India's Quest for Self-Reliance in a Fragmented World Order', makes this event particularly timely and critical. The comfortable assumptions of the post-Cold War era of globalisation are fading as we are seeing a re-emergence of protectionist tendencies and re-shoring of critical supply chains. Economies and societies are struggling to adjust not just to the rapid pace of change of technology, but also as the fundamental nature of technology itself is undergoing a paradigm shift. Technology has always been a catalyst for improving efficiency in delivering financial products, but now it has become the very foundation upon which the future of financial intermediation rests.

Technology and Banks

Today I want to dwell on a theme that reverberates in the current era of disruptions and fast-paced changes, the *role of technology in banking.* Every aspect of finance, from payments and credit to savings, investments, regulation and supervision, is already being redefined through technology.

With powerful technologies like artificial intelligence (AI) and quantum computing already under way, our challenge is how to embrace them with wisdom and purpose, and ensure that technological evolution is secure, inclusive, resilient, and future-ready.

India's experience in digitisation shows that countries who harness technology with foresight and responsibility will not only adapt to change but shape it. Our uniquely successful model of leveraging Digital Public Infrastructures (DPIs) like Aadhaar or UPI has not only positioned India as a leading example of digitisation, but also it has set an example for other countries to follow. For transformational change, it is not enough that technology is ubiquitous, it should also be foundational.

Lessons from India's Digital Journey

If we look back today, we can see that India's banking system has passed through two-and-a-half decades of innovations in payment technology – starting from ATM networking and moving through a gamut of retail and wholesale digital payment instruments like RTGS, NEFT and IMPS to the game-changing UPI and continuing on to experimenting with digital currency. The journey has been gradual yet, transformational. What are the main lessons that we can glean from this experience that has placed India as a leading example of payments innovation?

a. The very first thing to note is that virtually all of these initiatives came from the public sector, whether it is the ATM Switch, or NEFT/RTGS or UPI or, moving slightly away from the financial sector, the Aadhaar. Even the initiatives to set up key institutions – IDRBT, NPCI, IFTAS, and more recently, RBIH – were all public sector initiatives.

b. The second aspect is that all of these initiatives were by way of creating infrastructures, specifically digital public infrastructures. They were situated in what can be termed a public goods space; they were priced like public goods – minimal charges or free; they were accessible by all, like public goods.

* Keynote Address delivered by Shri T Rabi Sankar, Deputy Governor, Reserve Bank of India at the 12th SBI Banking & Economics Conclave - 2025 in Mumbai on November 7, 2025.

c. Thirdly, these DPIs were made available as a foundational layer for technology firms to create innovation. This gave the Indian approach a uniquely public-private cooperation character, an approach that resulted in the best of both worlds - while the public sector focuses on what it does best – create public infrastructure, the private sector focuses on where it has clear competitive advantage - innovation.

d. Fourthly, open access to DPIs led to a rise of new fintech players such as payment aggregators, PPI issuers, third-party app providers, *etc.*, bringing agility, innovation, and particularly scale. DPI has thus contributed to the growth of the fintech sector itself.

e. Finally, there is a general realisation that the new fintech players, mainly because they had no legacy systems that tied them down, were far more nimble and innovative than incumbent banks. While this did not undermine the role of banks as such, it exposed the Achilles heel of the banking system – that banks could be vulnerable to strong inertia in adapting to new technology. This leads me to the basic theme of my talk – the nature of the challenges new technology poses for banks.

Banks and new Fintechs

Let me first explain the vulnerability by using the context of UPI. UPI is essentially a payment instrument that transfers funds from one bank account to another (it can also use wallets, but that is a negligible part of the volume, so we will ignore it for this purpose). All UPI transactions are therefore payment transactions made through banks. Yet when we talk of UPI, the first entity that comes to mind is not a bank but a non-bank UPI app. It is well recognized that these fintech entities have taken UPI to where it is today, and that but for them UPI would not have been able to reach the nooks and corners of the country. Acquisition of customers and their payments data, was enough of an incentive for these app providers to extend these services even in the absence of any revenue. It is also important to appreciate that these FinTechs had certain basic advantages -

a. Technology edge – Fintechs are more agile as they have no legacy IT systems, enabling them to use technology that is more conducive to scale up, integrate and upgrade. Banks, with their core banking systems find it difficult to modernise and upgrade.

b. Data advantage - Fintechs can access wider, larger and more comprehensive data sources (for example across multiple banks and spending channels).

c. Cost advantage – With asset light balance sheets, no physical branches and very little due diligence requirements (KYS, AML/CFT etc), these fintechs incur a lot less cost than banks.

These advantages were large, and it can be reasonably argued that banks were unfairly disadvantaged (higher regulatory burden, frictions of KYC process and AML checks). In a competitive market, banks would have recovered their higher costs from the fintechs, but then, adoption of new technology would probably have suffered. But even without these disadvantages, it would be reasonable to assume that banks just did not foresee the potential in UPI that the FinTechs did. Part of the explanation lies in the very nature of banks.

Banks are special entities, unlike any other business. They have an important socioeconomic role, that of creating money. Because of this role, banks are licensed and closely regulated and supervised. This arrangement works to the benefit of banks,

because entry is not free and there is some degree of underwriting by the State. It also has a disadvantage that banks have to bear the cost of regulation, both financially and in terms of the obligation to follow prudential processes. One corollary of this somewhat protected environment within which banks operate is that their innovation edge is blunted. This is probably the reason banks did not fully appreciate the potential benefits of UPI, as keenly as the fintech players did.

If this indeed is true, it is time the banking system thought hard and deep about the challenges from the transformational technology changes we are living through. Technologies like artificial intelligence, blockchain, quantum and digital currencies, will shape the next decade of financial transformation. These technologies pose challenges that are fundamental to banks.

a. Most money in modern economies is bank money. Creating money through extending credit is the most basic function of a bank. The advent of digital currencies is now providing an alternative. We can no longer assume that banks would always remain because who else would create money, that is the lifeblood of modern economies. The risks from private digital currencies to banks appears existential, yet not well understood or debated globally. Even with CBDCs, which become a necessary bulwark against private digital currencies, banking business is likely to change significantly, and these impacts need to be understood by banks. It is not just the responsibility of a central bank, the issuer.

b. Banks are the core intermediaries in financial markets. Every financial transaction, whether or not it requires other types of intermediaries (*e.g.*, brokers or market-makers) would always require a bank to authenticate the payment leg. This is something only a bank could do. With the blockchain technology, this could well change. The basic function of a blockchain is to authenticate financial transactions in the absence of a trusted intermediary. It is now possible that banks may not be required to authenticate payments, substantially impacting their role as intermediaries.

Apart from these fundamental challenges, new technology poses various other risks to the roles that banks traditionally play. For instance, digital currencies can provide a superior alternative to banks in cross-border payments. Quantum computing, though nascent, could one day revolutionise encryption, risk modelling, and portfolio optimisation. AI can interpret blockchain data; CBDC can embed smart contracts; IoT devices can trigger automated financial settlements. Together, they signal a shift from a system of intermediated finance to one of intelligent interconnections.

The risks emanating from these technological shifts need to be recognized and understood. True, at this stage these risks are more conceptual than actual, yet at the very least they can eat into the exclusive domain of banks. Banks, therefore need to be prepared well to meet these challenges and maintain their central role in monetary transmission and financial stability.

While by now banks have a fairly good understanding of how to approach technology adoption, I would only reiterate a few aspects that need to be kept in mind with respect to adopting the new transformational technologies.

a. Banks have inherent strengths - credibility, balance sheet depth and customer base. Technology asymmetry tends to dilute these benefits. The ability to leverage these strengths would depend on the agility and

speed with which banks modernize their systems and reimagine their business processes.

b. The nature of technology change facing banks is different. Many technology changes are no longer incremental, they are re-architectural. Platform technologies effectively enable nonbanks to come into the banks' domain. Distributed ledgers undermine the traditional institutional guarantees that banks provided. Therefore, competitiveness may no longer depend as much on balance sheet strength but on data capability and technology flexibility.

c. Since banks are structurally vulnerable because of their monolithic IT systems and high fixed costs arising from branch network and compliance costs, incremental digitisation is unlikely to be enough to keep them competitive.

In this context, what can be the strategic imperatives for banks to prepare for transformative technologies? Modernising core infrastructure to make it less monolithic and rigid is one such imperative if banks have to compete with the fintech ecosystem. Adopting a platform orientation and API based collaboration with fintechs is another. Perhaps the most important requirement is reengineering the culture of innovation within banks and creating incentives for learning and skill upgradation from within. Human expertise to innovate, govern, and responsibly deploy technology remains the differentiator in a digital world. Institutions must cultivate deep digital and data skills at all levels, ensuring teams are equipped to navigate complexity and seize opportunities.

Equally importantly, banks need to treat fintechs as partners in innovation and create a mutually beneficial or symbiotic strategic partnerships with them. The objective should be to benefit from the agility of fintechs without compromising prudential discipline.

Concluding thoughts

As we reflect on the transformative absorption of technology in finance, one truth is unmistakable *i.e.*, while technology is inevitable, its direction is intentional. The choices banks make today will shape not only the architecture of their IT systems but the experience, inclusion, and trust of millions of citizens tomorrow. As technology is rewriting the very DNA of finance, the preparedness of banks will determine whether they lead this transformation or are led by it. Institutions that adopt technology strategically, embed strong governance principles, develop human capital, and collaborate across the ecosystem will not only navigate change but will shape it.

*Where Governance Intent is Strong, Regulatory Gaps and Overlaps Fade**

Shri Swaminathan J.

Chair of the event, Shri M Damodaran; Chairman, IRDAI, Shri Ajay Seth; Chairman, PFRDA, Shri S Ramann; WTM, SEBI, Shri Kamlesh Varshney and other distinguished guests, colleagues, ladies, and gentlemen. A very good morning to all of you.

I am pleased to be here today for the 10th edition of the *Gatekeepers of Governance Summit*, as conferences like these provide an invaluable platform for the stakeholders to articulate and understand each other's perspectives. I thank the organisers for this opportunity.

Our theme today is simple to ask but hard to answer: ***"Regulatory gaps and overlaps: do they exist?"*** I am inclined to agree that they do exist and I propose to address this in two parts, *viz.* from the standpoint of organisations and thereafter as Regulators.

Most organisations often respond to governance questions by redrawing organisation charts, tweaking reporting lines, and updating committee charters. These fixes do help, but only to a point.

Business models, technology, and vendor chains change faster than boxes on a slide. As firms expand, digitise, outsource, and integrate, two patterns keep showing up: overlaps - two teams or two regulators asking for the same thing; and gaps - a new product, partner, or dataset sitting outside or at the perimeter of any policy.

If we keep editing diagrams without analysing the root cause, we treat symptoms and miss the cause. In my view, the reason, therefore, is **"intent"**. When intent is strong and governance is lived in spirit, overlaps simplify and gaps close. When intent is weak, the reflex is to add more rules and procedures – multiplying work but losing sight of the real risk. The real question is how deeply good governance is internalised in everyday decisions and board oversight.

With that lens, let me focus on five practices that I feel matter most:

i. Boards must own outcomes, not paperwork.

ii. Independence should be in substance.

iii. Look through the group, not just the entity.

iv. Protect and empower the control functions.

v. Governance gap analysis with real remediation.

Let me briefly elaborate on each of these five aspects

Firstly, **boards must own outcomes, not paperwork**. A diverse and independent board keeps an organisation on track by overseeing compliance, risk, culture, and ethics. Directors must exercise their duty of care and duty of loyalty, and they must own outcomes[1]. Boards must set risk appetite and outcome goals, and require independent assurance - risk, compliance, and internal audit - to test what matters and report findings, root causes, and their closure.

Secondly, **independence is not a label; it is the ability to challenge**. It is a posture backed by time, information, and courage. Independent directors should be able to challenge strategy, controls, financials, and risk, and to question the assumptions

* Remarks by Shri Swaminathan J, Deputy Governor, Reserve Bank of India, on Friday, November 7, 2025, at the Gatekeepers of Governance Summit in Mumbai.

[1] Corporate Governance Principles for Banks, BCBS, BIS (https://www.bis.org/bcbs/publ/d328.pdf)

behind forecasts. Our anonymous 2024 survey amongst boards of banks revealed that many boards prefer consensus, and a meaningful minority of directors hesitate to voice dissent. The Chair's role, therefore, is to draw out quieter views and keep challenge safe.

Thirdly, in large conglomerates, **risk does not stop at the boundaries of individual entities**. Boards should see the whole, not just the parts. Two steps help. First, ring-fence critical entities so a local problem does not become a group crisis. Second, enforce strict related-party policies. Such transactions can be legitimate, but they need transparency, fairness, and arm's-length terms. Sound rationale and good documentation are evidence of thought and a tool for future learning, not a bureaucratic burden.

Fourthly, **the three lines of defence must be real**. Business lines own risk. Risk management and compliance provide challenge and guardrails. Internal audit tests the system independently. The Heads of assurance functions (the Chief Risk Officer, Chief Compliance Officer, and Head of Internal Audit) must have access to the board and to any business line that can create material risk. They should have adequate budgets and full access to information. Decisions on their appointment and removal should rest with the board. Weak lines of defence are to be seen as a board failure, not a staffing glitch.

In an anonymous supervisory survey of assurance heads, most reported strong board backing, but almost half said resources do not match their bank's size and complexity. It is essential to give assurance heads independence, stature, and adequate resources. Otherwise, assurance stays ornamental.

Finally, markets move faster than rules and regulations. A **periodical governance gap analysis** helps organisations see where their policies and frameworks stand against industry best practices - spotting weaknesses, strengthening compliance, and improving risk management[2].

A system-wide perspective

Modern business is not tidy. A listed company can be part of a conglomerate with banks, NBFCs, insurers, brokers, payment firms, tech subsidiaries, overseas arms, and associates. The regulatory map is equally rich: Company law and MCA, Securities regulation and listing rules, Sectoral regulators for banking, insurance, pension, competition law, insolvency, accounting and audit oversight, market conduct rules, data and cyber requirements, and multiple enforcement agencies. Add international obligations, exchanges, depositories, SROs, and state-level authorities.

In such a world, some overlap is inevitable. That is not a bug. Overlaps can also act as layers of safety net, ensuring that if one control misses an issue, another may catch it. The real problem, may arise from conflicting rules, duplicated compliance, and uncoordinated enforcement which is avoidable. At the same time, new activities, new technologies, and new business models can fall between the cracks.

So yes, both gaps and overlaps exist. The task for regulators is to work together, minimising harmful overlaps and closing material gaps, without impeding innovation. In that spirit, let me offer three principles, may be aspirational in parts, for optimising overlaps and gaps.

Firstly, regulators **must balance entity and activity-based regulation**. Regulate the *activity* wherever it happens, and keep stronger rules for *entities* that hold public trust. If an app offers investment advice, the advisory guardrails should apply, even if the provider is not a traditional intermediary. If two activities create the **same risk, they should face the same rules** - regardless of the label or the provider.

[2] William, L. (2006). Governance Gap Analysis. DM Review, 16 (8): 30.

The second principle is **proportionality**. Regulators should scale requirements to risk and complexity. A small, simple firm should not bear the same burden as a large, interconnected group; systemically important players should meet higher capital, liquidity, control, and disclosure standards. Proportionality keeps oversight credible and optimal.

The third is to strive towards **outcome-based regulation, calibrated to market maturity**. Where feasible, make and apply rules to protect outcomes - fair customer treatment, resilience, true and fair financials - rather than locking in processes or technologies. For instance, whether onboarding is on paper or biometric, the test is the same: was the customer identified correctly, and was consent captured? However, calibration matters. Outcomes-based rules work best where supervision and enforcement are strong and markets are mature.

Conclusion

In conclusion, addressing regulatory gaps and overlaps is a journey of continuous improvement that demands constant reflection, adaptation, and courage to challenge the status quo. When intent is strong, the gaps bridge, overlaps simplify, and governance transcends mere compliance to become our shared conscience.

Thank you. Jai Hind.

Policy Frameworks for Economic Resilience: The case of Emerging Markets and India *

Dr. Poonam Gupta

It is a pleasure for me to be here at the Business Standard BFSI Insight Summit. I would like to thank the organisers for this opportunity.

In my brief comments, I will be reflecting on the observed economic and financial resilience of emerging markets (EMs) in general, and of the Indian economy, in particular. In this context, it may be noted that at the recently concluded Annual Meetings of the IMF, two contradictory themes prevailed: the unprecedented global policy uncertainty; and the surprising resilience of the economies.[1]

The global economy has shown remarkable resilience to the shifting trade policies and geopolitical tensions. Global growth has held up better than anticipated earlier. Currently, inflation outlooks are mostly benign across countries (notwithstanding the fact that inflation levels in some advanced economies are somewhat higher than their respective targets). Low inflation has provided the headroom for monetary policies to be eased across jurisdictions. Banking sectors across countries are mostly resilient.[2]

IMF has suggested a few factors that are contributing to this resilience.[3] These include improved policy frameworks in EMs; the tariff outcomes being milder than what were anticipated earlier; and very limited retaliation by the partner countries.[4] In other words, the policy making frameworks in EMs are to be credited for their own economic resilience, as well as for the resilience in the global economy. The key questions of interest, therefore, are: What has made this resilience of EMs possible? Is it here to stay? How well has India done on its policy frameworks and economic resilience?

How has the observed economic and financial resilience in EMs been achieved?

After completing my Master's in Economics at the Delhi School of Economics and teaching for two years at Delhi University, I joined graduate school in 1993. In my second year, I enrolled in a course on International Finance. The year was 1994 and a balance of payments crisis was unfolding in Mexico, which spread to Argentina and select other Latin American economies, with the risk of far-reaching contagion to many other countries and regions. Despite having witnessed the 1991 crisis at home, I did not have sufficient exposure to the literature on such crises at that time.

While taking this course, and subsequently while pursuing my own research in this area, I learnt more systematically about the pitfalls of unsustainable macroeconomic frameworks. These frameworks at that time consisted of: a fixed exchange rate regime which often resulted in appreciation and eroded competitiveness of the real exchange rate and large current account deficits. Premature and rapid liberalisation of the capital account and financial sector, resulting in excessive external borrowing, often in foreign currency (called the Original Sin)[5]. Lax fiscal

* Address by Dr. Poonam Gupta, Deputy Governor, Reserve Bank of India - October 29, 2025 - Delivered at the Business Standard BFSI Insight Summit, Mumbai. Inputs received from Asish Thomas George, GV Nadhanael, and Somnath Sharma, and comments received from Indranil Bhattacharya, Anupam Prakash, Sunil Kumar, Sangita Misra and Satyashiba Panigrahi are gratefully acknowledged.

[1] We are focusing here more on EMs, not on advanced economies or low-income economies which have their own unique economic features, potentials and challenges.

[2] IMF and other multilateral agencies have also been pointing to the various risks that loom on the horizon. They refer to buoyant equity markets (particularly led by technology stocks) leading to worries that a correction could be in the offing. Central banks of advanced economies are concerned about elevated public debt in their respective economies and worry that there might be a disruptive resolution. The financial landscape has undergone significant change over the years, with non-bank financial intermediaries (NBFIs) now playing a larger role in several markets, including the bond and credit markets. The growing size, complexity, and interconnectedness of these lightly regulated NBFIs in the financial system has raised financial stability concerns.

[3] World Economic Outlook, October 2025.

[4] Adaptability and entrepreneurship of the private sector and supportive financial conditions are the other factors.

[5] Eichengreen, B. J., Hausmann, R., & Panizza, U. (2002). Original sin: the pain, the mystery, and the road to redemption.

policy and weak fiscal institutions, which combined with *ad hoc* monetary policy frameworks and limited independence of the central banks resulted in fiscal dominance and pronounced electoral-fiscal cycles, high inflation, and limited policy credibility.[6]

It became evident at that time that volatile capital flows, often triggered by external forces, could upend fragile equilibriums characterised by such macroeconomic frameworks. In fact, many more countries, which had such frameworks in place, experienced balance of payment crises in the following years. These included, Thailand, South Korea, Indonesia, Malaysia, and the Philippines during the Asian crisis of 1997-98; Brazil and Russia in 1998; and South Africa and Turkey in 2001.[7] It also became evident that these currency crises could even engulf the banking sector, resulting in "twin crises" with far graver implications.[8]

In the ensuing years, extensive discussions, introspections, analyses, and research were undertaken within EMs as well as at the multilateral institutions. This culminated in a number of policy reforms undertaken by countries towards sounder macroeconomic management, as they learnt from each other, and were supported by the multilateral institutions.

Since early-mid 2000s, EMs have become more cautious in their approach towards the external sector. They have maintained a flexible exchange rate policy (mostly managed floats rather than free floats). They have reduced their liability dollarisation. They have slowed and recalibrated the pace and sequencing of capital account liberalisation. They have built up large foreign exchange reserves to act as a cushion against the adverse impact of external shocks to their balance of payments. In other words, they use their foreign exchange reserves to modulate large fluctuations in the exchange rate, or to meet the demand for foreign exchange emanating from a sudden shock to current account or reversal of capital flows.

In addition, they have strengthened their domestic macroeconomic policy frameworks by implementing credible fiscal rules, and have adopted a rule-based framework for monetary policy with inflation targeting or other close alternatives. They have strengthened their banking and financial sectors. Alongside, they have significantly enhanced the independence of their central banks.

As a result of these policy efforts, the world for the most part has not witnessed any country-specific or even regional Balance of Payments crises (barring a handful of exceptions) during the last two and a half decades.[9] This resilience has been markedly visible during the last five years when, EMs had to face multiple shocks in succession, such as the COVID-19 pandemic (2020-2021), Russia-Ukraine war (2022) and other geopolitical tensions, surge in inflation resulting in synchronised monetary tightening by Advanced Economy central banks (2022-2023), and the ongoing trade policy and tariff shocks (2025). The fact that EMs, by and large, are able to tide over these shocks with relative macroeconomic stability is a testament to the success of aforementioned policy efforts.

This is not to say that the EMs do not face policy challenges anymore. They do. But instead of macroeconomic stability issues, EMs face greater risks to sustained growth, and meaningful employment generation.

Their key challenge lies in finding the new sources of growth. In learning to live in a world in

[6] I ended up writing two of the three papers in my PhD thesis on Twin Crises--when Balance of Payments and Banking Crises occur simultaneously and feed each other.

[7] These have alternatively been called Currency Crises, Balance of Payments Crises or Sudden Stops.

[8] Kaminsky, Graciela, L., and Carmen M. Reinhart. (1999). "The Twin Crises: The Causes of Banking and Balance-of-Payments Problems." American Economic Review 89 (3): 473–500.

[9] Frontier markets are not similarly insulated, their policy frameworks not having been similarly evolved.

which trade as an engine of growth is faltering, and, therefore, domestic sources of growth need to play a larger role.

The acceleration in economic growth witnessed across EMs in 2000s was driven by a rapid expansion in global trade. The ratio of world trade to GDP increased from about 41 per cent in 1994 to 61 per cent in 2008.[10] Since the global financial crisis of 2008-09, however, the global trade to GDP ratio has flattened, reducing the avenues for EMs to grow faster by leveraging global demand.

More recently, a new threat to global trade has emerged from the increased incidence of protectionism. Apart from reducing the contribution of external demand to growth, these developments also reduce the impact of potential spillover benefits to domestic growth through channels such as technology transfer. Even as some of the trade relations will be rebuilt and others will evolve during the course of time, the years of hyper globalisation are unlikely to return anytime soon.

Neither is the manufacturing sector turning out to be a sure way to economic success (the potential of the manufacturing sector seems to have become limited due to the existing large players continuing to be market leaders).

Another challenge, especially for those economies where demography is still favourable, is that under employment remains high, gender gaps remain wide, and a large share of workers remain in less productive informal jobs.

For some of the EMs, high public debt is also of concern. Many EMs undertook fiscal consolidation after they were hit by the crises in the 1990s. However, after the global financial crisis, public debt has risen steadily, exacerbated further by cascading shocks such as the fiscal stimulus during the pandemic, and higher interest burden of debt servicing from policy tightening. While there is no imminent risk to debt sustainability in EMs, elevated public debt poses a challenge in financing their developmental goals in the wake of rising interest payments to service this debt.

Where does India stand on the resilience of its policy framework?

India's policy frameworks have continued to evolve and are currently among the global best. Its exchange rate, that was pegged until 1991, is increasingly market driven. Its external account has been managed well. There are inherent strengths in its diversified balance of payments. On the current account, the merchandise trade deficit has been balanced by strong services exports and remittances receipts. Oil price is not a dampener that it used to be. All in all, the current account shows resilience and is eminently in a sustainable zone.[11]

The capital account too gets a variety of inflows, including FDI inflows that are traditionally known to be stable; and other equity and debt flows, which are traditionally known to be relatively fickle, but have held up well. India has slowly but surely liberalised its capital account, but the external debt as a proportion to GDP has been low and stable. The ratio of external debt to GDP has averaged around 20.5 per cent in the last 10 years (end-March 2015 to end-March 2025); as of end-June 2025, external debt to GDP ratio was 18.9 per cent. Besides keeping the liability dollarisation in check, India's short-term debt level too has remained low. The ratio of Short-term Debt (original maturity) to total debt was 18.1 per cent as of end-June 2025.

India has largely adhered to the path of fiscal consolidation, barring periods of significant shocks such as the pandemic. Importantly, the composition

[10] Source: World Bank. https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS

[11] During the last 10 years, the current account deficit (as % of GDP) remained in the range of 0.6 to 2.1 per cent, barring the COVID year (2020-21) where it recorded a surplus of 0.8 per cent.

of debt, and the improved quality of public spending has rendered public debt safe. Most of the public debt is long term, is denominated in local currency, and is held domestically (a large part of which is held by institutional investors). Furthermore, a favourable growth and interest rate differential has made current level of public debt sustainable.[12]

Flexible Inflation Targeting framework for monetary policy, introduced in 2016, was a major structural reform in India. Evidence points towards improved outcomes post adoption of flexible inflation targeting: inflation has become lower and less volatile; inflationary expectations are better anchored; and the transmission of monetary policy has become more effective. Inflation targeting has brought in greater transparency to policy making. Frequent communication has helped in anchoring expectations and in building credibility. There is continuous engagement with stakeholders, making monetary policy a two-way consultative process.

As a result of the full matrix of policy reforms, India's GDP and per capita income growth rates have accelerated over time; growth has been among the highest globally; and its variability has declined.[13]

India's near-term growth outlook is promising too. After growing at a stronger than anticipated rate of 7.8 per cent during Q1:2025-26, various high frequency indicators point towards a robust expansion in Q2:2025-26 as well. In the latest monetary policy statement, growth forecast for FY2025-26 has been revised upwards to 6.8 per cent. Inflation currently is at an eight-year low of 1.5 per cent. As per the latest assessment of the RBI, CPI inflation is projected to be 2.6 per cent for the full year 2025-26, much below the target.

Concluding thoughts

Having learnt from the crisis decade of the 1990s, EMs have put in place policy frameworks and decision-making processes that have made them less vulnerable to macroeconomic and financial instability. India has been a frontrunner in implementing these reforms. As a result, while the intensity of external shocks may not have declined, the variability of the macroeconomic outcomes has moderated considerably. This economic resilience has enabled the policy makers to focus on reforms to enhance productivity, facilitate ease of doing business, and improve the quality of financial intermediation. Such collective efforts are surely putting India on the path to graduate from an emerging to an emerged market status in the coming decades (and possibly even in the coming years).

[12] Another crucial factor is that, of the total debt of the government of India, external debt consists less than 5 per cent, which mitigates the external sector risks (Receipts Budget 2025-26, Government of India).

[13] Indian economy grew by an average of 7.8 per cent during the last three years (2022-23 to 2024-25) making it the fastest growing major economy. CPI inflation declined from a peak of 6.7 per cent in 2022-23 to 4.6 per cent in 2024-25. As per the latest available data, CPI inflation was at 1.5 per cent in September 2025.

*Central Bank Accounting Practices: The Reserve Bank of India and Global Approaches**

Shri Shirish Chandra Murmu

Distinguished guests and my colleagues, Namaste and a very good morning!

It gives me immense pleasure to address this august gathering of distinguished central bankers from diverse regions, expert speakers associated with renowned international institutions and my fellow colleagues from Reserve Bank of India (RBI) at this first *International Conference on Central Bank Accounting Practices* organised by RBI jointly with the SEACEN Centre. I am glad that the topic of Accounting in Central Banks has attracted interest amongst central bankers across the globe and more than 20 countries are participating in this event.

The purpose of this conference is to collaborate and understand the diverse accounting practices across central banks, learn from each other, deliberate on certain globally accepted best practices, and improve the transparency and consistency in accounting practices. In my remarks today, I would briefly speak about the unique role played by central banks, importance of their balance sheet and certain accounting practices that influence central banks' financial statements while sharing RBI's approach to these aspects. I would also touch upon some emerging areas of discussion in central bank accounting.

Unique Role of Central Banks

Central banks are unique in two ways. First, they are public policy institutions that operate without any profit motive. Consequently, their balance sheets reflect the policy measures they undertake to address the prevailing economic conditions of the country during a given period. Second, since a central bank possesses the exclusive authority to create money, it cannot go bankrupt in the usual sense. In other words, even if its balance sheet shows losses or negative equity, it can still carry out its functions.

Central bank mandates vary widely across jurisdictions, reflecting their historical and institutional contexts. Despite the differences in mandates, functions or roles across countries, at the heart of every central bank is monetary policy and financial stability. Central banks aim to maintain adequate capital and reserves/ risk buffers to be able to perform these critical functions effectively. The Reserve Bank of India has one of the broadest mandates, functioning as a full-service[1] central bank that undertakes a wide range of responsibilities typically associated with a central bank.

When it comes to central bank capitalisation, I believe adequate capitalisation is absolutely crucial, particularly for central banks of emerging and developing economies. These central banks not only pursue domestic monetary stability but also play a vital role in managing external sector stability amid volatile capital flows and the spill-over effects of monetary policy shifts in advanced economies. A well-capitalised central bank elevates a country's standing and supports the resilience of the financial sector.

* Keynote Address delivered by Shri Shirish Chandra Murmu, Deputy Governor, Reserve Bank of India on November 14, 2025, at first *International Conference on Central Bank Accounting Practices* organised by Reserve Bank of India jointly with the SEACEN Centre in Mumbai. Inputs provided by Sangeeta Lalwani, Vyom Gupta and Akshay Vartak are gratefully acknowledged.

[1] Monetary policy formulation, currency management, regulation and supervision of the financial system, payment and settlement systems, reserves management, banker to banks and the governments, debt manager of the governments, foreign exchange management, regulation and oversight of key segments of financial markets such as money markets, g-sec market and forex markets, developmental functions *etc.*

In the absence of any internationally recognised risk capital framework for central banks, each central bank finds its own balance between the opportunity cost of central bank capital *vis-à-vis* the socio-economic cost and the negative consequences of under-capitalisation.

Accounting Standards for Central Banks

As widely understood, there is no single globally accepted accounting standard designed specifically for central banks and hence, their accounting and disclosure practices vary considerably in format, depth, and emphasis. While some central banks have adopted the principles set out in International Financial Reporting Standards (IFRS), either in full or with modifications to suit their specific needs, others continue to apply their own national accounting standards or use hybrid frameworks tailored specifically for the central bank.

The accounting policies chosen by central banks play a crucial role in shaping their balance sheets. Major areas of accounting policy that have a significant impact on the capital position and income recognition frameworks of central banks include, (i) Revaluation frequency of investments (ii) Treatment of unrealised revaluation gains/ losses (iii) Provisioning methodology/ maintenance of risk buffers and (iv) Surplus distribution policy. A review of publicly available information indicates that central banks represented at this conference follow a wide spectrum of approaches across these key accounting dimensions. These variations reflect differences in statutory mandates, institutional objectives, risk management philosophies, and the broader economic context within which each central bank operates.

Accounting Practices Followed by RBI

Let me now briefly talk about the accounting practices followed by the Reserve Bank of India. Just to give a context, the entire ownership of RBI remains vested with Government of India. The way RBI prepares its financial statements and sets its accounting policies is guided mainly by the RBI Act of 1934 and the RBI General Regulations of 1949. Over time, within this legal framework, these policies have evolved to keep up with changing needs and practices.

I am pleased to say that the Reserve Bank of India has a strong and resilient balance sheet, with adequate level of risk provisioning. Over the years, RBI has consistently worked to align its accounting practices with global best practices, while staying true to core principles of prudence and conservatism.

I would like to highlight a few key aspects of RBI's accounting policy across five crucial areas: – a) Legal Framework, b) Prudence in Accounting, c) Surplus Distribution Policy, d) Strength of Balance Sheet, and e) Disclosures.

Legal Framework

The Reserve Bank of India Act of 1934[2] lays down two key principles that define how RBI operates from an accounting standpoint. First, it mandates that the issuance of banknotes be handled by a distinct Issue Department, entirely separate from the Banking Department, with its assets used solely to meet its own liabilities. In other words, the assets and liabilities of the Issue Department are kept entirely separate from those of the Bank's other operations. Secondly, the Act specifies how the Bank's surplus is to be managed. Once provisions have been made for bad and doubtful debts, depreciation, employee benefits, and other standard banking requirements, any remaining surplus must be transferred to the Government. Together, these provisions lay the foundation for how the RBI manages its balance sheet and upholds transparency in its financial operations.

[2] Section 33, 34 and 47 of the Reserve Bank of India Act, 1934.

Prudence in Accounting

Prudence in accounting reflects in revaluation of the assets at fair/market value, conservatism in treatment of unrealised gains/ losses and a consistent application for recognition of the realised exchange gains/ losses. Over the years, RBI has built provisions as Contingency Fund (CF) and Asset Development Fund (ADF) from realised profits. The Revaluation Accounts *viz.*, Investment Revaluation Accounts, and Currency and Gold Revaluation Account (CGRA), reflect the unrealised gains/ losses from revaluation of investments and translation of foreign currency assets to Indian Rupee.

RBI revalues the entire forex reserves portfolio on a daily basis and does not carve out any portion for amortised valuation. All foreign currency assets and Gold are translated to Indian Rupee daily at market exchange rates prevailing on the day, which gets reflected under the CGRA. Domestic securities are mark-to-market on a weekly basis and also at end of each month.

As a prudent accounting practice, RBI does not recognise unrealised revaluation and translation gains on securities and gold as income but reflects them as revaluation balances on the balance sheet. On the other hand, any unrealised losses on revaluation of domestic/foreign securities are charged to the Contingency Fund at the end of the year when accounts are finalised. There is no fungibility between the various heads under revaluation, implying RBI prudently provides for any revaluation loss on account of investments and does not offset it with a positive CGRA balance and vice-versa.

International practices[3] on these aspects are quite interesting. Some central banks revalue a portion of their portfolio at fair value, while keeping the rest at amortised cost. In some countries, unrealised gains and losses are recorded in the income statement, reflecting their impact on financial performance. This conference would be a good forum to understand diverse perspectives, rationale, and methodology for these classifications from fellow central bankers.

Surplus Distribution Policy

RBI has a transparent, publicly disclosed and rule-based surplus distribution policy under the Economic Capital Framework (ECF). This framework, introduced in 2018-19, is based on recommendations of an independent Expert Committee[4]. The ECF recognises that realised equity should cover the monetary and financial stability risks, credit, and operational risks while the revaluation balances should cover the market risk. After making the required provisions, the remaining surplus is transferred to Government. Since the introduction of the Economic Capital Framework, Reserve Bank of India has consistently maintained its risk buffers at the prescribed levels, even in the face of unprecedented challenges such as the Covid-19 pandemic and the subsequent global monetary tightening. As we strive for continuous improvement and refinement, the ECF was recently reviewed internally[5], and risk assessment has been made more granular.

Strength of the Balance Sheet

The prudent accounting policies over the years have ensured that RBI has a strong and resilient balance sheet with risk provisions in form of Realised Equity and Revaluation Balances, currently at 7.5% and 17.4% of the balance sheet, respectively. Hence, with an economic capital of about 25% of balance sheet, RBI is in a formidable position to effectively fulfill its public policy mandates while ensuring monetary and financial stability.

[3] As observed from published annual reports of various central banks.

[4] Report of the Expert Committee to Review the Extant Economic Capital Framework of the RBI, August 2019.

[5] Economic Capital Framework of the RBI – Internal Review of the Framework, May 2025.

Disclosures

The central bank disclosures need to strike a fine balance between transparency and confidentiality. They need to be transparent enough to effectively communicate the central bank policy operations and their financial implications, while maintaining reasonable confidentiality of market sensitive information. RBI provides comprehensive and detailed information for each accounting head, along with significant accounting policies, in its Annual Report. Additionally, a weekly snapshot of RBI's balance sheet, foreign exchange reserves, liquidity operations, and variations in reserve money components and sources is also published. This regular flow of information ensures transparency in communication about our policy actions and the evolving trends in the economy.

Emerging Areas in Central Bank Accounting and Disclosures

Before concluding, I would like to highlight a few emerging areas in central bank accounting and disclosures which are likely to gain more prominence in coming days. Let me begin with the recent sharp rise in gold prices which has garnered a lot of attention and discussions globally with respect to its impact on the central bank balance sheets. RBI conservatively revalues the gold holdings at 90% of the London Bullion Market Association (LBMA) gold price. However, gold revaluation practices vary across countries and the impact of high movement in gold prices on central bank balance sheets and income needs wider discussion.

The issue of potential impact of Central Bank Digital Currency (CBDC) on central bank balance sheets has also been attracting lot of international research and discussions. Some research papers[6] have tried to explore how the design choices for CBDCs adopted by central banks may shape people's behaviour with respect to adoption of CBDC and potential substitution of banknotes and/or bank deposits with CBDC. It is also being discussed and debated globally whether and how this may impact central bank balance sheet structures and the need for liquidity operations.

These emerging aspects would require ongoing engagement and collaboration in future as central banks learn from their respective experiences. We should work closely in these areas and share our experiences and research with each other, which will help all of us in making better decisions.

Conclusion

As I end my address, I must say that this conference is being organised at a very opportune time as central banks worldwide are navigating the VUCA world (Volatile, Uncertain, Complex and Ambiguous). The diverse and wide-ranging policy actions during the pandemic coupled with differing accounting practices have resulted in variations in reported incomes and balance sheets of central banks. Central bank disclosures have assumed an even more important role in being able to effectively communicate to the larger public the rationale of the policy actions and the accounting policies adopted. In such an environment, prudence and transparency in accounting are not just buzzwords but the pillars which central banks must safeguard.

The diversity in the accounting practices across jurisdictions presents enough scope for dialogue and knowledge sharing amongst the central banks on certain common accounting principles/practices which are prudent and can further enhance transparency. This may facilitate better disclosures across central banks within the legal framework of

[6] IMF Working Paper: Central Bank Digital Currencies and Financial Stability: Balance Sheet Analysis and Policy Choices, October 11, 2024; ECB Occasional Paper Series: The impact of central bank digital currency on central bank profitability, risk-taking and capital, November 14, 2024.

the respective countries. I am confident that this conference marks the beginning of a constructive and collaborative journey towards achieving prudent and consistent central bank accounting practices. Let this be the first step in fostering continued engagement and deeper cooperation among central banks in the years ahead.

Wish you all successful deliberations and fruitful outcomes during the conference.

Thank you.

ARTICLES

*State of the Economy**

Global uncertainty remains elevated, although October witnessed a slight pullback after more than a year of continuous increase. Concerns persist about the heightened exuberance in global equity markets, raising questions about its sustainability and its implications for financial stability. The Indian economy showed signs of a further pick up in momentum, despite continuing global headwinds. Available high-frequency indicators for October suggest a robust expansion in both manufacturing and services activities, supported by festive season demand and the ongoing positive impact of the GST reforms. Inflation has moderated to a historic low and remained well below the target rate. Financial conditions remained benign, and the flow of financial resources to the commercial sector increased significantly from a year ago.

Introduction

Global uncertainty remains elevated, although October witnessed a slight pullback after more than a year of continuous increase. World trade and policy uncertainties also retreated. Financial market volatility, which had moderated in October, resurged in November due to concerns over stretched valuations in AI stocks. In this context, concerns persist about the heightened exuberance in global equity markets, raising questions about its sustainability and the financial stability implications of any sharp correction.

The global PMI composite indicated an expansion in business activity, supported by strong growth in services and resilient manufacturing. Reflecting the stifling effect of trade policy uncertainty, most of the major economies continued to witness a contraction in new export orders in October.

Global commodity prices remained subdued on lower food and crude oil prices. Prices of industrial metals rose on fears of a supply shortage and higher imports by China. Gold prices saw a correction from a record high in mid-October in the second half due to reduced safe haven buying and a stronger dollar.

Headline inflation eased in October across most advanced economies (AEs) and emerging market and developing economies (EMDEs). However, it remains elevated in AEs amidst persistent services inflation. Central banks, in November so far, by and large maintained *status quo* on policy rates, awaiting further clarity on the evolving macroeconomic situation.

The Indian economy showed signs of a further pick up in momentum, despite lingering external sector headwinds. Demand conditions exhibited signs of improvement with the revival of urban demand and continued strength in rural demand. High-frequency indicators of overall economic activity remained robust in October, supported by Goods and Services Tax (GST) rate reductions and a pick up in festive spending. GST collections improved over the previous month, indicating a strong pick up in consumer demand. Sowing of all *rabi* crops is progressing well following the harvesting of *kharif* crops. High-frequency indicators for October suggest further broadening of manufacturing activity and continued robust expansion in the services sector.

Merchandise trade deficit widened to an all-time high in October 2025. While exports contracted after remaining in expansion for three months, reflecting

* This article has been prepared by Rekha Misra, Asish Thomas George, Shashi Kant, Rajni Dahiya, Shreya Kansal, Durga G, Yamini Jhamb, Bajrangi Lal Gupta, Gautam, Harshita Yadav, Debapriya Saha, Alice Sebastian, Rashika Arora, Radhika Singh, Sritama Ray, Pratibha Kedia, Ashish Santosh Khobragade, Aloke Kumar Ghosh, Aman Tiwari, Sukti Khandekar, Shreya Gupta, Avnish Kumar, Sai Dheeraj Vayugundla Chenchu, Ajay Kumar, Yuvraj Kashyap, Nishant Singh and Rasmi Ranjan Behera. The guidance and comments provided by Dr. Poonam Gupta, Deputy Governor, are gratefully acknowledged. Peer review by Rajeev Jain, Suraj S and Abhishek Ranjan is also acknowledged. Views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

the adverse impact from global headwinds, imports surged on account of higher gold and silver imports, catering to the festive demand. To mitigate the impact of trade disruptions on exports arising on account of global headwinds, the Reserve Bank implemented various trade relief measures for exporters with immediate effect.[1] Tariff exemptions on some agricultural products by the US on November 14, 2025 will help Indian exports.[2]

Headline consumer price index (CPI) inflation declined by 1.2 percentage points in October to touch an all-time low in the current (2012=100 base year) series. The fall in inflation was driven by a decline in food prices and the GST rate cut on goods and services prices, besides favourable base effects. The deepening of deflation in CPI food in October took it to its lowest point in the current series. Core inflation (CPI excluding food and fuel) moderated marginally. However, excluding the impact of high gold and silver prices, the decline in core inflation was steeper, falling to an all-time low.

Financial conditions remained benign with system liquidity largely in surplus during the second half of October and November. The weighted average call rate – the operating target of monetary policy – was aligned with the policy repo rate. Yields on three-month commercial papers averaged around the same level. At the same time, interest rates on certificates of deposit edged up slightly while that on treasury bills moderated. In the fixed income segment, the yield curve shifted slightly upwards especially at the longer end. During April-October 2025-26, the flow of financial resources to the commercial sector increased significantly compared to the same period a year ago. Non-bank sources, primarily corporate bond issuances, credit by non-banking financial companies and foreign direct investment to India, were the key drivers, even as bank credit growth remained steady.

Indian equity markets gained in October-November amidst positive cues on India-US trade deal and healthy corporate earnings for Q2:2025-26. Primary market mobilisation also recorded a significant increase in October over the previous month. The initial public offerings (IPOs) mobilisation during April-October 2025 was markedly higher than last year, with strong participation from both FPIs and DIIs.

In the midst of continuing uncertainty on global trade policies and concerns about their domestic impact, Indian economy continues to be resilient to external sector shocks, backed by strong services exports, robust remittance receipts, and benign oil prices. Foreign exchange reserves remain adequate to cushion adverse external shocks. External debt as a proportion of GDP remains low and stable. Further, the share of short-term debt in total external debt remains low.

Set against this backdrop, the remainder of the article is structured into four sections. Section II covers the rapidly evolving developments in the global economy. Section III provides an assessment of domestic macroeconomic conditions. Section IV encapsulates financial conditions in India, while Section V presents the concluding observations.

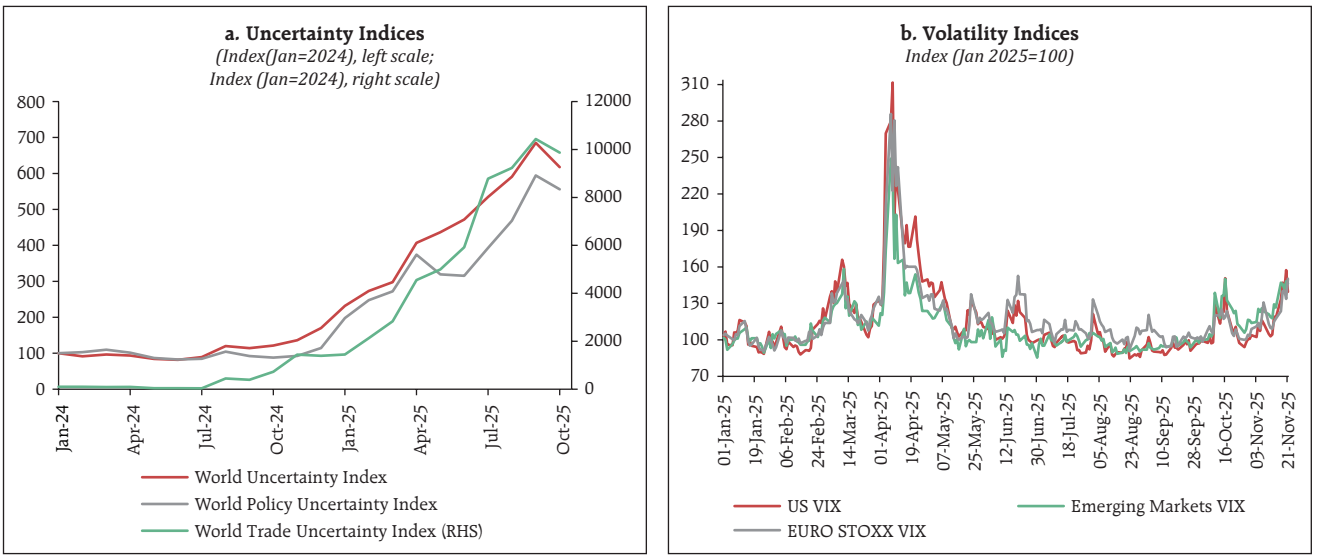
II. Global Setting

Global uncertainty remained elevated in October, although there was a slight pullback, a decline for the first time in over a year. Both world trade and policy uncertainties retreated. Financial market volatility, which had moderated in October, resurged in November due to concerns

[1] https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=61626

[2] India's exports of the exempted commodities at US$ 446.0 million accounted for about 7.6 per cent of India's total agricultural exports to the US in 2024-25.

Chart II.1: Easing World and Economic Policy Uncertainty



Sources: World Uncertainty Index database, and Bloomberg.

over stretched valuations in AI stocks (Charts II.1a and II.1b).

The global PMI composite for October indicated an expansion in business activity, supported by strong growth in services and resilient manufacturing. New export orders for both services and manufacturing contracted signalling continuing weakness in global demand (Table II.1).

Business activity, as indicated by PMI indices, expanded at a faster pace across major AEs, including the US, the UK, Japan, and Eurozone, whereas it continued to contract in France. Among major EMDEs, business activity expanded in India, China and Russia while it contracted in Brazil (Chart II.2a). Major economies continued to witness a contraction in new export orders in October, but India and Russia recorded an expansion (Chart II.2b).

Table II.1: Global PMI Composite Accelerated Further, but Export Orders Weakened

	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25
PMI composite	52.3	52.4	52.6	51.8	51.5	52.1	50.8	51.2	51.7	52.5	52.9	52.5	52.9
PMI manufacturing	49.4	50.1	49.6	50.1	50.6	50.3	49.8	49.5	50.4	49.7	50.9	50.7	50.8
PMI services	53.1	53.1	53.8	52.2	51.5	52.7	50.8	52	51.8	53.5	53.3	52.9	53.4
PMI export orders	48.9	49.3	48.7	49.6	49.7	50.1	47.5	48.0	49.1	48.5	48.9	49.7	48.5
PMI export orders: manufacturing	48.3	48.6	48.2	49.4	49.6	50.1	47.3	48.0	49.2	48.2	48.7	49.5	48.3
PMI export orders: services	50.7	51.3	50.3	50.2	50.2	50.1	48.2	47.9	48.7	49.4	49.3	50.1	49.3

50

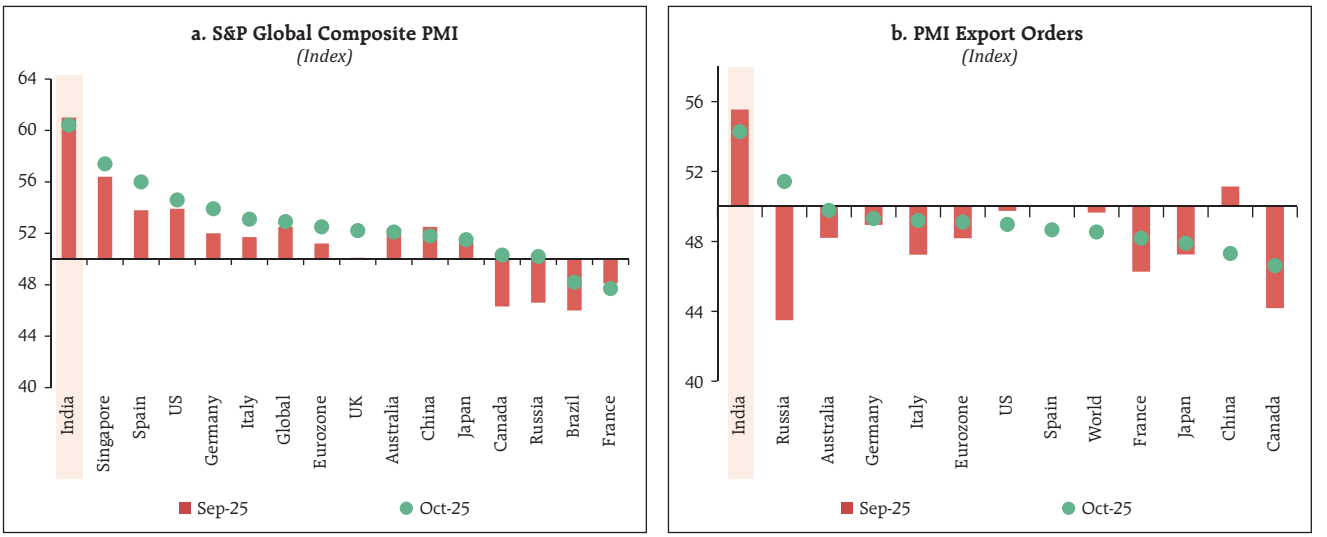
<<<<<<Contraction----------Expansion>>>>>>

Notes: 1. The Purchasing Managers' Index (PMI), a diffusion index, captures the change in each variable compared to the prior month, noting whether each has risen/improved, fallen/deteriorated or remained unchanged. A PMI value >50 denotes expansion; <50 denotes contraction; and =50 denotes 'no change'.

2. Heat map is applied on data from April 2023 till October 2025. The map is colour coded–red denotes the lowest value, yellow denotes 50 (or the no change value), and green denotes the highest value in each of the PMI series.

Source: S&P Global.

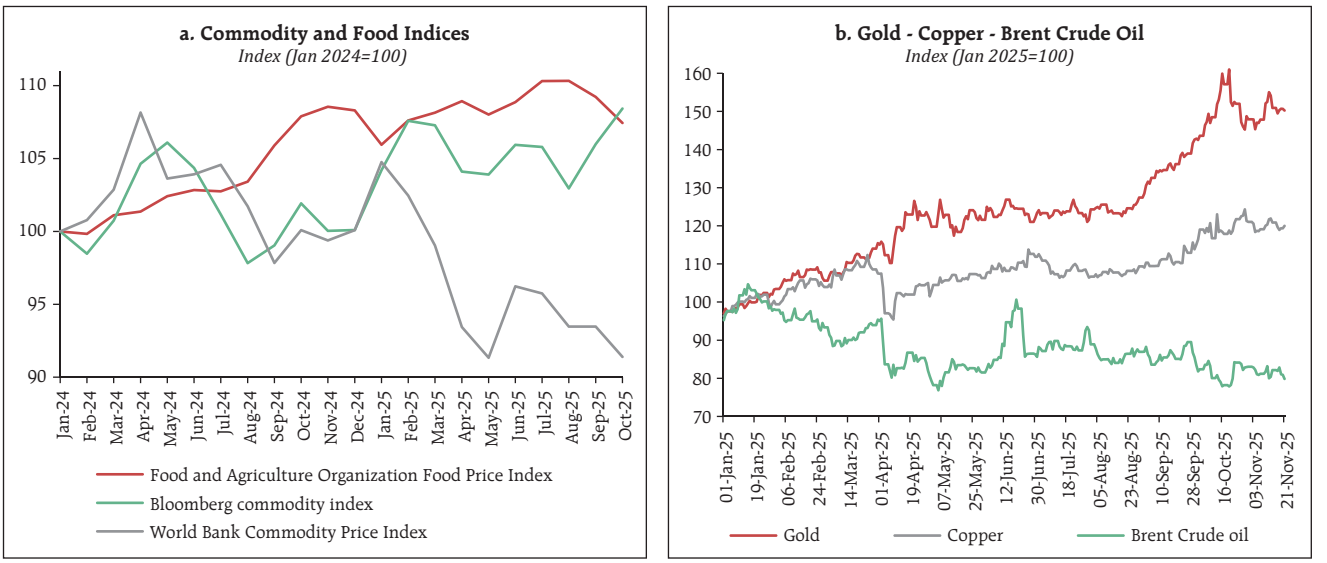
Chart II.2: Purchasing Managers' Index: Comparison across Jurisdictions



Note: A level of 50 indicates no change in activity, while a reading above 50 signals expansion and below 50 suggests contraction.
Source: S&P Global.

Global commodity prices, barring gold and silver, remained subdued. In October, the World Bank Commodity Price Index softened on lower food and crude oil prices. The Food and Agriculture Organization's benchmark for world food commodity prices eased, marking its second consecutive monthly decline, with food prices barring vegetable oils registering a decline (Chart II.3a). Crude oil prices edged up in end-October following US sanctions on Russian oil firms. Thereafter, prices stabilised in November on sluggish demand and the forecast of excess supply conditions[3]. Copper prices edged up on fears of a supply shortage in major producing countries. While gold prices strengthened in the first half of October

Chart II.3: Commodity and Food Prices



Sources: Food and Agriculture Organization; Bloomberg; and World Bank.

[3] International Energy Agency, Oil Market Report.

on safe-haven demand, it showed some decline since the latter half, in the wake of softening in safe-haven demand flowing from the US China trade truce and a strengthening US dollar. However, gold prices exhibited bi-directional movements in November on varying expectations of a Fed rate cut in December (Charts II.3a and II.3b).

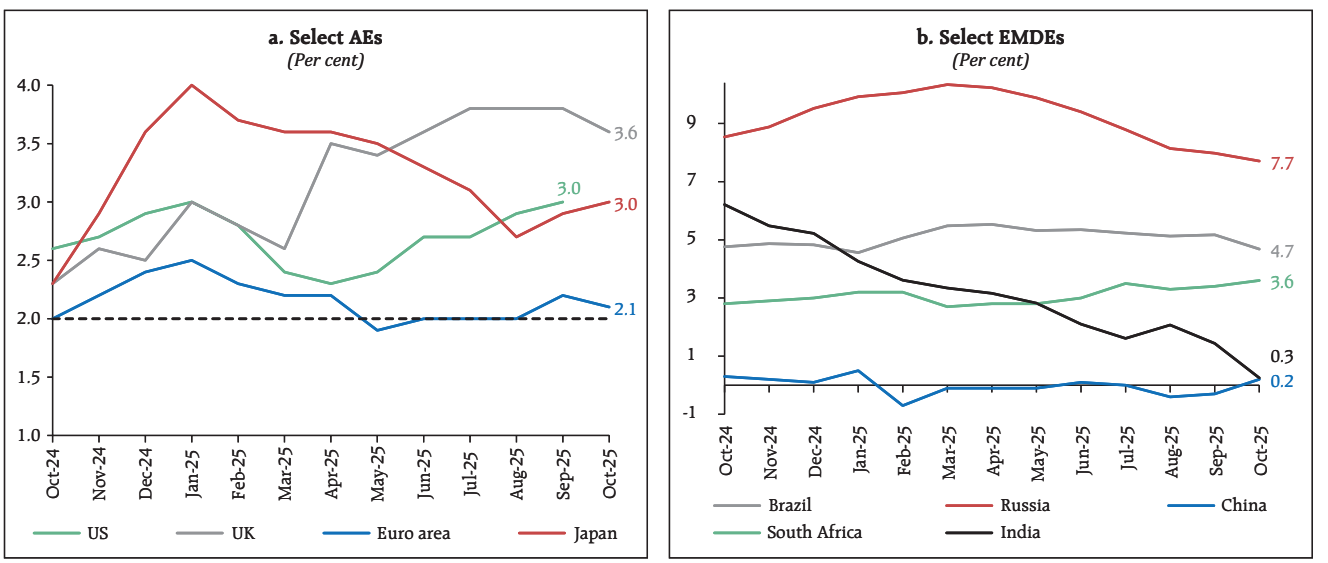
Headline inflation eased in October across most AEs and EMDEs. However, it remains elevated in AEs amidst persistent services inflation. In the Euro area, headline inflation eased slightly in October and continued to hover around the ECB's target. Inflation in the UK eased for the first time in five months (Chart II.4a). Among major EMDEs, inflation in Brazil declined to its lowest level since January while it continued to moderate in Russia. Deflationary pressures in China eased with inflation turning positive reversing a two-month decline (Chart II.4b).

Equity markets in major economies rallied in October. In the US, renewed investor confidence stemming from a temporary let-up in trade tension with China, strong corporate earnings, the AI-driven rally, and the Federal Reserve's rate cut boosted market exuberance, lifting valuations up. European equities also strengthened on the back of strong corporate earnings. Japan's equity market reached record highs as investors anticipated expansionary fiscal and monetary policies under the newly elected prime minister. China's markets also gained as easing trade tensions improved sentiment. In November, concerns on stretched valuations have triggered some correction in equity markets (Chart II.5a).

In bond markets, US Treasury yields declined until the third week of October on safe-haven demand, a prolonged government shutdown, and Fed rate cut expectations. Yields, however, edged higher from the end of October on Fed Chair's comments tempering further rate cut expectations. The JP Morgan Emerging Markets Bond Index (EMBI) spread narrowed in October, reflecting reduced risk-off pressures and lower risk premia amid improving emerging market fundamentals and easing trade tensions (Chart II.5b).

The US dollar broadly strengthened till early November on increased safe-haven demand amidst

Chart II.4: Inflation Remains Elevated in AEs and Divergent across Economies

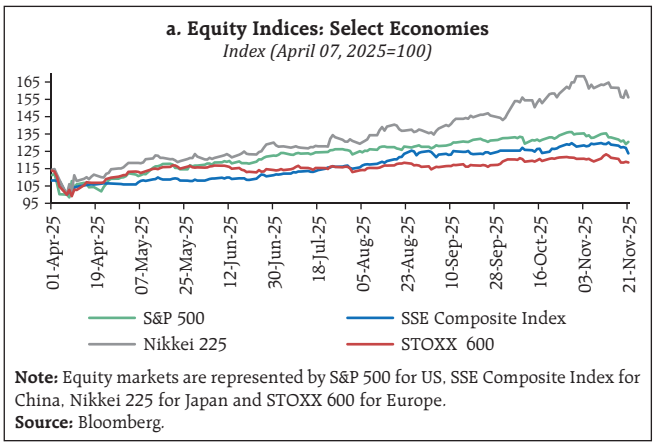


Source: Bloomberg.

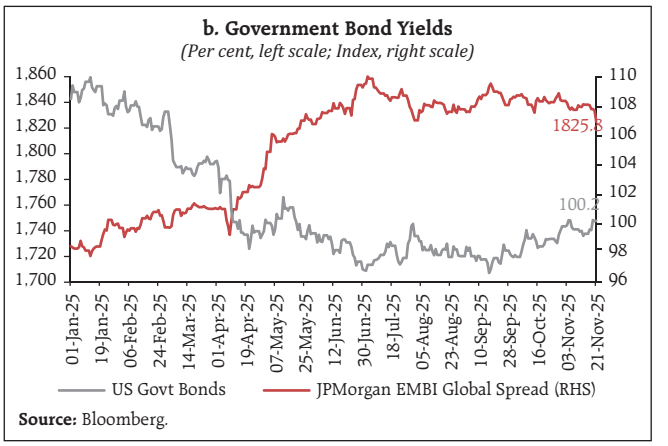
the US government shutdown, and lower expectations of Fed rate cut in the December meeting. However, it fell thereafter as markets awaited official data releases post US government reopening. Emerging market currencies remained volatile, in tune with developments in US-China trade negotiations and varying expectations regarding Fed monetary policy (Chart II.5c). Even as debt flows moderated, portfolio flows to major emerging markets improved in October driven by a surge in equity flows on strong macroeconomic fundamentals and elevated expectations of US rate cut (Chart II.5d).

Central bank monetary policy rate actions across AEs and EMDEs presented a mixed picture in October, conditional on the evolving domestic growth inflation balance.[4] In November so far, most of the central banks surveyed held their key policy rates. Among AEs, while the US, Canada, and New Zealand reduced benchmark rates in October due to concerns about a weakening labour market, the European Central Bank, the Bank of Japan, and the Bank of Korea held benchmark interest rates steady, adopting a cautious, data-driven approach amidst ongoing external challenges. Amongst the EMDEs, Philippines, Saudi Arabia and Russia cut their policy rates citing a combination of inflation and deteriorating growth outlook. China, Thailand and Indonesia held the benchmark rates steady, adopting a cautious approach to monitor the impact

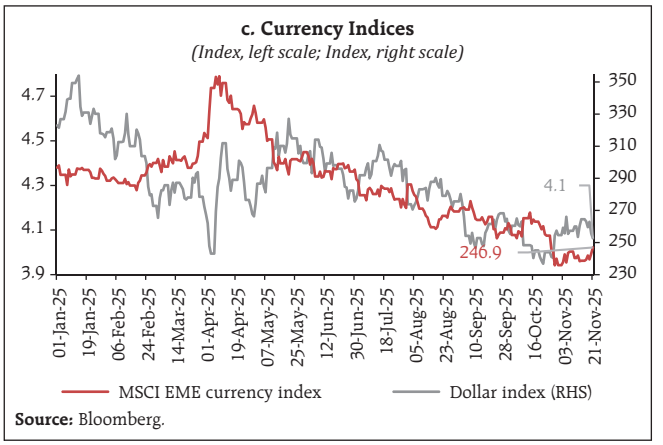
Chart II.5: Global Financial Markets



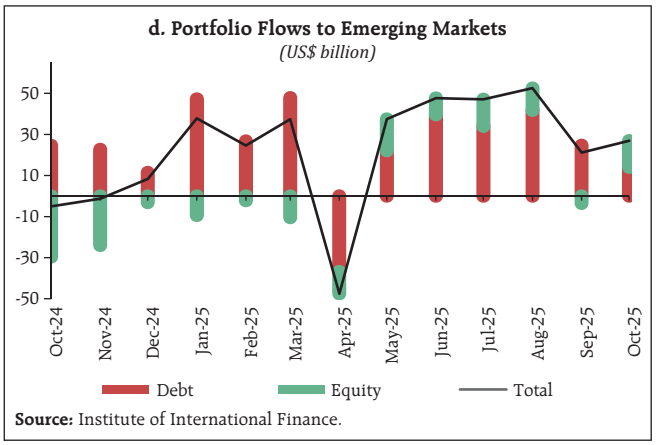
Note: Equity markets are represented by S&P 500 for US, SSE Composite Index for China, Nikkei 225 for Japan and STOXX 600 for Europe.
Source: Bloomberg.



Source: Bloomberg.



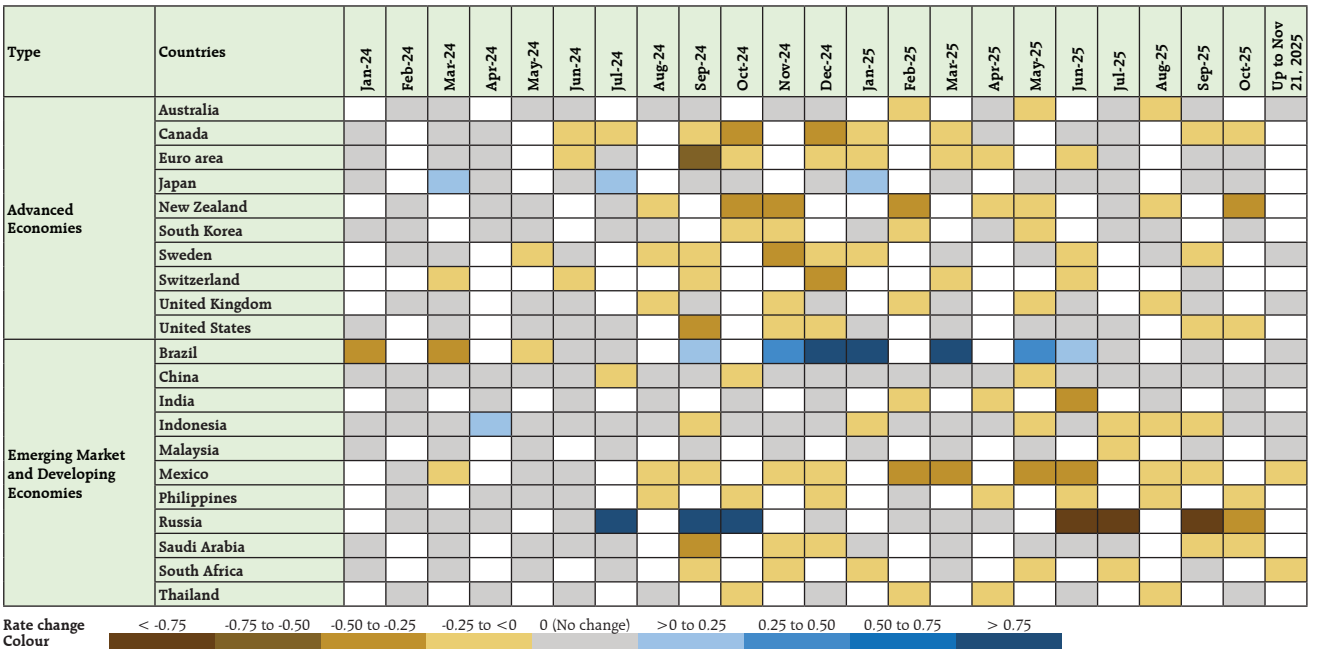
Source: Bloomberg.



Source: Institute of International Finance.

[4] Out of the 21 central banks monitored, 18 held the monetary policy meetings in October and November so far. Roughly 60 per cent held the rates unchanged, while others opted for rate cuts, assessing the latest domestic growth and inflation figures.

Chart II.6: Central Banks Opted for *Status Quo* in November



Note: White-coloured blocks indicate an off-policy month.
Source: Bloomberg.

of previous rate cuts amidst significant downside risks to growth. In November so far, the UK, Sweden and Australia from the AEs and Brazil, Indonesia and China from the EMDEs kept the interest rates steady. Malaysia kept the policy rate unchanged over steady economic growth. Central banks of Mexico and South Africa, however, cut rates on growth concerns (Chart II.6).

III. Domestic Developments

The Indian economy showed signs of a further pick up in momentum, despite continuing global headwinds. Quarterly results of listed private companies in manufacturing and services show an uptick in sales growth. Available high-frequency indicators for October suggest a robust expansion in both manufacturing and services activities, supported by festive season demand and the ongoing positive impact of the Goods and Services Tax (GST) reforms. Inflation has moderated to a historic low and remained well below the target rate.

Aggregate Demand

The high-frequency indicators of overall economic activity remained robust in October, supported by Goods and Services Tax (GST) rate reductions and a pickup in festive spending. Despite a reduction in rates, GST collections registered a positive growth, *albeit* at a slower pace than the previous month. Digital payments registered a moderation in growth, in both volume and value, during October 2025 (Table III.1). Recent data on digital transactions also indicate a rising adoption and usage of digital payments across regions and merchant categories, including groceries and supermarkets, and gold purchases.[5] Electricity

[5] Six of the seven north-eastern states recorded the highest growth in UPI payment volumes in October 2025, reflecting the deepening penetration of digital payments across the nation. The increasing volume of transactions within the UPI Person-to-Merchant (P2M) category, reflects a robust growth in adoption of UPI for everyday payments. Within the UPI Person-to-Merchant (P2M) category, the volume of transactions under the 'groceries and supermarkets' and online marketplaces segment grew by close to 40 and 60 cent (y-o-y) in October 2025, respectively. Notably, digital gold purchases have featured among the top 20 merchant categories under UPI P2M over the past six months, indicating evolving consumer preferences in modes of buying gold (Source: Unified Payments Interface Ecosystem Statistics, NPCI and authors' calculations. Retrieved on November 4, 2025, from https://www.npci.org.in/product/ecosystem-statistics/upi).

Table III.1: High Frequency Indicators – Robust Economic Activity

Indicator	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25
GST E-way bills	16.9	16.3	17.6	23.1	14.7	20.2	23.4	18.9	19.3	25.8	22.4	21.0	8.2
GST revenue	8.9	8.5	7.3	12.3	9.1	9.9	12.6	16.4	6.2	7.5	6.5	9.1	4.6
Toll Collection	7.9	11.9	9.8	14.8	18.7	11.9	16.6	16.4	15.5	14.8	12.7	4.5	4.6
Electricity demand	-0.4	3.7	5.1	1.3	2.4	5.7	2.8	-4.8	-2.3	2.6	3.8	3.4	-5.6
Petroleum consumption	4.1	10.6	2.0	3.0	-5.2	-3.1	0.2	1.1	0.5	-4.4	4.8	7.6	-0.4
Of which Petrol	8.7	9.6	11.1	6.7	5.0	5.7	5.0	9.2	6.8	5.9	5.5	8.0	7.4
Diesel	0.1	8.5	5.9	4.2	-1.3	0.9	4.2	2.1	1.5	2.4	1.2	6.6	-0.3
Aviation Turbine Fuel	9.4	8.5	8.7	9.4	4.2	5.7	3.9	4.4	3.3	-2.3	-2.9	-0.8	2.1
Digital Payments - volume	40.3	30.1	33.1	33.0	26.7	30.8	30.0	29.2	28.3	30.9	31.1	28.1	19.0
Digital Payments - value	27.5	9.5	19.6	18.6	9.5	17.3	18.4	12.6	17.4	16.6	5.3	13.4	9.1

<<Contraction ---------- Expansion>>

Notes: 1. The y-o-y growth (in per cent) has been calculated for all indicators.
2. The heatmap is applied to data from April 2023 to October 2025. Digital Payments data for October 2025 is provisional.
3. The heatmap translates the data range for each indicator into a colour gradient scheme with red denoting the lowest values and green corresponding to the highest values of the respective data series.

Sources: Goods and Services Tax Network (GSTN); RBI; Central Electricity Authority (CEA); and Ministry of Petroleum and Natural Gas, GoI.

demand declined due to unseasonal rainfall and the early onset of the winter season. Fuel demand presented a mixed picture, with petrol consumption rising due to increased mobility and travel during the festive season, while diesel consumption showed a marginal decline.[6]

During October, overall demand conditions showed signs of improvement. Rural demand steered overall demand, supported by favourable monsoon conditions, strong agricultural activity, GST rate reductions, and increased festive season spending. Rural demand for two-wheelers and automobiles registered a sharp pick up, as sales recorded the highest growth rate for both series. Urban demand also gained momentum, with passenger vehicle sales recording their highest growth in the past nine months (Table III.2). Vehicle registrations recorded strong growth across all major segments compared

Table III.2: High Frequency Indicators- Revival of Urban Demand

	Indicator	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25
Urban demand	Domestic air passenger traffic	9.6	13.8	10.8	14.1	12.1	9.9	9.7	2.6	3.7	-2.5	-0.5	-2.5	2.8
	Retail Passenger vehicle sales	32.4	-13.7	-2.0	15.5	-10.3	6.3	1.6	-3.1	2.5	-0.8	0.9	5.8	11.4
Rural demand	Retail Automobile Sales	32.1	11.2	-12.5	6.6	-7.2	-0.7	2.9	5.4	4.8	-4.3	2.8	5.2	40.5
	Retail Tractor sales	3.1	29.9	25.8	5.2	-14.5	-5.7	7.6	2.8	8.7	11.0	30.1	3.6	14.2
	Retail Two-wheeler sales	36.3	15.8	-17.6	4.2	-6.3	-1.8	2.3	7.3	4.7	-6.5	2.2	6.5	51.8

<<Contraction ---------- Expansion>>

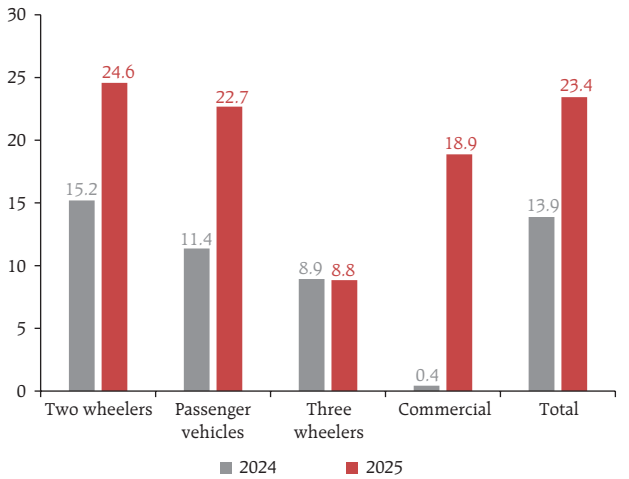
Notes: 1. The y-o-y growth (in per cent) has been calculated for all indicators.
2. The heatmap is applied to data from April 2023 to October 2025.
3. The heatmap translates the data range for each indicator into a colour gradient scheme with red denoting the lowest values and green corresponding to the highest values of the respective data series.
4. The data on domestic air passenger traffic for October 2025 growth rate is calculated by aggregating daily data.

Sources: Airports Authority of India; Federation of Automobile Dealers Associations (FADA); and Ministry of Rural Development, GoI.

[6] Petrol consumption increased to 3.6 million tonnes in October 2025 (five-month high) as compared to 3.4 million tonnes in October 2024.

Chart III.1: Surge in Automobile Registrations

(Growth in per cent)



Note: Growth in registration calculated for 45 day festive period beginning with the first day of Navratri, *i.e.*, (September 22 – November 5) in 2025; 2024: October 2 - November 15 in 2024; October 15 – November 28 in 2023.
Source: Vahan dashboard, Ministry of Road Transport & Highways (MoRTH).

with the corresponding festive period last year[7], reflecting strong consumer sentiment and the positive impact of GST rate cuts (Chart III.1).

As per the Quarterly Bulletin of the Periodic Labour Force Survey (released on November 10, 2025), all India unemployment rate (among persons of age 15 years and above) declined to 5.2 per cent in Q2 from 5.4 per cent in Q1 with divergent trends across rural and urban areas. The unemployment rate in rural areas declined while that in urban areas increased slightly[8]. In October, based on the Monthly Bulletin, the all-India unemployment rate remained unchanged at 5.2 per cent, with a marginal decline in rural areas, while the urban unemployment rate increased. Labour force participation rate and worker population ratio increased to their highest level since May, driven by gains in rural areas. The PMI employment indices for both manufacturing and services remained within the expansionary zone. The Naukri JobSpeak Index experienced contraction in October, reflecting subdued momentum in white-collar hiring activity, partly due to the clustering of major festive holidays in the month. Meanwhile, the continuation of contraction in work demand under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) suggests improving rural labour market conditions (Table III.3).

Table III.3: Robustness in High Frequency Indicators for Employment

Indicator	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25
Unemployment rate (PLFS: All-India)							5.1	5.6	5.6	5.2	5.1	5.2	5.2
Unemployment rate (PLFS: Rural)							4.5	5.1	4.9	4.4	4.3	4.6	4.4
Unemployment rate (PLFS:Urban)							6.5	6.9	7.1	7.2	6.7	6.8	7.0
Naukri JobSpeak Index	10.0	2.0	8.7	3.9	4.0	-1.5	8.9	0.3	10.5	6.8	3.4	10.1	-9.3
PMI Employment: Manufacturing	53.3	52.9	53.4	54.8	54.5	53.4	54.2	54.9	55.1	53.3	53.1	52.1	52.4
PMI Employment: Services	54.3	56.6	55.5	56.3	56.2	52.5	53.9	57.1	55.1	51.4	52.2	51.9	51.4
MGNREGA: Work Demand	-7.6	3.9	8.2	14.4	2.8	2.2	-6.5	4.4	4.4	-12.3	-26.2	-27.1	-35.1

<<Contraction ---------- Expansion>>

Notes: 1. All PLFS indicators are in the current weekly status and for people aged 15 years and above.
2. The y-o-y growth (in per cent) has been calculated for the Naukri index.
3. The heatmap is applied to data from April 2023 to October 2025.
4. The heatmap translates the data range for each indicator into a colour gradient scheme with red denoting the lowest values and green corresponding to the highest values of the respective data series.
5. All PMI values are reported in index form. A PMI value >50 denotes expansion, <50 denotes contraction and =50 denotes 'no change'. In the PMI heatmaps, red denotes the lowest value, yellow denotes 50 (or the no change value), and green denotes the highest value in each of the PMI series.

Sources: Ministry of Statistics and Program Implementation (MoSPI), GoI; Info Edge; and S&P Global.

[7] The period from September 22 to November 5 has been considered to capture the entire festive season (45 days), beginning with the implementation of GST 2.0 on September 22 - which coincided with the first day of Navratri - and extending through the post-Diwali period. For comparability, the corresponding festive periods in previous years have been taken as October 2 – November 15, 2024, and October 15 – November 28, 2023.

[8] Further, labour force participation rate in Q2: 2025-26 recorded a modest uptick in both rural and urban areas and worker population ratio rose marginally driven by increased participation of women, particularly in rural areas.

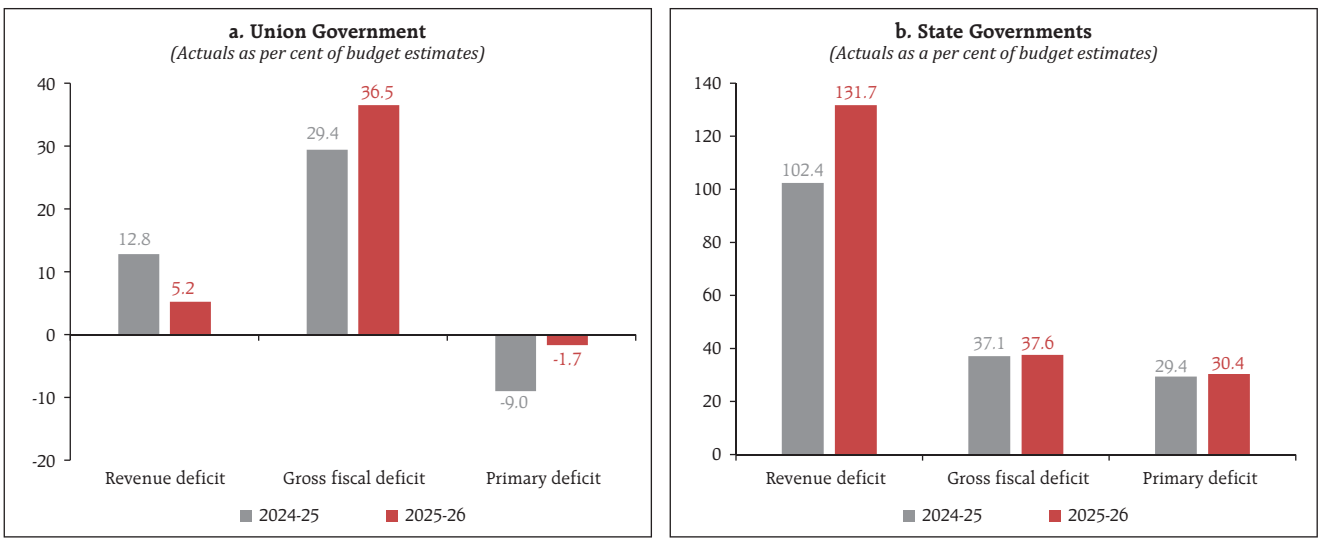
During H1:2025-26 (April-September 2025), the gross fiscal deficit (GFD) of the union government was higher than the corresponding period of the previous year (Chart III.2).[9] This was due to higher growth of capital expenditure[10] accompanied by a contraction in the net tax receipts[11]. The growth in revenue expenditure, on the other hand, decelerated[12]. The decline in net tax receipts reflected a deceleration in growth for both direct and indirect taxes[13]. The slowdown in net tax collections during the period was partially offset by robust growth in non-tax revenue and non-debt capital receipts.

The key deficit indicators of states during H1:2025-26 were higher than last year (Chart III.2b). This was largely on account of subdued revenue growth. While the collection of state goods and services tax and sales tax/VAT moderated, state excise and non-tax revenue registered robust growth. There was also a contraction in grants-in-aid from the centre. On the expenditure front, revenue expenditure growth was moderate, while capital expenditure rebounded sharply.

During the year so far (April-October), the merchandise trade deficit was higher than last year, primarily driven by the gold as well as the non-oil non-gold deficit. India's merchandise exports witnessed a marginal expansion supported by electronic goods, even as imports surged.[14]

In October, the merchandise trade deficit widened to an all-time high[15] in (Chart III.3a)[16]. While exports

Chart III.2: Deficit Indicators Higher than Previous Year (April-September)



Note: Negative primary deficit numbers, as per cent of budget estimates, in Chart 1a indicate primary surplus. In Chart b, data pertains to 23 States/UTs.
Sources: Controller General of Accounts; Comptroller and Auditor General of India; and Union Budget Documents.

9 As per the latest data released by the Controller General of Accounts (CGA).

10 The growth in capital expenditure remained robust at 40.0 per cent and attained 51.8 per cent of its budgeted target for 2025-26 during the first half of the year.

11 Net tax collections registered contraction as the increase in gross tax revenue during the period was more than offset by devolution of tax from Centre to the States.

12 The revenue expenditure recorded a moderate growth of 1.5 per cent during H1:2025-26. The interest payments grew by 12.3 per cent, while the spending on major subsidies contracted by 5.7 per cent during the same period.

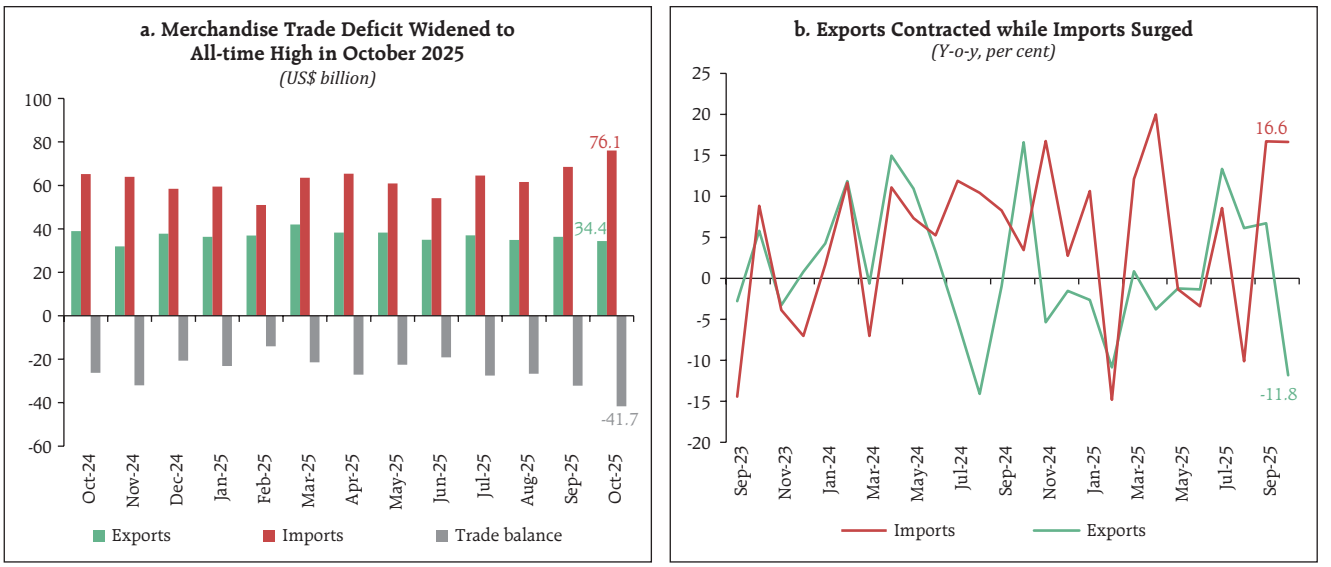
13 The direct and indirect tax growth decelerated from 14.8 per cent and 8.4 per cent in H1:2024-25 to 3.0 per cent and 2.6 per cent in H1: 2025-26, respectively. Within major indirect taxes, only union excise duty registered an acceleration in growth.

14 Electronic goods exports at US$26.3 billion have posted a robust growth of 37.8 per cent (y-o-y) during 2025-26 (April-October)

15 US$41.7 billion in October 2025 from US$26.2 billion in October 2024.

16 The non-oil deficit increased to US$30.8 billion in October 2025, as compared to US$11.8 billion a year ago due to a rise in gold deficit. The share of non-oil deficit in total deficit increased to 74.0 per cent in October 2025 from 44.8 per cent a year ago.

Chart III.3: India's Merchandise Trade



Sources: PIB; and DGCI&S.

contracted after remaining in expansion for three months, reflecting the adverse impact from global headwinds, imports surged on account of higher gold and silver imports catering to the festive demand (Chart III.3b)[17].

Net services exports growth accelerated in September[18] with services exports growing faster and imports emerging out of contraction[19]. Services exports were driven by business services and software services exports (Chart III.4).

Aggregate Supply

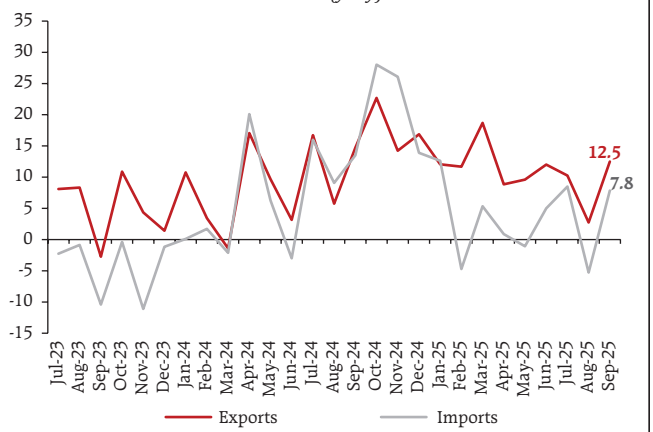
Agriculture

The final estimates for agricultural production in 2024–25 indicate a record output of foodgrains, led by higher production of rice, wheat, maize and *moong*. Oilseeds output also increased, supported by gains in groundnut and soybean.[20]

Excess rainfall conditions were witnessed in the post-monsoon period this year owing to

Chart III.4: Trend in Services Exports and Imports

Per cent (y-o-y)



Source: RBI.

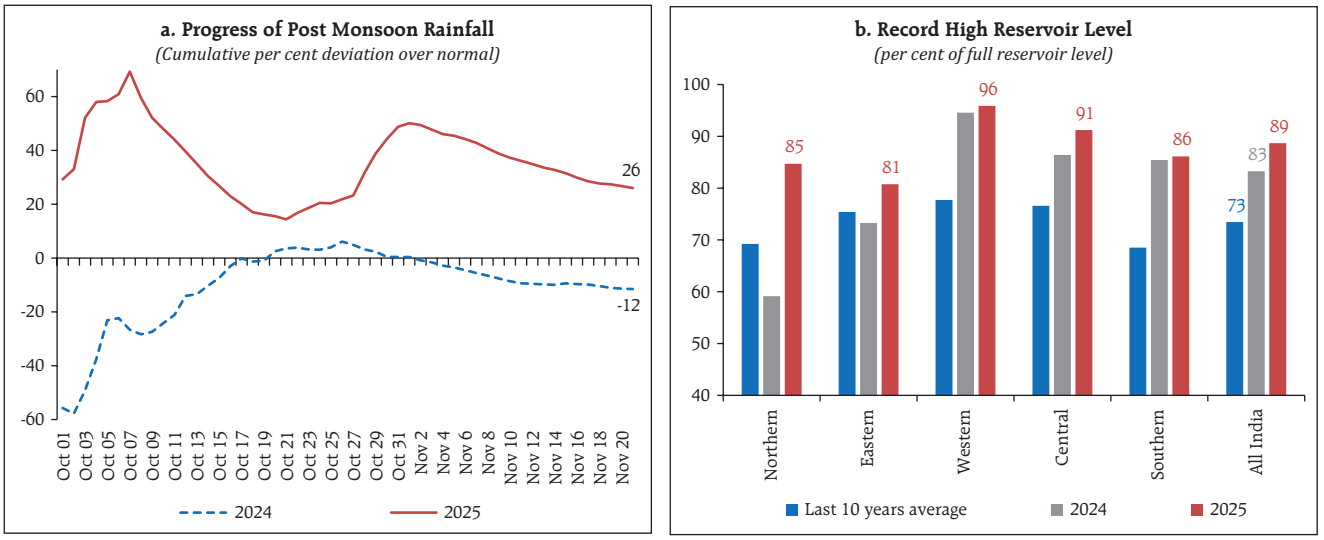
[17] Merchandise exports stood at US$34.4 billion in October 2025 [decline of 11.8 per cent (y-o-y)]. Key segments such as engineering goods, gems and jewellery; chemicals, petroleum products and plastic and linoleum drove the contraction, while electronic goods; meat, dairy and poultry products; marine products, cashew and coffee performed well. Exports to 17 out of top 20 countries contracted, with exports to destinations such as China and Hong Kong growing, while contracting to the US, the UAE and the Netherlands. Merchandise imports stood at US$76.1 billion in October 2025 [growth of 16.6 per cent (y-o-y)]. Gold, silver, electronic goods, fertilisers, crude and manufactured; and machinery, electrical and non-electrical were the major drivers contributing to the increase in import growth during the month. Petroleum, crude and products, iron and steel; pearls, precious and semi-precious; coal, coke and briquettes; and pulses dragged imports down.

[18] Net services exports growth accelerated to 17.3 per cent (y-o-y), reaching US$ 18.8 billion.

[19] Services imports registered annual growth of 7.8 per cent in September, primarily due to a rise in software services and business services imports.

[20] Final estimates were at 357.7 million tonnes, which was 7.7 per cent higher than last year. Oilseeds production grew by 8.4 per cent driven by record production of groundnut and soybean.

Chart III.5: Reservoir Level Surged with Excess Post Monsoon Rainfall

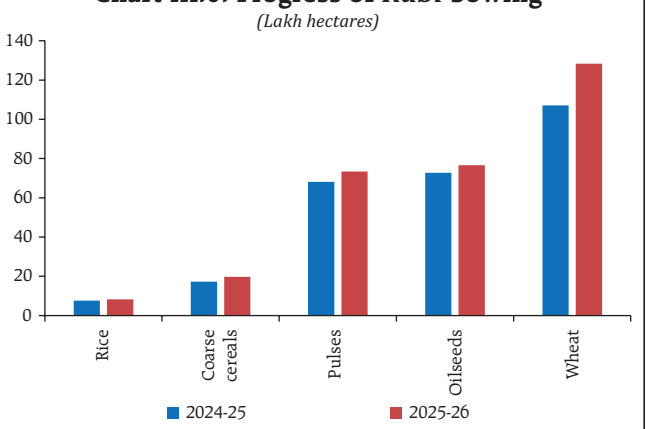


Note: Reservoir levels as on November 20, 2025.
Sources: India Meteorological Department; and Central Water Commission.

cyclone *Montha* and depression in the Arabian sea, which is in sharp contrast to the shortfall witnessed last year (Chart III.5a). Consequently, the average storage level in major reservoirs in the country has reached a historic high compared to the corresponding period in the previous years, which augurs well for the ongoing *rabi* season sowing (Chart III.5b).[21]

Rabi season sowing is progressing well across crops with wheat, rice, pulses, oilseeds and coarse cereals recording higher sowing so far (Chart III.6).[22]

Chart III.6: Progress of *Rabi* Sowing



Note: Data is as on November 21.
Source: Ministry of Agriculture and Farmers' Welfare.

Aided by higher production and lower market price, procurement of rice during the *kharif* marketing year 2025-26 so far (September 10 to November 21, 2025) has surpassed last year's level.[23] Consequently, the stock of rice with the Food Corporation of India has reached its highest level in recent years.[24] The stock of wheat also remains comfortable at 1.5 times the buffer requirement (Chart III.7).

Industry and Services

Quarterly results of listed non-government non-financial[25] companies for Q2:2025-26 show an uptick.[26] Sales growth of listed private manufacturing companies inched up despite a

[21] As on November 20, 2025, the average storage level in 161 major reservoirs in the country has reached 89 per cent of its full capacity.

[22] With *rabi* sowing at 306.3 lakh hectares, around 48 per cent of normal area has been covered so far. As on November 21, 2025, sowing is 12.3 per cent higher than the corresponding date last year.

[23] Procurement of rice during the *kharif* marketing year 2025-26 so far (September 10 to November 21, 2025) has been 12.6 per cent higher than the corresponding period last year.

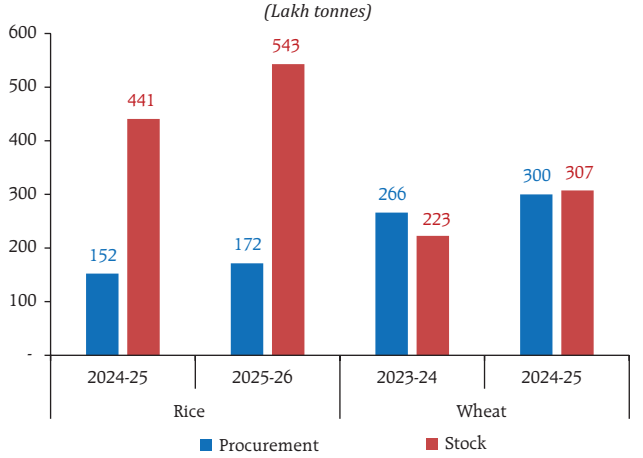
[24] As on November 01, 2025, the stock of rice is 5.3 times the buffer requirement.

[25] Based on 3,118 listed non-government non-financial companies.

[26] Aggregate sales growth increased to 8 per cent (y-o-y) during Q2:2025-26 from 5.5 per cent in the previous quarter.

Chart III.7: Procurement and Stock of Rice and Wheat

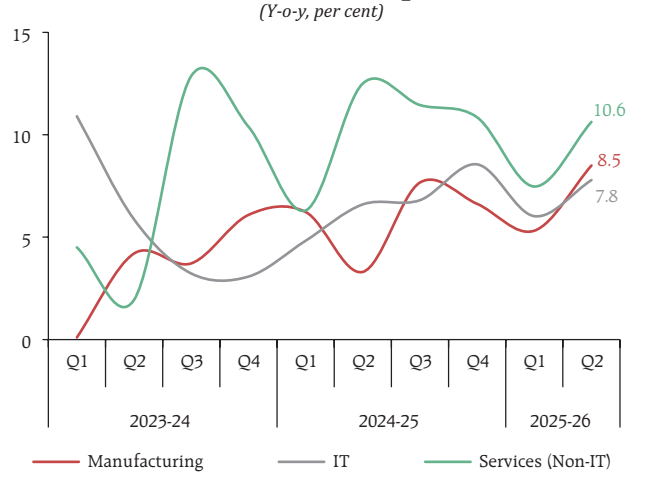
(Lakh tonnes)



Notes: 1. Rice procurement from September 10 to November 21 and wheat procurement from April to June.
2. Stock as on November 01.
Source: Food Corporation of India.

Chart III.8: Sales Growth - Listed Private Non-Financial Companies

(Y-o-y, per cent)



Note: Data is based on results of 3,118 listed non-government non-financial companies (1,775 manufacturing, 201 IT, and 890 non-IT services).
Sources: Capitaline database; and RBI staff calculations.

contraction in the petroleum industry.[27] Sales growth of IT companies and non-IT services companies also inched up (Chart III.8).

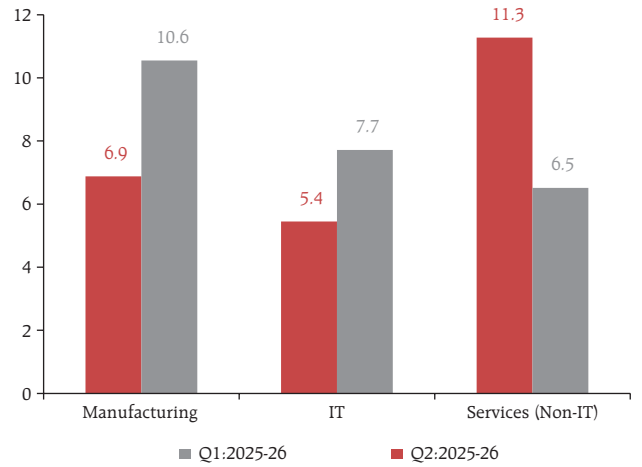
Operating profit and operating profit margin of manufacturing companies have risen on a year-on-year basis during Q2:2025-26. However, operating profit margin moderated from the previous quarter. Within the services sector, operating profit and operating profit margin of IT companies expanded sequentially, aided by cost rationalisation, but they moderated for non-IT services companies (Chart III.9).

During Q2:2025-26, revenue growth for listed Indian banking and financial sector companies

Chart III.9: Profitability of Listed Private Non-Financial Companies

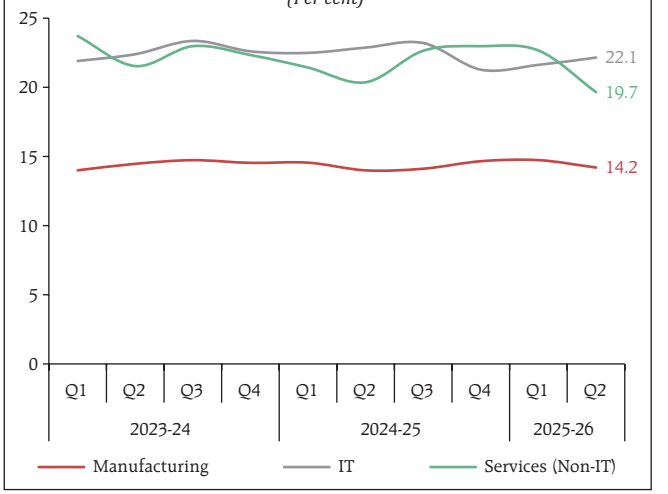
a. Operating Profit Growth

(Per cent, y-o-y)



b: Operating Profit Margin

(Per cent)



Note: Data is based on results of 3,118 listed non-government non-financial companies (1,775 manufacturing, 201 IT, and 890 non-IT services).
Sources: Capitaline database; and RBI staff calculations.

[27] Sales growth of listed private manufacturing companies improved to 8.5 per cent (y-o-y) during Q2:2025-26 from 5.3 per cent in the previous quarter. Excluding petroleum, sales growth stood at 10 per cent during Q2:2025-26

moderated, while net profit growth increased (Chart III.10).

On the investment front, the total cost of capex projects sanctioned by banks and financial institutions (FIs) during Q2:2025-26 surged over the previous quarter pointing to improved investment optimism among private corporates. Power, construction, roads and bridges constituted the majority of the intended investment. Funds raised for capex through external commercial borrowings (ECBs) and initial public offerings (IPOs) also increased compared to the preceding quarter (Chart III.11).

Monthly Indicators of Industrial Activity

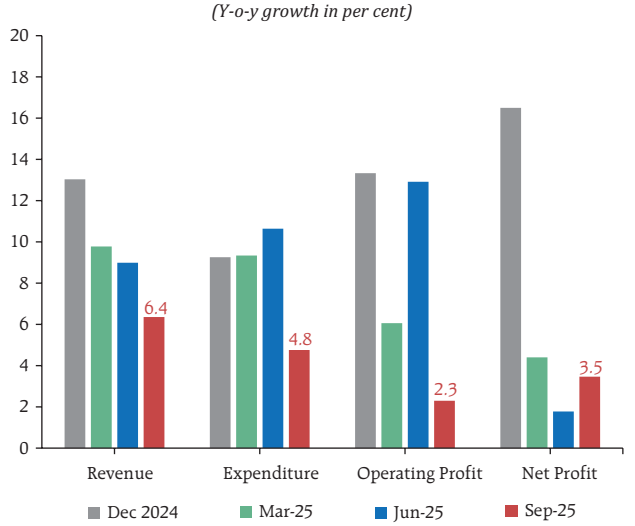
In September, growth in industrial activity, as measured by the year-on-year change in the Index of Industrial Production (IIP), was more or less steady. While electricity continued to expand, mining activity contracted after strong growth in the previous month. Growth in manufacturing activity picked up. Infrastructure/construction goods and consumer durables were the best performers with double-digit growth. In October, the combined index of eight core industries remained unchanged, as growth in steel, cement, fertilisers and refinery products was offset by contractions in coal, electricity, natural gas and crude oil.

The available high-frequency indicators for October point to sustained strength in manufacturing activity. The manufacturing Purchasing Managers' Index (PMI) accelerated during the month, supported by a sharp expansion in output and new orders, underpinned by resilient domestic demand and the continued positive effects of Goods and Services Tax (GST) reforms. Steel output grew strongly, reflecting continued momentum in infrastructure and construction activity. Automobile production showed mixed signals as passenger vehicle segment and three wheelers recorded robust growth while production of two-wheeler declined (Table III.4).

Green energy loans are gaining traction in India as bank credit to the renewable energy sector showed a triple digit growth in September (y-o-y) driven by consistent policy support as well as growing investor and consumer demand (Chart III.12). According to

Chart III.10: Performance of Listed Financial Companies

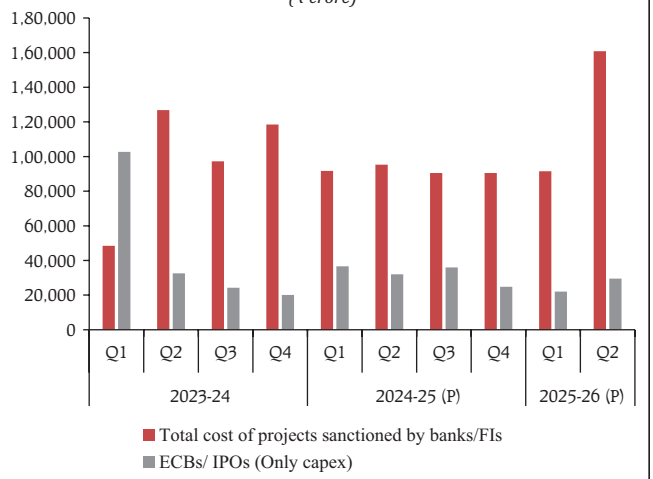
(Y-o-y growth in per cent)



Sources: CMIE prowess; and RBI staff estimates.

Chart III.11: Private Corporates' Investment Intentions

(₹ crore)



Note: Data for 2024-25 and 2025-26 are provisional.
Sources: Data on project finance gathered from banks/FIs by RBI; and RBI staff estimates.

Table III.4: High Frequency Indicators for Industry Showed Robust Growth

Indicator	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25
IIP-Headline	3.7	5.0	3.7	5.2	2.7	3.9	2.6	1.9	1.5	4.3	4.1	4.0	
IIP Manufacturing	4.4	5.5	3.7	5.8	2.8	4.0	3.1	3.2	3.7	6.0	3.8	4.8	
IIP capital goods	2.9	8.9	10.5	10.2	8.2	3.6	14.0	13.3	3.0	6.8	4.5	4.7	
PMI Manufacturing	57.5	56.5	56.4	57.7	56.3	58.1	58.2	57.6	58.4	59.1	59.3	57.7	59.2
PMI Export Order	53.6	54.6	54.7	58.6	56.3	54.9	57.6	56.9	60.6	57.3	56.1	56.5	54.7
PMI Manufacturing: Future Output	62.1	65.5	62.5	65.1	64.9	64.4	64.6	63.1	62.2	57.6	60.5	64.8	62.3
Eight Core Index	3.8	5.8	5.1	5.1	3.4	4.5	1.0	1.2	2.2	3.7	6.5	3.3	0.0
Electricity generation: Conventional	0.5	2.7	4.5	-1.3	2.4	4.8	-1.8	-8.2	-6.1	-0.8	1.0	0.8	-10.8
Electricity generation: Renewable	14.9	19.0	17.9	31.9	12.2	25.2	28.0	18.2	28.7	26.4	22.7	16.4	
Automobile Production	10.0	8.0	1.3	9.4	2.3	6.5	-1.7	5.2	1.2	10.7	8.1	10.8	-2.8
Passenger vehicle production	-4.0	6.5	9.2	3.7	4.5	11.2	10.8	5.4	-1.8	0.1	-4.1	16.1	9.8
Tractor production	0.4	24.7	20.9	23.7	-7.8	18.5	20.5	9.1	9.8	11.5	9.4	23.0	13.0
Two-wheelers production	13.3	8.8	-0.6	10.3	1.6	5.6	-4.1	4.7	1.4	12.3	10.0	9.8	-5.6
Three-wheelers production	-6.7	-5.5	7.6	16.2	6.5	6.0	4.1	16.9	8.6	24.0	15.8	15.9	15.9
Crude steel production	4.2	4.5	8.3	7.4	6.0	8.5	9.3	11.0	12.6	13.8	12.8	13.2	9.4
Finished steel production	4.0	2.8	5.3	6.7	6.7	10.0	6.6	7.0	10.9	13.8	13.8	13.8	10.0
Import of capital goods	7.0	4.8	6.1	15.5	-0.5	8.6	24.6	15.7	3.4	12.0	-1.4	10.1	8.7

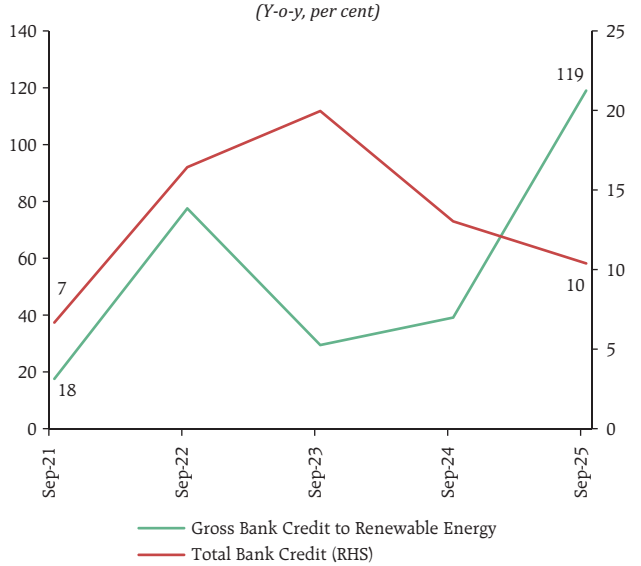
<<Contraction ---------- Expansion>>

Notes: 1. The y-o-y growth (in per cent) has been calculated for all indicators (except for PMI).
2. The heatmap translates the data range for each indicator into a colour gradient scheme with red denoting the lowest values and green corresponding to the highest values of the respective data series.
3. The heatmap is applied on data from April 2023 till October 2025, other than for the IIP and electricity generation: renewable, where the data are till September 2025.
4. All PMI values are reported in index form. A PMI value >50 denotes expansion, <50 denotes contraction and =50 denotes 'no change'. In the PMI heatmaps, red denotes the lowest value, yellow denotes 50 (or the no change value), and green denotes the highest value in each of the PMI series.

Sources: Ministry of Statistics and Programme Implementation (MoSPI); S&P Global; Central Electricity Authority (CEA), Ministry of Power; Society of Indian Automobile Manufacturers (SIAM); Office of Economic Adviser, GoI; Joint Plant Committee; Directorate General of Commercial Intelligence & Statistics; and Tractor and Mechanisation Association.

Chart III.12: Deployment of Gross Bank Credit

(Y-o-y, per cent)



Source: RBI.

the International Energy Agency (IEA)[28], India's clean energy expansion is on track with its renewables market expected to emerge as the world's second largest by 2030.[29]

Electric vehicles industry has been showcasing impressive growth with the total EV registrations reaching an all-time high in October. Within the EV segment, electric two-wheeler category crossed the milestone of one million sales during 2025 so far reflecting a transformative shift towards green mobility.

[28] Renewables Report – October 2025, International Energy Agency.

[29] As at end-September, India's non-fossil energy capacity cumulatively stood at 256 gigawatts (GW) after adding about 28 GW of additional installed capacity in the first half of 2025-26 as compared to 11 GW during the corresponding period of the previous year.

Table III.5: High Frequency Indicators for Services Showed Resilience

Indicator	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25
PMI Services	58.5	58.4	59.3	56.5	59.0	58.5	58.7	58.8	60.4	60.5	62.9	60.9	58.9
International Air Passenger Traffic	10.3	10.7	9.0	11.1	7.7	6.8	13.0	5.0	3.4	5.5	7.7	7.3	9.6
Domestic Air Cargo	8.9	0.3	4.3	6.9	-2.5	4.9	16.6	2.3	2.6	4.8	7.1	2.8	
International Air Cargo	18.4	16.1	10.5	7.1	-6.3	3.3	8.6	6.8	-1.2	4.2	4.5	2.3	
Port Cargo Traffic	-3.4	-5.0	3.4	7.6	3.6	13.3	7.0	4.3	5.6	4.0	2.5	11.5	12.0
Retail Commercial vehicle sales	6.4	-6.1	-5.2	8.2	-8.6	2.7	-1.0	-3.7	6.6	0.2	8.6	2.7	17.7
Hotel Occupancy	-5.3	11.1	-0.2	1.2	0.6	1.9	7.2	-2.8	-0.3	-2.4	-3.2	-0.6	
Steel Consumption	8.1	9.5	5.2	10.9	10.9	13.6	6.0	8.1	9.3	7.3	10.0	8.9	4.7
Cement Production	3.1	13.1	10.3	14.3	10.7	12.2	6.3	9.7	8.2	11.6	5.4	5.0	5.3

<<Contraction ---------- Expansion>>

Notes: 1. The y-o-y growth (in per cent) has been calculated for all indicators (except for PMI).
2. The heatmap translates the data range for each indicator into a colour gradient scheme with red denoting the lowest values and green corresponding to the highest values of the respective data series.
3. The heatmap is applied to data from April 2023 to October 2025, other than for domestic and international air cargo, and hotel occupancy, where the data are till September 2025.
4. The data on international air passenger traffic for October 2025 growth rate is calculated by aggregating daily data.
5. All PMI values are reported in index form. A PMI value >50 denotes expansion, <50 denotes contraction and =50 denotes 'no change'. In the PMI heatmaps, red denotes the lowest value, yellow denotes 50 (or the no change value), and green denotes the highest value in each of the PMI series.

Sources: Federation of Automobile Dealers Associations (FADA); Indian Ports Association; Airports Authority of India; HVS Anarock; Joint Plant Committee; Office of Economic Adviser; and S&P Global.

Monthly Indicators of Services Activity

India's services sector demonstrated sustained expansionary momentum, supported by robust festive demand and GST relief. However, unseasonal rains led to some sequential softening in activity in October. Sales of retail commercial vehicles rose to near three-year high. Growth in port traffic accelerated, led by an uptick in petroleum, oil & lubricants and containerised cargo. Growth in cement production improved, while steel consumption moderated (Table III.5).

Inflation

Headline CPI inflation declined in October to touch an all-time low in the current (2012=100 base year) series. Headline CPI inflation, moderated to 0.3 per cent in October 2025 from 1.4 per cent in September.[30] The fall in inflation was driven by the deepening of deflation in food prices and impact of the GST rate cut on goods and services prices, amid large favourable base effects (Chart III.13).[31]

The deflation in the food group deepened on account of a decline in the prices of vegetables, pulses and spices.[32] Inflation in sub-groups such as cereals, meat and fish, milk and products, eggs, oils and fats, fruits, prepared meals, and non-alcoholic beverages moderated (Chart III.14).

Fuel and light inflation remained at 2.0 per cent in October, the same as in September. Inflation continued to remain elevated for LPG while it remained low and steady in electricity.

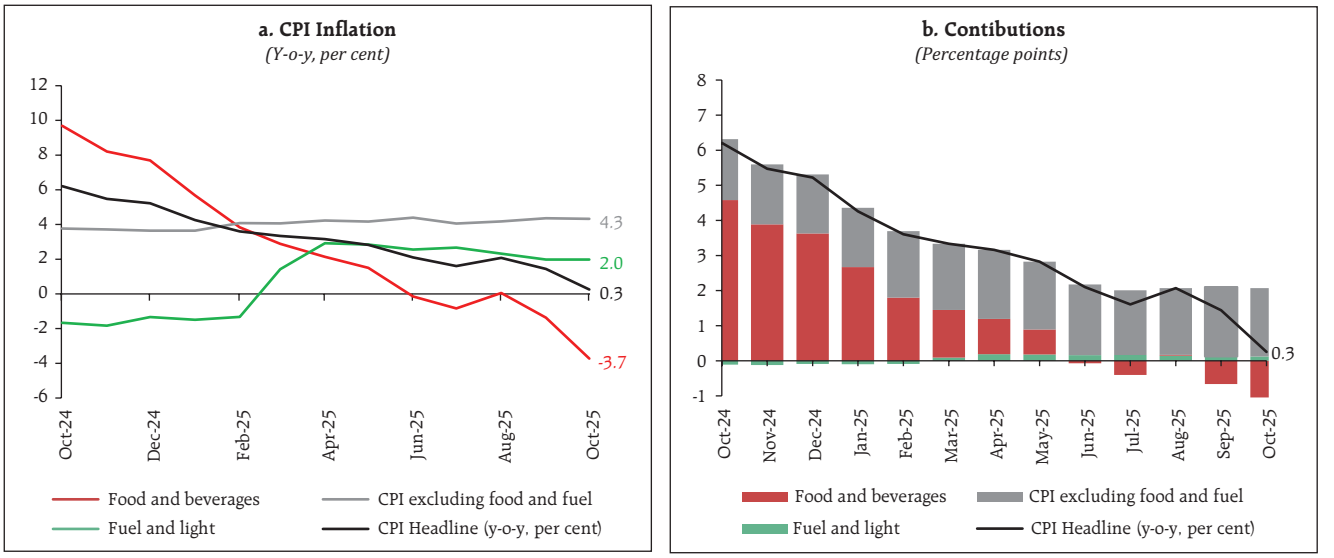
Core (*i.e.*, CPI excluding food and fuel) inflation moderated to 4.3 per cent in October 2025 from

[30] As per the provisional data released by the National Statistics Office (NSO) on November 12, 2025.

[31] The decline in inflation by about 120 bps was on account of a large favourable base effect of around (-)135 bps which offset a positive price momentum of around 15 bps.

[32] Food deflation deepened to 3.7 per cent in October from 1.4 per cent in the previous month.

Chart III.13: Easing Food Inflation Drove the Decline in Headline Inflation

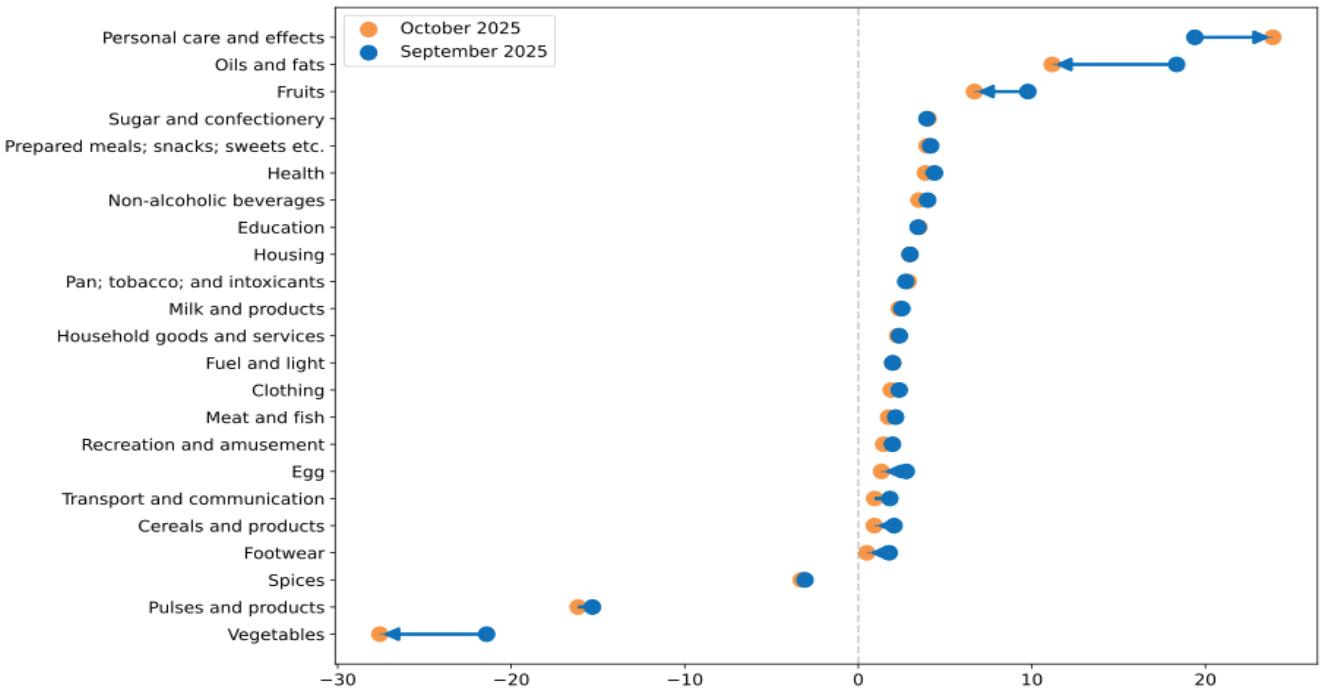


Sources: National Statistics Office (NSO); and RBI staff estimates.

4.4 per cent in September driven by clothing and footwear, health, recreation and amusement, and transport and communication subgroups. Education, pan, tobacco and intoxicants, and personal care and effects subgroups recorded an increase in inflation. Excluding precious metals, the core component recorded a decline of 0.1 per cent from the previous month, reflecting the impact of GST rate cuts.

Chart III.14: Key Drivers of the Decline in Inflation: Vegetables, and Oils and Fats

(Y-o-y, Per cent)



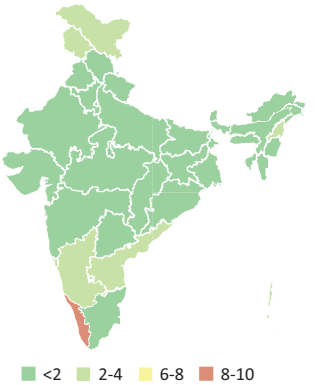
Sources: NSO; and RBI staff estimates.

Inflation in both rural and urban areas eased in October with the former registering deflation of 0.3 per cent while the latter recording inflation of 0.9 per cent. While inflation ranged from (–) 2.9 per cent to 8.6 per cent across states/UTs, majority of states recorded inflation below 2 per cent. Overall, a broad-based moderation in state-level inflation was observed, as it declined or remained stable in 35 out of 37 states/UTs (Chart III.15).

High-frequency food price data for November so far (up to 21st) point towards a moderation in cereal prices. Among pulses, prices moderated for gram and moong dal while it increased marginally for *tur/arhar* dal. Within edible oils, sunflower oil prices increased, groundnut oil prices eased, and mustard oil prices stayed stable. Prices of key vegetables (tomato, onion, and potato) hardened (Chart III.16).

Chart III.15: Moderation in State-level CPI Inflation

(Y-o-y, per cent)



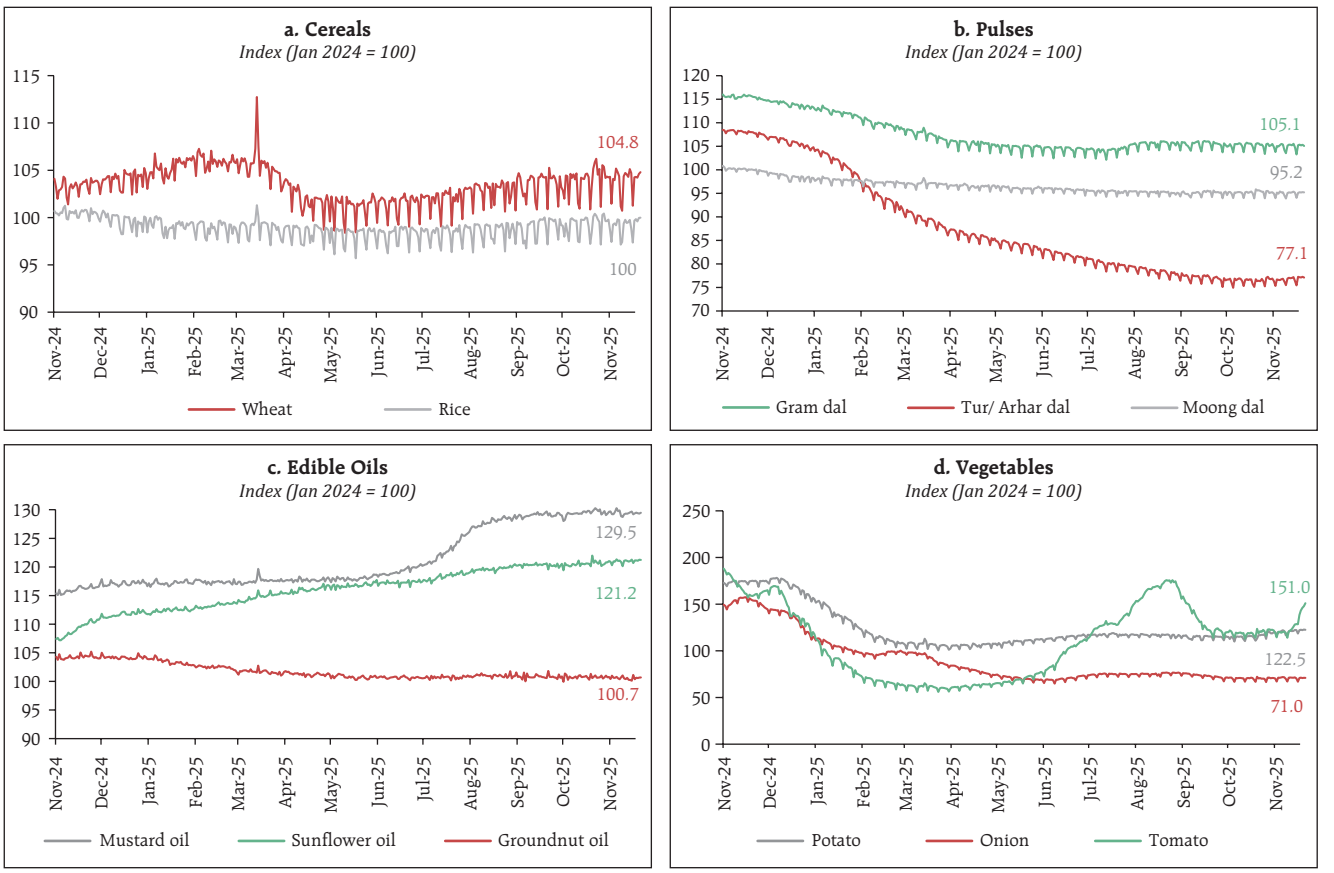
Inflation Range	Number of States/UTs
<2	29
2-4	6
4-6	0
6-8	1
8-10	1

Inflation Trend	Number of States/UTs
Decline or Stable	35
Increase	2

Notes: 1. Map is for illustrative purposes only.
2. Lakshadweep and Kerala experienced above 6 per cent inflation.

Sources: NSO; and RBI Staff estimates.

Chart III.16: Food Price Remained Stable in November



Sources: Department of Consumer Affairs, GoI; and RBI staff estimates.

Table III.6: Petroleum Products Prices

Item	Unit	Domestic Prices			Month-over-month (per cent)	
		Nov-24	Oct-25	Nov-25 ^	Oct-25	Nov-25 ^
Petrol	₹/litre	100.99	101.1	101.1	0.0	0.0
Diesel	₹/litre	90.45	90.5	90.5	0.0	0.0
Kerosene (subsidised)	₹/litre	43.4	45.4	45.4	3.4	0.0
LPG (non-subsidised)	₹/cylinder	813.3	863.3	863.3	0.0	0.0

^ : For the period November 1-21, 2025.
Note: Other than kerosene, prices represent the average Indian Oil Corporation Limited (IOCL) prices in four major metros (Delhi, Kolkata, Mumbai and Chennai). For kerosene, prices denote the average of subsidised prices in Kolkata, Mumbai and Chennai.
Sources: IOCL; Petroleum Planning and Analysis Cell (PPAC); and RBI staff estimates.

Retail selling prices of petrol, diesel, kerosene and LPG remained unchanged in November (up to 21st) [Table III.6].

In October, the PMIs for manufacturing recorded a moderation in the rate of expansion of both input and output prices with a sharper fall in the former. For services, deceleration was seen in both input prices and selling prices due to GST reforms (Chart III.17).

IV. Financial Conditions

Overall financial conditions remained benign in October and November (up to 21st), primarily due to easing in the equity and corporate bond markets (Chart IV.1).

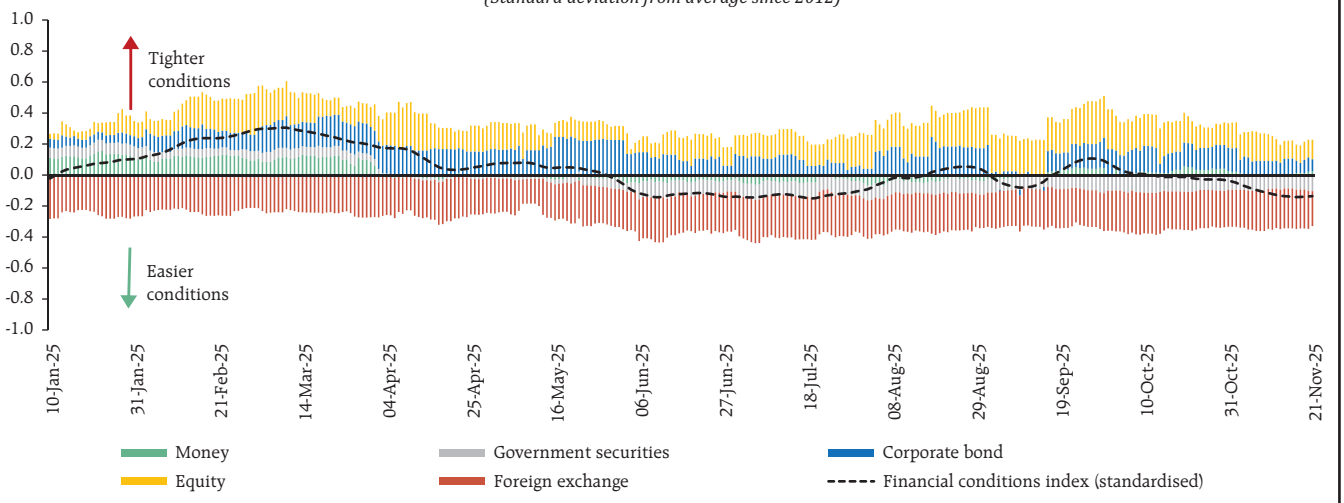
System liquidity remained in surplus during the second half of October and November (up to 21st), though temporary increases in government cash balances and a rise in currency-in-circulation due to festival-related demand led to some episodes of liquidity deficit in the second half of October. Overall, average net absorption under the liquidity adjustment facility increased marginally to ₹1.3 lakh crore during October 16 to November 21, from ₹1.0 lakh crore in the preceding one-month period, supported by CRR cuts (Chart IV.2). To offset the transient liquidity tightness during this period, the Reserve Bank conducted 11 variable rate repo auctions (overnight to 7-day maturity). With an improvement in overall liquidity conditions, a 3-day VRRR was conducted on November 14 which absorbed surplus liquidity of around ₹0.57 lakh

Chart III.17: Pace of Input and Output Price Expansion eased for both Manufacturing and Services Firms

Note: A level of 50 corresponds to no change in activity, and a reading above 50 denotes expansion and *vice versa*.
Source: S&P.

Chart IV.1: Benign Financial Conditions

(Standard deviation from average since 2012)



Note: The financial conditions index, when at zero, corresponds to a financial system operating at the historical average level of all the financial indicators included in the index. To present the results, a standardised index is used.[33]
Source: RBI staff estimates.

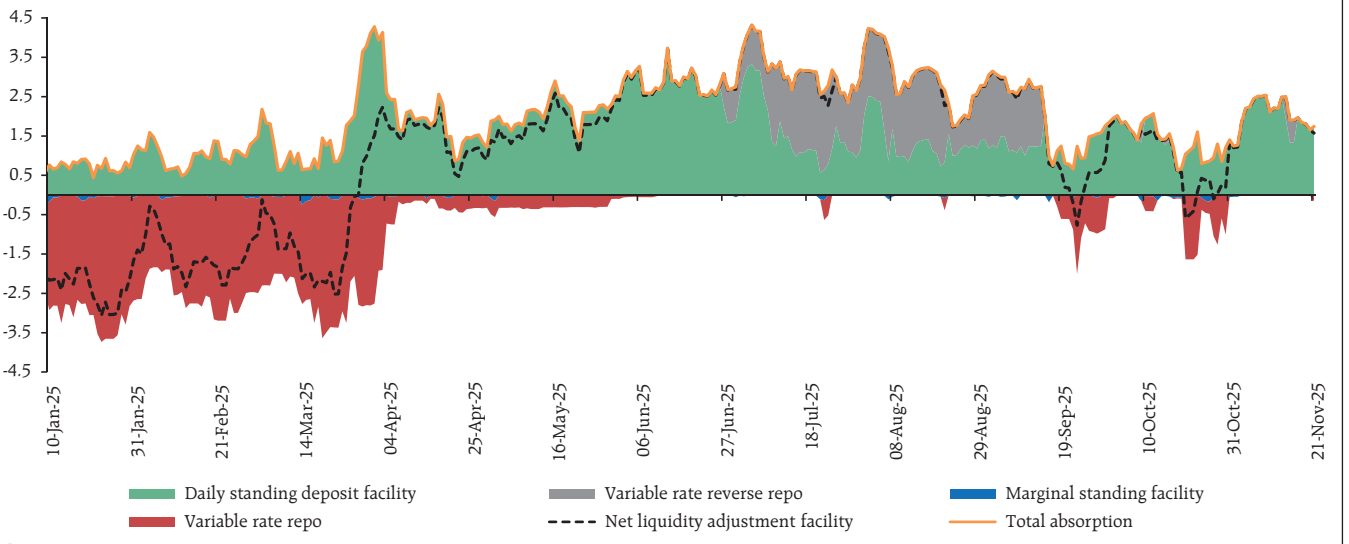
crore against the notified amount of ₹1.0 lakh crore. Average balances under the standing deposit facility remained marginally higher, and banks' recourse to the marginal standing facility remained unchanged.[34]

Money Market

The weighted average call rate (WACR) remained broadly aligned with the policy repo rate in October and November, despite some temporary liquidity squeezes in the second half of October. The WACR

Chart IV.2: Comfortable Liquidity Conditions

(₹ lakh crore)

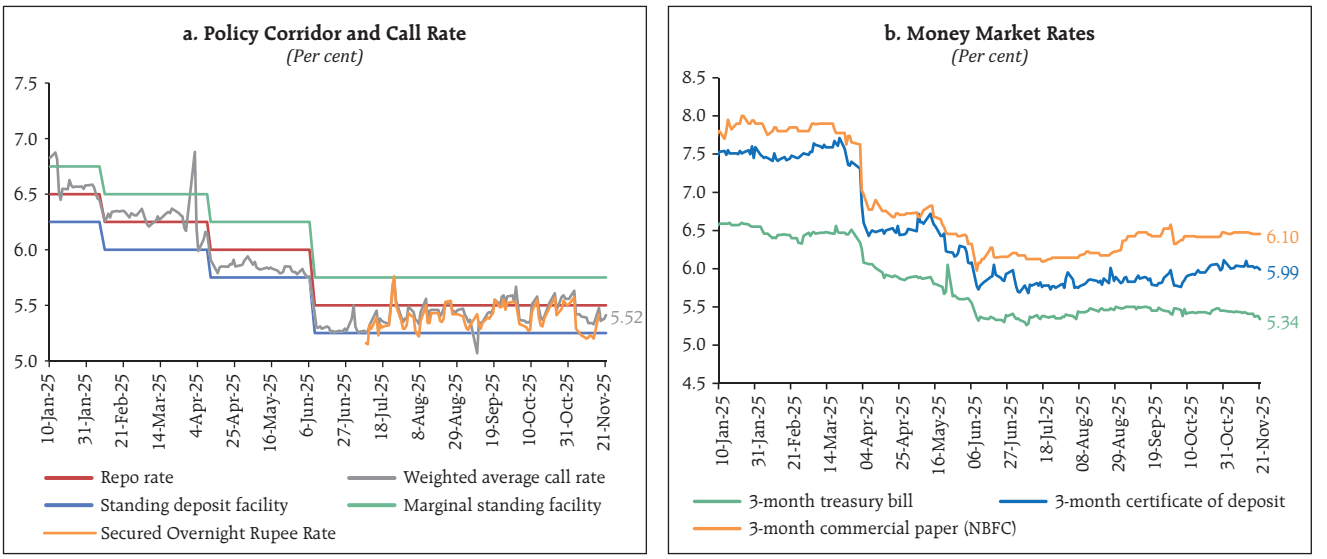


Source: RBI.

[33] For detailed methodology see https://rbi.org.in/Scripts/BS_ViewBulletin.aspx?Id=23451

[34] Balances under the standing deposit facility increased modestly to ₹1.6 lakh crore during October 16 to November 21, 2025 from ₹1.4 lakh crore in the preceding one-month period. Borrowings from the marginal standing facility averaged ₹0.03 lakh crore during this period.

Chart IV.3: Money Market Rates Remained Stable



Sources: RBI; and Bloomberg.

hovered within the policy corridor as liquidity conditions improved since the beginning of November. Overall, the WACR remained unchanged on an average at 5.5 per cent during October 16 to November 21, 2025, compared with the preceding one-month period (Chart IV.3a). Overnight rates in the collateralised segments – as measured by the benchmark secured overnight rupee rate – moved in tandem with the uncollateralised rate. Yields on three-month commercial papers issued by non-banking financial companies averaged around the same level. At the same time, interest rates on certificates of deposit edged up slightly on account of rising credit-deposit ratio, while that on treasury bills moderated (Chart IV.3b).[35] The average risk premium in the money market (the spread between the yields on 3-month commercial paper and 91-day treasury bill) recorded a mild uptick.[36]

Government Securities (G-Sec) Market

In the fixed income segment, the yield curve slightly shifted upwards especially at the longer end, during the second half of October and into November (up to 21st).[37] The average term spread (the difference between the yields of 10-year G-sec and 91-day treasury bill) inched up marginally during the period (Charts IV.4a and IV.4b).[38]

Corporate Bond Market

Corporate bond yields generally softened across tenors and rating spectrum (Table IV.1). New corporate bond issuances increased in September compared to August. On a cumulative basis, too, total issuances were marginally higher in the current financial year compared to the previous year.[39]

[35] The average yields on 3-month certificates of deposit hardened by 6 bps during October 16 to November 21, 2025, as compared to the period from September 16 to October 15, 2025. During the same period, the average yields on 3-month treasury bills decreased by 3 bps.

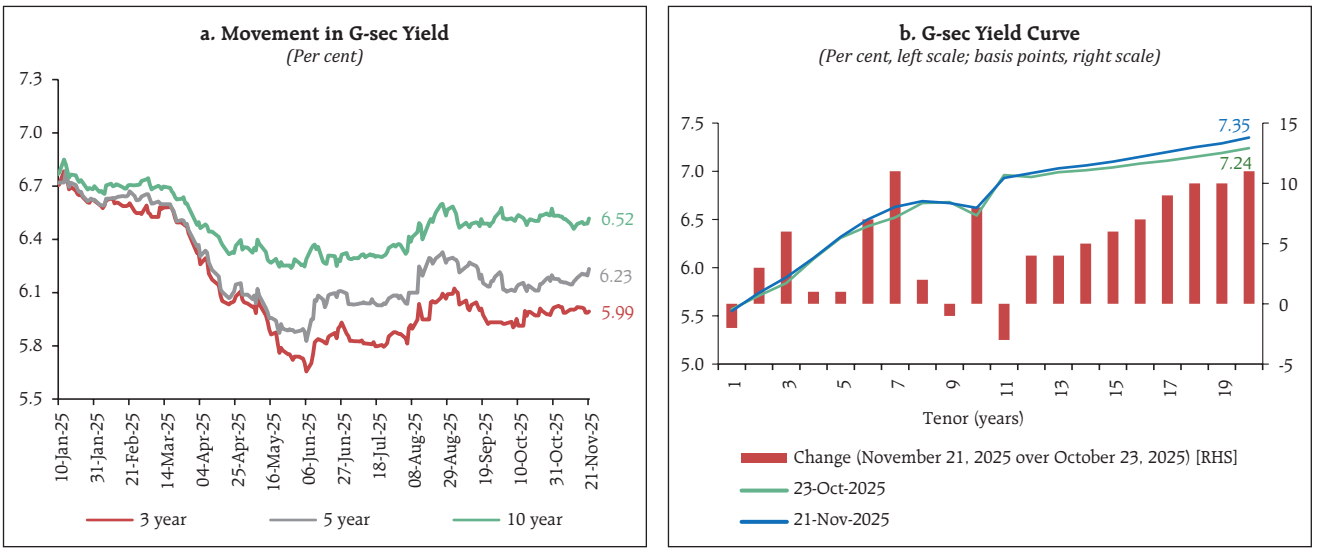
[36] Rose to 102 bps during the period from 16 to November 21, 2025, from 99 bps in the preceding one-month period.

[37] The yield on the 10-year benchmark G-sec (6.33 per cent GS 2035) firmed to 6.57 per cent on November 21, 2025, as against 6.48 per cent on October 15.

[38] The average term spread between the 10-year G-sec and 91-day treasury bill increased by around 3 bps during October 16 to November 21, 2025 as compared to the period from September 16 to October 15, 2025.

[39] Increased to ₹0.74 lakh crore in September 2025, compared to ₹0.43 lakh crore in August 2025. On a cumulative basis (April to September), it stood at ₹4.7 lakh crore in 2025-26, up from ₹4.6 lakh crore in the corresponding period of the previous year.

Chart IV.4: Upward Shift in Longer End of G-sec Yield Curve



Sources: Bloomberg; and RBI staff estimates.

Money and Credit

During November so far (up to 14th), reserve money growth declined, tracking the movements in currency in circulation.[40] The moderation of growth in currency in circulation was primarily due to the waning of festive demand. The growth in money supply (M3) remained steady (Chart IV.5).[41]

Credit growth of scheduled commercial banks (SCBs) picked up further in October. Deposit growth, on the other hand, remained steady. With the pace of credit expansion outpacing deposit growth, the wedge between credit and deposit growth widened to 160 bps from 90 bps in last month (Chart IV.6).[42,43]

Table IV.1: Corporate Bonds - Yields and Spreads

Instrument	Interest Rates *(Per cent)*			Spread *(bps)* (Over Corresponding Risk-free Rate)		
	September 16, 2025 – October 15, 2025	October 16, 2025 – November 20, 2025	Variation	September 16, 2025 – October 15, 2025	October 16, 2025 – November 20, 2025	Variation
1	2	3	(4 = 3-2)	5	6	(7 = 6-5)
(i) AAA (1-year)	6.69	6.72	3	104	108	4
(ii) AAA (3-year)	7.05	7.01	-4	108	103	-5
(iii) AAA (5-year)	7.21	7.20	-1	92	85	-7
(iv) AA (3-year)	8.18	8.08	-10	221	208	-13
(v) BBB- (3-year)	11.86	11.76	-10	590	572	-18

Note: Yields and spreads are computed as averages for the respective periods.
Source: FIMMDA.

[40] Reserve money (adjusted for the first-round impact of changes in the cash reserve ratio) grew by 7.8 per cent (y-o-y) as on November 14, 2025 [8.6 per cent (y-o-y) as on October 17, 2025]. Currency in circulation grew by 8.1 per cent (y-o-y) as on November 14, 2025 [8.8 per cent (y-o-y) as on October 17, 2025].

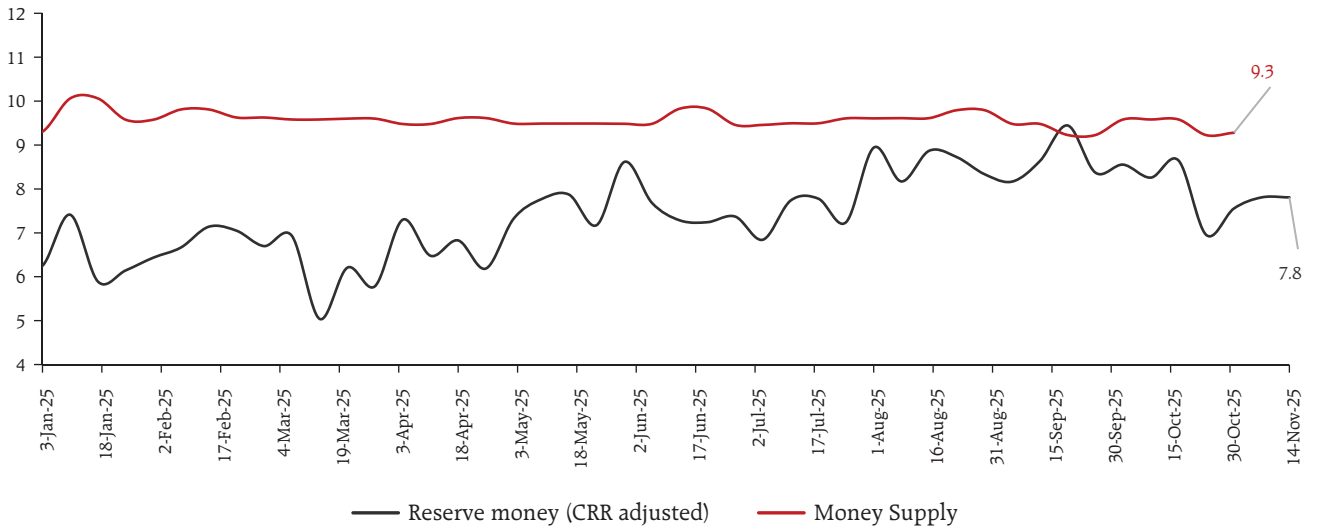
[41] Money supply grew by 9.3 per cent (y-o-y) as on October 31, 2025 [9.2 per cent (y-o-y) as on September 19, 2025].

[42] Credit growth of scheduled commercial banks was 11.3 per cent (y-o-y) as on October 31, 2025 [10.4 per cent (y-o-y) as on September 19, 2025]. Deposit growth was 9.7 per cent (y-o-y) as on October 31, 2025 [9.5 per cent (y-o-y) as on September 19, 2025]. The outstanding credit of scheduled commercial banks was at ₹193.9 lakh crore as on October 31, 2025 (₹189.0 lakh crore as on September 19, 2025)

[43] The wedge was computed as the difference between credit and deposit growth rates on October 31, 2025, and September 19, 2025.

Chart IV.5: Reserve Money Growth Moderated from Last Month amid Stable Money Supply (M3) Growth

(Y-o-y, per cent)

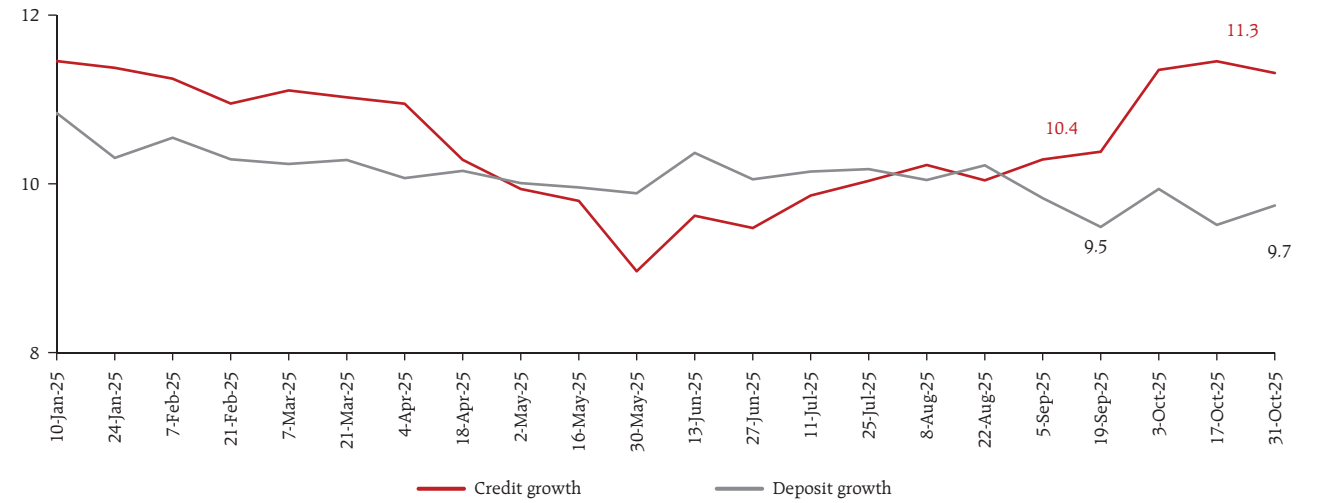


Sources: RBI.

During 2025-26 so far (up to October 31), total flow of financial resources to commercial sector increased to ₹20.1 lakh crore from ₹16.2 lakh crore a year ago. Non-bank sources – corporate bond issuances, credit by non-banking financial companies and foreign direct investment to India – showed a marked increase in the year so far (Table IV.2). As on October 31, the total outstanding credit to commercial sector rose by 13.0 per cent from 12.0 per cent last year, with non-bank sources registering a growth of 17.2 per cent compared to 12.4 per cent a year ago (Table IV.3).[44]

Chart IV.6: Scheduled Commercial Banks: Credit Expansion Surpassing Deposit Growth

(Y-o-y, per cent)



Note: Scheduled commercial banks' data are inclusive of regional rural banks. Data include the impact of the merger of a non-bank with a bank.
Source: Fortnightly Section 42 Returns, RBI.

[44] For details, see Current Statistics Table No. 18(a) and 18(b).

Table IV.2: Flow of Financial Resources to Commercial Sector in India

(₹ crore)

Source	April-March		Up to October 31	
	2023-24	2024-25	2024-25	2025-26 P
A. Non-Food Bank Credit	**21,40,243**	**17,98,321**	**9,80,394**	**11,12,687**
B. Non-Bank Sources (B1+B2)	**12,63,721**	**17,10,459**	**6,43,105**	**8,95,813**
B1. Domestic Sources	10,20,302	13,85,609	5,04,612	6,70,531
B2. Foreign Sources	2,43,419	3,24,850	1,38,493	2,25,282
C. Total Flow of Resources (A+B)	**34,03,964**	**35,08,780**	**16,23,499**	**20,08,500**

P: Provisional.
Note: For detailed notes, please refer to Current Statistics Table No: 18(a).
Sources: RBI; SEBI; and AIFIs; and RBI staff estimates.

Across key sectors, bank credit continued to exhibit steady growth in September, led by personal loans, services, and industry (Chart IV.7).[45,46] Personal loans sustained double-digit growth, with housing credit registering a modest increase, even as growth in vehicle and gold loans moderated. Credit to the services sector witnessed a marginal deceleration in growth. Non-banking financial companies (NBFCs) – the largest recipients of services sector credit – and commercial real estate, however, recorded improvements. Within the industrial sector, infrastructure and engineering segments observed a rise in credit growth. The credit to the micro, small, and medium enterprises (MSMEs) segment accelerated further, and it continued to be the key driver of industrial credit growth. The agriculture sector also witnessed an improvement in credit flow.

Deposit and Lending Rates

In response to the cumulative 100 basis points reduction in the policy repo rate since February 2025, the one-year marginal cost of funds-based lending rate of scheduled commercial banks declined by 45 basis

Table IV.3: Outstanding Credit to Commercial Sector in India

(₹ crore; Figures in parentheses are y-o-y percentage changes)

Source	At End-March		As on October 31	
	2024	2025	2024	2025 P
A. Non-Food Bank Credit	**1,64,09,083 (20.2)**	**1,82,07,441 (11.0)**	**1,73,89,477 (11.7)**	**1,93,20,128 (11.1)**
B. Non-Bank Sources (B1+B2)	**77,56,314 (4.2)**	**88,85,434 (14.6)**	**81,00,470 (12.4)**	**94,90,483 (17.2)**
B1. Domestic Sources	56,59,037 (4.9)	66,37,411 (17.3)	59,73,684 (15.8)	71,54,605 (19.8)
B2. Foreign Sources	20,97,277 (2.4)	22,48,023 (7.2)	21,26,786 (3.8)	23,35,877 (9.8)
C. Total Credit (A+B)	**2,41,65,397 (14.5)**	**2,70,92,875 (12.1)**	**2,54,89,947 (12.0)**	**2,88,10,611 (13.0)**

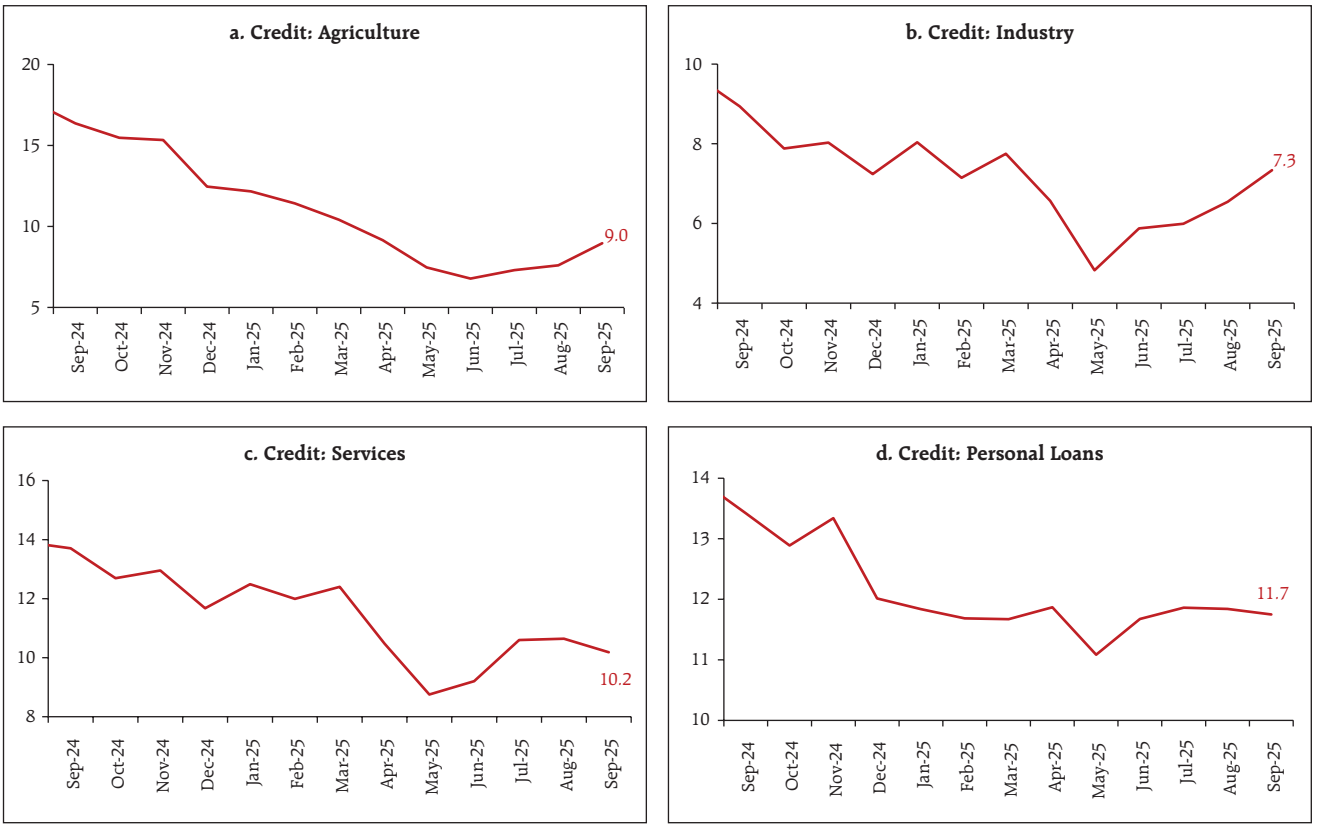
P: Provisional.
Notes: For detailed notes, please refer to Current Statistics Table No: 18(b).
Sources: RBI; SEBI; and AIFIs; and RBI staff estimates.

[45] As at end-September, growth in non-food bank credit stood at 10.2 per cent (y-o-y). Non-food credit data are based on fortnightly Section-42 return for the last reporting Friday of the month, which covers all scheduled commercial banks. Sectoral non-food credit data are based on sector-wise and industry-wise bank credit (SIBC) return, which covers select banks accounting for about 95 per cent of total non-food credit extended by all scheduled commercial banks, pertaining to the last reporting Friday of the month. Data are provisional. The bank groups covered under the SIBC return are – Public Sector Banks, Private Sector Banks, Foreign Banks, and Small Finance Banks. Data includes the impact of the merger of a non-bank with a bank.

[46] In terms of contribution to overall credit growth.

Chart IV.7: Acceleration in Credit Growth to Agriculture and Industry

(Y-o-y, per cent)



Source: RBI.

points during February-October 2025. The weighted average lending rates on both fresh and outstanding rupee loans also registered a decline during February-September 2025. On the deposit side, banks reduced rates on fresh term deposits. However, given the relatively longer maturity profile of term deposits, the outstanding deposits have moderated, although to a lesser extent (Table IV.4).

Table IV.4: Monetary Transmission to Banks' Deposit and Lending Rates

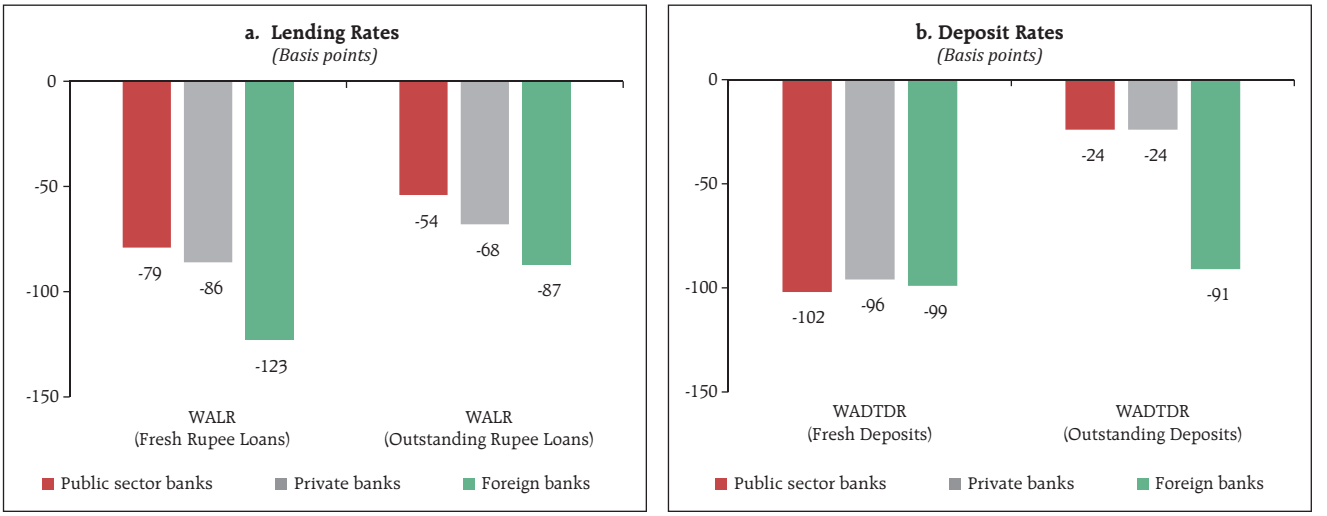
(Variation in basis points)

Period	Repo Rate	Term Deposit Rates		Lending Rates				
		WADTDR-Fresh Deposits	WADTDR-Outstanding Deposits	EBLR	1-Year MCLR (Median)	WALR - Fresh Rupee Loans		WALR-Outstanding Rupee Loans
						Overall	Interest Rate Effect #	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Tightening Period May 2022 to Jan 2025	+250	259	206	250	175	182	191	115
Easing Phase Feb 2025 to Sep* 2025	-100	-102	-27	-100	-45	-83	-73	-61

Note: 1. Data on EBLR pertain to 32 domestic banks.
2. *Data on MCLR as in October 2025. **#:** At constant weight.

WALR: Weighted average lending rate; WADTDR: Weighted average domestic term deposit rate.
MCLR: Marginal cost of funds-based lending rate; EBLR: External benchmark-based lending rate.

Chart IV.8: Transmission across Bank Groups (February 2025 – September 2025)



Note: Transmission during February to September 2025 is calculated by subtracting the weighted average lending and deposit rates of January 2025 from those of September 2025.
Source: RBI.

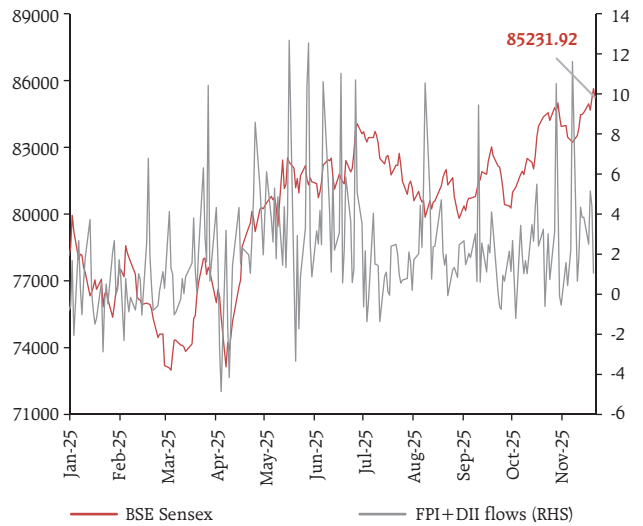
The decline in the weighted average lending rate on fresh and outstanding rupee loans was higher in the case of private banks relative to public sector banks (Chart IV.8). On the deposit side, transmission was higher for public sector banks compared to private banks.

Equity Markets

Indian equity markets gained in October-November as optimism surrounding India-US trade deal and corporate earnings for Q2:2025-26 offset the drag from uncertainty surrounding US-China trade negotiations. Domestic equity markets were also supported by a moderation in crude oil prices and a policy rate cut by the US Federal Reserve. Realty, oil and gas, and telecom emerged as the top-performing sectors during October. In equity markets, domestic institutional investors (DIIs) continued to be net buyers, while foreign portfolio investors (FPIs) turned net buyers in October after a phase of three consecutive months (Chart IV.9).

Fund mobilisation through Initial Public Offers (IPOs) in the primary market remained strong in the current financial year, reflecting greater investor participation. Consistent with this trend, both FPIs and DIIs recorded positive cumulative flows in the primary market (Chart IV.10a).[47] In contrast, in the

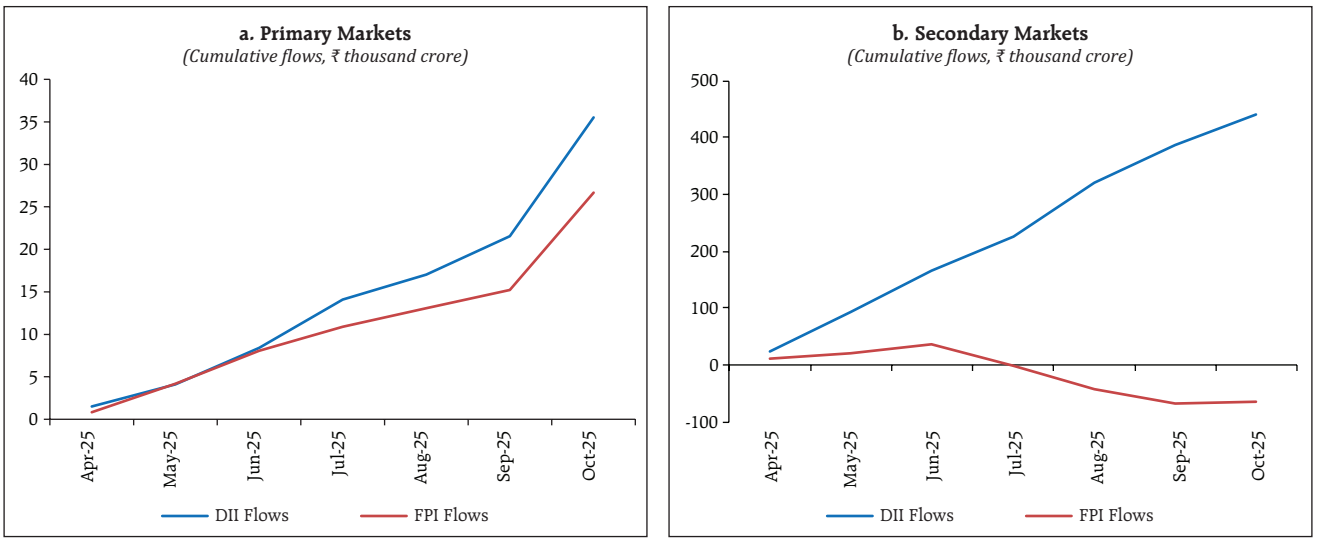
Chart IV.9: Revival in Domestic Equity Markets
(Index, left scale; ₹ thousand crore, right scale)



Source: Bloomberg; and Capitaline.

[47] The primary market issuances (including Initial Public Offers, Follow-on Public Offers and Offer for Sale) increased from ₹13 thousand crore in September 2025 to ₹45 thousand crore in October 2025, while the number of issuances moderated from 25 to 10 during this period (Source: Prime Database).

Chart IV.10: Rising Capital Flows to Primary Equity Markets



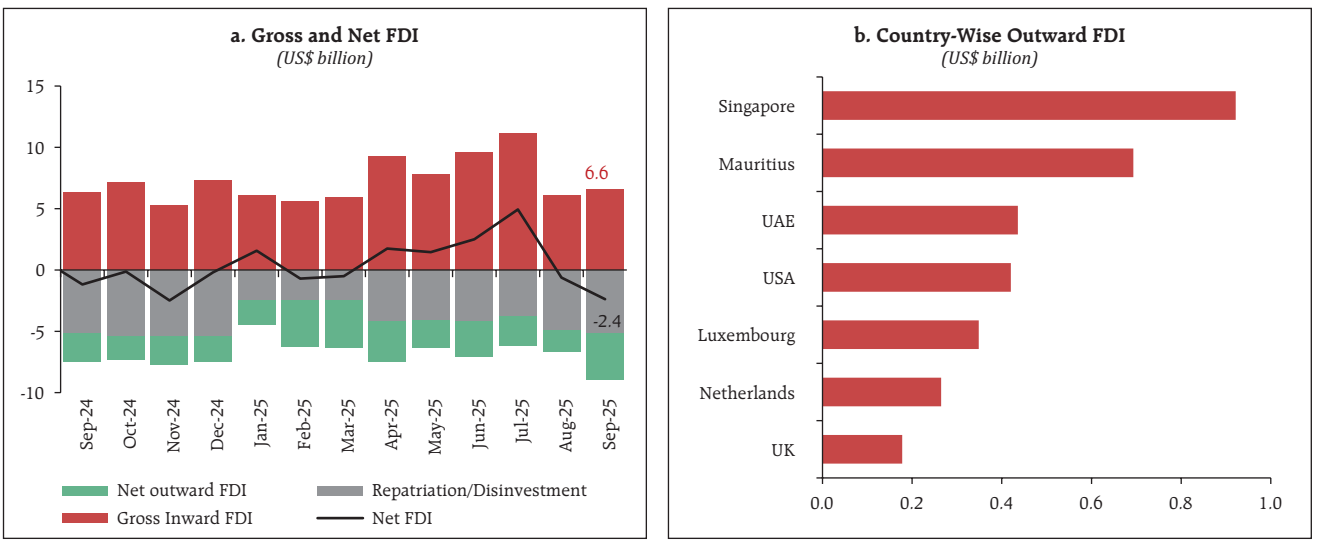
Note: In chart a, data pertains to only mainboard IPOs.
Sources: Prime Database, Capitaline, Bloomberg and RBI staff estimates.

secondary market, FPIs remained net sellers, while DIIs continued to register strong net purchases (Chart IV.10b).

External Sources of Finance

During April-September 2025, FDI was higher than the same period last year on both gross and net basis.[48] Gross inward FDI remained robust in September, with Singapore, Mauritius, the UAE, Luxembourg, and Qatar together accounting for about 78 per cent of total inflows (Chart IV.11a). The major recipient sectors were manufacturing, retail & wholesale trade, communication services, financial services and computer services. However, net FDI

Chart IV.11: Steady Gross Foreign Direct Investment Inflows



Source: RBI.

[48] Net FDI rose to US$ 7.6 billion from US$ 3.4 billion last year. Similarly, gross inward FDI at US$ 50.4 billion, registered a growth of 16.1 per cent (y-o-y).

turned negative for the second consecutive month due to a rise in outward FDI and repatriation.[49] For outward FDI, the key destinations were Singapore, Mauritius, the UAE and the US, while major sectors included financial services, insurance & business services, agriculture & mining and manufacturing (Chart IV.11b).

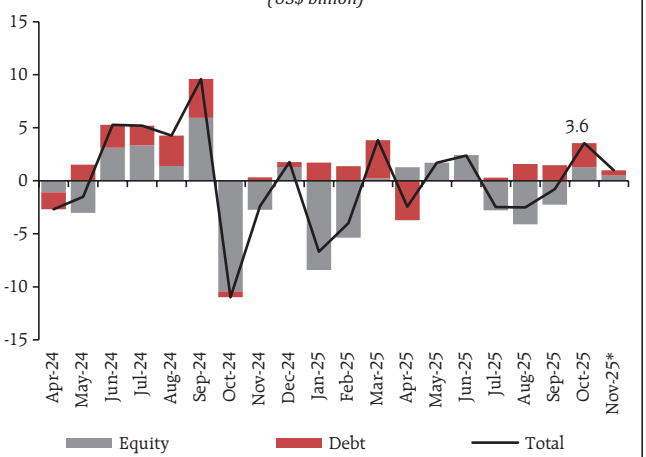
During 2025–26 so far (up to November 20), net FPI registered inflows driven largely by the debt segment while equity registered net outflows.[50] The debt segment continued to witness net inflows, supported by expectations of a US Fed rate cut and favourable yield differentials. In October, net FPI flows turned positive after three consecutive months of outflows, supported by robust quarterly earnings, improved valuations, and IPO issuances (Chart IV.12). In November so far (up to 20th), net FPI flows remained positive supported by both equity and debt segment.

The registrations of external commercial borrowings (ECBs) moderated during April - September 2025. Despite this slowdown, inflows continued to outpace outflows resulting in net inflows of US$ 8.0 billion (Chart IV.13). Notably, 45 per cent of the total ECBs registered during this period were raised for capital expenditure.

Amidst global trade policy uncertainties and external sector headwinds, India's economy is turning out to be more resilient to external shocks over time, backed by strong services exports, remittances receipts and oil prices becoming less detrimental to the current account sustainability. The increasing share of renewables in India's energy mix is adding further resilience. Key external vulnerability indicators improved as of end-June from their levels at end-March 2025 (Table IV.5). The current account deficit to GDP ratio remained modest in Q1:2025-26. The external debt to GDP ratio also stayed at a comfortable level and the ratio of short-term debt to total external debt, and to total reserves remained low.[51] In addition, the ratio of volatile capital flows

Chart IV.12: Foreign Portfolio Investors Turned Net Buyers in October

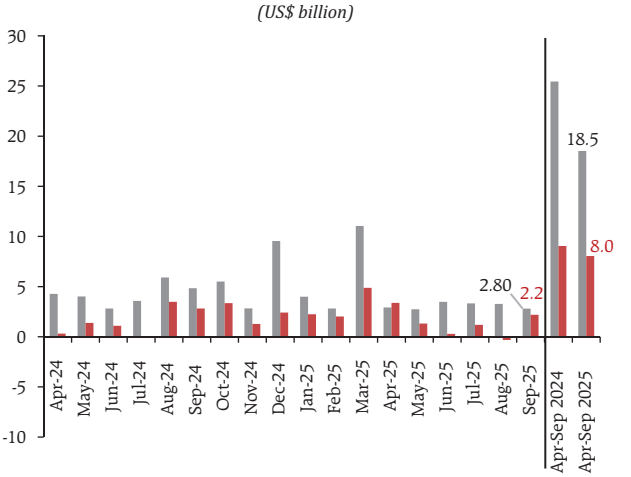
(US$ billion)



Notes: 1. Debt also includes investments under the hybrid instruments.
2. *: Data up to November 20.
Source: National Securities Depository Limited (NSDL).

Chart IV.13: External Commercial Borrowings - Registrations and Flows Moderated

(US$ billion)



Source: Form ECB, RBI.

[49] Net outward FDI, on a year-on-year basis, increased by 64.5 per cent in September 2025 as against 78.4 per cent in September 2024.

[50] Net FPI inflows amounted to US$ 0.4 billion during 2025–26 so far (up to November 20).

[51] The ratio of short-term debt (residual maturity) to total external debt and to total reserves stood at 40.7 per cent and 43.6 percent, respectively, as of end-June 2025.

Table IV.5: External Vulnerability Indicators

Item	End-March 2013 (Pre-Taper Talk)	End-March 2024	End-March 2025	End-June 2025
Current account balance (per cent of GDP)	-4.8	-0.7	-0.6	-0.2
External Debt (per cent of GDP)	22.4	18.5	19.1	18.9
Short-term Debt (per cent of Reserves)	59.0	44.9	45.4	43.6
International Investment Position (per cent of GDP)	-17.8	-10.1	-8.6	-8.0
Reserve cover for imports (in months)	7.0	11.3	11.0	11.4
Reserve to External Debt (per cent)	71.3	96.7	90.8	93.4
Volatile capital flow (per cent of Reserves)	96.1	69.8	69.0	66.6

Note: The import cover data is based on annualised merchandise imports as per the balance of payments statistics.
Source: RBI.

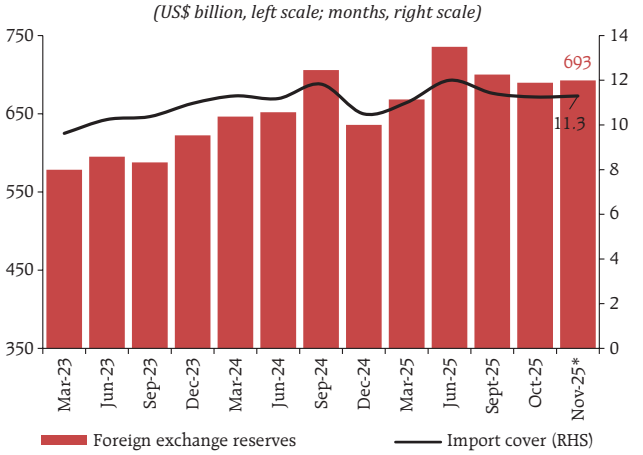
(comprising cumulative portfolio inflows and outstanding short-term debt) to foreign exchange reserves has also declined.[52] India's foreign exchange reserves remain adequate to cushion the impact of any external shocks to the balance of payments (Chart IV.14).[53]

Foreign Exchange Market

The Indian rupee (INR) depreciated slightly against the US dollar in October, reflecting the impact of a stronger US dollar following the US Fed's policy announcement around the end of the month. In mid-October, however, the INR registered a brief but sharp appreciation, supported by optimism over India-US trade talks and renewed net FPI inflows (Chart IV.15). Consequently, rupee volatility increased marginally during the month, although it remained relatively contained compared with most major currencies. In November so far (up to 21st), the INR appreciated slightly by 0.1 per cent over its end-October level.

Chart IV.14: India's Foreign Exchange Reserves Adequate

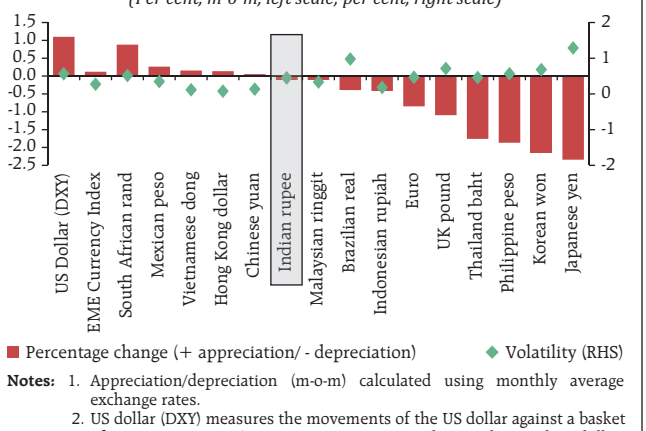
(US$ billion, left scale; months, right scale)



Notes: 1. *: As on November 14, 2025.
2. The import cover data is based on annualised merchandise imports as per the balance of payments statistics.
Source: RBI.

Chart IV.15: Movement of Major Currencies against the US Dollar in October

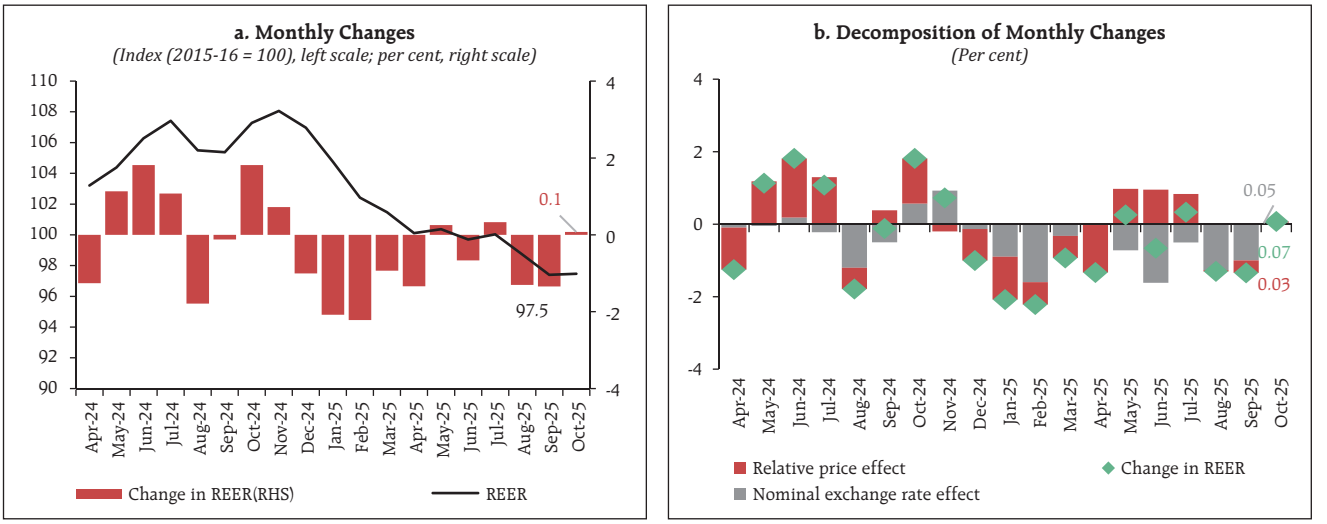
(Per cent, m-o-m, left scale; per cent, right scale)



Notes: 1. Appreciation/depreciation (m-o-m) calculated using monthly average exchange rates.
2. US dollar (DXY) measures the movements of the US dollar against a basket of major currencies (Euro, Japanese yen, British pound, Canadian dollar, Swedish krona and Swiss franc).
3. For each currency, volatility is measured as the coefficient of variation (100*Standard Deviation/Mean) using daily exchange rate data for October 2025.
Sources: FBIL; Thomson Reuters; and RBI staff estimates.

[52] Ratio of volatile capital flows to foreign exchange reserves declined from 69.0 per cent at end-March 2025 to 66.6 per cent at end-June 2025.
[53] India's foreign exchange reserves provide a cover for more than 11 months of goods imports, 9 months of import of goods and services combined, and around 93 per cent of the external debt outstanding as at end-June 2025.

Chart IV.16: Movements in the 40-Currency Real Effective Exchange Rate



Note: Positive change indicates an appreciation of the nominal and real exchange rate and negative change indicates a depreciation.
Source: RBI.

In real effective terms, the Indian rupee appreciated marginally in October mainly driven by appreciation in nominal effective exchange rate (Chart IV.16).

V. Conclusion

The month of October has seen a further pick up in demand conditions pointing towards a resilient growth outlook. Headline inflation has fallen to a historic low in October, significantly helped by favourable supply-side factors, including the prospects of a good *kharif* season and the reduction of GST rates. The external sector's capacity to absorb shocks has also improved over time, building resilience amid global trade policy uncertainties.

The World Bank's Financial Sector Assessment (FSA) report of October 2025 highlighted a financial system growing in resilience and strength. Improved macroeconomic frameworks and outcomes have not only enhanced the ability of financial institutions to support the macroeconomy but also allowed the Reserve Bank to better calibrate regulatory measures, to improve the efficiency of financial intermediation and augment the flow of credit to the broader economy. The fiscal, monetary, and regulatory measures undertaken so far this year should pave the way for a virtuous cycle of higher private investment, productivity, and growth, leading to long-term economic resilience.

'Making the Horizons Meet': A Heterodox Approach for Short-Term Inflation Forecasting

by Joice John, Saquib Hasan, Renjith Mohan, and Suvendu Sarkar ^

This article presents a framework that generates short-term inflation forecasts integrating three diverse procedures: (i) nowcasts (ii) machine learning and statistical methods and (iii) system of dynamic and stochastic equations, allowing nowcasts in the near-end of the horizon to converge to the benchmark forecasts, accentuated or delayed by persistence, spillovers, and macro-linkages. The framework is built on seasonally-adjusted disaggregated monthly data of 33 sub-groups/components of the CPI-Combined. It employs techniques such as full information matrix, machine learning and statistical models, Bayesian estimation, Kalman filtering and dynamic optimisation to produce point as well as density forecasts of inflation.

Introduction

By conducting monetary policy, central banks play a vital role in guiding economies towards macroeconomic stability and growth. While setting those policies, due to the lags in transmission and other nominal rigidities, monetary policy often focusses on forecasts of the macro variables as intermediate targets. In this context, consistent and reliable forecasts become vital for the conduct of monetary policy. More specifically, inflation forecasts are central to the monetary policy conducted by inflation targeting (IT) central banks. For forecasting inflation, there are diverse approaches available in the literature, from data dependent ones, like statistical, econometric and machine learning models to structural ones like dynamic stochastic general equilibrium (DSGE) models. In the shorter-end of the forecast horizon, data dependent models outperform the structural models, however they are not suited for policy analysis (Lucas, 1976). Structural models like DSGE are good at policy analysis but may not be favoured in terms of forecast accuracy, especially in the near-term (Del Negro and Schorfheide, 2013). At the near-end of the spectrum of any forecasting framework, there are observed data or nowcasts (since, in the near term, several auxiliary information are available) as the initial condition. However, as the horizon extends, precise information/data becomes scarcer. Hence, the forecasts become more dependent on structural characteristics like persistence, expectations, spillovers, and macro-linkages[1].

The above mentioned characteristics underscore the need for a forecasting framework, which identifies the path of convergence from observed data or nowcasts (in the near horizon) to a dynamic equilibrium[2]/benchmark forecast that is generated using an *atheoretical* framework. There can be multiple paths through which nowcast can converge to the benchmark forecasts (Chart 1).

Using dynamic optimisation, the proposed short-term forecasting model (STFM) identifies the path that allows convergence from nowcast to benchmark forecast, accentuated or delayed by persistence, spillovers from different inflation components and linkages from other macro variables like output gap, exchange rate and cost conditions. This framework also gives the flexibility to incorporate judgmental adjustments to this convergence process based on views from sectoral developments. Thus, the short-term forecasting model acts as a bridge navigating from nowcasts in the near-horizon to benchmark

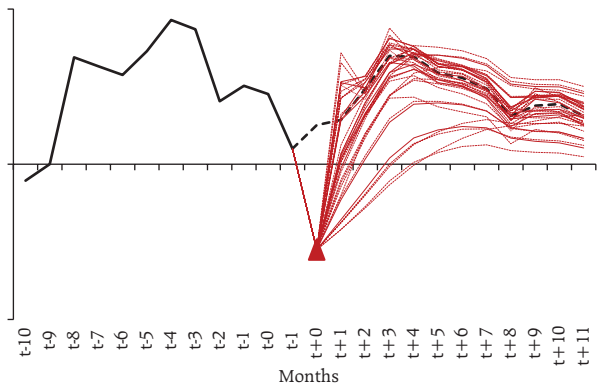
^ The authors are from the Department of Statistics and Information Management, Reserve Bank of India. The views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

[1] In recent times, high frequency models of macro-linkages are gaining prominence *e.g.*, Bayesian Machine Learning models and Gaussian Process and Bayesian Additive Regression Tree (BART). However, these models also, are dependent on data.

[2] Dynamic equilibrium is a state where a system is balanced, the macroscopic properties remain stable, even though changes are occurring at microscopic level.

Chart 1: From Nowcasts to Benchmark Forecast: Multiple Paths

(m-o-m, per cent)



Note: 1. This is an illustative chart and do not use any actual data, hence no axis values are mentioned.
2. Black line: Actual; Dotted Black line: Benchmark forecasts (Dynamic equilibrium); Red triangle: Nowcasts; and Dotted redlines: Possible convergence paths.

Source: Authors' Illustration.

forecasts in a short-to-medium-horizon. This hybrid architecture offers a more pragmatic and policy relevant forecasting solution. This article delves into the nitty-gritty of such a framework designed for short-term inflation forecasting in the Indian context.

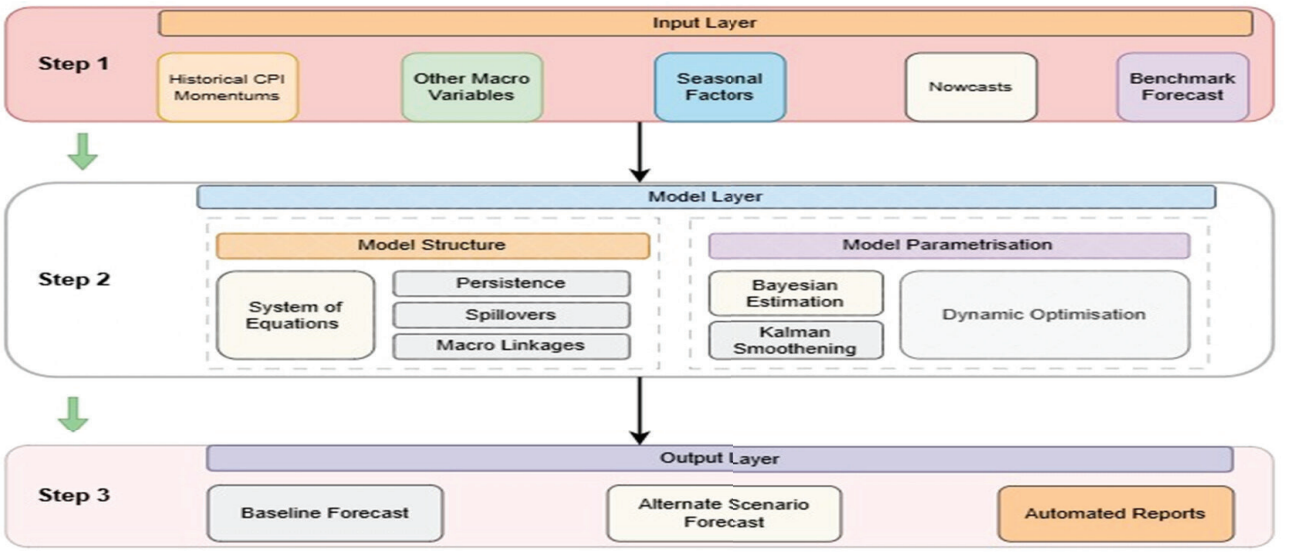
II. Short-term Inflation Forecasting Tool: An Eagle-Eye View of System Architecture and Framework Design

This section presents a high-level overview of the short-term inflation forecasting framework. It is engineered around a layered architecture that integrates diverse information sources, dynamic interlinkages and stochastic processes that allow nowcasts to converge to the benchmark forecast. The system is organized into three layers: the *Input Layer* (Step 1), the *Model Layer* (Step 2), and the *Output Layer* (Step 3) (Chart 2).

II.1. *Input Layer* (*Initial Conditions*): The *Input Layer* constitutes the historical data (CPI as well as other macro variables), seasonal factors, nowcasts and benchmark forecasts.

a) *Historical CPI Momentums*: The input layer incorporates the historical data on monthly basis for the 33 CPI sub-groups and component series[3]

Chart 2: A High-level Architecture of the Short-term Inflation Forecasting Model



Source: Authors' Illustration.

[3] Along with the officially classified 22 CPI sub-groups, 11 'fuel' items are also considered in the model framework separately. Thus, the 33 sub-groups/components are 'Cereals & products', 'Pulses & products', 'Milk & products', 'Eggs', 'Meat & Fish', 'Vegetables', 'Fruits', 'Spices', 'Oil & Fats', 'Sugar & confectionary', 'Non-Alcoholic Beverages', 'Prepared meals', 'Electricity', 'LPG', 'Kerosene-PDS', 'Kerosene-Other', 'Diesel', 'Other fuel', 'Coke', 'Firewood & chips', 'Coal', 'Charcoal', 'Dung cake', 'Housing', 'Pan, Tobacco & Intoxicants', 'Clothing', 'Footwear', 'Household', 'Health', 'Transport & communication', 'Recreation & amusement', 'Education', and 'Personal care & effects'.

for the period from February 2011 onwards. This database forms the basis for the structure and parametrisation of the model, as well as the initial condition for the short-term forecast in absence of any nowcast information.

b) *Other Macro Variables:* A set of macroeconomic variables, which includes output gap, exchange rate, commodity prices and domestic fuel costs act as the conduits of macro-linkages to headline inflation, affecting through different sub-groups/components. These inputs are integrated within a semi-structural model to account for exchange rate passthrough, imported inflation, cost push pressures and demand-side effects on inflation.

c) *Seasonal Factors:* The model parameterisation and forecasts are carried out using the seasonally adjusted data. The seasonal adjustment process has been carried out on the month-on-month (m-o-m) changes of each of the 33 CPI series separately. These are carried out using the X-13 ARIMA-SEATS seasonal adjustment procedure[4] using the data from February 2011 onwards, with additive restrictions. Further, the average monthly seasonal factors are also computed separately for each of the 33 CPI sub-groups/components. These average seasonal factors are used in the later stage along with the seasonally adjusted m-o-m forecasts of 33 CPI sub-groups/components for generating the headline inflation forecast.

d) *Nowcasts (data dependent forecasts):* The nowcast in this forecasting framework serves as the initial condition across the 33 CPI sub-groups/components, separately. The nowcasting process is derived from a comprehensive full information matrix constructed using all available early price signals—both quantitative (*e.g.*, daily *mandi* prices (Agmarknet, Ministry of Agriculture, Government of India (GoI)), daily wholesale and retail prices (Department of Consumer Affairs, GoI), in-house price surveys and qualitative inputs (*e.g.*, media intelligence, supply-side government measures *etc.*). This matrix acts as a real-time intelligence dashboard, capturing the most recent developments in price behaviour across these components. These nowcasts reflect the near-term momentum in prices and act as the initial conditions for the short-term forecasting model.

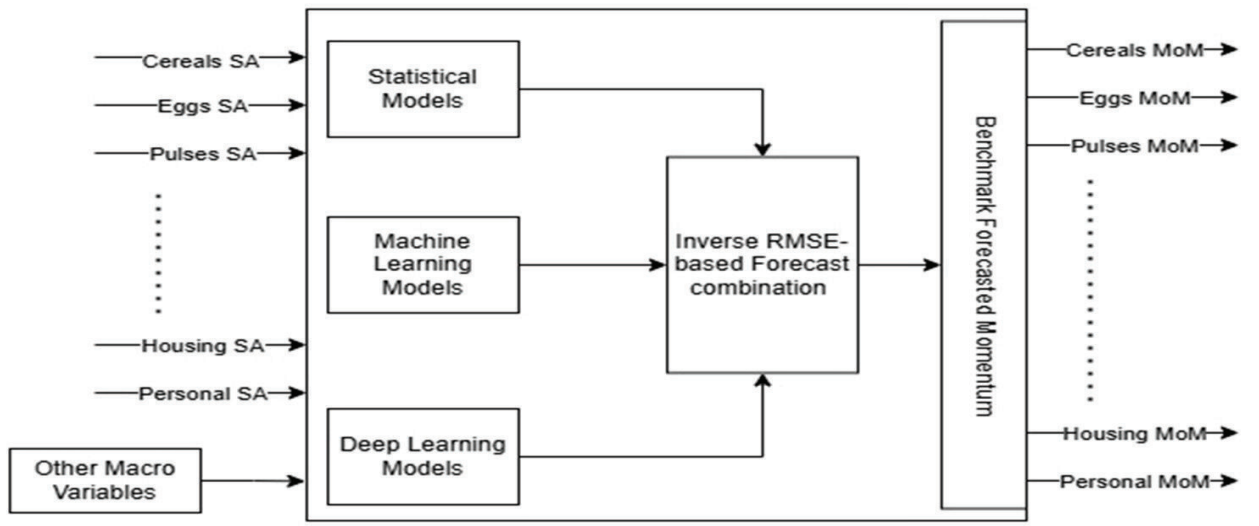
e) *Benchmark Forecasts (model dependent forecasts):* Benchmark forecasts are generated using a performance-weighted forecast combination approach (Mohan *et al.*, 2025; John *et al.*, 2020) using seasonally adjusted momentums for each of the 33 CPI sub-groups/components. For each component, this approach combines the forecasts from a *suite* of statistical, machine learning (ML) and deep learning (DL) models containing univariate and multivariate models, which includes autoregressive integrated moving average (ARIMA), vector autoregression (VAR), Bayesian VAR (BVAR), support vector machine (SVM), random forests, nonlinear autoregressive neural networks (NARNET) and long short-term memory (LSTM) models with different specifications. Thus, generating 216 forecasts for each of the 33 CPI sub-groups/components. Forecasts for individual models are then combined by weights generated using inverse of *pseudo*-out-of-sample[5] root mean squared errors (RMSEs), separately for each of these 33 sub-groups/components (Chart 3).

The benchmarks forecasts are *atheoretical* by design, making them an ideal reference point for nowcast to converge to. They reflect the information contained in historical patterns and derived out

[4] X-13ARIMA-SEATS is seasonal adjustment software produced, distributed, and maintained by the US Census Bureau (For reference material see Monsell, Lytras and Findley, 2016).

[5] In a *pseudo* out-of-sample forecasting exercise, the forecasts are generated at time *t-h* (for $h = 1$ to m) in the past, using only the data available till that time (*t-h*) for parametrisation of the model as well as for generating the forecast of the exogenous and endogenous variables.

Chart 3: Benchmark Forecasting Model



Source: Authors' Illustration.

of model-imposed dynamics. This makes them particularly important within the broader forecasting framework – they act as the dynamic equilibrium/ benchmark.

II.2. Model Layer (Short-term Forecasting Model): The *Model Layer* is the analytical engine of our short-term forecasting framework. It is a semi-structural model incorporating persistence, spillovers, and macro-linkages. It transforms the inputs into forecasts through Bayesian posterior updation, Kalman filtering and dynamic optimisation. This layer is bifurcated into two subsystems: *Model Structure,* and *Model Parametrisation and Estimation. Model structure* in sub-section (a) describes the equations in STFM, which are characterised by persistence, macro-linkages and interlinkages among the various CPI sub-groups/ components. *Model Parametrisation and Estimation* in sub-section (b) describes the parameter estimation process.

a) *Model Structure***:** Inflation dynamics is modelled with a set of transition equations specified for each of the 33 CPI sub-groups/components, allowing each category to respond to its own persistence, spillovers from other components (say passthrough effects from fuel prices and cost-push pressures), macro-linkages (say exchange rate passthrough to inflation and demand sensitivity) and idiosyncratic shocks. For each sub-group, inflation is governed by a system of identities and behavioural equations, such as identities linking the seasonally adjusted momentum and seasonal factors; closing identities for seasonal factors and benchmark forecasts; and dynamic behavioural equations capturing the evolution of seasonally adjusted momentums. The behavioural equations are specified as a function of lagged inflations (capturing intrinsic persistence), exogenous macro drivers (*e.g.,* output gap, cost-push pressures and exchange rate movements), spillover effects from other sub-groups/components, benchmark forecasts, and stochastic shocks. The set of equations are as below:

For all elements in

Var = {'Cereals & products', 'Pulses & products', 'Milk & products', 'Eggs', 'Meat & Fish', 'Vegetables', 'Fruits', 'Spices', 'Oil & Fats', 'Sugar & confectionary', 'Non-Alcoholic Beverages', 'Prepared meals', 'Electricity', 'LPG', 'Kerosene-

PDS', 'Kerosene-Other', 'Diesel', 'Other fuel', 'Coke', 'Firewood & chips', 'Coal', 'Charcoal', 'Dung cake', 'Housing', 'Pan, Tobacco & Intoxicants', 'Clothing', 'Footwear', 'Household', 'Health', 'Transport & communication', 'Recreation & amusement', 'Education', 'Personal care & effects'}

$$DL_{Var\{i\}} = DL_{Var\{i\}_{SA}} + DL_{Var\{i\}_{SF}} \quad (1)$$

$$DL_{Var\{i\}_{BM}} = ssDL_{Var\{i\}} + SHKDL_{Var\{i\}_{BM}} \quad (2)$$

$$DL_{Var\{i\}_{SF}} = SHKDL_{Var\{i\}_{SF}} \quad (3)$$

$$DL_{Var\{i\}_{SA}} = a^i * DL_{Var\{i\}_{SA}}\{-1\} + \underbrace{a_j^i * DL_{Var\{j\}_{SA}}}_{for\ all\ j \neq i} + \left(1 - \left(a^i + \sum a_j^i\right)\right) * \mathrm{DL}_{Var\{i\}_{\mathrm{BM}}} + b_i * DL_{Ex} + c_i * OG + SHKDL_{Var\{i\}_{SA}} \quad (4)$$

$DL_{Var\{i\}}$ is the m-o-m per cent change in the i^{th} variable in *Var.*

$DL_{Var\{i\}_{SA}}$ is the seasonally adjusted m-o-m per cent change in the i^{th} variable in *Var.*

$DL_{Var\{i\}_{SF}}$ is the seasonal factors of the m-o-m per cent change in the i^{th} variable in *Var.*

$DL_{Var\{i\}_{BM}}$ is the benchmark forecasts of the seasonally adjusted m-o-m per cent change in the i^{th} variable in *Var.*

OG and *Ex* are output gap and exchange rate, respectively.

Equation (1) represents the identity linking seasonally adjusted and unadjusted series. Equations (2) and (3) are used for closing the model structure. The benchmark forecasts ($DL_{Var\{i\}_{BM}}$) and seasonal factors ($DL_{Var\{i\}_{SF}}$) in the entire forecast horizon are provided as exogenous inputs. Equation (4) represents the behavioural equation encompassing persistence, spillovers, and macro impacts, which allows the convergence from nowcasts (initial condition) to the benchmark forecasts. The dimension of the short-term forecasting model is presented in Table 1.

Table 1: Dimension of the Short-term Forecasting Model

Number of CPI sub-groups/components	33
Number of equations	134
Number of variables	134
Number of shocks	101
Number of parameters	89
Number of measurement equations	68
Number of observed variables	68

Source: Authors' Estimates.

b) *Model Parametrisation and Estimation*: The model parameters are estimated using Bayesian techniques. The unobserved variables are filtered out using Multivariate Kalman Filter. Using the estimated posterior parameters and initial conditions, as provided by nowcasts, the h-period ahead forecasts are then generated using dynamic optimisation.

The Bayesian estimation is carried out using the Metropolis-Hastings[6]-Markov Chain Monte Carlo[7] (MH-MCMC) method. For each parameter in the model, a prior distribution is specified as lognormal distribution centred around a prior mode, which are identified using single equation econometric methods. The MH algorithm iteratively draws from the proposed distribution and accepts or rejects samples based on the posterior likelihood, eventually converging to the target posterior modes as defined by Bayes' rule. The estimation is governed by a set of convergence criteria, including tolerances on function values, subject to constraints and bounded by a maximum number of iterations. Once the posterior sampling is completed, the

[6] MH algorithm (Metropolis *et al.*, 1953; Hastings, 1970) is the most popular technique to build Markov chains (series of dependent samples) with a given invariant distribution. While Metropolis *et al.* (1953) requires that the proposed distribution be symmetric, Hastings (1970) generalises it to allow asymmetric distributions.

[7] MCMC methods generate Markov chains, which over time converges to a desired stationary distribution. This method is used for approximating complex distributions and estimating its parameters, even when theoretical closed-form solutions are unavailable. For details, refer to Brooks (1998).

posterior modes are computed from the MCMC draws and stored for subsequent use in filtering and forecast generation. An adaptive random-walk Metropolis (ARWM) posterior simulator[8] is used to draw samples from the prior distribution and uses estimated posterior modes to generates a large chain of iterations (here 5,00,000) to reach stationary posterior distributions. These distributions are used to generate 95 per cent credible intervals (CI)[9]. Further, the unobserved variables are filtered out using multivariate Kalman smoothing procedure[10]. Then, through a dynamic optimisation process[11], the estimated system guides nowcasts towards the benchmark forecasts, which provide the point forecasts for each of the components and groups. Further, density forecasts for each of the variables are generated using multivariate and time-simultaneous prediction bands[12]. Here, the forecast mean square error matrices are used to generate the forecast error standard deviations (SD), which in turn is applied on the point forecasts to obtain the density forecasts, assuming a normal distribution[13].

II.3. Output Layer: The Output Layer forms the final stage of the forecasting system, transforming the forecasted momentum (expressed in m-o-m per cent change) paths of each of the 33 CPI sub-groups/components—generated in the Model Layer—into forecasts of indices, year-on-year (y-o-y) inflations and contributions.

The momentum forecasts are applied to the one-period prior observed/estimated indices to recursively construct the forecasted indices for each component/sub-group. These are then aggregated into broader categories[14],—'Food & Beverages', 'Fuel & Light', and 'Core' (Ex-Food & Fuel)—using CPI weights. 'Fuel & Light' sub-group, provides an additional challenge due to the aggregation biases[15]. Hence, for 'Fuel & Light, an additional refinement is introduced. The weighted statistical moments (variance, skewness, and kurtosis) of the constituent fuel items are used as predictors for estimating the aggregation biases. From the forecasted indices, the y-o-y inflation and m-o-m rates for each sub-groups/components and at aggregated (groups and headline) levels are then calculated.

A toolbox has been developed in Matlab®, using the IRIS[16] and MikTex©[17] to support the model estimation, forecasting and output generation – including forecast tables and charts – compiled into a publication-ready report.

[8] In ARWM, a proposed distribution (here Normal) is updated adaptively using the full information accumulated so far. Due to its adaptive nature the ARWM algorithm is non-Markovian, however it has the right ergodic properties. ARWM, thus overcomes the issue of the choice of a proper distribution, which is vital for the convergence in the traditional MCMC algorithms (Haario *et al.*, 2001).

[9] Credible intervals are intervals generated from the posterior probability density function. It can be interpreted similar to the confidence interval in the frequentist approach. For *e.g.*, a 95% credible interval is having 95 per cent probability that the true value of the estimate would lie within that interval.

[10] Multivariate Kalman filter uses observed variables and stochastics noises over time to filter out unknown variables, using a multivariate state-space model, which applies the joint probability distributions in each time-step. This system level approach tends to be more accurate than those based on a single measurement variable and a single equation. A Kalman smoothing process uses both past and future values and tend to be even more accurate. For details, refer to Barratt and Boyd (2020).

[11] Dynamic optimisation involves the following steps: 1) steady state solutions are obtained using Newton-type algorithm, 2) dynamic solutions, which guides the disequilibria at any time to the steady state, are obtained using particle swarm optimizer (Eberhart and Kennedy, 1995). 3) The point forecasts are then generated using equation-selective simulator with Shanks acceleration (a non-linear algorithm which improves the rate of convergence).

[12] Multivariate and time-simultaneous prediction bands aim to capture possible outcomes for all variables at all horizons within any specified confidence level. This is used to forecasts confidence bands of different related time series by simultaneously considering the temporal uncertainty as well as their interlinkages across different variables. These are generated by estimating forecast mean square error matrices (Kolsrud, 2007).

[13] The framework can also be used to generate asymmetric confidence interval forecasts using a split-normal distribution.

[14] The 33 component/sub-group level indices are aggregated into three respective groups (Food, Fuel and Core) using the CPI-C weights. Subsequently, headline index is calculated using the group-wise CPI-C weights.

[15] The weighted vertical aggregation of the item-level indices does not match with the published 'Fuel & Light' index (Das and George, 2023).

[16] IRIS is an open-source toolbox for macroeconomic modelling and forecasting in Matlab®, originally developed by the 'IRIS Solutions Team' and currently maintained and supported by the 'Global Projection Model Network'. https://iris.igpmn.org/

[17] MikTex© is an open-source TeX /LaTeX editor for creating, typesetting, and previewing documents.

III. Results

The estimated parameters and 95 per cent CI are provided in Table 2.

Table 2: Bayesian Estimated Parameters

S. No	CPI Sub-Group	Para-meters	Prior Mode	Posterior Mode	95% CI	
					Lower	Upper
1	Cereals	a_1^1	0.53	0.70	0.47	0.95
		c_1	0.00	0.01	0.00	0.58
		a_1^{17}	0.00	0.21	0.01	0.51
2	Pulses	a_2^2	0.65	0.76	0.31	0.95
		c_2	0.10	0.02	0.01	0.84
		a_2^{17}	0.00	0.15	0.01	0.56
3	Meat & Fish	a_3^3	0.43	0.78	0.32	0.95
		a_3^{17}	0.01	0.05	0.00	0.10
4	Egg	a_4^4	0.03	0.80	0.56	0.97
		c_4	0.21	0.00	0.00	0.81
5	Milk	a_5^5	0.00	0.60	0.06	0.83
		c_5	0.17	0.00	0.00	0.63
		a_5^1	0.00	0.36	0.19	0.95
6	Oil & Fats	a_6^6	0.22	0.85	0.63	0.97
		b_6	0.34	0.01	0.00	0.88
7	Fruits	a_7^7	0.00	0.82	0.48	0.98
		a_7^{17}	0.73	0.02	0.00	0.05
8	Vegetables	a_8^8	0.00	0.53	0.29	0.76
9	Spices	a_9^9	0.67	0.85	0.48	0.97
		a_9^{17}	0.05	0.04	0.00	0.10
10	Sugar	a_{10}^{10}	0.36	0.66	0.16	0.83
		c_{10}	0.01	0.02	0.01	0.68
		a_{10}^{17}	0.01	0.25	0.02	0.64
11	Beverages	a_{11}^{11}	0.67	0.69	0.21	0.85
		a_{11}^{17}	0.00	0.01	0.00	0.10
		a_{11}^{13}	0.05	0.06	0.00	0.10
		a_{11}^{10}	0.00	0.18	0.05	0.70
12	Prepared meals	a_{12}^{12}	0.34	0.36	0.00	0.50
		c_{12}	0.02	0.01	0.00	0.77
		a_{12}^{1}	0.00	0.11	0.01	0.55
		a_{12}^{5}	0.00	0.12	0.00	0.40
		a_{12}^{15}	0.08	0.06	0.01	0.43
		a_{12}^{17}	0.00	0.03	0.00	0.28
		a_{12}^{21}	0.17	0.20	0.00	0.36
		a_{12}^{10}	0.00	0.11	0.00	0.55
13	Electricity	a_{13}^{13}	0.08	0.33	0.04	0.75
		a_{13}^{17}	0.02	0.13	0.01	0.43
		a_{13}^{19}	0.09	0.19	0.01	0.78
		a_{13}^{20}	0.00	0.31	0.00	0.48
14	LPG	a_{14}^{14}	0.32	0.74	0.48	0.95
		b_{14}	0.05	0.01	0.00	0.74
15	Kerosene-PDS	a_{15}^{15}	0.01	0.42	0.18	0.64
16	Kerosene-Other	a_{16}^{16}	0.19	0.81	0.53	0.98
		b_{16}	0.05	0.05	0.01	0.93
17	Diesel	a_{17}^{17}	0.19	0.72	0.42	0.92
		b_{17}	0.10	0.12	0.02	0.90
18	Other Fuel	a_{18}^{18}	0.00	0.78	0.35	0.92

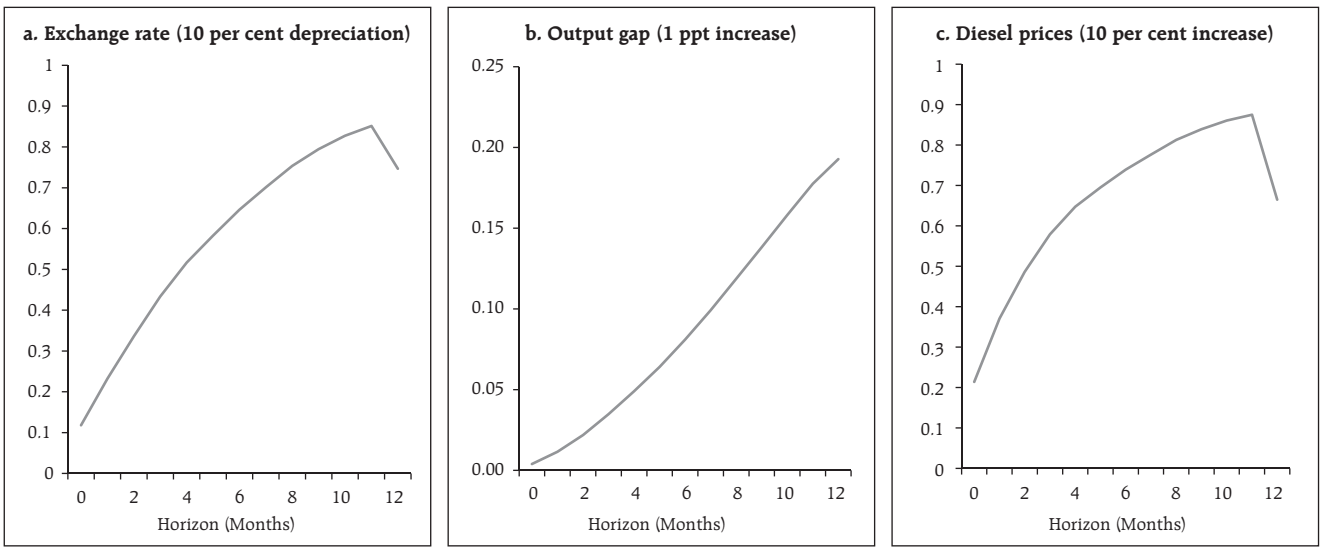
Sr. No	CPI Sub-Group	Para-meters	Prior Mode	Posterior Mode	95% CI	
					Lower	Upper
19	Coke	a_{19}^{19}	0.00	0.71	0.46	0.95
		b_{19}	0.00	0.00	0.01	0.82
20	Coal	a_{20}^{20}	0.12	0.76	0.51	0.92
		b_{20}	0.53	0.05	0.01	0.89
21	Firewood	a_{21}^{21}	0.44	0.35	0.07	0.76
		a_{21}^{14}	0.35	0.23	0.02	0.59
		a_{21}^{19}	0.00	0.32	0.01	0.59
		a_{21}^{15}	0.00	0.07	0.00	0.31
22	Charcoal	a_{22}^{22}	0.06	0.77	0.52	0.95
23	Dung cake	a_{23}^{23}	0.15	0.70	0.46	0.95
		a_{23}^{17}	0.03	0.07	0.00	0.10
		a_{23}^{15}	0.09	0.09	0.00	0.10
24	Housing	a_{24}^{24}	0.68	0.84	0.54	0.96
		c_{24}	0.01	0.00	0.00	0.74
		a_{24}^{13}	0.01	0.04	0.00	0.10
		a_{24}^{17}	0.00	0.01	0.00	0.05
25	Pan, Tobacco & Intoxicants	a_{25}^{25}	0.06	0.83	0.59	0.98
		c_{25}	0.02	0.01	0.00	0.62
26	Clothing	a_{26}^{26}	0.41	0.74	0.36	0.96
		c_{26}	0.01	0.02	0.01	0.79
		d_{26}	0.00	0.17	0.01	0.47
27	Footwear	a_{27}^{27}	0.29	0.83	0.58	0.97
		c_{27}	0.01	0.00	0.01	0.67
		a_{27}^{17}	0.00	0.01	0.00	0.05
28	Household Goods & Services	a_{28}^{28}	0.00	0.83	0.57	0.97
		c_{28}	0.02	0.01	0.00	0.65
		b_{28}	0.03	0.03	0.01	0.87
29	Health	a_{29}^{29}	0.00	0.79	0.48	0.96
		c_{29}	0.01	0.00	0.00	0.70
		a_{29}^{13}	0.00	0.05	0.00	0.10
30	Transport & Communications	a_{30}^{30}	0.28	0.78	0.46	0.97
		b_{30}	0.06	0.06	0.00	0.88
		a_{30}^{14}	0.00	0.01	0.00	0.05
		a_{30}^{17}	0.06	0.07	0.01	0.07
31	Recreation & Amusement	a_{31}^{31}	0.00	0.82	0.49	0.97
		c_{31}	0.01	0.00	0.00	0.54
32	Education	a_{32}^{32}	0.00	0.76	0.47	0.95
		c_{32}	0.03	0.01	0.00	0.66
		a_{32}^{13}	0.05	0.09	0.00	0.10
33	Personal care & effects	a_{33}^{33}	0.26	0.74	0.55	0.97
		c_{33}	0.29	0.31	0.02	0.94
		a_{33}^{6}	0.04	0.15	0.01	0.20

Note: a_j^i measures impact of i^{th} CPI sub-group on j^{th} sub-group momentum, for $i=j$, the parameter measures the persistence of j^{th} CPI subgroup, b_j measures the exchange rate pass through on the j^{th} sub-group momentum, c_j measures the impact of output gap on the j^{th} sub-group momentum

Source: Authors' Estimates.

Chart 4: Impact of Some Macro Variables on Headline Inflation (y-o-y)

(percentage points [ppt])



Source: Authors' Estimates

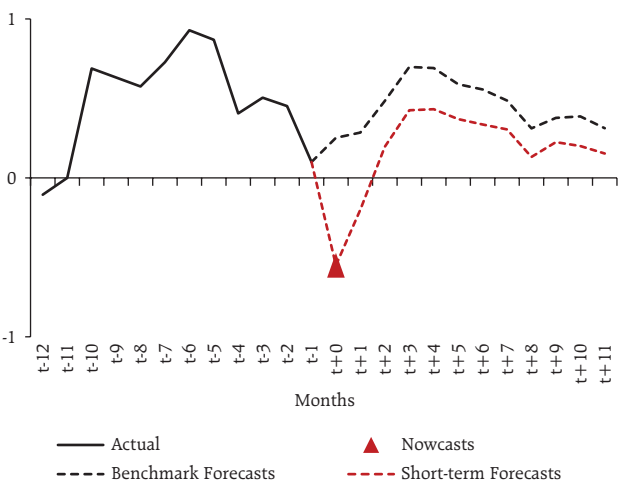
The impact of some key macro variables on headline y-o-y inflation can be derived from this framework (Chart 4). This includes both direct and indirect effects.

Ten per cent depreciation in exchange rate leads to around 80 basis points (bps) increase in inflation over a period of 12 months (Chart 4.a). If demand conditions increase by 1 per centage point (ppt), headline inflation increases by close to 20 bps over a period of one year (Chart 4.b). The ten per cent increase in diesel (pump) prices, will lead to an increase in the headline inflation by around 90 bps over a 12-month horizon (Chart 4.c).

Using one of the components as an example, Chart 5 illustrates the convergence of nowcast at period (*t+0*) to the benchmark forecast at horizon (*t+11*), generated from the short-term forecasting framework. This chart indicates that the nowcast (red triangle marker, Chart 5) of this component estimated from the high-frequency data is largely different from that emerged out of the benchmark forecast at (*t+0*) (dotted black line, Chart 5). Using nowcast as the initial condition, the short-term forecasting model allow nowcast to converge to the benchmark forecast (red dotted line, Chart 6). Here, it could be interpreted that in case of this sub-component, the difference in the near-term is largely transitory. However, the persistence, spillovers, and macro-linkages has slowed down the convergence of momentum forecast to benchmark

Chart 5: Forecast

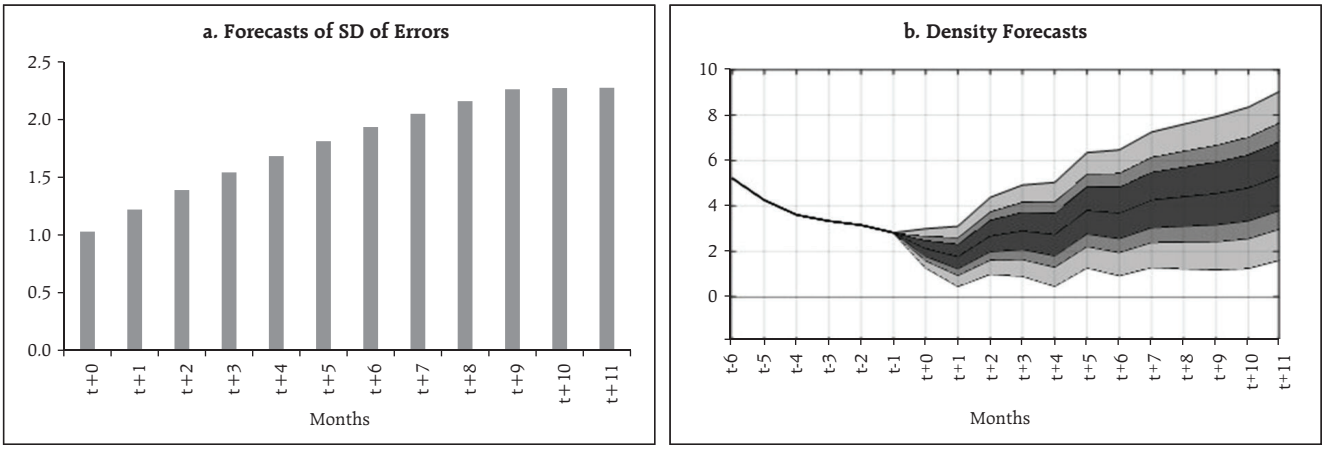
(m-o-m, per cent)



Notes: This is an illustration of the forecasted path of one of the components generated from STFM, using actual data.
Source: Authors' Estimates.

Chart 6: Density Forecasts

(y-o-y, per cent)



Notes: 1. This is an illustration of forecast path of one of the components generated from STFM, using actual data.
2. In Chart b, the thick black shaded area represents 50 per cent confidence interval, implying that there is 50 per cent probability that the actual outcome will be within the range given by the thick black shaded area. Likewise, for 70 per cent and 90 per cent confidence intervals, there is 70 per cent and 90 per cent probability, respectively, that the actual outcomes will be in the range represented by the respective shaded areas.

Source: Authors' Estimates.

forecast, even after 12-months, thus, leaving some lasting impact.

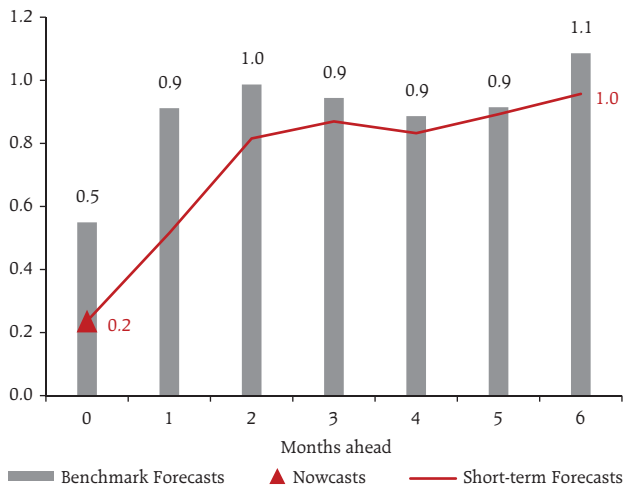
The SDs of the forecast errors for each sub-group/component that are also generated from this framework, are then used for creating the density forecasts. An illustrative example of a group in CPI basket is demonstrated in Chart 6. Chart 6.a provides the uncertainty around the point forecasts through horizons, which are measured using SDs. Estimated SDs are then used to generate the density forecast (Chart 6.b).

Finally, the evaluation of the short-term forecasting model is carried out by generating *pseudo*-out of sample root mean square errors (RMSE) (Chart 7).

Pseudo-out of sample RMSE for y-o-y headline inflation is markedly lower in the near-term compared to benchmark forecasts indicating the advantage of full information based nowcasts in the near-term. As the horizon extends the accuracy of the short-term forecasts converges to that of the benchmark forecasts. The advantage of the benchmark model (based on inflation combination approach of a large *suite* of models) in terms of accuracy for generating forecasts in short-term horizon, relative to other models is already established in the Indian context (Mohan *et al.*, 2025). Thus, the proposed framework leverages the advantage of nowcasts in the near-term, while ensuring enhanced forecast accuracy in the short-term. However, the overall accuracy of this framework depends on the accuracy of the nowcasts. This

Chart 7: *Pseudo*-out of Sample Root Mean Square Errors of Headline Inflation (y-o-y)

(percentage points)



Note: Lower RMSEs indicate better forecast accuracy.

Source: Authors' Estimates

underscores the need for a consistent and accurate framework for generating nowcasts, rather than the full information matrix–based system presented in this article. Ideally, such a framework should integrate high-frequency, spatial, and multi-source data sets–an area identified for future research.

IV. Conclusion

This paper presents a framework for short-term inflation forecasting that bridges data-driven modelling, machine learning techniques, structural hysteresis, macro-linkages, and inter-sectoral spillovers. By integrating nowcasts, benchmark forecasts, seasonal factors, and judgmental adjustments into a dynamic system of disaggregated component/sub-group level equations, this framework offers a forward-looking and granular view of inflation dynamics. The design's flexibility also enables scenario analysis. Importantly, the disaggregated architecture allows for clear attribution to inflation formation. In this framework, the enhanced forecast performance in the near-horizon stemming from nowcasts is accounted for, still preserving the advantage of statistical and machine learning models in short-horizon. It is also equipped with generating density forecasts. As such, this forecasting framework provides a powerful, yet pragmatic solution for generating short-term inflation forecasts, in an increasingly complex and uncertain environment, which are peculiar characteristics of an emerging market economy.

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Multivariate Core Trend Inflation: A New Measure of Core Inflation

by Harendra Kumar Behera and Abhishek Ranjan ^

This study estimates Multivariate Core Trend (MCT) inflation by using disaggregated CPI series with dynamic sectoral weights. By assigning time-varying weights based on sectoral volatility, persistence, and co-movement, our model identifies whether underlying inflation is driven by broad-based trend or sector-specific forces. The results show a stable contribution of sector-specific trends, while changes in the common trend – comprising both volatile components (food and fuel) and more stable components (core) – largely determine the dynamics of MCT. We find that MCT inflation tracks both core and headline inflation more effectively over longer horizons, offering a more reliable gauge of underlying inflationary pressures.

Introduction

Understanding inflation dynamics is critical for designing effective economic policies, particularly for a country like India which emphasises price stability as the primary goal of its monetary policy. Moreover, accurately estimating trend inflation – vital for forecasting the future trajectory of inflation – becomes a key focus for the monetary policy formulation and decision-making after the introduction of flexible inflation target framework in June 2016. However, isolating the core inflationary pressures from the overall inflation rate is a complex challenge. Various forms of 'noise' influences aggregate inflation, making it difficult to differentiate between long-term persistent trends and short-term cyclical fluctuations. Therefore, the concept of trend inflation is pivotal to monetary policy, as it represents the level where actual inflation is expected to stabilise.

The Multivariate Core Trend (MCT) inflation model, originally developed to analyse inflation within the personal consumption expenditures (PCE) price index, offers a sophisticated approach to dissecting inflation trends across multiple sectors. This model's relevance extends beyond its initial application, providing valuable insights into the persistent and transitory components of inflation.

The motivation of applying the MCT model to the Indian context stems from the need to address the complex and varied inflationary pressures across different sectors of the economy. Traditional measures of inflation often fail to capture the nuanced and sector-specific trends that can significantly impact economic stability and growth. By employing the MCT model, policymakers can gain a deeper understanding of these dynamics, enabling more precise and effective interventions.

The economic policymakers are particularly interested in distinguishing between temporary price fluctuations and more entrenched inflation trends. This distinction is vital for making informed decisions on interest rates and other monetary policy tools. The MCT model's ability to decompose inflation into common trends, sector-specific trends, and transitory shocks provides a clearer picture of the underlying drivers of inflation.

Furthermore, as India continues to integrate into the global economy, the ability to accurately measure and respond to inflationary pressures becomes increasingly important. The insights gained from the MCT model can enhance the Reserve Bank's capacity to maintain price stability, a key objective in its monetary policy framework. This, in turn, supports sustainable economic development and helps to mitigate the adverse effects of inflation on the broader economy.

^ The authors are from the Department of Economic and Policy Research, Reserve Bank of India. The views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

The application of the MCT model in India is, therefore, motivated by the need to better understand and manage inflation dynamics in a complex and evolving economic landscape. By providing a more detailed and accurate measure of inflation, the MCT model supports more effective economic policies and contributes to the overall stability and growth of the Indian economy. The paper is organised in the following section: Section II presents the literature review and Section III highlights some facts about inflation. Section IV describes the model and Section V provides the empirical estimates and decomposition of the MCT. Section VI analyses the predictive power of the MCT inflation for both core and headline. Section VII concludes the paper.

II. Literature Review

Core inflation, as introduced by Eckstein (1981), is "the rate [of inflation] that would occur on the economy's long-term growth path, provided the path were free of shocks, and the state of demand were neutral in the sense that markets were in long-run equilibrium". The concept of core inflation is subsequently refined and articulated as the 'central bank view' of inflation, achieved by excluding or minimizing the impact of specific factors–especially those that are volatile or erratic (Blinder, 1982; Apel and Jansson, 1999). Thus, core inflation (*i.e.*, inflation excluding food and fuel components), is considered as standard benchmark for the trend inflation.

Core-inflation measurement has evolved from simple exclusion-based approaches to more structural and model-based methods. In the Indian context, exclusion of food and fuel remains the conventional benchmark, followed by trimmed-mean, weighted-median, re-weighted CPI, UC-SV, and PCA-based trend metrics (George *et al.*, 2024; Patra *et al.*, 2024a; Behera and Patra, 2022). These approaches, while useful, do not fully account for time-varying persistence, sector-specific dynamics, and spillovers from volatile components.

Internationally, multivariate unobserved-components frameworks similar to the MCT model have been used across multiple economies. Stock and Watson (2016) demonstrate the multivariate trend structure for US inflation, motivating the Federal Reserve Bank of New York's real-time MCT estimates for the US. Thailand adopted disaggregated UC-SV models to extract trend inflation (Manopimoke & Limjaroenrat, 2017), while the European Central Bank has applied factor-based and state-space filters to capture underlying inflation pressures across heterogeneous euro-area economies. Central banks in New Zealand and Australia also employ disaggregated trend models to address commodity-price shocks and housing-services persistence. Similarly, Korea and Japan have utilized UC-SV and factor-trend frameworks in low-inflation environments to detect turning points in persistent inflation. Emerging economies such as Brazil and South Africa have examined UC-based filters to account for large food-price shocks and exchange-rate pass-through. These experiences underscore the value of multivariate, time-varying frameworks in economies where supply shocks are sizeable and traditional exclusion-based measures may understate persistent pressures.

Against this background, the application of the MCT model to India is both relevant and timely, given India's high food weight in CPI, repeated supply shocks, and documented spillovers from food to core inflation. The multivariate framework enables extraction of the true underlying trend by allowing time-varying persistence, volatility, and co-movement across CPI components – providing richer information than conventional core measures.

III. Some Facts about Inflation

A cross-country comparison of CPI basket compositions reveals significant variation in the weight of food and fuel across economies, reflecting structural differences in consumption patterns. In

Table 1: Weights of Food and Energy in Consumer Price Index

(Per cent)

Country	Food	Fuel /Energy	Source
US (Urban)	14.41	6.66	CEIC (2023)
UK	11.9	14.1	CEIC (2023)
Germany	12.66	5.35	HICP (2022)
France	16.56	4.73	HICP (2022)
Japan	26.26	6.93	CEIC (2023)
India	45.86	6.84	CEIC (2023)
China	19.9	2~3	Bloomberg
Brazil	21.11	11.46	CEIC (2023)
Australia	17.18	4.52	CEIC (2023)
Philippines	37.73	6.74	CEIC (2023)
Indonesia	25.01	5.81	CEIC (2023)
Myanmar	58.46	8.08	CEIC (2022)
Thailand	40.35	5.49	CEIC (2023)

Sources: CEIC; HICP; and Bloomberg

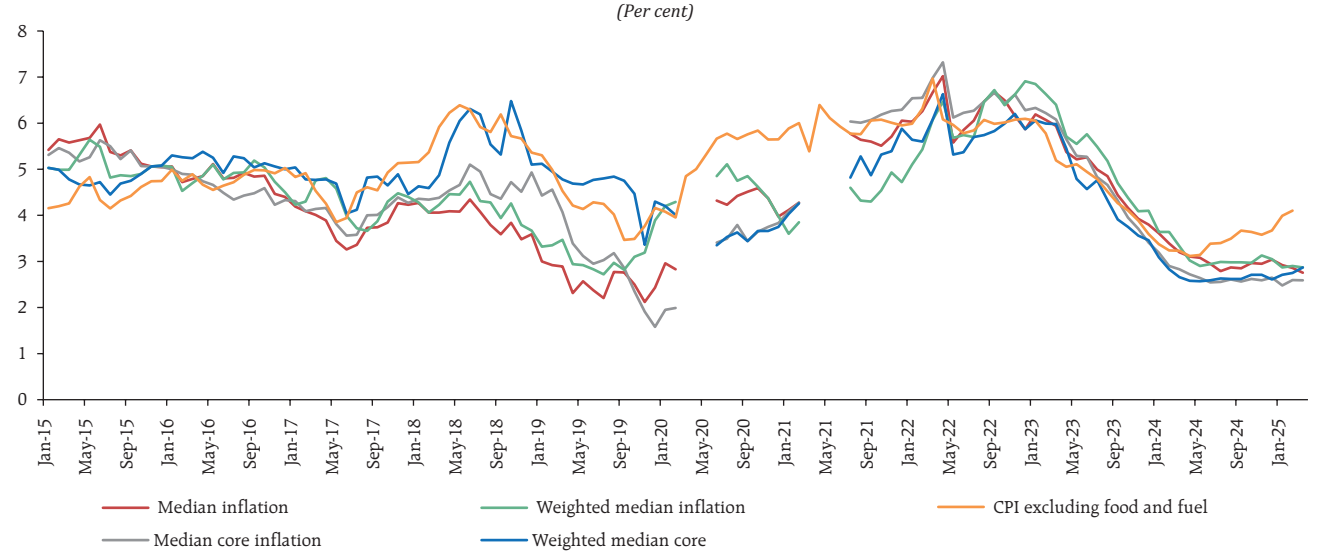
advanced economies such as the US, UK, Germany, and France, the combined weight of food and fuel is relatively low, typically ranging between 15 and 30 per cent (Table 1). In contrast, emerging market economies – particularly in Asia – exhibit much higher weights. For instance, India stands out with food accounting for nearly 46 per cent of its CPI basket, only second to Myanmar (58.5 per cent) and followed by Thailand (40.4 per cent) among the sample.

This pattern underscores the vulnerability of inflation in emerging markets to supply-side shocks, especially from food and energy prices. The high weight of food in India's CPI, for example, amplifies the transmission of volatile food price movements to headline inflation. While fuel weights are more consistent across countries (generally between 5-7 per cent), exceptions such as the UK (14.1 per cent) and Brazil (11.5 per cent) reflect distinct energy pricing structures or broader definitions of household energy consumption. These structural differences justify the need for country-specific core inflation measures and motivate multivariate approaches like the MCT framework – that can distinguish between transitory and persistent components across heterogeneous CPI structures.

In Indian context, median inflation measures indicate a period of relative stability from January 2015 to early 2020, with values generally ranging between 4 and 6 per cent (Chart 1)[1]. This was followed

Chart 1: Median Inflation

(Per cent)



Source: MOSPI; and RBI staff estimates

[1] Core inflation in India is commonly defined as CPI excluding food & beverages and fuel & light. Alternative operational definitions – such as excluding only food or excluding volatile subgroups – exist in literature but are not used in this baseline specification.

by a brief dip around mid-2020, likely reflecting the immediate economic impact of the pandemic. From late 2021, inflation rose sharply, peaking near 7 per cent by mid-2022. A sustained disinflationary phase then took hold, bringing median inflation down to around 3 per cent by late 2024. Notably, core median inflation – excluding volatile components – closely tracked the overall trend, pointing to broad-based movements in underlying inflation throughout the period. On the contrary, CPI inflation excluding food and fuel components moved upward since mid-2024. This requires further investigation of the sources driving the underlying dynamics of inflation in India.

The MCT measure of inflation can be helpful in tracking headline for countries where food and fuel inflation are volatile and has significant weight in the headline inflation. The concept of MCT measure, based on the methodology proposed by Stock and Watson (2016), is popularised by the Federal Reserve Bank of New York (FRBNY) after Almuzara and Sbordone (2022) published an article in Liberty Street Economics to explain the sources of inflation surge in the post-pandemic period. The FRBNY publishes the MCT inflation for the US on Monday following the release of the PCE data. The MCT inflation measure accounts for time-varying weights influenced by the volatility, persistence, and co-movement of different sectoral inflation. Inflation of each sector is decomposed into four components: a common trend, a sector-specific trend, a common transitory shock, and a sector-specific transitory shock. CPI inflation trend is estimated by adding the common trend with the sector-specific trends weighted by the CPI Core weights. Trend decomposition can further help identify the source of inflation persistence (Almuzara and Sbordone (2022)). The persistence and spillover from the volatile components of the CPI contributes to MCT inflation through the common trend.

There has been series of studies in the Bulletin of Reserve Bank of India around alternate core measures. Patra *et al.,* (2024a) investigates core-like properties of food inflation, *viz.* volatility, persistence, spillovers and cyclical sensitivity. George *et al.,* (2024) investigates several core measures based on exclusion, trimmed means, reweighted CPI, and trend CPI (HP, CF, PCA *etc*). However, the inflation measure introduced in this paper captures the time varying persistence and second round effects[2] of the inflation components in the multivariate core trend (MCT). The inclusion of the contribution from volatile component, food and fuel, through common trend, is further justified by Patra *et al.,* (2024b) which provides empirical evidence to suggest the spillover from food inflation to non-food components.

IV. Model Description

We use a multivariate unobserved components model with stochastic volatility and outlier adjustments (MUCSVO) to estimate MCT Core inflation (Stock and Watson, 2016). The model uses disaggregated sectoral data to estimate the underlying trend through time-series smoothing methods. The basic premises of the model is based on decomposition of actual inflation into its permanent and transitory components. The model decomposes the inflation of i^{th} sector at time t ($\pi_{i,t}$) into common trend ($\tau_{c,t}$), sector specific trend ($\tau_{i,t}$), sector specific common shocks ($\epsilon_{c,t}$) and sector specific idiosyncratic shocks ($\epsilon_{i,t}$). The coefficients of common trend (*i.e.,* $\alpha_{i,\tau,t}$) and common shocks (*i.e.,* $\alpha_{i,\epsilon,t}$) are modelled as time-varying. The trend components follow a martingale process, and the transitory components are assumed to be serially uncorrelated. Innovations to both the trends and the transitory components have time-varying variances ($\sigma^2_{\Delta\tau,c,t}$; $\sigma^2_{\epsilon,c,t}$; $\sigma^2_{\Delta\tau,i,t}$; $\sigma^2_{\epsilon,i,t}$) that follow logarithmic random walk stochastic volatility processes. Common factor and specific sector are indicated by the subscripts c and i, respectively. The specification of multivariate model is given below:

[2] Behera, H. K. & Ranjan, A. (2024), "Food and Fuel Prices: Second Round Effects on Headline Inflation in India" RBI Bulletin, April

$$\pi_{i,t} = \alpha_{i,\tau,t}\tau_{c,t} + \alpha_{i,\epsilon,t}\epsilon_{c,t} + \tau_{i,t} + \epsilon_{i,t} \quad (1)$$

$$\tau_{c,t} = \tau_{c,t-1} + \sigma_{\Delta\tau,c,t} * \eta_{\tau,c,t} \quad (2)$$

$$\epsilon_{c,t} = \sigma_{\epsilon,c,t} * s_{c,t} * \eta_{\epsilon,c,t} \quad (3)$$

$$\tau_{i,t} = \tau_{i,t-1} + \sigma_{\Delta\tau,i,t} * \eta_{\tau,i,t} \quad (4)$$

$$\epsilon_{i,t} = \sigma_{\epsilon,i,t} * s_{i,t} * \eta_{\epsilon,i,t} \quad (5)$$

$$\alpha_{i,\tau,t} = \alpha_{i,\tau,t-1} + \lambda_{i,\tau}\,\zeta_{i,\tau,t} \quad (6)$$

$$\alpha_{i,\epsilon,t} = \alpha_{i,\epsilon,t-1} + \lambda_{i,\epsilon}\,\zeta_{i,\epsilon,t} \quad (7)$$

$$\Delta \ln(\sigma^2_{\Delta\tau,c,t}) = \gamma_{\Delta\tau,c} + \nu_{\Delta\tau,c,t} \quad (8)$$

$$\Delta \ln(\sigma^2_{\Delta\epsilon,c,t}) = \gamma_{\epsilon,c} + \nu_{\epsilon,c,t} \quad (9)$$

$$\Delta \ln(\sigma^2_{\Delta\tau,i,t}) = \gamma_{\Delta\tau,i} + \nu_{\Delta\tau,i,t} \quad (10)$$

$$\Delta \ln(\sigma^2_{\Delta\epsilon,i,t}) = \gamma_{\epsilon,i} + \nu_{\epsilon,i,t} \quad (11)$$

Where the disturbances ($\eta_{\tau,c,t}$, $\eta_{\epsilon,c,t}$, $\eta_{\tau,i,t}$, $\eta_{\epsilon,i,t}$, $\zeta_{i,\tau,t}$, $\zeta_{i,\epsilon,t}$, $\nu_{\Delta\tau,c,t}$, $\nu_{\epsilon,c,t}$, $\nu_{\Delta\tau,i,t}$, $\nu_{\epsilon,i,t}$) are independent and identically distributed standard normal. The multivariate model allows the outliers in inflation, which occur each period with probability p_c and p_i, respectively in common shocks and sector specific shocks, through independent and identically distributed normal random variables s_c and s_i (Stock and Watson, 2016).

The aggregate trend inflation (τ_t) is given by weighted sum of the sectoral trends where w_i is the weight or contribution of i^{th} sector in the combined consumer price index.

$$\tau_t = \sum_{i=1}^{n} w_i\,(\alpha_{i,\tau,t}\,\tau_{c,t} + \tau_{i,t}) \quad (12)$$

Where the weights are normalised and summed up for the core inflation to get multivariate core trend inflation. The model is estimated by using Bayesian methods. The posterior parameters of the model are estimated by using Bayesian MCMC method, with 6000 iterations of which 3000 are being used as burn in iterations. We use an inverse gamma prior for λ by choosing scale and shape parameters consistent with T_{Prior} prior observations ($T_{Prior} = \frac{T}{10}$ where T is the sample size) and $s^2_{Prior} = \frac{0.25^2}{T_{Prior}}$ (Del Negro and Otrok, 2008)[3].

[3] For detailed estimation approach including choice of number of iteration and burnouts, please refer to online appendix of Stock and Watson (2016). https://www.princeton.edu/~mwatson/papers/core_and_trend_inflation_online_appendix_20151103.pdf

V. Empirical Results

We estimate MCT inflation for India using item-level CPI data from January 2012 to March 2025. The 9-digit-level CPI items are grouped into 23 subcategories: 12 under Food and Beverages, 6 under Miscellaneous, 2 under Clothing and Footwear, and one each under Pan, Tobacco and Intoxicants, Housing, and Fuel and Light[4]. Using the methodology outlined in the previous section and sub-group level CPI weights, we compute MCT inflation for India.

Before turning to the multivariate trend estimates, we first estimate univariate measures of trend inflation using the Unobserved Components model with Stochastic Volatility and Outlier Adjustments (UCSVO), applied separately to headline and core CPI. The UCSVO specification mirrors the MUCSVO model but excludes the common shock or common trend structure[5]. The univariate trend estimates suggest that inflation was generally on a declining trajectory until the starting of the COVID-19 pandemic (Chart 2). Supply disruptions during the pandemic and the Ukraine war led to a temporary rise in trend inflation until end-2022. Subsequently, trend inflation declined, reaching 4.3 per cent by March 2025.

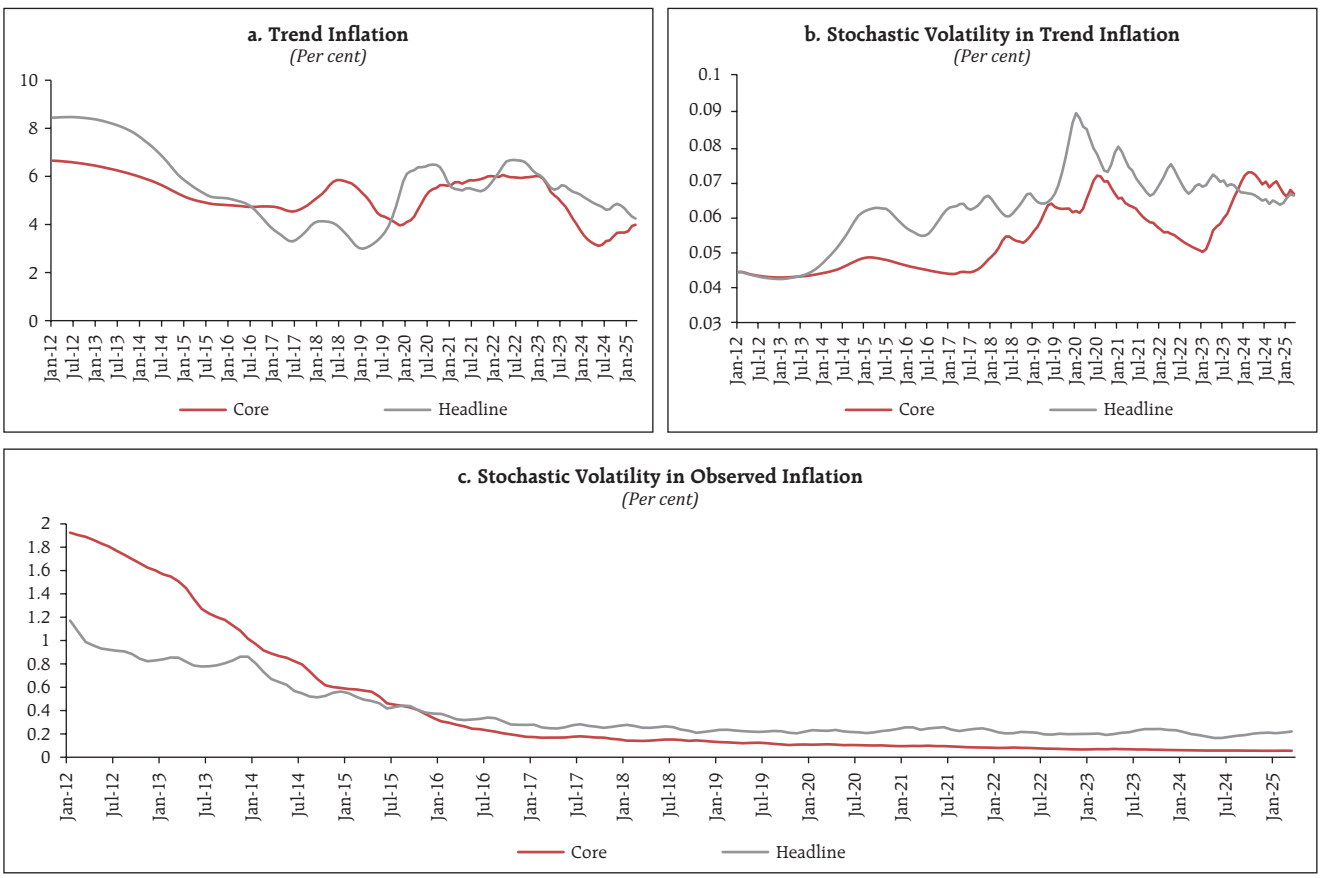
The UCSVO results also indicate that the volatility of trend in headline CPI is higher than that of core inflation, reflecting the persistence of food and energy shocks[6]. This highlights the potential bias in conventional core inflation measures that exclude food and fuel components without accounting for their persistent effects (Stock and Watson, 2016; Manopimoke and Limjaroenrat, 2017). However, the temporary rise in stochastic volatility in core trend

[4] Details of data and sectoral weights are provided in the Appendix.

[5] See more Stock and Watson (2016) for more details on UCSVO.

[6] Model-detected outliers align with major macroeconomic disruptions: (i) nationwide lockdown and mobility restrictions (Q1-Q2 2020), (ii) supply chain normalisation with inventory restocking (late-2020), and (iii) global energy and commodity price surge after the Russia-Ukraine war (2022). These outliers reflect non-systematic, high-amplitude price movements that do not represent persistent inflation dynamics.

Chart 2: UCSVO Estimates



Source: RBI staff estimates.

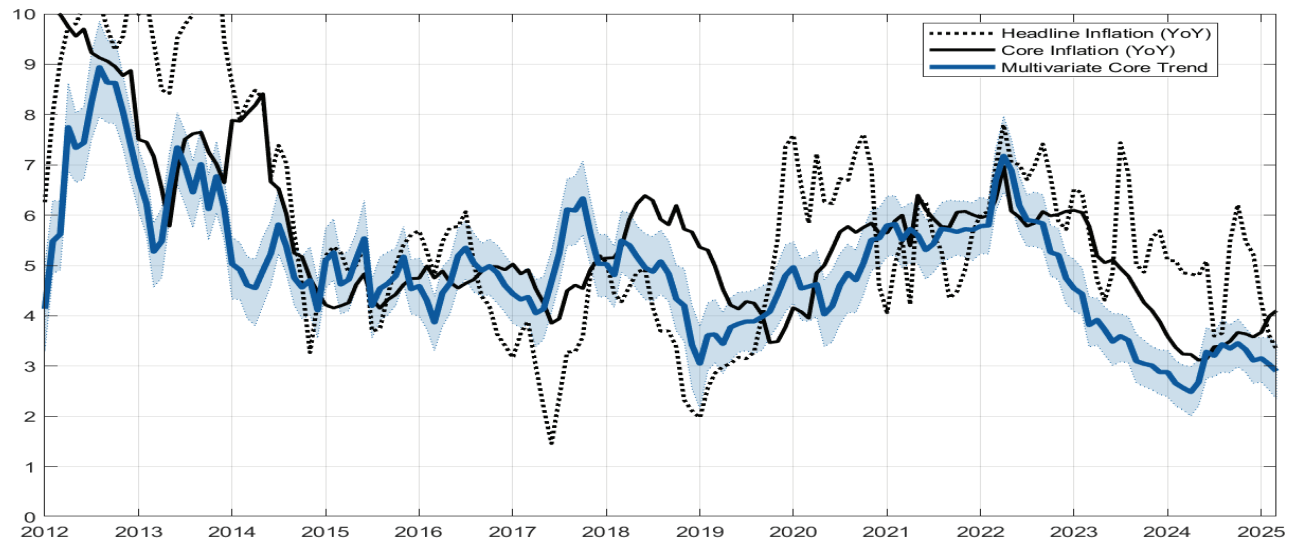
inflation reflects pandemic and war related supply disruptions that affected core services and goods, not just food and fuel. Elevated logistics costs, medical expenses, and administered price adjustments widened inflation persistence across core items, blurring the historical separation between volatile and "sticky" CPI groups.

For both core and headline CPI, the stochastic volatility of observed inflation remains higher than that of the trend inflation, though both have declined steadily over time. Interestingly, volatility in core inflation was initially higher than headline inflation but reversed after September 2015.

To estimate MCT inflation, we use only the core CPI components, with their weights normalised to one. While these core weights are fixed, sectoral contributions vary over time due to time-varying coefficients on the common trend ($\alpha_{i,\tau,t}$). The estimated MCT inflation is considerably smoother and less volatile than both headline and core CPI (Chart 3). Between January 2012 and March 2025, headline inflation had a volatility of 2.16, core inflation 1.59, and MCT inflation of just 1.25. Although core CPI and MCT inflation tend to move together, core CPI appears to lag MCT. Both measures have remained below 4 per cent in recent months. MCT inflation rose from April 2019 to April 2022, then declined, suggesting a fall in inflation persistence.

To understand this recent decline in trend inflation, we decompose MCT inflation into common and sector-specific components. Each subgroup contributes to MCT through two channels: a common

Chart 3: Headline Inflation, Core Inflation, and Multivariate Core Trend

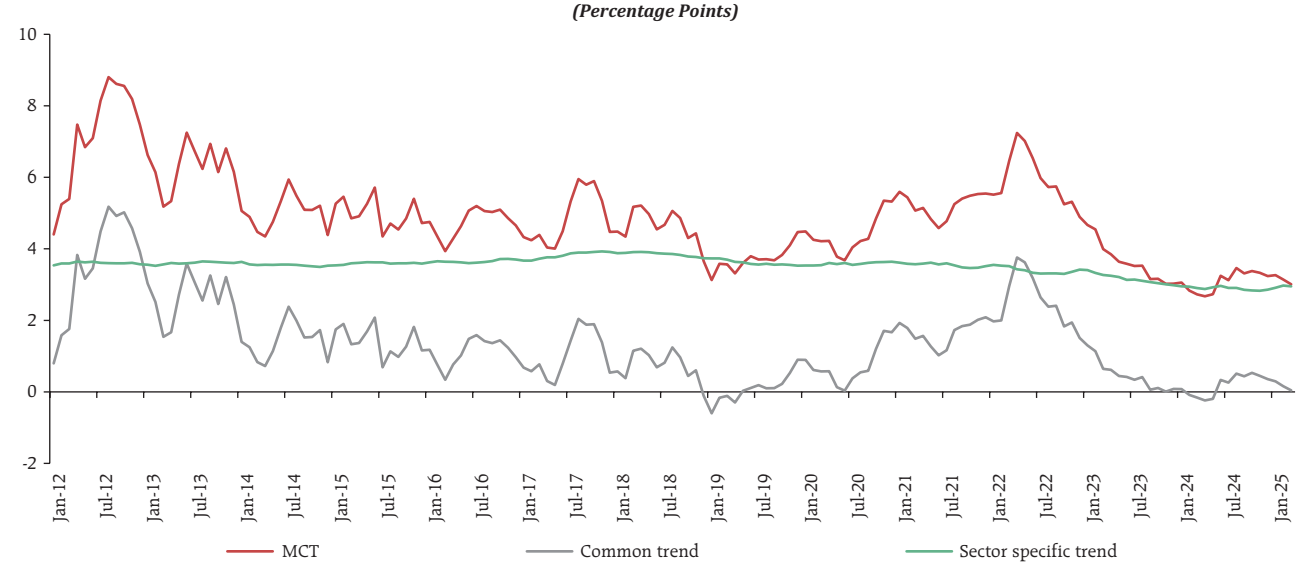


Source: RBI staff estimates.

trend and a subgroup-specific trend. The common trend captures persistent shocks, including those from food and fuel, while the subgroup-specific trends reflect stickiness of core CPI components. This structure allows MCT to capture second-round effects more effectively than traditional core inflation measures. The contribution of common trend in MCT depends on the time varying weight attached to the trend component. Thus, contribution of any specific sector to MCT inflation comprise of both common trend component and its own trend component (Chart 4). While subgroup-specific contributions are relatively stable, changes in the common trend – comprising both volatile components (food and fuel) and more stable components (core) – largely determine the dynamics of MCT.

Chart 4: Decomposition of MCT in common and sector specific trends

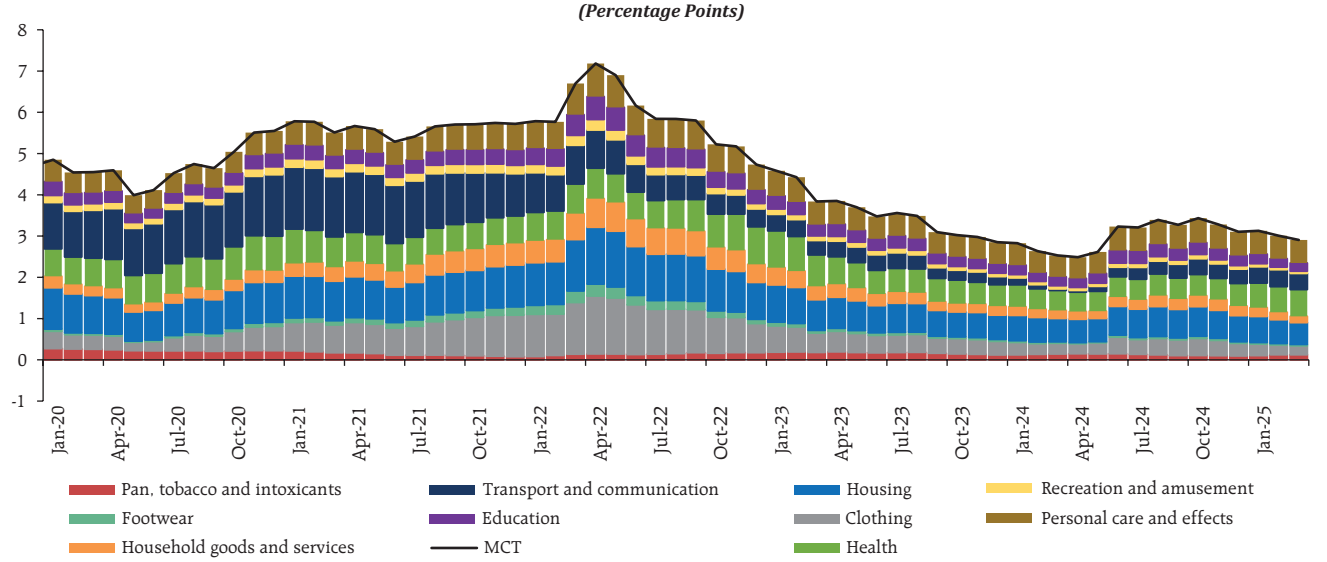
(Percentage Points)



Source: RBI staff estimates.

Chart 5: Decomposition of Multivariate Core Trend

(Percentage Points)



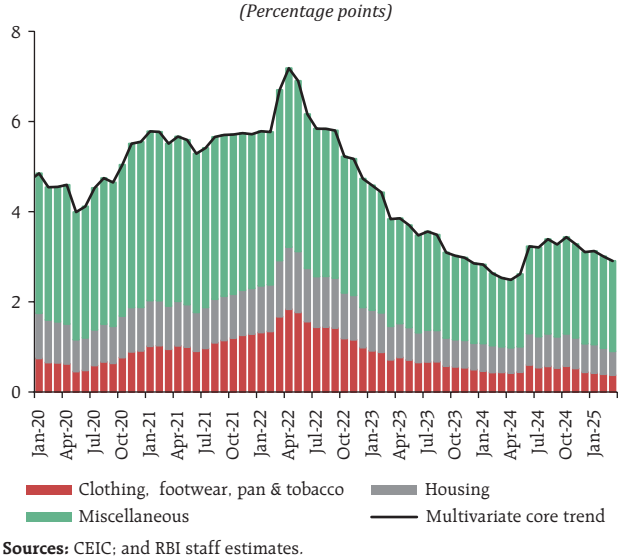
Source: RBI staff estimates.

A further decomposition reveals that contributions from transport and communication, clothing, and household goods and services have declined over time, while the role of personal care and effects has increased (Chart 5). This changing composition offers insight into the evolving sources of inflation persistence.

We also explore a less granular decomposition by aggregating subgroups into broader categories: clothing and footwear together with pan, tobacco and intoxicants; housing; and miscellaneous. Contributions from each major group are derived from their constituent subgroups. MCT inflation estimated from group-level components differs from that aggregated from subgroup-level estimates, due to differences in both common and sector specific trend dynamics. The results show a clear declining contribution of clothing and footwear and a recent increase in contribution of miscellaneous categories to overall MCT inflation (Chart 6).

Chart 6: Decomposition of Multivariate Core Trend in aggregated sectors

(Percentage points)



Sources: CEIC; and RBI staff estimates.

Additionally, we classify inflation into goods and services: core goods, core services, non-core goods, and non-core services. Table 2 presents the number of items and their respective weights in each category.

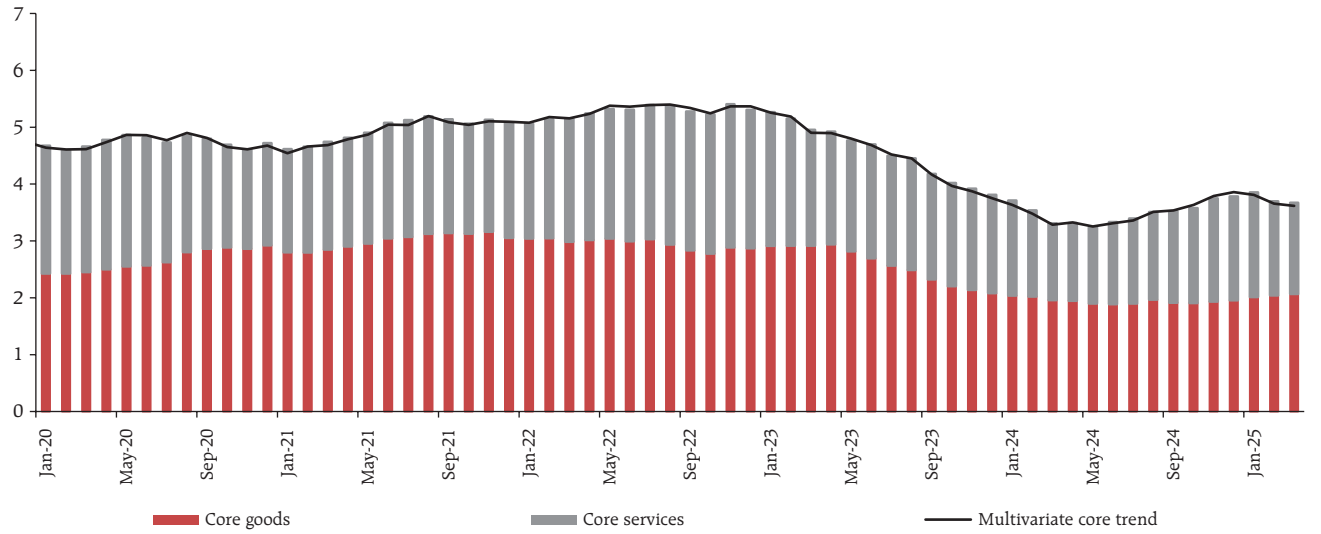
Table 2: CPI sectors with their weights in Headline CPI

Category	Number of Items	CPI Weights
Core Goods	122	0.2425
Core Services	39	0.2305
Non-Core Goods	137	0.5238
Non-Core Services	1	0.0032

Sources: MOSPI; and RBI staff estimates.

Chart 7: Decomposition of Multivariate Core Trend – Goods and Services Category

(Percentage Points)



Sources: MOSPI; and RBI staff estimates.

The decomposition of MCT inflation by goods and services reveals no significant shift in contribution patterns overall (Chart 7). However, while goods historically contributed more to MCT, the share of services has risen in recent months.

This version of MCT inflation, constructed using goods and services decomposition, is also smoother than core and headline CPI inflation. Between January 2015 and March 2025, headline and core CPI inflation had volatilities of 1.39 and 0.91, respectively, compared to just 0.69 for MCT inflation. Table 3 summarises the descriptive statistics of all inflation measures, with MCT2 covering the period from January 2015 to March 2025.

VI. Predictive Power

We assess the predictive power of MCT inflation in forecasting both core and headline inflation. Forecast performance is evaluated using out-of-sample root mean square error (RMSE) for different time horizons (1, 3, 6, and 12 months ahead). Lower RMSE values imply better predictive accuracy. A baseline model using the most recent observed value of headline inflation (*i.e.*, a random walk) is used as a benchmark, with its RMSE normalized to 1. Relative RMSEs for other models are then calculated.

Forecasts are evaluated over the test set from April 2024 to March 2025 using rolling RMSEs. Results show that MCT significantly improves forecast

Table 3: Descriptive Statistics of Various Measures of Inflation

Measures of Inflation	Minimum	Maximum	Mean	Median	Standard Deviation	Skewness	Kurtosis
Food	-1.69	16.65	6.15	6.19	3.61	0.16	-0.32
Fuel	-5.48	14.35	5.25	5.32	4.26	-0.24	-0.40
Core	3.12	10.35	5.55	5.19	1.59	1.03	0.79
Headline	1.46	11.51	5.80	5.41	2.16	0.59	-0.24
MCT (subgroup)	2.67	8.80	4.87	4.83	1.25	0.75	0.75
MCT2(Goods/Services)	3.25	6.13	4.73	4.80	0.69	-0.35	-0.43

Sources: CEIC; and RBI staff estimates.

Table 4: Relative RMSE for Headline and Core Inflation Forecasts

Model	RMSE (Headline)				RMSE (Core)			
	Number of Months							
	1	3	6	12	1	3	6	12
Model with lagged Headline	1.00	1.00	1.00	1.00	-	-	-	-
Model with lagged Core	1.01	0.96	0.92	0.88	1.00	1.00	1.00	1.00
Model with lagged MCT (Subgroup)	0.98	0.95	0.88	0.84	0.76	0.71	0.72	0.78
Model with lagged MCT2 (Goods/Services)	0.98	0.90	0.84	0.80	0.82	0.47	0.31	0.70

Source: RBI staff estimates.

performance, particularly for core inflation, and consistently outperforms the benchmark across all horizons. For headline inflation, MCT improves long-horizon forecasts, but gains are limited at shorter horizons –likely due to its focus on persistent trends rather than short-term volatility in non-core items. Notably, forecasts based on MCT2 (estimated from goods and services decomposition) outperform the broader MCT model (Table 4).

VII. Conclusion

This paper develops a Multivariate Core Trend (MCT) inflation measure for India using a Bayesian multivariate unobserved-components model with stochastic volatility, calibrated on disaggregated CPI components. The MCT framework provides a structural advantage over exclusion-based core inflation metrics by allowing time-varying sectoral sensitivities, explicitly modelling both common and idiosyncratic trends, and capturing second-round effects from food and fuel through the common trend channel.

Empirically, MCT inflation is smoother and less volatile than both headline and conventional core inflation. It leads core inflation during turning points, suggesting its usefulness as an early signal of evolving inflation persistence. The decomposition shows that the common trend – combining persistent pressures from both core and volatile components – explains much of the recent inflation cycle, with sector-specific persistence relatively stable. Notably, services inflation has gradually become a more prominent contributor to the MCT in the post-pandemic period, consistent with evolving consumption patterns and supply-chain normalisation.

Forecast evaluation confirms the usefulness of MCT: although short-horizon gains are modest, MCT demonstrates superior predictive accuracy for core inflation at medium- and long-term horizons, outperforming random-walk and conventional core benchmarks. These results reinforce the importance of using flexible, disaggregated trend-extraction frameworks when commodity-price shocks and supply-chain rigidities drive headline inflation dynamics.

However, MCT measure is not simple to interpret, and is difficult to communicate. Further, the choice of disaggregation can have impact on the MCT measure. The MCT decomposition can be used for tracking early signal of persistence and second round effects of inflation components.

Overall, the findings suggest that MCT inflation is a robust operational measure of underlying inflation pressures and can complement existing core measures in India's monetary policy framework. Future work can explore high-frequency extensions, real-time filtering properties, and state-dependent dynamics – particularly for differentiating supply-driven and demand-driven inflation persistence in India's evolving macro-financial environment.

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Appendix

Data

The Ministry of Statistics and Program Implementation (MOSPI) release inflation data on 12th day[7] of every month. The press release reports headline, and food inflation for India. It also releases disaggregated item level inflation data on its website. Each item has 9-digit code, and the coding structure has been devised such that each item is identified uniquely in various sub-grouping. 1st digit represents 'Group', 2nd digit represents 'Category' within the group, 3rd and 4th digits represent 'Sub-group' for every group, 5th digit represents 'Section', 6th digit represents 'Goods/Services', 7th and 8th digits gives item serial number within Section and 9th digit represents identification of items: Weighted Item or Priced Item. A sample of the items along with the code is provided in Table A1[8].

1st digit which represents group are summarized in Table A2. Core inflation is obtained by removing Group 1 (Food and Beverages), and Group 5 (Fuel and Light).

2nd digit represents category within the group. For example, within Group 1, there are two categories: Food and Beverages. The code 1.1 represents Food whereas 1.2 represents Beverages. 3rd and 4th digit represents subgrouping within a group. For example, Food and Beverages are further subgrouped in Cereal and Products, Meat and Fish, Egg, Milk and Products, Oils and Fats, Fruits, Vegetables, Pulses and Products, Sugar and Confectionery, Spices, Non-alcoholic Beverages, and Prepared meals, snacks, sweets *etc.* Similarly other groups can be classified into different subgroups[9]. 5th digit is the section within subgroup. For example, Cereal and Products are further subclassified into different sections: Major cereals and products, Coarse cereals and products, and Grinding charges. 6th digit is 1 or 2 based on the item type. 1 represents Goods, whereas 2 is for Services. 7th and 8th digit is

Table A1: Inflation Item Code

Item_Code	Item
1.1.01.1.1.01.P	Rice – PDS
1.1.01.1.1.16.0	Cereal Substitutes: Tapioca, Etc.
1.1.01.2.1.01.X	Jowar & Its Products
1.1.01.3.2.01.0	Grinding Charges
1.1.02.2.1.01.X	Fish, Prawn
1.1.12.3.1.03.X	Prepared Sweets, Cake, Pastry
1.2.11.2.1.01.0	Mineral Water (Litre)
2.1.01.1.1.01.0	Country Liquor (Litre)
2.1.01.3.1.08.0	Other Tobacco Products
3.1.01.1.1.02.0	Saree (No.)
3.1.01.1.1.03.X	Shawl, Chaddar (No.)
3.1.01.4.2.01.X	Washerman, Laundry, Ironing
4.1.01.1.2.01.X	House Rent, Garage Rent
4.1.01.2.2.02.X	Water Charges
4.1.01.2.2.03.0	Watch Man Charges (Other Cons Taxes)
5.1.01.2.1.01.X	LPG [Excl. Conveyance]
5.1.01.3.1.01.P	Kerosene – PDS (Litre)
5.1.01.3.1.02.0	Kerosene – Other Sources (Litre)
5.1.01.3.1.04.0	Diesel (Litre) [Excl. Conveyance]
6.1.01.1.1.03.X	Chair, Stool, Bench, Table
6.1.02.2.2.06.0	Other Medical Expenses (Non-Institutional)
6.1.02.2.2.07.0	Doctor's/ Surgeon's Fee-First Consultation (Non-Institutional)
6.1.02.2.2.08.X	X-Ray, ECG, Pathological Test, Etc. (Non-Institutional)

Source: MOSPI.

Table A2: Inflation Item Code

1st Digit of Item Code	Group
1	Food and Beverages
2	Pan, Tobacco and Intoxicants
3	Clothing and Footwear
4	Housing
5	Fuel and Light
6	Miscellaneous

Source: MOSPI.

[7] In case of weekend, it releases either on 11th or 13th day of the month.

[8] For complete table along with their weights, please refer to https://cpi.mospi.gov.in/Weight_AI_Item_Combined_2012.aspx

[9] For full classification, please refer MOSPI (2015).

for the item serial number within section. 9th digit is identification type. 9th digit can be 'X', 'P' or '0'. 'X' is for an item if it has more than one priced item, 'P' is for PDS items, and '0' for all remaining items. MOSPI (2015) provides full details of the classification. We use this 9-digit code to compute different Multivariate Core Trend Inflation.

The disaggregated subgroups along with their weights are provided in the Table A3.

Table A3: CPI Sectors with their Weights in Headline CPI

Group	Subgroup	CPI Weights
Food and Beverages	Cereals and Products	0.0967
	Meat and Fish	0.0361
	Egg	0.0043
	Milk and Milk Product	0.0661
	Oils and Fats	0.0356
	Fruits	0.0289
	Vegetables	0.0604
	Pulses and Products	0.0238
	Sugar and Confectionery	0.0136
	Spices	0.0250
	Non-alcholic Beverages	0.0126
	Prepared Meals, Snacks, Sweets, etc	0.0555
Pan, Tobacco and Intoxicants	Pan, Tobacco and Intoxicants	0.0238
Clothing and Footwear	Clothing	0.0558
	Footwear	0.0095
Housing	Housing	0.1007
Fuel and Light	Fuel and Light	0.0684
Miscellaneous	Household Goods and Services	0.0380
	Health	0.0589
	Transport and Communication	0.0859
	Recreation and Amusement	0.0168
	Education	0.0447
	Personal Care and Effects	0.0389

Source: MOSPI.

Nowcasting GDP in India: A New Approach

by Indrajit Roy and K. M. Neelima ^

Nowcasting has become a useful tool for policymakers especially for macroeconomic variables like GDP for which data are released with considerable lags. A novel two-step approach for nowcasting India's GDP is proposed using twenty-two high frequency indicators wherein the first factor is obtained based on the strength of each indicator in relation to GDP and a second factor is built from the residual information of the indicators which are otherwise generally discarded. The empirical exercise reveals that incorporating secondary information from residuals greatly improves accuracy of nowcasting GDP.

Introduction

Following overlapping shocks—COVID-19 pandemic, multiple and prolonged geopolitical conflicts, surge in inflation across the globe—policy makers, especially central banks, had their task cut out to prop up the economy while managing the ramifications emanating from the different shocks. With new challenges emerging often, associated uncertainty has made it difficult to assess the current and future outlook of the economy. For policymakers, having a clear picture of the underlying state of the economy is critical for undertaking appropriate policy responses. Gross domestic product (GDP) can be considered as the most authoritative measure of economic activity (Proietti, Giovannelli, Ricchi, & Citton, 2021). The national accounts provide a comprehensive view of the economy but are released with considerable lags. Therefore, forecasting macroeconomic indicators, especially GDP, is a necessity for optimal policy response and reliable short-term forecasts are generally high in demand when the economic environment is uncertain (Hindrayanto, Koopman, & Winter, 2016).

Central banks and other policy makers track certain high frequency indicators to gauge the underlying state of the economy. However, divergence among various indicators make it difficult to accurately assess the extant condition of the economy. Essentially, separating meaningful information from noise is a humongous task and several techniques ranging from detecting business cycle turning points and constructing indexes of economic activity to forecasting comprehensive macroeconomic measures of the state of the economy with formal models and judgment have been applied to tackle it (Bok *et al.*, 2017). Summarising the information content available from different indicators using modelling techniques in recent periods into a composite index, or nowcasting, was thus developed to respond to the policymakers' need for a reliable indicator in advance of the release of the relevant macroeconomic variable. Hence, an important feature of nowcasting is the extraction of all the available information from a large information set and it provides an early estimate of the reference series before it is published.

Most of the nowcast models generally reduces dimensions of large number of selected indicators into few factors. This can be done by dynamic factor modelling (DFM) or even using weighted average of indicators where weights are correlation of indicators with the target. High frequency indicators are generally selected for nowcasting based on convenience and timely availability of the indicators. As a result, for nowcasting a composite target, for example, GDP or gross value added (GVA), a sub-sector of the target may be over-represented by inclusion of greater number of selected proxy indicators *vis-à-vis* other sectors.

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Thus, factor modelling, which essentially reduces the dimensionality of large number of indicators and produces few common factors, is influenced by indicator selection bias as the chosen factor may identify the co-movement of the selected indicators very well, while not necessarily capturing the relationship with the target series truly.

It may also be the case that in DFM, information contents of the selected indicators are not completely utilised as only the first few latent factors are chosen based on eigenvalues, and other factors with lower eigen values are ignored which, in turn, may be having strong correlation with the reference series but are not strongly correlated with majority of other indicators in the information set.

In this article, an attempt has been made to nowcast India's GDP using a two-step approach (two-stage maximum information model - TSMIM) wherein in the first stage a primary composite index (PCI) is computed, by linearly combining these indicators based on the strength of their association (correlation) with the targeted series. PCI may also be computed using DFM.

In the second stage, to further extract relevant information from the indicators beyond what is already extracted and aggregated in PCI, each indicator is regressed on the PCI and the corresponding residuals are estimated which are, in turn, aggregated based on their association with the target series to form a secondary composite index (SCI). PCI and SCI are then jointly used to nowcast GDP.

The novelty of our new approach lies in a) giving more weightage to those indicators that are correlated with the target series rather than co-movement of the indicators among themselves, and b) maximising information by utilising information which are discarded by the conventional modelling process by creating a secondary information source based on residuals.

To compare the nowcasting performance of TSMIM, following four models are considered:

(a) TSMIM-1 with PCI as weighted average of chosen indicators and SCI as weighted average of residuals extracted from these indicators which are not part of PCI.

(b) Using only PCI as weighted average of chosen indicators and no SCI.

(c) TSMIM-2 with DFM based factor as the PCI and SCI as weighted average of residuals extracted from the indicators which are not part of DFM.

(d) Benchmark DFM.

For ascertaining the efficiency of nowcasting exercise, out-of-sample prediction method is undertaken for the period Q4:2022-23-Q4:2024-25. This empirical exercise reveals a relatively improved performance of the new framework models (TSMIM-1 and TSMIM-2) when compared with one-step models (models b and d).

We further check for robustness of the approach on real GVA growth and find that the new models demonstrate improved performance over DFM for GVA as well. Rest of the paper is organised as follows: brief literature review is undertaken in section II and section III elaborates the methodology and data used. Section IV discusses the results and the evaluation of the new model and section V concludes.

II. Literature Review

There are many nowcasting techniques available in the literature. Among these techniques, principal component analysis/dynamic factor models (PCA/DFM) to nowcast low frequency macroeconomic variable such as GDP is popular. PCA, which is the core of the DFM model for nowcasting, transforms original information set into uncorrelated factors, which are the weighted linear combination of constituent indicators. Thus, it resolves both the curse of dimensionality issue as well as the multicollinearity issues.

A more prevalent approach of nowcasting currently is DFM. This method is widely used in summarising co-moving indicators, that cover the broad spectrum of economic activities in an economy, as latent factor(s) separated from idiosyncratic and measurement errors and can be interpreted as underlying state of the economy. In the model, a state-space framework is followed which involves a measurement equation linking the vector of observed indicators to a vector of unobserved state variables and a transition equation which specifies the dynamics of the unobserved state variables.

Stock and Watson (1989) pioneered the use of factor models for construction of business cycle indexes. Giannone *et al.* (2008), introduced factor models for nowcasting in a mixed frequency setup and the nowcasting model was developed using monthly data on a large set of high-frequency indicators.

Many central banks have developed nowcasting methods to get a fair idea about how the economy is performing in a given quarter much before the official data release. The nowcasting model of the Federal Reserve Bank of New York uses a dynamic factor model that generates estimates of current quarter GDP growth at a weekly frequency (Almuzara, Baker, O'Keeffe, & Sbordone, 2023). On the other hand, The Federal Reserve Bank of Atlanta's *GDPNow* model is a nowcasting model that uses a bridge equation approach that relates GDP subcomponents to monthly source data with factor model and Bayesian vector autoregression techniques (Higgins, 2014).

In India too, several studies have been undertaken on nowcasting GDP as GDP data are released by the National Statistics Office (NSO) with a lag of two months. Bhattacharya *et al.* (2011) finds that a small set of pre-selected key monthly indicators, serving as proxies for the various sub-sectors of the economy perform satisfactorily in predicting current quarter growth. Several studies in India use DFM for nowcasting (Roy, Sanyal, & Ghosh, 2016; Bragoli & Fosten, 2017; Iyer & Sen Gupta, 2019; Kumar, 2020; Bhadury, Ghosh, & Kumar, 2021; Prakash, Bhowmick, & Thakur, 2022; Kaustubh & Ranjan, 2025). However, Matheson (2011) finds that forecasting performance of DFM for Australia and India was not on par with other countries which may be attributable to large data revisions of indicators in these countries. Bayesian vector autoregression (Iyer & Sen Gupta, 2019) and machine learning approaches (Ghosh & Ranjan, 2023) are also used for nowcasting.

In DFM, the factors are linear combination of constituent indicators. However, as only first few components are chosen (with eigenvalue more than 1), and other factors with lower eigen values are ignored, there is an inherent loss of information since they might have good association with the reference series. It is likely that the factors with lower eigen value are those factors which are dominated (with higher loading/share) by indicators which may have strong correlation with the reference series but are not strongly correlated with majority of other indicators in the information set. As a result, there may be factors, which possess relevant information to explain variation in the reference series, but is discarded due to low eigen value which result in suboptimal performance in explaining the reference series. Our paper focuses on this aspect by obtaining additional information set from residuals which may help improve the nowcasting technique.

III. Methodology and Data

III.1 Two-stage Maximum Information Model (TSMIM)

Following Roy and Narayanan (2018), we use a two-step process to construct a two-stage maximum information model (TSMIM). When the target series is of quarterly frequency and indicators are of monthly frequency, the indicators are averaged over three

months to get quarterly series[1]. These quarterly indicators are then standardised by subtracting their mean and dividing by standard deviation.

Let X_{it} and Y_t denote i^{th} indicator and the reference series at time t, respectively, where $i = 1, 2....n$; $t=1, 2....T$. Corresponding standardised series, x_{it} and y_t are defined as:

$$x_{it} = \frac{[(X_{it} - mean(X_{it}))]}{sd(X_{it})}; \quad y_t = \frac{[(Y_t - mean(Y_t))]}{sd(Y_t)} \qquad (1)$$

In the first step, we calculate correlation coefficient (ρ_i) of each indicator with the target series. Then primary composite index (PCI) is defined as follows:

$$PCI_t = \sum_i x_{it} * w_i' * D_i \qquad (2)$$

where $w_i' = \frac{\rho_i}{\sum_i D_i * \rho_i}$ and

$D_i = 1$ if i^{th} indicator is significantly associated with y_t

$= 0$, otherwise.

Essentially, PCI is a certain linear combination of selected indicators, and it contains common information of interest pertaining to association of these selected indicators with the reference series.

In the second step, we look for additional information in the information set beyond PCI. Certain components of the reference series may be under-represented or over-represented by the indicators selected, thus PCI may be influenced by this biased selection. We start with regressing each of the indicator on the PCI and estimating the corresponding residuals as follows:

$$\text{Let } x_{it} = \eta_i + \delta_i * PCI_t + \zeta_{it} \qquad (3)$$

Where $\zeta_{it} \sim$ i.i.d. N $(0, \psi^2_i)$, η_i and δ_i are unknown coefficients.

Let $\hat{\zeta}_{it}$ where i = 1, 2,....n be the residuals estimated from equation (3) corresponding to i^{th} indicator and these residuals form the constituents of the additional information set.

Let r_i is the correlation coefficient of $\hat{\zeta}_{it}$ with y_t. Secondary composite index (SCI) is computed as follows:

$$SCI_t = \sum_{i=1}^{k} \hat{\zeta}_{it} * w_i'' * E_i \qquad (4)$$

Where, $w_i'' = \frac{r_i}{\sum_i E_i * r_i}$ and

$E_i = 1$ if $\hat{\zeta}_{it}$ is significantly associated with y_t in equation (3),

$=0$, otherwise.

Notably, this additional information set is built from the residual information of the n-indicators which are not part of PCI.

Therefore, PCI and SCI are two composite indices of coincident indicators for the reference series constructed out of many indicators and are linear combination of indicators. Also, by construction, PCI_t and SCI_t are uncorrelated, therefore, these can be used together to explain Y_t without any multicollinearity issue. Nowcasted value of the reference series can be obtained as follows:

$$Y_{t+1} = \eta_0 + \eta_1 * PCI_{t+1} + \eta_2 * SCI_{t+1} + y_{t+1} \qquad (5)$$

At 't+1', value of PCI_{t+1}, SCI_{t+1}, $(\hat{\eta}_0, \hat{\eta}_1, \hat{\eta}_2)$ are known but Y_{t+1} is not known. The estimated value of Y_{t+1} in equation (5) is a weighted average of PCI and SCI.

Together, PCI and SCI can explain the reference series much better than PCI alone.

The benchmark DFM model is described in Annex A.

III.2 Data

For nowcasting a reference series, a set of indicators is chosen based on the strength of their connection or relationship (correlation coefficients, visual inspection from scatter plot) with the reference series. We initially followed Kumar (2020) for variable

[1] If data for a variable is unavailable for a particular month, it is forecasted using ARIMA.

Table 1: List of Indicators

Industry	Services	Global	Miscellaneous
Index of Industrial Production	Domestic air passenger traffic	US Industrial Production	Gross taxes
Automobile sales	Domestic air cargo traffic	Baltic Dry Index	JobSpeak Index
Non-oil exports	Port cargo traffic	OECD Composite Leading Indicator	Crude price (average of Brent, Dubai and WTI)
Non-oil-non-gold imports	Railway freight	US payrolls	
Purchasing Managers' Index - Mfg.	Foreign tourist arrivals		
Power supply	Purchasing Managers' Index - Services		
	Fuel consumption		
	IIP Cement		
	Steel consumption		

Source: Authors' compilation.

selection as the 27 indicators in the model were based on whether they are tracked by NSO, their correlation with GDP, and availability of time series data. However, we find that five variables *viz.*, US PMI, non-food credit, tractor sales, CPI excluding food and beverage and money supply were not significantly correlated with GDP and were dropped from the model (Annex Table A1). We use a set of 22 indicators[2] which are significantly correlated with GDP (Table 1).

Broadly, these indicators cover major segments of domestic activity- directly or indirectly. The four blocks of data are a) industry; b) services, c) global and d) miscellaneous. The data includes a) hard data on economic activity for example, index of industrial production, automobile sales, port cargo traffic, domestic air cargo traffic *etc.*, b) surveys representing economic activity like PMI, c) trade such as non-oil exports, non-oil imports, Baltic Dry Index *etc.*, d) employment conditions as captured by JobSpeak Index and e) global conditions as captured by OECD composite leading indicator, US payroll data and US industrial production. All indicators are in year-on-year terms. The nowcasting exercise is undertaken separately for each quarter for the period Q4:2022-23 – Q4:2024-25 using data spanning Q1:2011-12 – Q4:2024-25.

[2] The data were winsorised at 0 and 99.25 levels to adjust for outliers caused by COVID-19 pandemic.

IV. Results: Nowcasting of India's GDP and Model Evaluation

Strength of association, in terms of correlation coefficients, of selected indicators with the chosen target series *viz.*, GDP is given in Annex Table A1. Estimates of equation (3) for deriving second information set and equation (4) for correlation of residuals with GDP are reported in Annex Tables A2 and A3, respectively.

IV.1 Model Evaluation

To assess the performance of the proposed model, empirical exercise to nowcast real GDP using the following four models were undertaken:

(a) TSMIM-1 with PCI as weighted average of indicators and SCI as weighted average of residuals extracted from the indicators which are not part of PCI.

(b) Using only PCI as weighted average of chosen indicators and no SCI.

(c) TSMIM-2 with DFM based factor as the PCI and SCI as weighted average of residuals extracted from the indicators which are not part of DFM.

(d) Benchmark DFM.

The results were also compared with median forecasts of survey of professional forecasters (SPF).

The in-sample model fit using results of the nowcast exercise undertaken for the latest quarter, *viz.*, Q4:2024-25 is given below. The coefficients—PCI, SCI and dynamic factor (DF)— are significant suggesting that these factors can explain real GDP growth. Further, the different models for nowcasting GDP show that the in-sample fit of (model a) TSMIM-1, and (model c) TSMIM-2 are better than that of using benchmark DFM model (model d), and using only PCI (model b) on the basis of R-square. Using a single factor - DF or PCI - explains around 85 per cent of the variability of GDP (model b and model d) while using two factors together explain 94 per cent of the variability of GDP suggestive of superior performance of using secondary factor in both cases (Table 2).

Visual presentation of nowcasted GDP series using both DFM and TSMIM-1 undertaken for the quarter Q4:2024-25 *vis-à-vis* actual GDP is provided in Chart 1. Nowcasted GDP using TSMIM-1 was found to be closely following the target variable.

The results for out-of-sample nowcasts for the study period comparing the model estimates *vis-à-vis* the quarterly estimates of GDP data released by MOSPI on May 30, 2025 is given in Table 3. The nowcast performance is also compared against projections of the latest round of the survey of professional forecasters (SPF). We calculate error (actual-nowcast) for each quarter and average root mean squared error (RMSE) for all models for the period under study.

Table 2: GDP Regression Estimates

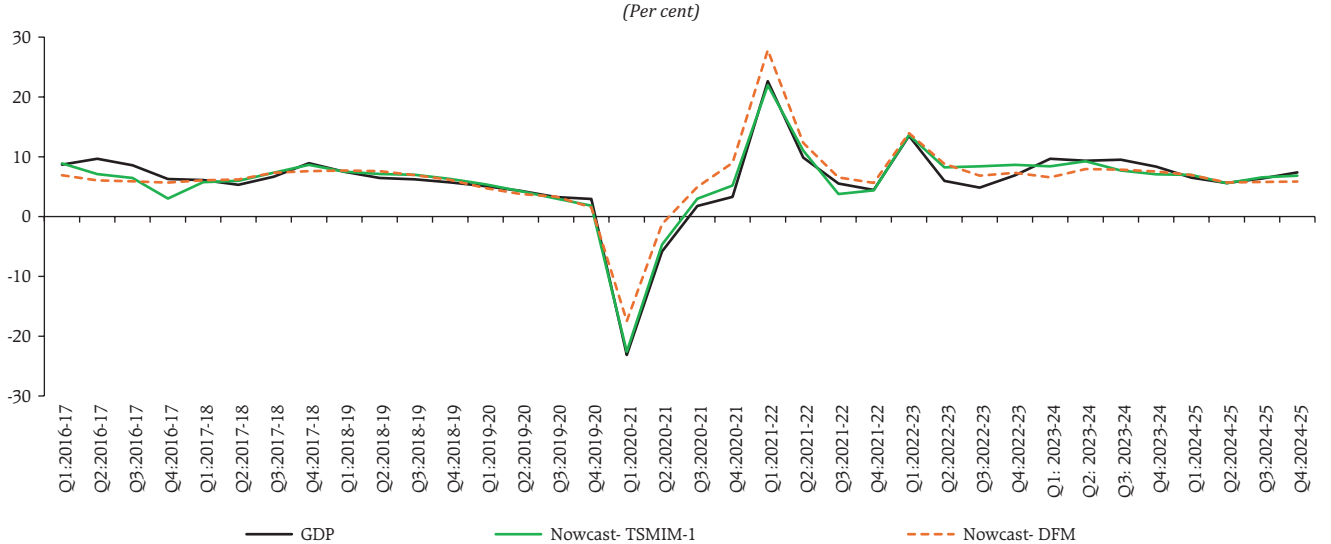
Dependent Variable: GDP
Method: Least Squares
Sample (adjusted): 2012Q2-2024Q4

Variable	TSMIM-1 (model a)	PCI (model b)	TSMIM-2 (model c)	DFM (model d)
DF			1.64*** (0.06)	1.63*** (0.10)
PCI	0.40*** (0.02)	0.41*** (0.02)		
SCI	2.43*** (0.25)		2.57*** (0.29)	
C	6.17*** (0.18)	6.22*** (0.31)	6.24*** (0.179)	6.17*** (0.30)
Observations	51	51	51	51
R-squared	0.94	0.83	0.94	0.85
Adjusted R-squared	0.94	0.83	0.94	0.84

Notes: 1. Correlation of GDP with PCI is 0.9 and with SCI is 0.3.
2. Standard deviation of PCI is much higher than SCI.
3. Figures in parentheses are standard error.
4. * p<0.10, ** p<0.05, *** p<0.010.
5. Correlation coefficients of indicators greater than 0.1 with GDP is considered as significant while computing composite indicators PCI and SCI.

Chart 1: Nowcasted GDP and Actual GDP Series- Exercise Undertaken for Q4:2024-25

(Per cent)



Sources: National Statistics Office; and Authors' calculations.

Table 3: GDP Nowcast Performance

Period	Nowcast					GDP actual data	Error (Actual-Forecast)^2				
	TSMIM-1	PCI	TSMIM-2	DFM	SPF		TSMIM-1	PCI	TSMIM-2	DFM	SPF
Q4:2022-23	8.57	6.71	8.81	6.92	4.60	6.90	2.81	0.03	3.66	0.00	5.28
Q1:2023-24	8.21	5.51	8.08	5.90	7.50	9.66	2.11	17.20	2.49	14.12	4.67
Q2:2023-24	9.08	7.27	9.04	7.80	6.30	9.34	0.07	4.30	0.09	2.37	9.26
Q3:2023-24	7.49	7.10	7.66	7.56	6.50	9.51	4.10	5.83	3.43	3.82	9.09
Q4:2023-24	6.87	7.15	7.06	7.38	6.00	8.35	2.21	1.46	1.67	0.94	5.54
Q1:2024-25	6.89	6.73	7.05	6.98	7.00	6.51	0.14	0.05	0.29	0.22	0.24
Q2:2024-25	5.56	5.16	6.18	5.65	7.00	5.61	0.00	0.20	0.32	0.00	1.93
Q3:2024-25	6.53	5.48	6.82	5.76	6.40	6.37	0.03	0.79	0.21	0.37	0.00
Q4:2024-25	6.91	5.92	7.16	6.00	7.00	7.38	0.23	2.15	0.05	1.92	0.15
Root Mean Squared Error (RMSE)							**1.14**	**1.89**	**1.16**	**1.62**	**2.00**
RMSE excluding Q1: 2023-24							**1.09**	**1.36**	**1.10**	**1.10**	**1.98**

Note: Single factor models recorded a large error in Q1:2023-24. Hence, RMSE excluding Q1: 2023-24 is also presented.
Sources: NSO; and authors' calculations.

RMSE of SPF and model (b) were found to be the highest among all the sets of nowcasts. RMSE of DFM is the next highest primarily on account of the inability of the model to predict the growth in Q1:2023-24. TSMIM-1, followed by TSMIM-2 had the lowest RMSE in the period under study crucially underpinning the role of secondary information in improving nowcast accuracy even while excluding Q1:2023-24 from calculation of RMSE. The models using SCI have performed consistently better than the models using only single factor in most quarters in nowcasting GDP (closer to the actual estimates) from the information content available through the same set of twenty-two indicators.

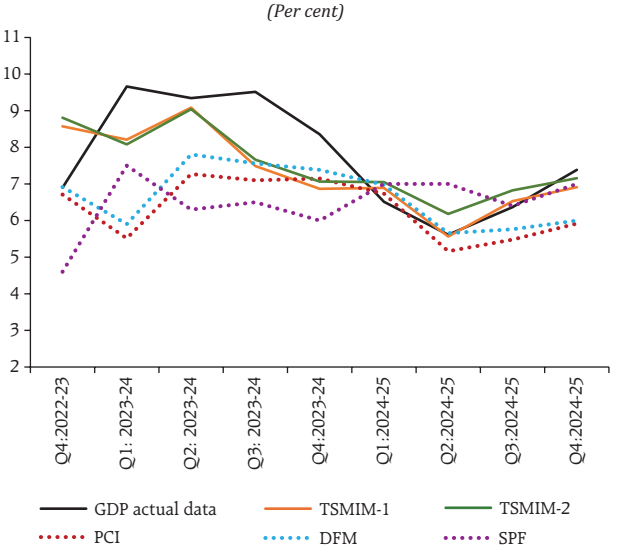
Chart 2 plots the nowcasts generated for each quarter *vis-à-vis* actual GDP and SPF forecast. Notably, during the period of high growth in 2023-24, TSMIM-1 and TSMIM-2 nowcasts were closer to the latest GDP estimates than those generated by using only DF and PCI in single-step models underpinning higher accuracy achieved due to the use of secondary factor. SPF forecasts were found to be less accurate till recently.

IV.1.a Robustness Checks

The same exercise was undertaken for nowcasting real gross value added (GVA) growth at basic prices for the same period. The regression estimates for Q4:2024-25 for GVA show that the coefficients of the variables of interest are significant in all models. As in the case of GDP, the model fit of TSMIM-1, and TSMIM-2 are better than that of using only DF in the case of GVA as well (Table 4).

Chart 2: GDP Nowcast Performance

(Per cent)



Sources: National Statistics Office; and Authors' calculations.

Table 4: GVA Regression Estimates

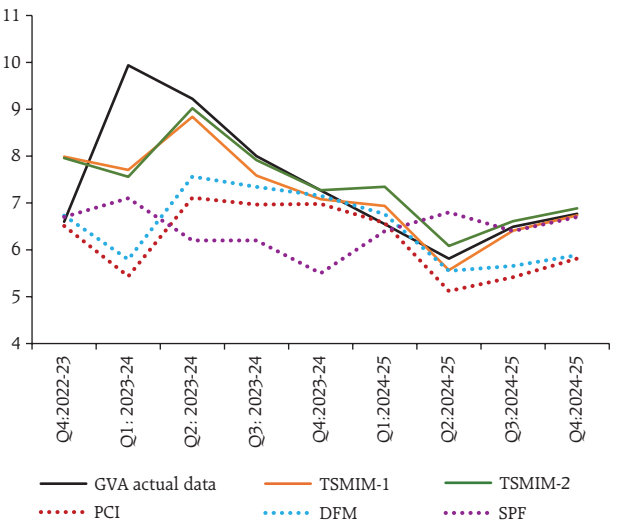
Dependent Variable: GVA
Method: Least Squares
Sample (adjusted): 2012Q2-2024Q4

Variable	TSMIM-1 (Model a)	PCI (Model b)	TSMIM-2 (Model c)	DFM (Model d)
DF			1.50*** (0.05)	1.50*** (0.09)
PCI	0.37*** (0.01)	0.37*** (0.02)		
SCI	2.25*** (0.23)		2.235*** (0.26)	
C	6.03*** (0.16)	6.08*** (0.28)	6.11*** (0.16)	6.04*** (0.27)
Observations	51	51	51	51
R-squared	0.95	0.84	0.94	0.86
Adjusted R-squared	0.95	0.83	0.94	0.86

Notes: 1. Figures in parentheses are standard error.
2. * p<0.10, ** p<0.05, *** p<0.010
3. Correlation coefficients of indicators greater than 0.1 with GVA are considered significant while computing composite indicators PCI and SCI.

Further, like GDP, forecasted series of GVA using all models track actual GVA well for the exercise undertaken for Q4:2024-25 (Annex Chart A1). RMSE of nowcasts for real GVA growth generated using TSMIM-1 and TSMIM-2 are the lowest among all models, which improves further if Q1:2023-24 is excluded from the sample. Incidentally, RMSE of TSMIM for nowcasting GVA is lower than that of nowcasting GDP reflective of indicators capturing economic activity from supply side (Table 5).

Chart 3: GVA Nowcast Performance
(Per cent)



Sources: National Statistics Office; and Authors' calculations.

Visually, TSMIM-based nowcasts track GVA more closely than DFM based nowcasts, especially in the latest quarters, wherein the nowcasts generated for each vintage *vis-à-vis* actual GVA based on latest data are plotted (Chart 3).

Table 5: GVA Nowcast Performance

Period	Nowcast					GVA actual data	Error (Actual-Forecast)^2				
	TSMIM-1	PCI	TSMIM-2	DFM	SPF		TSMIM-1	PCI	TSMIM-2	DFM	SPF
Q4:2022-23	7.99	6.51	7.96	6.73	6.70	6.60	1.92	0.01	1.84	0.02	5.28
Q1:2023-24	7.71	5.44	7.56	5.79	7.10	9.94	4.99	20.28	5.65	17.17	4.67
Q2:2023-24	8.84	7.11	9.02	7.56	6.20	9.22	0.15	4.46	0.04	2.76	9.26
Q3:2023-24	7.58	6.97	7.91	7.34	6.20	8.00	0.17	1.06	0.01	0.43	9.09
Q4:2023-24	7.08	6.98	7.27	7.15	5.50	7.27	0.04	0.08	0.00	0.01	5.54
Q1:2024-25	6.94	6.57	7.35	6.76	6.40	6.55	0.15	0.00	0.64	0.05	0.24
Q2:2024-25	5.57	5.12	6.08	5.55	6.80	5.81	0.06	0.48	0.07	0.07	1.93
Q3:2024-25	6.41	5.42	6.61	5.66	6.40	6.49	0.01	1.16	0.01	0.70	0.00
Q4:2024-25	6.73	5.81	6.89	5.89	6.70	6.77	0.00	0.91	0.01	0.78	0.15
Root Mean Squared Error (RMSE)							**0.91**	**1.78**	**0.96**	**1.56**	**1.65**
RMSE excluding Q1: 2023-24							**0.56**	**1.01**	**0.57**	**0.78**	**1.44**

Note: Single factor models recorded a large error in Q1:2023-24. Hence, RMSE excluding Q1: 2023-24 is also presented.
Sources: National Statistics Office; and Authors' calculations.

V. Conclusion

Many important low-frequency macro-economic indicators such as GDP are subject to publication delays or lag. However, there are many high frequency coincident indicators which are correlated with the targeted macroeconomic indicator that are available at much shorter time lags. Monitoring all these coincident indicators and revising the assessment about the reference series is a difficult task for the policy makers. Combining all these coincident indicators into a composite index for nowcasting was thus developed to meet the need for reliable indication in advance of the release of the relevant macroeconomic indicator.

This article uses a new framework (TSMIM), to extract maximum information relevant to nowcast the reference series. Coincident indicators are combined into a weighted composite index (PCI), which generally tracks the reference series well. However, residual information may contain some more information for the reference series which are not completely captured by PCI. Therefore, the new approach further extracts information which is not part of the already calculated composite index *i.e.*, PCI, and has potential to be related to the reference series. These secondary indicators derived from the primary set of indicators are then again combined into a SCI with suitable weights.

This article shows a relatively improved performance (both in-sample and out of sample) of the new framework (TSMIM) when compared with the baseline pure dynamic factor-based modelling (DFM) based nowcasting. TSMIM-based nowcasts track GDP and GVA more closely than pure DFM based nowcasts, when the nowcasts generated for each vintage *vis-à-vis* the actual official data are compared. Moreover, TSMIM framework can accommodate DFM model and can reduce forecast errors further. DFM can be used in the first stage of TSMIM and in the second stage, residual information are extracted from the coincident indicators which are not part of the dynamic factor obtained from DFM and these residuals are combined into a second factor with a suitable weights (such as correlation with the reference series). DF and second factor thus obtained produced improved nowcast of the reference series than nowcasts generated by benchmark DFM alone. Incorporating secondary information from residuals greatly improves accuracy of nowcasting and therefore, TSMIM is an important addition to the nowcasting toolkit.

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Annex A: Dynamic Factor Model

A dynamic factor model assumes that many observed variables ($y_{i,t}$, ..., $y_{n,t}$) are driven by a few unobserved dynamic factors ($f_{1,t}$, . . ., $f_{r,t}$), and specific features of distinct series such as measurement errors, are captured by idiosyncratic errors ($e_{1,t}$, ..., $e_{n,t}$). The general specification of a dynamic factor model is:

$$y_{it} = \lambda_{i,1} f_{1,t} + \ldots + \lambda_{i,r} f_{r,t} + e_{i,t}, \quad i = 1,\ldots,n \tag{6}$$

where y_{is} are the high-frequency indicators, f_{js} are the latent common factors, and λ_{ijs} are factor loadings of factor f_j on indicator y_i. The error term, e_{it}, captures the idiosyncratic component of each indicator *i*. Common factors and idiosyncratic components are modelled as autoregressive processes:

$$f_{j,t} = a_j f_{j,t-1} + u_{j,t}, \quad u_{j,t} \sim iidN(0,\sigma_{uj}^2) \tag{7}$$

$$e_{i,t} = \rho_i e_{i,t-1} + \varepsilon_{i,t}, \quad \varepsilon_{i,t} \sim iidN(0,\sigma_{\varepsilon i}^2) \tag{8}$$

Equations 6-8 constitute a state-space model with equation 6 being the observation equation and equations 7-8 representing transition equations. State variables and parameters of the state-space model are estimated using Kalman filter algorithm (Bok *et al.*, 2017). The model is considered particularly suitable for monitoring macroeconomic conditions in real time as it provides flexibility to incorporate data with mixed frequency, missing values and non-synchronous releases.

In the second step, the dynamic common factor f_t is used to nowcast current quarter GDP growth using a bivariate regression accounting for serial correlation in errors.[3] The model specification is given below.

$$GDPGr_t = \beta_0 + \beta_1 f_t + u_t \tag{9}$$

[3] The monthly dynamic factor obtained from twenty-two monthly high-frequency indicators is converted into quarterly frequency by simple averaging. The quarterly series is then used in the regression model to map to the quarterly target variable which is GDP.

Annex A Table A1: Correlation of Indicators with Real GDP Growth during June 2011- March 2025

Sl. No	Indicators	Correlation Coefficient
1	IIP	0.946*** (0.000)
2	Domestic air cargo traffic	0.868*** (0.000)
3	Fuel Consumption	0.851*** (0.000)
4	US Payroll	0.815*** (0.000)
5	PMI Services	0.792*** (0.000)
6	Steel Consumption	0.785*** (0.000)
7	Port cargo traffic	0.770*** (0.000)
8	IIP Cement	0.763*** (0.000)
9	Automobile sales	0.752*** (0.000)
10	Power Supply	0.741*** (0.000)
11	PMI Manufacturing	0.738*** (0.000)
12	US IIP	0.738*** (0.000)
13	Naukri Jobspeak Index	0.699*** (0.000)
14	Domestic air passenger traffic	0.692*** (0.000)
15	Gross Taxes	0.687*** (0.000)
16	Railway freight	0.668*** (0.000)
17	Non-oil Non Gold Imports	0.546*** (0.000)
18	Non-oil Exports	0.515*** (0.000)
19	Foreign Tourist Arrivals	0.449*** (0.001)
20	OECD CLI	0.405*** (0.002)
21	Crude Prices	0.398*** (0.002)
22	Baltic Dry Index	0.255* (0.057)
23	US Purchasing Managers Index	0.216 (0.110)
24	Non Food Credit	0.189 (0.163)
25	Farm Tractor Sales	0.126 (0.356)
26	CPI Excluding Food and Beverage	0.0764 (0.576)
27	Money Supply M3	-0.0874 (0.522)

Notes: 1. *p*-values in parentheses.
2. * p<0.10 ** p<0.05 *** p<0.01

Annex A Table A2: Coefficients of PCI and DF Regressed on Indicators

Indicators	PCI			DF		
	Coefficient	R2	Adj_R 2	Coefficient	R2	Adj_R 2
Domestic air cargo traffic	0.079*** (0.000)	0.853	0.851	0.316*** (0.000)	0.87	0.867
Domestic air passenger traffic	0.070*** (0.000)	0.677	0.671	0.274*** (0.000)	0.654	0.648
Automobile sales	0.067*** (0.000)	0.613	0.605	0.271*** (0.000)	0.639	0.632
Baltic Dry Index	0.037*** (0.001)	0.188	0.173	0.144** (0.001)	0.181	0.166
Crude Prices	0.053*** (0.000)	0.382	0.371	0.190*** (0.000)	0.315	0.303
Fuel Consumption	0.068*** (0.000)	0.638	0.632	0.266*** (0.000)	0.615	0.608
Gross Taxes	0.067*** (0.000)	0.612	0.605	0.267*** (0.000)	0.621	0.614
IIP	0.079*** (0.000)	0.866	0.864	0.319*** (0.000)	0.883	0.881
IIP Cement	0.067*** (0.000)	0.617	0.61	0.258*** (0.000)	0.581	0.573
Naukri Jobspeak Index	0.069*** (0.000)	0.656	0.65	0.267*** (0.000)	0.622	0.615
Non-oil Exports	0.059*** (0.000)	0.484	0.474	0.227*** (0.000)	0.447	0.437
Non-oil Non-Gold Imports	0.064*** (0.000)	0.575	0.567	0.241*** (0.000)	0.505	0.496
OECD CLI	0.042*** (0.000)	0.246	0.232	0.179*** (0.000)	0.279	0.265
US Payroll	0.063*** (0.000)	0.543	0.534	0.240*** (0.000)	0.503	0.494
PMI Manufacturing	0.068*** (0.000)	0.646	0.64	0.285*** (0.000)	0.704	0.699
PMI Services	0.076*** (0.000)	0.794	0.791	0.310*** (0.000)	0.834	0.83
Port cargo traffic	0.067*** (0.000)	0.612	0.605	0.271*** (0.000)	0.64	0.634
Power Supply	0.065*** (0.000)	0.587	0.579	0.254*** (0.000)	0.56	0.552
Railway freight	0.073*** (0.000)	0.729	0.724	0.287*** (0.000)	0.716	0.711
Steel Consumption	0.071*** (0.000)	0.703	0.698	0.297*** (0.000)	0.766	0.762
Foreign Tourist Arrivals	0.054*** (0.000)	0.405	0.394	0.204*** (0.000)	0.361	0.349
US IIP	0.068*** (0.000)	0.645	0.639	0.258*** (0.000)	0.578	0.57

Notes: 1. *p*-values in parentheses.
2. * p<0.10 ** p<0.05 *** p<0.01

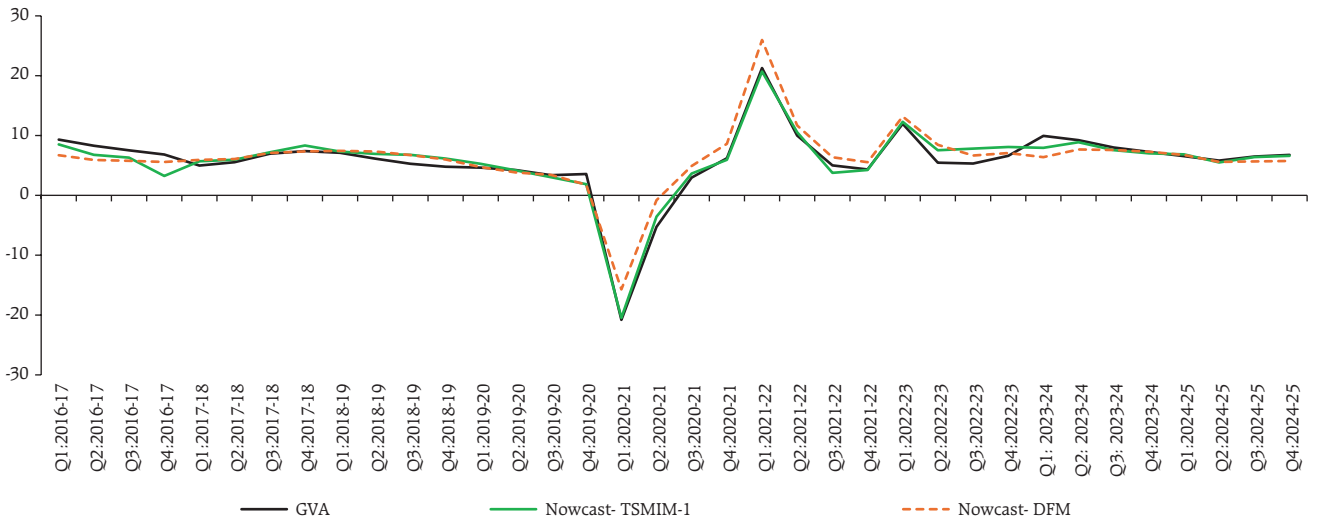
Annex A Table A3: Correlation of GDP with PCI Residual and DF Residual

Variable	PCI	DF
Domestic air cargo traffic	0.0663	0.0663
	(0.627)	(0.627)
Domestic air passenger traffic	-0.101	-0.0867
	(0.459)	(0.525)
Automobile sales	0.0623	0.0291
	(0.648)	(0.831)
Baltic Dry Index	-0.156	-0.151
	(0.252)	(0.268)
Crude Prices	-0.211	-0.143
	(0.118)	(0.292)
Fuel Consumption	0.204	0.209
	(0.132)	(0.122)
Gross Taxes	-0.0456	-0.0641
	(0.739)	(0.639)
IIP	0.268**	0.241*
	(0.046)	(0.074)
IIP Cement	0.0763	0.0966
	(0.576)	(0.479)
Naukri Jobspeak Index	-0.0675	-0.0422
	(0.621)	(0.758)
Non-oil Exports	-0.166	-0.134
	(0.222)	(0.326)
Non-oil Non-Gold Imports	-0.223*	-0.153
	(0.098)	(0.260)
OECD CLI	-0.0540	-0.0945
	(0.693)	(0.488)
US Payroll	0.212	0.231*
	(0.118)	(0.087)
PMI Manufacturing	0.00938	-0.0608
	(0.945)	(0.656)
PMI Services	-0.0455	-0.116
	(0.739)	(0.393)
Port cargo traffic	0.0906	0.0569
	(0.506)	(0.677)
Power Supply	0.0655	0.0794
	(0.631)	(0.561)
Railway freight	-0.212	-0.206
	(0.116)	(0.128)
Steel Consumption	0.0373	-0.0406
	(0.785)	(0.766)
Foreign Tourist Arrivals	-0.170	-0.129
	(0.211)	(0.344)
US IIP	0.00924	0.0599
	(0.946)	(0.661)

Notes: 1. *p*-values in parentheses.
2. * p<0.10 ** p<0.05 *** p<0.01

Annex Chart A1: Nowcasted GVA and Actual GVA Series- Exercise Undertaken for Q4:2024-25

(Per cent)



Sources: National Statistics Office; and Authors' calculations.

Seasonality in Key Economic Indicators of India

by Souvik Ghosh, Shivangee Misra, Anirban Sanyal and Sanjay Singh ^

This article unveils the seasonal patterns in key economic indicators for India, analysing 78 monthly indicators across six major sectors—monetary and banking, payment systems, prices, industrial production, merchandise trade and services along with 25 quarterly indicators spanning national accounts, balance of payments, capacity utilisation of Indian manufacturing companies and forward looking enterprise surveys. Large seasonal fluctuations were noted in various economic indicators, including cash balances with RBI, demand deposits, vegetable prices, production across sectors and merchandise exports. The quarterly data reveal increased seasonality in real GDP, influenced by government expenditure. Among supply side components, GVA agriculture demonstrated the highest seasonal variations. Lastly, capacity utilisation and services exports also experienced high seasonal variation.

Introduction

Seasonality in macroeconomic indicators refers to recurring, predictable patterns that occur within a year. It is a fundamental component of the data generating process, alongside trend, cyclical variation and random fluctuations. Various factors, such as weather conditions, production cycles, the nature of economic activity, holidays and vacation periods influence the seasonal pattern of economic indicators. Seasonal adjustment involves removing these recurring patterns and calendar effects from time series data to better identify underlying long-term trend, cyclical movements and temporary changes, thereby providing a clearer picture of economic conditions. Since 1980, the Reserve Bank has been publishing monthly seasonal factors for key macroeconomic indicators.[1]

This article presents the estimates of seasonal patterns in key economic indicators for India. Economic activity came to a halt in 2020 due to the disruptions caused by the COVID-19 pandemic, followed by a gradual return to normalcy. This entire episode induced severe volatility in major macroeconomic variables, characterised by shortlived inter-temporal changes. In light of this, the analysis of seasonal factors accounts for possible changes in the temporary disruptions of these economic series before teasing out the seasonal patterns. To ensure the robustness of the findings, the stability of seasonal patterns is also cross-validated using pre-pandemic data.

The rest of the article is organised as follows: Section II describes the data and methodology. Section III illustrates seasonal factor estimates and discusses seasonal variations in the selected economic series. The article concludes by summarising the findings in Section IV.

II. Data and Methodology

The article covers the seasonality analysis of major economic indicators at monthly and quarterly frequency. The quarterly variables were included for the first time in the analysis since the last release of this article in November 2024.

The monthly variables span six key thematic areas: monetary and banking statistics, price indices, industrial production, services sector indicators,

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[1] First article in the series was published in December 1956 issue of the Reserve Bank of India Bulletin and annual articles were published since January 1980. The previous article in this series was published in November 2024 issue of the RBI Bulletin.

merchandise trade and payment systems. A comprehensive list of the 78 indicators under these categories is provided in Table A1-M1 (Annex I).

The quarterly series includes data on national accounts, capacity utilisation (CU) and new orders from the order books, inventories and capacity utilisation survey (OBICUS), business assessment and expectations indices, component series from the industrial outlook survey (IOS) and external trade in services from the balance of payments (BoP) statistics. A full list of the 25 quarterly series used in the seasonality analysis is available in Table A2-Q1 (Annex II).

Seasonal factors are estimated using a multiplicative time series model with the X13-ARIMA-SEATS software developed by the U.S. Census Bureau, adapted to Indian conditions by incorporating adjustments for *Diwali* and Indian trading day effects. The pandemic-infused volatility in the economic series and temporary changes in their data generating process are adjusted using an automatic outlier detection mechanism through three types of outliers, namely additive outliers (AO), temporary changes (TC) and level shifts (LS), which are checked subsequently to justify the economic interpretation. The seasonal factor estimates are provided in terms of last 10 years average, last year estimates, range of seasonal variations defined by the difference between the maximum and minimum of seasonal factors and model diagnostics. Recognising that the lack of longer time series data for the post-pandemic period may influence outlier detection and thereby, influence seasonal factor estimates, robustness checks are carried out by comparing the seasonal factor estimates of the pre-COVID sample (Technical Annex)[2].

[2] The forecast of seasonal factors can be derived using the RegARIMA model fitted on the series. However, it may be noted that the possible changes in the data generating process after the COVID-19 pandemic, may influence the model choice and thereby, may impact the forecasts of the seasonal factors.

III. Seasonality in Major Economic Variables in India

III.1. Seasonality in Monthly Series

Most of the economic variables examined in the study display stable seasonal patterns. Among the 14 selected monetary and banking indicators, 11 show seasonal peaks in either March or April, while 5 exhibit troughs in August. Reserve money, narrow money and bank credit typically peak in March, whereas broad money and aggregate deposits of scheduled commercial banks (SCBs) reach their seasonal high in April. Within aggregate deposits, demand deposits show a seasonal surge in March, while time deposits peak in April. Loans, cash credits and overdrafts by SCBs and non-food credit follow a similar seasonal peak in March. Seasonal trough occurs in February for aggregate deposits and in August for bank credit. SCBs' investments tend to be higher in September and decline in March. Currency in circulation increases seasonally in April and tapers off in September (Table A1-M2, Annex I).

Among the monetary and banking indicators, seasonal variations, measured by the range of the seasonal factors, are high in demand deposits, SCBs' cash in hand and balances with RBI and narrow money. Seasonal variations in demand deposits remained steadfast at 5.5 percentage points in 2024-25, is lower than its last ten years' average. On the other hand, the range of seasonal variations in the SCBs' cash in hand and balances with RBI gradually increased over time and touched the highest value of 8.0 percentage points during 2024-25 (Table A1-M3, Annex I).

Seasonal pattern in consumer price index-combined (CPI-C) shows that headline CPI typically attains seasonal peak in October and touches seasonal lowest by March, largely driven by the food and beverage component. Within food items, vegetables exhibit the most pronounced seasonal price fluctuations, with tomatoes, potatoes, and onions (TOP) contributing significantly to overall

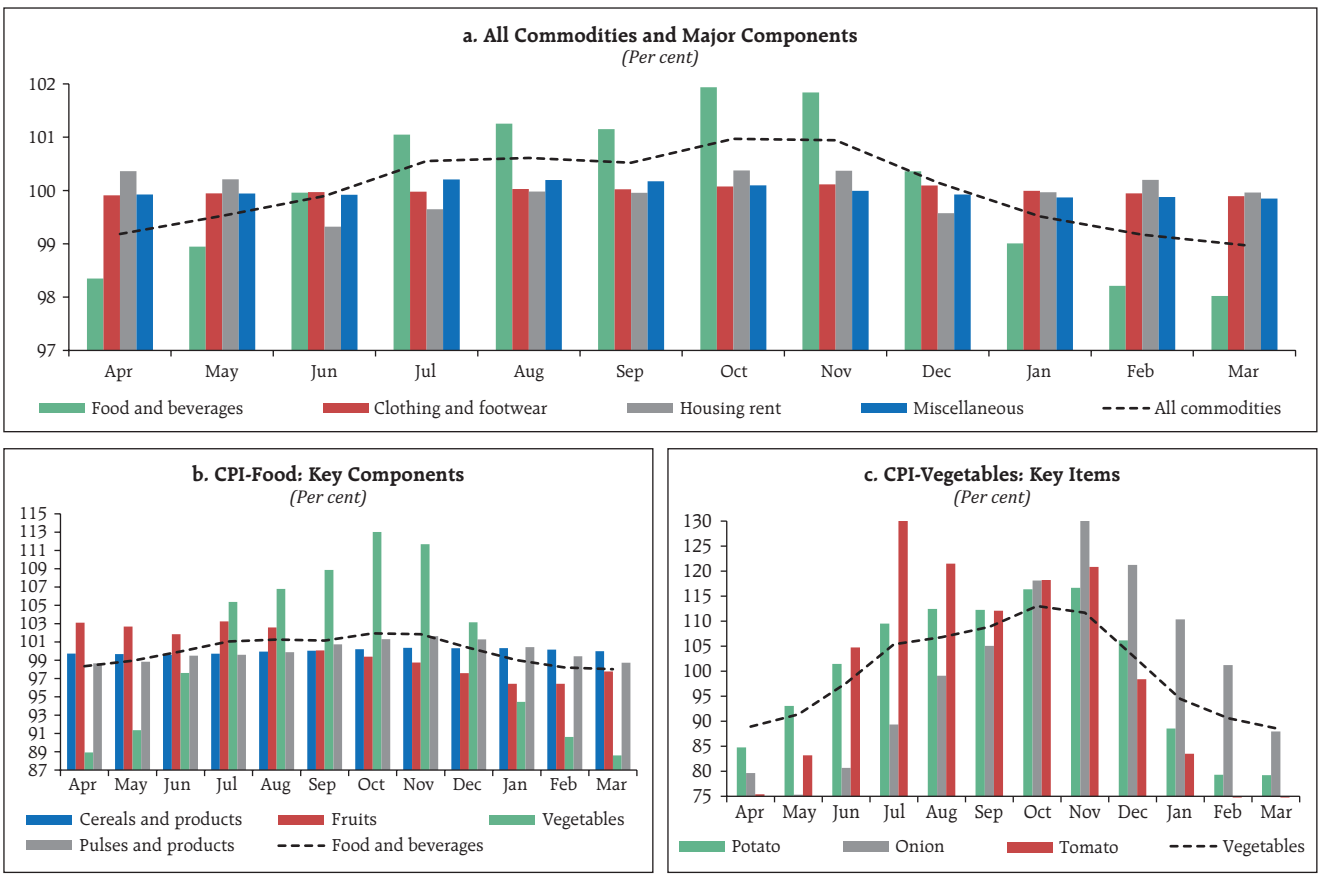
variation. Potato and onion prices rise in November, with seasonal pressures easing by March and May, respectively, while tomato prices increase in July and moderate by March (Chart 1 and Table A1-M2). Protein items such as meat, fish and eggs also display notable seasonality. In contrast, other major groups like clothing and footwear, housing and miscellaneous items experience relatively lower seasonal variation (Table A1-M3).

Among the other major price indices, the consumer price index for industrial workers (CPI-IW) reaches its seasonal peak in October, whereas the consumer price indices for agricultural labourers (AL) and rural labourers (RL) peak in November. All three indices show seasonal easing in March. However, the seasonal fluctuations in CPI-IW, AL and RL were milder as compared to headline CPI-C during 2024-25 (Chart 2 and Tables A1-M2, A1-M3).

Seasonal peak in wholesale prices generally happen in November, while easing is in January (Chart 3). The wholesale price index (WPI) for primary articles showed a seasonal variation of 4.6 percentage points in 2024-25, remaining close to last year's level of 4.4 percentage points. While seasonal variations in WPI food articles have gradually increased, those for WPI fuel and manufactured products have remained stable within a narrow range (Table A1-M3).

Industrial output, as measured by the index of industrial production (IIP), typically rises in March and moderates in April, largely due to seasonal patterns in the manufacturing sector. Mining activity also peaks in March, with a seasonal low in August.

Chart 1: Average[3] Monthly Seasonal Factors within CPI

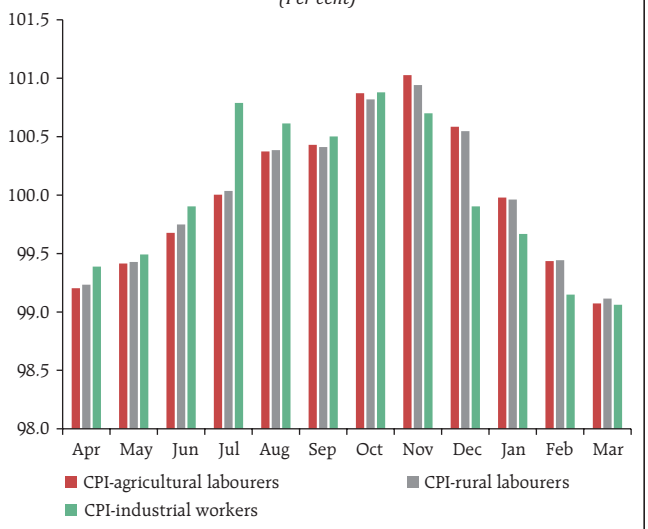


Sources: MOSPI; and Authors' calculations.

[3] Average of the seasonal factors of last 10 years.

Chart 2: Average Monthly Seasonal Factors of CPI-IW, AL and RL

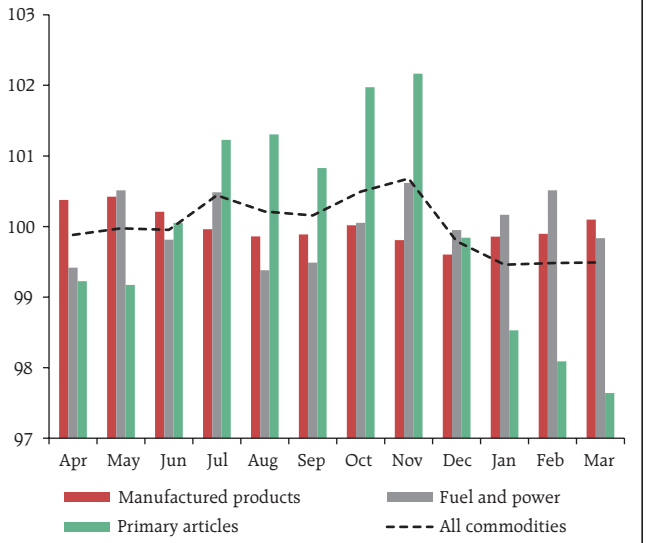
(Per cent)



Sources: Labour Bureau; and Authors' calculations.

Chart 3: Average Monthly Seasonal Factors of WPI

(Per cent)



Sources: Office of the Economic Adviser; and Authors' calculations.

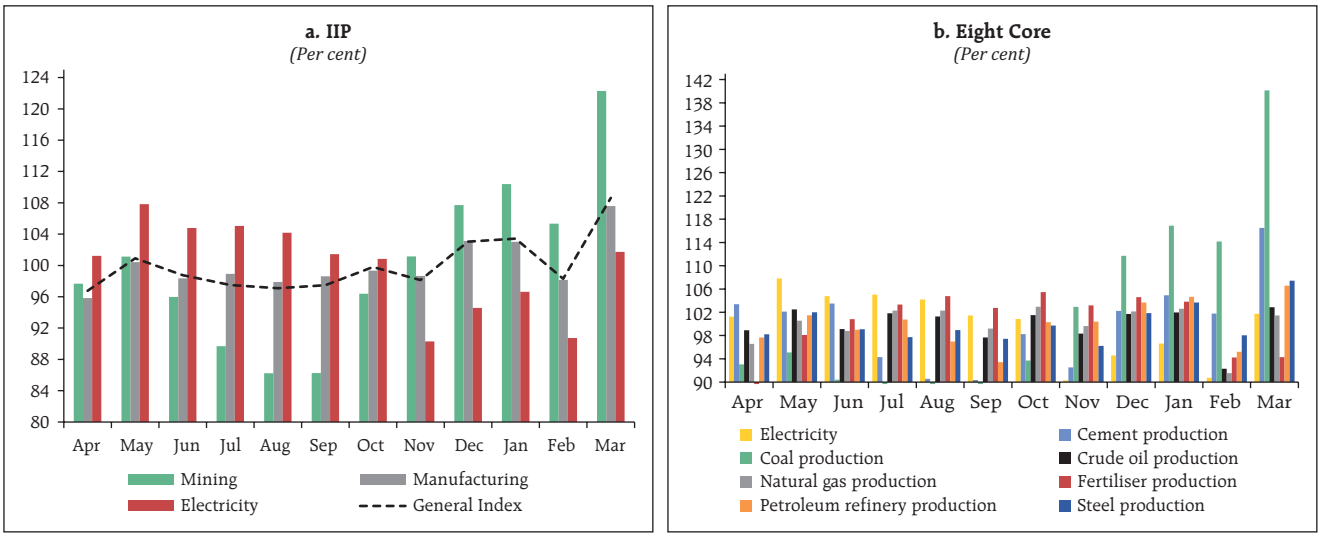
Electricity generation reaches its seasonal high in May and declines in November. Within manufacturing, seasonal peaks and troughs vary across subsectors. Food product manufacturing sees a peak in December, while beverage production reaches its seasonal high in May. The lowest production levels for food and beverages occur in June and November, respectively.

Under the use-based classification of IIP, production of consumer durables peaks in October, driven by major Indian festivals, while non-durable goods production reaches its seasonal high in December. Most other major categories, including capital goods and infrastructure goods, experience peak production in March. Seasonal troughs occur in April for capital goods and consumer goods. Seasonal trough of consumer durables and non-durables happen during April and June, respectively. Primary goods and intermediate goods show seasonal moderation in September and February, respectively, while infrastructure goods production softens in November. Among the eight core industries, most record seasonal peaks in March, with the exceptions of fertilisers and natural gas, which reach their seasonal highs in October (Chart 4 and Table A1-M2).

Among the major sectors of the IIP, mining exhibited the highest seasonal fluctuation, followed by electricity. Within the use-based classification, capital goods showed the most pronounced seasonal variation, followed by consumer non-durables in 2024-25. Among the eight core industries, coal production recorded the widest range of seasonal factors, while crude oil showed the least seasonal variation (Table A1-M3).

Among high-frequency services sector indicators, passenger vehicle sales (wholesale) reach a seasonal peak in October, driven by increased demand during the festive season. Cargo and railway traffic typically rise in March, while domestic air passenger traffic peaks in December and international air travel sees the highest seasonal volume in January (Chart 5a and Table A1-M2). Most of these indicators experience seasonal troughs in September, except for passenger vehicle sales, which decline seasonally in December. In terms of the magnitude of seasonal variation, passenger vehicle sales showed the widest range of seasonal factors in 2024–25, at 27 percentage points. Railway and cargo traffic also exhibited greater seasonal fluctuations compared

Chart 4: Seasonal Factors for IIP and Eight Core Industries



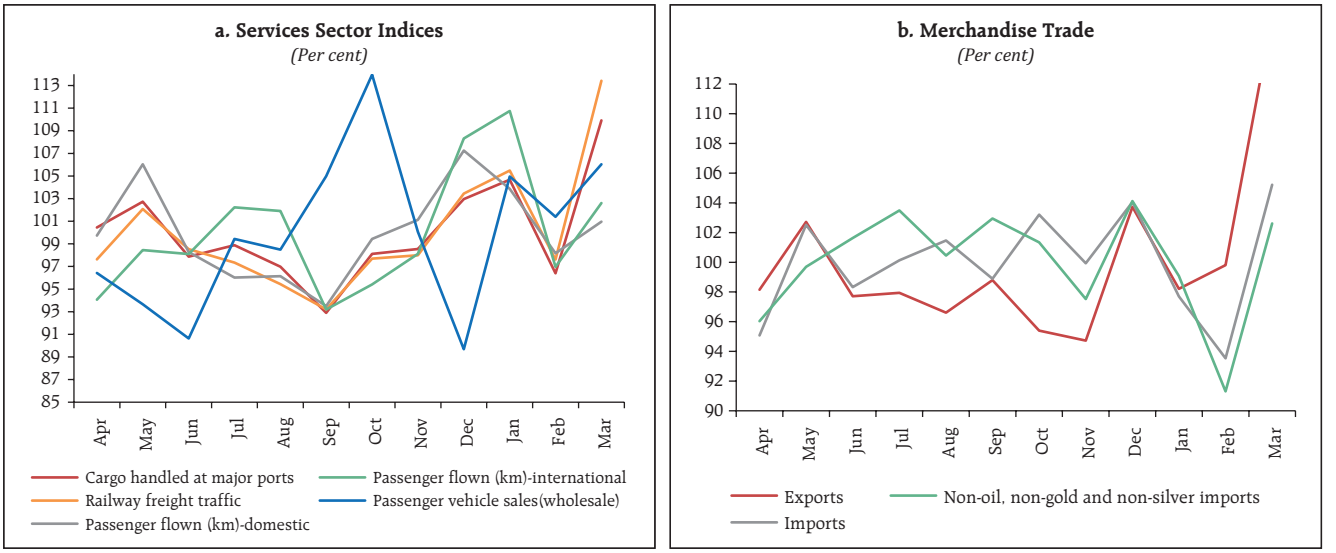
Sources: MOSPI; Office of the Economic Adviser; and Authors' calculations.

to air passenger traffic over the past financial year (Table A1-M3).

Merchandise trade typically peaks in March, with both exports and imports reaching seasonal highs. Exports experience a seasonal low in November, while imports moderate in February. Non-oil, non-gold, and non-silver imports show a seasonal peak in December and a decline in February (Chart 5b and Table A1-M2). Seasonal fluctuations are more pronounced in merchandise exports than in imports (Table A1-M3).

Payment system indicators generally reach their seasonal peak in March, with the exception of card payments. Real Time Gross Settlement (RTGS) transactions show a seasonal dip in February, while paper clearing hits its seasonal low in September. Retail electronic payments (REC) decline in November

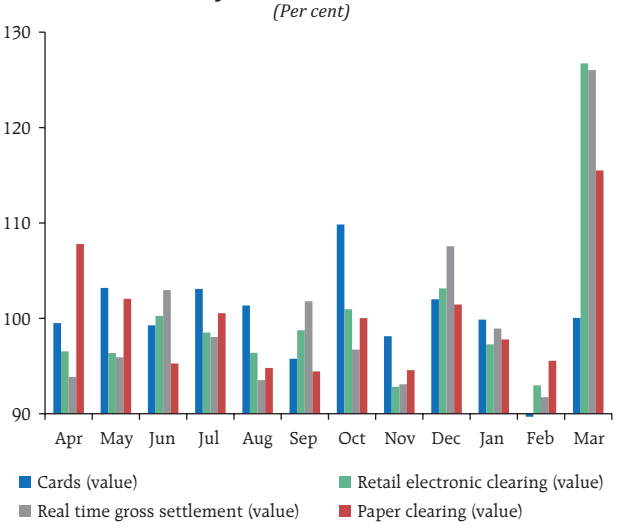
Chart 5: Seasonal Factors for Services Sector and Merchandise Trade



Sources: DGCI&S; DGCA; Ministry of Railways; Indian Port Association; Society of Indian Automobile Manufacturers (SIAM); and Authors' calculations.

Chart 6: Seasonal Factors for Payment System Indicators

(Per cent)



Sources: RBI; and Authors' calculations.

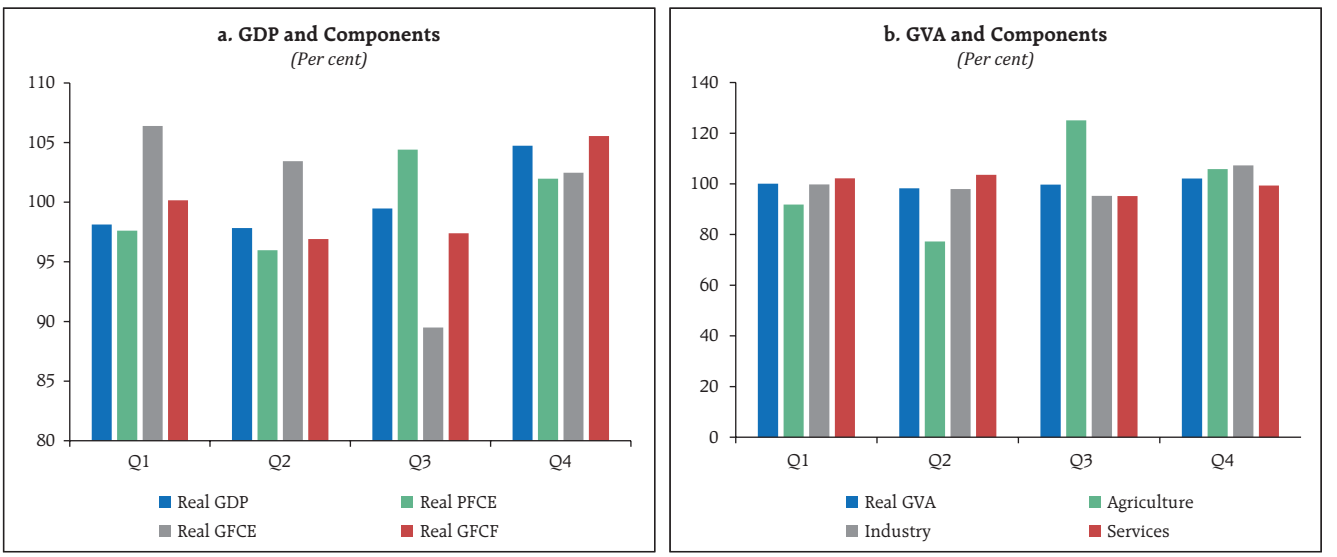
and card payments experience seasonal moderation in February (Chart 6 and Table A1-M2). Among the payment indicators selected for this study, REC exhibited the highest seasonal variation, with seasonal factor range of 31.7 percentage points in 2024–25, followed by RTGS payments (range 30.1 percentage points) (Table A1-M3).

III.2. Seasonality in Quarterly Series[4]

Quarterly estimates of gross domestic product (GDP) and gross value added (GVA) typically show seasonal peaks in January to March quarter (Q4) and troughs in July to September (Q2). Among GDP components, Government final consumption expenditure (GFCE) rises seasonally in April to June (Q1) and eases in October to December (Q3). Gross fixed capital formation (GFCF) peaks in Q4 and dips in Q2, aligning with the monsoon season. Private final consumption expenditure (PFCE) tends to increase in Q3, driven by major festivals, following a seasonal slowdown in Q2. On the supply side, agricultural output (value added) shows a seasonal dip in Q2 during the main *kharif* sowing period and peaks in Q3 (*i.e.*, harvest time). Industrial output records a seasonal high in Q4 and a low in Q3. In contrast, services activity strengthens in Q2 but moderates in Q3 (Chart 7 and Table A2-Q2).

The extent of seasonal variations, measured by the range of seasonal factors, is higher in GDP than GVA, possibly on account of the variations in net taxes,

Chart 7: Seasonal Factors of National Accounts



Sources: MOSPI; and Authors' calculations.

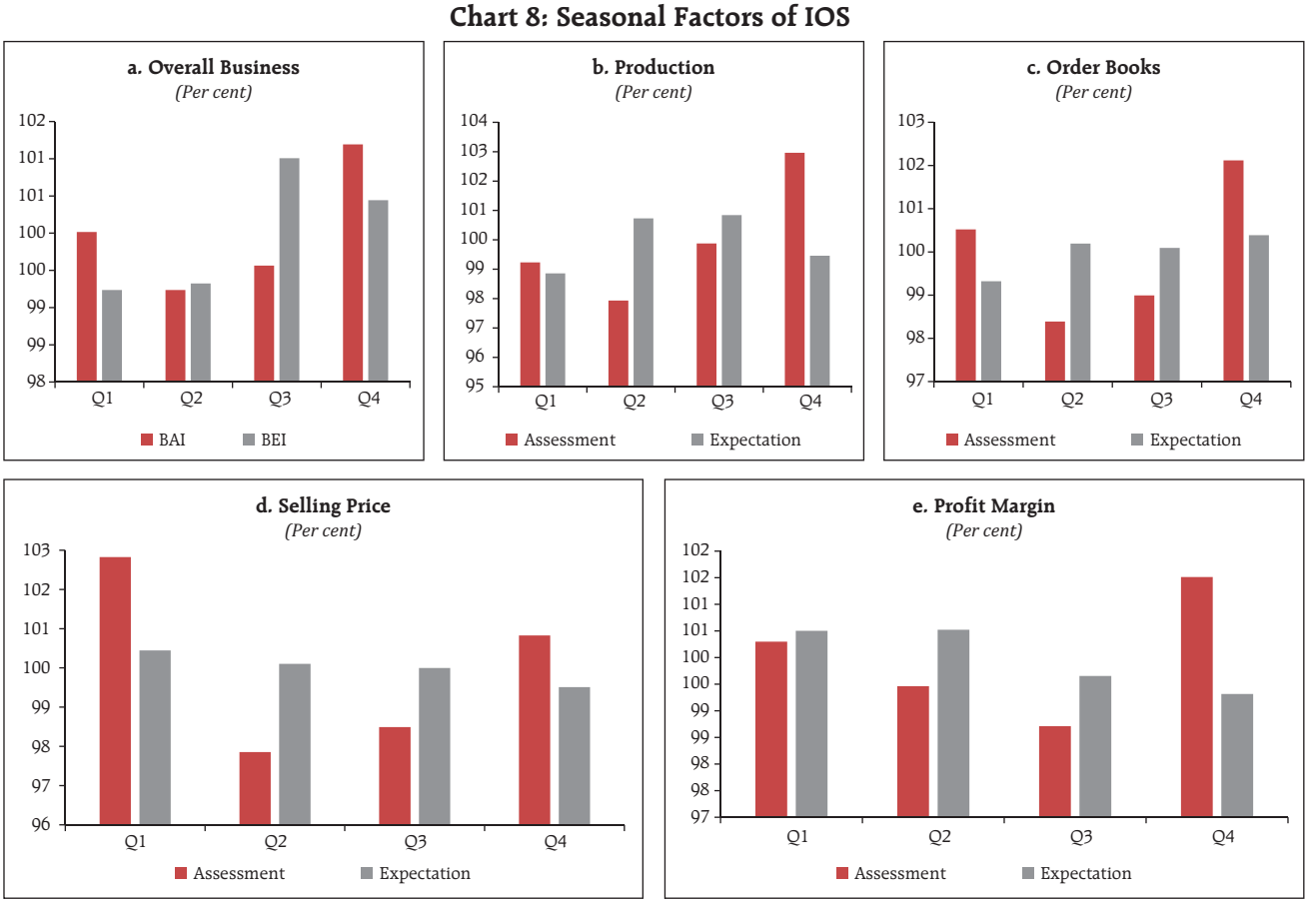
[4] In this article, the quarters correspond to the financial years *i.e.*, Q1 corresponds to April to June, Q2 is from July to September, Q3 is October to December and Q4 is January to March.

which influence market prices. GFCE exhibits the highest seasonal variations among the expenditure-side components of GDP. Seasonal fluctuations in GFCF and PFCE are approximately closer to each other. Seasonal fluctuations in GVA were higher in 2024-25 than the last 10 years' average. Among the supply side components, seasonal variations are highest in agriculture (Table A2-Q3).

CU of manufacturing companies, as measured by the OBICUS, typically peaks in Q4 and dips in Q1. Seasonal variation in CU has remained relatively stable over the past decade, with an average range of 3.7 percentage points. The Business Assessment Index (BAI) and Business Expectation Index (BEI), derived from the IOS, show seasonal peaks in Q4 and Q3, respectively, while their troughs occur in Q2 and Q1. Order book assessments and expectations both peak in Q4. However, order book assessments bottom out in Q2, while expectations decline in Q1. Manufacturers' assessment of CU reaches its seasonal high in Q4, while expectations peak in Q3. Regarding pricing outlook, selling price assessments are higher in Q1 and moderate in Q2, whereas expectations rise in Q1 but ease in Q4. Profitability assessments are strongest in Q4, while expectations for future profitability typically peak in Q2 (Chart 8 and Table A2-Q2).

BAI and BEI indices exhibit relatively mild seasonal fluctuations, with seasonal factors averaging between 1.8 and 2.3 percentage points in 2024-25. In contrast, assessments related to production, capacity utilisation and selling prices display more pronounced

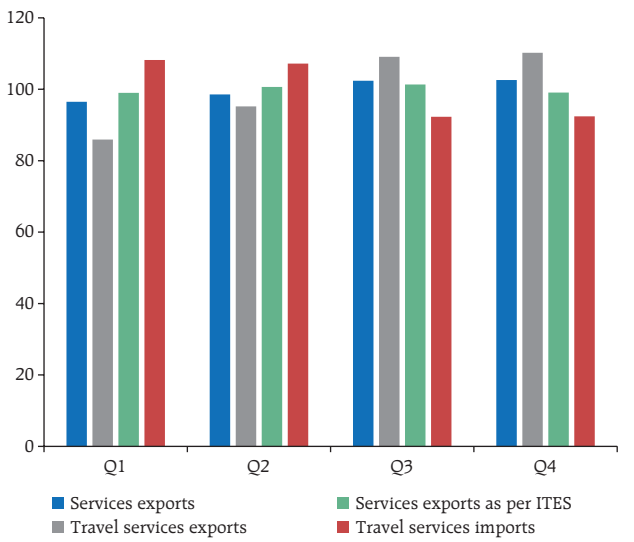
Chart 8: Seasonal Factors of IOS



Sources: RBI; and Authors' calculations.

Chart 9: Seasonal Factors in Services Trade

(Per cent)



Sources: RBI; and Authors' calculations.

seasonal variation (Table A2-Q3).

Overall services exports reach their seasonal peak in Q4 and hit a trough in Q1. Within services exports, computer software and information technology enabled services (ITES) exports are seasonally strong in Q3, while travel services exports peak in Q4. On the import side, travel services see a seasonal high in Q1 (Chart 9 and Table A2-Q2). Services exports exhibit notable seasonal variation, with a ten-year average range of 6.1 percentage points. Overall, travel services exports and imports display the most significant seasonal fluctuations within services trade (Table A2-Q3).

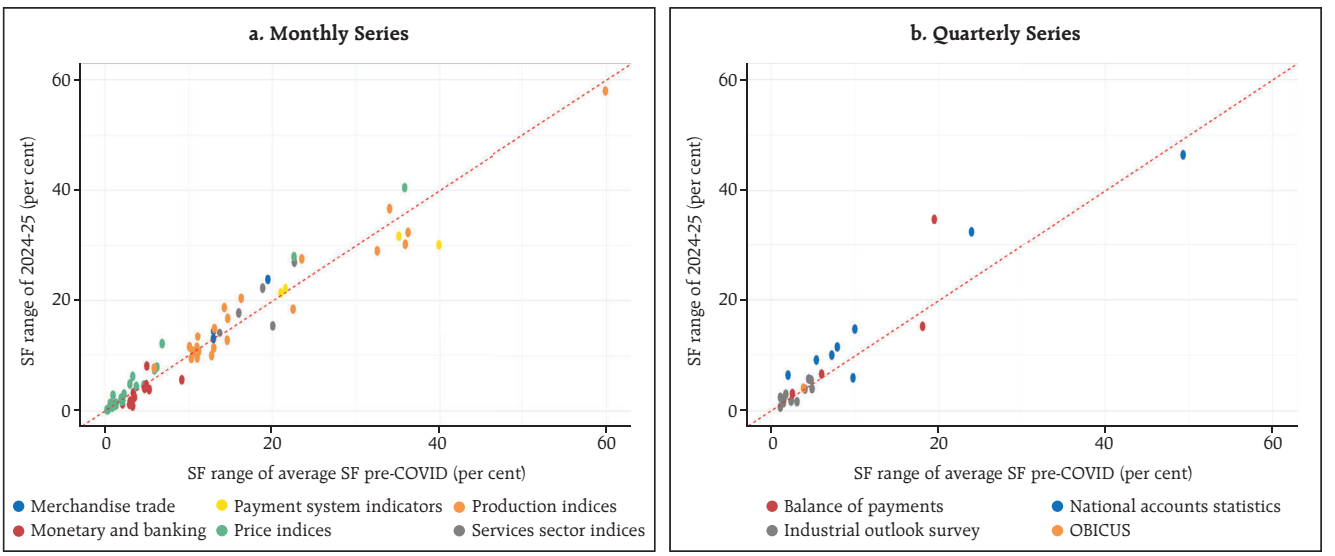
III.3. Stability of Seasonality

The stability of seasonal variations is assessed using both parametric and non-parametric tests, with the diagnostic results presented in Tables A1-M4 and A2-Q4. Additionally, the consistency of seasonal factor estimates is evaluated by comparing the range of seasonal factors for 2024-25 against their five-year averages from the pre-COVID period for both monthly and quarterly series. Scatter plots indicate that seasonal variations during 2024-25 closely align with pre-pandemic averages across most monthly series (Chart 10a). A similar trend is observed in quarterly series, except for one series in national accounts statistics (GFCE) and one series in balance of payments (travel exports), which have shown increased seasonal variation recently (Chart 10b).

IV. Conclusion

This article presents updated estimates of

Chart 10: Range of Seasonal Variations in Monthly and Quarterly Series



Sources: Authors' calculations.

seasonal factors for key economic indicators, revealing that while overall seasonal patterns remain largely stable, several indicators—such as cash in hand and balances with the RBI, demand deposits, prices of major vegetables, industrial production, passenger vehicle sales, merchandise exports and RTGS transactions—have experienced more pronounced seasonal fluctuations. Additionally, some indices and banking and monetary aggregates have seen shifts in their peak and trough months.

Banking indicators like bank credit, non-food credit and demand deposits typically reach their year-end peak in March. CPI experiences seasonal pressure from July to November, primarily due to rising vegetable prices during the monsoon, while fruit prices tend to peak in the summer. In industrial production, most items hit their highest levels in March, except consumer durables, which peak in October during the festive season. Both exports and imports also reach their seasonal highs in March, with exports showing more pronounced seasonal fluctuations than imports.

Among the quarterly series, real GDP and GVA consistently peak in Q4, with seasonal variations in national account aggregates having increased since the pandemic began, even after adjusting for pandemic-related volatility as detailed in the technical annex. Both GDP and GVA reach their seasonal trough in Q2. Among the expenditure-side components, PFCE and GFCF trough in Q2, whereas GFCE experiences seasonal low in Q3. Within supply side, GVA agriculture experiences the highest seasonal variations. In IOS, manufacturers' current assessment peaks during Q4 and expectations scales seasonal maximum in Q3. Services exports peak in Q4, while exports of telecommunications, computer and information services are strongest in Q3.

The pandemic caused major disruptions in economic activity, resulting in atypical data patterns. Due to the limited post-pandemic data availability, estimates of stochastic seasonality using the seasonal ARIMA model may be affected. With this limited data, it is difficult to definitively identify changes in the underlying data-generating process. The seasonal factor estimates presented in this article have been derived with appropriate precautions and robustness checks; however, these estimates may further evolve as more post-pandemic data become available.

References:

Shiskin, J., Young, A. H., and Musgrave, J. C. (1967). *The X-11 variant of the census method II seasonal adjustment program.* U.S. Department of Commerce, Bureau of the Census.

Gómez, Victor and Maravall, Agustin (1996). Programs TRAMO and SEATS, Instruction for User (Beta Version: September 1996). *Working Papers, Banco de España.*

Technical Annex

Seasonal patterns in economic data are systematic fluctuations that recur at specific times each year, driven by factors such as weather, holidays and cultural events. The X13-ARIMA-SEATS programme, developed by the US Census Bureau, is a widely used tool for seasonal adjustment and trend extraction in time series analysis. This programme integrates two methodologies: RegARIMA modeling, which forecasts and models the underlying time series, and SEATS (Signal Extraction in ARIMA Time Series), which decomposes the series into seasonal, trend and irregular components. The decomposition process involves the iterative application of centered moving average filters, progressively refining the separation of components. Various filters and moving averages are employed throughout to accurately isolate the different elements of the time series.

The X-13 ARIMA-SEATS program incorporates two distinct seasonal adjustment modules. The first module employs the X-11 seasonal adjustment methodology, as originally described by Shiskin, Young and Musgrave (1967). This module retains all the seasonal adjustment features found in the earlier X-11 and X-11-ARIMA programmes, including the use of traditional seasonal and trend moving averages as well as calendar and holiday adjustment procedures. The second module utilises the ARIMA model-based seasonal adjustment approach from the SEATS programme, developed by Victor Gomez and Agustin Maravall at the Bank of Spain. This version of X-13 ARIMA-SEATS fully integrates SEATS capabilities, providing stability and spectral diagnostics comparable to those available for X-11 adjustments. For the purposes of this article, the X-11-based seasonal adjustment module was employed to extract seasonal factors.

X-13 ARIMA-SEATS provides four other types of regression variables to deal with abrupt changes in the level of a series of a temporary or permanent nature: *additive outliers (AOs), level shifts (LSs), temporary changes (TCs) and ramps. AOs* affect only one observation in the whole series and hence, this effect is removed by a dummy variable, which takes *'0'* at break and *'1'* for other period. *LSs* increases or decreases all observations from a certain time point onward by some constant amount, this *LS* effect is removed by introducing a dummy variable which takes value *'-1'* for all the time point up-to the break point and *'0'* for all the time points afterwards. *TCs* allow for an abrupt increase or decrease in the level of the series that returns to its previous level exponentially, this effect is captured by a variable which takes value *'0'* for all observation before the change point and α_t $(0<\alpha<1)$ thereafter. Ramps allow for a linear increase or decrease in the level of the series over a specified time interval (say t_0 - t_1). Ramps are smoothed out by introducing a variable which take three values, *'-1'* for time $t<t_0$, $(t-t_0)/((t_1- t_0)-1)$ for $t_0 < t <t_1$, and *'0'* after the time point $t > t_1$.

X-13 ARIMA employs Seasonal Autoregressive Integrated Moving Average (SARIMA) models to identify and estimate the seasonal patterns within economic time series. The selection of the SARIMA model order is guided by in-sample goodness-of-fit measures, with the optimal model chosen based on established information criteria. Consequently, the selected model provides a representation of the underlying data-generating process through averaged parameter estimates. However, the onset of the COVID-19 pandemic introduced significant challenges to this modeling approach, complicating the identification and stability of seasonal components.

The COVID-19 pandemic may have fundamentally transformed the economic data-generating process across numerous sectors. This shift has introduced increased uncertainty and volatility into the data, necessitating more adaptive and flexible analytical approaches.

The changes that occurred during the COVID period and the subsequent post-pandemic normalisation may have influenced seasonal patterns. However, the limited availability of data from the past two to three years is insufficient to fully capture these shifts using SARIMA models. To address potential alterations in seasonality since COVID, the stability of seasonal adjustments is maintained through outlier adjustments, comparisons with pre-pandemic estimates and annual updates of seasonal factors for the most recent periods.

In the X-13 ARIMA model, outlier adjustments for the COVID period are implemented using three types of outliers: AO, TC and LS. These outliers are automatically identified according to guidelines established by the US Census Bureau, and their significance is validated by correlating them with economic events in India. To ensure the stability of seasonal patterns, the range of seasonal factors from the most recent period is compared with the average range observed during the pre-pandemic period.

Annex - I

Table A1-M1: Time Period Used for Estimating Monthly Seasonal Factors

Name of Sectors/Variables	Time Period	Name of Sectors/Variables	Time Period
Monetary and Banking Indicators (14 series)		**Index of Industrial Production (23 series)**	
A.1.1 Broad Money (M3)	April 1994 to March 2025	E. IIP (Base 2011-12 = 100) General Index	April 1994 to March 2025
A.1.1.1 Net Bank Credit to Government		E.1.1 IIP - Primary goods (34.05%)	April 2012 to March 2025
A.1.1.2 Bank Credit to Commercial Sector		E.1.2 IIP - Capital goods (8.22%)	
A.1.2 Narrow Money (M1)		E.1.3 IIP - Intermediate goods (17.22%)	
A.1.3 Reserve Money (RM)		E.1.4 IIP - Infrastructure/ construction goods (12.34%)	
A.1.3.1 Currency in Circulation		E.1.5 IIP - Consumer goods (28.17%)	
A.2.1 Aggregate Deposits (SCBs)		E.1.5.1 IIP - Consumer durables (12.84%)	
A.2.1.1 Demand Deposits (SCBs)		E.1.5.2 IIP - Consumer non-durables (15.33%)	
A.2.1.2 Time Deposits (SCBs)		E.2.1 IIP - Mining (14.37%)	April 1994 to March 2025
A.3.1 Cash in Hand and Balances with RBI (SCBs)		E.2.2 IIP – Manufacturing (77.63%)	
A.3.2 Bank Credit (SCBs)		E.2.2.1 IIP - Manufacture of food products (5.30%)	April 2012 to March 2025
A.3.2.1 Loans, Cash Credits and Overdrafts (SCBs)		E.2.2.2 IIP - Manufacture of beverages (1.04%)	
A.3.2.2 Non-Food Credit (SCBs)		E.2.2.3 IIP - Manufacture of textiles (3.29%)	
A.3.3 Investments (SCBs)		E.2.2.4 IIP - Manufacture of chemicals and chemical products (7.87%)	
Price Indices [CPI: 21 series and WPI: 8 series]		E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers (4.86%)	
B. CPI (Base: 2012 = 100) All Commodities	January 2011 to March 2025	E.2.3 IIP - Electricity (7.99%)	April 1994 to March 2025
B.1 CPI - Food and beverages (45.86%)		E.3 Cement Production (2.16%)	April 2004 to March 2025
B.1.1 CPI - Cereals and products (9.67%)		E.4 Steel Production (7.22%)	
B.1.2 CPI - Meat and fish (3.61%)		E.5 Coal Production (4.16%)	
B.1.3 CPI – Egg (0.43%)		E.6 Crude Oil Production (3.62%)	
B.1.4 CPI - Milk and products (6.61%)		E.7 Petroleum Refinery Production (11.29%)	
B.1.5 CPI – Fruits (2.89%)		E.8 Fertiliser Production (1.06%)	
B.1.6 CPI – Vegetables (6.04%)		E.9 Natural Gas Production (2.77%)	
B.1.6.1 CPI – Potato (0.98%)		**Service Sector Indicators (5 series)**	
B.1.6.2 CPI – Onion (0.64%)		F.1 Cargo handled at Major Ports	April 1994 to March 2025
B.1.6.3 CPI – Tomato (0.57%)		F.2 Railway Freight Traffic	
B.1.7 CPI - Pulses and products (2.38%)		F.3 Passenger flown (Km) - Domestic	
B.1.8 CPI – Spices (2.50%)		F.4 Passenger flown (Km) - International	
B.1.9 CPI - Non-alcoholic beverages (1.26%)		F.5 Passenger Vehicle Sales (wholesale)	April 2004 to March 2025
B.1.10 CPI - Prepared meals, snacks, sweets *etc.* (5.55%)		**Merchandise Trade (3 series)**	
B.2 CPI - Clothing and footwear (6.53%)		G.1 Exports	April 1994 to March 2025
B.3 CPI – Housing (10.07%)		G.2 Imports	
B.4 CPI – Miscellaneous (28.32%)		G.3 Non-Oil, Non-Gold and Non-Silver Imports	
C.1 Consumer Price Index for Industrial Workers (Base: 2016=100)	January 2000 to March 2025	**Payment System Indicators (4 Series)**	
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)		H.1 Real Time Gross Settlement	April 2004 to March 2025
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)		H.2 Paper Clearing	April 2005 to March 2025
D. WPI (Base: 2011-12=100) All Commodities	April 1994 to March 2025	H.3 Retail Electronic Clearing (REC)	April 2004 to March 2025
D.1 WPI - Primary Articles (22.62%)		H.4 Cards	
D.1.1 WPI - Food Articles (15.26%)			
D.2 WPI - Fuel & Power (13.15%)			
D.3 WPI – Manufactured Products (64.23%)			
D.3.1 WPI - Manufacture of Food Products (9.12%)			
D.3.2 WPI - Manufacture of Chemicals & Chemical Products (6.47%)	April 2012 to March 2025		
D.3.3 WPI - Manufacture of Basic Metals (9.65%)			

Note: The figures in brackets represent weights for groups, sub-groups and items under the respective general index.

Table A1-M2: Average* Monthly Seasonal Factors of Select Economic Time Series (Per cent)

SERIES NAME	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1	2	3	4	5	6	7	8	9	10	11	12	13
Monetary and Banking Indicators (14 series)												
A.1.1 Broad Money (M3)	**101.0**	100.6	100.3	100.3	99.9	99.7	99.7	**99.3**	99.4	99.5	99.7	100.5
A.1.1.1 Net Bank Credit to Government	101.0	100.4	100.0	**101.3**	101.2	99.7	99.5	100.2	**98.4**	99.3	99.7	99.5
A.1.1.2 Bank Credit to Commercial Sector	100.8	100.1	99.9	99.5	**99.0**	99.4	99.4	99.5	100.2	100.2	100.3	**101.6**
A.1.2 Narrow Money (M1)	101.8	101.3	101.1	99.7	99.0	99.0	98.6	**98.3**	98.9	99.0	100.1	**103.2**
A.1.3 Reserve Money (RM)	101.4	101.9	101.6	100.4	99.1	98.4	**98.3**	98.9	99.1	99.1	99.0	**102.7**
A.1.3.1 Currency in Circulation	**102.6**	102.5	101.9	100.2	99.1	**98.0**	98.1	98.6	98.7	99.3	100.0	100.8
A.2.1 Aggregate Deposits (SCBs)	**100.6**	100.2	100.0	100.1	99.9	100.3	99.9	99.6	99.8	99.7	**99.5**	100.4
A.2.1.1 Demand Deposits (SCBs)	100.8	98.7	99.9	98.4	**97.7**	102.9	98.8	98.9	100.4	98.6	98.8	**106.0**
A.2.1.2 Time Deposits (SCBs)	**100.5**	100.3	100.0	100.3	100.0	100.1	100.1	99.8	99.8	99.8	**99.6**	99.7
A.3.1 Cash in Hand and Balances with RBI (SCBs)	101.2	100.0	**102.0**	100.4	100.5	101.1	100.0	100.4	101.6	97.8	**96.4**	98.2
A.3.2 Bank Credit (SCBs)	100.6	100.0	99.9	99.4	**99.0**	99.9	99.6	99.6	100.3	100.1	100.1	**101.4**
A.3.2.1 Loans, Cash Credits and Overdrafts (SCBs)	100.5	100.0	99.9	99.4	**99.0**	99.9	99.7	99.7	100.3	100.2	100.1	**101.3**
A.3.2.2 Non-Food Credit (SCBs)	100.6	100.0	99.9	99.4	**99.1**	99.9	99.7	99.4	100.2	100.0	100.1	**101.6**
A.3.3 Investments (SCBs)	99.4	100.1	100.3	101.1	101.2	**101.3**	100.9	100.0	99.1	98.9	99.2	**98.5**
Price Indices [CPI: 21 series and WPI: 8 series]												
B. CPI (Base: 2012 = 100) All Commodities	99.2	99.5	99.9	100.6	100.6	100.5	**101.0**	100.9	100.1	99.5	99.2	**99.0**
B.1 CPI - Food and beverages	98.3	98.9	100.0	101.0	101.3	101.2	**101.9**	101.8	100.4	99.0	98.2	**98.0**
B.1.1 CPI - Cereals and products	99.7	99.7	**99.6**	99.7	99.9	100.0	100.2	**100.4**	100.3	100.3	100.2	100.0
B.1.2 CPI - Meat and fish	99.5	101.2	**103.0**	102.1	100.1	99.9	99.8	99.2	**98.7**	99.1	98.7	98.7
B.1.3 CPI - Egg	**96.3**	96.6	99.0	100.4	98.5	98.4	99.4	101.9	104.2	**104.8**	102.1	98.7
B.1.4 CPI - Milk and products	99.8	100.0	100.0	100.1	**100.1**	100.1	100.1	100.1	100.0	99.9	99.9	**99.8**
B.1.5 CPI - Fruits	103.1	102.7	101.8	**103.2**	102.6	100.1	99.4	98.7	97.6	**96.4**	96.4	97.8
B.1.6 CPI - Vegetables	88.9	91.4	97.6	105.4	106.8	108.9	**113.0**	111.7	103.2	94.4	90.6	**88.6**
B.1.6.1 CPI - Potato	84.8	93.1	101.5	109.5	112.4	112.3	116.4	**116.7**	106.2	88.5	79.3	**79.2**
B.1.6.2 CPI - Onion	79.6	**75.3**	80.7	89.3	99.1	105.1	118.1	**133.0**	121.2	110.4	101.2	87.9
B.1.6.3 CPI - Tomato	75.4	83.2	104.7	**136.5**	121.5	112.1	118.2	120.8	98.4	83.5	74.4	**71.8**
B.1.7 CPI - Pulses and products	**98.7**	98.8	99.5	99.6	99.9	100.7	101.3	**101.6**	101.3	100.4	99.4	98.7
B.1.8 CPI - Spices	99.4	99.4	**99.4**	99.9	100.1	100.3	100.5	**100.7**	100.6	100.4	99.9	99.5
B.1.9 CPI - Non-alcoholic beverages	**99.9**	99.9	99.9	100.0	100.0	100.0	100.0	100.1	**100.1**	100.1	100.1	99.9
B.1.10 CPI - Prepared meals, snacks, sweets *etc.*	99.9	99.9	**99.9**	100.0	100.1	100.0	100.0	**100.1**	100.0	100.0	100.0	100.0
B.2 CPI - Clothing and footwear	99.9	99.9	100.0	100.0	100.0	100.0	100.1	**100.1**	100.1	100.0	99.9	**99.9**
B.3 CPI - Housing	100.4	100.2	**99.3**	99.6	100.0	100.0	**100.4**	100.4	99.6	100.0	100.2	100.0
B.4 CPI - Miscellaneous	99.9	99.9	99.9	**100.2**	100.2	100.2	100.1	100.0	99.9	99.9	99.9	**99.8**
C.1 Consumer Price Index for Industrial Workers (Base: 2016=100)	99.4	99.5	99.9	100.8	100.6	100.5	**100.9**	100.7	99.9	99.7	99.1	**99.1**
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	99.2	99.4	99.7	100.0	100.4	100.4	100.9	**101.0**	100.6	100.0	99.4	**99.1**
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	99.2	99.4	99.7	100.0	100.4	100.4	100.8	**100.9**	100.5	100.0	99.4	**99.1**
D. WPI (Base: 2011-12=100) All Commodities	99.9	100.0	100.0	100.4	100.2	100.2	100.5	**100.7**	99.8	**99.5**	99.5	99.5
D.1 WPI – Primary Articles	99.2	99.2	100.1	101.2	101.3	100.8	102.0	**102.2**	99.8	98.5	98.1	**97.6**
D.1.1 WPI - Food Articles	98.6	98.8	100.2	101.6	101.4	101.5	**103.1**	103.0	99.7	98.1	97.1	**96.7**
D.2 WPI – Fuel & Power	99.4	100.5	99.8	100.5	**99.4**	99.5	100.1	**100.6**	99.9	100.2	100.5	99.8
D.3 WPI – Manufactured Products	100.4	**100.4**	100.2	100.0	99.9	99.9	100.0	99.8	**99.6**	99.9	99.9	100.1
D.3.1 WPI - Manufacture of Food Products	100.3	100.1	100.2	100.0	100.4	**100.4**	100.1	100.1	99.8	99.7	**99.4**	99.6
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	100.3	**100.5**	100.3	100.1	100.0	99.8	99.9	99.8	**99.6**	99.7	99.9	100.2
D.3.3 WPI - Manufacture of Basic Metals	101.1	**101.6**	100.8	99.4	99.0	99.5	99.8	99.1	**98.9**	99.8	100.2	100.7

SERIES NAME	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1	2	3	4	5	6	7	8	9	10	11	12	13
Index of Industrial Production (23 series)												
E. IIP (Base 2011-12 = 100) General Index	**96.8**	100.9	98.8	97.5	97.1	97.5	99.8	98.1	103.0	103.4	98.3	**108.6**
E.1.1 IIP - Primary goods	98.4	103.5	100.5	98.7	96.4	**94.1**	97.9	97.2	102.1	103.8	97.0	**110.2**
E.1.2 IIP - Capital goods	**89.3**	97.4	100.8	96.5	96.3	102.6	98.7	96.5	100.4	100.8	100.9	**119.3**
E.1.3 IIP - Intermediate goods	97.6	100.4	98.3	101.3	99.7	98.4	99.1	97.5	102.3	102.2	**96.6**	**106.5**
E.1.4 IIP - Infrastructure/ construction goods	99.2	102.2	100.2	97.5	97.4	96.0	99.5	**94.4**	102.0	104.0	99.7	**108.6**
E.1.5 IIP - Consumer goods	**95.2**	98.8	95.4	98.5	97.5	100.9	99.5	101.4	**105.1**	103.5	99.2	105.0
E.1.5.1 IIP - Consumer durables	**95.7**	100.0	98.3	101.0	99.9	105.8	**106.6**	97.8	96.5	98.1	95.8	104.1
E.1.5.2 IIP - Consumer non-durables	95.2	97.6	**94.7**	96.9	95.6	96.8	97.1	103.3	**110.2**	106.7	100.9	104.8
E.2.1 IIP - Mining	97.7	101.1	96.0	89.7	**86.2**	86.3	96.4	101.1	107.7	110.4	105.3	**122.3**
E.2.2 IIP - Manufacturing	**95.8**	100.4	98.3	98.9	97.9	98.6	99.4	98.7	103.1	103.0	98.1	**107.6**
E.2.2.1 IIP - Manufacture of food products	95.7	89.0	**86.6**	90.6	90.0	89.4	93.9	105.8	**121.0**	118.7	110.6	108.1
E.2.2.2 IIP - Manufacture of beverages	111.1	**120.4**	107.4	93.6	89.2	91.2	89.9	**88.8**	93.0	98.2	100.9	117.1
E.2.2.3 IIP - Manufacture of textiles	98.3	99.1	97.4	100.1	100.6	100.6	101.1	99.3	**103.2**	101.7	**96.7**	102.0
E.2.2.4 IIP - Manufacture of chemicals and chemical products	95.5	101.3	100.2	**104.0**	101.4	100.7	100.7	97.1	100.9	101.0	**93.8**	103.1
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	98.0	100.6	97.2	100.9	98.5	100.2	102.8	99.5	**93.5**	101.6	100.3	**106.9**
E.2.3 IIP - Electricity	101.2	**107.8**	104.8	105.0	104.2	101.4	100.8	**90.3**	94.6	96.6	90.7	101.7
E.3 Cement Production	103.4	102.1	103.5	94.3	90.6	**90.4**	98.2	92.5	102.2	104.9	101.8	**116.5**
E.4 Steel Production	98.2	102.0	99.1	97.7	98.9	97.4	99.7	**96.2**	101.9	103.7	98.0	**107.4**
E.5 Coal Production	93.1	95.1	90.4	82.4	**79.2**	80.0	93.7	102.9	111.7	116.9	114.2	**140.1**
E.6 Crude Oil Production	98.9	102.5	99.1	101.8	101.3	97.7	101.5	98.3	101.7	102.0	**92.3**	**102.9**
E.7 Petroleum Refinery Production	97.7	101.5	99.0	100.8	97.0	**93.4**	100.3	100.4	103.7	104.7	95.2	**106.6**
E.8 Fertiliser Production	**84.0**	98.1	100.8	103.3	104.8	102.7	**105.5**	103.2	104.6	103.8	94.2	94.3
E.9 Natural Gas Production	96.6	100.6	98.8	102.3	102.3	99.2	**102.9**	99.6	102.1	102.6	**91.6**	101.4
Service Sector Indicators (5 series)												
F.1 Cargo handled at Major Ports	100.4	102.7	97.9	98.9	97.0	**92.9**	98.1	98.6	103.0	104.7	96.4	**109.9**
F.2 Railway Freight Traffic	97.6	102.1	98.5	97.3	95.4	**93.2**	97.7	98.0	103.4	105.5	97.6	**113.4**
F.3 Passenger flown (Km) - Domestic	99.7	106.0	98.3	96.0	96.1	**93.5**	99.4	101.1	**107.2**	103.9	98.2	101.0
F.4 Passenger flown (Km) - International	94.1	98.5	98.1	102.2	101.9	**93.2**	95.4	98.1	108.3	**110.7**	97.0	102.6
F.5 Passenger Vehicle Sales (wholesale)	96.4	93.7	90.6	99.4	98.5	105.0	**114.0**	100.1	**89.7**	105.0	101.4	106.0
Merchandise Trade (3 series)												
G.1 Exports	98.1	102.7	97.7	97.9	96.6	98.8	95.4	**94.7**	103.7	98.2	99.8	**116.5**
G.2 Imports	95.1	102.5	98.3	100.1	101.5	98.9	103.2	99.9	104.1	97.7	**93.5**	**105.2**
G.3 Non-Oil, Non-Gold and Non-Silver Imports	96.0	99.7	101.6	103.5	100.4	102.9	101.3	97.5	**104.1**	99.1	**91.3**	102.6
Payment System Indicators (4 series)												
H.1 RTGS	93.9	95.9	103.0	98.0	93.5	101.8	96.7	93.1	107.6	98.9	**91.7**	**126.0**
H.2 Paper Clearing	107.8	102.0	95.3	100.5	94.8	**94.4**	100.0	94.6	101.5	97.8	95.6	**115.5**
H.3 REC	96.5	96.4	100.3	98.5	96.4	98.7	101.0	**92.8**	103.2	97.3	93.0	**126.7**
H.4 Cards	99.5	103.2	99.3	103.1	101.3	95.8	**109.8**	98.1	102.0	99.9	**88.3**	100.1

*: Average of last ten years' monthly seasonal factors, in general. Here, the average monthly seasonal factors have been computed on the basis of last 10 years (*i.e.*, April 2015 to March 2025). Numbers marked in 'bold' are peaks and troughs of respective series.

Table A1-M3: Range (Difference Between Peak and Trough) of Monthly Seasonal Factors

(Percentage points)

SERIES \ YEAR	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Average Range
1	2	3	4	5	6	7	8	9	10	11	12
Monetary and Banking Indicators (14 series)											
A.1.1 Broad Money (M3)	2.0	2.1	2.2	2.1	1.9	1.8	1.6	1.5	1.3	1.3	1.7
A.1.1.1 Net Bank Credit to Government	3.6	3.6	3.5	3.4	3.1	2.7	2.5	2.6	3.1	3.2	2.9
A.1.1.2 Bank Credit to Commercial Sector	2.9	3.1	3.2	3.2	3.0	2.8	2.4	2.1	1.8	1.7	2.6
A.1.2 Narrow Money (M1)	4.5	5.3	5.9	6.2	6.0	5.4	4.7	4.2	3.9	3.7	4.9
A.1.3 Reserve Money (RM)	4.7	4.8	4.7	4.7	4.6	4.5	4.3	4.1	4.0	3.9	4.4
A.1.3.1 Currency in Circulation	5.0	5.1	5.1	5.0	4.6	4.3	4.3	4.5	4.6	4.7	4.6
A.2.1 Aggregate Deposits (SCBs)	1.1	1.4	1.7	1.7	1.5	1.2	1.1	1.1	1.1	1.1	1.1
A.2.1.1 Demand Deposits (SCBs)	7.4	9.5	11.5	12.2	11.3	9.4	7.4	5.9	5.1	5.5	8.4
A.2.1.2 Time Deposits (SCBs)	1.1	1.0	1.0	1.0	1.1	1.2	1.1	1.1	1.1	1.0	1.0
A.3.1 Cash in Hand and Balances with RBI (SCBs)	4.9	5.4	5.6	6.2	7.1	7.4	7.1	6.7	7.1	8.0	5.6
A.3.2 Bank Credit (SCBs)	2.8	3.2	3.4	3.5	3.2	2.7	2.0	1.5	1.2	1.1	2.4
A.3.2.1 Loans, Cash Credits and Overdrafts (SCBs)	2.7	3.0	3.2	3.3	3.0	2.5	1.9	1.4	1.2	1.1	2.3
A.3.2.2 Non-Food Credit (SCBs)	3.0	3.5	3.8	3.9	3.5	2.8	2.1	1.3	0.9	0.9	2.5
A.3.3 Investments (SCBs)	3.7	3.6	3.5	3.3	3.2	3.1	3.0	2.9	2.6	2.4	2.8
Price Indices [CPI: 21 series and WPI: 8 series]											
B. CPI (Base: 2012 = 100) All Commodities	1.9	1.9	1.8	1.9	2.0	2.0	2.1	2.1	2.2	2.2	2.0
B.1 CPI - Food and beverages	3.8	3.7	3.6	3.7	3.8	4.0	4.0	4.2	4.3	4.4	3.9
B.1.1 CPI - Cereals and products	0.7	0.7	0.6	0.6	0.6	0.7	0.8	1.0	1.2	1.3	0.8
B.1.2 CPI - Meat and fish	3.2	3.2	3.4	3.7	4.1	4.5	5.0	5.5	5.9	6.1	4.3
B.1.3 CPI - Egg	7.0	6.8	6.6	6.7	7.1	7.9	9.1	10.3	11.3	12.0	8.5
B.1.4 CPI - Milk and products	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3
B.1.5 CPI - Fruits	6.2	6.1	6.2	6.5	6.7	7.2	7.4	7.6	7.7	7.8	6.8
B.1.6 CPI - Vegetables	22.5	22.1	21.9	22.7	23.8	24.8	26.0	26.8	27.6	27.9	24.4
B.1.6.1 CPI - Potato	36.5	35.3	34.7	35.6	37.5	38.7	40.6	41.1	41.3	40.5	37.4
B.1.6.2 CPI - Onion	40.4	43.0	48.6	55.9	62.6	66.4	67.8	66.2	64.1	62.2	57.7
B.1.6.3 CPI - Tomato	61.9	60.9	61.0	61.4	63.3	65.2	66.6	67.2	68.9	71.4	64.7
B.1.7 CPI - Pulses and products	3.4	3.4	3.1	2.7	2.3	2.2	2.8	3.6	4.3	4.7	3.0
B.1.8 CPI - Spices	1.1	1.1	1.0	0.9	0.7	0.9	1.3	1.8	2.4	2.8	1.3
B.1.9 CPI - Non-alcoholic beverages	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
B.1.10 CPI - Prepared meals, snacks, sweets *etc.*	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2
B.2 CPI - Clothing and footwear	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2
B.3 CPI - Housing	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.1
B.4 CPI - Miscellaneous	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4
C.1 Consumer Price Index for Industrial Workers (Base: 2016=100)	2.3	2.2	2.0	1.8	1.6	1.7	1.8	1.8	1.9	1.9	1.8
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	2.4	2.2	2.0	1.9	1.9	1.8	1.8	1.9	1.8	1.9	2.0
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	2.2	2.0	1.9	1.8	1.7	1.7	1.7	1.8	1.7	1.7	1.8
D. WPI (Base: 2011-12=100) All Commodities	1.5	1.4	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.2
D.1 WPI – Primary Articles	5.0	4.8	4.7	4.8	4.8	4.7	4.5	4.4	4.4	4.6	4.5
D.1.1 WPI - Food Articles	5.6	5.5	5.8	6.4	6.7	7.0	7.1	7.2	7.3	7.3	6.5
D.2 WPI – Fuel & Power	3.0	2.6	2.0	1.6	1.2	1.5	1.8	1.9	2.0	2.1	1.2
D.3 WPI – Manufactured Products	0.7	0.6	0.6	0.6	0.7	0.9	1.0	1.1	1.0	1.0	0.8
D.3.1 WPI - Manufacture of Food Products	1.5	1.3	1.2	1.1	1.1	1.1	1.2	1.3	1.2	1.1	1.0
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	0.8	0.8	0.9	0.9	1.0	1.1	1.2	1.1	0.9	0.7	0.9
D.3.3 WPI - Manufacture of Basic Metals	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.3	3.2	3.0	2.7

SERIES \ YEAR	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Average Range
1	2	3	4	5	6	7	8	9	10	11	12
Index of Industrial Production (23 series)											
E. IIP (Base 2011-12 = 100) General Index	12.8	13.0	13.2	13.1	12.8	12.0	11.5	11.2	11.2	11.2	11.9
E.1.1 IIP - Primary goods	13.8	14.2	15.1	16.0	16.7	17.1	17.4	17.3	17.1	16.8	16.2
E.1.2 IIP - Capital goods	34.5	32.4	31.0	29.8	29.2	28.7	28.4	28.4	28.6	29.0	30.0
E.1.3 IIP - Intermediate goods	10.7	10.7	10.4	10.4	10.3	10.0	9.7	9.5	9.4	9.3	10.0
E.1.4 IIP - Infrastructure/ construction goods	12.8	13.4	13.8	14.2	14.2	14.4	14.6	14.8	14.9	15.0	14.2
E.1.5 IIP - Consumer goods	10.5	10.0	9.9	10.5	11.1	11.0	11.3	11.3	11.0	10.7	9.9
E.1.5.1 IIP - Consumer durables	12.7	11.7	10.9	11.1	11.2	11.0	10.8	10.7	10.9	10.7	10.9
E.1.5.2 IIP - Consumer non-durables	13.1	13.6	14.3	14.9	15.5	16.2	16.8	17.3	18.1	18.7	15.5
E.2.1 IIP - Mining	32.0	33.0	34.8	36.4	37.8	38.3	38.3	38.0	37.3	36.6	36.1
E.2.2 IIP - Manufacturing	12.6	12.6	12.8	12.8	12.6	12.1	11.4	10.7	10.1	9.8	11.7
E.2.2.1 IIP - Manufacture of food products	36.1	36.6	36.8	36.4	35.4	34.6	33.1	32.2	31.6	32.3	34.5
E.2.2.2 IIP - Manufacture of beverages	46.0	39.6	34.8	31.3	29.2	28.8	27.4	27.2	28.4	30.1	31.6
E.2.2.3 IIP - Manufacture of textiles	6.4	5.3	5.3	5.8	6.6	7.1	7.3	7.5	7.6	7.6	6.5
E.2.2.4 IIP - Manufacture of chemicals and chemical products	10.8	11.4	11.7	11.4	10.6	10.8	10.5	10.2	9.8	9.4	10.2
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	14.8	15.2	15.3	14.6	13.7	12.5	12.0	11.7	11.8	12.6	13.4
E.2.3 IIP - Electricity	14.6	15.8	16.9	17.8	18.3	19.6	20.6	20.8	20.7	20.4	17.5
E.3 Cement Production	22.4	23.0	24.3	26.1	27.8	28.9	29.0	28.6	27.9	27.5	26.1
E.4 Steel Production	9.4	9.9	10.7	11.6	12.0	12.0	11.9	11.8	11.6	11.4	11.2
E.5 Coal Production	56.3	58.7	61.8	64.0	64.7	64.0	62.5	60.4	58.9	58.0	60.9
E.6 Crude Oil Production	10.5	10.6	10.7	10.6	10.6	10.7	10.7	10.7	10.6	10.4	10.6
E.7 Petroleum Refinery Production	9.8	10.1	11.0	12.6	14.1	15.4	15.8	15.2	14.2	13.4	13.1
E.8 Fertiliser Production	24.5	22.7	22.0	21.8	22.1	22.2	21.5	20.7	19.2	18.5	21.4
E.9 Natural Gas Production	10.8	10.9	11.0	11.2	11.6	11.9	11.9	11.9	11.6	11.3	11.4
Service Sector Indicators (5 series)											
F.1 Cargo handled at Major Ports	15.5	15.8	16.3	16.9	17.3	17.4	17.6	17.8	17.8	17.8	17.0
F.2 Railway Freight Traffic	18.1	18.3	19.1	19.7	20.1	20.4	20.9	21.4	21.9	22.3	20.2
F.3 Passenger flown (Km) - Domestic	16.7	14.7	13.1	12.7	13.5	14.2	14.6	14.6	14.4	14.0	13.8
F.4 Passenger flown (Km) - International	20.0	20.2	20.7	20.3	19.5	18.4	17.6	16.5	15.6	15.5	17.6
F.5 Passenger Vehicle Sales (wholesale)	19.3	20.9	22.4	25.1	26.8	27.3	26.4	26.1	26.7	27.0	24.3
Merchandise Trade (3 series)											
G.1 Exports	18.6	18.8	20.3	21.7	22.7	22.8	23.2	23.1	23.4	23.9	21.8
G.2 Imports	13.4	13.3	13.0	12.6	12.7	11.9	11.1	11.2	13.3	14.4	11.7
G.3 Non-Oil, Non-Gold and Non-Silver Imports	13.2	13.4	13.3	13.1	13.0	12.9	12.6	12.3	12.3	12.9	12.8
Payment System Indicators (4 series)											
H.1 RTGS	42.5	40.2	38.1	36.2	34.2	32.0	31.3	30.8	30.2	30.1	34.3
H.2 Paper Clearing	21.8	21.2	21.3	21.4	21.2	21.5	21.9	21.8	21.8	22.1	21.1
H.3 REC	35.0	35.4	35.6	35.5	35.3	34.7	33.6	32.7	32.0	31.7	33.9
H.4 Cards	20.1	20.4	21.1	21.6	22.3	22.4	22.4	22.1	21.7	21.4	21.5

Note: Average seasonal factor range is the range of average seasonal factors for last ten years; range is calculated as the difference between maximum and minimum of monthly seasonal factors.

Table A1-M4: Major Diagnostics of all the Monthly Indicators

Name of variable	Seasonality in Original Series		Residual Seasonality		Quality diagnostics	
	F test p-value	KW test p-value	F test p-value	F test 3 yr p-value	M7	Q
A.1.1 Broad Money (M3)	0.00	0.00	1.00	0.93	0.31	0.26
A.1.1.1 Net Bank Credit to Government	0.00	0.00	0.97	0.40	0.39	0.36
A.1.1.2 Bank Credit to Commercial Sector	0.00	0.00	1.00	0.39	0.35	0.27
A.1.2 Narrow Money (M1)	0.00	0.00	0.96	0.64	0.28	0.27
A.1.3 Reserve Money (RM)	0.00	0.00	0.46	0.91	0.28	0.22
A.1.3.1 Currency in Circulation	0.00	0.00	0.50	0.29	0.20	0.30
A.2.1 Aggregate Deposits (SCBs)	0.00	0.00	1.00	0.96	0.55	0.41
A.2.1.1 Demand Deposits (SCBs)	0.00	0.00	0.84	0.62	0.50	0.60
A.2.1.2 Time Deposits (SCBs)	0.00	0.00	1.00	0.95	0.57	0.32
A.3.1 Cash in Hand and Balances with RBI (SCBs)	0.00	0.00	0.97	0.67	1.31	0.92
A.3.2 Bank Credit (SCBs)	0.00	0.00	1.00	0.97	0.47	0.31
A.3.2.1 Loans, Cash Credits and Overdrafts (SCBs)	0.00	0.00	1.00	0.96	0.46	0.32
A.3.2.2 Non-Food Credit (SCBs)	0.00	0.00	1.00	0.97	0.72	0.45
A.3.3 Investments (SCBs)	0.00	0.00	0.88	0.99	0.44	0.31
B. CPI (Base: 2012 = 100) All Commodities	0.00	0.00	1.00	0.88	0.27	0.31
B.1 CPI - Food and beverages	0.00	0.00	1.00	0.80	0.23	0.32
B.1.1 CPI - Cereals and products	0.00	0.00	1.00	0.60	0.93	0.62
B.1.2 CPI - Meat and fish	0.00	0.00	0.94	0.82	0.43	0.44
B.1.3 CPI - Egg	0.00	0.00	1.00	0.62	0.39	0.35
B.1.4 CPI - Milk and products	0.00	0.00	0.97	1.00	1.27	0.57
B.1.5 CPI - Fruits	0.00	0.00	0.99	0.98	0.25	0.27
B.1.6 CPI - Vegetables	0.00	0.00	0.99	0.66	0.24	0.29
B.1.6.1 CPI - Potato	0.00	0.00	1.00	0.93	0.22	0.32
B.1.6.2 CPI - Onion	0.00	0.00	0.90	0.97	0.41	0.40
B.1.6.3 CPI - Tomato	0.00	0.00	0.93	0.88	0.36	0.68
B.1.7 CPI - Pulses and products	0.00	0.00	0.98	0.92	0.67	0.53
B.1.8 CPI - Spices	0.00	0.00	1.00	1.00	1.25	0.83
B.1.9 CPI - Non-alcoholic beverages	0.00	0.00	1.00	1.00	1.08	0.53
B.1 .10 CPI - Prepared meals, snacks, sweets *etc.*	0.00	0.00	0.97	1.00	1.56	0.69
B.2 CPI - Clothing and footwear	0.00	0.00	0.97	1.00	1.34	0.67
B.3 CPI - Housing	0.00	0.00	0.94	1.00	0.38	0.42
B.4 CPI - Miscellaneous	0.00	0.00	1.00	0.97	0.99	0.47
C.1 Consumer Price Index for Industrial Workers (Base: 2016=100)	0.00	0.00	1.00	0.96	0.26	0.29
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	0.00	0.00	1.00	0.99	0.25	0.29
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	0.00	0.00	1.00	0.99	0.26	0.26
D. WPI (Base: 2011-12=100) All Commodities	0.00	0.00	1.00	0.93	0.46	0.42
D.1 WPI – Primary Articles	0.00	0.00	0.99	0.48	0.31	0.37
D.1.1 WPI - Food Articles	0.00	0.00	0.86	0.52	0.28	0.31
D.2 WPI – Fuel & Power	0.00	0.00	1.00	1.00	1.62	0.77
D.3 WPI – Manufactured Products	0.00	0.00	1.00	0.97	0.67	0.49
D.3.1 WPI - Manufacture of Food Products	0.00	0.00	1.00	0.99	0.98	0.65
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	0.00	0.00	1.00	1.00	1.39	0.65
D.3.3 WPI - Manufacture of Basic Metals	0.00	0.00	1.00	0.82	0.87	0.61
D.3.4 WPI - Manufacture of Machinery and Equipment	0.02	0.01	1.00	0.98	1.72	0.80

Name of variable	Seasonality in Original Series		Residual Seasonality		Quality diagnostics	
	F test p-value	KW test p-value	F test p-value	F test 3 yr p-value	M7	Q
E. IIP (Base 2011-12 = 100) General Index	0.00	0.00	0.21	0.68	0.16	0.23
E.1.1 IIP - Primary goods	0.00	0.00	0.21	0.79	0.26	0.74
E.1.2 IIP - Capital goods	0.00	0.00	0.27	0.92	0.29	0.48
E.1.3 IIP - Intermediate goods	0.00	0.00	0.33	0.24	0.34	0.39
E.1.4 IIP - Infrastructure/ construction goods	0.00	0.00	0.28	0.99	0.39	0.46
E.1.5 IIP - Consumer goods	0.00	0.00	0.40	0.18	0.46	0.60
E.1.5.1 IIP - Consumer durables	0.00	0.00	0.13	0.57	0.38	0.43
E.1.5.2 IIP - Consumer non-durables	0.00	0.00	0.39	0.19	0.38	0.77
E.2.1 IIP - Mining	0.00	0.00	0.87	0.33	0.23	0.36
E.2.2 IIP - Manufacturing	0.00	0.00	0.14	0.55	0.22	0.27
E.2.2.1 IIP - Manufacture of food products	0.00	0.00	1.00	0.98	0.17	0.47
E.2.2.2 IIP - Manufacture of beverages	0.00	0.00	0.43	0.64	0.49	0.43
E.2.2.3 IIP - Manufacture of textiles	0.00	0.00	0.34	0.99	0.58	0.61
E.2.2.4 IIP - Manufacture of chemicals and chemical products	0.00	0.00	0.49	0.79	0.49	0.79
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	0.00	0.00	0.30	0.34	0.57	0.62
E.2.3 IIP - Electricity	0.00	0.00	0.47	0.99	0.52	0.53
E.3 Cement Production	0.00	0.00	0.40	0.83	0.22	0.31
E.4 Steel Production	0.00	0.00	0.52	0.87	0.47	0.63
E.5 Coal Production	0.00	0.00	0.62	0.76	0.12	0.32
E.6 Crude Oil Production	0.00	0.00	0.89	1.00	0.19	0.32
E.7 Petroleum Refinery Production	0.00	0.00	0.97	0.29	0.44	0.68
E.8 Fertiliser Production	0.00	0.00	0.75	0.11	0.29	0.61
E.9 Natural Gas Production	0.00	0.00	0.82	0.94	0.23	0.27
F.1 Cargo handled at Major Ports	0.00	0.00	0.94	0.99	0.29	0.50
F.2 Railway Freight Traffic	0.00	0.00	0.29	0.95	0.13	0.33
F.3 Passenger flown (Km) - Domestic	0.00	0.00	0.36	0.41	0.29	0.32
F.4 Passenger flown (Km) - International	0.00	0.00	0.70	0.23	0.37	0.50
F.5 Passenger Vehicle Sales (wholesale)	0.00	0.00	0.77	0.07	0.39	0.41
G.1 Exports	0.00	0.00	0.56	0.88	0.36	0.54
G.2 Imports	0.00	0.00	0.99	0.86	0.80	0.81
G.3 Non-Oil, Non-Gold and Non-Silver Imports	0.00	0.00	1.00	0.24	0.56	0.70
H.1 RTGS	0.00	0.00	0.40	0.52	0.42	0.46
H.2 Paper Clearing	0.00	0.00	0.14	0.76	0.27	0.70
H.3. REC	0.00	0.00	0.10	0.83	0.39	0.29
H.4 Cards	0.00	0.00	0.04	0.95	0.36	0.37

Notes: 1. Test for seasonality in original series: F-test for the presence of seasonality assuming stability and Kruskall and Wallis test (a nonparametric test for stable seasonality).
2. Test for seasonality in seasonally adjusted series: F-test for the presence of seasonality assuming stability for full sample and for latest 3 years.
3. M7 corresponds to the amount of moving seasonality present relative to the amount of stable seasonality (acceptable range is between 0 and 1). However, M Diagnostics are aggregated in a single quality control indicator - Q, which gives the overall assessment of the adjustment (acceptable range is between 0 and 1).

Table A1-M5: Monthly Seasonal Factors of Select Economic Time Series for 2024-25 (Per cent)

SERIES NAME	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1	2	3	4	5	6	7	8	9	10	11	12	13
Monetary and Banking Indicators (14 series)												
A.1.1 Broad Money (M3)	**100.7**	100.6	100.5	100.4	99.8	**99.4**	99.7	99.5	100.0	99.6	99.7	100.1
A.1.1.1 Net Bank Credit to Government	**101.8**	99.6	99.5	100.6	100.5	99.2	99.6	101.2	**98.6**	98.6	99.9	101.0
A.1.1.2 Bank Credit to Commercial Sector	100.7	100.1	100.0	99.4	**99.2**	99.3	99.5	99.8	100.5	100.3	100.2	**100.8**
A.1.2 Narrow Money (M1)	101.6	101.4	101.8	99.7	98.6	**98.3**	98.4	98.8	100.0	99.4	99.9	**102.0**
A.1.3 Reserve Money (RM)	101.1	**102.3**	101.8	100.7	99.2	98.4	**98.3**	98.9	98.9	99.1	99.4	101.9
A.1.3.1 Currency in Circulation	**102.5**	102.4	101.8	100.3	99.2	98.2	**97.9**	98.6	98.5	99.3	100.1	101.2
A.2.1 Aggregate Deposits (SCBs)	**100.5**	100.3	100.2	100.1	100.2	**100.5**	99.8	99.7	100.0	99.7	99.6	**99.4**
A.2.1.1 Demand Deposits (SCBs)	101.5	99.1	100.4	98.6	**97.3**	**102.8**	99.1	99.2	101.0	99.3	99.4	101.9
A.2.1.2 Time Deposits (SCBs)	100.3	100.3	100.2	100.3	100.2	**100.3**	100.0	99.8	100.1	99.7	99.6	**99.3**
A.3.1 Cash in Hand and Balances with RBI (SCBs)	102.1	99.5	101.0	101.2	101.6	**103.1**	101.5	101.4	99.8	97.9	96.0	**95.1**
A.3.2 Bank Credit (SCBs)	100.3	99.9	99.7	99.6	**99.4**	100.1	99.9	100.0	**100.5**	100.2	100.1	100.2
A.3.2.1 Loans, Cash Credits and Overdrafts (SCBs)	100.2	99.8	99.7	99.5	**99.4**	100.1	99.9	100.1	**100.5**	100.3	100.1	100.2
A.3.2.2 Non-Food Credit (SCBs)	100.1	100.0	100.0	99.6	**99.5**	100.1	100.0	99.9	100.3	**100.4**	100.1	100.1
A.3.3 Investments (SCBs)	99.6	99.7	100.0	101.2	100.9	**101.4**	100.8	99.7	99.3	**99.0**	99.4	99.3
Price Indices [CPI: 21 series and WPI: 8 series]												
B. CPI (Base: 2012 = 100) All Commodities	99.1	99.5	100.0	100.7	100.5	100.5	**101.0**	101.0	100.2	99.6	99.1	**98.9**
B.1 CPI - Food and beverages	98.2	98.7	100.0	100.9	101.0	101.0	**102.2**	102.0	100.7	99.2	98.3	**97.9**
B.1.1 CPI - Cereals and products	99.6	99.6	**99.3**	99.4	99.7	99.9	100.2	100.5	100.6	**100.6**	100.5	100.2
B.1 2 CPI - Meat and fish	99.8	101.9	**104.1**	102.0	99.4	100.0	100.2	99.0	**98.0**	98.7	98.3	98.5
B.1.3 CPI - Egg	**94.7**	95.7	99.3	100.2	97.2	97.9	99.7	102.5	105.5	**106.7**	102.6	98.5
B.1.4 CPI - Milk and products	99.9	100.1	100.1	100.0	100.1	**100.1**	100.1	100.0	100.0	99.9	99.9	**99.9**
B.1.5 CPI - Fruits	**103.7**	102.2	101.2	103.5	102.8	100.5	100.0	98.8	97.2	**96.0**	96.3	97.9
B.1.6 CPI - Vegetables	87.5	90.3	98.7	105.8	106.4	108.7	**115.3**	111.9	104.1	94.0	89.2	**87.4**
B.1.6.1 CPI - Potato	82.7	93.3	102.4	113.6	116.0	114.4	**116.3**	115.4	105.0	87.5	**75.8**	76.7
B.1.6.2 CPI - Onion	77.4	**74.0**	81.3	93.2	100.5	107.1	120.7	**136.2**	122.0	104.8	96.3	83.9
B.1.6.3 CPI - Tomato	71.3	77.2	104.8	**140.5**	119.8	115.9	122.5	122.2	100.5	81.9	73.3	**69.1**
B.1.7 CPI - Pulses and products	98.6	98.1	99.0	99.5	99.8	101.3	102.1	**102.5**	101.9	100.6	99.0	**97.7**
B.1.8 CPI - Spices	98.8	98.7	**98.7**	99.5	100.1	100.9	101.3	**101.6**	101.3	100.7	99.7	98.9
B.1.9 CPI - Non-alcoholic beverages	99.9	**99.9**	100.0	99.9	100.0	100.0	100.0	100.1	100.1	**100.1**	100.0	100.0
B.1.10 CPI - Prepared meals, snacks, sweets *etc.*	**99.9**	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**100.1**	100.0
B.2 CPI - Clothing and footwear	100.0	**99.9**	100.0	100.0	100.0	99.9	100.0	**100.1**	100.1	100.1	100.0	100.0
B.3 CPI - Housing	100.5	100.3	**99.5**	99.7	100.1	99.8	**100.5**	100.4	99.5	99.8	100.1	99.8
B.4 CPI - Miscellaneous	100.0	100.0	100.0	**100.2**	100.1	100.1	100.1	100.0	99.9	**99.9**	99.9	99.9
C.1 Consumer Price Index for Industrial Workers (Base: 2016=100)	99.4	99.4	100.0	100.7	100.5	100.5	**100.9**	100.7	100.0	99.7	99.2	**99.0**
C.2 Consumer Price Index for Agricultural Labourers (Base: 1986-87=100)	**99.2**	99.3	99.6	99.9	100.2	100.3	100.8	**101.0**	100.7	100.2	99.6	99.2
C.3 Consumer Price Index for Rural Labourers (Base: 1986-87=100)	99.2	99.3	99.7	100.0	100.2	100.3	100.7	**100.9**	100.6	100.1	99.6	**99.2**
D. WPI (Base: 2011-12=100) All Commodities	100.1	99.8	100.1	100.5	100.1	100.0	100.7	**100.7**	99.8	99.5	**99.4**	99.4
D.1 WPI – Primary Articles	99.4	99.2	100.2	101.1	101.1	100.4	**102.3**	102.1	100.0	98.6	97.8	**97.7**
D.1.1 WPI - Food Articles	98.7	98.9	100.6	102.3	101.2	101.4	**103.7**	102.7	99.5	97.6	96.6	**96.4**
D.2 WPI – Fuel & Power	100.0	99.9	**99.0**	99.6	99.1	99.1	99.9	100.9	100.8	100.5	**101.1**	100.4
D.3 WPI – Manufactured Products	100.6	**100.6**	100.2	99.9	99.8	99.8	100.0	99.8	**99.6**	99.7	99.9	100.0
D.3.1 WPI - Manufacture of Food Products	100.5	100.1	100.1	99.7	100.2	100.1	100.0	**100.6**	100.0	99.7	**99.5**	99.7
D.3.2 WPI - Manufacture of Chemicals & Chemical Products	100.3	**100.4**	100.2	100.1	99.9	99.8	100.0	99.8	**99.7**	99.8	99.9	100.1
D.3.3 WPI - Manufacture of Basic Metals	101.3	**101.9**	100.8	99.6	99.3	99.3	99.9	99.2	**99.0**	99.3	99.8	100.3

SERIES NAME	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
1	2	3	4	5	6	7	8	9	10	11	12	13
Index of Industrial Production (23 series)												
E. IIP (Base 2011-12 = 100) General Index	97.7	100.9	99.6	98.3	**96.4**	96.8	99.4	97.6	103.4	104.0	98.1	**107.6**
E.1.1 IIP - Primary goods	99.5	104.7	101.3	98.2	95.6	**93.1**	97.2	96.0	102.0	104.2	98.1	**109.9**
E.1.2 IIP - Capital goods	**88.6**	96.9	102.4	98.1	96.8	104.1	99.8	95.4	98.8	101.9	99.7	**117.6**
E.1.3 IIP - Intermediate goods	98.0	100.9	98.5	101.0	99.7	98.1	99.6	97.3	102.4	103.1	**96.0**	**105.3**
E.1.4 IIP - Infrastructure/ construction goods	99.4	101.0	99.0	97.3	98.0	97.1	99.2	**93.8**	102.2	104.6	99.2	**108.8**
E.1.5 IIP - Consumer goods	**96.0**	98.5	96.6	99.2	97.3	99.7	98.0	101.7	**106.6**	104.2	97.9	103.7
E.1.5.1 IIP - Consumer durables	**95.4**	100.2	100.3	101.3	100.0	105.4	**106.0**	96.9	95.7	97.9	96.1	105.0
E.1.5.2 IIP - Consumer non-durables	97.8	97.3	95.1	97.7	**94.5**	94.8	97.1	105.3	**113.2**	107.8	98.0	101.0
E.2.1 IIP - Mining	98.4	102.1	96.6	88.4	85.4	**84.8**	96.8	100.9	107.5	111.3	106.2	**121.4**
E.2.2 IIP - Manufacturing	**96.9**	100.2	98.7	99.3	97.4	98.1	98.6	98.4	104.0	103.8	97.7	**106.7**
E.2.2.1 IIP - Manufacture of food products	96.6	89.7	**87.3**	89.9	91.2	88.3	93.2	106.8	119.3	**119.7**	111.3	107.0
E.2.2.2 IIP - Manufacture of beverages	107.7	**118.1**	110.6	98.7	89.6	90.1	88.8	**87.9**	90.8	100.3	102.3	115.5
E.2.2.3 IIP - Manufacture of textiles	98.4	99.0	97.9	99.8	99.5	99.7	102.1	98.8	**104.0**	102.3	**96.4**	102.0
E.2.2.4 IIP - Manufacture of chemicals and chemical products	97.1	103.1	102.0	**104.0**	100.8	99.7	101.0	96.0	100.3	100.2	**94.5**	101.1
E.2.2.5 IIP - Manufacture of motor vehicles, trailers and semi-trailers	96.2	100.9	98.1	101.9	98.3	99.9	103.5	99.8	**92.1**	**104.7**	100.4	104.1
E.2.3 IIP - Electricity	102.4	**108.4**	106.9	105.3	104.3	101.3	100.5	**88.0**	93.0	96.7	91.4	101.5
E.3 Cement Production	103.3	101.3	104.4	92.7	91.1	90.2	97.9	**90.0**	103.4	104.9	102.9	**117.5**
E.4 Steel Production	99.4	100.4	97.5	97.3	98.5	97.5	99.7	**96.1**	102.2	105.3	98.4	**107.5**
E.5 Coal Production	93.3	96.6	92.0	84.6	**78.9**	79.7	93.8	102.1	111.0	118.1	112.9	**136.8**
E.6 Crude Oil Production	99.3	102.7	99.0	101.8	100.9	97.3	101.1	98.3	101.9	102.5	**92.4**	**102.8**
E.7 Petroleum Refinery Production	99.3	102.5	98.2	100.1	96.1	**93.5**	96.5	99.4	105.6	105.4	96.3	**106.8**
E.8 Fertiliser Production	**86.3**	101.3	100.9	103.5	103.8	101.6	104.5	103.1	**104.8**	103.9	94.1	91.7
E.9 Natural Gas Production	96.2	100.6	98.4	102.3	102.2	99.6	**103.3**	99.5	102.2	102.4	**91.9**	101.6
Service Sector Indicators (5 series)												
F.1 Cargo handled at Major Ports	99.9	102.8	98.2	98.3	96.9	**92.3**	97.9	97.7	102.5	105.3	97.8	**110.2**
F.2 Railway Freight Traffic	98.4	103.4	99.1	96.6	95.0	**92.3**	97.0	96.9	103.8	105.5	97.6	**114.6**
F.3 Passenger flown (Km) - Domestic	100.4	104.7	98.2	94.7	95.9	**93.6**	99.0	101.5	**107.7**	103.1	98.6	102.4
F.4 Passenger flown (Km) - International	**93.0**	100.0	100.1	102.8	101.6	94.9	96.1	97.4	106.0	**108.5**	97.7	101.5
F.5 Passenger Vehicle Sales (wholesale)	94.4	95.6	93.5	99.3	100.1	104.0	**113.5**	97.5	**86.5**	108.5	103.3	103.4
Merchandise Trade (3 series)												
G.1 Exports	98.9	102.2	98.3	98.1	95.6	96.1	94.6	**92.9**	105.1	99.9	102.1	**116.7**
G.2 Imports	**93.0**	101.8	96.7	99.9	105.9	99.6	**107.4**	100.1	101.5	95.4	94.2	103.7
G.3 Non-Oil, Non-Gold and Non-Silver Imports	93.6	99.2	101.2	103.9	101.2	101.7	**104.7**	97.0	103.9	99.2	**91.8**	102.5
Payment System Indicators (4 series)												
H.1 RTGS	**91.5**	93.7	102.1	96.9	94.2	103.7	100.2	94.4	111.7	97.6	92.2	**121.6**
H.2 Paper Clearing	109.1	101.6	95.5	100.4	94.4	95.1	99.7	**93.8**	101.7	97.2	95.4	**115.9**
H.3 REC	**93.8**	96.7	97.3	99.3	96.0	98.0	102.9	94.2	103.2	99.2	94.2	**125.4**
H.4 Cards	98.2	101.5	97.3	102.9	100.5	97.9	**111.2**	96.7	102.6	100.1	**89.8**	102.2

Annex - II

Table A2-Q1: Time Period Used for Estimating Quarterly Seasonal Factors

Quarterly Series		Industrial Outlook Survey (12 series)	
National Accounts Statistics (8 series)		L.1 Production Assessment	Q1:2000-01 to Q4:2024-2025
I.1 Real Gross Domestic Product (GDP)	Q1:2011-12 to Q4:2024-2025	L.2 Production Expectation	
I.2 Real Gross Value Added (GVA)		L.3 Order Books Assessment	
I.3 Real PFCE		L.4 Order Books Expectation	
I.4 Real GFCE		L.5 Capacity Utilisation Assessment	
I.5 Real GFCF		L.6 Capacity Utilisation Expectation	
I.6 GVA of Agriculture		L.7 Selling Price Assessment	
I.7 GVA of Industry		L.8 Selling Price Expectation	
I.8 GVA of Services		L.9 Profit Margin Assessment	
Balance of Payments (4 series)		L.10 Profit Margin Expectation	
J.1 Exports of Services	Q1:2011-12 to Q4:2024-2025	L.11 Business Assessment Index	
J.2 Exports in Travel		L.12 Business Expectation Index	
J.3 Exports in Telecommunications, Computer and Information Services			
J.4 Imports in Travel			
OBICUS (1 series)			
K.1 Capacity Utilisation of manufacturing companies	Q1:2008-09 to Q4:2024-2025		

Table A2-Q2: Average* Quarterly Seasonal Factors of Select Economic Time Series

(Per cent)

SERIES NAME	Q1	Q2	Q3	Q4
1	2	3	4	5
National Accounts Statistics (8 series)				
I.1 Real Gross Domestic Product (GDP)	98.1	**97.8**	99.5	**104.7**
I.2 Real Gross Value Added (GVA)	100.1	**98.3**	99.7	**102.1**
I.3 Real PFCE	97.6	**96.0**	**104.4**	102.0
I.4 Real GFCE	**106.4**	103.4	**89.5**	102.5
I.5 Real GFCF	100.2	**96.9**	97.4	**105.5**
I.6 GVA of Agriculture	91.8	**77.3**	**125.1**	105.9
I.7 GVA of Industry	99.7	98.0	**95.3**	**107.3**
I.8 GVA of Services	102.1	**103.5**	**95.2**	99.3
Balance of Payments (4 series)				
J.1 Exports of Services	**96.5**	98.5	102.4	**102.6**
J.2 Exports in Travel	**85.9**	95.2	109.1	**110.2**
J.3 Exports in Telecommunications, Computer and Information Services	**99.0**	100.7	**101.3**	99.1
J.4 Imports in Travel	**108.2**	107.2	**92.3**	92.4
OBICUS (1 series)				
K.1 Capacity Utilisation of manufacturing companies	**98.3**	99.5	100.1	**102.0**
Industrial Outlook Survey (12 series)				
L.1 Production Assessment	99.2	**97.9**	99.9	**103.0**
L.2 Production Expectation	**98.9**	100.7	**100.8**	99.5
L.3 Order Books Assessment	100.5	**98.4**	99.0	**102.1**
L.4 Order Books Expectation	**99.3**	100.2	100.1	**100.4**
L.5 Capacity Utilisation Assessment	99.4	**98.4**	99.0	**103.3**
L.6 Capacity Utilisation Expectation	99.5	**99.2**	**100.9**	100.2
L.7 Selling Price Assessment	**102.8**	**97.9**	98.5	100.8
L.8 Selling Price Expectation	**100.4**	100.1	100.0	**99.5**
L.9 Profit Margin Assessment	100.3	99.5	**98.7**	**101.5**
L.10 Profit Margin Expectation	100.5	**100.5**	99.7	**99.3**
L.11 Business Assessment Index	100.0	**99.2**	99.6	**101.2**
L.12 Business Expectation Index	**99.2**	99.3	**101.0**	100.4

Note: *: Average of last ten years' quarterly seasonal factors, in general. Here, the average quarterly seasonal factors have been computed on the basis of last 10 years (*i.e.*, Q1: 2015-16 to Q4: 2024-25). Numbers marked in 'bold' are peaks and troughs of respective series.

Table A2-Q3: Range (Difference Between Peak and Trough) of Quarterly Seasonal Factors

(Percentage points)

SERIES \ YEAR	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Average Range
1	2	3	4	5	6	7	8	9	10	11	12
National Accounts Statistics (8 series)											
I.1 Real Gross Domestic Product (GDP)	5.1	5.1	5.5	6.0	6.6	7.0	7.6	8.2	8.7	9.1	6.9
I.2 Real Gross Value Added (GVA)	1.7	1.7	2.0	2.6	3.2	4.1	4.9	5.6	6.1	6.4	3.8
I.3 Real PFCE	7.2	6.8	6.8	7.4	8.0	8.7	9.4	9.9	10.1	10.0	8.4
I.4 Real GFCE	30.8	29.6	25.4	18.2	19.1	20.8	27.0	32.5	33.6	32.6	16.9
I.5 Real GFCF	6.5	6.8	7.6	8.7	9.6	10.1	10.2	10.8	11.4	11.5	8.6
I.6 GVA of Agriculture	52.2	50.3	48.8	48.0	47.3	46.8	46.2	46.0	46.1	46.4	47.8
I.7 GVA of Industry	10.0	10.3	10.5	10.6	11.1	11.8	12.7	13.7	14.4	14.8	12.0
I.8 GVA of Services	10.4	10.2	9.8	9.4	8.9	8.3	7.5	6.8	6.2	5.9	8.3
Balance of Payments (4 series)											
J.1 Exports of Services	5.5	5.6	5.8	6.1	6.5	6.7	6.7	6.6	6.6	6.6	6.1
J.2 Exports in Travel	20.9	18.7	17.5	18.5	21.7	26.4	30.1	31.2	33.7	34.8	24.3
J.3 Exports in Telecommunications, Computer and Information Services	3.0	2.9	2.5	2.2	2.0	2.0	2.0	2.4	2.8	3.1	2.4
J.4 Imports in Travel	18.4	18.9	18.1	17.6	16.4	15.7	15.1	14.9	14.9	15.2	15.9
OBICUS (1 series)											
K.1 Capacity Utilisation of manufacturing companies	4.3	3.8	3.3	3.1	3.1	3.3	3.7	3.9	4.0	4.1	3.7
Industrial Outlook Survey (12 series)											
L.1 Production Assessment	4.6	4.6	4.8	4.9	4.9	5.0	5.3	5.3	5.5	5.6	5.0
L.2 Production Expectation	3.3	2.8	2.5	2.1	2.0	2.6	2.8	2.5	1.9	1.8	2.0
L.3 Order Books Assessment	4.2	4.0	3.8	3.7	3.6	3.5	3.6	3.8	3.8	3.9	3.7
L.4 Order Books Expectation	1.5	0.9	0.9	1.0	0.9	0.8	1.2	1.9	2.3	2.4	1.1
L.5 Capacity Utilisation Assessment	4.6	4.5	4.4	4.5	4.6	4.8	5.0	5.3	5.5	5.7	4.9
L.6 Capacity Utilisation Expectation	3.0	2.1	1.5	1.4	1.6	1.9	2.1	2.3	2.7	3.0	1.7
L.7 Selling Price Assessment	3.6	4.4	5.2	5.7	5.9	5.9	5.7	5.0	4.4	4.0	5.0
L.8 Selling Price Expectation	1.3	1.4	1.6	1.9	2.0	1.6	1.4	1.3	1.3	1.4	0.9
L.9 Profit Margin Assessment	3.6	3.5	3.4	3.2	2.9	2.7	2.7	2.5	2.2	1.6	2.8
L.10 Profit Margin Expectation	1.3	1.2	1.4	1.9	2.4	2.6	2.3	1.7	1.0	0.7	1.2
L.11 Business Assessment Index	2.5	2.4	2.3	2.2	2.0	1.7	1.6	1.5	1.6	1.8	2.0
L.12 Business Expectation Index	1.5	1.5	1.6	1.7	1.8	1.8	1.9	2.0	2.2	2.3	1.8

Note: Average seasonal factor range is the range of average seasonal factors for last ten years; range is calculated as the difference between maximum and minimum of quarterly seasonal factors.

Table A2-Q4: Major Diagnostics of all the Quarterly Indicators

Name of variable	Seasonality in Original Series		Residual Seasonality		Quality Diagnostics	
	F test p-value	KW test p-value	F test p-value	F test 3 yr p-value	M7	Q
I.1 Real Gross Domestic Product (GDP)	0.00	0.00	0.06	0.42	0.23	0.27
I.2 Real Gross Value Added (GVA)	0.00	0.00	0.02	0.10	0.46	0.46
I.3 Real PFCE	0.00	0.00	0.04	0.45	0.19	0.52
I.4 Real GFCE	0.00	0.00	0.33	0.62	0.71	1.00
I.5 Real GFCF	0.00	0.00	0.15	0.36	0.32	0.67
I.6 GVA of Agriculture	0.00	0.00	0.74	0.66	0.07	0.13
I.7 GVA of Industry	0.00	0.00	0.16	0.80	0.23	0.38
I.8 GVA of Services	0.00	0.00	0.02	0.14	0.27	0.32
J.1 Exports of Services	0.00	0.00	0.43	0.52	0.30	0.36
J.2 Exports in Travel	0.00	0.00	0.94	0.54	0.42	0.47
J.3 Exports in Telecommunications, Computer and Information Services	0.00	0.00	0.09	0.65	0.49	0.48
J.4 Imports of Services	0.04	0.01	0.91	0.86	1.19	1.00
J.5 Imports in Travel	0.00	0.00	0.44	0.98	0.32	0.29
J.6 Imports in Telecommunications, Computer and Information Services	0.02	0.04	0.82	0.63	1.20	1.47
K.1 Capacity Utilisation of manufacturing companies	0.00	0.00	0.18	0.54	0.29	0.55
L.1 Production Assessment	0.00	0.00	0.16	0.85	0.31	0.45
L.2 Production Expectation	0.00	0.00	0.77	0.64	0.57	0.63
L.3 Order Books Assessment	0.00	0.00	0.13	0.69	0.56	0.71
L.4 Order Books Expectation	0.00	0.00	0.36	0.95	0.82	0.95
L.5 Employment Assessment	0.24	0.02	0.30	0.98	2.03	1.07
L.6 Employment Expectation	0.09	0.03	0.64	0.69	1.57	1.09
L.7 Capacity Utilisation Assessment	0.00	0.00	0.08	0.94	0.25	0.44
L.8 Capacity Utilisation Expectation	0.00	0.00	0.92	0.93	0.74	0.98
L.9 Selling Price Assessment	0.00	0.00	0.40	0.74	0.49	0.82
L.10 Selling Price Expectation	0.03	0.00	0.52	0.70	1.27	1.22
L.11 Cost of External Finance Assessment	0.64	0.57	0.27	0.99	2.71	1.32
L.12 Cost of External Finance Expectation	0.02	0.01	0.33	0.96	1.41	0.84
L.13 Profit Margin Assessment	0.00	0.00	0.16	0.95	0.76	1.05
L.14 Profit Margin Expectation	0.31	0.12	0.70	0.45	2.13	1.19
L.15 Business Assessment Index	0.00	0.00	0.30	0.94	0.51	0.75
L.16 Business Expectation Index	0.00	0.00	0.97	0.90	0.56	0.86

Note: Please see notes to Table A1-M4.

Table A2-Q5: Quarterly Seasonal Factors of Select Economic Time Series for 2024-25

(Per cent)

SERIES NAME	Q1	Q2	Q3	Q4
1	2	3	4	5
National Accounts Statistics (8 series)				
I.1 Real Gross Domestic Product (GDP)	97.3	**97.0**	99.7	**106.1**
I.2 Real Gross Value Added (GVA)	99.2	**97.4**	99.7	**103.8**
I.3 Real PFCE	97.2	**95.8**	**105.8**	101.1
I.4 Real GFCE	100.6	93.1	**87.0**	**119.5**
I.5 Real GFCF	99.6	98.4	**95.2**	**106.6**
I.6 GVA of Agriculture	91.1	**77.5**	**123.9**	107.6
I.7 GVA of Industry	98.8	97.6	**94.4**	**109.2**
I.8 GVA of Services	101.1	**102.0**	**96.0**	101.1
Balance of Payments (4 series)				
J.1 Exports of Services	**96.2**	98.9	**102.8**	102.0
J.2 Exports in Travel	**82.7**	88.8	**117.4**	110.7
J.3 Exports in Telecommunications, Computer and Information Services	**98.7**	100.0	**101.7**	99.6
J.4 Imports in Travel	**107.8**	106.0	**92.6**	93.4
OBICUS (1 series)				
K.1 Capacity Utilisation of manufacturing companies	**98.5**	99.1	99.9	**102.5**
Industrial Outlook Survey (12 series)				
L.1 Production Assessment	99.2	**97.6**	100.0	**103.2**
L.2 Production Expectation	**99.0**	**100.8**	100.7	99.7
L.3 Order Books Assessment	100.4	**98.1**	99.5	**102.1**
L.4 Order Books Expectation	**98.4**	100.7	**100.8**	100.1
L.5 Capacity Utilisation Assessment	98.8	**97.9**	99.8	**103.6**
L.6 Capacity Utilisation Expectation	100.0	**98.5**	**101.5**	100.0
L.7 Selling Price Assessment	**102.4**	**98.3**	99.1	100.2
L.8 Selling Price Expectation	**99.2**	**100.6**	100.4	100.0
L.9 Profit Margin Assessment	99.4	100.6	**99.2**	**100.8**
L.10 Profit Margin Expectation	100.0	100.1	**99.8**	**100.4**
L.11 Business Assessment Index	99.7	**99.5**	99.6	**101.2**
L.12 Business Expectation Index	**99.0**	99.4	**101.3**	100.4

CURRENT STATISTICS

Contents

Notes: .. = Not available.

– = Nil/Negligible.

P = Preliminary/Provisional. PR = Partially Revised.

No. 1: Select Economic Indicators

Item	2024-25	2023-24	2024-25		2025-26
		Q4	Q1	Q4	Q1
	1	2	3	4	5
1 Real Sector (% Change)					
1.1 GVA at Basic Prices	6.4	7.3	6.5	6.8	7.6
1.1.1 Agriculture	4.6	0.9	1.5	5.4	3.7
1.1.2 Industry	4.5	9.9	7.8	4.7	5.8
1.1.3 Services	7.5	8.0	7.2	7.9	9.0
1.1a Final Consumption Expenditure	6.5	6.3	7.0	4.7	7.1
1.1b Gross Fixed Capital Formation	7.1	6.0	6.7	9.4	7.8
	2024-25	2024		2025	
		Aug.	Sep.	Aug.	Sep.
	1	2	3	4	5
1.2 Index of Industrial Production	4.0	0.0	3.2	4.1	4.0
2 Money and Banking (% Change)					
2.1 Scheduled Commercial Banks					
2.1.1 Deposits	10.3	11.9	10.4	9.3	9.4
2.1.2 Credit #	11.0	13.1	12.3	10.1	10.8
2.1.2.1 Non-food Credit #	11.0	13.1	12.4	10.0	10.7
2.1.3 Investment in Govt. Securities	9.7	6.3	6.8	6.7	6.5
2.2 Money Stock Measures					
2.2.1 Reserve Money (M0)	4.3	4.8	6.0	5.8	4.5
2.2.2 Broad Money (M3)	9.4	9.8	10.4	9.8	9.2
3 Ratios (%)					
3.1 Cash Reserve Ratio	4.00	4.50	4.50	4.00	3.75
3.2 Statutory Liquidity Ratio	18.00	18.00	18.00	18.00	18.00
3.3 Cash-Deposit Ratio	4.3	5.1	5.1	4.4	4.1
3.4 Credit-Deposit Ratio	80.8	78.4	79.2	79.0	80.2
3.5 Incremental Credit-Deposit Ratio #	86.1	47.7	61.6	43.3	69.0
3.6 Investment-Deposit Ratio	29.7	29.3	29.6	28.6	28.8
3.7 Incremental Investment-Deposit Ratio	28.1	20.8	26.2	7.7	13.2
4 Interest Rates (%)					
4.1 Policy Repo Rate	6.25	6.50	6.50	5.50	5.50
4.2 Fixed Reverse Repo Rate	3.35	3.35	3.35	3.35	3.35
4.3 Standing Deposit Facility (SDF) Rate *	6.00	6.25	6.25	5.25	5.25
4.4 Marginal Standing Facility (MSF) Rate	6.50	6.75	6.75	5.75	5.75
4.5 Bank Rate	6.50	6.75	6.75	5.75	5.75
4.6 Base Rate	9.10/10.40	9.10/10.40	9.10/10.40	8.50/10.30	8.50/10.30
4.7 MCLR (Overnight)	8.15/8.45	8.15/8.45	8.15/8.45	7.80/8.15	7.80/8.00
4.8 Term Deposit Rate >1 Year	6.00/7.25	6.00/7.25	6.00/7.25	5.85/6.60	5.85/6.60
4.9 Savings Deposit Rate	2.70/3.00	2.70/3.00	2.70/3.00	2.50/2.50	2.50/2.50
4.10 Call Money Rate (Weighted Average)	6.35	6.59	6.61	5.45	5.57
4.11 91-Day Treasury Bill (Primary) Yield	6.52	6.63	6.65	5.51	5.47
4.12 182-Day Treasury Bill (Primary) Yield	6.52	6.72	6.72	5.60	5.58
4.13 364-Day Treasury Bill (Primary) Yield	6.47	6.72	6.70	5.64	5.61
4.14 10-Year G-Sec Par Yield (FBIL)	6.62	6.90	6.78	6.67	6.61
5 Reference Rate and Forward Premia					
5.1 INR-US$ Spot Rate (Rs. Per Foreign Currency)	85.58	83.87	83.67	87.85	88.72
5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency)	92.32	92.91	93.46	102.47	103.62
5.3 Forward Premia of US$ 1-month (%)	3.12	1.12	1.65	1.76	2.19
3-month (%)	2.56	1.34	1.74	1.80	2.17
6-month (%)	2.28	1.64	2.11	1.97	2.23
6 Inflation (%)					
6.1 All India Consumer Price Index	4.6	3.7	5.5	2.1	1.4
6.2 Consumer Price Index for Industrial Workers	3.39	2.4	4.2	3.2	2.8
6.3 Wholesale Price Index	2.3	1.2	1.9	0.5	0.1
6.3.1 Primary Articles	5.2	2.5	6.5	-2.1	-3.3
6.3.2 Fuel and Power	-1.3	-0.5	-3.9	-3.2	-2.6
6.3.3 Manufactured Products	1.7	1.0	1.1	2.6	2.3
7 Foreign Trade (% Change)					
7.1 Imports	6.9	10.4	8.3	-10.1	16.7
7.2 Exports	0.1	-14.1	-1.0	6.1	6.7

Note : Financial Benchmark India Pvt. Ltd. (FBIL) has commenced publication of the G-Sec benchmarks with effect from March 31, 2018 as per RBI circularFMRD.DIRD. 7/14.03.025/2017-18 dated March 31, 2018. FBIL has started dissemination of reference rates w.e.f. July 10, 2018.
#: Bank credit growth and related ratios for all fortnights from December 3, 2021 to November 18, 2022 are adjusted for past reporting errors by select scheduled commercial banks (SCBs).
Data include the impact of merger of a non-bank with a bank w.e.f. July 1, 2023.
*: As per Press Release No. 2022-2023/41 dated April 08, 2022.

Reserve Bank of India

No. 2: RBI - Liabilities and Assets *

(₹ Crore)

Item	As on the Last Friday/ Friday						
	2024-25	2024	2025				
		Oct.	Oct. 03	Oct. 10	Oct. 17	Oct. 24	Oct. 31
	1	2	3	4	5	6	7
1 Issue Department							
1.1 Liabilities							
1.1.1 Notes in Circulation	3683836	3499601	3761894	3770178	3790325	3795985	3780994
1.1.2 Notes held in Banking Department	11	15	13	12	15	12	12
1.1/1.2 Total Liabilities (Total Notes Issued) or Assets	**3683847**	**3499616**	**3761908**	**3770190**	**3790340**	**3795998**	**3781006**
1.2 Assets							
1.2.1 Gold	235379	205953	310816	321803	338459	328604	320090
1.2.2 Foreign Securities	3448129	3293260	3450711	3448113	3451327	3466899	3460480
1.2.3 Rupee Coin	340	402	381	274	553	496	436
1.2.4 Government of India Rupee Securities	-	-	-	-	-	-	-
2 Banking Department							
2.1 Liabilities							
2.1.1 Deposits	1709285	1727119	1629157	1654275	1568937	1558226	1542156
2.1.1.1 Central Government	100	101	100	100	100	100	100
2.1.1.2 Market Stabilisation Scheme	-						
2.1.1.3 State Governments	42	42	43	42	42	42	42
2.1.1.4 Scheduled Commercial Banks	943060	1042981	883596	833283	827461	823260	842947
2.1.1.5 Scheduled State Co-operative Banks	7776	8265	7640	7009	7123	7055	7077
2.1.1.6 Non-Scheduled State Co-operative Banks	5963	5434	5070	4883	5071	4769	4612
2.1.1.7 Other Banks	46963	50532	45442	42732	42761	43086	43820
2.1.1.8 Others	593085	465711	539838	603316	515704	521552	481530
2.1.1.9 Financial Institution Outside India	112296	154053	147428	162911	170674	158362	162026
2.1.2 Other Liabilities	2150508	1925821	2582289	2572197	2622955	2565552	2574393
2.1/2.2 Total Liabilities or Assets	**3859793**	**3652940**	**4211446**	**4226472**	**4191892**	**4123778**	**4116549**
2.2 Assets							
2.2.1 Notes and Coins	11	15	13	12	15	12	12
2.2.2 Balances Held Abroad	1413591	1736918	1708880	1655790	1596215	1539478	1581443
2.2.3 Loans and Advances							
2.2.3.1 Central Government	-	-	-	-	-	-	-
2.2.3.2 State Governments	26284	24079	22137	16116	30095	23777	20016
2.2.3.3 Scheduled Commercial Banks	251984	30948	1512	40552	8733	35276	5489
2.2.3.4 Scheduled State Co-op.Banks	-	-	-	-	-	-	-
2.2.3.5 Industrial Dev. Bank of India	-	-	-	-	-	-	-
2.2.3.6 NABARD	-	-	-	-	-	-	-
2.2.3.7 EXIM Bank	-	-	-	-	-	-	-
2.2.3.8 Others	36426	8699	10550	10395	12879	13579	11539
2.2.3.9 Financial Institution Outside India	111768	153006	146618	162322	170809	158848	162524
2.2.4 Bills Purchased and Discounted							
2.2.4.1 Internal	-	-	-	-	-	-	-
2.2.4.2 Government Treasury Bills	-	-	-	-	-	-	-
2.2.5 Investments	1560630	1313046	1737057	1736207	1737400	1734748	1732352
2.2.6 Other Assets	459101	386229	584678	605078	635746	618060	603174
2.2.6.1 Gold	429510	370227	566080	586091	616427	598477	582971

* Data are provisional.

No. 3: Liquidity Operations by RBI

(₹ Crore)

Date	Liquidity Adjustment Facility						Standing Liquidity Facilities	OMO (Outright)		Net Injection (+)/ Absorption (-) (1+3+5+7+9-2-4-6-8)
	Repo	Reverse Repo	Variable Rate Repo	Variable Rate Reverse Repo	MSF	SDF		Sale	Purchase	
	1	2	3	4	5	6	7	8	9	10
Sep. 1, 2025	-	-	-	48820	4571	118298	-	-	-	-162547
Sep. 2, 2025	-	-	-	-	1510	127443	-1214	-	-	-127147
Sep. 3, 2025	-	-	-	-	1952	118742	-3131	-	-	-119921
Sep. 4, 2025	-	-	-	150023	4644	149334	1149	-	-	-293564
Sep. 5, 2025	-	-	-	-	3936	149276	-	-	-	-145340
Sep. 6, 2025	-	-	-	-	868	109040	-	-	-	-108172
Sep. 7, 2025	-	-	-	-	824	104586	-	-	-	-103762
Sep. 8, 2025	-	-	-	-	12069	104910	-	-	-	-92841
Sep. 9, 2025	-	-	-	-	1052	123828	-	-	-	-122776
Sep. 10, 2025	-	-	-	20175	967	99886	-577	-	-	-119671
Sep. 11, 2025	-	-	-	-	1159	124040	576	-	-	-122305
Sep. 12, 2025	-	-	-	150015	1184	123250	-	-	-	-272081
Sep. 13, 2025	-	-	-	-	969	112438	-	-	-	-111469
Sep. 14, 2025	-	-	-	-	1176	115495	-	-	-	-114319
Sep. 15, 2025	-	-	-	-	1282	199673	718	-	-	-197673
Sep. 16, 2025	-	-	585	-	18172	98460	649	-	-	-79054
Sep. 17, 2025	-	-	-	-	1507	74961	-	-	-	-73454
Sep. 18, 2025	-	-	25006	-	2849	111533	1195	-	-	-82483
Sep. 19, 2025	-	-	60357	-	310	124189	-	-	-	-63522
Sep. 20, 2025	-	-	-	-	438	77708	-	-	-	-77270
Sep. 21, 2025	-	-	-	-	230	73485	-	-	-	-73255
Sep. 22, 2025	-	-	21151	-	6679	66129	-	-	-	-38299
Sep. 23, 2025	-	-	140516	-	328	123947	-	-	-	16897
Sep. 24, 2025	-	-	48980	-	403	93350	-	-	10	-43957
Sep. 25, 2025	-	-	69060	-	2688	95049	-	-	-	-23301
Sep. 26, 2025	-	-	90931	-	385	147590	165	-	-	-56109
Sep. 27, 2025	-	-	-	-	2966	136939	-	-	-	-133973
Sep. 28, 2025	-	-	-	-	6922	137488	-	-	-	-130566
Sep. 29, 2025	-	-	-	-	1897	158209	-109	-	-	-156421
Sep. 30, 2025	-	-	85197	-	1850	175443	-	-	-	-88396

No. 4: Sale/ Purchase of U.S. Dollar by the RBI

i) Operations in onshore / offshore OTC segment

Item	2024-25	2024	2025	
		Sep.	Aug.	Sep.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1-1.2)	-34511	9639	-7695	-7910
1.1 Purchase (+)	364200	28930	0	2200
1.2 Sale (–)	398711	19291	7695	10110
2 ₹ equivalent at contract rate (₹ Crores)	-291233	80549	-67456	-69884
3 Cumulative (over end-March) (US $ Million)	-34511	8547	-13792	-21702
(₹ Crore)	-291233	70945	-121604	-191488
4 Outstanding Net Forward Sales (-)/ Purchase (+) at the end of month (US $ Million)	-84345	-14580	-53355	-59405

ii) Operations in currency futures segment

Item	2024-25	2024	2025	
		Sep.	Aug.	Sep.
	1	2	3	4
1 Net Purchase/ Sale of Foreign Currency (US $ Million) (1.1-1.2)	0	0	0	0
1.1 Purchase (+)	31415	2149	0	1311
1.2 Sale (–)	31415	2149	0	1311
2 Outstanding Net Currency Futures Sales (-)/ Purchase (+) at the end of month (US $ Million)	0	-200	-450	-1605

No. 4 A : Maturity Breakdown (by Residual Maturity) of Outstanding Forwards of RBI (US $ Million)

Item	As on September 30 , 2025		
	Long (+)	Short (-)	Net (1-2)
	1	2	3
1. Upto 1 month	0	16485	-16485
2. More than 1 month and upto 3 months	0	14830	-14830
3. More than 3 months and upto 1 year	0	7990	-7990
4. More than 1 year	0	20100	-20100
Total (1+2+3+4)	**0**	**59405**	**-59405**

No. 5: RBI's Standing Facilities

(₹ Crore)

Item	As on the Last Reporting Fortnights							
	2024-25	2024	2025					
		Oct. 18	May. 30	Jun. 27	Jul. 25	Aug. 22	Sep. 19	Oct. 31
	1	2	3	4	5	6	7	8
1 MSF	9961	4216	1540	1065	1906	1818	310	5489
2 Export Credit Refinance for Scheduled Banks								
2.1 Limit	-	-	-	-	-	-	-	-
2.2 Outstanding	-	-	-	-	-	-	-	-
3 Liquidity Facility for PDs								
3.1 Limit	9900	9900	14900	14900	14900	14900	14900	14900
3.2 Outstanding	9517	7223	8595	7010	10299	10985	10319	11518
4 Others								
4.1 Limit	76000	76000	76000	76000	76000	76000	76000	76000
4.2 Outstanding	-	-	-	-	-	-	-	-
5 Total Outstanding (1+2.2+3.2+4.2)	19478	11439	10135	8075	12205	12803	10629	17007

Money and Banking

No. 6: Money Stock Measures

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fortnights of the month/ reporting Fortnights				
	2024-25	2024	2025		
		Sep. 20	Aug. 22	Sep. 05	Sep. 19
	1	2	3	4	5
1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4)	3630751	3392284	3715737	3718989	3706688
1.1 Notes in Circulation	3687816	3455943	3773434	3776964	3761714
1.2 Circulation of Rupee Coin	35889	33851	37314	37314	37695
1.3 Circulation of Small Coins	743	743	743	743	743
1.4 Cash on Hand with Banks	93696	98253	95755	96032	93464
2 Deposit Money of the Public	2953329	2735069	3142161	3145885	3121404
2.1 Demand Deposits with Banks	2840023	2640984	3032516	3035554	3004901
2.2 'Other' Deposits with Reserve Bank	113307	94085	109645	110330	116503
3 M1 (1 + 2)	**6584081**	**6127353**	**6857897**	**6864874**	**6828092**
4 Post Office Saving Bank Deposits	212331	200889	212331	212331	212331
5 M2 (3 + 4)	**6796412**	**6328242**	**7070228**	**7077205**	**7040423**
6 Time Deposits with Banks	**20702508**	**19826970**	**21450604**	**21611139**	**21522189**
7 M3 (3 + 6)	**27286589**	**25954324**	**28308502**	**28476013**	**28350281**
8 Total Post Office Deposits	1443555	1379283	1443555	1443555	1443555
9 M4 (7 + 8)	28730144	27333607	29752057	29919568	29793836

No. 7 : Sources of Money Stock (M_3)

(₹ Crore)

Sources	Outstanding as on March 31/last reporting Fortnights of the month/reporting Fortnights				
	2024-25	2024	2025		
		Sep. 20	Aug. 22	Sep. 05	Sep. 19
	1	2	3	4	5
1 Net Bank Credit to Government	**8510825**	**7626155**	**8585943**	**8747071**	**8490309**
1.1 RBI's net credit to Government (1.1.1–1.1.2)	1508105	921112	1511706	1607508	1324495
1.1.1 Claims on Government	1591591	1340430	1795840	1815543	1805435
1.1.1.1 Central Government	1558903	1313984	1768377	1771473	1772990
1.1.1.2 State Governments	32688	26447	27463	44070	32445
1.1.2 Government deposits with RBI	83485	419318	284134	208035	480940
1.1.2.1 Central Government	83443	419275	284091	207993	480898
1.1.2.2 State Governments	42	42	43	42	42
1.2 Other Banks' Credit to Government	7002720	6705043	7074237	7139564	7165814
2 Bank Credit to Commercial Sector	**19068129**	**17889364**	**19449509**	**19600218**	**19709575**
2.1 RBI's credit to commercial sector	38246	10589	13069	9833	15669
2.2 Other banks' credit to commercial sector	19029883	17878775	19436439	19590385	19693906
2.2.1 Bank credit by commercial banks	18243972	17125052	18646842	18800686	18902861
2.2.2 Bank credit by co-operative banks	766659	734471	769722	769542	770470
2.2.3 Investments by commercial and co-operative banks in other securities	19252	19252	19876	20158	20575
3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)	**6148527**	**5991648**	**6467254**	**6581276**	**6597919**
3.1 RBIs net foreign exchange assets (3.1.1 - 3.1.2)	5550947	5629250	5870992	5985014	6010871
3.1.1 Gross foreign assets	5550956	5629252	5870987	5985005	6010860
3.1.2 Foreign liabilities	9	2	-5	-9	-11
3.2 Other banks' net foreign exchange assets	597580	362398	596262	596262	587048
4 Government's Currency Liabilities to the Public	**36632**	**34594**	**38057**	**38057**	**38438**
5 Banking Sector's Net Non-monetary Liabilities	**6477524**	**5587438**	**6232262**	**6490610**	**6485961**
5.1 Net non-monetary liabilities of RBI	2147427	1957330	2288911	2431271	2463314
5.2 Net non-monetary liabilities of other banks (residual)	4330098	3630108	3943351	4059339	4022647
M_3(1+2+3+4–5)	**27286589**	**25954324**	**28308502**	**28476013**	**28350281**

No. 8: Monetary Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fortnights of the month/reporting Fortnights				
	2024-25	2024	2025		
		Sep. 20	Aug. 22	Sep. 05	Sep. 19
	1	2	3	4	5
Monetary Aggregates					
NM_1 (1.1+1.2.1+1.3)	6584081	6127353	6857897	6865254	6828092
NM_2 (NM_1 + 1.2.2.1)	15768688	14929483	16376038	16454216	16377198
NM_3 (NM_2 +1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	27909568	26567267	28871731	28990627	28906851
1 Components					
1.1 Currency with the Public	3630751	3392284	3715737	3719370	3706688
1.2 Aggregate Deposits of Residents	23250261	22201272	24183940	24344358	24225137
1.2.1 Demand Deposits	2840023	2640984	3032516	3035554	3004901
1.2.2 Time Deposits of Residents	20410239	19560288	21151424	21308804	21220236
1.2.2.1 Short-term Time Deposits	9184607	8802130	9518141	9588962	9549106
1.2.2.1.1 Certificates of Deposits (CDs)	527375	467853	494788	495811	495098
1.2.2.2 Long-term Time Deposits	11225631	10758158	11633283	11719842	11671130
1.3 'Other' Deposits with RBI	113307	94085	109645	110330	116503
1.4 Call/Term Funding from Financial Institutions	915248	879626	862409	816569	858523
2 Sources					
2.1 Domestic Credit	28802443	26693009	29305221	29627521	29479531
2.1.1 Net Bank Credit to the Government	8510825	7626155	8585943	8747071	8490309
2.1.1.1 Net RBI credit to the Government	1508105	921112	1511706	1607508	1324495
2.1.1.2 Credit to the Government by the Banking System	7002720	6705043	7074237	7139564	7165814
2.1.2 Bank Credit to the Commercial Sector	20291618	19066853	20719277	20880449	20989222
2.1.2.1 RBI Credit to the Commercial Sector	38246	10589	13069	9833	15669
2.1.2.2 Credit to the Commercial Sector by the Banking System	20253372	19056265	20706208	20870616	20973552
2.1.2.2.1 Other Investments (Non-SLR Securities)	1208294	1162164	1253713	1268387	1264028
2.2 Government's Currency Liabilities to the Public	36632	34594	38057	38438	38438
2.3 Net Foreign Exchange Assets of the Banking Sector	5605462	5546567	5986001	6074543	6102612
2.3.1 Net Foreign Exchange Assets of the RBI	5550947	5629250	5870992	5985014	6010871
2.3.2 Net Foreign Currency Assets of the Banking System	54514	-82683	115008	89529	91741
2.4 Capital Account	4481192	4437226	5156447	5270609	5291812
2.5 Other items (net)	2053777	1269677	1301101	1479265	1421919

No. 9: Liquidity Aggregates

(₹ Crore)

Aggregates	2024-25	2024	2025		
		Sep.	Jul.	Aug.	Sep.
	1	2	3	4	5
1 NM_3	**27896780**	**26567267**	**28681808**	**28871731**	**28906851**
2 Postal Deposits	756787	728509	791633	798148	812817
3 L_1 (1 + 2)	**28653567**	**27295776**	**29473441**	**29669879**	**29719668**
4 Liabilities of Financial Institutions	95148	68824	113786	116169	116595
4.1 Term Money Borrowings	10	94	5	5	5
4.2 Certificates of Deposit	80810	55520	98755	100855	101105
4.3 Term Deposits	14328	13210	15027	15310	15485
5 L_2 (3 + 4)	**28748715**	**27364600**	**29587228**	**29786048**	**29836262**
6 Public Deposits with Non-Banking Financial Companies	121178	112512	..	..	131730
7 L_3 (5 + 6)	**28869893**	**27477112**	**..**	**..**	**29967993**

Note : Figures in the columns might not add up to the total due to rounding off of numbers.

No. 10: Reserve Bank of India Survey

(₹ Crore)

Item	Outstanding as on March 31/last reporting Fortnights of the month/reporting Fortnights				
	2024-25	2024	2025		
		Sep. 20	Aug. 22	Sep. 5	Sep. 19
	1	2	3	4	5
1 Components					
1.1 Currency in Circulation	3724448	3490538	3811491	3815402	3800152
1.2 Bankers' Deposits with the RBI	991488	1018975	993927	988435	942717
1.2.1 Scheduled Commercial Banks	926001	956255	932900	926601	884937
1.3 'Other' Deposits with the RBI	113307	94085	109645	110330	116503
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5)	4829243	4603598	4915063	4914167	4859372
2 Sources					
2.1 RBI's Domestic Credit	1389090	897083	1294924	1321987	1273377
2.1.1 Net RBI credit to the Government	1508105	921112	1511706	1607508	1324495
2.1.1.1 Net RBI credit to the Central Government (2.1.1.1.1 + 2.1.1.1.2 + 2.1.1.1.3 + 2.1.1.1.4 – 2.1.1.1.5)	1475460	894708	1484286	1563480	1292093
2.1.1.1.1 Loans and Advances to the Central Government	-	-	-	-	-
2.1.1.1.2 Investments in Treasury Bills	-	-	-	-	-
2.1.1.1.3 Investments in dated Government Securities	1558574	1313609	1767876	1771131	1772839
2.1.1.1.3.1 Central Government Securities	1558574	1313609	1767876	1771131	1772839
2.1.1.1.4 Rupee Coins	329	375	501	341	151
2.1.1.1.5 Deposits of the Central Government	83443	419275	284091	207993	480898
2.1.1.2 Net RBI credit to State Governments	32646	26404	27420	44028	32403
2.1.2 RBI's Claims on Banks	-157261	-34618	-229852	-295354	-66788
2.1.2.1 Loans and Advances to Scheduled Commercial Banks	-157261	-34618	-229852	-295354	-66788
2.1.3 RBI's Credit to Commercial Sector	38246	10589	13069	9833	15669
2.1.3.1 Loans and Advances to Primary Dealers	9182	8547	10985	7758	10319
2.1.3.2 Loans and Advances to NABARD	-	-	-	-	-
2.2 Government's Currency Liabilities to the Public	36632	34594	38057	38438	38438
2.3 Net Foreign Exchange Assets of the RBI	5550947	5629250	5870992	5985014	6010871
2.3.1 Gold	668162	531633	744074	796946	817376
2.3.2 Foreign Currency Assets	4882794	5097618	5126913	5188059	5193484
2.4 Capital Account	1875114	1874081	2204951	2317742	2337264
2.5 Other Items (net)	272313	83249	83960	113529	126050

No. 11: Reserve Money - Components and Sources

(₹ Crore)

Item	2024-25	Outstanding as on March 31/last Fridays of the month/Fridays					
		2024	2025				
		Sep. 27	Aug. 29	Sep. 5	Sep. 12	Sep. 19	Sep. 26
	1	2	3	4	5	6	7
Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 + 2.4 + 2.5 – 2.6)	4829243	4660892	4940913	4914167	4893939	4859372	4871955
1 Components							
1.1 Currency in Circulation	3724448	3482214	3802317	3815402	3815642	3800152	3798500
1.2 Bankers' Deposits with RBI	991488	1083333	1020834	988435	966963	942717	955268
1.3 'Other' Deposits with RBI	113307	95346	117762	110330	111335	116503	118187
2 Sources							
2.1 Net Reserve Bank Credit to Government	1508105	957345	1580652	1607508	1566808	1324495	1337046
2.2 Reserve Bank Credit to Banks	-157261	-84648	-254030	-295354	-272081	-66788	-62754
2.3 Reserve Bank Credit to Commercial Sector	38246	10556	13034	9833	9841	15669	19049
2.4 Net Foreign Exchange Assets of RBI	5550947	5743253	5948355	5985014	6027742	6010871	6033575
2.5 Government's Currency Liabilities to the Public	36632	34833	38438	38438	38438	38438	38864
2.6 Net Non- Monetary Liabilities of RBI	2147427	2000447	2385536	2431271	2476809	2463314	2493824

No. 12: Commercial Bank Survey

(₹ Crore)

Item	Outstanding as on last reporting Fortnights of the month/ reporting Fortnights of the month				
	2024-25	2024	2025		
		Sep. 20	Aug. 22	Sep. 5	Sep. 19
	1	2	3	4	5
1 Components					
1.1 Aggregate Deposits of Residents	22288331	21238985	23205355	23366575	23244558
1.1.1 Demand Deposits	2698049	2498373	2889395	2891510	2861501
1.1.2 Time Deposits of Residents	19590283	18740611	20315960	20475064	20383057
1.1.2.1 Short-term Time Deposits	8815627	8433275	9142182	9213779	9172375
1.1.2.1.1 Certificates of Deposits (CDs)	527375	467853	494788	495811	495098
1.1.2.2 Long-term Time Deposits	10774655	10307336	11173778	11261285	11210681
1.2 Call/Term Funding from Financial Institutions	915248	879626	862409	816569	858523
2 Sources					
2.1 Domestic Credit	26156690	24696244	26664877	26892214	27020089
2.1.1 Credit to the Government	6697298	6401753	6756507	6819538	6845762
2.1.2 Credit to the Commercial Sector	19459392	18294491	19908370	20072676	20174327
2.1.2.1 Bank Credit	18243972	17125052	18646842	18800686	18902861
2.1.2.1.1 Non-food Credit	18207441	17105126	18596386	18755105	18857577
2.1.2.2 Net Credit to Primary Dealers	15458	15588	16319	12107	15882
2.1.2.3 Investments in Other Approved Securities	630	649	459	459	519
2.1.2.4 Other Investments (in non-SLR Securities)	1199332	1153202	1244750	1259425	1255065
2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1-2.2.2-2.2.3)	54514	-82683	115008	89529	91741
2.2.1 Foreign Currency Assets	529621	358411	554451	533548	535782
2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits	292270	266682	299180	302335	301953
2.2.3 Overseas Foreign Currency Borrowings	182837	174411	140262	141683	142088
2.3 Net Bank Reserves (2.3.1+2.3.2-2.3.3)	791777	1077119	1246606	1306061	1033131
2.3.1 Balances with the RBI	882415	956255	932900	926601	884937
2.3.2 Cash in Hand	81874	86246	83854	84106	81405
2.3.3 Loans and Advances from the RBI	172512	-34618	-229852	-295354	-66788
2.4 Capital Account	2581908	2538975	2927326	2928696	2930377
2.5 Other items (net) (2.1+2.2+2.3-2.4-1.1-1.2)	1217493	1033095	1031402	1175964	1111502
2.5.1 Other Demand and Time Liabilities (net of 2.2.3)	878795	856786	893063	973717	932337
2.5.2 Net Inter-Bank Liabilities (other than to PDs)	118268	131836	115916	91948	97319

No. 13: Scheduled Commercial Banks' Investments

(₹ Crore)

Item	As on March 21, 2025	2024	2025		
		Sep. 20	Aug. 22	Sep. 05	Sep. 19
	1	2	3	4	5
1 SLR Securities	6697928	6404044	6756966	6819997	6846281
2 Other Government Securities (Non-SLR)	165500	157582	161651	161293	161725
3 Commercial Paper	63163	63049	73804	72978	74766
4 Shares issued by					
4.1 PSUs	13874	13615	14994	14908	15049
4.2 Private Corporate Sector	95984	97368	101330	103183	99999
4.3 Others	7664	6834	7717	7739	7440
5 Bonds/Debentures issued by					
5.1 PSUs	130308	123351	133322	136193	134665
5.2 Private Corporate Sector	248138	250152	243883	245764	249218
5.3 Others	150000	146237	162102	168697	165211
6 Instruments issued by					
6.1 Mutual funds	119867	111561	140363	139781	142908
6.2 Financial institutions	204865	183453	207378	208889	204084

Note: Data against column Nos. (1), (2) & (3) are Final and for column Nos. (4) & (5) data are Provisional.
Data include the impact of merger of a non-bank with a bank w.e.f. July 1, 2023.

No. 14: Business in India - All Scheduled Banks and All Scheduled Commercial Banks

(₹ Crore)

Item	As on the Last Reporting Fortnights (in case of March)/ Last Fortnights							
	All Scheduled Banks				All Scheduled Commercial Banks			
	2024-25	2024	2025		2024-25	2024	2025	
		Sep.	Aug.	Sep.		Sep.	Aug.	Sep.
	1	2	3	4	5	6	7	8
Number of Reporting Banks	208	208	196	196	135	135	121	121
1 Liabilities to the Banking System	**458011**	**453177**	**448306**	**464067**	**451305**	**448404**	**440120**	**455863**
1.1 Demand and Time Deposits from Banks	315675	298150	329183	346864	309414	293853	321524	339216
1.2 Borrowings from Banks	112027	131578	92202	86883	111976	131408	92173	86864
1.3 Other Demand and Time Liabilities	30310	23449	26921	30320	29916	23143	26423	29783
2 Liabilities to Others	**25053097**	**24067308**	**26115123**	**26258642**	**24557481**	**23597567**	**25599553**	**25741907**
2.1 Aggregate Deposits	23055487	22197886	24202235	24279536	22580601	21746608	23707673	23782970
2.1.1 Demand	2748263	2630676	3051908	3069014	2698049	2582832	3001393	3019116
2.1.2 Time	20307224	19567210	21150327	21210522	19882552	19163776	20706280	20763854
2.2 Borrowings	920568	905313	819580	868016	915248	900827	815149	863128
2.3 Other Demand and Time Liabilities	1077042	964109	1093308	1111091	1061632	950132	1076731	1095809
3 Borrowings from Reserve Bank	**311466**	**33302**	**1950**	**84836**	**311466**	**33302**	**1950**	**84836**
3.1 Against Usance Bills /Promissory Notes	-	-	-	-	-	-	-	-
3.2 Others	311466	33302	1950	84836	311466	33302	1950	84836
4 Cash in Hand and Balances with Reserve Bank	985044	1132310	1070393	1001948	964289	1110006	1049343	981473
4.1 Cash in Hand	84399	92085	91835	86480	81874	89559	89688	83965
4.2 Balances with Reserve Bank	900645	1040225	978558	915468	882415	1020447	959655	897509
5 Assets with the Banking System	**432645**	**400518**	**435974**	**458259**	**348496**	**333625**	**348752**	**367841**
5.1 Balances with Other Banks	273720	253200	307280	314393	215801	201534	245338	251739
5.1.1 In Current Account	13239	15512	10899	22896	10619	12452	8810	20464
5.1.2 In Other Accounts	260481	237687	296381	291497	205182	189082	236528	231274
5.2 Money at Call and Short Notice	44772	27376	33835	39992	25838	16083	15384	18667
5.3 Advances to Banks	43856	45009	30457	31135	39504	44328	29154	30082
5.4 Other Assets	70296	74933	64401	72739	67353	71681	58877	67354
6 Investment	**6850574**	**6589114**	**6951875**	**7023504**	**6697928**	**6439289**	**6784782**	**6856164**
6.1 Government Securities	6842024	6580833	6942689	7013572	6697298	6438770	6784263	6855706
6.2 Other Approved Securities	8550	8281	9186	9932	630	519	519	458
7 Bank Credit	**18708286**	**17661371**	**19202618**	**19547197**	**18243972**	**17215335**	**18732093**	**19073295**
7a Food Credit	87145	69694	99067	95969	36531	19075	47093	43995
7.1 Loans, Cash-credits and Overdrafts	18370704	17344195	18857148	19189753	17909851	16901348	18388626	18717636
7.2 Inland Bills-Purchased	76523	67186	79073	81825	74963	65696	78758	81591
7.3 Inland Bills-Discounted	222320	211015	231103	239750	221059	209905	229973	238764
7.4 Foreign Bills-Purchased	15357	15988	13301	13237	15122	15793	13088	13036
7.5 Foreign Bills-Discounted	23382	22987	21993	22632	22977	22592	21648	22268

Note: Data in column Nos. (4) & (8) are Provisional
Data include the impact of merger of a non-bank with a bank w.e.f. July 1, 2023.

No. 15: Deployment of Gross Bank Credit by Major Sectors

(₹ Crore)

(₹ Crore)

Sector	Outstanding as on				Growth(%)	
	Mar. 21, 2025	2024	2025		Financial year so far	Y-o-Y
		Sep. 20	Aug. 22	Sep. 19	2025-26	2025
	1	2	3	4	%	%
I. Bank Credit (II + III)	**18243972**	**17125052**	**18644997**	**18902934**	**3.6**	**10.4**
II. Food Credit	**36531**	**19926**	**50456**	**45284**	**24.0**	**127.3**
III. Non-food Credit	**18207441**	**17105126**	**18594541**	**18857649**	**3.6**	**10.2**
1. Agriculture & Allied Activities	**2287061**	**2167287**	**2324719**	**2361593**	**3.3**	**9.0**
2. Industry (Micro and Small, Medium and Large)	**3935857**	**3801604**	**4002072**	**4080522**	**3.7**	**7.3**
2.1 Micro and Small	790430	750825	898780	916188	15.9	22.0
2.2 Medium	360475	334412	367293	382327	6.1	14.3
2.3 Large	2784953	2716366	2735998	2782006	-0.1	2.4
3. Services	**5161542**	**4736957**	**5137774**	**5219318**	**1.1**	**10.2**
3.1 Transport Operators	258409	245008	266868	267295	3.4	9.1
3.2 Computer Software	32915	29760	37829	37978	15.4	27.6
3.3 Tourism, Hotels & Restaurants	83091	78753	85840	87990	5.9	11.7
3.4 Shipping	7305	7166	8923	9585	31.2	33.8
3.5 Aviation	46026	44458	45857	46286	0.6	4.1
3.6 Professional Services	195956	177730	197147	195596	-0.2	10.1
3.7 Trade	1187030	1072493	1183548	1198879	1.0	11.8
3.7.1. Wholesale Trade[1]	648619	567242	635841	640595	-1.2	12.9
3.7.2 Retail Trade	538410	505251	547706	558284	3.7	10.5
3.8 Commercial Real Estate	532757	497333	560651	574656	7.9	15.5
3.9 Non-Banking Financial Companies (NBFCs)[2] of which,	1635737	1529006	1574362	1589195	-2.8	3.9
3.9.1 Housing Finance Companies (HFCs)	323146	324354	318570	324965	0.6	0.2
3.9.2 Public Financial Institutions (PFIs)	228678	203257	199719	205393	-10.2	1.1
3.10 Other Services[3]	1182316	1055250	1176749	1211859	2.5	14.8
4. Personal Loans	**5953521**	**5596719**	**6213373**	**6254274**	**5.1**	**11.7**
4.1 Consumer Durables	23402	23764	22921	22279	-4.8	-6.2
4.2 Housing	3010477	2845505	3108791	3132868	4.1	10.1
4.3 Advances against Fixed Deposits	141101	125694	142074	143143	1.4	13.9
4.4 Advances to Individuals against share & bonds	10080	9546	9807	9835	-2.4	3.0
4.5 Credit Card Outstanding	284366	271813	288691	281823	-0.9	3.7
4.6 Education	137456	129116	144539	147176	7.1	14.0
4.7 Vehicle Loans	622794	602367	647829	646242	3.8	7.3
4.8 Loan against gold jewellery[4]	208735	147081	305814	316042	51.4	114.9
4.9 Other Personal Loans	1515112	1441833	1542907	1554867	2.6	7.8
5. Priority Sector (Memo)						
(i) Agriculture & Allied Activities[5]	2287794	2164159	2310308	2327797	1.7	7.6
(ii) Micro & Small Enterprises[6]	2239409	2057867	2510253	2520120	12.5	22.5
(iii) Medium Enterprises[7]	601451	543388	604659	627019	4.3	15.4
(iv) Housing	746651	750223	945763	974644	30.5	29.9
(v) Education Loans	62825	62389	70067	70834	12.7	13.5
(vi) Renewable Energy	10325	6778	13235	14842	43.7	119.0
(vii) Social Infrastructure	1316	1124	936	939	-28.6	-16.4
(viii) Export Credit	12479	11410	12529	11755	-5.8	3.0
(ix) Others	49552	58561	44088	43466	-12.3	-25.8
(x) Weaker Sections including net PSLC- SF/MF	1820904	1711473	1861780	1873464	2.9	9.5

Notes:

(1) Data are provisional. Bank credit, Food credit and Non-food credit data are based on Section-42 return, which covers all scheduled commercial banks (SCBs), while sectoral non-food credit data are based on sector-wise and industry-wise bank credit (SIBC) return, which covers select banks accounting for about 95 per cent of total non-food credit extended by all SCBs, pertaining to the last reporting Friday of the month.

(2) Data since July 28, 2023 include the impact of the merger of a non-bank with a bank.

1 Wholesale trade includes food procurement credit outside the food credit consortium.

2 NBFCs include HFCs, PFIs, Microfinance Institutions (MFIs), NBFCs engaged in gold loan and others.

3 "Other Services" include Mutual Fund (MFs), Banking and Finance other than NBFCs and MFs, and other services which are not indicated elsewhere under services.

4 Since May 2024, a bank has changed the classification of a category of agricultural loan into "Loans against gold jewellery" under retail segment.

5 "Agriculture and Allied Activities" under the priority sector also include priority sector lending certificates (PSLCs).

6 "Micro and Small Enterprises" under the priority sector include credit to micro and small enterprises in industry and services sectors and also include PSLCs.

7 "Medium Enterprises" under the priority sector include credit to medium enterprises in industry and services sectors.

No. 16: Industry-wise Deployment of Gross Bank Credit

(₹ Crore)

Industry	Outstanding as on				Growth(%)	
	Mar. 21, 2025	2024	2025		Financial year so far	Y-o-Y
		Sep. 20	Aug. 22	Sep. 19	2025-26	2025
	1	2	3	4	%	%
2 Industries (2.1 to 2.19)	3935857	3801604	4002072	4080522	3.7	7.3
2.1 Mining & Quarrying (incl. Coal)	56756	52560	56740	59321	4.5	12.9
2.2 Food Processing	219527	192363	211735	207240	-5.6	7.7
2.2.1 Sugar	28522	18789	18470	16861	-40.9	-10.3
2.2.2 Edible Oils & Vanaspati	20927	17113	20565	19696	-5.9	15.1
2.2.3 Tea	5084	6157	4994	5110	0.5	-17.0
2.2.4 Others	164994	150304	167706	165573	0.4	10.2
2.3 Beverage & Tobacco	35513	31690	36413	38047	7.1	20.1
2.4 Textiles	277267	256793	272419	275090	-0.8	7.1
2.4.1 Cotton Textiles	107227	93859	97159	97213	-9.3	3.6
2.4.2 Jute Textiles	4288	4155	4526	4708	9.8	13.3
2.4.3 Man-Made Textiles	49091	46812	48690	49552	0.9	5.9
2.4.4 Other Textiles	116661	111967	122044	123617	6.0	10.4
2.5 Leather & Leather Products	12980	12788	13340	13441	3.6	5.1
2.6 Wood & Wood Products	27826	25229	28071	28366	1.9	12.4
2.7 Paper & Paper Products	52848	49765	53843	54707	3.5	9.9
2.8 Petroleum, Coal Products & Nuclear Fuels	154178	169289	172075	185288	20.2	9.5
2.9 Chemicals & Chemical Products	267814	263369	274397	285196	6.5	8.3
2.9.1 Fertiliser	32011	32556	28943	31450	-1.8	-3.4
2.9.2 Drugs & Pharmaceuticals	88738	86061	89048	91519	3.1	6.3
2.9.3 Petro Chemicals	26892	30677	31166	32713	21.6	6.6
2.9.4 Others	120172	114075	125241	129514	7.8	13.5
2.10 Rubber, Plastic & their Products	103464	94633	104220	105424	1.9	11.4
2.11 Glass & Glassware	13443	12447	13098	13782	2.5	10.7
2.12 Cement & Cement Products	59752	59806	61279	60968	2.0	1.9
2.13 Basic Metal & Metal Product	433502	422794	450518	461069	6.4	9.1
2.13.1 Iron & Steel	300156	300521	305116	312584	4.1	4.0
2.13.2 Other Metal & Metal Product	133345	122273	145402	148485	11.4	21.4
2.14 All Engineering	240135	218183	258626	267361	11.3	22.5
2.14.1 Electronics	52862	50514	60975	63242	19.6	25.2
2.14.2 Others	187272	167669	197652	204118	9.0	21.7
2.15 Vehicles, Vehicle Parts & Transport Equipment	119057	114310	121798	129139	8.5	13.0
2.16 Gems & Jewellery	85734	91172	94068	100358	17.1	10.1
2.17 Construction	150701	141905	148352	147751	-2.0	4.1
2.18 Infrastructure	1322831	1299854	1334182	1348574	1.9	3.7
2.18.1 Power	682953	641606	707502	718461	5.2	12.0
2.18.2 Telecommunications	118940	124047	110144	106046	-10.8	-14.5
2.18.3 Roads	311219	325928	316926	319398	2.6	-2.0
2.18.4 Airports	9156	8428	7693	7761	-15.2	-7.9
2.18.5 Ports	5916	6702	5450	7847	32.6	17.1
2.18.6 Railways	13595	11940	11521	10131	-25.5	-15.2
2.18.7 Other Infrastructure	181052	181203	174944	178931	-1.2	-1.3
2.19 Other Industries	302530	292655	296896	299400	-1.0	2.3

Note: (1) Data since July 28, 2023 include the impact of the merger of a non-bank with a bank.

No. 17: State Co-operative Banks Maintaining Accounts with the Reserve Bank of India

(₹ Crore)

Item	As on Reporting Day								
	2024-25	2024	2025						
		Aug. 30	Jun. 13	Jun. 27	Jul. 11	Jul. 25	Aug. 08	Aug. 22	Aug. 29
	1	2	3	4	5	6	7	8	9
Number of Reporting Banks	34	34	34	34	34	34	34	34	34
1 Aggregate Deposits (2.1.1.2+2.2.1.2)	**146871.0**	**133771.9**	**147828.9**	**147839.5**	**147662.0**	**146816.8**	**149137.5**	**146904.8**	**146892.1**
2 Demand and Time Liabilities									
2.1 Demand Liabilities	**29215.6**	**27177.9**	**26529.6**	**26248.7**	**27486.4**	**26588.4**	**26595.4**	**26751.4**	**27698.5**
2.1.1 Deposits									
2.1.1.1 Inter-Bank	9022.9	7554.0	7289.6	6767.4	7387.6	7217.4	7296.8	7221.0	7278.0
2.1.1.2 Others	14063.9	13721.9	13791.0	13170.9	13463.0	13008.8	13510.1	13379.0	13202.4
2.1.2 Borrowings from Banks	700.0		721.2	1543.3	964.6	760.2	54.0	271.4	829.1
2.1.3 Other Demand Liabilities	5428.9	5902.0	4727.8	4767.0	5671.2	5602.1	5734.4	5880.1	6389.0
2.2 Time Liabilities	**201100.7**	**181698.8**	**199176.8**	**199275.4**	**198798.4**	**198088.7**	**199385.4**	**199285.7**	**197195.3**
2.2.1 Deposits									
2.2.1.1 Inter-Bank	66874.3	59084.4	63644.4	63111.1	63174.8	62813.5	62249.7	62174.4	62001.7
2.2.1.2 Others	132807.1	120050.0	134037.9	134668.6	134199.0	133808.0	135627.4	133525.8	133689.6
2.2.2 Borrowings from Banks	643.9	1235.0	615.5	615.5	614.7	614.7	614.7	2738.9	611.7
2.2.3 Other Time Liabilities	775.4	1329.4	878.9	880.3	809.9	852.5	893.6	846.5	892.2
3 Borrowing from Reserve Bank	699.5		499.8	499.8	729.7	944.5	1153.0	1143.0	1144.5
4 Borrowings from a notified bank / Government	126928.5	84199.0	113368.7	113728.9	114754.7	114530.1	113046.3	114575.4	112260.4
4.1 Demand	53459.8	23957.2	48429.0	48853.6	51115.0	50687.4	50570.5	51208.4	49982.9
4.2 Time	73468.7	60241.8	64939.6	64875.3	63639.7	63842.7	62475.8	63367.0	62277.5
5 Cash in Hand and Balances with Reserve Bank	**13390.9**	**11195.1**	**14110.1**	**23560.3**	**12644.7**	**12394.2**	**11984.9**	**11467.2**	**11065.3**
5.1 Cash in Hand	1052.1	699.1	824.3	774.2	926.3	807.2	833.6	747.0	437.3
5.2 Balance with Reserve Bank	12338.8	10496.0	13285.8	22786.0	11718.4	11587.0	11151.3	10720.1	10628.0
6 Balances with Other Banks in Current Account	**1656.3**	**1607.4**	**1230.4**	**1132.7**	**1244.0**	**1180.3**	**1048.6**	**908.6**	**981.1**
7 Investments in Government Securities	**77220.1**	**75232.9**	**80061.3**	**80872.4**	**83406.4**	**83374.4**	**84320.6**	**85538.8**	**86245.8**
8 Money at Call and Short Notice	**26531.1**	**14673.7**	**18248.3**	**19854.6**	**23005.0**	**20692.8**	**21553.9**	**21350.7**	**20842.1**
9 Bank Credit (10.1+11)	**174828.8**	**136830.6**	**173173.8**	**171391.3**	**170564.4**	**170198.2**	**170459.0**	**171092.8**	**170084.7**
10 Advances									
10.1 Loans, Cash-Credits and Overdrafts	**174590.4**	**136641.1**	**172882.6**	**171119.8**	**170281.6**	**169936.2**	**170193.2**	**170854.0**	**169841.2**
10.2 Due from Banks	124607.6	137902.0	116476.4	117780.4	116845.5	116943.7	116598.0	116930.7	118007.5
11 Bills Purchased and Discounted	238.4	189.5	291.2	271.5	282.8	261.9	265.8	238.8	243.5

No. 18 (a): Flow of Financial Resources to Commercial Sector in India

(₹ Crore)

Source		April-March		Up to October 31	
		2023-24	2024-25	2024-25	2025-26 P
1		2	3	4	5
1 Non-Food Bank Credit		**21,40,243**	**17,98,321**	**9,80,394**	**11,12,687**
2 Non-Bank Sources (2.1+2.2)		**12,63,721**	**17,10,459**	**6,43,105**	**8,95,813**
2.1 Domestic Sources		**10,20,302**	**13,85,609**	**5,04,612**	**6,70,531**
2.1.1	Equity Issuances by Non-Financial Entities	1,35,008	3,81,161	1,80,049	1,46,487
2.1.2	Corporate Bond Issuances by Non-Financial Entities	1,67,374	1,97,795	39,201	2,25,144
2.1.3	Hybrid Instruments (REITs/ InvITs) by Non-Financial Entities	39,024	31,442	9,917	6,850
2.1.4	Commercial Paper Issuances by Non-Financial Entities	19,712	18,819	79,185	78,219
2.1.5	Credit by Housing Finance Companies (Net of Bank Borrowings)	1,41,816	1,34,852	-48,506	-9,618
2.1.6	Credit by RBI-regulated All India Financial Institutions	73,386	99,501	4,617	-28,888
2.1.7	Credit by Non-Banking Financial Companies (Net of Bank Borrowings)	4,43,982	5,22,037	2,40,150	2,52,338
2.2 Foreign Sources		**2,43,419**	**3,24,850**	**1,38,493**	**2,25,282**
2.2.1	External Commercial Borrowings by Non-Financial Entities	27,916	19,201	-792	25,475
2.2.2	ADR/GDR by Non-Financial Entities	0	0	0	0
2.2.3	Short-term Credit from Abroad	-6,741	58,860	18,583	6,147
2.2.4	Foreign Direct Investment to India	2,22,244	2,46,788	1,20,702	1,93,660
3 Total Flow of Resources (1+2)		**34,03,964**	**35,08,780**	**16,23,499**	**20,08,500**

P: Provisional.

The coverage of data for columns 4 and 5 from Sources No.:

2.1.1, 2.1.2, 2.1.3, 2.1.5, 2.1.6, 2.1.7, 2.2.1 and 2.2.2: Up to September.

2.2.3: Up to June.

2.2.4: Up to August.

Notes: i. Non-food bank credit pertains to scheduled commercial banks (SCBs) and excludes credit extended by co-operative banks.

ii. Credit extended by banks, NBFCs and HFCs is inclusive of personal loans.

iii. Data on all items are presented on net basis, except equity and hybrid instruments which are on gross basis.

iv. All India Financial Institutions (AIFIs) include National Bank for Agriculture and Rural Development (NABARD), National Housing Bank (NHB), Small Industries Development Bank of India (SIDBI), Export-Import Bank of India (EXIM Bank), and National Bank for Financing Infrastructure and Development (NaBFID). Credit extended by AIFIs excludes refinancing to SCBs, NBFCs, and HFCs, and direct loans to domestic and foreign governments/institutions.

v. Data pertaining to HDFC Limited, which merged with HDFC Bank effective from July 1, 2023, is included under credit by Housing Finance Companies prior to its merger while it is included under bank credit post-merger.

vi. Data on credit by Housing Finance Companies (HFCs) and Non-Banking Financial Companies (NBFCs) has been adjusted for the conversion of some HFCs into NBFCs.

Sources: RBI; SEBI; AIFIs; and RBI staff estimates.

No. 18 (b): Outstanding Credit to Commercial Sector in India

Source		(₹ crore)						Y-o-Y Growth (Per cent)			
		At End-March			As on October 31			At End-March		As on October 31	
		2023	2024	2025	2023	2024	2025 P	2024 over 2023	2025 over 2024	2024 over 2023	2025 over 2024 P
1		2	3	4	5	6	7	8	9	10	11
1 Non-Food Bank Credit		**1,36,55,330**	**1,64,09,083**	**1,82,07,441**	**1,55,61,722**	**1,73,89,477**	**1,93,20,128**	**20.2**	**11.0**	**11.7**	**11.1**
2 Non-Bank Sources (2.1+2.2)		**74,43,091**	**77,56,314**	**88,85,434**	**72,07,315**	**81,00,470**	**94,90,483**	**4.2**	**14.6**	**12.4**	**17.2**
2.1 Domestic Sources		**53,95,038**	**56,59,037**	**66,37,411**	**51,58,529**	**59,73,684**	**71,54,605**	**4.9**	**17.3**	**15.8**	**19.8**
2.1.1	Corporate Bond Issuances by Non-Financial Entities	16,58,140	18,25,514	20,23,310	16,55,194	18,64,715	22,48,453	10.1	10.8	12.7	20.6
2.1.2	Commercial Paper Issuances by Non-Financial Entities	89,816	1,09,528	1,28,347	1,19,756	1,88,712	2,06,566	21.9	17.2	57.6	9.5
2.1.3	Credit by Housing Finance Companies (Net of Bank Borrowings)	10,39,420	5,98,965	6,27,125	5,69,598	5,50,459	6,17,507	-42.4	4.7	-3.4	12.2
2.1.4	Credit by RBI-regulated All India Financial Institutions	3,51,224	4,24,610	5,24,111	3,21,587	4,29,227	4,95,223	20.9	23.4	33.5	15.4
2.1.5	Credit by Non-Banking Financial Companies (Net of Bank Borrowings)	22,56,439	27,00,421	33,34,518	24,92,394	29,40,571	35,86,856	19.7	23.5	18.0	22.0
2.2 Foreign Sources		**20,48,053**	**20,97,277**	**22,48,023**	**20,48,786**	**21,26,786**	**23,35,877**	**2.4**	**7.2**	**3.8**	**9.8**
2.2.1	External Commercial Borrowings by Non-Financial Entities	10,29,403	10,71,240	11,33,592	10,73,224	10,81,180	12,15,787	4.1	5.8	0.7	12.4
2.2.2	Short-term Credit from Abroad	10,18,650	10,26,037	11,14,432	9,75,562	10,45,606	11,20,090	0.7	8.6	7.2	7.1
3 Total Credit (1+2)		**2,10,98,421**	**2,41,65,397**	**2,70,92,875**	**2,27,69,037**	**2,54,89,947**	**2,88,10,611**	**14.5**	**12.1**	**12.0**	**13.0**

P: Provisional.

The coverage of data for columns 5, 6 and 7 from Sources No.:

2.1.1, 2.1.3, 2.1.4, 2.1.5 and 2.2.1: As at end-September.

2.2.2: As at end-June.

Notes: i. Non-food bank credit pertains to scheduled commercial banks (SCBs) and excludes credit extended by co-operative banks. Including credit extended by cooperative banks (*viz.*, urban co-operative banks, state co-operative banks, and district central co-operative banks), non-food bank credit at end-March 2023 and 2024 stood at ₹1,46,22,252 crore and ₹1,74,63,724 crore, respectively. Accordingly, total outstanding credit at end-March 2023 and 2024 stood at ₹2,20,65,343 crore and ₹2,52,20,038 crore, respectively.

ii. Data on non-bank sources excludes issuances of equities and hybrid instruments under domestic sources and foreign direct investment in equities under foreign sources.

iii. In case of corporate bonds, the outstanding data for end-March 2024 and 2025 are based on SEBI's new series of data on bonds issued by financial and non-financial corporations. The outstanding data for end-March 2023 is worked out by adjusting the flow of 2023-24 from outstanding data for end-March 2024.

iv. Flows based on outstanding data may not tally with the flows provided in Table 18 (a) due to:
a) Merger of HDFC Limited with HDFC Bank on July 1, 2023;
b) Conversion of some Housing Finance Companies into Non-Banking Financial Companies; and
c) Valuation effect in case of foreign sources.

v. Data is exclusive of current and non-current trade payables representing domestic liabilities in case of non-financial non-government public and private limited companies as data are not available.

Sources: RBI; SEBI; AIFIs; and RBI staff estimates.

Prices and Production

No. 19: Consumer Price Index (Base: 2012=100)

Group/Sub group	2024-25			Rural			Urban			Combined		
	Rural	Urban	Combined	Oct.24	Sep.25	Oct.25 (P)	Oct.24	Sep.25	Oct.25 (P)	Oct.24	Sep.25	Oct.25 (P)
	1	2	3	4	5	6	7	8	9	10	11	12
1 Food and beverages	**198.6**	**205.3**	**201.1**	**206.7**	**199.2**	**198.8**	**214.1**	**206.8**	**206.4**	**209.4**	**202.0**	**201.6**
1.1 Cereals and products	195.0	193.7	194.6	196.3	197.6	197.2	194.1	198.1	197.9	195.6	197.8	197.4
1.2 Meat and fish	222.3	231.9	225.7	221.6	223.9	224.3	230.5	236.1	236.5	224.7	228.2	228.6
1.3 Egg	192.8	197.5	194.6	194.1	195.6	196.6	199.0	200.4	201.8	196.0	197.5	198.6
1.4 Milk and products	186.3	187.0	186.6	186.9	191.0	190.8	187.9	192.9	193.3	187.3	191.7	191.7
1.5 Oils and fats	175.4	165.5	171.8	181.0	203.4	202.4	168.2	185.3	185.0	176.3	196.8	196.0
1.6 Fruits	188.3	194.2	191.0	192.5	209.4	208.4	196.1	211.0	205.9	194.2	210.1	207.2
1.7 Vegetables	222.1	269.6	238.2	270.5	197.3	196.7	333.9	240.9	240.2	292.0	212.1	211.5
1.8 Pulses and products	208.0	213.5	209.8	215.0	181.6	180.4	220.1	185.4	184.3	216.7	182.9	181.7
1.9 Sugar and confectionery	130.4	132.6	131.2	131.3	136.3	136.8	133.0	137.8	138.0	131.9	136.8	137.2
1.10 Spices	228.5	223.9	227.0	229.7	221.9	221.3	225.0	219.3	219.3	228.1	221.0	220.6
1.11 Non-alcoholic beverages	185.2	173.9	180.5	185.4	191.7	191.2	174.0	180.8	180.9	180.6	187.1	186.9
1.12 Prepared meals, snacks, sweets	199.4	209.7	204.2	199.6	206.8	207.2	210.2	218.4	218.8	204.5	212.2	212.6
2 Pan, tobacco and intoxicants	**207.3**	**212.6**	**208.7**	**207.4**	**212.7**	**213.5**	**213.5**	**218.7**	**219.3**	**209.0**	**214.3**	**215.0**
3 Clothing and footwear	**197.9**	**186.7**	**193.5**	**198.3**	**201.8**	**201.4**	**187.1**	**191.3**	**190.8**	**193.9**	**197.6**	**197.2**
3.1 Clothing	198.8	188.8	194.9	199.2	202.8	202.6	189.2	193.7	193.5	195.3	199.2	199.0
3.2 Footwear	192.7	174.7	185.2	192.9	195.6	194.0	175.2	178.1	175.7	185.5	188.3	186.4
4 Housing	--	**181.5**	**181.5**	--	--	--	**182.7**	**186.4**	**188.1**	**182.7**	**186.4**	**188.1**
5 Fuel and light	**181.2**	**169.7**	**176.9**	**181.1**	**184.2**	**183.8**	**169.7**	**174.3**	**174.5**	**176.8**	**180.4**	**180.3**
6 Miscellaneous	**189.3**	**180.7**	**185.1**	**189.9**	**199.7**	**201.4**	**181.5**	**189.8**	**191.0**	**185.8**	**194.9**	**196.4**
6.1 Household goods and services	185.7	177.1	181.6	185.8	188.9	189.0	177.4	181.9	182.4	181.8	185.6	185.9
6.2 Health	198.4	193.2	196.4	198.6	206.7	206.3	193.6	201.1	200.9	196.7	204.6	204.3
6.3 Transport and communication	175.5	164.8	169.9	176.4	179.6	178.2	165.5	168.2	166.9	170.7	173.6	172.3
6.4 Recreation and amusement	180.1	175.5	177.5	180.4	183.4	182.9	176.0	179.0	178.7	177.9	180.9	180.5
6.5 Education	190.8	186.2	188.1	191.8	197.5	197.6	187.6	194.3	194.7	189.3	195.6	195.9
6.6 Personal care and effects	204.3	206.2	205.1	205.1	240.8	254.9	207.3	242.3	255.7	206.0	241.4	255.2
General Index (All Groups)	**194.9**	**190.0**	**192.6**	**199.5**	**198.8**	**199.0**	**193.7**	**194.9**	**195.4**	**196.8**	**197.0**	**197.3**

Source: National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India.
P: Provisional

No. 20: Other Consumer Price Indices

Item	Base Year	Linking Factor	2024-25	2024	2025	
				Sep.	Aug.	Sep.
	1	2	3	4	5	6
1 Consumer Price Index for Industrial Workers	2016	2.88	142.6	143.3	147.1	147.3
2 Consumer Price Index for Agricultural Labourers	2019	9.69	-	136.3	136.3	136.2
3 Consumer Price Index for Rural Labourers	2019	9.78	-	136.0	136.6	136.4

Source: Labour Bureau, Ministry of Labour and Employment, Government of India.
CPI-AL and RL indices for 2024 (Base Year 2019) are calculated using the published inflation rates.

No. 21: Monthly Average Price of Gold and Silver in Mumbai

Item	2024-25	2024	2025	
		Sep.	Aug.	Sep.
	1	2	3	4
1 Standard Gold (₹ per 10 grams)	75842	72878	99696	109591
2 Silver (₹ per kilogram)	89131	86187	114032	129257

Source: India Bullion & Jewellers Association Ltd., Mumbai for Gold and Silver prices in Mumbai.

No. 22: Wholesale Price Index

(Base: 2011-12 = 100)

Commodities	Weight	2024-25	2024	2025		
			Oct.	Aug.	Sep.(P)	Oct.(P)
	1	2	3	4	5	6
1 ALL COMMODITIES	**100.000**	**154.9**	**156.7**	**155.2**	**154.9**	**154.8**
1.1 PRIMARY ARTICLES	**22.618**	**192.5**	**200.6**	**191.0**	**189.0**	**188.2**
1.1.1 FOOD ARTICLES	**15.256**	**205.3**	**217.9**	**202.5**	**199.8**	**199.8**
1.1.1.1 Food Grains (Cereals+Pulses)	3.462	210.1	213.4	205.1	204.4	204.4
1.1.1.2 Fruits & Vegetables	3.475	241.4	291.6	231.1	219.2	216.7
1.1.1.3 Milk	4.440	185.8	185.6	190.7	190.8	191.2
1.1.1.4 Eggs, Meat & Fish	2.402	173.4	171.0	173.2	174.8	174.0
1.1.1.5 Condiments & Spices	0.529	232.7	243.5	199.6	202.1	206.2
1.1.1.6 Other Food Articles	0.948	213.6	219.3	218.6	216.9	223.0
1.1.2 NON-FOOD ARTICLES	**4.119**	**161.7**	**161.9**	**169.1**	**167.3**	**164.4**
1.1.2.1 Fibres	0.839	161.4	160.9	167.6	168.1	168.0
1.1.2.2 Oil Seeds	1.115	181.5	185.4	203.6	202.1	196.8
1.1.2.3 Other non-food Articles	1.960	138.7	140.1	139.7	139.1	139.5
1.1.2.4 Floriculture	0.204	277.4	247.3	269.4	244.5	212.1
1.1.3 MINERALS	**0.833**	**229.0**	**229.6**	**238.3**	**238.3**	**242.4**
1.1.3.1 Metallic Minerals	0.648	219.2	219.4	230.8	230.8	235.8
1.1.3.2 Other Minerals	0.185	263.4	265.3	264.3	264.4	265.7
1.1.4 CRUDE PETROLEUM & NATURAL GAS	**2.410**	**151.3**	**147.3**	**139.7**	**140.6**	**136.2**
1.2 FUEL & POWER	**13.152**	**150.0**	**148.8**	**143.5**	**143.4**	**145.0**
1.2.1 COAL	**2.138**	**135.6**	**135.5**	**136.1**	**136.1**	**136.1**
1.2.1.1 Coking Coal	0.647	143.4	143.4	146.4	146.4	146.4
1.2.1.2 Non-Coking Coal	1.401	125.8	125.8	126.6	126.6	126.6
1.2.1.3 Lignite	0.090	232.4	229.5	208.1	208.5	209.0
1.2.2 MINERAL OILS	**7.950**	**156.2**	**153.0**	**149.5**	**148.7**	**149.7**
1.2.3 ELECTRICITY	**3.064**	**144.1**	**147.4**	**133.3**	**134.9**	**138.8**
1.3 MANUFACTURED PRODUCTS	**64.231**	**142.6**	**142.9**	**145.0**	**145.2**	**145.1**
1.3.1 MANUFACTURE OF FOOD PRODUCTS	**9.122**	**172.0**	**175.9**	**178.6**	**178.8**	**179.0**
1.3.1.1 Processing and Preserving of meat	0.134	155.7	154.5	157.9	157.9	158.7
1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof	0.204	144.9	149.2	146.7	150.0	151.4
1.3.1.3 Processing and Preserving of fruit and Vegetables	0.138	132.6	132.9	135.4	135.1	135.5
1.3.1.4 Vegetable and Animal oils and Fats	2.643	168.5	178.2	185.2	186.4	186.8
1.3.1.5 Dairy products	1.165	180.8	181.6	184.5	184.7	185.9
1.3.1.6 Grain mill products	2.010	186.9	188.0	187.0	186.3	185.5
1.3.1.7 Starches and Starch products	0.110	167.0	172.4	151.2	150.8	149.6
1.3.1.8 Bakery products	0.215	170.5	170.0	177.2	176.8	177.2
1.3.1.9 Sugar, Molasses & honey	1.163	139.1	139.0	144.3	143.9	144.4
1.3.1.10 Cocoa, Chocolate and Sugar confectionery	0.175	160.6	160.5	176.9	177.0	174.4
1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products	0.026	156.7	155.7	160.1	160.5	161.2
1.3.1.12 Tea & Coffee products	0.371	190.7	197.7	192.6	189.5	189.9
1.3.1.13 Processed condiments & salt	0.163	192.6	191.5	190.1	190.4	188.7
1.3.1.14 Processed ready to eat food	0.024	152.7	152.8	157.7	155.0	156.4
1.3.1.15 Health supplements	0.225	185.1	189.4	187.3	190.7	192.4
1.3.1.16 Prepared animal feeds	0.356	204.1	210.2	205.3	204.2	205.3
1.3.2 MANUFACTURE OF BEVERAGES	**0.909**	**134.1**	**134.5**	**135.6**	**135.7**	**135.9**
1.3.2.1 Wines & spirits	0.408	136.0	136.5	138.8	138.9	139.4
1.3.2.2 Malt liquors and Malt	0.225	138.7	138.7	140.4	140.4	140.7
1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters	0.275	127.5	128.1	126.7	127.2	126.6
1.3.3 MANUFACTURE OF TOBACCO PRODUCTS	**0.514**	**177.8**	**176.0**	**181.7**	**181.1**	**181.6**
1.3.3.1 Tobacco products	0.514	177.8	176.0	181.7	181.1	181.6

No. 22: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2024-25	2024	2025		
			Oct.	Aug.	Sep.(P)	Oct.(P)
	1	2	3	4	5	6
1.3.4 MANUFACTURE OF TEXTILES	**4.881**	**136.3**	**135.9**	**137.7**	**138.1**	**138.5**
1.3.4.1 Preparation and Spinning of textile fibres	2.582	121.4	121.2	120.7	120.4	120.2
1.3.4.2 Weaving & Finishing of textiles	1.509	158.3	157.5	163.0	164.5	165.5
1.3.4.3 Knitted and Crocheted fabrics	0.193	124.0	125.5	126.7	126.7	127.9
1.3.4.4 Made-up textile articles, Except apparel	0.299	160.4	160.4	160.1	160.6	161.0
1.3.4.5 Cordage, Rope, Twine and Netting	0.098	142.7	142.2	158.9	161.1	164.3
1.3.4.6 Other textiles	0.201	134.9	134.6	133.1	133.8	134.4
1.3.5 MANUFACTURE OF WEARING APPAREL	**0.814**	**153.4**	**153.9**	**155.8**	**156.2**	**156.5**
1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel	0.593	150.9	151.0	154.0	154.1	154.8
1.3.5.2 Knitted and Crocheted apparel	0.221	160.1	161.8	160.4	161.9	161.0
1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS	**0.535**	**125.3**	**125.7**	**127.8**	**127.3**	**127.3**
1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur	0.142	106.1	106.5	110.2	109.4	108.7
1.3.6.2 Luggage, Handbags, Saddlery and Harness	0.075	142.5	144.1	142.3	142.2	142.9
1.3.6.3 Footwear	0.318	129.7	129.9	132.2	131.7	131.9
1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK	**0.772**	**149.2**	**148.7**	**149.5**	**150.0**	**151.1**
1.3.7.1 Saw milling and Planing of wood	0.124	141.1	142.0	141.0	142.1	143.3
1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards	0.493	148.6	147.6	148.3	149.0	150.3
1.3.7.3 Builder's carpentry and Joinery	0.036	215.3	216.2	215.3	215.3	215.4
1.3.7.4 Wooden containers	0.119	140.6	140.3	143.2	142.7	143.4
1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS	**1.113**	**139.2**	**139.8**	**139.9**	**140.3**	**140.3**
1.3.8.1 Pulp, Paper and Paperboard	0.493	144.6	144.5	143.8	144.6	145.0
1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard	0.314	147.3	149.3	150.7	150.2	149.9
1.3.8.3 Other articles of paper and Paperboard	0.306	122.4	122.4	122.6	123.4	122.7
1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA	**0.676**	**187.3**	**186.0**	**191.5**	**190.7**	**190.1**
1.3.9.1 Printing	0.676	187.3	186.0	191.5	190.7	190.1
1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS	**6.465**	**136.5**	**136.3**	**137.2**	**137.1**	**136.8**
1.3.10.1 Basic chemicals	1.433	138.6	137.6	141.1	141.2	141.2
1.3.10.2 Fertilizers and Nitrogen compounds	1.485	143.1	142.9	143.0	143.0	143.2
1.3.10.3 Plastic and Synthetic rubber in primary form	1.001	133.6	133.9	135.0	134.2	132.8
1.3.10.4 Pesticides and Other agrochemical products	0.454	128.8	129.3	131.9	132.4	132.1
1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics	0.491	139.5	139.8	138.0	137.5	137.9
1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations	0.612	139.7	139.5	142.8	142.5	142.1
1.3.10.7 Other chemical products	0.692	135.4	136.1	132.8	132.6	132.3
1.3.10.8 Man-made fibres	0.296	104.9	102.8	103.1	102.7	102.1
1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS	**1.993**	**144.3**	**143.5**	**145.6**	**145.8**	**146.2**
1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products	1.993	144.3	143.5	145.6	145.8	146.2
1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS	**2.299**	**129.0**	**129.6**	**129.2**	**129.0**	**128.9**
1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres	0.609	115.6	116.5	114.4	114.7	114.6
1.3.12.2 Other Rubber Products	0.272	112.1	113.4	113.9	113.1	112.6
1.3.12.3 Plastics products	1.418	138.1	138.2	138.5	138.1	138.2
1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS	**3.202**	**131.5**	**130.4**	**133.8**	**133.9**	**133.0**
1.3.13.1 Glass and Glass products	0.295	163.2	162.5	163.0	162.2	162.8
1.3.13.2 Refractory products	0.223	121.6	118.7	123.9	123.9	123.4
1.3.13.3 Clay Building Materials	0.121	124.4	126.0	133.4	134.8	133.9
1.3.13.4 Other Porcelain and Ceramic Products	0.222	124.6	124.1	125.6	125.6	126.1
1.3.13.5 Cement, Lime and Plaster	1.645	130.4	128.8	133.5	133.7	132.0

No. 22: Wholesale Price Index (Contd.)

(Base: 2011-12 = 100)

Commodities	Weight	2024-25	2024	2025		
			Oct.	Aug.	Sep.(P)	Oct.(P)
	1	2	3	4	5	6
1.3.13.6 Articles of Concrete, Cement and Plaster	0.292	139.2	138.7	140.4	140.1	139.9
1.3.13.7 Cutting, Shaping and Finishing of Stone	0.234	134.4	135.6	138.6	139.3	140.0
1.3.13.8 Other Non-Metallic Mineral Products	0.169	95.2	94.8	92.3	91.9	91.6
1.3.14 MANUFACTURE OF BASIC METALS	**9.646**	**139.7**	**139.3**	**137.6**	**137.4**	**137.1**
1.3.14.1 Inputs into steel making	1.411	133.6	134.0	131.5	131.8	131.6
1.3.14.2 Metallic Iron	0.653	141.8	142.6	128.3	127.5	126.4
1.3.14.3 Mild Steel - Semi Finished Steel	1.274	117.9	118.0	115.9	115.4	114.6
1.3.14.4 Mild Steel -Long Products	1.081	140.4	140.0	135.2	135.6	134.4
1.3.14.5 Mild Steel - Flat products	1.144	134.2	132.5	131.9	130.8	129.2
1.3.14.6 Alloy steel other than Stainless Steel- Shapes	0.067	135.4	134.6	129.2	128.3	126.3
1.3.14.7 Stainless Steel - Semi Finished	0.924	131.1	128.3	123.9	122.4	118.4
1.3.14.8 Pipes & tubes	0.205	164.7	162.8	161.4	161.8	162.1
1.3.14.9 Non-ferrous metals incl. precious metals	1.693	157.4	157.6	164.1	164.5	167.7
1.3.14.10 Castings	0.925	144.9	144.8	143.6	143.5	143.7
1.3.14.11 Forgings of steel	0.271	172.2	172.7	174.3	175.9	173.7
1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT	**3.155**	**136.0**	**135.0**	**137.0**	**136.9**	**137.0**
1.3.15.1 Structural Metal Products	1.031	130.8	129.8	131.8	131.8	130.7
1.3.15.2 Tanks, Reservoirs and Containers of Metal	0.660	149.5	147.1	150.6	149.2	152.6
1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers	0.145	109.8	112.5	113.2	113.3	113.8
1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	0.383	138.0	138.3	135.0	133.8	131.6
1.3.15.5 Cutlery, Hand Tools and General Hardware	0.208	102.0	102.0	105.5	104.8	104.2
1.3.15.6 Other Fabricated Metal Products	0.728	144.9	143.7	146.9	148.6	148.6
1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS	**2.009**	**121.5**	**121.5**	**122.3**	**122.1**	**122.5**
1.3.16.1 Electronic Components	0.402	117.9	117.1	120.7	120.9	120.8
1.3.16.2 Computers and Peripheral Equipment	0.336	134.2	135.3	130.4	129.7	129.7
1.3.16.3 Communication Equipment	0.310	146.0	145.7	147.2	147.2	147.6
1.3.16.4 Consumer Electronics	0.641	101.1	100.5	100.4	99.4	100.6
1.3.16.5 Measuring, Testing, Navigating and Control equipment	0.181	119.9	120.9	126.6	126.6	126.8
1.3.16.6 Watches and Clocks	0.076	167.9	167.7	175.0	175.2	175.0
1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment	0.055	114.4	116.6	112.9	119.4	118.4
1.3.16.8 Optical instruments and Photographic equipment	0.008	107.4	106.8	117.5	117.5	117.9
1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT	**2.930**	**133.7**	**133.8**	**135.1**	**135.5**	**135.8**
1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus	1.298	132.3	131.9	133.2	133.7	133.5
1.3.17.2 Batteries and Accumulators	0.236	141.3	141.1	144.8	144.8	144.8
1.3.17.3 Fibre optic cables for data transmission or live transmission of images	0.133	118.6	120.6	116.0	116.2	117.3
1.3.17.4 Other electronic and Electric wires and Cables	0.428	154.4	155.6	160.0	160.4	162.5
1.3.17.5 Wiring devices, Electric lighting & display equipment	0.263	118.4	118.9	117.9	117.9	118.6
1.3.17.6 Domestic appliances	0.366	131.8	131.7	130.9	131.3	131.5
1.3.17.7 Other electrical equipment	0.206	123.4	123.8	125.6	126.9	126.0
1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT	**4.789**	**130.8**	**130.8**	**132.7**	**132.5**	**132.6**
1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines	0.638	132.8	133.9	136.9	137.3	138.2
1.3.18.2 Fluid power equipment	0.162	134.5	134.1	134.8	134.7	134.7
1.3.18.3 Other pumps, Compressors, Taps and Valves	0.552	118.5	118.4	120.5	120.6	120.7
1.3.18.4 Bearings, Gears, Gearing and Driving elements	0.340	128.5	127.0	130.3	130.1	131.0
1.3.18.5 Ovens, Furnaces and Furnace burners	0.008	86.6	86.3	86.6	86.6	87.5
1.3.18.6 Lifting and Handling equipment	0.285	130.0	129.6	130.7	130.7	131.0

No. 22: Wholesale Price Index (Concld.)

(Base: 2011-12 = 100)

Commodities	Weight	2024-25	2024	2025		
			Oct.	Aug.	Sep.(P)	Oct.(P)
	1	2	3	4	5	6
1.3.18.7 Office machinery and Equipment	0.006	130.2	130.2	130.2	130.2	130.2
1.3.18.8 Other general-purpose machinery	0.437	145.3	146.8	142.4	140.9	140.9
1.3.18.9 Agricultural and Forestry machinery	0.833	145.5	145.3	146.4	145.6	145.5
1.3.18.10 Metal-forming machinery and Machine tools	0.224	123.2	123.1	127.6	127.6	127.6
1.3.18.11 Machinery for mining, Quarrying and Construction	0.371	89.8	89.2	92.9	92.9	93.0
1.3.18.12 Machinery for food, Beverage and Tobacco processing	0.228	126.1	126.1	127.0	127.0	126.4
1.3.18.13 Machinery for textile, Apparel and Leather production	0.192	141.4	141.0	147.5	146.7	147.4
1.3.18.14 Other special-purpose machinery	0.468	144.9	144.3	147.8	147.9	147.6
1.3.18.15 Renewable electricity generating equipment	0.046	69.2	68.6	69.4	69.3	69.3
1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS	**4.969**	**129.9**	**129.5**	**130.7**	**130.6**	**130.4**
1.3.19.1 Motor vehicles	2.600	130.6	129.9	131.2	131.1	130.3
1.3.19.2 Parts and Accessories for motor vehicles	2.368	129.1	129.2	130.2	130.0	130.5
1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT	**1.648**	**145.2**	**145.1**	**151.7**	**152.1**	**152.1**
1.3.20.1 Building of ships and Floating structures	0.117	180.5	177.9	190.7	190.7	190.7
1.3.20.2 Railway locomotives and Rolling stock	0.110	108.9	108.1	111.0	110.3	110.7
1.3.20.3 Motor cycles	1.302	146.0	146.3	152.8	153.4	153.3
1.3.20.4 Bicycles and Invalid carriages	0.117	134.9	133.3	138.0	137.8	137.8
1.3.20.5 Other transport equipment	0.002	163.2	164.5	165.6	165.9	166.5
1.3.21 MANUFACTURE OF FURNITURE	**0.727**	**160.3**	**160.9**	**163.5**	**164.5**	**164.5**
1.3.21.1 Furniture	0.727	160.3	160.9	163.5	164.5	164.5
1.3.22 OTHER MANUFACTURING	**1.064**	**183.8**	**184.1**	**227.7**	**236.6**	**236.2**
1.3.22.1 Jewellery and Related articles	0.996	185.4	185.6	232.0	241.5	241.0
1.3.22.2 Musical instruments	0.001	201.9	199.7	203.5	198.3	205.4
1.3.22.3 Sports goods	0.012	164.9	168.0	172.4	172.7	172.7
1.3.22.4 Games and Toys	0.005	163.1	162.8	164.6	164.8	166.8
1.3.22.5 Medical and Dental instruments and Supplies	0.049	158.6	158.6	160.9	160.9	162.1
2 FOOD INDEX	**24.378**	**192.9**	**202.2**	**193.5**	**192.0**	**192.0**

Source: Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.

No. 23: Index of Industrial Production (Base:2011-12=100)

Industry	Weight	2023-24	2024-25	April-September		September	
				2024-25	2025-26	2024	2025
	1	2	3	4	5	6	7
General Index	100.00	146.7	152.6	149.4	153.9	146.9	152.8
1 Sectoral Classification							
1.1 Mining	14.37	128.9	132.8	122.9	120.6	111.7	111.2
1.2 Manufacturing	77.63	144.7	150.6	147.3	153.3	147.2	154.3
1.3 Electricity	7.99	198.3	208.6	217.3	219.5	206.9	213.3
2 Use-Based Classification							
2.1 Primary Goods	34.05	147.7	153.5	150.4	150.7	141.3	143.3
2.2 Capital Goods	8.22	106.6	112.6	108.3	116.4	116.5	122.0
2.3 Intermediate Goods	17.22	157.3	164.0	161.2	169.7	160.8	169.4
2.4 Infrastructure/ Construction Goods	12.34	176.3	188.2	182.6	198.6	178.8	197.6
2.5 Consumer Durables	12.84	118.6	128.0	127.7	133.9	132.9	146.5
2.6 Consumer Non-Durables	15.33	153.7	151.4	147.5	144.2	145.7	141.5

Source : Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India.

Government Accounts and Treasury Bills

No. 24: Union Government Accounts at a Glance

(₹ Crore)

Item	Financial Year	April – September			
	2025-26 (Budget Estimates)	2025-26 (Actuals)	2024-25 (Actuals)	Percentage to Budget Estimates	
				2025-26	2024-25
	1	2	3	4	5
1 Revenue Receipts	**3420409**	**1695446**	**1622373**	**49.6**	**51.8**
1.1 Tax Revenue (Net)	2837409	1229370	1265159	43.3	49.0
1.2 Non-Tax Revenue	583000	466076	357214	79.9	65.5
2 Non Debt Capital Receipt	**76000**	**34770**	**14601**	**45.8**	**18.7**
2.1 Recovery of Loans	29000	11353	11434	39.1	40.8
2.2 Other Receipts	47000	23417	3167	49.8	6.3
3 Total Receipts (excluding borrowings) (1+2)	**3496409**	**1730216**	**1636974**	**49.5**	**51.0**
4 Revenue Expenditure of which :	3944255	1722593	1696528	43.7	45.7
4.1 Interest Payments	1276338	578182	515010	45.3	44.3
5 Capital Expenditure	1121090	580746	414966	51.8	37.3
6 Total Expenditure (4+5)	**5065345**	**2303339**	**2111494**	**45.5**	**43.8**
7 Revenue Deficit (4-1)	**523846**	**27147**	**74155**	**5.2**	**12.8**
8 Fiscal Deficit (6-3)	**1568936**	**573123**	**474520**	**36.5**	**29.4**
9 Gross Primary Deficit (8-4.1)	**292598**	**-5059**	**-40490**	**-1.7**	**-9.0**

Source: Controller General of Accounts (CGA), Ministry of Finance, Government of India and Union Budget 2025-26.

No. 25: Treasury Bills – Ownership Pattern

(₹ Crore)

Item	2024-25	2024	2025					
		Sep. 27	Aug. 22	Aug. 29	Sep. 5	Sep. 12	Sep. 19	Sep. 26
	1	2	3	4	5	6	7	8
1 91-day								
1.1 Banks	26554	5662	10311	11578	13541	12239	11828	11815
1.2 Primary Dealers	25258	5698	12215	15291	14848	14424	16120	19755
1.3 State Governments	40315	69688	74688	73688	70688	76482	77082	73862
1.4 Others	115688	90440	111174	108331	107811	110236	110952	108330
2 182-day								
2.1 Banks	44887	44787	55520	53477	55827	56846	56680	54592
2.2 Primary Dealers	62218	30674	49746	48560	44242	41351	37969	41109
2.3 State Governments	11078	13909	19281	19330	20230	19080	17930	17780
2.4 Others	104994	78239	87634	84863	80830	76702	74252	67199
3 364-day								
3.1 Banks	72304	84526	76032	75805	73736	73051	72583	69483
3.2 Primary Dealers	86939	122233	78405	76472	75967	75101	72827	74274
3.3 State Governments	37389	28145	45548	46601	46503	46231	48041	48138
3.4 Others	162757	173241	149263	150423	152005	152548	160290	167943
4 14-day Intermediate								
4.1 Banks								
4.2 Primary Dealers								
4.3 State Governments	188072	167512	170177	155211	95736	134084	122747	121170
4.4 Others	572	449	871	673	358	558	491	1252
Total Treasury Bills (Excluding 14 day Intermediate T Bills) #	790381	747242	769817	764420	756230	754293	756554	754280

14D intermediate T-Bills are non-marketable unlike 91D, 182D and 364D T-Bills. These bills are 'intermediate' by nature as these are liquidated to replenish shortfall in the daily minimum cash balances of State Governments.
Note: Primary Dealers (PDs) include banks undertaking PD business.

No. 26: Auctions of Treasury Bills

(Amount in ₹ Crore)

Date of Auction	Notified Amount	Bids Received			Bids Accepted			Total Issue (6+7)	Cut-off Price (₹)	Implicit Yield at Cut-off Price (per cent)
		Number	Total Face Value		Number	Total Face Value				
			Competitive	Non-Competitive		Competitive	Non-Competitive			
	1	2	3	4	5	6	7	8	9	10
91-day Treasury Bills										
2025-26										
Aug. 28	10000	93	22227	2321	55	9979	2321	12300	98.65	5.5087
Sep. 3	10000	117	28502	1530	46	9970	1530	11500	98.65	5.5095
Sep. 10	10000	116	27611	13019	66	9975	13019	22994	98.65	5.5050
Sep. 17	10000	141	29663	7921	64	9979	7921	17900	98.65	5.4976
Sep. 24	10000	114	44390	8304	22	9976	8304	18280	98.65	5.4749
182-day Treasury Bills										
2025-26										
Aug. 28	6000	89	18583	1811	43	5989	1811	7800	97.28	5.6001
Sep. 3	6000	77	17401	2616	37	5984	2616	8600	97.27	5.6198
Sep. 10	6000	91	14244	1011	52	5989	1011	7000	97.28	5.6174
Sep. 17	6000	73	20776	12	23	5988	12	6000	97.28	5.6045
Sep. 24	6000	100	23707	16	9	5984	16	6000	97.29	5.5776
364-day Treasury Bills										
2025-26										
Aug. 28	5000	75	12673	2176	52	4989	2176	7165	94.68	5.6397
Sep. 3	5000	61	10115	1249	42	4977	1249	6226	94.65	5.6699
Sep. 10	5000	76	13660	1481	47	4980	1481	6462	94.65	5.6689
Sep. 17	5000	96	20901	1823	10	4988	1823	6811	94.68	5.6349
Sep. 24	5000	132	26174	1110	37	4987	1110	6096	94.70	5.6080

Financial Markets

No. 27: Daily Call Money Rates

(Per cent per annum)

As on	Range of Rates	Weighted Average Rates
	Borrowings/ Lendings	Borrowings/ Lendings
	1	2
September 01 ,2025	4.75-5.55	5.42
September 02 ,2025	4.75-5.50	5.39
September 03 ,2025	4.75-5.40	5.35
September 04 ,2025	4.75-5.50	5.37
September 05 ,2025	4.90-5.60	5.07
September 06 ,2025	4.75-5.00	4.99
September 09 ,2025	4.75-5.60	5.35
September 10 ,2025	4.75-5.40	5.34
September 11 ,2025	4.75-5.40	5.35
September 12 ,2025	4.75-5.50	5.43
September 15 ,2025	4.75-5.55	5.43
September 16 ,2025	4.75-5.50	5.43
September 17 ,2025	4.75-5.65	5.47
September 18 ,2025	4.75-5.65	5.55
September 19 ,2025	4.75-5.60	5.51
September 20 ,2025	4.75-5.50	5.36
September 22 ,2025	4.75-5.80	5.58
September 23 ,2025	4.75-5.70	5.59
September 24 ,2025	4.75-5.60	5.52
September 25 ,2025	4.75-5.75	5.58
September 26 ,2025	4.75-5.75	5.59
September 29 ,2025	4.75-5.95	5.53
September 30 ,2025	4.75-5.95	5.66
October 01 ,2025	4.75-5.45	5.37
October 03 ,2025	4.75-5.45	5.36
October 04 ,2025	4.75-5.24	5.02
October 06 ,2025	4.75-5.40	5.34
October 07 ,2025	4.85-5.40	5.35
October 08 ,2025	4.75-5.40	5.34
October 09 ,2025	4.75-6.00	5.51
October 10 ,2025	4.75-5.75	5.58
October 13 ,2025	4.75-5.60	5.47
October 14 ,2025	4.85-5.50	5.39
October 15 ,2025	4.75-5.60	5.37

Note: Includes Notice Money.

No. 28: Certificates of Deposit

Item	2024	2025			
	Oct. 18	Sep. 19	Oct. 3	Oct. 17	Oct. 31
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	484133.94	501817.39	497940.28	502668.21	514877.08
1.1 Issued during the fortnight (₹ Crore)	33814.44	71730.10	38003.69	24607.72	24530.39
2 Rate of Interest (per cent)	6.93-7.65	5.49-6.82	5.49-6.82	5.50-6.40	5.76-6.46

No. 29: Commercial Paper

Item	2024	2025			
	Oct. 31	Sep. 15	Sep. 30	Oct. 15	Oct. 31
	1	2	3	4	5
1 Amount Outstanding (₹ Crore)	445104.90	526704.30	488262.80	495678.60	479629.50
1.1 Reported during the fortnight (₹ Crore)	66159.85	99422.20	70288.00	30794.65	52397.55
2 Rate of Interest (per cent)	6.99-12.53	5.72-11.97	5.73-12.34	5.71-12.49	5.79-14.93

No. 30: Average Daily Turnover in Select Financial Markets

(₹ Crore)

Item	2024-25	2024	2025					
		Sep. 27	Aug. 22	Aug. 29	Sep. 5	Sep. 12	Sep. 19	Sep. 26
	1	2	3	4	5	6	7	8
1 Call Money	18990	18628	29137	27549	20066	31808	34205	31298
2 Notice Money	2506	208	403	9328	6430	426	7384	656
3 Term Money	941	805	1419	1360	967	2350	1259	1038
4 Triparty Repo	692068	678781	706895	880736	559054	681101	857666	738792
5 Market Repo	578912	548987	664441	776484	510321	623329	811438	681777
6 Repo in Corporate Bond	5212	5566	11865	12741	7895	11061	14021	15960
7 Forex (US $ million)	131877	140598	113060	143071	103733	128636	125999	140364
8 Govt. of India Dated Securities	56065	156651	100674	113169	86539	181150	103508	131047
9 State Govt. Securities	3971	11412	8004	6971	5486	5944	9797	7932
10 Treasury Bills								
10.1 91-Day	2514	2522	5889	4381	6080	8549	4842	4180
10.2 182-Day	2218	5341	3716	4324	2411	2859	2686	1619
10.3 364-Day	1854	4387	1173	2150	756	2674	5020	3423
10.4 Cash Management Bills		0	0	0	0	0	0	0
11 Total Govt. Securities (8+9+10)	66622	180314	119456	130995	101273	201176	125854	148202
11.1 RBI	1715	586	476	1196	366	1139	384	1619

No. 31: New Capital Issues by Non-Government Public Limited Companies

(Amount in ₹ Crore)

Security & Type of Issue	2024-25		2024-25 (Apr.-Sep.)		2025-26 (Apr.-Sep.) *		Sep. 2024		Sep. 2025 *	
	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
	1	2	3	4	5	6	7	8	9	10
1 Equity Shares	**464**	**210190**	**255**	**85980**	**257**	**85682**	**58**	**16883**	**66**	**12914**
1.1 Public	322	190478	186	74274	187	71173	47	16213	53	11312
1.2 Rights	142	19712	69	11706	70	14509	11	671	13	1602
2 Public Issue of Bonds/ Debentures	**43**	**8149**	**21**	**4856**	**22**	**4998**	**5**	**1695**	**1**	**200**
3 Total (1+2)	**507**	**218339**	**276**	**90836**	**279**	**90681**	**63**	**18579**	**67**	**13114**
3.1 Public	365	198627	207	79130	209	76171	52	17908	54	11512
3.2 Rights	142	19712	69	11706	70	14509	11	671	13	1602

Note : 1. Since April 2020, monthly data on equity issues is compiled on the basis of their listing date.
2. Figures in the columns might not add up to the total due to rounding off numbers.
3. The table covers only public and rights issuances of equity and debt. It does not include data on private placement of debt, qualified institutional placements and preferential allotments.

Source : Securities and Exchange Board of India.

* : Data is Provisional

External Sector

No. 32: Foreign Trade

Item	Unit	2024-25	2024	2025				
			Sep.	May	Jun.	Jul.	Aug.	Sep.
		1	2	3	4	5	6	7
1 Exports	₹ Crore	3703412	285611	326309	300411	318986	305471	321209
	US $ Million	437705	34079	38304	34971	37042	34904	36368
1.1 Oil	₹ Crore	535157	36053	46329	38272	35754	37531	43637
	US $ Million	63383	4302	5438	4455	4152	4288	4941
1.2 Non-oil	₹ Crore	3168255	249558	279979	262138	283232	267941	277572
	US $ Million	374321	29777	32865	30515	32890	30615	31427
2 Imports	₹ Crore	6089909	492119	518424	464624	556093	539017	605253
	US $ Million	720241	58720	60855	54087	64576	61589	68528
2.1 Oil	₹ Crore	1570226	124916	125636	118531	134077	116081	123939
	US $ Million	185779	14905	14748	13798	15570	13264	14032
2.2 Non-oil	₹ Crore	4519683	367202	392788	346094	422016	422936	481314
	US $ Million	534462	43815	46108	40289	49006	48325	54495
3 Trade Balance	₹ Crore	-2386497	-206507	-192116	-164214	-237107	-233545	-284044
	US $ Million	-282537	-24640	-22552	-19116	-27534	-26685	-32160
3.1 Oil	₹ Crore	-1035069	-88863	-79307	-80258	-98323	-78550	-80302
	US $ Million	-122396	-10603	-9309	-9343	-11418	-8975	-9092
3.2 Non-oil	₹ Crore	-1351428	-117645	-112809	-83955	-138784	-154995	-203742
	US $ Million	-160141	-14037	-13242	-9773	-16116	-17710	-23068

Note: Data in the table are provisional.
Source: Directorate General of Commercial Intelligence and Statistics.

No. 33: Foreign Exchange Reserves

Item	Unit	2024	2025					
		Nov. 01	Sep. 26	Oct. 03	Oct. 10	Oct. 17	Oct. 24	Oct. 31
		1	2	3	4	5	6	7
1 Total Reserves	**₹ Crore**	**5735915**	**6211881**	**6214364**	**6188784**	**6177971**	**6108299**	**6123031**
	US $ Million	**682130**	**700236**	**699960**	**697784**	**702280**	**695355**	**689733**
1.1 Foreign Currency Assets	₹ Crore	4959943	5160999	5128990	5074094	5017935	4976853	5012117
	US $ Million	589849	581757	577708	572103	570411	566548	564591
1.2 Gold	₹ Crore	586521	842935	876896	907894	954886	927080	903062
	US $ Million	69751	95017	98770	102365	108546	105536	101726
	Volume (Metric Tonnes)	867.79	880.18	880.18	880.18	880.18	880.18	880.18
1.3 SDRs	SDRs Million	13702	13709	13709	13709	13709	13709	13709
	₹ Crore	153198	166683	167033	165714	164696	163953	165514
	US $ Million	18219	18789	18814	18684	18722	18664	18644
1.4 Reserve Tranche Position in IMF	₹ Crore	36254	41264	41446	41083	40454	40412	42338
	US $ Million	4311	4673	4669	4632	4602	4608	4772

* Difference, if any, is due to rounding off.
Note: Exclude investment in foreign currency denominated bonds issued by IIFC (UK), SDRs transferred by Government of India to RBI, foreign currency received under SAARC and ACU currency swap arrangements and RBI's contribution to funding of Nexus Global Payments. Foreign currency assets in US dollar take into account appreciation/depreciation of non-US currencies (such as Euro, Sterling, Yen and Australian Dollar) held in reserves. Foreign exchange holdings are converted into rupees at rupee-US dollar RBI holding rates.

No. 34: Non-Resident Deposits

(US $ Million)

Scheme	Outstanding				Flows	
	2024-25	2024	2025		2024-25	2025-26
		Sep.	Aug.	Sep. (P)	Apr.-Sep.	Apr.-Sep.(P)
	1	2	3	4	5	6
1 NRI Deposits	**164677**	**161623**	**166805**	**165928**	**10192**	**6068**
1.1 FCNR(B)	32809	31080	33430	33500	5347	690
1.2 NR(E)RA	100733	100924	101204	100278	2651	3205
1.3 NRO	31135	29619	32172	32150	2195	2173

P: Provisional.

No. 35: Foreign Investment Inflows

(US $ Million)

Item	2024-25	2024-25	2025-26 (P)	2024 (P)	2025 (P)	
		Apr.-Sep.	Apr.-Sep.	Sep.	Aug.	Sep.
	1	2	3	4	5	6
1.1 Net Foreign Direct Investment (1.1.1-1.1.2)	**959**	**3403**	**7642**	**-1175**	**-622**	**-2376**
1.1.1 Direct Investment to India (1.1.1.1-1.1.1.2)	**29130**	**15573**	**23961**	**1124**	**1121**	**1406**
1.1.1.1 Gross Inflows/Gross Investments	**80615**	**43366**	**50362**	**6332**	**6049**	**6602**
1.1.1.1.1 Equity	50993	30247	36203	4084	3812	4213
1.1.1.1.1.1 Government (SIA/FIPB)	2208	380	1545	3	141	32
1.1.1.1.1.2 RBI	34686	20624	26209	2487	2795	3520
1.1.1.1.1.3 Acquisition of shares	13124	8787	7426	1516	798	582
1.1.1.1.1.4 Equity capital of unincorporated bodies	975	457	1023	78	78	78
1.1.1.1.2 Reinvested earnings	22759	10660	11311	1812	1812	1812
1.1.1.1.3 Other capital	6863	2459	2849	436	425	578
1.1.1.2 Repatriation/Disinvestment	**51486**	**27794**	**26401**	**5207**	**4928**	**5196**
1.1.1.2.1 Equity	49525	26689	25343	5005	4701	4899
1.1.1.2.2 Other capital	1960	1104	1058	202	227	297
1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3-1.1.2.4)	**28171**	**12170**	**16320**	**2300**	**1742**	**3782**
1.1.2.1 Equity capital	16945	7311	9769	881	926	2627
1.1.2.2 Reinvested Earnings	6846	3423	3595	571	571	571
1.1.2.3 Other Capital	7955	3131	4356	1031	357	935
1.1.2.4 Repatriation/Disinvestment	3575	1695	1400	183	112	351
1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3-1.2.4)	**3564**	**20795**	**-4454**	**9712**	**-2595**	**-743**
1.2.1 GDRs/ADRs	-	-	-	-	-	-
1.2.2 FIIs	3283	20712	-3305	9701	-2515	-787
1.2.3 Offshore funds and others	-	-	-	-	-	-
1.2.4 Portfolio investment by India	-281	-83	1150	-12	80	-44
1 Foreign Investment Inflows	**4523**	**24198**	**3188**	**8537**	**-3217**	**-3120**

P: Provisional

No. 36: Outward Remittances under the Liberalised Remittance Scheme (LRS) for Resident Individuals

(US $ Million)

Item	2024-25	2024	2025		
		Sep.	Jul.	Aug.	Sep.
	1	2	3	4	5
1 Outward Remittances under the LRS	**29563.12**	**2758.25**	**2452.93**	**2642.91**	**2782.34**
1.1 Deposit	705.26	43.00	46.24	42.75	50.75
1.2 Purchase of immovable property	322.82	25.47	39.48	36.02	42.44
1.3 Investment in equity/debt	1698.94	135.08	156.19	152.18	278.80
1.4 Gift	2938.69	221.67	223.53	190.43	195.09
1.5 Donations	11.81	0.87	0.73	0.78	0.64
1.6 Travel	16964.57	1713.06	1445.34	1618.81	1664.82
1.7 Maintenance of close relatives	3722.03	281.24	298.11	272.05	273.65
1.8 Medical Treatment	81.19	7.89	6.26	3.99	4.18
1.9 Studies Abroad	2918.91	320.10	229.25	319.17	264.34
1.10 Others	198.90	9.88	7.80	6.73	7.63

No. 37: Indices of Nominal Effective Exchange Rate (NEER) and Real Effective Exchange Rate (REER) of the Indian Rupee

Item	2023-24	2024-25	2024	2025	
			Oct.	Sep.	Oct.
	1	2	3	4	5
40-Currency Basket (Base: 2015-16=100)					
1 Trade-Weighted					
1.1 NEER	90.75	91.01	90.85	84.54	84.58
1.2 REER	103.71	105.24	107.27	97.40	97.47
2 Export-Weighted					
2.1 NEER	93.13	93.52	93.46	86.34	86.46
2.2 REER	101.22	102.34	104.33	94.45	94.55
6-Currency Basket (Trade-weighted)					
1 Base : 2015-16 =100					
1.1 NEER	83.62	82.38	81.98	76.38	76.59
1.2 REER	101.66	102.72	104.30	95.63	95.98
2 Base : 2022-23 =100					
2.1 NEER	97.31	95.87	95.41	88.89	89.13
2.2 REER	99.86	100.90	102.45	93.94	94.28

Note: Data for 2024-25 and 2025-26 so far is provisional.

No. 38: External Commercial Borrowings (ECBs) – Registrations

(Amount in US $ Million)

Item	2024-25	2024	2025	
		Sep.	Aug.	Sep.
	1	2	3	4
1 Automatic Route				
1.1 Number	1328	95	96	127
1.2 Amount	47800	3776	2217	2393
2 Approval Route				
2.1 Number	51	1	2	1
2.2 Amount	13384	1065	1050	406
3 Total (1+2)				
3.1 Number	1379	96	98	128
3.2 Amount	61184	4841	3267	2799
4 Weighted Average Maturity (in years)	5.05	4.40	5.50	5.00
5 Interest Rate (per cent)				
5.1 Weighted Average Margin over alternative reference rate (ARR) for Floating Rate Loans@	1.48	1.36	1.41	1.27
5.2 Interest rate range for Fixed Rate Loans	0.00-11.67	0.00-11.00	0.00-10.50	0.00-10.00
Borrower Category				
I. Corporate Manufacturing	13900	378	207	1097
II. Corporate-Infrastructure	15462	328	698	377
a.) Transport	614	0	26	215
b.) Energy	6900	15	198	3
c.) Water and Sanitation	28	0	0	0
d.) Communication	13	0	0	0
e.) Social and Commercial Infrastructure	184	0	0	0
f.) Exploration,Mining and Refinery	5356	313	470	100
g.) Other Sub-Sectors	2367	0	4	59
III. Corporate Service-Sector	3226	437	498	273
IV. Other Entities	1026	0	0	0
a.) units in SEZ	26	0	0	0
b.) SIDBI	0	0	0	0
c.) Exim Bank	1000	0	0	0
V. Banks	0	0	0	0
VI. Financial Institution (Other than NBFC)	0	0	0	0
VII. NBFCs	26318	3578	1853	1051
a). NBFC- IFC/AFC	12389	2777	467	528
b). NBFC-MFI	459	31	0	67
c). NBFC-Others	13470	770	1386	456
VIII. Non-Government Organization (NGO)	0	0	0	0
IX. Micro Finance Institution (MFI)	0	0	0	0
X. Others	1252	120	11	1

Note: Based on applications for ECB/Foreign Currency Convertible Bonds (FCCBs) which have been allotted loan registration number during the period.
@ With effect from July 01, 2023, the benchmark rate is changed to Alternative Reference Rate (ARR)

No. 39: India's Overall Balance of Payments

(US$ Million)

Item	Apr-Jun 2024			Apr-Jun 2025 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance Of Payments (1+2+3)	**507129**	**501903**	**5226**	**545826**	**541318**	**4508**
1 Current Account (1.1+ 1.2)	**241832**	**250508**	**-8676**	**256736**	**259106**	**-2370**
1.1 Merchandise	**111158**	**174963**	**-63805**	**113087**	**181551**	**-68464**
1.2 Invisibles (1.2.1+1.2.2+1.2.3)	**130674**	**75545**	**55129**	**143649**	**77555**	**66094**
1.2.1 Services	88465	48784	39681	97428	49507	47920
1.2.1.1 Travel	7352	9171	-1819	5855	9085	-3230
1.2.1.2 Transportation	8506	8609	-103	7708	8395	-687
1.2.1.3 Insurance	903	593	310	926	613	313
1.2.1.4 G.n.i.e.	161	309	-147	134	323	-188
1.2.1.5 Miscellaneous	71542	30102	41440	82805	31092	51712
1.2.1.5.1 Software Services	41926	4479	37447	47324	5853	41471
1.2.1.5.2 Business Services	23000	16625	6375	29511	15868	13643
1.2.1.5.3 Financial Services	2215	1267	948	1945	703	1242
1.2.1.5.4 Communication Services	519	444	75	503	380	123
1.2.2 Transfers	29520	3215	26304	34048	3029	31019
1.2.2.1 Official	18	312	-293	20	217	-197
1.2.2.2 Private	29502	2904	26598	34028	2812	31216
1.2.3 Income	12689	23546	-10857	12174	25019	-12845
1.2.3.1 Investment Income	10552	22568	-12016	10044	23992	-13948
1.2.3.2 Compensation of Employees	2137	978	1159	2130	1027	1103
2 Capital Account (2.1+2.2+2.3+2.4+2.5)	**264502**	**251395**	**13107**	**289090**	**281389**	**7700**
2.1 Foreign Investment (2.1.1+2.1.2)	**183768**	**176600**	**7168**	**173561**	**166248**	**7313**
2.1.1 Foreign Direct Investment	23925	17701	6224	27222	21517	5705
2.1.1.1 In India	22777	12171	10606	26607	12476	14131
2.1.1.1.1 Equity	16402	11673	4728	19418	12078	7340
2.1.1.1.2 Reinvested Earnings	5225		5225	5876		5876
2.1.1.1.3 Other Capital	1151	498	653	1313	398	914
2.1.1.2 Abroad	1147	5529	-4382	615	9041	-8426
2.1.1.2.1 Equity	1147	2728	-1580	615	4752	-4137
2.1.1.2.2 Reinvested Earnings	0	1712	-1712	0	1884	-1884
2.1.1.2.3 Other Capital	0	1090	-1090	0	2405	-2405
2.1.2 Portfolio Investment	159844	158899	945	146339	144731	1608
2.1.2.1 In India	159240	158343	897	145201	142720	2481
2.1.2.1.1 FIIs	159240	158343	897	145201	142720	2481
2.1.2.1.1.1 Equity	139824	140833	-1009	123636	118245	5391
2.1.2.1.1.2 Debt	19416	17510	1906	21565	24475	-2910
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	604	556	48	1138	2011	-872
2.2 Loans (2.2.1+2.2.2+2.2.3)	**31815**	**26686**	**5129**	**65326**	**59337**	**5989**
2.2.1 External Assistance	3640	2267	1373	3120	2398	722
2.2.1.1 By India	6	26	-20	6	11	-5
2.2.1.2 To India	3634	2241	1393	3114	2387	727
2.2.2 Commercial Borrowings	12627	11098	1529	46754	42206	4548
2.2.2.1 By India	4138	4255	-117	36024	35153	871
2.2.2.2 To India	8489	6843	1646	10730	7053	3677
2.2.3 Short Term to India	15548	13321	2228	15453	14734	719
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	13729	13321	408	15453	13689	1764
2.2.3.2 Suppliers' Credit up to 180 days	1820	0	1820	0	1045	-1045
2.3 Banking Capital (2.3.1+2.3.2)	**36380**	**33511**	**2870**	**33634**	**35189**	**-1555**
2.3.1 Commercial Banks	36259	33511	2749	33625	35189	-1564
2.3.1.1 Assets	10705	13570	-2865	8579	13083	-4504
2.3.1.2 Liabilities	25554	19941	5614	25046	22106	2939
2.3.1.2.1 Non-Resident Deposits	23426	19401	4025	23778	20164	3614
2.3.2 Others	121	0	121	10	0	10
2.4 Rupee Debt Service	**0**	**61**	**-61**	**0**	**61**	**-61**
2.5 Other Capital	**12538**	**14537**	**-1999**	**16568**	**20554**	**-3986**
3 Errors & Omissions	**795**	**0**	**795**	**0**	**823**	**-823**
4 Monetary Movements (4.1+ 4.2)	**0**	**5226**	**-5226**	**0**	**4508**	**-4508**
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)		5226	-5226		4508	-4508

Note: P: Preliminary.

No. 40: India's Overall Balance of Payments

(₹ Crore)

Item	Apr-Jun 2024			Apr-Jun 2025 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
Overall Balance Of Payments (1+2+3)	**4230634**	**4187037**	**43597**	**4669620**	**4631057**	**38563**
1 Current Account (1.1+ 1.2)	**2017438**	**2089818**	**-72379**	**2196416**	**2216691**	**-20275**
1.1 Merchandise	**927317**	**1459598**	**-532281**	**967474**	**1553197**	**-585723**
1.2 Invisibles (1.2.1+1.2.2+1.2.3)	**1090122**	**630220**	**459902**	**1228942**	**663494**	**565447**
1.2.1 Services	738001	406971	331030	833507	423543	409964
1.2.1.1 Travel	61335	76511	-15177	50087	77720	-27633
1.2.1.2 Transportation	70959	71816	-856	65943	71818	-5876
1.2.1.3 Insurance	7534	4950	2584	7924	5245	2679
1.2.1.4 G.n.i.e.	1346	2575	-1229	1148	2761	-1612
1.2.1.5 Miscellaneous	596827	251118	345709	708405	265999	442406
1.2.1.5.1 Software Services	349760	37363	312397	404862	50070	354792
1.2.1.5.2 Business Services	191873	138694	53178	252469	135754	116715
1.2.1.5.3 Financial Services	18478	10572	7906	16636	6012	10624
1.2.1.5.4 Communication Services	4331	3702	629	4305	3251	1053
1.2.2 Transfers	246264	26824	219440	291287	25911	265375
1.2.2.1 Official	153	2599	-2446	172	1858	-1686
1.2.2.2 Private	246112	24225	221887	291114	24053	267061
1.2.3 Income	105857	196425	-90569	104148	214040	-109892
1.2.3.1 Investment Income	88028	188267	-100239	85926	205255	-119329
1.2.3.2 Compensation of Employees	17829	8158	9670	18222	8785	9437
2 Capital Account (2.1+2.2+2.3+2.4+2.5)	**2206565**	**2097219**	**109346**	**2473204**	**2407326**	**65878**
2.1 Foreign Investment (2.1.1+2.1.2)	**1533057**	**1473256**	**59801**	**1484840**	**1422274**	**62567**
2.1.1 Foreign Direct Investment	199586	147666	51920	232886	184078	48808
2.1.1.1 In India	190016	101538	88478	227624	106733	120892
2.1.1.1.1 Equity	136827	97382	39445	166121	103325	62795
2.1.1.1.2 Reinvested Earnings	43588	0	43588	50274	0	50274
2.1.1.1.3 Other Capital	9600	4156	5444	11230	3407	7822
2.1.1.2 Abroad	9570	46128	-36558	5262	77345	-72084
2.1.1.2.1 Equity	9570	22755	-13184	5262	40654	-35392
2.1.1.2.2 Reinvested Earnings	0	14278	-14278	0	16116	-16116
2.1.1.2.3 Other Capital	0	9095	-9095	0	20575	-20575
2.1.2 Portfolio Investment	1333471	1325590	7881	1251954	1238196	13759
2.1.2.1 In India	1328434	1320949	7485	1242216	1220994	21223
2.1.2.1.1 FIIs	1328434	1320949	7485	1242216	1220994	21223
2.1.2.1.1.1 Equity	1166461	1174878	-8416	1057724	1011603	46121
2.1.2.1.1.2 Debt	161973	146071	15901	184493	209391	-24898
2.1.2.1.2 ADR/GDRs	0	0	0	0	0	0
2.1.2.2 Abroad	5037	4641	396	9738	17202	-7464
2.2 Loans (2.2.1+2.2.2+2.2.3)	**265411**	**222623**	**42788**	**558876**	**507639**	**51237**
2.2.1 External Assistance	30365	18913	11451	26690	20513	6177
2.2.1.1 By India	52	217	-166	52	94	-42
2.2.1.2 To India	30313	18696	11617	26638	20419	6219
2.2.2 Commercial Borrowings	105337	92583	12753	399987	361074	38913
2.2.2.1 By India	34517	35497	-980	308187	300735	7452
2.2.2.2 To India	70820	57087	13733	91800	60339	31461
2.2.3 Short Term to India	129710	111126	18583	132199	126052	6147
2.2.3.1 Buyers' credit & Suppliers' Credit >180 days	114529	111126	3402	132199	117110	15089
2.2.3.2 Suppliers' Credit up to 180 days	15181	0	15181	0	8942	-8942
2.3 Banking Capital (2.3.1+2.3.2)	**303498**	**279556**	**23942**	**287747**	**301047**	**-13300**
2.3.1 Commercial Banks	302487	279556	22931	287664	301047	-13384
2.3.1.1 Assets	89303	113205	-23902	73395	111925	-38530
2.3.1.2 Liabilities	213184	166351	46833	214268	189122	25147
2.3.1.2.1 Non-Resident Deposits	195426	161851	33575	203422	172503	30920
2.3.2 Others	1011	0	1011	84	0	84
2.4 Rupee Debt Service	**0**	**508**	**-508**	**0**	**524**	**-524**
2.5 Other Capital	**104599**	**121277**	**-16677**	**141740**	**175841**	**-34101**
3 Errors & Omissions	**6630**	**0**	**6630**	**0**	**7040**	**-7040**
4 Monetary Movements (4.1+ 4.2)	**0**	**43597**	**-43597**	**0**	**38563**	**-38563**
4.1 I.M.F.	0	0	0	0	0	0
4.2 Foreign Exchange Reserves (Increase - / Decrease +)	0	43597	-43597	0	38563	-38563

Note: P: Preliminary.

No. 41: Standard Presentation of BoP in India as per BPM6

(US$ Million)

Item	Apr-Jun 2024			Apr-Jun 2025 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**241831**	**250477**	**-8646**	**256736**	**259087**	**-2351**
1.A Goods and Services (1.A.a+1.A.b)	**199623**	**223747**	**-24124**	**210514**	**231059**	**-20544**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**111158**	**174963**	**-63805**	**113087**	**181551**	**-68464**
1.A.a.1 General merchandise on a BOP basis	111119	166616	-55497	112707	174065	-61359
1.A.a.2 Net exports of goods under merchanting	39	0	39	380	0	380
1.A.a.3 Nonmonetary gold		8347	-8347		7486	-7486
1.A.b Services (1.A.b.1 to 1.A.b.13)	**88465**	**48784**	**39681**	**97428**	**49507**	**47920**
1.A.b.1 Manufacturing services on physical inputs owned by others	268	22	246	253	40	213
1.A.b.2 Maintenance and repair services n.i.e.	81	238	-157	76	267	-191
1.A.b.3 Transport	8506	8609	-103	7708	8395	-687
1.A.b.4 Travel	7352	9171	-1819	5855	9085	-3230
1.A.b.5 Construction	1478	563	915	1098	891	207
1.A.b.6 Insurance and pension services	903	593	310	926	613	313
1.A.b.7 Financial services	2215	1267	948	1945	703	1242
1.A.b.8 Charges for the use of intellectual property n.i.e.	341	4448	-4107	446	5352	-4906
1.A.b.9 Telecommunications, computer, and information services	42541	5215	37326	47932	6470	41462
1.A.b.10 Other business services	23000	16625	6375	29511	15868	13643
1.A.b.11 Personal, cultural, and recreational services	1175	1249	-74	1210	1157	54
1.A.b.12 Government goods and services n.i.e.	161	309	-147	134	323	-188
1.A.b.13 Others n.i.e.	444	475	-31	334	345	-11
1.B Primary Income (1.B.1 to 1.B.3)	**12689**	**23546**	**-10857**	**12174**	**25019**	**-12845**
1.B.1 Compensation of employees	2137	978	1159	2130	1027	1103
1.B.2 Investment income	8660	21944	-13284	8498	23345	-14846
1.B.2.1 Direct investment	3384	12672	-9288	3156	14533	-11377
1.B.2.2 Portfolio investment	70	2411	-2341	113	1815	-1702
1.B.2.3 Other investment	1110	6641	-5531	1001	6826	-5825
1.B.2.4 Reserve assets	4095	220	3876	4228	170	4058
1.B.3 Other primary income	1892	624	1268	1545	647	898
1.C Secondary Income (1.C.1+1.C.2)	**29520**	**3185**	**26335**	**34048**	**3010**	**31038**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	29502	2904	26598	34028	2812	31216
1.C.1.1 Personal transfers (Current transfers between resident and/non-resident households)	28644	1989	26655	33162	2061	31101
1.C.1.2 Other current transfers	857	914	-57	866	750	115
1.C.2 General government	18	281	-263	20	198	-178
2 Capital Account (2.1+2.2)	**185**	**150**	**35**	**177**	**577**	**-400**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	4	45	-41	23	398	-374
2.2 Capital transfers	182	105	76	154	179	-26
3 Financial Account (3.1 to 3.5)	**264317**	**256501**	**7816**	**288913**	**285339**	**3574**
3.1 Direct Investment (3.1A+3.1B)	**23925**	**17701**	**6224**	**27222**	**21517**	**5705**
3.1.A Direct Investment in India	22777	12171	10606	26607	12476	14131
3.1.A.1 Equity and investment fund shares	21627	11673	9953	25294	12078	13217
3.1.A.1.1 Equity other than reinvestment of earnings	16402	11673	4728	19418	12078	7340
3.1.A.1.2 Reinvestment of earnings	5225		5225	5876		5876
3.1.A.2 Debt instruments	1151	498	653	1313	398	914
3.1.A.2.1 Direct investor in direct investment enterprises	1151	498	653	1313	398	914
3.1.B Direct Investment by India	1147	5529	-4382	615	9041	-8426
3.1.B.1 Equity and investment fund shares	1147	4439	-3292	615	6636	-6021
3.1.B.1.1 Equity other than reinvestment of earnings	1147	2728	-1580	615	4752	-4137
3.1.B.1.2 Reinvestment of earnings		1712	-1712		1884	-1884
3.1.B.2 Debt instruments	0	1090	-1090	0	2405	-2405
3.1.B.2.1 Direct investor in direct investment enterprises		1090	-1090		2405	-2405
3.2 Portfolio Investment	**159844**	**158899**	**945**	**146339**	**144731**	**1608**
3.2.A Portfolio Investment in India	159240	158343	897	145201	142720	2481
3.2.1 Equity and investment fund shares	139824	140833	-1009	123636	118245	5391
3.2.2 Debt securities	19416	17510	1906	21565	24475	-2910
3.2.B Portfolio Investment by India	604	556	48	1138	2011	-872
3.3 Financial derivatives (other than reserves) and employee stock options	**6053**	**9666**	**-3613**	**5501**	**10588**	**-5087**
3.4 Other investment	**74496**	**65009**	**9487**	**109851**	**103996**	**5855**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	23547	19401	4146	23788	20164	3624
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	121	0	121	10	0	10
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	23426	19401	4025	23778	20164	3614
3.4.2.3 General government			0			0
3.4.2.4 Other sectors			0			0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	29100	27475	1626	59721	59629	92
3.4.3.A Loans to India	24956	23193	1763	23691	24465	-774
3.4.3.B Loans by India	4144	4281	-137	36030	35163	866
3.4.4 Insurance, pension, and standardized guarantee schemes	47	133	-86	43	92	-49
3.4.5 Trade credit and advances	15548	13321	2228	15453	14734	719
3.4.6 Other accounts receivable/payable - other	6253	4680	1574	10848	9378	1470
3.4.7 Special drawing rights			0			0
3.5 Reserve assets	**0**	**5226**	**-5226**	**0**	**4508**	**-4508**
3.5.1 Monetary gold			0			0
3.5.2 Special drawing rights n.a.			0			0
3.5.3 Reserve position in the IMF n.a.			0			0
3.5.4 Other reserve assets (Foreign Currency Assets)	0	5226	-5226	0	4508	-4508
4 Total assets/liabilities	**264317**	**256501**	**7816**	**288913**	**285339**	**3574**
4.1 Equity and investment fund shares	169302	167301	2001	156227	149648	6579
4.2 Debt instruments	88762	79295	9467	121838	121805	33
4.3 Other financial assets and liabilities	6253	9906	-3652	10848	13886	-3038
5 Net errors and omissions	**795**	**0**	**795**	**0**	**823**	**-823**

Note: P: Preliminary.

No. 42: Standard Presentation of BoP in India as per BPM6

(₹ Crore)

Item	Apr-Jun 2024			Apr-Jun 2025 (P)		
	Credit	Debit	Net	Credit	Debit	Net
	1	2	3	4	5	6
1 Current Account (1.A+1.B+1.C)	**2017436**	**2089564**	**-72128**	**2196412**	**2216528**	**-20117**
1.A Goods and Services (1.A.a+1.A.b)	**1665317**	**1866568**	**-201251**	**1800981**	**1976740**	**-175759**
1.A.a Goods (1.A.a.1 to 1.A.a.3)	**927317**	**1459598**	**-532281**	**967474**	**1553197**	**-585723**
1.A.a.1 General merchandise on a BOP basis	926993	1389964	-462971	964221	1489154	-524933
1.A.a.2 Net exports of goods under merchanting	324	0	324	3253	0	3253
1.A.a.3 Nonmonetary gold	0	69634	-69634	0	64043	-64043
1.A.b Services (1.A.b.1 to 1.A.b.13)	**738001**	**406970**	**331030**	**833507**	**423543**	**409964**
1.A.b.1 Manufacturing services on physical inputs owned by others	2234	183	2051	2162	341	1821
1.A.b.2 Maintenance and repair services n.i.e.	676	1983	-1307	654	2286	-1632
1.A.b.3 Transport	70959	71816	-856	65943	71818	-5876
1.A.b.4 Travel	61335	76511	-15177	50087	77720	-27633
1.A.b.5 Construction	12327	4693	7635	9390	7619	1771
1.A.b.6 Insurance and pension services	7534	4950	2584	7924	5245	2679
1.A.b.7 Financial services	18478	10572	7906	16636	6012	10624
1.A.b.8 Charges for the use of intellectual property n.i.e.	2843	37103	-34261	3818	45787	-41969
1.A.b.9 Telecommunications, computer, and information services	354891	43507	311384	410065	55353	354712
1.A.b.10 Other business services	191873	138694	53178	252469	135754	116715
1.A.b.11 Personal, cultural, and recreational services	9803	10418	-615	10353	9894	459
1.A.b.12 Government goods and services n.i.e.	1346	2575	-1229	1148	2761	-1612
1.A.b.13 Others n.i.e.	3703	3965	-262	2858	2953	-95
1.B Primary Income (1.B.1 to 1.B.3)	**105857**	**196425**	**-90569**	**104148**	**214040**	**-109892**
1.B.1 Compensation of employees	17829	8158	9670	18222	8785	9437
1.B.2 Investment income	72241	183061	-110820	72705	199717	-127012
1.B.2.1 Direct investment	28232	105711	-77480	27000	124332	-97331
1.B.2.2 Portfolio investment	582	20112	-19530	969	15529	-14560
1.B.2.3 Other investment	9262	55405	-46143	8563	58401	-49838
1.B.2.4 Reserve assets	34166	1833	32333	36172	1455	34717
1.B.3 Other primary income	15787	5206	10581	13221	5537	7683
1.C Secondary Income (1.C.1+1.C.2)	**246262**	**26570**	**219692**	**291283**	**25749**	**265534**
1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs	246112	24225	221887	291114	24053	267061
1.C.1.1 Personal transfers (Current transfers between resident and/non-resident households)	238960	16597	222364	283709	17634	266075
1.C.1.2 Other current transfers	7151	7628	-477	7405	6419	986
1.C.2 General government	150	2345	-2195	168	1695	-1527
2 Capital Account (2.1+2.2)	**1547**	**1253**	**295**	**1515**	**4936**	**-3421**
2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets	32	375	-343	199	3401	-3202
2.2 Capital transfers	1515	878	637	1316	1535	-219
3 Financial Account (3.1 to 3.5)	**2205020**	**2139817**	**65203**	**2471694**	**2441116**	**30578**
3.1 Direct Investment (3.1A+3.1B)	**199586**	**147666**	**51920**	**232886**	**184078**	**48808**
3.1.A Direct Investment in India	190016	101538	88478	227624	106733	120892
3.1.A.1 Equity and investment fund shares	180416	97382	83034	216395	103325	113069
3.1.A.1.1 Equity other than reinvestment of earnings	136827	97382	39445	166121	103325	62795
3.1.A.1.2 Reinvestment of earnings	43588	0	43588	50274	0	50274
3.1.A.2 Debt instruments	9600	4156	5444	11230	3407	7822
3.1.A.2.1 Direct investor in direct investment enterprises	9600	4156	5444	11230	3407	7822
3.1.B Direct Investment by India	9570	46128	-36558	5262	77345	-72084
3.1.B.1 Equity and investment fund shares	9570	37033	-27463	5262	56770	-51509
3.1.B.1.1 Equity other than reinvestment of earnings	9570	22755	-13184	5262	40654	-35392
3.1.B.1.2 Reinvestment of earnings	0	14278	-14278	0	16116	-16116
3.1.B.2 Debt instruments	0	9095	-9095	0	20575	-20575
3.1.B.2.1 Direct investor in direct investment enterprises	0	9095	-9095	0	20575	-20575
3.2 Portfolio Investment	**1333471**	**1325590**	**7881**	**1251954**	**1238196**	**13759**
3.2.A Portfolio Investment in India	1328434	1320949	7485	1242216	1220994	21223
3.2.1 Equity and investment fund shares	1166461	1174878	-8416	1057724	1011603	46121
3.2.2 Debt securities	161973	146071	15901	184493	209391	-24898
3.2.B Portfolio Investment by India	5037	4641	396	9738	17202	-7464
3.3 Financial derivatives (other than reserves) and employee stock options	**50493**	**80637**	**-30144**	**47060**	**90579**	**-43519**
3.4 Other investment	**621470**	**542327**	**79143**	**939793**	**889701**	**50093**
3.4.1 Other equity (ADRs/GDRs)	0	0	0	0	0	0
3.4.2 Currency and deposits	196437	161851	34586	203506	172503	31003
3.4.2.1 Central bank (Rupee Debt Movements; NRG)	1011	0	1011	84	0	84
3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)	195426	161851	33575	203422	172503	30920
3.4.2.3 General government	0	0	0	0	0	0
3.4.2.4 Other sectors	0	0	0	0	0	0
3.4.3 Loans (External Assistance, ECBs and Banking Capital)	242762	229201	13561	510918	510131	787
3.4.3.A Loans to India	208194	193487	14707	202679	209303	-6624
3.4.3.B Loans by India	34569	35714	-1146	308239	300829	7410
3.4.4 Insurance, pension, and standardized guarantee schemes	396	1109	-714	366	783	-417
3.4.5 Trade credit and advances	129710	111126	18583	132199	126052	6147
3.4.6 Other accounts receivable/payable - other	52166	39039	13127	92803	80231	12572
3.4.7 Special drawing rights	0	0	0	0	0	0
3.5 Reserve assets	**0**	**43597**	**-43597**	**0**	**38563**	**-38563**
3.5.1 Monetary gold	0	0	0	0	0	0
3.5.2 Special drawing rights n.a.	0	0	0	0	0	0
3.5.3 Reserve position in the IMF n.a.	0	0	0	0	0	0
3.5.4 Other reserve assets (Foreign Currency Assets)	0	43597	-43597	0	38563	-38563
4 Total assets/liabilities	**2205020**	**2139817**	**65203**	**2471694**	**2441116**	**30578**
4.1 Equity and investment fund shares	1412373	1395681	16693	1336545	1280262	56282
4.2 Debt instruments	740481	661501	78980	1042346	1042060	286
4.3 Other financial assets and liabilities	52166	82636	-30470	92803	118794	-25990
5 Net errors and omissions	**6630**	**0**	**6630**	**0**	**7040**	**-7040**

Note: P: Preliminary.

No. 43: India's International Investment Position

(US$ Million)

Item	As on Financial Year/Quarter End							
	2024-25		2024		2025			
			Jun.		Mar.		Jun.	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	1	2	3	4	5	6	7	8
1. Direct investment Abroad/in India	270441	556903	246653	552829	270441	556903	278867	571227
1.1 Equity Capital*	173559	521931	156635	520605	173559	521931	179580	535378
1.2 Other Capital	96882	34972	90018	32224	96882	34972	99287	35849
2. Portfolio investment	15426	272042	12410	277347	15426	272042	16305	272544
2.1 Equity	10391	141938	10665	160898	10391	141938	13111	147392
2.2 Debt	5034	130104	1745	116449	5034	130104	3193	125152
3. Other investment	186700	641155	140909	588623	186700	641155	195426	657723
3.1 Trade credit	33422	131164	32822	125907	33422	131164	33782	131887
3.2 Loan	25891	250109	20803	224491	25891	250109	24464	259789
3.3 Currency and Deposits	79332	167598	57747	160628	79332	167598	82528	171749
3.4 Other Assets/Liabilities	48055	92285	29537	77597	48055	92285	54651	94298
4. Reserves	668326		651997		668326		698118	
5. Total Assets/ Liabilities	1140893	1470099	1051969	1418799	1140893	1470099	1188715	1501494
6. Net IIP (Assets - Liabilities)	-329206		-366830		-329206		-312779	

Note: * Equity capital includes share of investment funds and reinvested earnings.

Payment and Settlement Systems

No. 44: Payment System Indicators

PART I - Payment System Indicators - Payment & Settlement System Statistics

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2024-25	2024	2025		FY 2024-25	2024	2025	
		Sep.	Aug.	Sep.		Sep.	Aug.	Sep.
	1	2	3	4	5	6	7	8
A. Settlement Systems								
Financial Market Infrastructures (FMIs)								
1 CCIL Operated Systems (1.1 to 1.3)	47.40	4.08	4.28	4.95	296218030	23840258	28151946	30270023
1.1 Govt. Securities Clearing (1.1.1 to 1.1.3)	17.87	1.57	1.50	1.75	185733719	14750412	16614170	18003263
1.1.1 Outright	10.56	0.99	0.81	1.04	16056018	1468346	1240951	1499643
1.1.2 Repo	4.72	0.37	0.47	0.48	77286611	6038102	7489700	7926471
1.1.3 Tri-party Repo	2.58	0.21	0.22	0.23	92391091	7243965	7883520	8577149
1.2 Forex Clearing	28.06	2.40	2.69	3.11	100639565	8415273	10788097	11417001
1.3 Rupee Derivatives @	1.46	0.11	0.10	0.09	9844746	674573	749679	849759
B. Payment Systems								
I Financial Market Infrastructures (FMIs)	-	-	-	-	-	-	-	-
1 Credit Transfers - RTGS (1.1 to 1.2)	3024.55	233.33	259.68	280.83	201387682	17786483	16371216	19836942
1.1 Customer Transactions	3010.32	232.21	258.52	279.64	181153129	16027655	14993007	18220475
1.2 Interbank Transactions	14.23	1.12	1.16	1.19	20234553	1758828	1378209	1616467
II Retail								
2 Credit Transfers - Retail (2.1 to 2.6)	2061014.91	166626.30	218816.17	213074.92	79781976	6384754	7102303	7543380
2.1 AePS (Fund Transfers) @	3.64	0.30	0.31	0.26	190	14	16	12
2.2 APBS $	32964.43	2342.41	3817.08	2542.90	554034	35550	66150	41746
2.3 IMPS	56249.68	4299.36	4772.62	3943.79	7139110	565233	597549	596847
2.4 NACH Cr $	16938.86	1657.93	1854.46	1850.43	1670223	122079	167856	149729
2.5 NEFT	96198.05	7908.83	8288.60	8403.21	44361464	3597885	3785260	4265310
2.6 UPI @	1858660.25	150417.47	200083.10	196334.33	26056955	2063995	2485473	2489737
2.6.1 of which USSD @	17.24	1.31	0.69	0.94	185	14	7	10
3 Debit Transfers and Direct Debits (3.1 to 3.3)	21659.95	1805.36	1929.02	1926.97	2208583	180707	214928	222919
3.1 BHIM Aadhaar Pay @	230.08	18.81	25.38	18.90	6907	568	718	591
3.2 NACH Dr $	19762.28	1651.69	1764.13	1786.47	2199327	179945	214031	222164
3.3 NETC (linked to bank account) @	1667.59	134.86	139.51	121.60	2349	193	178	164
4 Card Payments (4.1 to 4.2)	63861.15	5275.26	6056.57	5999.81	2605110	216304	228576	253483
4.1 Credit Cards (4.1.1 to 4.1.2)	47740.76	3921.62	4935.77	4952.41	2109197	176202	191170	216707
4.1.1 PoS based $	24571.10	1978.05	2501.63	2416.15	795022	60857	72753	72544
4.1.2 Others $	23169.66	1943.57	2434.15	2536.26	1314175	115345	118417	144163
4.2 Debit Cards (4.2.1 to 4.2.1)	16120.39	1353.64	1120.80	1047.40	495914	40102	37406	36776
4.2.1 PoS based $	11980.33	995.05	843.59	777.57	332556	25777	24663	22773
4.2.2 Others $	4140.06	358.59	277.21	269.83	163358	14325	12743	14003
5 Prepaid Payment Instruments (5.1 to 5.2)	70254.08	5476.69	7966.16	8551.51	216751	17489	22253	22637
5.1 Wallets	52898.40	4054.95	6246.19	6871.58	154066	11889	17169	17183
5.2 Cards (5.2.1 to 5.2.2)	17355.68	1421.74	1719.97	1679.93	62686	5600	5083	5454
5.2.1 PoS based $	8240.14	721.65	669.51	688.72	11512	858	1030	1092
5.2.2 Others $	9115.54	700.09	1050.45	991.22	51174	4743	4054	4362
6 Paper-based Instruments (6.1 to 6.2)	6095.38	484.94	446.03	464.86	7113350	543387	540025	570467
6.1 CTS (NPCI Managed)	6095.38	484.94	446.03	464.86	7113350	543387	540025	570467
6.2 Others	0.00	–	–	–	–	–	–	–
Total - Retail Payments (2+3+4+5+6)	2222885.46	179668.57	235213.95	230018.07	91925771	7342641	8108084	8612885
Total Payments (1+2+3+4+5+6)	2225910.01	179901.90	235473.63	230298.90	293313453	25129124	24479300	28449827
Total Digital Payments (1+2+3+4+5)	2219814.63	179416.96	235027.60	229834.04	286200103	24585737	23939275	27879361

PART II - Payment Modes and Channels

System	Volume (Lakh)				Value (₹ Crore)			
	FY 2024-25	2024	2025		FY 2024-25	2024	2025	
		Sep.	Aug.	Sep.		Sep.	Aug.	Sep.
	1	2	3	4	5	6	7	8
A. Other Payment Channels								
1 Mobile Payments (mobile app based) (1.1 to 1.2)	1756976.91	144028.12	184421.97	181008.61	39206221	3157064	3539156	3618114
1.1 Intra-bank $	110801.96	10596.33	10513.94	10469.49	7207439	617325	605043	633733
1.2 Inter-bank $	1646174.95	133431.79	173908.03	170539.12	31998782	2539739	2934113	2984381
2 Internet Payments (Netbanking / Internet Browser Based) @ (2.1 to 2.2)	47478.09	3911.28	3638.12	3755.37	131858133	11251665	11554723	13794692
2.1 Intra-bank @	13056.37	1103.93	798.11	853.80	69086996	5946842	6020479	7091903
2.2 Inter-bank @	34421.72	2807.35	2840.01	2901.57	62771136	5304823	5534243	6702789
B. ATMs								
3 Cash Withdrawal at ATMs $ (3.1 to 3.3)	60308.11	4949.81	4625.94	4395.46	3063077	245223	240098	230952
3.1 Using Credit Cards $	97.25	8.02	6.71	6.69	5084	417	366	369
3.2 Using Debit Cards $	59965.70	4922.18	4601.37	4370.89	3046987	243930	238883	229713
3.3 Using Pre-paid Cards $	245.16	19.62	17.86	17.89	11005	876	849	870
4 Cash Withdrawal at PoS $ (4.1 to 4.2)	3.58	0.27	0.13	0.12	37	3	1	2
4.1 Using Debit Cards $	3.33	0.25	0.10	0.10	35	3	1	1
4.2 Using Pre-paid Cards $	0.25	0.01	0.02	0.02	3	0	0	0
5 Cash Withrawal at Micro ATMs @	11640.55	975.12	1245.48	1034.96	296622	23389	31157	26356
5.1 AePS @	11640.55	975.12	1245.48	1034.96	296622	23389	31157	26356

PART III - Payment Infrastructures (Lakh)

System	As on March 2025	2024	2025	
		Sep.	Aug.	Sep.
	1	2	3	4
Payment System Infrastructures				
1 Number of Cards (1.1 to 1.2)	11006.97	10793.85	11303.57	11382.14
1.1 Credit Cards	1098.85	1061.03	1123.14	1133.90
1.2 Debit Cards	9908.12	9732.82	10180.42	10248.24
2 Number of PPIs @ (2.1 to 2.2)	13401.46	15339.99	14584.13	16180.40
2.1 Wallets @	8678.44	11381.79	9692.18	11478.95
2.2 Cards @	4723.02	3958.20	4891.95	4701.45
3 Number of ATMs (3.1 to 3.2)	2.56	2.55	2.49	2.49
3.1 Bank owned ATMs $	2.20	2.20	2.12	2.12
3.2 White Label ATMs $	0.36	0.35	0.36	0.37
4 Number of Micro ATMs @	14.82	14.53	14.71	14.60
5 Number of PoS Terminals	110.98	93.43	119.73	121.24
6 Bharat QR @	67.18	64.16	65.97	60.95
7 UPI QR *	6579.30	6070.79	6978.38	7090.66

@: New inclusion w.e.f. November 2019
#: Data reported by Co-operative Banks, LABs and RRBs included with effect from December 2021.
$: Inclusion separately initiated from November 2019 - would have been part of other items hitherto.
*: New inclusion w.e.f. September 2020; Includes only static UPI QR Code

Note : 1. Data is provisional.
2. ECS (Debit and Credit) has been merged with NACH with effect from January 31, 2020.
3. The data from November 2019 onwards for card payments (Debit/Credit cards) and Prepaid Payment Instruments (PPIs) may not be comparable with earlier months/ periods, as more granular data is being published along with revision in data definitions.
4. Only domestic financial transactions are considered. The new format captures e-commerce transactions; transactions using FASTags, digital bill payments and card-to-card transfer through ATMs, etc.. Also, failed transactions, chargebacks, reversals, expired cards/ wallets, are excluded.
Part I-A. Settlement systems
1.1.3: Tri- party Repo under the securities segment has been operationalised from November 05, 2018.
Part I-B. Payments systems
4.1.2: 'Others' includes e-commerce transactions and digital bill payments through ATMs, etc.
4.2.2: 'Others' includes e-commerce transactions, card to card transfers and digital bill payments through ATMs, etc.
5: Available from December 2010.
5.1: includes purchase of goods and services and fund transfer through wallets.
5.2.2: includes usage of PPI Cards for online transactions and other transactions.
6.1: Pertain to three grids – Mumbai, New Delhi and Chennai.
6.2: 'Others' comprises of Non-MICR transactions which pertains to clearing houses managed by 21 banks.
Part II-A. Other payment channels
1: Mobile Payments –
o Include transactions done through mobile apps of banks and UPI apps.
o The data from July 2017 includes only individual payments and corporate payments initiated, processed, and authorised using mobile device. Other corporate payments which are not initiated, processed, and authorised using mobile device are excluded.
2: Internet Payments – includes only e-commerce transactions through 'netbanking' and any financial transaction using internet banking website of the bank.
Part II-B. ATMs
3.3 and 4.2: only relates to transactions using bank issued PPIs.
Part III. Payment systems infrastructure
3: Includes ATMs deployed by Scheduled Commercial Banks (SCBs) and White Label ATM Operators (WLAOs). WLAs are included from April 2014 onwards.

Occasional Series

No. 45: Small Savings

(₹ Crore)

Scheme		2023-24	2024		2025	
			Feb.	Dec.	Jan.	Feb.
		1	2	3	4	5
1 Small Savings	**Receipts**	**232460**	**14570**	**11133**	**12581**	**11379**
	Outstanding	**1865029**	**1819758**	**1982465**	**1994553**	**2005585**
1.1 Total Deposits	**Receipts**	**161344**	**10025**	**8734**	**9178**	**8077**
	Outstanding	**1298795**	**1268920**	**1395484**	**1404661**	**1412738**
1.1.1 Post Office Saving Bank Deposits	Receipts	17229	1520	1090	2702	814
	Outstanding	191692	218498	201999	204701	205515
1.1.2 Sukanya Samriddhi Yojna	Receipts	35174	2233	2244	2347	2282
	Outstanding	157611	109222	177007	179354	181636
1.1.3 National Saving Scheme, 1987	Receipts	0	0	0	0	0
	Outstanding	0	0	0	0	0
1.1.4 National Saving Scheme, 1992	Receipts	0	0	0	0	0
	Outstanding	0	0	0	0	0
1.1.5 Monthly Income Scheme	Receipts	26696	1927	827	1279	1045
	Outstanding	269007	267205	282142	283421	284466
1.1.6 Senior Citizen Scheme 2004	Receipts	38167	2153	1531	1922	1952
	Outstanding	175472	173476	194605	196527	198479
1.1.7 Post Office Time Deposits	Receipts	25341	2632	2125	2853	2108
	Outstanding	305776	303000	330912	333764	335872
1.1.7.1 1 year Time Deposits	Outstanding	140423	138552	159174	161578	163358
1.1.7.2 2 year Time Deposits	Outstanding	11967	11730	14299	14476	14637
1.1.7.3 3 year Time Deposits	Outstanding	8932	8782	10308	10487	10645
1.1.7.4 5 year Time Deposits	Outstanding	144454	143936	147131	147223	147232
1.1.8 Post Office Recurring Deposits	Receipts	18713	-420	1025	-1831	-25
	Outstanding	197134	195727	207269	205438	205413
1.1.9 Post Office Cumulative Time Deposits	Receipts	0	0	0	0	0
	Outstanding	0	0	0	0	0
1.1.10 Other Deposits	Receipts	8	-20	-108	-95	-100
	Outstanding	1754	1444	1195	1100	1000
1.1.11 PM Care for children	Receipts	16	0	0	1	1
	Outstanding	349	348	355	356	357
1.2 Saving Certificates	**Receipts**	**56069**	**3940**	**2226**	**3019**	**2858**
	Outstanding	**418021**	**414597**	**438074**	**440601**	**443112**
1.2.1 National Savings Certificate VIII issue	Receipts	16853	1446	430	796	762
	Outstanding	183905	180181	192621	193417	194179
1.2.2 Indira Vikas Patras	Receipts	0	0	0	0	0
	Outstanding	0	0	0	0	0
1.2.3 Kisan Vikas Patras	Receipts	0	0	0	0	0
	Outstanding	0	0	0	0	0
1.2.4 Kisan Vikas Patras - 2014	Receipts	20939	1428	1113	1376	1247
	Outstanding	220560	219498	228707	230083	231330
1.2.5 National Saving Certificate VI issue	Receipts	0	0	0	0	0
	Outstanding	0	0	0	0	0
1.2.6 National Saving Certificate VII issue	Receipts	0	0	0	0	0
	Outstanding	0	0	0	0	0
1.2.7 M.S. Certificates	Receipts	18277	1066	683	847	849
	Outstanding	18277	17235	25303	26150	26999
1.2.8 Other Certificates	Outstanding	-4721	-2317	-8557	-9049	-9396
1.3 Public Provident Fund	**Receipts**	**15047**	**605**	**173**	**384**	**444**
	Outstanding	**148213**	**136241**	**148907**	**149291**	**149735**

Note : Data on receipts from April 2017 are net receipts, i.e., gross receipt minus gross payment.
Source: Accountant General, Post and Telegraphs.

No. 46 : Ownership Pattern of Central and State Governments Securities

(Per cent)

Central Government Dated Securities					
Category	2024			2025	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
(A) Total (in ₹. Crore)	**10946860**	**11271589**	**11422728**	**11642652**	**11854200**
1 Commercial Banks	37.52	37.55	37.98	36.18	35.28
2 Co-operative Banks	1.42	1.35	1.36	1.29	1.29
3 Non-Bank PDs	0.70	0.77	0.65	0.76	0.59
4 Insurance Companies	26.11	25.95	26.14	25.81	25.95
5 Mutual Funds	2.87	3.14	3.11	2.68	2.46
6 Provident Funds	4.41	4.25	4.25	4.24	4.35
7 Pension Funds	4.74	4.86	5.05	4.91	4.96
8 Financial Institutions	0.57	0.63	0.64	0.71	0.74
9 Corporates	1.44	1.60	1.45	1.49	1.26
10 Foreign Portfolio Investors	2.34	2.80	2.81	3.12	2.80
11 RBI	11.92	11.16	10.55	12.78	14.21
12 Others	5.97	5.92	6.01	6.01	6.13
12.1 State Governments	2.13	2.19	2.21	2.25	2.29

State Governments Securities					
Category	2024			2025	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
(B) Total (in ₹. Crore)	**5727482**	**5909490**	**6055711**	**6399564**	**6524417**
1 Commercial Banks	33.85	34.39	35.11	35.40	35.54
2 Co-operative Banks	3.38	3.29	3.22	3.08	3.02
3 Non-Bank PDs	0.59	0.60	0.53	0.61	0.60
4 Insurance Companies	25.85	25.56	25.16	24.07	24.12
5 Mutual Funds	2.08	1.93	1.89	1.93	1.84
6 Provident Funds	22.94	23.02	22.90	23.60	23.72
7 Pension Funds	4.87	4.87	4.82	5.07	4.96
8 Financial Institutions	1.58	1.57	1.58	1.48	1.59
9 Corporates	2.03	1.95	1.97	2.05	1.93
10 Foreign Portfolio Investors	0.05	0.04	0.03	0.05	0.02
11 RBI	0.62	0.60	0.58	0.55	0.54
12 Others	2.17	2.18	2.19	2.10	2.12
12.1 State Governments	0.26	0.26	0.26	0.25	0.25

Treasury Bills					
Category	2024			2025	
	Jun.	Sep.	Dec.	Mar.	Jun.
	1	2	3	4	5
(C) Total (in ₹. Crore)	**858193**	**747242**	**760045**	**790381**	**784059**
1 Commercial Banks	47.79	44.74	40.45	46.58	42.87
2 Co-operative Banks	1.49	1.58	1.22	2.17	1.80
3 Non-Bank PDs	2.69	2.28	1.41	2.09	1.10
4 Insurance Companies	5.78	5.26	4.73	4.23	4.07
5 Mutual Funds	14.50	15.06	15.41	16.15	15.72
6 Provident Funds	0.60	0.26	0.04	0.20	0.09
7 Pension Funds	0.00	0.00	0.00	0.02	0.00
8 Financial Institutions	6.56	6.36	6.77	7.73	6.31
9 Corporates	4.79	4.66	4.56	4.50	3.77
10 Foreign Portfolio Investors	0.20	0.15	0.12	0.09	0.02
11 RBI	0.00	0.00	0.00	0.00	0.00
12 Others	15.59	19.65	25.29	16.23	24.26
12.1 State Governments	11.55	14.95	20.11	11.23	18.34

Notes: (1) The table format is revised since monthly Bulletin for the month of June 2023.
(2) Central Government Dated Securities include special securities and Sovereign Gold Bonds.
(3) State Government Securities include special bonds issued under Ujwal DISCOM Assurance Yojana (UDAY).
(4) Bank PDs are clubbed under Commercial Banks.
(5) The category 'Others' comprises State Governments, DICGC, PSUs, Trusts, Foreign Central Banks, HUF/ Individuals etc.
(6) Data since September 2023 includes the impact of the merger of a non-bank with a bank.

No. 47: Combined Receipts and Disbursements of the Central and State Governments

(₹ Crore)

Item	2019-20	2020-21	2021-22	2022-23	2023-24 RE	2024-25 BE
	1	2	3	4	5	6
1 Total Disbursements	**5410887**	**6353359**	**7098451**	**7880522**	**9110725**	**9800798**
1.1 Developmental	3074492	3823423	4189146	4701611	5514584	5862996
1.1.1 Revenue	2446605	3150221	3255207	3574503	3965270	4195108
1.1.2 Capital	588233	550358	861777	1042159	1453849	1526993
1.1.3 Loans	39654	122844	72163	84949	95464	140895
1.2 Non-Developmental	2253027	2442941	2810388	3069896	3467270	3800321
1.2.1 Revenue	2109629	2271637	2602750	2895864	3266628	3537378
1.2.1.1 Interest Payments	955801	1060602	1226672	1377807	1562660	1711972
1.2.2 Capital	141457	169155	175519	171131	196073	259346
1.2.3 Loans	1941	2148	32119	2902	4569	3597
1.3 Others	83368	86995	98916	109015	128871	137481
2 Total Receipts	**5734166**	**6397162**	**7156342**	**7855370**	**9054999**	**9650488**
2.1 Revenue Receipts	3851563	3688030	4823821	5447913	6379349	7209647
2.1.1 Tax Receipts	3231582	3193390	4160414	4809044	5456913	6142276
2.1.1.1 Taxes on commodities and services	2012578	2076013	2626553	2865550	3248450	3631569
2.1.1.2 Taxes on Income and Property	1216203	1114805	1530636	1939550	2204462	2506181
2.1.1.3 Taxes of Union Territories (Without Legislature)	2800	2572	3225	3943	4001	4526
2.1.2 Non-Tax Receipts	619981	494640	663407	638870	922436	1067371
2.1.2.1 Interest Receipts	31137	33448	35250	42975	49552	57273
2.2 Non-debt Capital Receipts	110094	64994	44077	62716	86733	118239
2.2.1 Recovery of Loans & Advances	59515	16951	27665	15970	55895	45125
2.2.2 Disinvestment proceeds	50578	48044	16412	46746	30839	73114
3 Gross Fiscal Deficit [1 - (2.1 + 2.2)]	**1449230**	**2600335**	**2230553**	**2369892**	**2644642**	**2472912**
3A Sources of Financing: Institution-wise						
3A.1 Domestic Financing	1440548	2530155	2194406	2332768	2619811	2456959
3A.1.1 Net Bank Credit to Government	571872	890012	627255	687904	346483	...
3A.1.1.1 Net RBI Credit to Government	190241	107493	350911	529	-257913	...
3A.1.2 Non-Bank Credit to Government	868676	1640143	1567151	1644864	2273328	...
3A.2 External Financing	8682	70180	36147	37124	24832	15952
3B Sources of Financing: Instrument-wise						
3B.1 Domestic Financing	1440548	2530155	2194406	2332768	2619811	2456959
3B.1.1 Market Borrowings (net)	971378	1696012	1213169	1651076	1962969	1983757
3B.1.2 Small Savings (net)	209232	458801	526693	358764	434151	447511
3B.1.3 State Provident Funds (net)	38280	41273	28100	13880	21386	19857
3B.1.4 Reserve Funds	10411	4545	42153	68803	52385	-33653
3B.1.5 Deposits and Advances	-14227	25682	42203	51989	35819	-10138
3B.1.6 Cash Balances	-323279	-43802	-57891	25152	55726	150310
3B.1.7 Others	548753	347643	399980	163104	57374	-100684
3B.2 External Financing	8682	70180	36147	37124	24832	15952
4 Total Disbursements as per cent of GDP	*26.9*	*32.0*	*30.1*	*29.2*	*30.8*	*30.0*
5 Total Receipts as per cent of GDP	*28.5*	*32.2*	*30.3*	*29.1*	*30.7*	*29.6*
6 Revenue Receipts as per cent of GDP	*19.2*	*18.6*	*20.4*	*20.2*	*21.6*	*22.1*
7 Tax Receipts as per cent of GDP	*16.1*	*16.1*	*17.6*	*17.8*	*18.5*	*18.8*
8 Gross Fiscal Deficit as per cent of GDP	*7.2*	*13.1*	*9.5*	*8.8*	*9.0*	*7.6*

… : Not available; RE: Revised Estimates; BE: Budget Estimates

Source : Budget Documents of Central and State Governments.

Notes: GDP data is based on 2011-12 base. GDP for 2024-25 is from Union Budget 2024-25.
Data pertains to all States and Union Territories.
1 & 2: Data are net of repayments of the Central Government (including repayments to the NSSF) and State Governments.
1.3: Represents compensation and assignments by States to local bodies and Panchayati Raj institutions.
2: Data are net of variation in cash balances of the Central and State Governments and includes borrowing receipts of the Central and State Governments.
3A.1.1: Data as per RBI records.
3B.1.1: Borrowings through dated securities.
3B.1.2: Represent net investment in Central and State Governments' special securities by the National Small Savings Fund (NSSF).
This data may vary from previous publications due to adjustments across components with availability of new data.
3B.1.6: Include Ways and Means Advances by the Centre to the State Governments.
3B.1.7: Include Treasury Bills, loans from financial institutions, insurance and pension funds, remittances, cash balance investment account.

No. 48: Financial Accommodation Availed by State Governments under various Facilities

(₹ Crore)

Sr. No	State/Union Territory	During September-2025					
		Special Drawing Facility (SDF)		Ways and Means Advances (WMA)		Overdraft (OD)	
		Average amount availed	Number of days availed	Average amount availed	Number of days availed	Average amount availed	Number of days availed
	1	2	3	4	5	6	7
1	Andhra Pradesh	6822.75	30	2425.26	30	2635.60	16
2	Arunachal Pradesh	-	-	-	-	-	-
3	Assam	1307.57	21	-	-	-	-
4	Bihar	-	-	-	-	-	-
5	Chhattisgarh	167.58	6	-	-	-	-
6	Goa	70.72	1	-	-	-	-
7	Gujarat	-	-	-	-	-	-
8	Haryana	785.63	18	68.36	1	-	-
9	Himachal Pradesh	-	-	408.43	20	327.15	8
10	Jammu & Kashmir UT	37.45	6	183.51	6	-	-
11	Jharkhand	1487.32	23	907.55	16	607.04	9
12	Karnataka	-	-	-	-	-	-
13	Kerala	1484.14	30	852.37	19	1944.39	1
14	Madhya Pradesh	-	-	-	-	-	-
15	Maharashtra	-	-	-	-	-	-
16	Manipur	67.86	7	128.91	2	-	-
17	Meghalaya	341.10	29	146.10	4	-	-
18	Mizoram	89.55	13	-	-	-	-
19	Nagaland	452.73	30	-	-	-	-
20	Odisha	-	-	-	-	-	-
21	Puducherry	-	-	-	-	-	-
22	Punjab	4886.42	30	1317.89	30	874.89	8
23	Rajasthan	3637.22	30	1309.15	20	-	-
24	Tamil Nadu	-	-	-	-	-	-
25	Telangana	5028.59	30	1702.10	26	722.39	6
26	Tripura	-	-	-	-	-	-
27	Uttar Pradesh	-	-	-	-	-	-
28	Uttarakhand	981.29	30	-	-	-	-
29	West Bengal	-	-	-	-	-	-

Notes: 1. SDF is availed by State Governments against the collateral of Consolidated Sinking Fund (CSF), Guarantee Redemption Fund (GRF) & Auction Treasury Bills (ATBs) balances and other investments in government securities.
2. WMA is advance by Reserve Bank of India to State Governments for meeting temporary cash mismatches.
3. OD is advanced to State Governments beyond their WMA limits.
4. Average amount availed is the total accommodation (SDF/WMA/OD) availed divided by number of days for which accommodation was extended during the month.
5.- : Nil.

Source: Reserve Bank of India.

No. 49: Investments by State Governments

(₹ Crore)

Sr. No	State/Union Territory	As on end of September 2025			
		Consolidated Sinking Fund (CSF)	Guarantee Redemption Fund (GRF)	Government Securities	Auction Treasury Bills (ATBs)
	1	2	3	4	5
1	Andhra Pradesh	12176	1198	0	0
2	Arunachal Pradesh	3095	8	0	6350
3	Assam	8053	94	0	0
4	Bihar	15029	972	0	13500
5	Chhattisgarh	8644	1002	0	11630
6	Goa	1181	481	0	0
7	Gujarat	16048	701	0	2000
8	Haryana	2741	1796	0	0
9	Himachal Pradesh	-	-	0	0
10	Jammu & Kashmir UT	55	55	0	0
11	Jharkhand	3134	-	0	780
12	Karnataka	21288	786	0	56497
13	Kerala	3390	0	0	0
14	Madhya Pradesh	-	1340	0	850
15	Maharashtra	73695	3221	0	0
16	Manipur	73	147	0	0
17	Meghalaya	1337	114	0	0
18	Mizoram	530	84	0	0
19	Nagaland	1994	49	0	0
20	Odisha	19166	2151	0	15955
21	Puducherry	609	-	0	1750
22	Punjab	10522	960	0	0
23	Rajasthan	2932	377	0	5750
24	Tamil Nadu	3620	-	0	4718
25	Telangana	8310	1823	0	0
26	Tripura	1385	31	0	0
27	Uttarakhand	5940	320	0	0
28	Uttar Pradesh	19690	5459	0	10000
29	West Bengal	15032	1137	0	10000
	Total	**259668**	**24309**	**0**	**139780**

Notes: 1. CSF and GRF are reserve funds maintained by some State Governments with the Reserve Bank of India.
2. ATBs include investment by State Governments in Treasury bills of 91 days, 182 days and 364 days in the primary market.
3. - : Not Applicable (not a member of the scheme).

No. 50: Market Borrowings of State Governments

(₹ Crore)

Sr. No.	State	2023-24		2024-25		2025-26						Total amount raised, so far in 2025-26	
						July		August		September			
		Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross Amount Raised	Net Amount Raised	Gross	Net
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Andhra Pradesh	68400	55330	78205	57123	5600	3300	5000	3800	5000	4000	42172	33172
2	Arunachal Pradesh	902	672	1010	704	-	-	-	-	-	-	-	-130
3	Assam	18500	16000	19000	13850	1400	1400	1104	1104	2300	1800	8304	6854
4	Bihar	47612	29910	47546	30890	6000	6000	6000	6000	14000	11922	26000	23922
5	Chhattisgarh	32000	26213	24500	16913	-	-700	-	-	500	500	4470	3770
6	Goa	2550	1560	1050	250	100	-	300	200	200	-	800	100
7	Gujarat	30500	11947	38200	16280	3000	3000	3500	2500	3000	700	19500	8440
8	Haryana	47500	28364	49500	31710	3000	945	3000	2000	3500	1500	19500	9970
9	Himachal Pradesh	8072	5856	7359	4725	1919	1919	1500	1000	-	-200	6419	5069
10	Jammu & Kashmir UT	16337	13904	13170	11416	1100	600	1100	650	700	700	5405	3955
11	Jharkhand	1000	-2505	3500	-2005	-	-1000	-	-	2000	2000	2000	1000
12	Karnataka	81000	63003	92025	71525	-	-	-	-	-	-	-	-1000
13	Kerala	42438	26638	53666	37966	5000	2500	4988	1988	5000	5000	26988	16988
14	Madhya Pradesh	38500	26264	63400	47206	6800	5300	8800	7300	7000	5000	30877	24877
15	Maharashtra	110000	79738	123000	90917	24000	21000	12000	9000	8500	5500	66000	52000
16	Manipur	1426	1076	1500	1037	250	100	-	-	350	350	1350	1000
17	Meghalaya	1364	912	1882	997	-	-50	300	-	500	500	1650	1130
18	Mizoram	901	641	1169	939	100	100	100	100	150	90	475	340
19	Nagaland	2551	2016	1550	950	-	-	-	-	400	250	400	50
20	Odisha	0	-4658	20780	17780	3000	3000	2000	2000	1000	1000	6000	6000
21	Puducherry	1100	475	1600	880	-	-200	-	-	350	350	550	350
22	Punjab	42386	29517	40828	32466	5000	4400	1500	-	2933	1521	25233	17579
23	Rajasthan	73624	49718	75185	49479	5500	4000	6000	5000	3000	500	38100	24538
24	Sikkim	1916	1701	1951	1621	-	-	-	-	500	500	500	500
25	Tamil Nadu	113001	75970	123625	89894	7000	5500	8000	5600	9000	7500	48300	30650
26	Telangana	49618	39385	56209	42199	8500	6000	8000	7200	12000	10800	45900	35752
27	Tripura	0	-550	0	-150	-	-200	-	-	-	-	800	600
28	Uttar Pradesh	97650	85335	45000	23185	3000	1000	3000	2000	-	-2000	12000	-2233
29	Uttarakhand	6300	3800	10400	8000	1000	1000	-	-500	-	-500	3000	1250
30	West Bengal	69910	48910	76500	54600	5500	4000	5500	4000	5500	4000	24000	15500
	Grand Total	1007058	717140	1073310	753345	96769	72914	81692	60942	87383	63283	466692	321992

- : Nil.

Note: The State of J&K has ceased to exist constitutionally from October 31, 2019 and the liabilities of the State continue to remain as liabilities of the new UT of Jammu and Kashmir.

Source: Reserve Bank of India.

No. 51 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise

(Amount in ₹ Crore)

Item	2022-23				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	**287802.7**	**297217.6**	**293954.9**	**451660.3**	**1330635.4**
Per cent of GDP	*4.4*	*4.6*	*4.3*	*6.4*	*4.9*
I. Financial Assets	**577822.4**	**632335.6**	**748109.7**	**968986.1**	**2927253.7**
Per cent of GDP	*8.9*	*9.8*	*11.0*	*13.6*	*10.9*
of which:					
1.Total Deposits (a+b)	**185429.1**	**317361.2**	**280233.1**	**325852.7**	**1108876.2**
(a) Bank Deposits	**163172.4**	**299532.7**	**256399.7**	**307866.8**	**1026971.5**
i. Commercial Banks	158613.3	300565.0	248459.8	284968.0	992606.2
ii. Co-operative Banks	4559.0	-1032.4	7939.8	22898.9	34365.3
(b) Non-Bank Deposits	**22256.8**	**17828.6**	**23833.5**	**17985.9**	**81904.7**
of which:					
Other Financial Institutions (i+ii)	**6504.8**	**2076.7**	**8081.6**	**2234.0**	**18897.1**
i. Non-Banking Financial Companies	4230.6	3267.2	3246.9	3945.8	14690.4
ii. Housing Finance Companies	2274.2	-1190.5	4834.7	-1711.8	4206.6
2. Life Insurance Funds	**73357.5**	**151737.1**	**167581.7**	**156268.5**	**548944.9**
3. Provident and Pension Funds (including PPF)	**146719.1**	**118171.9**	**136388.4**	**216513.6**	**617793.1**
4. Currency	**66438.9**	**-54579.3**	**76760.1**	**148990.1**	**237609.7**
5. Investments	**51502.6**	**48530.1**	**49778.6**	**64150.6**	**213961.9**
of which:					
(a) Mutual Funds	35443.5	44484.0	40205.9	58954.5	179087.8
(b) Equity	13560.9	1378.2	6434.1	1664.9	23038.1
6. Small Savings (excluding PPF)	**54375.1**	**51114.5**	**37367.7**	**57210.6**	**200068.0**
II. Financial Liabilities	**290019.7**	**335118.0**	**454154.8**	**517325.8**	**1596618.3**
Per cent of GDP	*4.5*	*5.2*	*6.7*	*7.3*	*5.9*
Loans/Borrowings					
1. Financial Corporations (a+b)	**289781.5**	**334879.7**	**453916.6**	**517087.5**	**1595665.3**
(a) Banking Sector	**234235.0**	**263450.2**	**370782.9**	**383843.2**	**1252311.4**
of which:					
i. Commercial Banks	230283.8	261265.3	368304.6	331291.0	1191144.8
(b) Other Financial Institutions	**55546.4**	**71429.5**	**83133.7**	**133244.3**	**343353.9**
i. Non-Banking Financial Companies	30531.7	36650.3	55791.7	94565.3	217539.1
ii. Housing Finance Companies	22336.7	33031.2	24903.3	36745.8	117017.0
iii. Insurance Corporations	2678.0	1747.9	2438.7	1933.2	8797.8
2. Non-Financial Corporations (Private Corporate Business)	**33.7**	**33.7**	**33.7**	**33.7**	**135.0**
3. General Government	**204.5**	**204.5**	**204.5**	**204.5**	**818.0**

No. 51 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise (Contd.)

(Amount in ₹ Crore)

Item	2023-24				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	**349607.1**	**283994.4**	**294431.6**	**666547.4**	**1594580.4**
Per cent of GDP	*4.8*	*3.9*	*3.8*	*8.4*	*5.3*
I. Financial Assets	**671244.1**	**810128.8**	**805066.2**	**1187279.1**	**3473718.2**
Per cent of GDP	*9.3*	*11.2*	*10.4*	*14.9*	*11.5*
of which:					
1.Total Deposits (a+b)	**266680.3**	**407948.0**	**296931.3**	**406706.9**	**1378266.4**
(a) Bank Deposits	**253004.1**	**501768.5**	**277432.0**	**390720.4**	**1422924.9**
i. Commercial Banks	243833.9	502260.7	280096.7	383460.6	1409651.9
ii. Co-operative Banks	9170.2	-492.2	-2664.7	7259.8	13273.0
(b) Non-Bank Deposits	**13676.2**	**-93820.5**	**19499.4**	**15986.5**	**-44658.5**
of which:					
Other Financial Institutions (i+ii)	**-485.4**	**-107982.1**	**5337.7**	**1824.9**	**-101304.9**
i. Non-Banking Financial Companies	6119.3	4782.3	4895.8	1942.9	17740.3
ii. Housing Finance Companies	-6604.7	-112764.4	441.9	-118.0	-119045.2
2. Life Insurance Funds	**157301.9**	**140356.8**	**160135.2**	**189267.6**	**647061.4**
3. Provident and Pension Funds (including PPF)	**163686.0**	**148356.1**	**153435.1**	**253882.9**	**719360.2**
4. Currency	**-48636.2**	**-36700.8**	**56719.0**	**146643.8**	**118025.7**
5. Investments	**41014.3**	**72664.6**	**79238.2**	**108336.6**	**301253.8**
of which:					
(a) Mutual Funds	32085.6	55768.8	60134.6	90973.0	238962.1
(b) Equity	3756.7	7146.3	9941.1	8236.1	29080.1
6. Small Savings (excluding PPF)	**91197.8**	**77504.1**	**58607.4**	**82441.4**	**309750.7**
II. Financial Liabilities	**321637.1**	**526134.4**	**510634.6**	**520731.7**	**1879137.8**
Per cent of GDP	*4.5*	*7.3*	*6.6*	*6.5*	*6.2*
Loans/Borrowings					
1. Financial Corporations (a+b)	**321519.8**	**526016.2**	**510516.4**	**520613.5**	**1878665.8**
(a) Banking Sector	**213606.3**	**868873.9**	**402647.1**	**392330.5**	**1877457.7**
of which:					
i. Commercial Banks	208026.5	875654.0	389898.0	382557.9	1856136.4
(b) Other Financial Institutions	**107913.6**	**-342857.7**	**107869.2**	**128283.0**	**1208.0**
i. Non-Banking Financial Companies	81448.8	59683.7	85031.8	100836.5	327000.7
ii. Housing Finance Companies	23784.0	-404294.0	21233.4	25852.9	-333423.7
iii. Insurance Corporations	2680.7	1752.6	1604.0	1593.6	7631.0
2. Non-Financial Corporations (Private Corporate Business)	**33.7**	**34.7**	**34.7**	**34.7**	**138.0**
3. General Government	**83.5**	**83.5**	**83.5**	**83.5**	**334.0**

No. 51 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise (Concld.)

(Amount in ₹ Crore)

Item	2024-25				
	Q1	Q2	Q3	Q4	Annual
Net Financial Assets (I-II)	**551994.2**	**496676.1**	**271043.1**	**674489.0**	**1994202.4**
Per cent of GDP	*7.0*	*6.3*	*3.2*	*7.6*	*6.0*
I. Financial Assets	**840665.3**	**901135.4**	**689663.5**	**1129381.1**	**3560845.4**
Per cent of GDP	*10.6*	*11.5*	*8.1*	*12.8*	*10.8*
of which:					
1.Total Deposits (a+b)	**274567.9**	**403591.4**	**158320.8**	**418183.6**	**1254663.6**
(a) Bank Deposits	**254885.4**	**388328.6**	**141290.0**	**401577.5**	**1186081.4**
i. Commercial Banks	251171.1	389734.0	147864.7	395337.4	1184107.2
ii. Co-operative Banks	3714.3	-1405.4	-6574.7	6240.0	1974.2
(b) Non-Bank Deposits	**19682.4**	**15262.8**	**17030.8**	**16606.1**	**68582.2**
of which:					
Other Financial Institutions (i+ii)	**7461.4**	**3041.8**	**4809.8**	**4385.1**	**19698.2**
i. Non-Banking Financial Companies	6289.7	3230.0	4444.5	4220.0	18184.2
ii. Housing Finance Companies	1171.7	-188.2	365.4	165.1	1514.0
2. Life Insurance Funds	**175427.0**	**178835.2**	**90159.4**	**90393.0**	**534814.6**
3. Provident and Pension Funds (including PPF)	**170218.2**	**170219.6**	**170758.3**	**281332.6**	**792528.6**
4. Currency	**34212.5**	**-57615.2**	**70840.8**	**162236.1**	**209674.1**
5. Investments	**120638.2**	**152637.1**	**159255.2**	**103720.8**	**536251.4**
of which:					
(a) Mutual Funds	106987.0	137618.0	124132.0	97193.0	465930.0
(b) Equity	14448.0	15645.0	36063.1	7410.3	73566.5
6. Small Savings (excluding PPF)	**65601.6**	**53467.4**	**40329.0**	**73515.0**	**232913.0**
II. Financial Liabilities	**288671.1**	**404459.3**	**418620.4**	**454892.1**	**1566642.9**
Per cent of GDP	*3.7*	*5.2*	*4.9*	*5.2*	*4.7*
Loans/Borrowings					
1. Financial Corporations (a+b)	**288492.4**	**404280.6**	**418441.7**	**454713.3**	**1565928.0**
(a) Banking Sector	**205040.4**	**322147.7**	**319626.6**	**387045.6**	**1233860.3**
of which:					
i. Commercial Banks	208525.3	321241.4	302569.3	379856.5	1212192.4
(b) Other Financial Institutions	**83452.0**	**82132.9**	**98815.0**	**67667.7**	**332067.7**
i. Non-Banking Financial Companies	65813.7	65488.7	75764.5	39833.9	246900.8
ii. Housing Finance Companies	15125.2	14233.6	20561.4	25756.8	75677.0
iii. Insurance Corporations	2513.1	2410.7	2489.1	2077.1	9489.9
2. Non-Financial Corporations (Private Corporate Business)	**34.7**	**34.7**	**34.7**	**34.7**	**139.0**
3. General Government	**144.0**	**144.0**	**144.0**	**144.0**	**576.0**

Notes :
1. Net Financial Savings of households refer to the net financial assets, which are measured as difference of financial asset and liabilities flows.
2. Preliminary estimates for 2024-25 and revised estimates for 2022-23 and 2023-24.
3. The preliminary estimates for 2024-25 will undergo revision with the release of first revised estimates of national income, consumption expenditure, savings, and capital formation, 2024-25 by the NSO.
4. Non-bank deposits apart from other financial institutions, comprises state power utilities, co-operative non credit societies etc.
5. Figures in the columns may not add up to the total due to rounding off.

No. 51 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators

(Amount in ₹ Crore)

Item	Jun-2022	Sep-2022	Dec-2022	Mar-2023
Financial Assets (a+b+c+d+e+f+g+h)	**25621348.1**	**26423992.1**	**27187715.6**	**27844981.1**
Per cent of GDP	*102.8*	*102.6*	*103.3*	*103.5*
(a) Bank Deposits (i+ii)	**11843527.1**	**12143059.7**	**12399459.4**	**12707326.2**
i. Commercial Banks	10987692.1	11288257.2	11536717.0	11821685.0
ii. Co-operative Banks	855834.9	854802.6	862742.4	885641.2
(b) Non-Bank Deposits				
of which:				
Other Financial Institutions	**216170.0**	**218246.7**	**226328.2**	**228562.2**
i. Non-Banking Financial Companies	74794.2	78061.4	81308.3	85254.0
ii. Housing Finance Companies	141375.8	140185.3	145020.0	143308.2
(c) Life Insurance Funds	**5325967.3**	**5559681.9**	**5786592.6**	**5795430.6**
(d) Currency	**2950343.2**	**2895763.9**	**2972524.0**	**3121514.1**
(e) Mutual funds	**2048097.3**	**2260209.7**	**2355315.8**	**2367792.5**
(f) Public Provident Fund (PPF)	**851913.4**	**858591.1**	**864730.6**	**939449.0**
(g) Pension Funds	**744459.2**	**796454.0**	**853412.0**	**898343.0**
(h) Small Savings (excluding PPF)	**1640870.6**	**1691985.1**	**1729352.9**	**1786563.5**
Financial Liabilities (a+b)	**8911860.9**	**9246740.6**	**9700657.2**	**10217744.7**
Per cent of GDP	*35.8*	*35.9*	*36.9*	*38.0*
Loans/Borrowings				
(a) Banking Sector	**7095467.7**	**7358918.0**	**7729700.9**	**8113544.1**
of which:				
i. Commercial Banks	6620073.1	6881338.5	7249643.0	7580934.1
ii. Co-operative Banks	473897.0	476024.8	478486.9	530915.0
(b) Other Financial Institutions	**1816393.1**	**1887822.6**	**1970956.3**	**2104200.7**
of which:				
i. Non-Banking Financial Companies	869174.9	905825.3	961617.0	1056182.3
ii. Housing Finance Companies	835181.3	868212.5	893115.8	929861.7
iii. Insurance Corporations	112036.9	113784.8	116223.5	118156.7

No. 51 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators (Contd.)

(Amount in ₹ Crore)

Item	Jun-2023	Sep-2023	Dec-2023	Mar-2024
Financial Assets (a+b+c+d+e+f+g+h)	**28754605.9**	**29637615.0**	**30737884.8**	**32025210.0**
Per cent of GDP	*104.2*	*104.4*	*105.0*	*106.3*
(a) Bank Deposits (i+ii)	**12960330.3**	**13462098.8**	**13739530.7**	**14130251.1**
i. Commercial Banks	12065518.9	12567779.6	12847876.2	13231336.9
ii. Co-operative Banks	894811.4	894319.2	891654.5	898914.3
(b) Non-Bank Deposits				
of which:				
Other Financial Institutions	**228076.8**	**120094.7**	**125432.4**	**127257.3**
i. Non-Banking Financial Companies	91373.3	96155.6	101051.4	102994.3
ii. Housing Finance Companies	136703.5	23939.1	24381.0	24263.0
(c) Life Insurance Funds	**6064436.9**	**6255801.1**	**6553726.0**	**6820611.8**
(d) Currency	**3072877.9**	**3036177.0**	**3092896.0**	**3239539.8**
(e) Mutual funds	**2626046.1**	**2829859.3**	**3156299.3**	**3387208.3**
(f) Public Provident Fund (PPF)	**955060.6**	**960343.6**	**964851.5**	**1051376.5**
(g) Pension Funds	**970016.0**	**1017975.0**	**1091276.0**	**1172651.0**
(h) Small Savings (excluding PPF)	**1877761.2**	**1955265.4**	**2013872.8**	**2096314.2**
Financial Liabilities (a+b)	**10539264.5**	**11065280.7**	**11575797.1**	**12096410.5**
Per cent of GDP	*38.2*	*39.0*	*39.6*	*40.2*
Loans/Borrowings				
(a) Banking Sector	**8327150.3**	**9196024.2**	**9598671.3**	**9991001.8**
of which:				
i. Commercial Banks	7788960.6	8664614.6	9054512.6	9437070.5
ii. Co-operative Banks	536409.2	529527.7	542240.6	551852.1
(b) Other Financial Institutions	**2212114.2**	**1869256.5**	**1977125.7**	**2105408.7**
of which:				
i. Non-Banking Financial Companies	1137631.1	1197314.8	1282346.6	1383183.0
ii. Housing Finance Companies	953645.7	549351.7	570585.1	596438.0
iii. Insurance Corporations	120837.4	122590.0	124194.0	125787.7

No. 51 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators (Concld.)

(Amount in ₹ Crore)

Item	Jun-2024	Sep-2024	Dec-2024	Mar-2025
Financial Assets (a+b+c+d+e+f+g+h)	**33253098.6**	**34421189.5**	**34532805.6**	**35264710.9**
Per cent of GDP	*107.9*	*109.6*	*107.2*	*106.6*
(a) Bank Deposits (i+ii)	**14385136.5**	**14773465.1**	**14914755.1**	**15316332.6**
i. Commercial Banks	13482508.0	13872242.0	14020106.6	14415444.1
ii. Co-operative Banks	902628.6	901223.2	894648.5	900888.5
(b) Non-Bank Deposits				
of which:				
Other Financial Institutions	**134718.7**	**137760.5**	**142570.3**	**146955.5**
i. Non-Banking Financial Companies	109284.0	112514.0	116958.5	121178.5
ii. Housing Finance Companies	25434.7	25246.5	25611.9	25777.0
(c) Life Insurance Funds	**7123527.6**	**7385938.1**	**7272871.3**	**7293099.1**
(d) Currency	**3273752.3**	**3216137.1**	**3286977.8**	**3449213.9**
(e) Mutual funds	**3866386.1**	**4291914.4**	**4224091.7**	**4128924.5**
(f) Public Provident Fund (PPF)	**1059829.5**	**1063056.1**	**1064212.0**	**1157449.2**
(g) Pension Funds	**1247832.0**	**1337535.0**	**1371615.0**	**1443509.0**
(h) Small Savings (excluding PPF)	**2161915.8**	**2215383.2**	**2255712.2**	**2329227.2**
Financial Liabilities (a+b)	**12384902.9**	**12789183.5**	**13207625.1**	**13662338.5**
Per cent of GDP	*40.2*	*40.7*	*41.0*	*41.3*
Loans/Borrowings				
(a) Banking Sector	**10196042.2**	**10518189.9**	**10837816.5**	**11224862.1**
of which:				
i. Commercial Banks	9645595.7	9966837.1	10269406.4	10649262.8
ii. Co-operative Banks	548284.4	549069.4	566104.4	573131.8
(b) Other Financial Institutions	**2188860.7**	**2270993.6**	**2369808.7**	**2437476.4**
of which:				
i. Non-Banking Financial Companies	1448996.8	1514485.5	1590250.0	1630083.9
ii. Housing Finance Companies	611563.2	625796.8	646358.2	672115.0
iii. Insurance Corporations	128300.7	130711.4	133200.5	135277.5

Notes :
1. Data as ratios to GDP have been calculated based on the Provisional Estimates of National Income 2024-25, released by NSO on May 30, 2025.
2. Pension funds comprises funds with the National Pension Scheme.
3. Outstanding deposits with Small Savings are sourced from the Controller General of Accounts, Government of India.
4. Non-bank deposits apart from other financial institutions, comprises state power utilities, co-operative non credit societies etc. Data for outstanding deposits are available only for other financial institutions.
5. Figures in the columns may not add up to the total due to rounding off.

Explanatory Notes to the Current Statistics

Table No. 1

1.2& 6: Annual data are average of months.
3.5 & 3.7: Relate to ratios of increments over financial year so far.
4.1 to 4.4, 4.8,4.9 &5: Relate to the last friday of the month/financial year.
4.5, 4.6 & 4.7: Relate to five major banks on the last Friday of the month/financial year.
4.10 to 4.12: Relate to the last auction day of the month/financial year.
4.13: Relate to last day of the month/ financial year
7.1&7.2: Relate to Foreign trade in US Dollar.

Table No. 2

2.1.2: Include paid-up capital, reserve fund and Long-Term Operations Funds.
2.2.2: Include cash, fixed deposits and short-term securities/bonds, e.g., issued by IIFC (UK).

Table No. 4

Maturity-wise position of outstanding forward contracts is available at http://nsdp.rbi.org.in under ''Reserves Template''.

Table No. 5

Special refinance facility to Others, *i.e.* to the EXIM Bank, is closed since March 31, 2013.

Table No. 6

For scheduled banks, March-end data pertain to the last reporting Friday.
1.1: Notes in Circulation include CBDC-Retail (R) and CBDC-Wholesale (W).
1.4: Cash on Hand with Banks includes CBDC-W.
2.2: Exclude balances held in IMF Account No.1, RBI employees' provident fund, pension fund, gratuity and superannuation fund.

Table Nos. 7 & 11

3.1 in Table 7 and 2.4 in Table 11: Include foreign currency denominated bonds issued by IIFC (UK).

Table No. 8

NM_2 and NM_3 do not include FCNR (B) deposits.
2.4: Consist of paid-up capital and reserves.
2.5: includes other demand and time liabilities of the banking system.

Table No. 9

Financial institutions comprise EXIM Bank, SIDBI, NABARD and NHB.
L_1 and L_2 are compiled monthly and L_3 quarterly.
Wherever data are not available, the last available data have been repeated.

Table No. 13

Data against column Nos. (1), (2) & (3) are Final and for column Nos. (4) & (5) data are Provisional.

Table No. 14

Data in column Nos. (4) & (8) are Provisional.

Table No. 17

2.1.1: Exclude reserve fund maintained by co-operative societies with State Co-operative Banks

2.1.2: Exclude borrowings from RBI, SBI, IDBI, NABARD, notified banks and State Governments.

4: Include borrowings from IDBI and NABARD.

Table No. 25

Primary Dealers (PDs) include banks undertaking PD business.

Table No. 31

Exclude private placement and offer for sale.

1: Exclude bonus shares.

2: Include cumulative convertible preference shares and equi-preference shares.

Table No. 33

Exclude investment in foreign currency denominated bonds issued by IIFC (UK), SDRs transferred by Government of India to RBI and foreign currency received under SAARC and ACU currency swap arrangements. Foreign currency assets in US dollar take into account appreciation/depreciation of non-US currencies (such as Euro, Sterling, Yen and Australian Dollar) held in reserves. Foreign exchange holdings are converted into rupees at rupee-US dollar RBI holding rates.

Table No. 35

1.1.1.1.2 & 1.1.1.1.1.4: Estimates.

1.1.1.2: Estimates for latest months.

'Other capital' pertains to debt transactions between parent and subsidiaries/branches of FDI enterprises.

Data may not tally with the BoP data due to lag in reporting.

Table No. 36

1.10: Include items such as subscription to journals, maintenance of investment abroad, student loan repayments and credit card payments.

Table No. 37

Increase in indices indicates appreciation of rupee and *vice versa*. For 6-Currency index, base year 2022-23 is a moving one, which gets updated every year. REER figures are based on Consumer Price Index (combined). The details on methodology used for compilation of NEER/REER indices are available in December 2005, April 2014 and January 2021 issues of the RBI Bulletin.

Table No. 38

Based on applications for ECB/Foreign Currency Convertible Bonds (FCCBs) which have been allotted loan registration number during the period.

Table Nos. 39, 40, 41 & 42

Explanatory notes on these tables are available in December issue of RBI Bulletin, 2012.

Table No. 44

Part I-A. Settlement systems

1.1.3: Tri- party Repo under the securities segment has been operationalised from November 05, 2018.

Part I-B. Payments systems

4.1.2: 'Others' includes e-commerce transactions and digital bill payments through ATMs, *etc.*

4.2.2: 'Others' includes e-commerce transactions, card to card transfers and digital bill payments through ATMs, *etc.*

5: Available from December 2010.

5.1: includes purchase of goods and services and fund transfer through wallets.

5.2.2: includes usage of PPI Cards for online transactions and other transactions.

6.1: Pertain to three grids – Mumbai, New Delhi and Chennai.

6.2: 'Others' comprises of Non-MICR transactions which pertains to clearing houses managed by 21 banks.

Part II-A. Other payment channels

1: Mobile Payments –
- Include transactions done through mobile apps of banks and UPI apps.
- The data from July 2017 includes only individual payments and corporate payments initiated, processed, and authorised using mobile device. Other corporate payments which are not initiated, processed, and authorised using mobile device are excluded.

2: Internet Payments – includes only e-commerce transactions through 'netbanking' and any financial transaction using internet banking website of the bank.

Part II-B. ATMs

3.3 and 4.2: only relates to transactions using bank issued PPIs.

Part III. Payment systems infrastructure

3: Includes ATMs deployed by Scheduled Commercial Banks (SCBs) and White Label ATM Operators (WLAOs). WLAs are included from April 2014 onwards.

Table No. 46

(-) represents nil or negligible

The table format is revised since monthly Bulletin for the month of June 2023.

Central Government Dated Securities include special securities and Sovereign Gold Bonds.

State Government Securities include special bonds issued under Ujwal DISCOM Assurance Yojana (UDAY).

Bank PDs are clubbed under Commercial Banks.

The category 'Others' comprises State Governments, DICGC, PSUs, Trusts, Foreign Central Banks, HUF/ Individuals *etc.*

Data since September 2023 includes the impact of the merger of a non-bank with a bank.

Table No. 47

GDP data is based on 2011-12 base. GDP for 2023-24 is from Union Budget 2023-24.

Data pertains to all States and Union Territories.

1 & 2: Data are net of repayments of the Central Government (including repayments to the NSSF) and State Governments.

1.3: Represents compensation and assignments by States to local bodies and Panchayati Raj institutions.

2: Data are net of variation in cash balances of the Central and State Governments and includes borrowing receipts of the Central and State Governments.

3A.1.1: Data as per RBI records.

3B.1.1: Borrowings through dated securities.

3B.1.2: Represent net investment in Central and State Governments' special securities by the National Small Savings Fund (NSSF).

This data may vary from previous publications due to adjustments across components with availability of new data.

3B.1.6: Include Ways and Means Advances by the Centre to the State Governments.

3B.1.7: Include Treasury Bills, loans from financial institutions, insurance and pension funds, remittances, cash balance investment account.

Table No. 48

SDF is availed by State Governments against the collateral of Consolidated Sinking Fund (CSF), Guarantee Redemption Fund (GRF) & Auction Treasury Bills (ATBs) balances and other investments in government securities.

WMA is advance by Reserve Bank of India to State Governments for meeting temporary cash mismatches.

OD is advanced to State Governments beyond their WMA limits.

Average amount Availed is the total accommodation (SDF/WMA/OD) availed divided by number of days for which accommodation was extended during the month.

- : Nil.

Table No. 49

CSF and GRF are reserve funds maintained by some State Governments with the Reserve Bank of India.

ATBs include Treasury bills of 91 days, 182 days and 364 days invested by State Governments in the primary market.

--: Not Applicable (not a member of the scheme).

The concepts and methodologies for Current Statistics are available in Comprehensive Guide for Current Statistics of the RBI Monthly Bulletin **(https://rbi.org.in/Scripts/PublicationsView.aspx?id=17618)**

Time series data of 'Current Statistics' is available at https://data.rbi.org.in.

Detailed explanatory notes are available in the relevant press releases issued by RBI and other publications/releases of the Bank such as **Handbook of Statistics on the Indian Economy**.

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8. Report on Trend and Progress of Banking in India 2023-24	Issued as Supplement to RBI Bulletin January, 2025	
9. Annual Report 2024-25	Issued as Supplement to RBI Bulletin June, 2025	
10. Financial Stability Report, June 2025	Issued as Supplement to RBI Bulletin July, 2025	
11. Monetary Policy Report - October 2025	Included in RBI Bulletin October 2025	
12. Report on Municipal Finances - November 2024	₹300 per copy (over the counter) ₹350 per copy (inclusive of postal charges)	US$ 16 per copy (inclusive of air mail courier charges)
13. Banking Glossary (English-Hindi)	₹100 per copy (over the counter) ₹150 per copy (inclusive of postal charges)	

Notes

1. Many of the above publications are available at the RBI website (www.rbi.org.in).
2. Time Series data are available at the Database on Indian Economy (https://data.rbi.org.in).
3. The Reserve Bank of India History 1935-2008 (5 Volumes) are available at leading book stores in India.

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