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## SPEECHES

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Fostering Economic Growth through Sustainable  
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Swaminathan J



# *Emerging India: A Land of Stability and Opportunities\**

*Shaktikanta Das*

I am delighted to participate in this symposium on Indian Economy organised by the Institute of Indian Economic Studies (IIES), Tokyo. I understand this event is being organised by the IIES after a gap of 3 years due to the intervening period of the COVID-19 pandemic. Earlier this year in March 2023, Prof. Sakakibara and Mr. Sugaya had visited the Reserve Bank of India in Mumbai when we discussed about my participation in this symposium. I would like to convey my sincere thanks and gratitude to Prof. Sakakibara and the IIES for inviting me to participate in this event today.

The global economy continues to face multiple macroeconomic and geopolitical shocks. The prediction of a global recession has not come true but there are indications that global growth is slowing down amid tightening financial conditions and still elevated inflation. Even as the fallouts of the pandemic, the war in Ukraine and the unprecedented tightening of monetary policy reverberate across the world, the recent developments in West Asia have added to the litany of challenges for the global economy. Policymaking in this scenario becomes extremely challenging with difficult trade-offs – growth versus inflation; price stability versus financial stability; and current exigency versus future sustainability. There is always a risk of doing too little or doing too much. In such a scenario, I would like to start with the Reserve Bank of India's approach to policy making during this turbulent period.

## Our Approach

To protect the economy from the relentless shocks in the recent period, our endeavour has been to remain proactive, pragmatic and prudent in our policy response. We were conscious of the fact that an overdose of monetary medicine, while relieving the pain in the short run, could give rise to increased vulnerability and fragility over a period of time. Following the onset of the COVID-19 pandemic, we injected liquidity, but almost every measure of liquidity injection was for a limited period and was targeted. By doing so, we avoided the pitfall of a liquidity trap. Further, our lending standards were not diluted in terms of our counterparties (banks) and collateral requirements for on-lending to stressed entities or sectors.

On the regulatory side also, our actions were measured. We allowed lenders to offer moratorium on loan repayments and interest payments. We put in place loan resolution frameworks for the COVID-19 related stressed assets thereafter. These loan resolution frameworks were not open ended but subject to achievement of certain financial and operational parameters. The idea was to avoid the phenomenon of 'moral hazard' and other pitfalls typically associated with open ended restructuring of loans.

We are acutely aware that a healthy and efficient banking and financial system is the primary stabilising force against various shocks. Mindful of this, we have carried out a series of reforms in our regulatory and supervisory architecture. We have come out with certain governance guidelines for banks and introduced a scale-based regulation for non-bank financial companies (NBFCs), based on the size and complexity of their businesses. The process of supervision of banks, NBFCs and other financial entities has also been substantially strengthened with the focus being on early detection and pre-emptive

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\* Keynote Speech by Shri Shaktikanta Das, Governor, Reserve Bank of India - November 9, 2023 - Delivered at the Symposium on Indian Economy 2023 organised by Institute of Indian Economic Studies at the Tokyo Chamber of Commerce and Industry, Tokyo, Japan.

correction, rather than reacting to the symptoms of weaknesses.

Thanks to a confluence of factors, including to a large extent, the steps taken by the Reserve Bank, the Indian economy has emerged as an epitome of stability and opportunity. We have not only kept our house in order against large and overlapping global shocks, but also improved our macroeconomic fundamentals and buffers. While growth remains on track, inflation is on a path of moderation, though it is still above the target. The balance sheets of banks and corporates are healthiest in a long time and with the public investment push by the Government, they create favourable conditions for a sustained revival in investment. Consumer confidence, as evident from our surveys, is on a rising trajectory since the pandemic lows. Our external sector inspires confidence as we are reaping export opportunities, in the services sector; our current account deficit remains eminently manageable; and we have bolstered our forex reserves to deal with potential eventualities.

Today, India has become the new engine of global growth with its young demography<sup>1</sup>, improving physical and digital infrastructure and above all, an enabling policy environment. In this context, Japan and India continue to be the natural partners. We share deep historical ties. The teachings of Gautama Buddha have inspired our shared ethos and cultures. We look up to the Japanese "Economic Miracle" as a learning opportunity as we prepare the ground to uplift India's growth trajectory. Japan has played a critical role in infrastructure building in India through several public and private sector partnerships.<sup>2</sup> There are many

collaboration opportunities in frontier technologies such as space technology, artificial intelligence, quantum computing, rare-earths extraction, semiconductors and resilient supply chains, and other areas. Our partnership could also be potentially strengthened in the sphere of human resources. I am sure the future offers limitless possibilities to deepen our engagements for the benefit of our people and the entire world.

It would be worthwhile here to look a little deeper into India's growth drivers, its experience of managing inflation since the pandemic, and the emerging opportunities and challenges especially in the FinTech space.

### **Growth Drivers**

Policy focus on strengthening macroeconomic fundamentals and continued structural reforms have made India distinct in terms of growth outcomes. This was reflected in the rebound in GDP growth after the pandemic from a contraction of 5.8 per cent in 2020-21 (pandemic year) to a growth of 9.1 per cent in 2021-22 and 7.2 per cent in 2022-23. The GDP grew by 7.8 per cent in the first quarter of 2023-24, and the available high frequency indicators suggest continuation of this momentum. For the full year 2023-24, real GDP growth is projected at 6.5 per cent by the Reserve Bank.

The innate resilience of the Indian economy could be attributed to its well diversified economic structure. Although India has made rapid strides in external openness through trade and financial channels and gained competitiveness, its core dependence for growth continues to be its domestic demand which also provides a cushion against external shocks. Among the constituents of aggregate demand, private consumption accounts for over half of GDP (around 57.0 per cent average share during 2011-12 to 2022-23), followed by fixed investment and government consumption. During the post-pandemic recovery, private consumption contributed an average

<sup>1</sup> India is endowed with a great demographic dividend as 68 per cent of the total population estimated at 1.429 billion in the latest World Population Report 2023 (United Nations Population Fund) belongs to 15-64 years.

<sup>2</sup> Some of the flagship infrastructure projects completed/underway through Japanese collaboration include the well-known Delhi Metro; the Western Dedicated Freight Corridor (DFC) and the Delhi Mumbai Industrial Corridor (DMIC); and the Mumbai–Ahmedabad High Speed Rail Corridor (MAHSR), among others.

of 66.0 per cent to GDP growth during 2021-22 and 2022-23.<sup>3</sup> At the same time, structural reforms related to banking, digitalisation, taxation, manufacturing, etc., have laid the foundation for a strong and sustainable growth over the medium and long term.

On the supply side, while the agricultural and the industrial sectors are maintaining their underlying momentum with renewed focus on manufacturing, a major part of India's growth is coming from the services sector which again largely depends on domestic demand. With crucial transformations underway, India's services sector is expected to lift its future trajectory of growth with a major impetus coming from rapid digitalisation of the economy, which could be a game-changer for economic development. The external demand for India's services is also increasingly gaining significance with services exports growing rapidly on the back of rising competitiveness in niche areas. India's services exports are diversifying from information technology (IT) related services to other professional services such as business development, research and development, professional management, accountancy and legal services. Domestic services are also undergoing a steady shift from low-skill consumer-oriented services towards more technology-enabled business services. The newly emerging start-ups are largely concentrated in the services sector. Capitalising on India's impressive public digital infrastructure<sup>4</sup>, many of these start-ups function as service providers for other businesses by offering services ranging from facilitating digitisation and improving access to credit.

### **Managing Inflation**

As in the case of growth, there are some nuances in India's experience in managing inflation *vis-à-vis* other

countries. The nature of inflation shocks throughout much of 2020 and 2021 in India were largely supply side shocks, coming from COVID-19 lockdowns and adverse weather events. As lockdowns were withdrawn and the impact of weather disturbances waned, forces of inflation correction began to operate. The monetary and fiscal support provided during the pandemic were measured and targeted. Consequently, demand-led inflation pressures in India were much less compared to several other economies. The monetary policy committee (MPC) of the Reserve Bank was, therefore, able to look through the intermittent higher inflation prints with the aim of supporting economic growth during and in the aftermath of the COVID-19 pandemic. The MPC took the considered view that policy tightening in such a scenario would only accentuate the growth slowdown and impart higher volatility, without being able to properly address the first-round effects of temporary supply side shocks. This approach was in consonance with the flexibility embedded in our flexible inflation targeting framework wherein the primary objective of monetary policy is to maintain price stability while keeping in mind the objective of growth.

In early 2022, with the waning of COVID-19 shocks on inflation, gradual easing of supply bottlenecks and forecast of a normal monsoon, inflation was expected to witness a significant moderation to the target rate of 4 per cent by Q3:2022-23. These expectations were completely overturned by the war in Ukraine. Initially, the shocks came from the spike in global fuel and food prices, which got further accentuated by local adverse weather events. These shocks got transmitted to the retail prices of goods and services, as domestic economic recovery and rising demand enabled pass-through of the large pent-up input costs. This also imparted stickiness to underlying core inflation. The result was a generalised inflationary impulse.

In the period that followed the Ukraine war in 2022, what stood out in India was the coordinated

<sup>3</sup> In other comparable large Emerging Markets (EMs), the contribution of private consumption to growth was lower, e.g. 60.0 per cent in China, 40.0 per cent in Brazil, and 31.0 per cent in Indonesia during 2021.

<sup>4</sup> Stacking up the Benefits Lessons from India's Digital Journey. IMF Working paper, March 2023.

monetary and fiscal policy response to tame the inflationary pressures. The MPC quickly changed gears by prioritising inflation over growth, while changing its stance from being accommodative to withdrawal of accommodation in April 2022. The MPC then went on to increase the policy repo rate by 250 bps cumulatively between May 2022 and February 2023, to keep inflation expectations anchored, break the core inflation persistence, and contain second round effects.

Looking back, there were several aspects in our conduct of policy that helped in taking decisive and timely action during the heightened inflation pressures seen in 2022-23. First, prudence was the cornerstone of the monetary policy response to the COVID-19 shock, with most of the extraordinary liquidity injection measures being targeted with pre-set end dates. This ensured an orderly unwinding of the monetary stimulus as growth recovered. Second, the Government also adhered to fiscal prudence, with actual fiscal deficit for 2022-23 kept in line with the Budget Estimates. Third, complementing the monetary policy measures were a series of proactive and targeted supply side measures by the Government.<sup>5</sup> All these factors put together, proved to be critical in moderating the price pressures.

As things stand today, the MPC in its October 2023 meeting has projected CPI inflation at 5.4 per cent for 2023-24, a moderation from 6.7 per cent in 2022-23. Headline inflation, however, remains vulnerable to recurring and overlapping food price shocks. The core inflation has also moderated by 170 basis points since its recent peak in January 2023. In these circumstances, monetary policy

remains watchful and actively disinflationary to progressively align inflation to the target, while supporting growth.

### **FinTech Space**

The advent of FinTechs has transformed the landscape of traditional financial services. This has tremendously improved the delivery of financial services by making them faster, cheaper, efficient and more accessible. India is currently the world's third largest FinTech ecosystem in terms of the number of FinTechs operating in India. It is growing at a robust pace and is projected to generate around US\$ 200 billion in revenue by the year 2030<sup>6</sup>, contributing to approximately 13 per cent of the global FinTech industry's total revenue in 2030. The defining feature of the Indian 'model' of digitisation is the lead taken by the Government and the Public Sector in building infrastructures, on top of which innovative products are created by private sector FinTech firms and start-ups.<sup>7</sup> The JAM trinity – a combination of bank accounts (*Jan Dhan*); Aadhaar, India's biometric identity system that provides a single and portable proof of identity; and Mobile phone numbers – has revolutionised India's FinTech ecosystem in terms of financial inclusion, digitisation of financial services, and overall service delivery.

On top of this, the Unified Payments Interface (UPI) has played a phenomenal role in the FinTech revolution in India. Its success story has in fact become an international model. Its ability to instantly transfer money between bank accounts through mobile applications has transformed the way people make digital transactions. The interoperability of UPI across

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<sup>5</sup> These included restrictions on wheat, rice and sugar exports; cut in excise duties for petrol and diesel; exempting imports of pulses from import duties; release of pulses at a discount to states and union territories; stock limits for wheat and pulses; reduction in import duties on various edible oils and additional procurement and discounted sale of key vegetables among others.

<sup>6</sup> [https://www.ey.com/en\\_in/financial-services/how-is-the-fintech-sector-in-india-poised-for-exponential-growth](https://www.ey.com/en_in/financial-services/how-is-the-fintech-sector-in-india-poised-for-exponential-growth)

<sup>7</sup> Initiatives like Payments Bank (2014), Digital India (2015) Startup India (2016), India Stack, Account Aggregators (2016), Peer to Peer (P2P) lending platforms (2017) powered by 24x7 digital payment systems have emerged as key enablers for the development of fintech ecosystem in the country and internationalisation of financial markets.

banks and payments systems has created a unified payment ecosystem. It has facilitated digital payments even for small businesses and street vendors, leading to greater financial inclusion. UPI has also spurred development of new payment related products and services<sup>8</sup>. Further, linking of the UPI with fast payment systems of other countries is also being undertaken. Linkage of fast payment systems of India and Japan may also be explored to leverage the power of fintech and make cross-border payments more efficient and less costly.<sup>9</sup>

The Reserve Bank has also commenced pilot runs of India's central bank digital currency (CBDC), the e-Rupee, for specific use cases in both wholesale and retail segments. Our approach to FinTech ecosystem is customer-centric; focus on good governance; ensuring effective oversight, ethical conduct and risk management; and encouraging self-regulation by the FinTechs themselves through a Self-Regulatory Organisation (SRO).

Although financial innovation enhances ease of payment and lowers its cost, they also pose risks and challenges to the financial system. These risks have a bearing on overall financial stability and market integrity. We, therefore, intend to play a dual role of acting as promoter of innovation as well as being the regulator. While promoting innovation, our focus is

on ensuring a well-regulated ecosystem that addresses systemic risks and challenges.

### **Concluding Observations**

It is a matter of satisfaction that the Indian economy has sailed through the turbulent waters smoothly during the recent years. Driven by its inherent dynamism and supported by a prudent policy mix, growth is getting stronger foothold while inflation is also coming under control. Our economic performance also owes a lot to the very calibrated, focused and targeted monetary and fiscal responses since the pandemic.

I must add that in the current uncertain environment, it is best to avoid any sense of complacency. We remain agile and continue to fortify our macroeconomic fundamentals and buffers. Today, the confidence and trust in India's prospects are at an all-time high. To seize the moment, India looks at Japan as a close partner to usher in a new era of growth and prosperity, for both our countries. We will be celebrating the festival of lights, Deepavali, in a few days in India. With Japan as our close partner, I am sure the land of the rising sun will further light up our spirits to take our economies and well-being of our people to greater heights.

Thank you. Namaskar.

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<sup>8</sup> We are constantly working on new use cases of UPI like UPI Lite that has been introduced for offline payments, and UPI123Pay that allows feature phone users to perform UPI transactions. The infrastructure like RTGS and NEFT are also available on 24x7 basis throughout the year. UPI-PayNow linkage for cross-border remittances between India and Singapore was launched in February 2023. Other similar linkages with several countries are work in progress.

<sup>9</sup> Presently, remittances from Japan make up only a small fraction (0.2 per cent) of the total inward remittance receipts by India. However, the cost of sending remittances from Japan to India through banks is much higher than the United Nations Sustainable Development Goals (UN-SDG) target of 3 per cent. These estimations based on World Bank's Remittance Prices Worldwide database.



# **Price and Financial Stability: Managing Complementarities and Trade-Offs\***

**Shaktikanta Das**

I am delighted to be back at the Kautilya Economic Conclave, 2023. This event is emerging as a leading forum for well-rounded discourse on economic and other policy issues of contemporary relevance. I am sure the eminent gathering here will contribute richly to the discussions on issues and challenges that confront us today and tomorrow.

In the opening line of my latest Monetary Policy Statement on October 6, 2023, I had referred to Kautilya's emphasis on stability in the macroeconomic context. I now propose to share my thoughts on managing the complementarities and trade-offs associated with price and financial stability. I also propose to touch upon the policy mix to achieve these desirable goals, and our experience in dealing with these issues in India. Evidently, the choice of this topic draws inspiration from the nomenclature of this economic conclave.

But let me first begin by commenting on the current global context. The global economy is facing a triad of challenges – (i) slow moderation in inflation which is getting interrupted by recurring and overlapping shocks; (ii) slowing growth, and that too, with fresh and enhanced obstacles; and (iii) lurking risks of financial instability. Central banks with price stability as their primary objective have raised policy rates aggressively, while signalling to keep rates higher for longer. Some of them have taken a pause on rate hikes. Financial stability concerns along

with other factors, have conditioned this pursuit, following the recent banking sector turmoil in some advanced economies. Financial markets have become highly sensitive to every piece of new information. Policy making has become extraordinarily complex amidst such confluence of factors. Increasingly, central bankers face tensions between doing too little or doing too much. While several central banks may prefer the prudence of overkill, somewhat embodied in higher for longer policy stances, financial instability risks rise up to restrain them. With every shock such as the recent simultaneous surge of crude oil prices, bond yields and the US dollar, additional dimensions of policy dilemma present themselves and hamstring their responses.

In such a situation, conflict may arise between the requirements of price and financial stability, but policymakers have to deftly tread a fine balance, as it is important to recognise that price and financial stability reinforce each other in the medium to long term. Stability is the foundation of sustained progress. As Kautilya explained long ago: "*Which is preferable – an immediate small gain or a large gain in the future? A large gain in the future is preferable if it is like a seed yielding fruit in the future.*"<sup>1</sup> Against this background, let me start with the evolution of the idea of price and financial stability in the global context.

## **Global Backdrop: Evolution of Price and Financial Stability**

The role of central banks had evolved by the 19<sup>th</sup> century, as they came to be recognised primarily as the lender of last resort (LOLR) [Bagehot, 1873].<sup>2</sup> The LOLR principle remains the cornerstone of modern central banking and its scope has widened over time to encompass financial stability in respect of financial markets and institutions. Historically, therefore, financial stability has been the core remit of central

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\* Plenary Address by Shri Shaktikanta Das, Governor, Reserve Bank of India – October 20, 2023 – Delivered at the Kautilya Economic Conclave Organised by the Institute of Economic Growth and Ministry of Finance, Government of India, New Delhi.

<sup>1</sup> Kautilya – The Arthashastra by L. N. Rangarajan, Penguin, 1992.

<sup>2</sup> Lombard Street: A Description of the Money Market by Walter Bagehot.

banks involving both prevention and management of financial crisis.

By the second half of the 20<sup>th</sup> century, inflation surges world-wide caused by post-war fiscal activism and recurring oil price shocks, in the backdrop of stagnating economic activity, resulted in price stability being recognised as the prime objective of central banks. As inflation targeting gained ground from the early 1990s, a widely accepted view emerged that monetary policy should primarily – or perhaps solely – focus on price stability, with financial stability falling in the domain of prudential regulation and supervision. Price stability was increasingly seen as the best guarantee of financial stability.

The extended period of steady growth and low and stable inflation during the Great Moderation era of 1990s and early 2000s lulled central banks into a sense of complacency with regard to regulation and supervision of the financial system. Quietly and in parallel, the seeds of financial instability were germinating. Soon, therefore, the conventional wisdom of price stability being an automatic stabiliser of the financial system got wiped off in favour of the view that price stability on its own would not necessarily safeguard financial stability. This view was further reinforced by the global financial crisis (GFC) of 2008.<sup>3</sup> Governor Subbarao (2012) acknowledged this stating that "*The global financial crisis followed by the euro zone debt crisis has changed the theology of central banking in a fundamental way. The orthodoxy of central banking before the 2008 crisis was: single objective – price stability; single instrument – short-term interest rate. ...The crisis came as a powerful rebuke to central banks for having neglected financial stability in their single-minded pursuit of price stability.*"<sup>4</sup>

<sup>3</sup> Several reasons were ascribed to the occurrence of GFC. One reason was high household indebtedness, particularly in advanced economies which rose to unsustainable levels because of leverage, resulting in the US sub-prime mortgage crisis and the European debt sustainability crisis.

<sup>4</sup> Subbarao, D. (2012), "Price Stability, Financial Stability and Sovereign Debt Sustainability Policy Challenges from the New Trilemma", February.

During the GFC, central banks globally undertook large scale monetary stimulus to depress interest rates to ultra-low levels and rekindle animal spirits among investors and households. These measures were aimed at restoring financial stability in the near term, but ended up threatening future price stability, thus posing an inter-temporal tradeoff between price and financial stability. In other words, the large scale monetary and fiscal accommodation undertaken to address financial stability risks during the GFC sowed the seeds of inflationary pressures in subsequent years. In the meantime, central banks had become more proactive on issues of financial stability.

Central banks again faced a trade-off between price and financial stability during the COVID-19 pandemic as economic activity came to a standstill amidst elevated global commodity prices and disruption of supply chains. As the global financial system became awash with stimulus-injected liquidity, concerns were raised about the implication of the liquidity glut for price stability. With the commencement of the war in Ukraine, these concerns materialised and inflation surged to 40-year high levels. The unprecedented rate hikes, which was undertaken by central banks, have resulted in large erosion in profitability of some banks in advanced economies. Obviously, these banks had not adequately factored in the interest rate risks associated with a reversal of the accommodative policy stance pursued during the pandemic. The collapse or failure of some of these banks demonstrated the reverse causality of the trade-off mentioned earlier. In other words, the measures undertaken during the GFC to restore financial stability sowed the seeds of future price instability risks; while this time around after the pandemic and the war, the measures to address price stability led to concerns relating to financial instability in some parts of the world.

Summing up, the last two decades have revealed multiple linkages running between financial stability to price stability and vice versa. Measures

for promoting financial stability can complement or constrain monetary policy depending upon its usage. Financial stability measures aimed at effective regulation and supervision of banks, non-banking financial companies (NBFCs) and markets can enhance monetary transmission and help achieving price stability; whereas financial stability measures *via* extraordinary monetary expansion, if not corrected timely, can jeopardise price stability. Similarly, the linkage from price to financial stability also operates in two ways. First, extended period of low and stable inflation could lead to financial instability through complacency loop as explained earlier; and prolonged periods of depressed growth can keep prices in check, but they could also lead to financial instability. Second, periods of high inflation that are addressed by strong monetary policy tightening can deter financial stability if interest rate risks are not adequately factored in. It is, therefore, evident that the relationship between price stability and financial stability depends upon the policy choices that we make.

### The Indian Experience

The Reserve Bank, with its assigned responsibility to maintain monetary stability and price stability,<sup>5</sup> also has the larger responsibility of maintaining financial stability, as it is the regulator and supervisor of banks and other financial sector entities and markets. Unlike price stability, financial stability is not specifically defined and not explicitly quantifiable. As a result, it has been interpreted subjectively specific to the context and circumstances. Governor Y.V. Reddy defined financial stability in central banking parlance as "*Financial Stability refers to the smooth functioning of the financial markets and institutions, (it) does not*

<sup>5</sup> The preamble to the RBI Act 1934 describes RBI's main functions as: ".....to regulate the issue of Bank notes and keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage; to have a modern monetary policy framework to meet the challenge of an increasingly complex economy, to maintain price stability while keeping in mind the objective of growth."

*mean absence or avoidance of crisis but presence of conditions conducive to efficient functioning without serious disruption.*"<sup>6</sup>

### Recent Years

This unique combination of Reserve Bank's responsibilities – monetary policy combined with macroprudential regulation and micro-prudential supervision – has enabled the Reserve Bank to focus on both financial and price stability, even during the recent years of multiple, overlapping and unprecedented shocks, coming one after the other. I am referring to the post ILFS crisis, COVID-19 pandemic, war in Ukraine, unparalleled tightening of interest rates and financial market volatilities, in that order.

Following the collapse of ILFS in the second half of 2018, almost the entire 2019 necessitated taking measures to intensify the supervision of NBFCs; close monitoring of their liquidity and stability conditions; infusing system liquidity through innovative instruments like currency buy-sell swaps; restoring market confidence through appropriate communication and backing it up with actual action on several fronts.<sup>7</sup>

When the COVID-19 pandemic scarred the global economy including India, our response was swift and decisive. We put in place business continuity measures even before the nation-wide lockdown was announced.<sup>8</sup> The policy repo rate was reduced sizeably

<sup>6</sup> Reddy Y.V. (2006), "Financial Sector Reform and Financial Stability", speech delivered at 8<sup>th</sup> Global Conference of Actuaries, Mumbai, March 10.

<sup>7</sup> In June 2019, during the post policy press conference, I had said clearly that "...it is our endeavour to ensure that there is no collapse of any large systemically important NBFC or any large NBFC. And, in that direction we are monitoring the evolving situation and we will see how it moves forward...."

<sup>8</sup> We were perhaps amongst the first few central banks to have set up a special quarantine facility with about 200 officers, staff and service providers, engaged in critical activities to ensure business continuity in banking and financial market operations and payment systems.

by 115 bps in a span of two months (March-May 2020). Unlike advanced economy central banks which eased rates close to the zero-lower bound, we did not reduce the policy repo rate below our inflation target of 4 per cent. Financial conditions were eased substantially by further reducing the reverse repo rate, which lowered the floor rate of the Reserve Bank's liquidity adjustment corridor. This became the effective anchor of money market rates.

In addition, liquidity enhancing measures equivalent to 8.7 per cent of GDP were announced. Our liquidity measures were unique in several ways: liquidity was provided only through the Reserve Bank's counterparties (banks); asset purchase programme (G-SAP) was for a limited period of six months; collateral standards were not diluted while offering lending facilities; and most of these liquidity injection measures were targeted and had pre-announced sunset clauses, which helped in their orderly unwinding. In parallel, macroprudential measures like moratorium on repayment of bank and NBFC loans for six months, followed by Resolution Frameworks for COVID-19 stressed assets were also announced. These resolution frameworks were offered for a limited period and were not open ended, but subject to achievement of certain financial and operational parameters.

It may be noted that all these measures were nuanced, keeping in mind the price and financial stability challenges they may create in the future. Interestingly, the Reserve Bank's balance sheet size which had expanded to 28.6 per cent of GDP in 2020-21 from 24.6 per cent in 2019-20, has moderated to about 22.5 per cent in 2022-23, going below its pre-pandemic level.<sup>9</sup>

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<sup>9</sup> As on October 13, 2023, the balance sheet size was ₹63.5 lakh crore and based on the estimated nominal GDP of ₹301.8 lakh crore in Union Budget 2023-24, the balance sheet size to GDP ratio is placed at 21.0 per cent.

During 2021, the surplus liquidity was gradually migrated from the short end to the longer horizon through variable rate reverse repo (VRRR) auctions of longer tenors, which lifted short-term rates from ultra-low levels, thereby obviating financial stability challenges. This was done by sensitising the market well in advance through effective communication.

The period since the onset of the pandemic was an example of how the Reserve Bank could effectively address macro-stability consideration of maintaining price stability through conventional and unconventional monetary policy, within the flexibility provided by the flexible inflation targeting (FIT) framework, while also addressing financial stability considerations simultaneously. The flexibility provided by a dual mandate under FIT of maintaining price stability while keeping in mind the objective of growth, along with the provision of a tolerance band around the target rate, helped us to accommodate large supply side shocks, while focusing on immediate growth concerns during the pandemic.

Subsequently, when the shock of Ukraine war struck in 2022 and there was a sudden surge in inflation, we quickly changed gears by prioritising inflation over growth and shifting the monetary policy stance from being accommodative to withdrawal of accommodation. Further, given that the nature of inflation process in India was driven largely by supply side shocks, proactive supply side measures taken by the Government aided to temper the price impulses.

### **The Current Context**

After raising the policy repo rate by 250 bps cumulatively between May 2022 and February 2023, with the quantum of rate hikes being calibrated in tune with the evolving inflation outlook, we have maintained pause on policy rates in 2023-24 so far. The 250 bps hike is still working through the financial

system. We have also appropriately fine-tuned our communication to ensure successful transmission of the rate hikes.

In the prevailing global environment of slowing growth and stubborn inflation, especially in the last few miles before reaching the target, economic activity in India exhibits resilience on the back of strong domestic demand.<sup>10</sup> Real GDP growth for 2023-24 is projected at 6.5 per cent and India is poised to become the new growth engine of the world.

We remain extra vigilant on the evolving inflation dynamics. Headline CPI inflation has moderated sharply to 5.0 per cent in September 2023 with correction in vegetable prices. The outlook on food inflation, however, is beset with uncertainties. On the positive side, core inflation (*i.e.*, CPI excluding food and fuel) has eased by around 170 basis points to 4.5 per cent from its recent peak in January 2023. We have projected headline CPI inflation at 5.4 per cent for 2023-24. As evident from our survey of September 2023, there is further progress on anchoring of inflation expectations which entered single digit zone for the first time since the COVID-19 pandemic. In the current situation, monetary policy must remain actively disinflationary to ensure that ongoing disinflation process progresses smoothly.

On the financial stability front, throughout the multiple shocks in the recent period, the Reserve Bank has adopted a prudent approach and taken several initiatives to revamp regulation and supervision of banks, NBFCs and other financial entities by developing an integrated and harmonised architecture. The Indian financial sector has been stable and resilient, as reflected in sustained growth in bank credit backed by improved asset quality,

adequate capital and liquidity buffers and robust earnings growth.<sup>11</sup> Macro stress tests for credit risk reveal that scheduled commercial banks (SCBs) would be able to comply with the minimum capital requirements even under severe stress scenarios. The financial indicators of NBFCs are also in line with that of the broader financial system as per June 2023 data. There is, however, no room for complacency because it is during good times that vulnerabilities may creep in; hence, buffers are best built up during good times. Banks, NBFCs and other financial sector entities should remain vigilant and complete the pending repairs, if any, to their houses. Roofs need to be fixed, walls need to be further strengthened and foundations need to be augmented when the weather is good to withstand potential adverse weather events in the future.

### Conclusion

Let me now conclude. Price stability and financial stability complement each other. In fact, price stability is an anchor for financial stability, but the trade-off between the two becomes a close call at times. It has been our endeavour to manage these complementarities and trade-offs as efficiently as possible. While according priority to price stability keeping in mind the objective of growth, as mandated under the law, we treat financial stability as non-negotiable. Our policies and choices of instruments are guided by this holistic approach. We have strengthened our macroeconomic fundamentals and buffers, and these are imparting resilience to the economy to withstand large shocks and navigate in an increasingly turbulent and uncertain global setting. Alan Greenspan, the former Fed Chair, once said,

<sup>10</sup> Real gross domestic product (GDP) posted a growth of 7.8 per cent year-on-year (y-o-y) in Q1:2023-24. Gross fixed capital formation rose by 8.0 per cent and private consumption by 6.0 per cent in Q1. On the supply side, real gross value added (GVA) also rose by 7.8 per cent in Q1:2023-24, powered by 10.0 per cent increase in services sector.

<sup>11</sup> All key indicators of asset quality and stress of scheduled commercial banks (SCBs) continue to improve on a sustained basis. Provisional data as of June 2023 indicate that gross non-performing assets (GNPA) and net non-performing assets (NNPA) ratios declined to a decadal low of 3.6 per cent and 0.9 per cent, respectively. Capital adequacy ratio (CRAR) of SCBs increased to 16.9 per cent in June 2023 from 16.2 per cent in June 2022.

*"More fundamentally, an environment of greater economic stability has been key to the impressive growth in much of the world."*<sup>12</sup> India's economic

performance in recent years lends credence to this view.

Thank You. Namaskar.

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<sup>12</sup> Remarks by Mr. Alan Greenspan, November 14, 2005.

# *Towards A Greener Cleaner India\**

*Michael Debabrata Patra*

Good Morning to you all!

I am delighted to be here again at the prestigious Annual Central Banking Seminar, a flagship event of the Federal Reserve Bank of New York for which it has earned global renown. It is truly an honour to interact with central bankers from around the world, our community of tomorrow. You embody the theme of India's G20 Presidency – *Vasudhaivya Kutumbakam*: the world is one family.

## **The Climate is Striking Back**

In my past interactions in this Seminar, I have dwelled on macroeconomic stability; price stability; exchange rate stability; financial stability – all essentially issues centered around the core competence of conservative central bankers from which we are reluctant to stray. After all, central banks stand for stability.

Today, however, I will venture to address a theme which threatens to overwhelm all these aspects of stability – the sum of all fears, to borrow the name of a gripping 2002 movie starring Ben Affleck and Morgan Freeman. It is a theme about which several central banks have expressed reservations about engaging in order to avoid mission creep, while others have expressed inability in view of lacking the instruments to deal with it. The stark ominous reality is that the climate is striking back. Central banks cannot be immune or inactive any longer.

Climate change is not new. The earth's climate has changed in the past, and quite drastically. The Smithsonian National Museum of Natural History has released findings about the earth's temperature over the last 500 million years<sup>1</sup>. They show warm temperatures dominating most of the time, with global temperatures repeatedly rising above 26.6 degree Celsius (°C) and even above 32°C – much too warm for ice sheets or perennial sea ice. In fact, polar caps cannot exist when the temperature crosses 18°C. This is the fever line. About 250 million years ago, it was too hot for even swamps to exist! In the last 100 million years, global temperatures have peaked twice. In fact, during much of the Paleocene<sup>2</sup> and early Eocene<sup>3</sup> epochs 55-56 million years ago, the poles were free of ice caps, and palm trees and crocodiles lived above the Arctic Circle. About 60 million years ago, the earth's climate changed dramatically due to the devastating impact of a large asteroid colliding with the earth, leading to the extinction of dinosaurs. However, one dinosaur survived – the theropod group, which included T-rex. It evolved into the birds that rule earth's skies today.

Modern human civilisation, which has developed over just the past 10,000 years or so, has seen a period of low temperatures and relative global climate stability. Compared to most of the earth's history, this period has been cold at 14.8°C, known as the inter-glacial period<sup>4</sup>. The earth's temperature

<sup>1</sup> Scott, M. and Lindsay, R. (2020). What's the Hottest Earth's Ever Been? <https://www.climate.gov/news-features/climate-qa/whats-hottestearths-ever-been>

<sup>2</sup> Immediately followed the extinction of the dinosaurs. The Earth's climate was warmer than today, but cooler and drier than the epochs immediately preceding and following it. Europe and North America were connected, as were Asia and North America.

<sup>3</sup> The Eocene is a dynamic epoch beginning with a short period of intense warming and ocean acidification brought about by the release of carbon into the atmosphere and ocean systems, which was followed by a shift towards a cooler climate briefly interrupted by another warming event lasting for about 400,000 years, and eventually by the resumption of a long-term gradual cooling trend.

<sup>4</sup> An interglacial is a geological interval of warmer global average temperature lasting thousands of years that separates consecutive glacial periods within an ice age. The current Holocene interglacial period began at the end of the Pleistocene, about 11,700 years ago.

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\* Inaugural Address delivered by Michael Debabrata Patra, Deputy Governor, Reserve Bank of India (RBI) at the New York Fed Central Banking Seminar organised by the Federal Reserve Bank, New York, on October 9, 2023 at New York, USA. Valuable comments received from Soumasree Tewari, Ranjeeta Mishra, Harendra Behera, Asish Thomas George, and editorial help from Vineet Kumar Srivastava are gratefully acknowledged.

has begun rising. In September 2023 it averaged 16.4°C degrees Celsius, 1.75 degrees warmer than the pre-industrial period of 1850-1900 (World Meteorological Organisation (WMO), October 2023)<sup>5</sup>. The warming up of the climate can have cataclysmic consequences.

### **Climate Catastrophes Paralysing Earth**

Climate change is manifesting itself at an alarming scale and pace globally, undermining livelihoods, infrastructure, and endangering health, food, energy and water security. Humanity is imperilled and so is the future of the planet. According to the World Meteorological Organisation (WMO), the period 2015-22 has been the warmest on record. In the Northern hemisphere, this year's summer has been the hottest on record and the year 2023 is on its way to becoming the hottest ever<sup>6</sup>. Climatic disasters are occurring more frequently and across the globe.

The world recorded its warmest September on record in 2023. In the European Alps, glacier melt records were broken in 2022. Switzerland lost about 6 per cent of its glacier ice volume. For the first time in history, there was no accumulation of fresh ice even at the very highest measurement sites according to the WMO. Sea levels increased by about 5 millimetres during January 2021 – August 2022 due to increasing ice melt. During 2022, 58 per cent of the ocean surface experienced at least one marine heat wave. There was a drop in the Antarctic Sea ice extent to 1.92 million km<sup>2</sup>, which was the lowest level on record and was almost 1 million km<sup>2</sup> below the long-term average. This has been associated with increasing global surface temperatures, droughts, storms, dangerous floods and heat waves of increased intensity and frequency around the world.

<sup>5</sup> <https://public.wmo.int/en/media/news/september-smashes-monthly-temperature-record-record-margin>

<sup>6</sup> <https://public.wmo.int/en/media/press-release/>

India faced its hottest February in 2023 since record-keeping began in 1901<sup>7</sup>. In March, large parts of the country experienced hailstorms and torrents of unseasonal rain, leading to extensive damage to standing crops. According to India's Centre for Science and Environment (CSE), the country experienced extreme weather events on 314 of 365 days of 2022, which claimed 3,026 lives, affected 1.96 million hectares of crop area and 4,23,249 houses, and killed over 69,899 animals<sup>8</sup>. In 2023, April witnessed a record-breaking heat wave in India and other parts of Asia. May was the warmest since 1850. June and July were the hottest on record and August was the driest for India since 1901<sup>9</sup>. In sharp contrast to the world, India experienced among its wettest Septembers in 2023.

### **This Time is Different**

Although temperature increases have been recorded during the course of earth's history as I mentioned earlier, the current episode of anthropogenic climate change is qualitatively different from the historical experience.

First, changes in the earth's climate that are underway are largely human-induced, as noted earlier, while the earlier incidences were primarily the result of various natural factors. Second, the pace of climate change during the current phase is remarkably rapid – it is unfolding over decades whereas earlier occurrences of climate change happened over centuries and millennia. Third, costs involved in the policy responses for adaptation to and mitigation of climate change related challenges are unprecedented.

Fourth, the current experience with climate change is truly global in nature with accentuated

<sup>7</sup> [https://internal.imd.gov.in/press\\_release/20230303\\_pr\\_2209.pdf](https://internal.imd.gov.in/press_release/20230303_pr_2209.pdf)

<sup>8</sup> [https://cdn.downtoearth.org.in/pdf/extreme-weather-report-20221102.pdf?utm\\_source=Mailer&utm\\_medium=Email&utm\\_campaign=Down%20To%20Earth-extreme-weather-report-20221102](https://cdn.downtoearth.org.in/pdf/extreme-weather-report-20221102.pdf?utm_source=Mailer&utm_medium=Email&utm_campaign=Down%20To%20Earth-extreme-weather-report-20221102)

<sup>9</sup> [https://internal.imd.gov.in/press\\_release/20230902\\_pr\\_2510.pdf](https://internal.imd.gov.in/press_release/20230902_pr_2510.pdf)

regional implications. Climate scientists recognise three anthropogenic (or human-induced) drivers of climate change: greenhouse gas (GHG) emissions; aerosols; and land use and land cover. Estimates show that the contribution of human-caused global surface temperature increase is 1.07°C during 2010-2019 relative to 1850-1900 levels – almost the entire increase in global temperature during this period<sup>10</sup>. The rise in extreme weather events has also increased the economic costs associated with such events.

### **Measuring Climate Change**

In order to comprehend what is going on and respond effectively, it is important to first measure the phenomenon of climate change. Climate scientists use many physical indicators, including atmospheric, oceanic and cryospheric, to assess climate change only some of which I shall elaborate on, in the interest of time:

- Global mean surface temperature (the average of land surface temperature (LST) and sea surface temperature (SST)): apart from the secular rise in LST, more than 90 per cent of the net energy or heat increase in the climate system is stored in oceans and over 60 per cent in the upper ocean (0-700 metres). In fact, the heat absorbed in the upper layer of the ocean has increased, causing thermal expansion, melting of glaciers and ice caps, rise in sea level and ocean acidification.
- Each decade is becoming warmer than the previous one by around 0.2°C since the 1980s. The rise in surface temperatures is increasing evaporation which, in turn, is causing more overall precipitation and more frequent and more intense storms and floods. On account

of the unequal pattern of precipitation, wet areas are getting wetter while dry land is becoming drier. Uncertain rainfall patterns have increased the frequency of droughts and floods.

- Unlike land or water surface, ice reflects almost all the solar energy that falls on it. When snow or ice melts in response to a rise in temperature, it exposes open water or land surface that absorbs solar energy and raises temperature further in the atmosphere. Furthermore, the melting of glaciers and ice adds to sea level expansion.
- Moreover, snow and ice are potential sources of fresh water supply required for ecosystems, agriculture, recreation and livelihoods. Losses of snow cover, glaciers, ice sheets and sea ice lead to increases in absorbed solar radiation and this, in turn, causes further warming as well as turbulent heat fluxes at the surface.
- The cumulative glacier mass loss since the beginning of 1970 is more than 25 meters of water equivalent (mwe). The strong increase in ice glacier decline rates in each decade until the present day leaves no doubt about ongoing climate change.

While each indicator has its own relevance in explaining climate change, the totality of what we face warrants a composite indicator that has been developed by using 11 key physical indicators<sup>11</sup> in a dynamic factor model (DFM) framework. The DFM extracts an unobserved or latent common factor from these indicators. We call it the global climate change index or GCCI. It shows an upward trend since the late 19<sup>th</sup> century following the Industrial Revolution. The

<sup>10</sup> Eyring, V., Gillett, N. P., Achutarao, K., Barimalala, R., Barreiro Parrillo, M., Bellouin, N., ... & Sun, Y. (2021). Human influence on the climate system. In climate change 2021: the physical science basis. Contribution of working group I to the sixth assessment report of the intergovernmental panel on climate change. *IPCC Sixth Assessment Report*.

<sup>11</sup> The 11 key indicators of climate change are the global mean surface temperature; land surface temperature; sea surface temperature; ocean heat content; sea level rise; Arctic Sea ice extent; Antarctic Sea ice extent; snow cover; glacier mass balance; global precipitation, and global CO<sub>2</sub> emissions.

correlation between the GCCI and the total number of extreme weather events is 0.9, indicating a rise in the frequency of disaster events with climate change.

With the current state of climate policy action, emissions (an average of 38 giga tons of carbon dioxide equivalent) will result in a rise in global temperature by 2.7°C over the pre-industrial average by 2100. Even if all pledges and targets announced so far are incorporated (associated with an average 10.2 gigatons of carbon dioxide equivalent), the global rise in temperature can reach a minimum of 1.9°C above pre-industrial levels under the most optimistic path of global emission reduction. In order to achieve net zero by 2070 and the global temperature increase of 1.5 degrees Celsius, emissions have to be reduced much lower.

### **Climate Change: Global Actions**

Climate change has moved to the centre stage of the global public policy debate today. While the growing recognition of the adverse effects of climate change has led to some recent actions that are weakening the correlation between carbon emissions and GDP growth globally, an absolute decoupling is yet to happen. Climate change can affect price stability through supply shocks such as food and energy shortages and through a decline in productive capacity. Demand shocks can arise due to the loss of wealth of firms and households on account of frequent natural disasters. Physical and transition risks can affect the balance sheets of financial institutions and banks, limiting the flow of credit to the real economy. These destructive forces interact with each other to form vicious feedback loops.

Hence, almost all countries have committed to timelines for the transition to net zero emissions, with the majority committing to achieve this target by 2050. While 23 per cent of the countries have made the target a legal obligation, 18 per cent have proposed to make it into a legal obligation and the remaining

59 per cent have made their pledges in official policy documents. All these countries together account for around 73 per cent of global CO<sub>2</sub> emissions (59 countries have proposed actions or are in discussions).

### **Climate Change and India**

The Indian sub-continent has a diverse topography, ranging from the snowclad Himalayas in the north (the youngest and tallest mountains in the world), fertile plains, the world's largest delta in the east, the Thar desert in the north-west and a long coastline of more than 7500 kilometres. Consequently, the country is intrinsically exposed to different temperature and precipitation patterns. More recently, however, India is becoming vulnerable to extreme weather events.

Coastal cities, which are among the most densely populated regions of the world, are becoming increasingly prone to cyclones, flooding, and salinisation of farmlands and freshwater supplies.

The Indian sub-continent receives about 75 per cent of its annual rainfall during the southwest monsoon (SWM) season from June to September. This rainfall is crucial for the summer cropping season. Over time, the southwest monsoon (SWM) pattern has subtly changed, with a rise in average annual rainfall. At the same time, dry periods have become more common, while intense wet spells have also increased. Overall, risks to agricultural production and food price volatility have both increased significantly.

The past decade (2011-2021) has been the warmest on record, with 11 of the 15 hottest years in India since 1901 – the years 2022 and 2021 are ranked as the fifth and sixth warmest years, respectively, since 1901 (India Meteorological Department). Extreme weather events, including unseasonal rainfall, cyclones and heatwaves, have become more frequent.

### **India's Energy Requirements**

The sectoral composition of India's GDP is skewed towards services (60 per cent), which is emission-light,

with a relatively lower energy intensity of output – a natural lid on emissions. Although emissions from the industrial sector (16 per cent) are higher, the emission intensity of agriculture, which involves both energy related emissions and non-energy related emissions is, in fact, higher than certain industries such as textiles, machinery and equipment as well as construction activity.

Energy production drives around three-quarters of global GHG emissions. In terms of the overall energy-mix, fossil fuel-based energy sources, viz., coal, oil and natural gas continue to dominate energy consumption in India. The share of coal in India's electricity production is around 70 per cent (World Energy Outlook, 2021).

### **The War against Emissions**

The energy intensity of the economy is being reduced by moving from fossil to non-fossil fuels, adopting energy efficiency measures, employing new and improved technologies, and increasing productivity. The International Energy Agency (IEA) states that India's energy intensity of GDP has been declining at an average rate of 3 per cent per year during the last three decades to 0.25 tonnes of CO<sub>2</sub> per 1000 US dollars in 2021, indicating relative decoupling since the 1991 peak.

The Climate Change Performance Index (CCPI) – published annually since 2005 by German Watch, a non-profit non-governmental organisation that lobbies for sustainable development – is an independent monitoring tool for tracking countries' climate protection performance. It increases transparency in national and international climate policy and enables comparison of individual countries' climate protection efforts and progress. India is among the high performing countries in the index. India earns a high rating in the GHG emissions and energy use categories, with a medium rating for climate policy and renewable energy. The country is on track to meet its 2030 emissions targets (compatible with a well-below

2°C scenario). Since the last CCPI, India has updated its Nationally Determined Contributions (NDCs) and announced a net zero target for 2070.

### **Green Initiatives in India**

By July 2023, renewable energy (including hydro) installed capacity stood at 177 giga watts (GW), accounting for 42 per cent of total installed capacity, but renewable energy accounts for only 27.2 per cent of total generation.

India's clean energy target is 500 GW by 2030. Capacity under construction is around 80 GW, taking the total available capacity to about 250 GW. The required capacity addition is another 250 GW by 2030. India needs to add 25 GW of renewable energy capacity annually for the next eight years, which would involve an investment of US\$ 15 to 16 billion (₹1,25,000 crore). This implies that renewable energy (including hydro) installed capacity should increase at a rate of 16.4 per cent.

Globally, the sales of electric vehicles (EVs) have crossed the 10 million mark in 2022 with a year-on-year (y-o-y) growth of 55 per cent. The share of EVs in total new sales is rising rapidly in India and sales have crossed 1 million in 2022.

### **Estimated GHG Emissions Under Alternative Growth Scenarios**

Emerging market and developing countries, including India, face a trade-off: they must continue to prioritise growth aspirations, while pursuing climate related nationally determined goals.

Scenarios have been developed on India's roadmap to net zero by 2070, conditional on different assumptions for real GDP growth, the share of green energy in total energy demand and energy intensity of GDP. In the baseline scenario, the Indian economy grows at the rate of 6.6 per cent per year – which is its average growth rate over the last decade – but without taking actions to fulfil its environmental commitments. A decline in energy usage per unit of

economic activity by 2.3 per cent annually is assumed with steady carbon sequestration at 0.3 gigatonnes. This scenario is associated with increasing emissions.

An alternate scenario retains the GDP growth assumption of 6.6 per cent per year. It focuses on meeting immediate NDC objectives like reducing emission intensity and raising renewable energy's share to 50 per cent in electricity generation by 2030. Achieving net zero emissions by 2070 would require even more energy efficiency, with energy intensity declining to 5.0 per cent by 2070. Green energy's share should reach 70 per cent by 2070. Under this scenario, greenhouse gas emissions peak by 2032-33 and India reaches net zero by 2070. Energy consumption in 2070 is projected to be 1.8 times the level of 2021-22, compared to 7.2 times in the baseline scenario, but it will be difficult to maintain the long-term growth rate of 6.6 per cent.

A second alternate scenario assumes that India would achieve annual real GDP growth of 9.6 per cent between 2023-24 to 2047-48 which is required for it to become an advanced economy by 2047. With respect to climate goals, however, the assumptions in this scenario are the same as in the baseline. Higher growth would translate into even higher energy requirements and emissions. The total primary energy requirement and net GHG emissions are estimated to be 12.5 times and 10.5 times higher, respectively, than their levels in 2021-22.

The best scenario, assuming a GDP growth of 9.6 per cent per annum over the period 2023-48 while adhering to the NDC commitments, will require more aggressive efforts than the current NDC targets, involving sharper declines in energy intensity and a higher proportion of green energy. Energy intensity, which has been steadily declining since the 1990s, needs to decrease by 5.4 per cent annually, and green energy's share must rise to around 82 per cent by 2070. Energy consumption in 2070 would be 3.1 times higher than in 2021-22. India's aspiration to become

an advanced economy by 2047 would need to take into account these considerations.

### **India @ COP 26 and 27**

In 2021, at COP26, India presented Panchamrit of India's climate action:

- Reach 500 GW non-fossil energy capacity by 2030.
- 50 per cent of its energy requirements from renewable energy by 2030.
- Reduction of total projected carbon emissions by one billion tonnes from now to 2030.
- Reduction of the carbon intensity of the economy by 45 per cent by 2030, over 2005 levels.
- Achieving the target of net zero emissions by 2070.

India participated in COP27 in 2022 at Sharm El Sheikh, Egypt, with a focus on mainstreaming the theme of LiFE - Lifestyle for Environment. It highlighted the theme of LiFE – everyone can contribute within one's capacity.

### **Green Initiatives by the RBI**

There is a growing recognition that even if governments are the most influential agency for climate change, central banks and financial sector regulators/supervisors are going to become the major stakeholders because (1) financial institutions play a key role in intermediation and hence have a more direct role in addressing climate change; and (2) climate change is impacting the achievement of their mandates of price and financial stability.

- In December 2007, the Reserve Bank mandated "Corporate Social Responsibility, Sustainable Development and Non-financial Reporting – Role of Banks" highlighting the importance of global warming and climate change in the context of sustainable development.

- In 2015, loans for generation of renewable energy and public utilities run on non-conventional energy were made part of directed priority sector lending by banks.
- In April 2021, the RBI joined the Network for Greening the Financial System (NGFS) to benefit from and contribute to the best practices in climate risk management and green finance.
- In January 2022, the RBI conducted a Survey on Climate Risk and Sustainable Finance to assess the status of climate risk and sustainable finance in leading scheduled commercial banks.
- In January-February 2023, the RBI issued sovereign green bonds worth US\$ 2.2 billion (₹16,000 crore) in two tranches to mobilise resources for the Government for green infrastructural investments.
- In April 2023, the RBI introduced a "Framework for Acceptance of Green Deposits" from June 01, 2023.

## Conclusion

Central banks generally pursue a relatively narrow mandate focused on stability. Climate change is certainly not a part of it. At least till now. Yet as more evidence accumulates that climate change is overwhelming the earth due to human activity, we cannot remain silent spectators. So, in the RBI we began from scratch and immersed ourselves in the economics of climate change. Uncharacteristically, we pooled all that we could gather on the climate and put it into our flagship publication, The Report on Currency and Finance. This is our small contribution towards a greener, cleaner India.

To conclude, climate change threatens to overwhelm the earth, but we can reverse it because we have induced it. The time to act is now on several fronts. Development and climate change are not necessarily pitted in a trade off – sustainable development is key. The climate is a global public good – global action is needed for humanity to live in harmony with our planet. And it is in our hands.

Thank you.



# Reflections: Challenges in Regulations\*

*M. Rajeshwar Rao*

Ladies, gentlemen and distinguished guests,

It is indeed a pleasure to be participating in this summit, a gathering that is engaged to distil the essence of responsible stewardship in the corporate world. Keeping up with the theme of this session, "*The Challenge of Regulation*", I will reflect a bit on the dynamic landscape of regulations and regulation making, its evolving nature and on the transformation underway in the financial sector. Later, I will also outline a few challenges and dilemmas encountered by the regulators in framing appropriate regulations to manage these transitions.

## ***Do we need Regulations?***

Many believe that minimal regulations, is the best way to foster growth of the enterprise. But history is replete with the examples of how minimal regulation coupled with lenient supervision and restrained enforcements have often led to financial crises. In fact, we would all agree that nothing could be more damaging to sustainable growth than a misfiring banking and financial sector. While in an ideal scenario, the '*invisible hand*' would ensure that the system functions flawlessly for the greater good with minimal regulatory oversight, in reality it does not happen that way. As such, to control the irrational exuberance in the financial sector, there is need for a regulator who sets the boundaries and also enforces them for ensuring a sound and robust set of financial institutions and thereby promotes financial stability.

Regulations, usually, impose restrictions on the entry and operations of the entity while controlling the what and how of the business that is undertaken. This 'process' imposes opportunity cost on regulated entities to achieve the desired objectives. However, these are distributable costs to deliver a collective good. Therefore, regulations ensure that the overall financial system fulfils its supportive role to the real sector through efficient financial intermediation and it remains stable, robust and responsive.

Moreover, financial sector and banking industry is special. The inherent ability of banks to generate leverage and the potential to trigger a domino effect in the financial system makes it unique. Further, banks are not just the custodians of the customer's hard-earned savings but also custodians of public trust. It is RBI's responsibility to ensure that the trust reposed by the customers and depositors on banks is resolutely upheld.

## ***Managing Transitions***

As we look at the challenges in the financial sector today, it becomes important to address the profound structural shifts that are transforming the shape of the financial sector. These transitions encompass a myriad of factors, each with its own set of unique challenges. These are also complex, multifaceted issues that demand nuanced, adaptable solutions. Striking the right balance between encouraging innovation and maintaining the stability and security of the financial sector is always a formidable task. Let me elaborate on few of such transitions which we are engaged with.

## ***Climate Transition***

We are all aware of the global challenge that climate change poses to our planet and its impact which is felt across the world. The transition to a more sustainable, environmentally responsible financial sector is no longer an option but an imperative. As societies demand greater commitment towards a cleaner greener environment, regulators must

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\* Remarks delivered by Shri M. Rajeshwar Rao, Deputy Governor, Reserve Bank of India – November 2, 2023 - at the Gatekeepers of Governance Summit organised by 'Excellence Enablers' in Mumbai.

The inputs provided by Deepak Rana, Vishal Kumar Prasad, Pramanshu Rajput and Pradeep Kumar are sincerely acknowledged.

undertake the task of integrating climate risks into the regulatory frameworks. Ensuring that financial institutions consider the environmental impact of their actions while simultaneously managing the flow of credit, demands a delicate balancing act and requires collaborative solutions.

The moot question which the regulators have to deliberate on is whether climate risk is a unique risk that need to be captured separately and thus requires a separate framework on a standalone basis or whether it transverses across credit, market and operational risks and can be captured as a part of the existing risk frameworks. Another point of debate is whether these risks need to be captured as combination of pillar 2 (supervisory review) and pillar 3 (market discipline and disclosures) requirements or is it better to capture the risk as part of pillar 1 (capital and liquidity) straight way.

### ***Technology Transition***

Technology is reshaping the landscape of finance at an unprecedented pace and has emerged as a transformative force reshaping operations and customer experiences alike. Digitalisation is helping to enlarge the options available to customers and lenders, increase efficiency and competition in the provision of financial services, and, more importantly, making these services available to larger segments of the population.

As we embrace these technological advancements, it is imperative that regulatory frameworks evolve in tandem to ensure the security, privacy, and integrity of financial system. In an era defined by data, the protection of personal and financial information has come to the fore. In India, the Digital Personal Data Protection Act, 2023 (DPDP Act) has been recently enacted. Such a legislation was necessary for safeguarding individuals' rights and ensuring responsible handling of personal data.

Banks and other financial institutions, as custodians of vast volumes of sensitive customer data, must make the required efforts to adhere to the provisions of the Act and related regulations. To manage this transition smoothly, financial institutions must invest in robust data governance frameworks, ensuring that they and their data processors collect, process, and store data in complete adherence to the law and the regulations. Managing the transition to a more data-conscious and 'data cultured' institution necessitates treading a delicate path.

### ***The Digital Intermediation Transition***

Post the pandemic, digital lending and emergence of digital platforms providing loans has seen an exponential rise in various emerging economies, including India. While this led to an increase in scale and velocity of credit in an increasingly digital environment, it has raised a host of business conduct issues.

The questions for any regulator to consider are whether they should try to be ahead of the curve to ensure that financial innovations are enabled only after putting in place an appropriate regulatory and supervisory framework; or to follow a relaxed approach of allowing the markets to develop on its own? By being more accommodating, do the regulators then run the risk of having to deal with unanticipated business conduct concerns and in extreme cases, confront and deal with potential events that could trigger systemic risks which may lead to outcomes that are difficult to anticipate and manage?

Nonetheless, for a regulator, inaction can never be an option. The pace with which newer business models, players and products are coming up, with such entities often exploiting the gaps in existing regulations or conducting business operations that fall in a regulatory grey area, continues to be a challenge. The business models that are built to challenge the regulatory perimeters, aggressive marketing strategies,

and those that are engaged in exploitation of gullible customers makes it clear that such issues need intervention. But, the dilemma lies in deciding the extent of regulatory intervention which will contain and restrict the customer abuse without significantly altering the nature of FinTech led innovation.

For example, in the beginning of 2020, the lending activities of the new technology driven platforms involved small ticket size loans granted to a large number of borrowers, mostly falling in the lower income strata of the society such as students, retail businesses, gig workers, etc. For these borrowers, taking a loan at an exorbitant interest rate meant falling into a vicious debt trap. What made the situation worse was the fact that borrowers were not even aware of such high interest rate or charges before taking the loan as these were not disclosed upfront, there was no interface except the mobile app to raise their grievances and the recovery practices were harsh and unorthodox.

We had also observed that right from credit underwriting to recovery, every activity was being outsourced with scant regard to customer privacy and protection. Digital Lending was operating on a 'rent an RE' model, where the FinTech platform was undertaking all the lending activities on behalf of the regulated entity by posing itself as principal. In many cases, the customers were not even aware of the name of the bank or NBFC which had sanctioned the loan.

To tackle this issue, the regulatory stance has converged on regulating the digital lending activity and the arrangements between regulated entities and FinTechs providing specified services to REs (which were rechristened as Lending Service Providers or LSPs). RBI's digital lending regulations have laid down a broad regulatory framework under which FinTechs can become enabling partners with regulated entities. These guidelines are a mix of reiteration of the extant guidelines like reporting to CICs, conducting due

diligence before engaging LSPs, etc. and some fresh ones, with REs being the fulcrum around which digital lending activities are required to operate with the regulatory compliance being made their responsibility.

### ***The Social Media Transition***

Social media has revolutionised the speed and scope of dissemination of information. Information sharing has never been so quick and unhindered thus far. But this also means that unsubstantiated rumors and false news can also spread equally quickly and can adversely affect financial institutions, especially banks. The recent banking turmoil in the USA has jolted some of the widely held views regarding principles of liquidity management and nature and speed of bank runs.

The banking turmoil in the United States and Europe in early March 2023 has had a significant impact on the global financial system. This episode has highlighted the need for a reassessment of global standards in financial sector regulations. This episode has offered two important lessons: First, the trust is vulnerable to perceptions of weaknesses and misinformed social media commentary.

Second, that in an age of social media and internet banking, the speed with which bank runs occur is unprecedented and therefore, the response time to handle any such crisis has telescoped to a fraction of what was *hitherto* considered acceptable. To address these challenges, constant and effective supervision, complemented by ability of the bank concerned to monitor and prevent spread of misinformation over social media, has become vital.

### ***How is RBI Managing these Transitions?***

RBI's approach has always been to foster and support innovations and dynamism while balancing it with financial stability considerations. Therefore, let me elaborate what are we doing to manage these transitions.

### ***Simplifying Regulations***

The regulatory instructions have evolved over a period of time in consonance with the developmental trajectory of the financial system and institutions. The regulatory perimeter has also expanded as the Indian financial system has ventured into newer business models, product lines and geographical territories. Over time, this may have led to certain regulations becoming complex with concomitant increase in compliance burden. Therefore, a periodic stocktake is useful to review the regulatory instructions and compliance procedures with a view to streamlining/rationalising them and making them more effective.

The RBI had set-up Regulations Review Authority 2.0 (RRA) in 2021 (following the RRA 1 set up in 1999) to undertake this task and ensuring simplicity of regulations that has become a priority for us. In my view, future regulations must be responsive to the evolving need of the financial system. For this to happen, we have adopted a five-pillar strategy –

1. First, we are making sure that future regulations are forward looking and proactive.
2. Second, we have become nimble in our approach. This is critical as the pace of change has accelerated.
3. Third, our approach to regulation making has become more data driven and impact assessment oriented. This, in turns, has led to a more analytical decision making process and is helping in making provision for a suitable path for transition, wherever warranted.
4. Fourth, we have been adopting a more consultative approach to regulation making. Prior consultation with stakeholders enables us to gather diverse viewpoints and incorporate them in the regulations. This also makes implementation of regulations better.

5. The fifth and last pillar is collaboration. We are engaging more and more with stakeholders, government and with other regulators and industry to evolve a safe and resilient financial sector.

The Reserve Bank has been conferred upon the powers to make subordinate legislation under a wide spectrum of statutes. This casts a responsibility upon RBI to ensure that its instructions are within the perimeters set by the statutory mandate, clear in language, appropriate and proportional. Therefore, we have increased our focus on providing suitable training and skills to our officers so that the regulations can be written in simple language and there is better clarity on the regulatory intent.

### ***Bringing customer conduct into focus***

In whole scheme of things, the 'customer' should and must remain the centre. The two primary objectives of regulation viz. ensuring financial stability and protecting customer interest leads to two broad categories of regulations – prudential regulations and conduct regulations. Prudential regulation builds foundation for financial stability, while conduct regulation lays the ethical foundation for maintaining customer trust, together help in safeguarding the integrity of our financial system.

Accordingly, our endeavour has been to inculcate responsible conduct on the part of the regulated entities. We have asked banks to design suitability and performance requirements for financial products and financial services keeping in mind the interests of its customers. This includes Board level oversight arrangements that a bank must put in place in order to meet these objectives. As we further strengthen our approach towards addressing the concerns in the area of conduct based regulations, the guiding philosophy would be to set certain minimum regulatory expectations, with the option for entities to adopt higher standards depending upon their size,

proportionality and customer focus. The ultimate message is that the regulated entities should treat all customers – big or small, urban or rural, educated or less educated, in a transparent and ethical manner.

### **Principle Based vs Rule Based Regulations**

There is an ongoing debate of whether a principle based approach is preferable or whether a rule-based approach to regulations is the better option. At different points in time, one approach has influenced the policymakers more than the other.

The benefit of rules-based regulations is that it provides certainty and firm guidance on what regulated entities are required to do, and from the regulator's point of view, the measurable and explainable regulatory targets and responsibilities that can be easily monitored and enforced. But in a prescriptive approach to regulation, the rules might end up becoming more important than the intended outcome for which they were designed, leading to a culture of "box ticking" compliance.

In contrast, principle-based regulation is more like a compass, providing regulated entities with a general direction, without specifying the precise route to be taken. The principles are crafted to be suitable for a wide array of situations and emphasise on desired outcomes. They grant regulated entities the flexibility to adapt to evolving circumstances and to innovate; however, it also requires them to exercise prudent judgment and make responsible decisions. But, often, to make the regulatory expectations clear, principle-based regulations are required to be supplemented with clarifications, illustrations and guidance notes.

So where do we stand in the continuum of rule-based and principle-based regulatory approach? The Reserve Bank, as a matter of policy, has been gradually giving banks greater operational freedom to conduct their business operations within the overarching regulatory framework. We are thus moving at a good

pace towards making our regulations increasingly principle-based.

### **Maintaining a Level Playing Field**

A level playing field ensures that all participants operate within a fair and consistent regulatory framework where the potential risks and rewards of the financial system are evenly balanced. There is widespread agreement that a level playing field is a key condition for a competitive financial sector. As a regulator, we are following the principle of "*same activity, same risk, same regulation*". This approach can be seen in the case of our guidelines on Digital lending, first loss default guarantee (FLDG) and microfinance sector.

However, maintaining a level playing field has to be counter balanced by ensuring regulations that are proportionate to the risks posed by the firm to the financial system. We are quite mindful of the need to ensure that the regulatory burden on an entity should be proportionate to the risks posed by it to the financial system and to the size of its operation. This thought has underscored our revised scale-based regulatory approach to NBFCs and revised regulatory framework for UCBs.

It, however, must also be appreciated that limiting the potential for regulatory arbitrage and establishing a level playing field for market participants is an important objective for regulators, but it is not the overriding one. To ensure efficient market functioning and, more broadly, to safeguard the public interest, policymakers may, at times, need to treat different players differently.

### **Conclusion**

Let me conclude.

Framing regulations in today's dynamic and interconnected world is a challenging task, but it is a challenge that we are fully committed to overcoming.

As a regulator, our most important contribution to the society is that we do our job – by making forward looking, risk-based and proportionate regulations and implement them in a consistent manner. At the same time, we are conscious that process of

regulation making must yield a net surplus for the financial system. Even as we move forward on these lines, we need to remain steadfast in our dedication to maintaining stability, fostering growth, and safeguarding the interests of customers.

# *Fostering Economic Growth through Sustainable Finance and Financial Inclusion\**

*Swaminathan J*

Shri V G Sekar, Principal, College of Agricultural Banking. Heads of Priority Sector verticals of banks. Members of faculty from CAB, Ladies and Gentlemen. Good morning.

I thank CAB for inviting me today to discuss a critical topic that lies at the crossroads of financial institutions' responsibilities and our collective vision for a better, more sustainable world. I propose to briefly discuss the aspect of sustainable finance to begin with before coming to the theme of the conclave, that is Priority Sector Lending, as I believe that there is a strong interplay between these two.

Sustainable finance, often referred to as responsible or green finance, is a concept that has gained immense traction in recent years. Simply put, it is funding to businesses and projects that promote not only economic growth but also environmental protection, social equity, and responsible governance.

The importance of sustainable finance cannot be overstated. We are living in an era where climate change, social inequalities, and governance issues pose significant threats to the stability of economies and societies.

For instance, in India itself we can see some of these risks materialising. Due to its geographic, environmental and economic characteristics India is particularly vulnerable to climate change. As per online sources, upto June 30, 2023 alone India experienced extreme weather events on 143 out of

181 days<sup>1</sup>. Variability in monsoon patterns coupled with temperature changes impact crop production and affect food security. Apart from agriculture, even in other sectors, the economic impact of climate change in India could be substantial. These risks can no longer be overlooked. From a financial services industry perspective, sustainable finance is a powerful tool to mitigate these risks, drive positive change, and ensure long-term prosperity.

Even across the globe, we are witnessing a remarkable shift towards sustainable finance. Governments, regulatory bodies, and international organisations are actively engaged in setting standards, guidelines, and incentives to encourage sustainable finance practices. Initiatives like the United Nations Principles for Responsible Banking<sup>2</sup> and the Task Force on Climate-related Financial Disclosures (TCFD) are driving change at the global level.

Financial institutions worldwide are integrating ESG criteria into their investment and lending decisions, reflecting the growing recognition that sustainable businesses tend to be more resilient, profitable, and aligned with the values of an increasingly conscious consumer base. The global sustainable finance market is expected to grow from USD 3.6 trillion in 2021 to USD 23 trillion by 2031<sup>3</sup>, and in India, sustainable finance has gained significant momentum in recent years as awareness of the need for sustainable development has grown.

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<sup>1</sup> As per [downtoearth.org.in](http://downtoearth.org.in), "the country experienced extreme weather events on 143 of the 181 days from January 1 to June 30, 2023, which claimed 651 lives and affected 1 million hectares (ha) crop area" India's Atlas on Weather Disasters, 1 July 2023, [www.downtoearth.org.in/weather\\_disasters\\_india/india.html](http://www.downtoearth.org.in/weather_disasters_india/india.html) (last accessed on October 8, 2023)

<sup>2</sup> "Principles for Responsible Banking Build New Pathway for Banks to Collectively Accelerate Action on Universal Financial Inclusion and Health." UN Environment, [www.unep.org/news-and-stories/press-release/principles-responsible-banking-build-new-pathway-banks-collectively](http://www.unep.org/news-and-stories/press-release/principles-responsible-banking-build-new-pathway-banks-collectively). (Last accessed on October 8, 2023)

<sup>3</sup> "The Rise of Investment in Sustainable Finance." Confederation of Indian Industry, April 12, 2023, [www.ciiblog.in/sustainable-finance/](http://www.ciiblog.in/sustainable-finance/). (Last accessed on October 8, 2023).

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\* Speech by Shri Swaminathan J, Deputy Governor, Reserve Bank of India – October 12, 2023 – at the Conference on Priority Sector Lending held at College of Agricultural Banking (CAB), Pune.

It is notable that the G20 New Delhi Leaders' Declaration under India's Presidency reaffirmed the G20 leaders' commitment to take action to scale up sustainable finance<sup>4</sup>. They endorsed the recommendations of the Sustainable Finance Working Group (SFWG) which covered, among others, the mechanisms to support the timely and adequate mobilisation of resources for climate finance while ensuring support for transition activities in line with country circumstances<sup>5</sup>.

### RBI initiatives

On its part, the Reserve Bank of India has been actively promoting the importance of green and sustainable finance within the banking sector. This effort has included various forms of guidelines, instructions, and publications aimed at raising awareness of the opportunities and challenges associated with sustainable finance.

As early as December 2007, RBI advised<sup>6</sup> banks to establish Board-approved plans of action to support sustainable development, emphasising the central role of financial institutions in this endeavour.

More recently, in May 2021, RBI took a significant step by establishing the 'Sustainable Finance Group' (SFG) within its Department of Regulation. This specialised unit was created to proactively address climate change-related financial risks and lead regulatory initiatives in the realms of sustainable finance and climate risk. The SFG has been actively collaborating with international standard-setting bodies, central banks, other financial sector regulators,

and the Government of India to tackle issues related to sustainable finance and climate risk.

In July 2022, the RBI released a discussion paper on climate risk and sustainable finance, furthering its commitment to driving this critical agenda forward. It was followed in April 2023, by a framework for the acceptance of green deposits. These interest-bearing fixed deposits in Indian rupees are specifically earmarked to fund green finance initiatives, which encompass projects focused on climate risk mitigation, climate adaptation/resilience, and related objectives. This initiative aims to nurture and enhance the green finance ecosystem in the country, marking a significant step toward a more sustainable and environmentally conscious financial sector in India.

### Priority Sector Lending and Financial Inclusion

Let me now come to the area of your specialisation i.e., Priority Sector Lending which is a significant component of financial inclusion in India. Priority Sector Lending plays a pivotal role in ensuring that marginalised and underserved sections of the population have access to formal financial services.

Priority Sector Lending has evolved significantly over the years, transforming into a crucial aspect of credit flow from the banking system. Originating in the 1960s, Priority Sector Lending was conceived as a tool to direct credit toward key sectors that had been overlooked by institutional lending, aligning with broader economic and social goals. The composition of priority sectors and their associated targets has evolved in response to changing economic landscapes and national priorities. Initially, it encompassed agriculture and small-scale industries, but over time, it expanded to include areas such as MSMEs, education, renewable energy, and more, while also applying to a broader range of banks. The guidelines for Priority Sector Lending were last updated in September 2020<sup>7</sup>,

<sup>4</sup> G20 (2023), paragraph 25 of G20 New Delhi Leaders' Declaration, G20. Available at: [https://www.g20.org/content/dam/gttwenty/gttwenty\\_new/document/G20-New-Delhi-Leaders-Declaration.pdf](https://www.g20.org/content/dam/gttwenty/gttwenty_new/document/G20-New-Delhi-Leaders-Declaration.pdf) (last accessed on October 8, 2023).

<sup>5</sup> Third G20 Finance Ministers and Central Bank Governors Meeting, <http://www.g20.utoronto.ca/2023/230718-finance.html>.

<sup>6</sup> RBI circular DBOD. No.Dir. BC. 58/13.27.00/2007- 08 dated December 20, 2007, on Corporate Social Responsibility, Sustainable Development and Financial Reporting. <https://rbi.org.in/Scripts/NotificationUser.aspx?Id=3987&Mode=0>

<sup>7</sup> RBI circular FIDD.CO.Plan.BC.5/04.09.01/2020-21 dated September 4, 2020, on Master Directions – Priority Sector Lending (PSL) – Targets and Classification <https://rbidocs.rbi.org.in/rdocs/notification/PDFs/MDPSL803EE903174E4C85AFA14C335A5B0909.PDF>.

introducing various adjustments, including credit for loans to start-ups, raised targets for small and marginal farmers and weaker sections, and harmonising instructions for different types of banks.

On their part, banks too have made considerable progress in meeting Priority Sector Lending targets, with an achievement rate of 44.7 per cent as of March 31, 2023. However, credit gaps persist in sectors like MSMEs, women entrepreneurs, and agriculture, underscoring the continued importance of Priority Sector Lending.

### **Priority Sector Lending and Sustainable Finance**

How does Priority Sector Lending connect with Sustainable Finance? It needs to be appreciated that sustainable finance and financial inclusion are not distinct or distant areas. On the contrary, they are interrelated and can reinforce each other in several ways. They share common objectives of improving people's lives and fostering economic development. Sustainable finance aims to address environmental and social challenges, while financial inclusion seeks to empower individuals and communities economically. Further, financial inclusion can enhance the resilience of vulnerable populations to environmental and climate risks by providing access to insurance products and savings mechanisms.

The Priority Sector Lending guidelines specify eight categories of priority sectors viz., (i) Agriculture; (ii) MSME; (iii) Export Credit; (iv) Education; (v) Housing; (vi) Social Infrastructure; (vii) Renewable Energy; and (viii) Others. A careful evaluation of the Priority Sector Lending categories reveals that there are elements of sustainability in nearly all these categories.

Several significant changes and expansions have occurred in India's Priority Sector Lending policies to promote key sectors and address important societal needs. For instance, in April 2015, 'Renewable Energy' was introduced as a distinct category under Priority

Sector Lending to bolster the generation and use of renewable energy sources like solar, wind, and more. Loans up to ₹15 crore were allocated to borrowers for purposes such as solar-based power generators, micro-hydel plants, and non-conventional energy-based public utilities. Considering the limited credit uptake in the renewable energy sector, the loan limit under this category was subsequently increased to ₹30 crore. Individual households were eligible for loans of up to ₹10 lakh per borrower.

Similarly, Priority Sector Lending was expanded to support the agriculture sector, a critical contributor to the country's growth and employment. Loans to farmers for the installation of stand-alone solar agriculture pumps, solarisation of grid-connected agriculture pumps, and solar power plants on barren/fallow land or agriculture land owned by farmers were included without any specific cap, further promoting sustainable agricultural practices.

In the MSME sector, an essential driver of economic and social development, there are no credit caps for priority sector classification. This includes loans to MSMEs engaged in activities like water supply, waste management, and electric power generation using renewable sources.

Priority Sector Lending recognises the importance of social infrastructure in enhancing the quality of life and indirectly contributing to economic development. Loans up to ₹5 crore per borrower for initiatives like setting up schools, drinking water facilities, sanitation facilities, and household-level water improvements are eligible for Priority Sector Lending classification. Loans up to ₹10 crore per borrower for building healthcare facilities, including those under '*Ayushman Bharat*', in Tier II to Tier VI centres are also included in this category.

Thus, the Priority Sector Lending guidelines in India have evolved into a dynamic and responsive framework that reflects the nation's commitment

to progress, sustainability, and inclusivity. Over the years, these guidelines have adapted to the changing economic landscape and emerging national priorities, ensuring that financial institutions play a crucial role in promoting inclusive growth.

### **Conclusion**

Banks, as key players in the financial sector, bear an inalienable responsibility in advancing the agenda of inclusive growth, which is fundamental to the country's economic and social development. Therefore, as senior executives of banks, your role is pivotal in shaping the financial landscape of the nation. It is not merely about adhering to regulatory requirements but about embracing the spirit behind the Priority Sector Lending framework. It is about recognising the imperative of reaching out to the underserved and marginalised sections of society, empowering MSMEs, bolstering renewable energy initiatives, and facilitating access to education and healthcare.

Proactive efforts are required in translating sustainability principles into action. Therefore, I would request you to go beyond mere compliance and to imbue your organisation's lending policies and practices with the essence of the sustainable finance. It also involves fostering a culture of financial inclusion, where every loan and financial service extended

contributes to the greater good of the nation. It means devising innovative financial products and services that cater to the unique needs of various priority sectors, be it agriculture, renewable energy, MSMEs, or social infrastructure. It entails understanding that your bank's actions can have a transformative impact on the lives and livelihoods of millions of individuals and communities across India.

I would like to end with a quote from Chanakya, which I believe is very apt for the occasion:

जल बिंदु निपातेन क्रमशः पूर्यते घटः।  
स हेतुः सर्व विद्यानां धर्मस्य च धनस्य च ॥

(Jal Bindu Nipaten Kramasha Puyate Ghatha.  
Sa hetu sarva vidyana dharmasya cha dhansya cha.)

"Small drops of water, when they come together, fill up a pot. Similarly, knowledge, good deeds or wealth, add up gradually."

Just like the small drops of water coalescing, I believe, collectively, we have the power to chart a course toward a more prosperous, equitable, and sustainable future for all. We can contribute to a society where financial inclusion is a reality, where economic opportunities are accessible to all, and where sustainability is not just a goal but a way of life.

With this I wish this conference all success. Thank you.

## ARTICLES

State of the Economy

Reading the Market's Mind: Decoding Monetary Policy Expectations from Financial Data

Transitioning India's Power Sector: Repurposing of Coal-Fired Power Plants

Monetary Policy Transmission in India: Recent Dynamics



## *State of the Economy\**

*The global economy shows signs of slowing down in the final quarter of 2023 as manufacturing languishes while services sector activity appears to have reached the end of its post-pandemic expansion. Going forward, tightening financial conditions is a significant risk to the global outlook. In India, the momentum of the change in GDP is sequentially expected to be higher in Q3:2023-24, with festival demand remaining ebullient. Investment demand appears to be resilient with the government's infrastructure spending, an uptick in private capex, automation, digitalisation, and indigenisation providing a boost. Headline inflation came down to 4.9 per cent in October from the average of 6.7 per cent in 2022-23 and 7.1 per cent in July-August 2023.*

### **Introduction**

Intensifying geopolitical strife has flung a pall of uncertainty around the global economy as it slows in the final quarter of 2023, albeit with considerable cross-country variations. Europe appears to be on the edge of recession, China is stalling. The US has emerged as a key driver of global growth although its outlook is more uncertain now than before as it swings from hard landing to soft landing to no landing. Several parts of Asia remain bright spots but in Latin America, activity is losing steam. In this context, it has been pointed out that instead of resembling a bell-shaped distribution of potential outcomes with a single peak and slender tails, the global outlook looks like a multi-modal distribution with fat tails suggesting a higher likelihood of extreme events<sup>1</sup>. Globally, manufacturing

is languishing while services sector activity appears to have reached the end of its post-pandemic expansion. Labour markets are exhibiting signs of weakening and consumer and business confidence is dented by the recent deep sense of insecurity as wars rage.

The tightening of financial conditions is a major risk to the global outlook, with the recent spike in bond yields indicative of further impending pass-through to borrowing costs. The across-the-board and across the world retreat of bond yields from October highs on the announcement of a slower pace of longer dated issuances in the US suggests that fiscal risks have overtaken higher-for-longer risks in elevating bond yields. With average gross debt levels in advanced economies (AEs) projected by the International Monetary Fund (IMF) to rise from 112 per cent of GDP in 2023 to 116 per cent by 2028 – as against a rise from 68 per cent to 78 per cent among emerging market economies (EMEs) – the fiscal risk to bond yields is likely to linger. Factors like quantitative tightening expectations and leveraging have steepened yield curves, but the root cause is fiscal risk that is driving up term premia, amidst heightened uncertainty.

By contrast, monetary policy risk is on the ebb in market expectations as bets accumulate about who will blink first and when rate cuts will take over from pauses, irrespective of how hawkish central banks sound now. Inflation has been abating, but at a slow, stubborn pace and is likely to remain uncomfortably above targets in many countries for the third year in succession. Unlike in AEs, core inflation is steadily easing in EMEs but food and energy price shocks keep imparting upticks to the headline. The recent volatility in crude prices amidst geopolitical tensions in the Middle East threatens the inflation outlook across the world, especially if hostilities prolong and widen. On November 8, however, crude prices slipped to their lowest in more than three months on concerns over waning demand, including from the US where the US Energy Information Administration (EIA) expects petroleum consumption to fall by 300,000 barrels per day while stocks rise. With these prospects, interest

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\* This article has been prepared by G. V. Nadhanel, Rajni Dahiya, Yogesh H. C., Kunal Priyadarshi, Harshita Keshan, Ramesh Kumar Gupta, Pankaj Kumar, Harendra Behera, Jessica Maria Anthony, Rishabh Kumar, Vijaya Agarwal, Harshita Yadav, Kovuri Akash Yadav, Shivam, Shubhi Chauhan, Priyanka Sachdeva, Supriyo Mondal, Yuvraj Kashyap, Abhinandan Borad, Kamal Gupta, Anjali Maria Jose, Athira C A, Khushi Sinha, Ashish Santosh Khobragade, Satyam Kumar, Mayank Arvind Gupta, Asish Thomas George, Vineet Kumar Srivastava, Samir Ranjan Behera, Deba Prasad Rath and Michael Debabrata Patra. Views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

<sup>1</sup> Mohamed A. El-Erian, Project Syndicate, October 26, 2023.

rate expectations remain firm, bringing in their train two fears: recession and financial instability.

Financial markets are undergoing a broad repricing, posing another risk to the global outlook. After a brief easing on flight to safety when tensions flared in the Middle East, benchmark bond yields in the US crossed 5 per cent in the later part of October before the announcement of a slower pace of long dated issuances in the US referred to earlier, cheered bond markets. Other parts of the world also saw less sharp surges in bond yields, and sovereign spreads widened for countries with relatively higher fiscal pressures. Overall, investors worry about shrinking fiscal space, given soaring deficits and debt levels as well as higher debt servicing costs in a high interest rate environment. Elevated bond yields have driven corrections in equity markets. Credit spreads have widened. The US dollar has largely stabilised at elevated levels relative to March 2022 when the US Fed started raising rates, indicative of other factors such as safe haven demand that are imparting an upside. Net portfolio capital flows have been exiting EMEs since August, with net outflows of US\$ 3.4 billion in October before slender net inflows occurred in the first week of November.

International trade is weighed down by the strong US dollar and the post-pandemic rebalancing of consumption. Weak exports are a drag on growth across the world. As stated in the October edition of the State of the Economy, the World Trade Organisation (WTO) downgraded its forecast for world merchandise trade volume growth for 2023 to just 0.8 per cent, with risks mostly to the downside as the global outlook deteriorates, and conflict weighs on prospects. The slowdown in international trade is encompassing a broad swathe of countries and a wide array of goods, specifically manufactures such as iron and steel, office and telecom equipment, textiles and clothing. Although trade in services has remained resilient so far, the growth of global trade in goods and services in 2023 is going to be significantly below world output

and lower than its average growth during the last decade.

Uncertainty about the global outlook is also being driven by the inadequate response to climate change. The world is on track to produce 100 per cent more fossil fuels by 2030, according to the UN, despite net zero emission pledges and the expectation that fossil fuel demand will peak in this decade. October 2023 was the warmest October on record globally, with average surface air temperature of 15.3 degrees Celsius, 0.85 degrees above the 1991-2020 average and 0.4 degrees higher than in the previous warmest October in 2019. Even the sea surface temperature for the month of October was the warmest on record. For January to October, the global mean surface temperature for 2023 is the highest too, 1.43 degrees above the 1850-1900 pre-industrial average. The US National Center for Environmental Information assigns a 99 per cent probability to 2023 ranking as the warmest year on record globally. Antarctic sea ice extent is at record low levels. With *El Nino* conditions continuing, climate change is fuelling increasingly destructive outcomes, with drought, floods, severe heatwaves and wildfires threatening several parts of the world. On a positive note, however, heading towards COP28, climate negotiators reached an agreement in Abu Dhabi on November 4 on a framework for a fund to be hosted by the World Bank to help vulnerable nations deal with loss and damage from extreme weather events.

In India, estimates of gross domestic product (GDP) for the second quarter (Q2) of 2023-24 will be released at the end of this month. There is wide consensus supported by nowcasts that real GDP growth will outperform the projections of the Reserve Bank of India (RBI) pegged at 6.5 per cent for the quarter. The RBI's projections incorporated a turnaround in the momentum of activity into expansion in Q2 and hence the consensus, if actualised, would imply a stronger pace of activity than projected. This optimism appears to have been corroborated by corporate results for Q2. Bottomline growth was robust and broad-based, with

companies in sectors such as oil and gas, automobiles and construction delivering sharp increases in profitability. Information technology (IT) companies, on the other hand, declared weaker earnings results than in the preceding quarter and many of them have lowered their forward revenue guidance in response to global macroeconomic uncertainty and reduction in discretionary expenditure by their clients. Auto companies stood out in posting a strong revenue performance as the main driver of profitability, spurred by volume growth, lower raw material costs and price hikes. Base effects favoured profits growth in the case of oil marketing companies. Cement, construction and transportation companies recorded jumps in profits, aided by volume growth on the back of the government's spending on infrastructure, and residential demand. Falling input cost pressures also aided the profitability of corporates across the board. Fast moving consumer goods sector companies (FMCG) registered moderate growth, mainly on account of their rural sales. Banks were powered by strong credit demand which pushed up their toplines, although rising interest expenses on account of higher interest rates on deposits exerted some pressure on their margins. Provisioning costs continued to remain low, reflecting stable asset quality which, in turn, improved their profitability.

In Q3, the RBI projects real GDP growth at 6 per cent; although the momentum of the change in GDP is sequentially expected to be higher, this advantage may be offset by base effects. Early estimates of *kharif* output, which would be incorporated into Q2 and Q3 GDP estimates, have been adversely impacted by the uneven spatio-temporal distribution of the south west monsoon across all crops. A strong increase in *rabi* sowing acreage in spite of lower reservoir levels and deficient north-east monsoon rainfall may, however, compensate and improve agricultural production for the year as a whole. Purchasing managers indices for both manufacturing and services remained in

expansion in October, although they moderated somewhat from the sizzling pace recorded over the preceding four months.

Festival demand is ebullient. In urban areas, consumer appliances are in strong demand, especially in the mid- and premium segments. Consumer sentiment is upbeat. Close to 80 per cent of purchases of consumer durables are reported to be through consumer financing schemes spiced up with attractive equated monthly instalment (EMI) offers. Entry-level segment demand is relatively subdued as 'premiumisation' shows clear signs of developing into a consistent trend. Micro, small, and medium enterprises (MSMEs) supplying to in-demand segments are also experiencing a surge in orders, particularly from businesses selling through platforms and large format stores. In turn, bank loans to MSMEs is strong. In the affordable housing space, sales have declined, deterred by high interest rates, but surging growth is taking hold for houses in the ₹1-2 crore and ₹50 lakh-1crore segments. Festival spending and consumer exuberance are also driving record loan disbursements by non-banking financial companies (NBFCs). Nearly half of the credit demand is originating from tier 3 cities.

Rural demand accounts for a third of the revenues of consumer goods companies. Overall rural volume growth is estimated to have risen by 6.4 per cent (versus 10.2 per cent in urban areas). Non-food companies are tracking better in terms of rural volumes than food companies. This is partly attributed to aggressive sales pitches by small and regional players, indicative of the rural consumer becoming increasingly price sensitive and switching to cheaper alternatives and smaller sized packs.

Investment demand appears to be resilient, with capital goods equity indices being among the top performing sectoral indices. The government's infrastructure spending, an uptick in private capex,

automation, digitalisation and indigenisation are cited as factors providing a boost to investment activity. Capital expenditure by states has surged alongside that of the centre. Companies are reported to be realigning their production and supply lines to diversify their manufacturing locations beyond China, supported by deleveraged balance sheets. Improvements in supply chain dynamics, a strong order backlog being executed, and lower raw material and freight costs are also supporting profitability in this segment.

Meanwhile, inflation continued on its welcome descent in October to its lowest level in three months. Most hearteningly, core inflation fell by close to 200 basis points to a 43-month low from its recent peak in January 2023. Disinflationary monetary policy is working its way through the economy, steadily excoriating underlying inflationary pressures. Alongside, input costs are softening, as reflected in the sustained deflation in wholesale prices. Wage and rental pressures also remain muted. Fuel group prices went into deflation. Clearly, the only risk to the RBI's resolve to align headline inflation with the target of 4 per cent is food inflation. Several constituent prices are already firming up – onions; tomatoes; cereals; pulses; and sugar – with the potential to disrupt the gains made in the last two months. Accordingly, in the RBI, we are bracing up for upticks in the readings for November and December.

Financial markets have been buoyed by positive spillovers from the Fed's pause and the slower increase planned in longer dated US treasuries. Equity markets rallied, driven by gains in capital goods, metals and industrials. The bull play was supported by the softening of commodity prices, especially crude, as well as improvements in India's medium-term growth prospects that were cited by rating agencies. In the bond market, the inaugural auction of the ultra-long 50-year government security in early November saw heavy over-subscription, which lifted market sentiment all around. Benchmarks have been trading

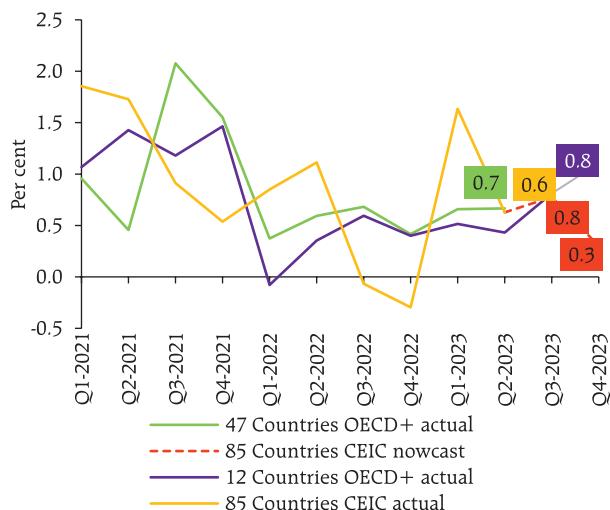
with a softening bias since then while corporate bond spreads have undergone further compression. Foreign portfolio inflows into the debt market in October were the second highest in the calendar year; there have been net inflows into this segment right from April and this has continued into the first week of November as well. In the credit market, the outlook remains positive, led by retail demand. Orderly conditions prevail in the forex market.

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. An assessment of domestic macroeconomic conditions is set out in Section III. Section IV encapsulates financial conditions in India, while the last Section sets out concluding remarks.

## II. Global Setting

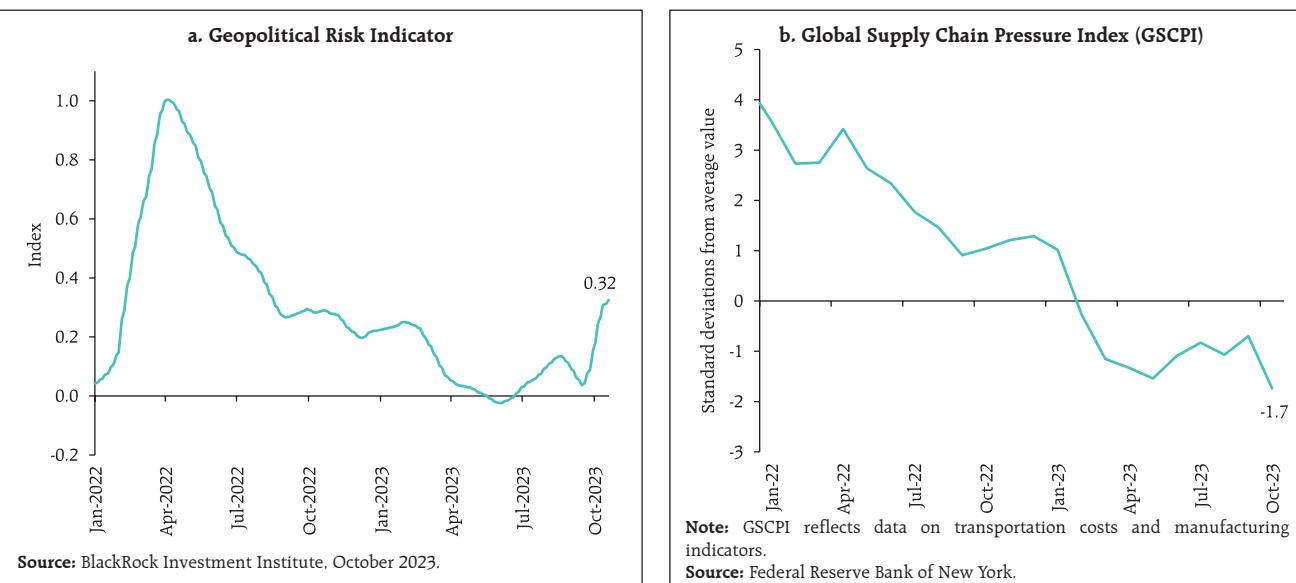
Recent data releases including the better than expected growth in the US have raised hopes of the global economy avoiding a hard landing although growth trajectories are divergent; our model-based nowcast for global GDP growth points to a moderation in Q4:2023 (Chart II.1).

**Chart II.1: Global GDP Growth Nowcast  
(Adjusted Series, Q-o-Q)**



Sources: CEIC; OECD; and RBI staff estimates.

### Chart II.2: Trends in Geopolitical Risks and Supply Chain Pressures

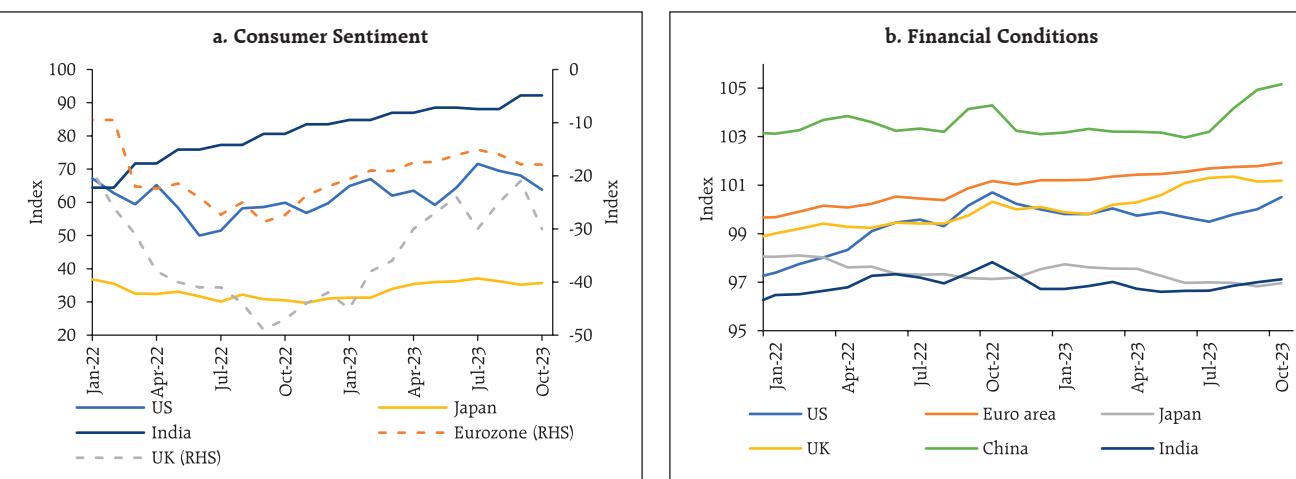


With the onset of a new conflict in the Middle East and lingering Russia-Ukraine war, risks to global growth and commodity prices have risen. Currently, the geopolitical risk index is at a fourteen month high (Chart II.2a). On the other hand, the global supply chain pressures index (GSCPI) eased to (-) 1.7 in October 2023 (Chart II.2b).

Consumer sentiments worsened, especially in the US and the euro area in October, amidst multiple sources of uncertainty. China, the US and the EU witnessed further tightening of financial conditions (Chart II.3a and II.3b).

The global composite purchasing managers' index (PMI) ebbed to 50.0 in October from 50.6 in August

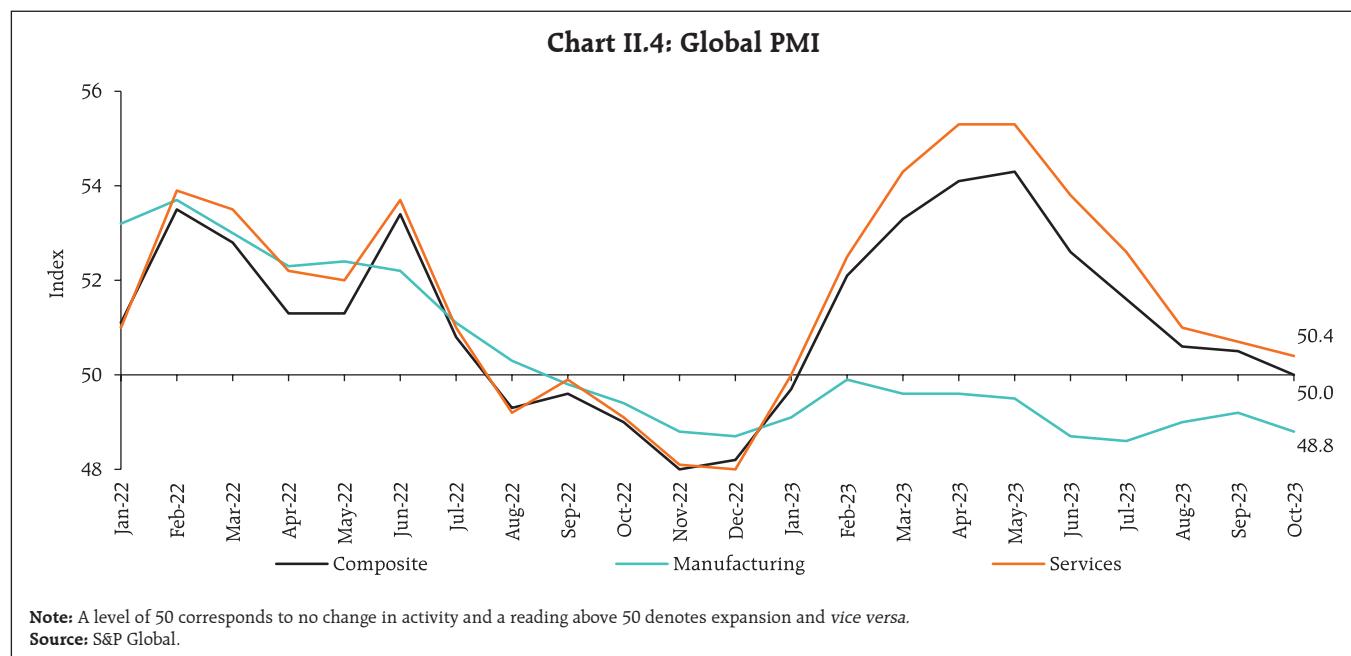
### Chart II.3: Sentiment and Financial Conditions



**Notes:** i) Japan: A score above 50 indicates consumer optimism, below 50 shows lack of consumer confidence and 50 indicates neutrality.  
ii) Eurozone and UK: (-)100 indicates extreme lack of confidence, 0 neutrality and 100 extreme confidence.

iii) India and US: Higher the value, higher is the consumer confidence.

**Source:** Bloomberg.

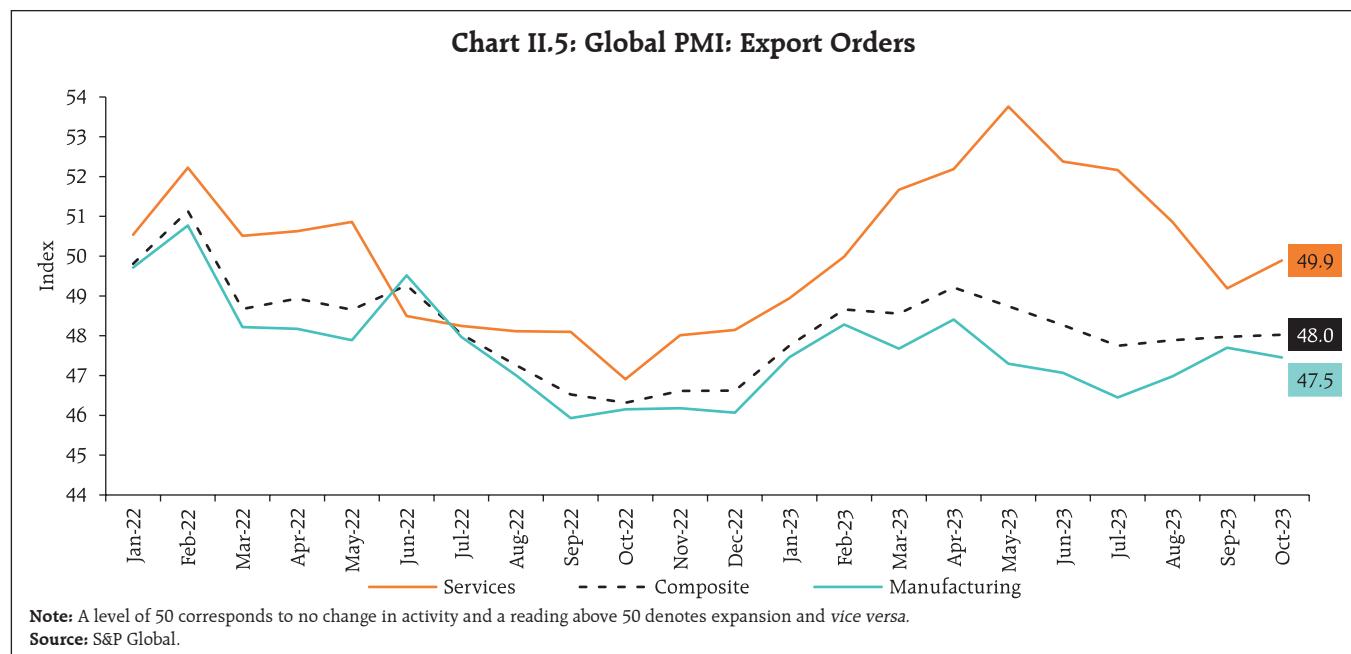


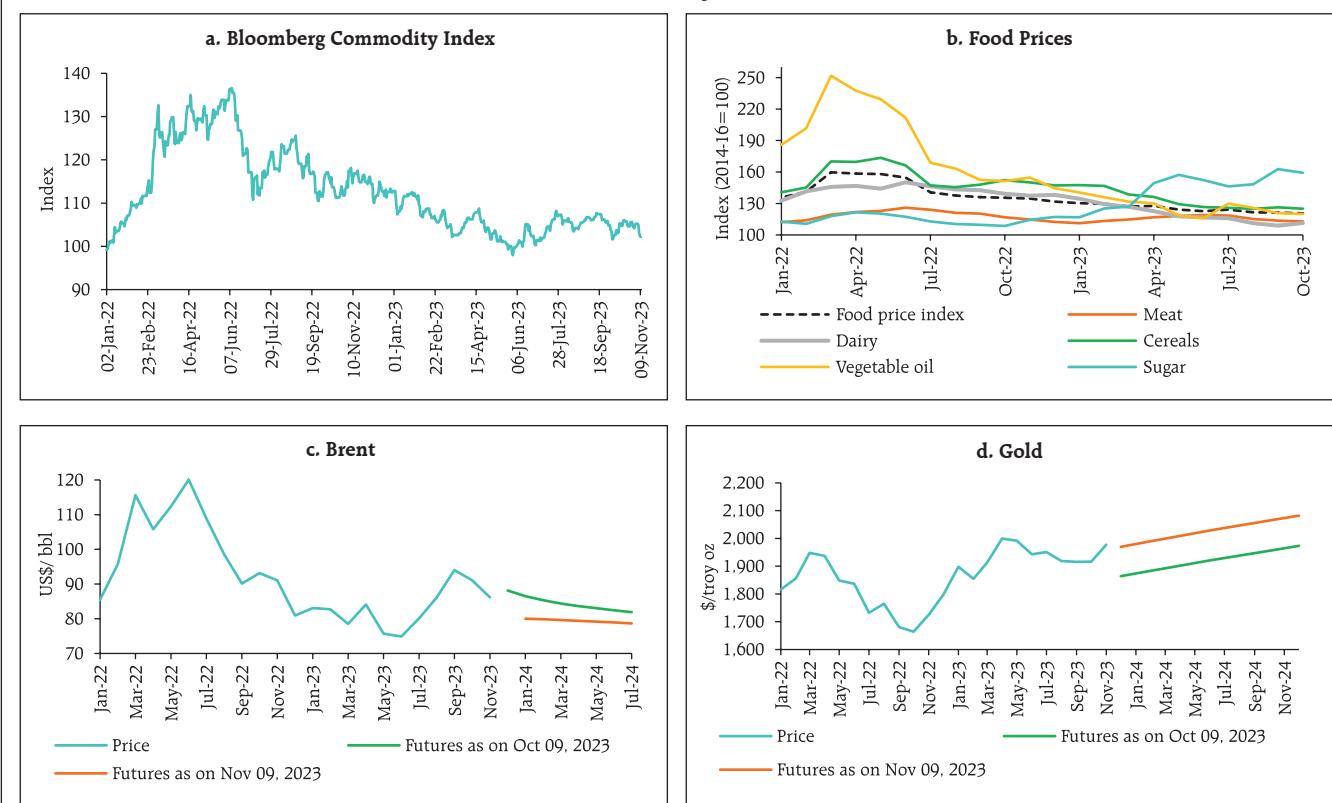
– its lowest reading since January. The downturn in manufacturing became more pronounced, with the global manufacturing PMI declining to a three-month low of 48.8 in October 2023 – the fourteenth consecutive month in contraction. The growth slowdown in services continued (Chart II.4).

Global trade continues to face significant headwinds. Export orders for manufacturing declined

in October, after two months of improvement (Chart II.5). Export orders for services recorded a sequential improvement, reversing the declining trend observed since June 2023.

In October, global commodity prices recorded a broad decline, with the Bloomberg Commodity Price Index falling by 0.2 per cent (m-o-m) [Chart II.6a]. The Food and Agriculture Organization's (FAO's) food price



**Chart II.6: Commodity and Food Prices**

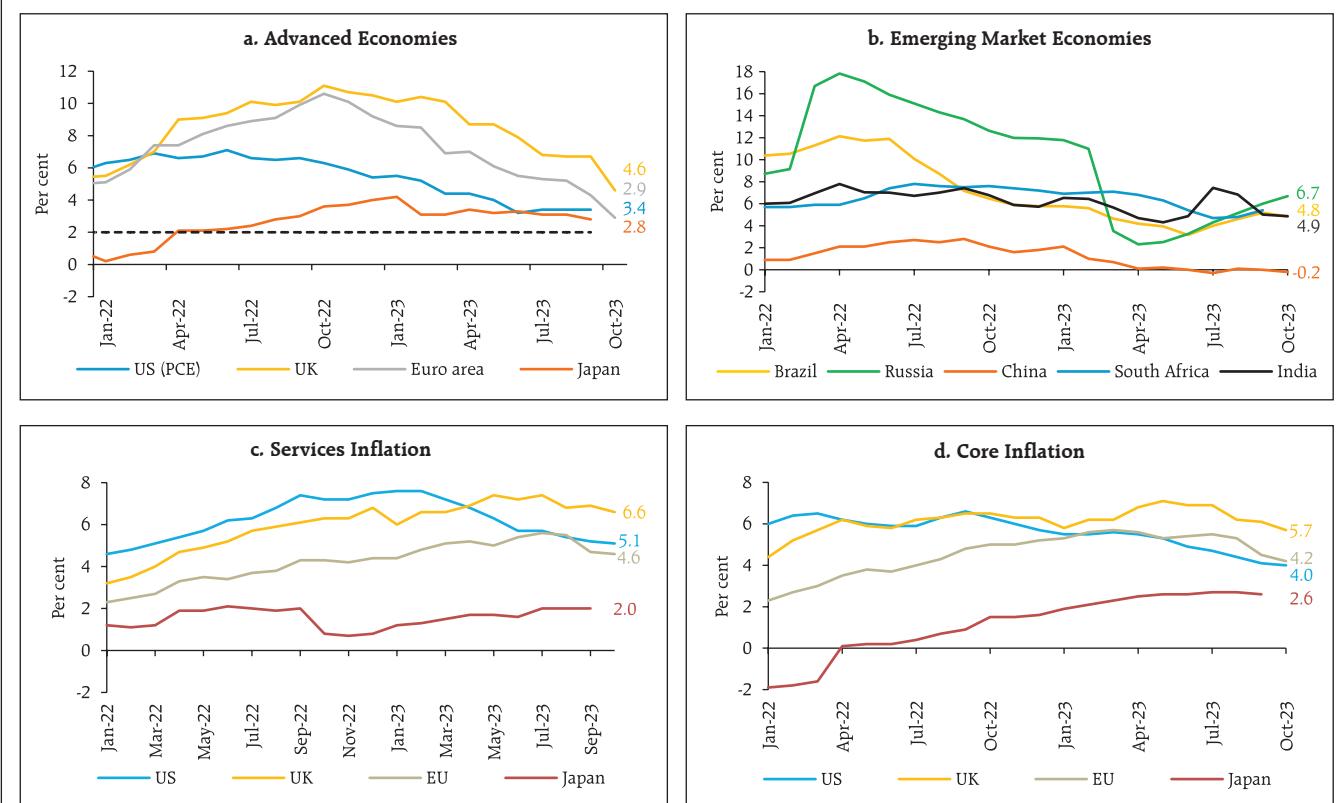
Sources: Bloomberg; World Bank Pink Sheet; and FAO.

index also recorded a decline of 0.5 per cent (m-o-m), reflecting the downturn in the price indices for sugar, cereals, vegetable oils and meat, while the index for dairy products rebounded (Chart II.6b). Crude oil prices softened, averaging US\$ 91.3 per barrel in October and further to US\$ 82.7 per barrel as on November 10, as compared with US\$ 94 per barrel a month ago in response to increased output from the OPEC and the US, and easing market concerns about potential supply disruptions due to the middle-east conflict as well as ebbing demand concerns (Chart II.6c). Safe-haven demand is expected to support further gains in gold prices, as evident from the upward shift in the futures following a brief consolidation period (Chart II.6d).

A very gradual disinflation is underway even though headline inflation is still above the target in most economies. In the US, the headline personal

consumption expenditure (PCE) inflation remained steady for the third consecutive month at 3.4 per cent (y-o-y) in September, with core PCE inflation moderating marginally to 3.7 per cent. CPI inflation in the US moderated to 3.2 per cent (y-o-y) in October from 3.7 per cent in September.

Euro area inflation fell back to 2.9 per cent (y-o-y) in October from 4.3 per cent in September, reaching its lowest level since July 2021 (Chart II.7a). CPI inflation in the UK moderated to 4.6 per cent in October from 6.7 per cent in September, while Japan's inflation (CPI excluding fresh food) moderated to 2.8 per cent in September from 3.1 per cent in August. Among emerging market economies (EMEs), inflation edged up further to an eight-month high in Russia in October while China recorded a deflation of 0.2 per cent in October reflecting weak demand and oversupply (Chart II.7b). Core and services inflation

**Chart II.7: Inflation**

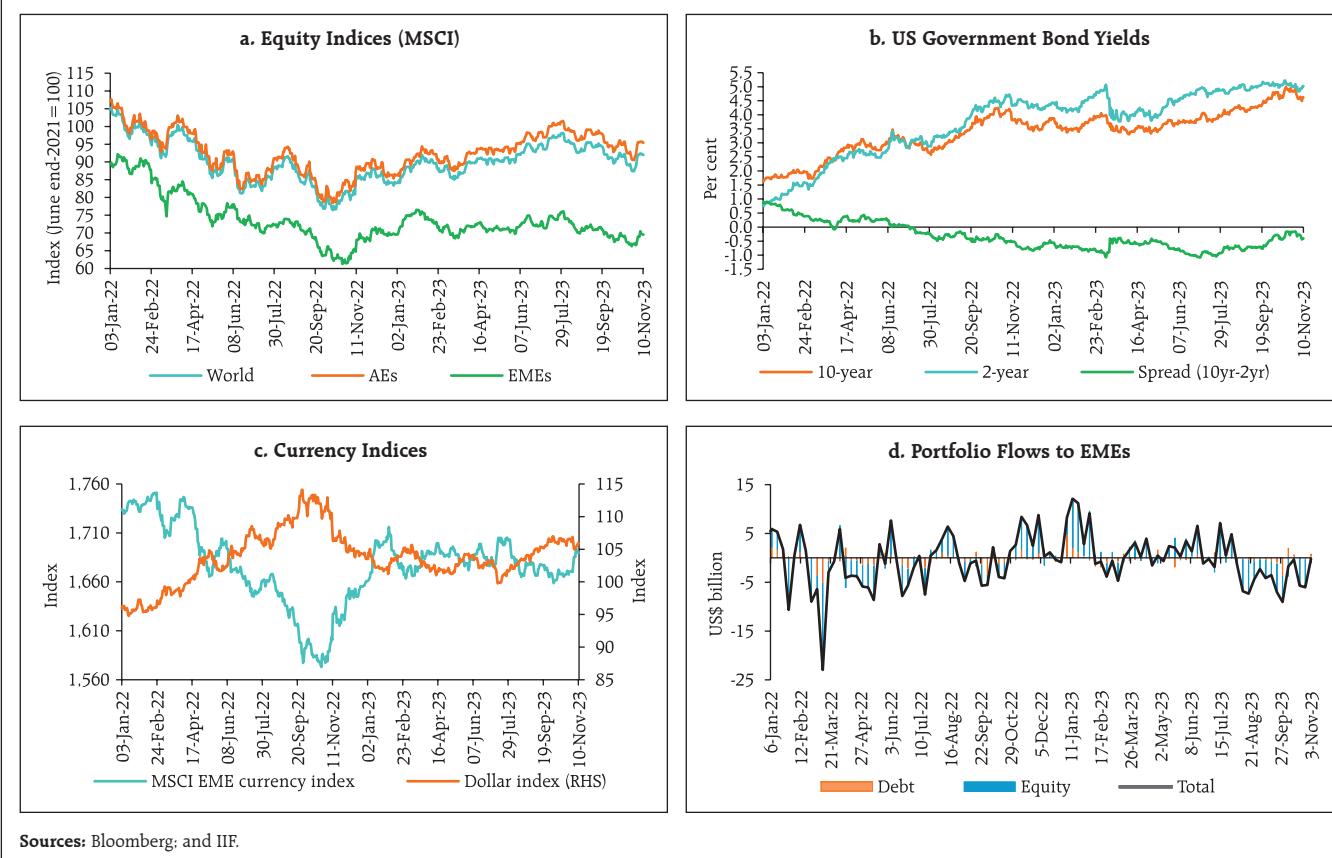
Sources: Bloomberg; and OECD.

have eased in recent months, although they remain much above the headline in most AEs (Chart II.7c and II.7d).

Global equity markets retreated in October due to a surge in the US Treasury yields, heightened Middle East tensions, and elevated oil prices (Chart II.8a). The US government bond yields hardened in anticipation of a "higher for longer" monetary policy stance, reinforced by robust economic data and concerns about increasing bond supply. Meanwhile, the 2-year yield modestly hardened by 4 bps, resulting in a smaller spread averaging (-) 28 bps in October, compared to (-) 67 bps in September (Chart II.8b). The US treasury yields recorded a pullback in early November, on account of reasons alluded to in the introduction. In the currency markets, the US dollar appreciated by 0.5 per cent (m-o-m) in October. The Morgan Stanley Capital International (MSCI) currency

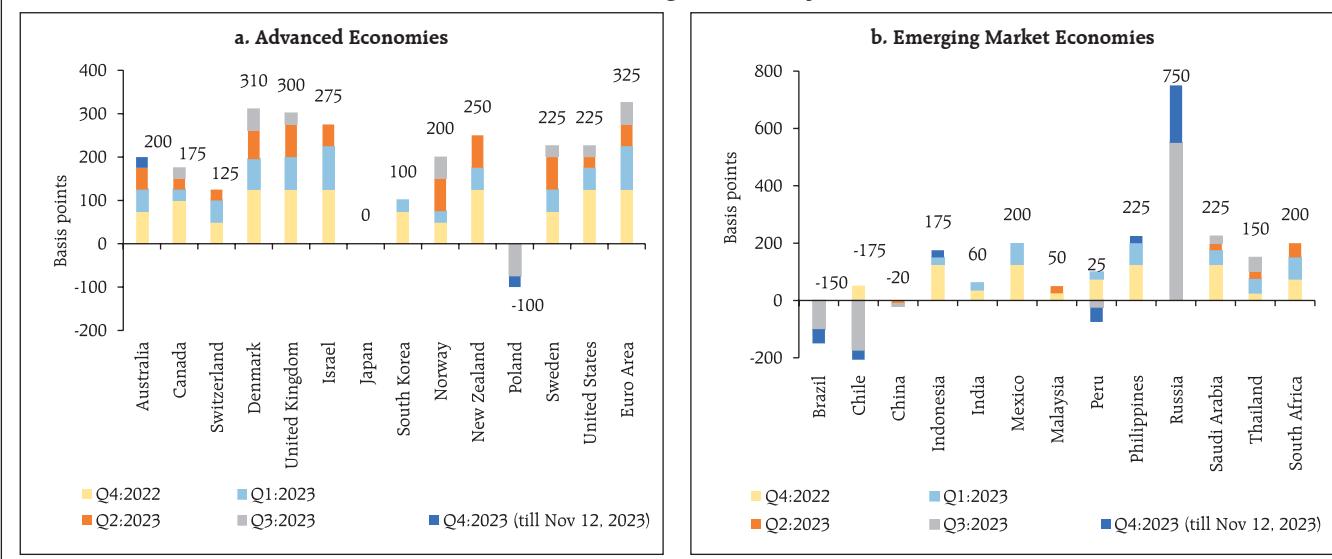
index for EMEs remained rangebound in October, but it recorded modest gains in November 2023 so far (up to 14<sup>th</sup>) as the US dollar pared some of its gains (Chart II.8c and II.8d).

AE central banks, in general, opted for a pause (Chart II.9a). In its November policy meeting, the US Fed held the target range of the Federal Funds rate steady at 5.25-5.5 per cent for the second consecutive time, after hiking by 525 basis points cumulatively since March 2022. The ECB decided to halt its tightening cycle for the first time in October. The Bank of Japan (BoJ) decided to further increase flexibility in the conduct of yield curve control and re-defined 1.0 per cent as a loose "upper bound" rather than a rigid cap, while removing the pledge to defend the level of yields with offers to buy an unlimited amount of bonds. Australia raised its policy rate by 25 bps after maintaining it steady in

**Chart II.8: Global Financial Markets**

previous four meetings. On the other hand, EMEs have resorted to divergent policy options. Indonesia and the Philippines raised their policy rates by 25 bps

each in October, marking the first adjustment after a series of pauses. Russia and Turkey hiked their policy rates by 200 bps and 500 bps, respectively. Sri Lanka,

**Chart II.9: Changes in Policy Rates**

Brazil and Chile opted to reduce their policy rates by 100 bps, 50 bps and 50 bps, respectively while Peru and Poland reduced policy rates by 25 bps each (Chart II.9b).

### III. Domestic Developments

India is poised to maintain its growth momentum as strong macroeconomic fundamentals impart resilience in the face of global headwinds. Investment in the private sector is beginning to pick-up as funds intended for capital expenditure (capex) raised by corporates through different channels – from banks/financial institutions (FIs), external commercial borrowings (ECBs), and initial public offerings (IPOs) – during H1:2023-24 were 60 per cent higher than during H2:2022-23 (Chart III.1a)

Supply chain pressures in India receded in October (Chart III.1b). Our economic activity index

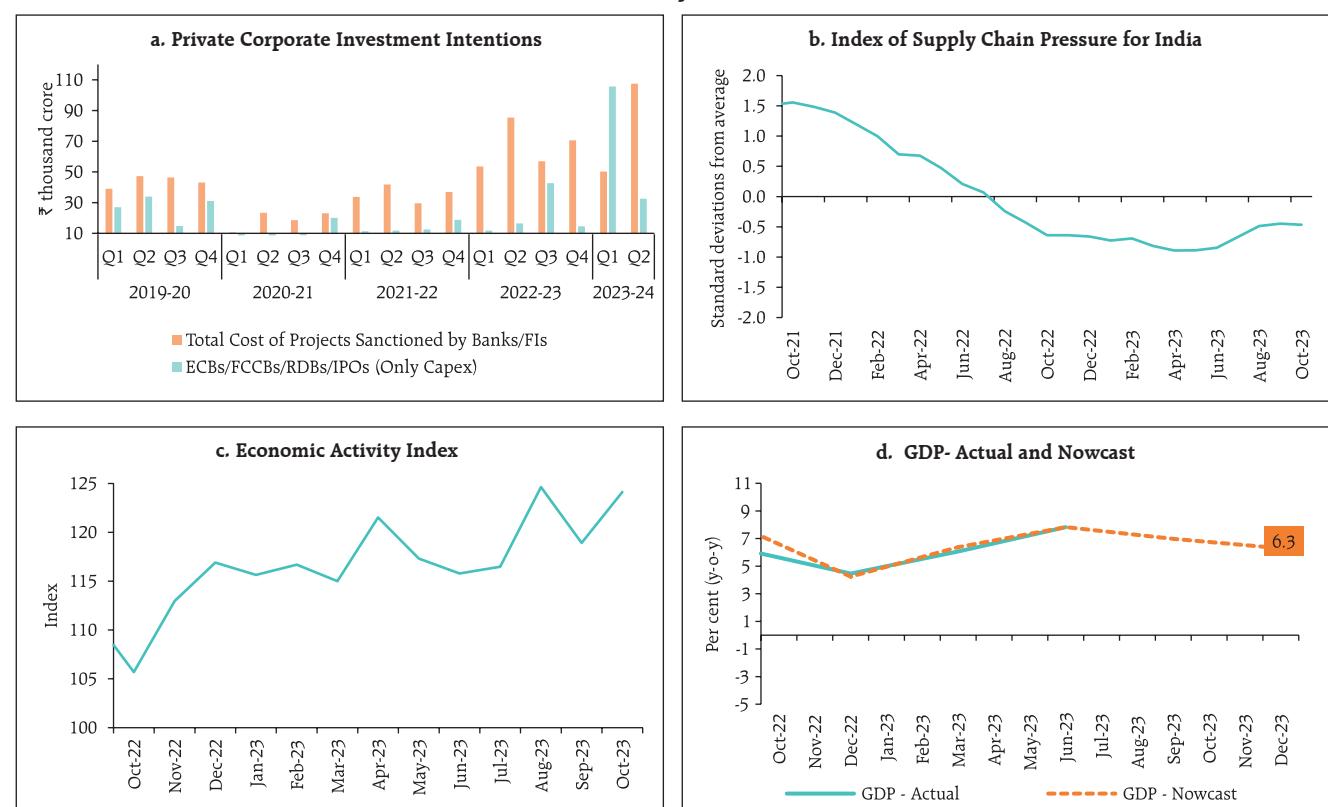
(EAI) nowcasts GDP growth for Q3:2023-24 at 6.3 per cent (Chart III.1c and III.1d).

#### Aggregate Demand

Demand conditions, as evident from high frequency indicators, remain firm. E-way bills reached an all-time high of ₹10.3 crores in October 2023 on the back of festival-led consumption and better tax compliance (Chart III.2a). Toll collection receipts expanded by 24 per cent (y-o-y) [Chart III.2b].

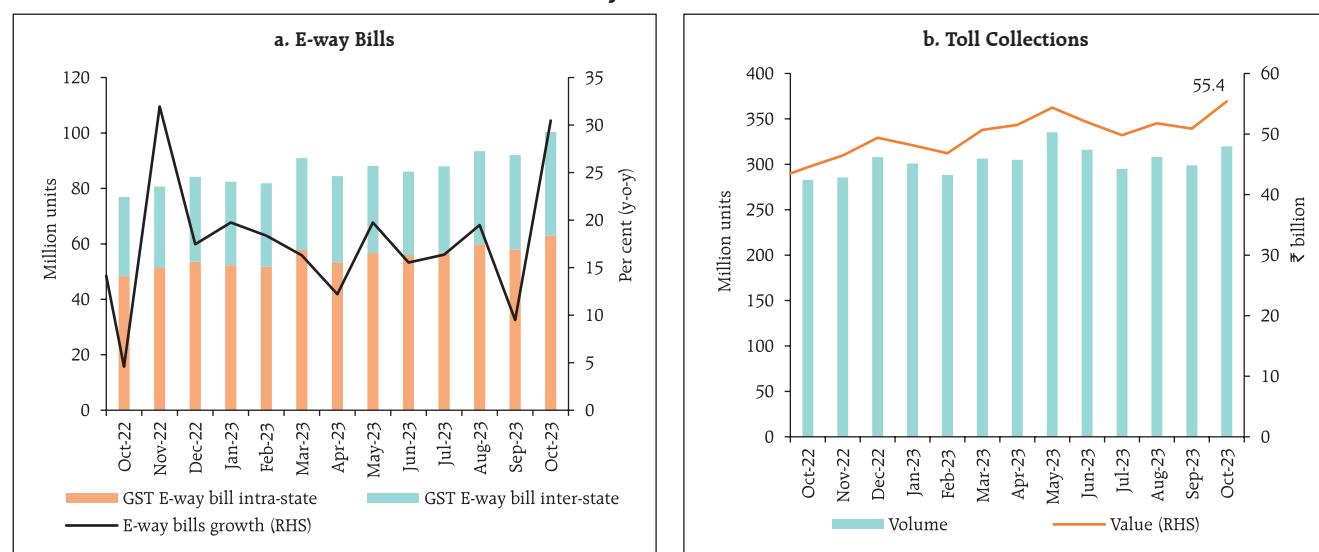
Automobile sales registered an expansion of 20.3 per cent (y-o-y) in October 2023, on the back of festival demand (Chart III.3a and III.3b). Both passenger vehicle and three-wheeler recorded highest ever sales in October. Electric vehicles (EV) accounted for 54 per cent of retail three-wheeler sales. Two-wheeler sales grew by 20.1 per cent. Tractor sales increased

**Chart III.1: Economic Activity and GDP Growth Nowcast**



**Note:** The economic activity index (EAI) is constructed by extracting the common trend underlying twenty-seven high-frequency indicators of economic activity using a Dynamic Factor Model. The EAI is scaled to 100 in February 2020 and 0 in April 2020, the worst affected month due to mobility restrictions.

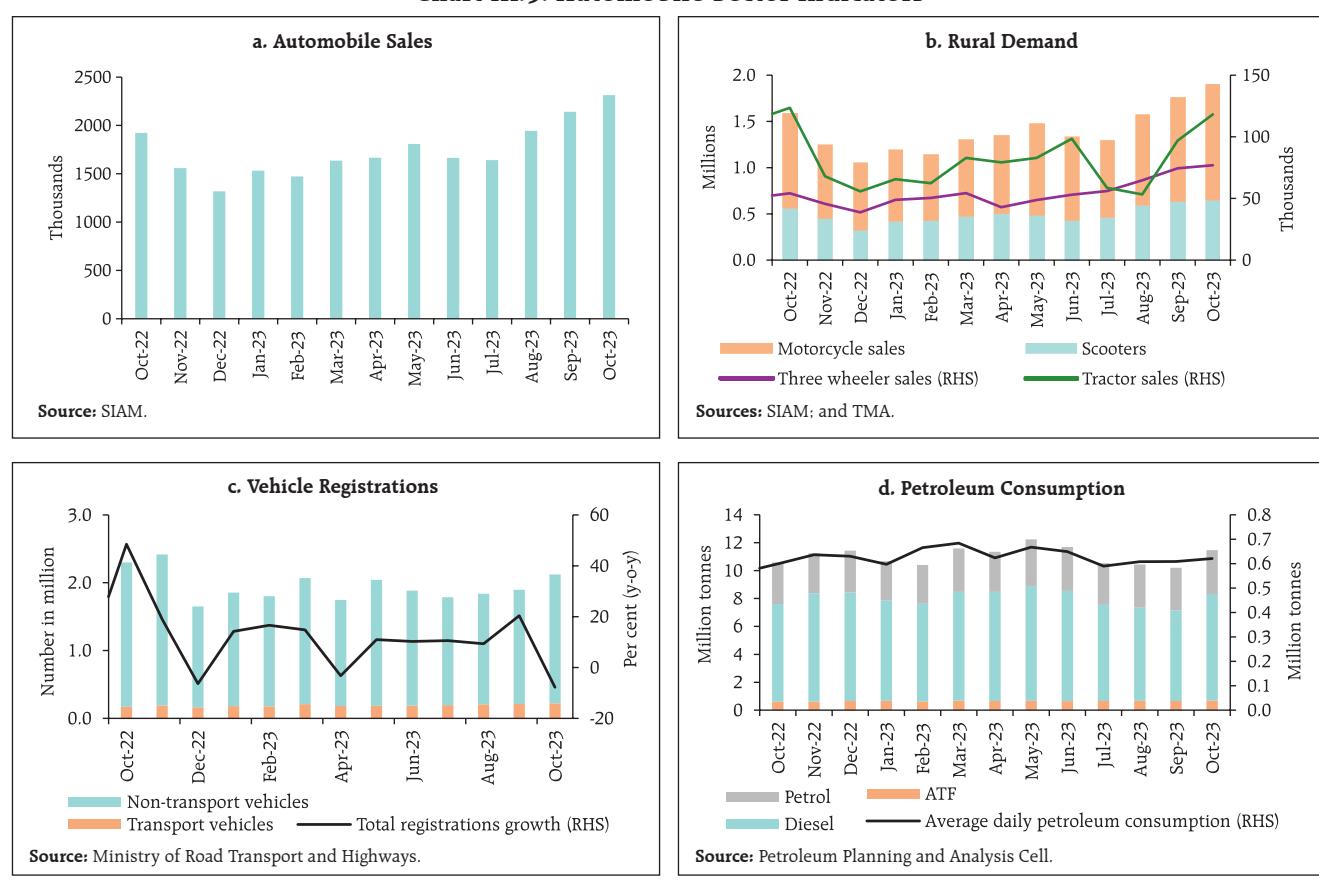
**Sources:** National Statistical Office (NSO); Consumer Confidence Survey, RBI; ICRA; SEBI; Project financed data collected from select banks/FIs; and RBI staff estimates.

**Chart III.2: E-way Bills and Toll Collections**

Sources: GSTN; and RBI.

sequentially, albeit recording a y-o-y decline on a high base (Chart III.3b). Retail sales picked up sequentially

in October, as reflected in vehicle registrations, although y-o-y growth remained in negative territory

**Chart III.3: Automobile Sector Indicators**

Source: Ministry of Road Transport and Highways.

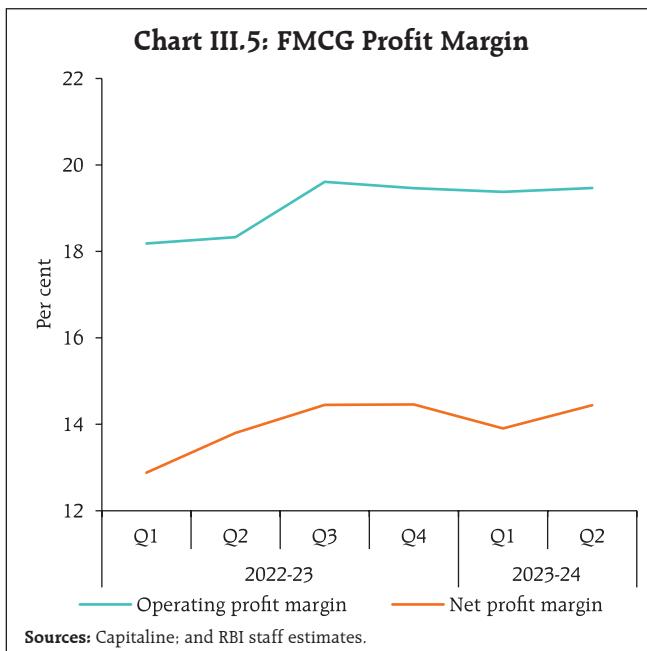
Source: Petroleum Planning and Analysis Cell.

(Chart III.3c). The daily average consumption of petroleum products grew by 2.1 per cent (m-o-m) in October as the festival season drove an increase in fuel demand (Chart III.3d).

Sales growth of manufacturing companies in real terms accelerated to 6.7 per cent (y-o-y), driven by volume growth in Q2:2023-24<sup>2</sup>. In nominal terms, however, sales grew slower by 3.3 per cent (Chart III.4).

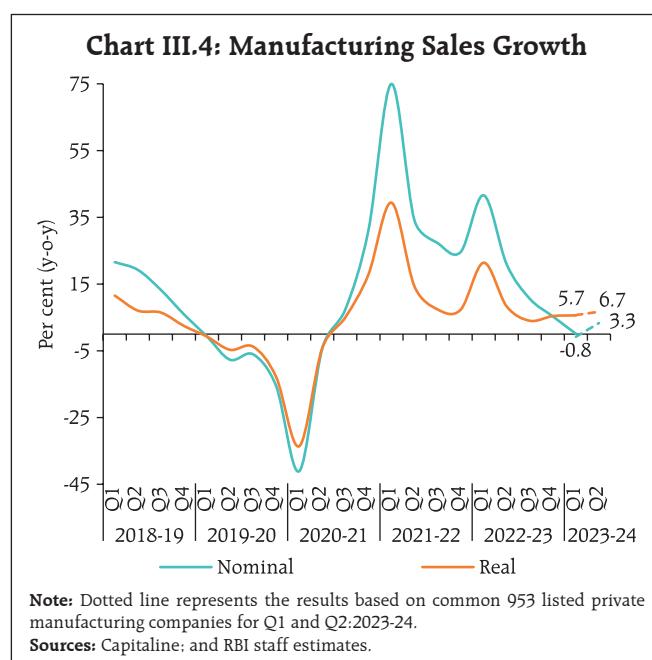
Net profit margin of fast-moving consumer goods (FMCG) companies<sup>3</sup> improved in Q2:2023-24 even as operating profit margin remained at the level of the previous quarter (Chart III.5). Sales also recorded an improvement during the quarter.

As per the survey conducted by the Retailers Association of India, retail sales recorded a stable growth of 9.0 per cent in September 2023, indicative of robust consumer demand. The quick service restaurants, sports goods, consumer durables & electronics and food



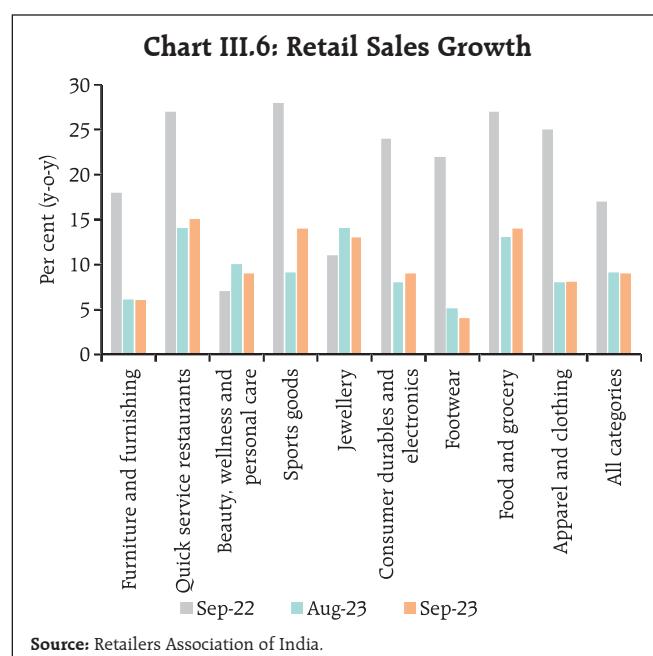
& grocery categories recorded higher growth, whereas the footwear and beauty, wellness & personal care categories moderated (Chart III.6).

The all-India unemployment rate (UR) increased to 10.1 per cent in October, driven by higher UR in rural areas even as urban UR declined (Chart III.7a). The labour force participation rate (LFPR) also



<sup>2</sup> The results based on common 953 listed private manufacturing companies for Q1 and Q2:2023-24.

<sup>3</sup> Quarterly results for Q2:2023-24 based on 21 major FMCG companies.



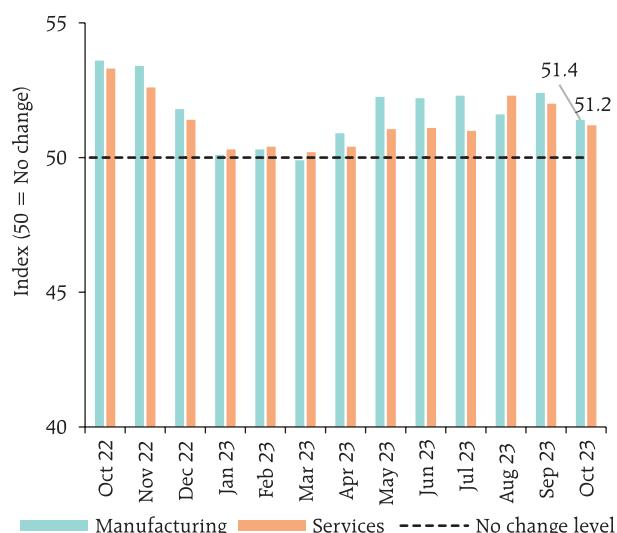
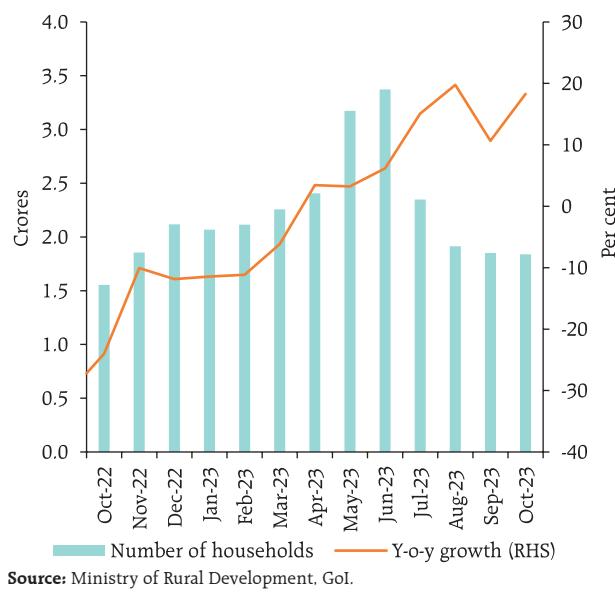
**Chart III.7: Labour Market Conditions**

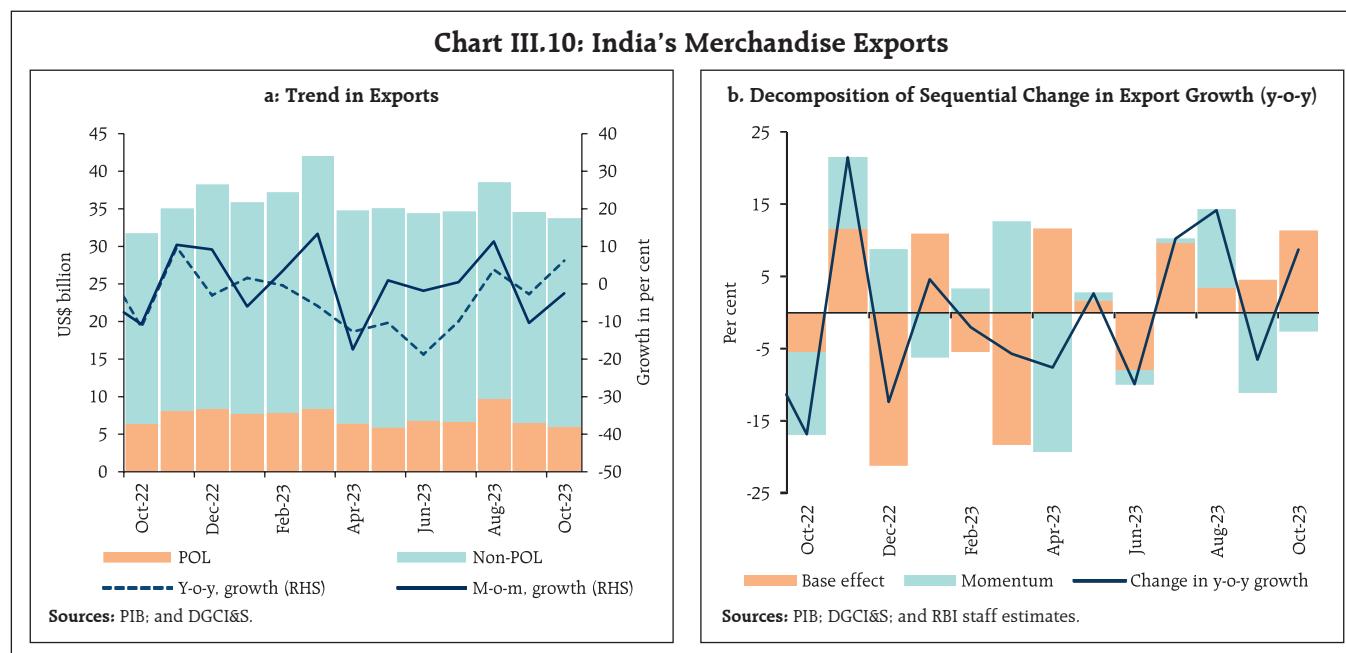
Source: CMIE.

recorded an increase in both urban and rural areas (Chart III.7b).

The employment outlook in the organised sector, as polled by the PMIs for manufacturing and services, remained in the expansionary zone (Chart III.8).

With the onset of the North-east monsoon and the start of *rabi* sowing in October, the number of households demanding work under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) continued to decline (Chart III.9).

**Chart III.8: PMI Employment Indices****Chart III.9: Demand for Work under MGNREGS**

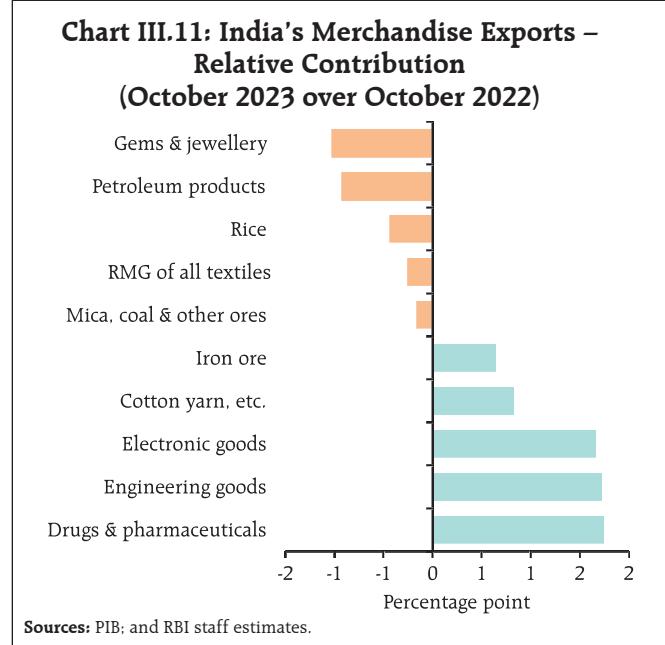


India's merchandise exports at US\$ 33.6 billion in October 2023 registered a growth of 6.2 per cent (y-o-y) reversing the contraction in September (Chart III.10). More than two-thirds of the export basket (22 out of 30 major commodities) registered y-o-y growth. Drugs and pharmaceuticals, engineering goods, electronic goods, cotton yarn and iron ore were the key drivers of export growth whereas gems and jewellery, petroleum products, rice, readymade garments, and mica, coal and other ores were the major laggards (Chart III.11).

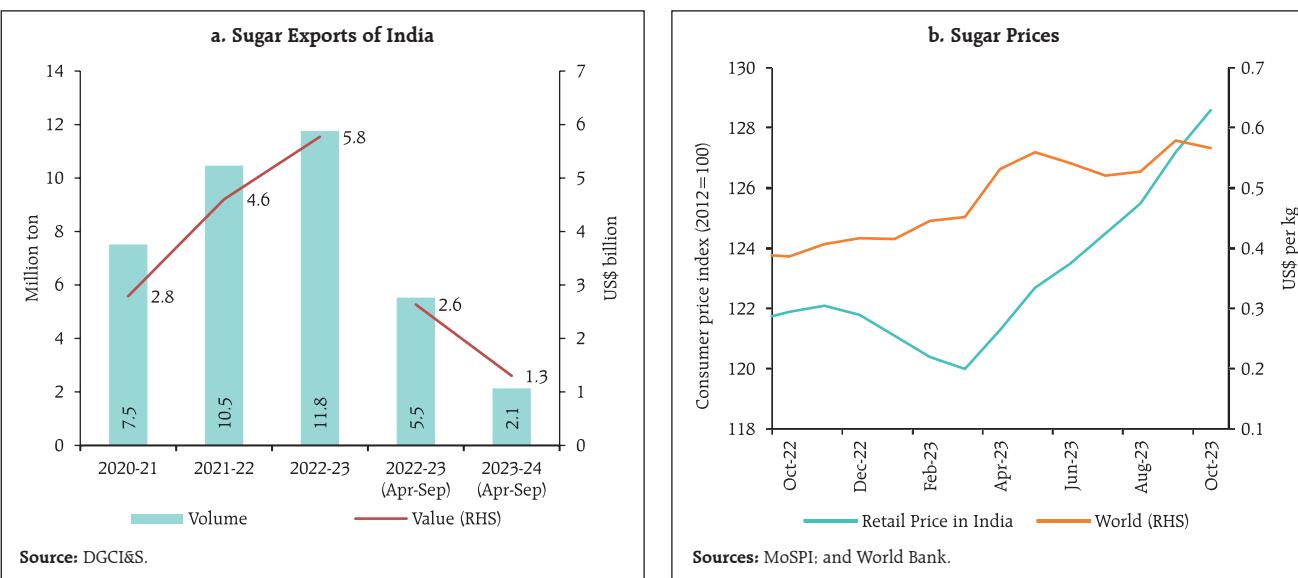
Sugar exports from India declined by 50.6 per cent (y-o-y) in April-September 2023 due to the export limit of 6 million tonnes imposed during October-September 2022-23 (Chart III.12a). There is a likelihood of lower sugar production in India and Thailand<sup>4</sup> – leading sugar producers – due to *El Nino* conditions. These two countries, together with Brazil, account for 70 per cent of global sugar exports. In India, yields are expected to be impacted

by patchy rains. The Indian Sugar Mills Association (ISMA) estimates sugar production to decline from 36.6 million tonnes in 2022-23 to 33.7 million tonnes in 2023-24 (Oct-Sept).

In view of rising prices and to ensure sufficient domestic availability, including for ethanol blending, the Government extended restrictions on sugar



<sup>4</sup> Commodity Markets Outlook, October 2023, World Bank.

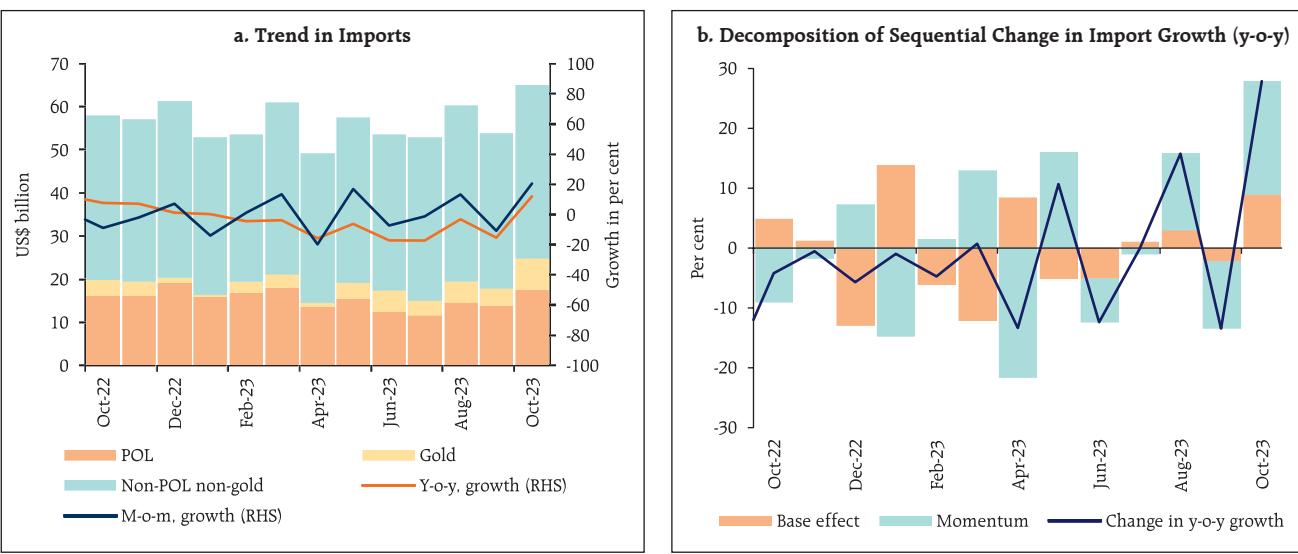
**Chart III.12: Sugar Exports and Prices**

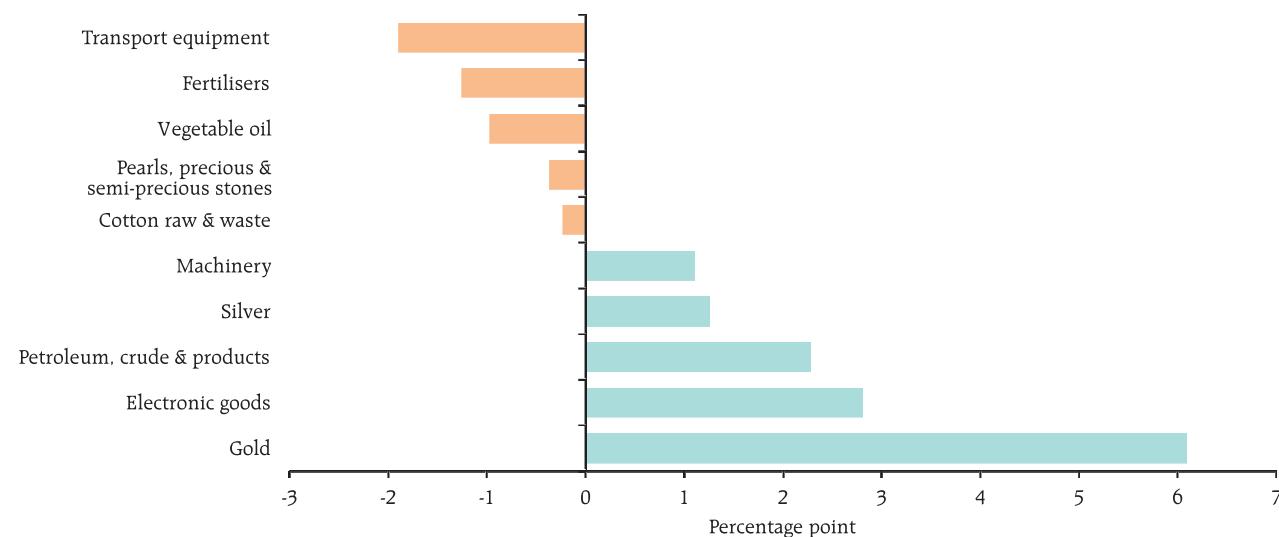
exports beyond October 31. Retail prices for sugar in India increased by 5.5 per cent (y-o-y) in October 2023. In September, global sugar prices recorded their highest level since 2012 amid supply concerns before easing marginally in October (Chart III.12b).

Merchandise imports surged to US\$ 65 billion in October 2023, registering growth of a 12.3 per cent

(y-o-y), after eight consecutive months of contraction (Chart III.13). Two-thirds of the import basket (20 out of 30 major commodities) registered growth on a y-o-y basis.

Gold was the leading driver of import growth, followed by electronic goods, petroleum, oil and lubricants (POL), silver and machinery

**Chart III.13: India's Merchandise Imports**

**Chart III.14: India's Merchandise Imports – Relative Contribution (October 2023 over October 2022)**

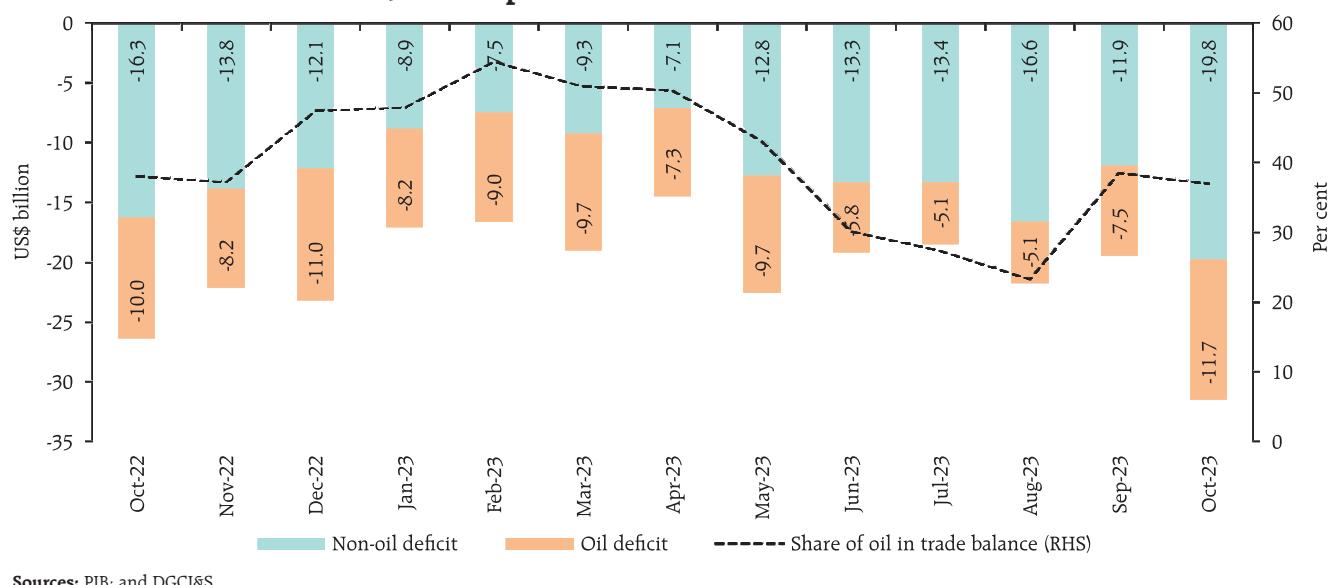
Sources: PIB; and RBI staff estimates.

while transport equipment, fertiliser, vegetable oil, pearls, precious and semi-precious stones and cotton contributed negatively in October 2023 (Chart III.14).

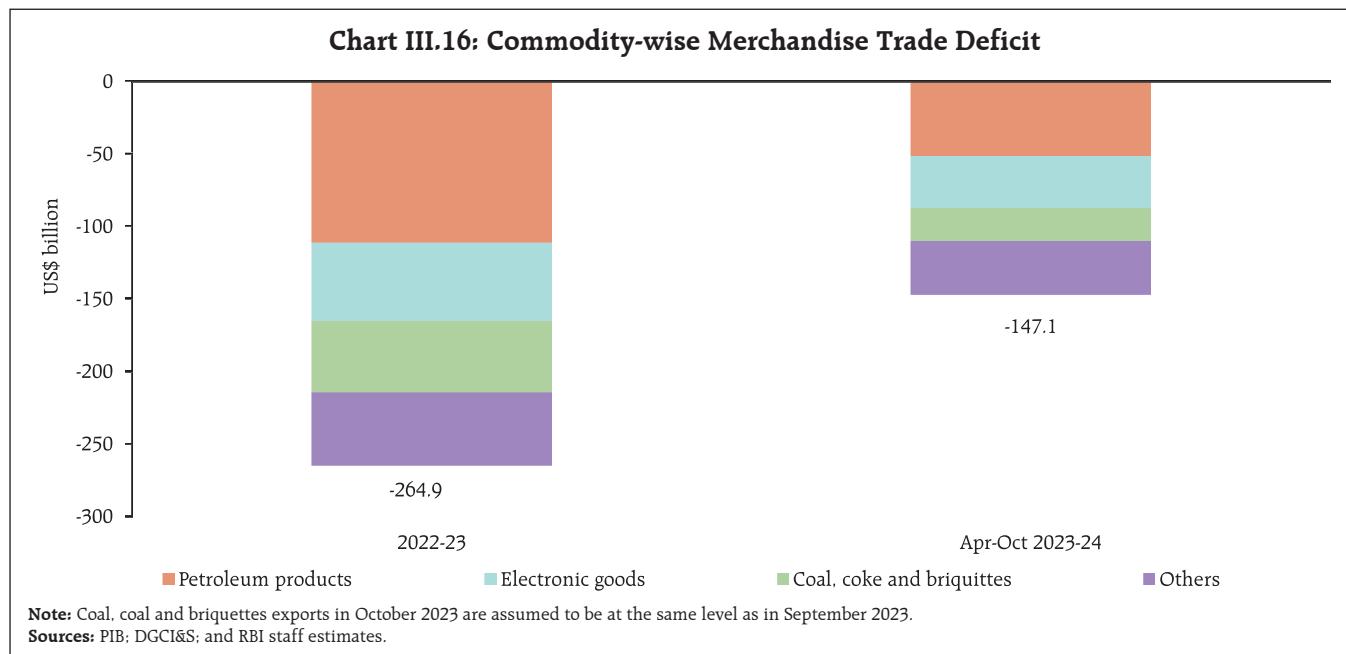
Accordingly, the merchandise trade deficit widened to an all-time high of US\$ 31.5 billion in October. The oil deficit also rose to US\$ 11.7 billion, accounting for

37.1 per cent of the overall merchandise trade deficit (Chart III.15).

During April-October 2023, India's merchandise exports at US\$ 244.9 billion contracted by 7.0 per cent (y-o-y). Merchandise imports at US\$ 392.0 billion declined by 8.9 per cent (y-o-y). Consequently, the merchandise trade deficit narrowed to US\$ 147.1

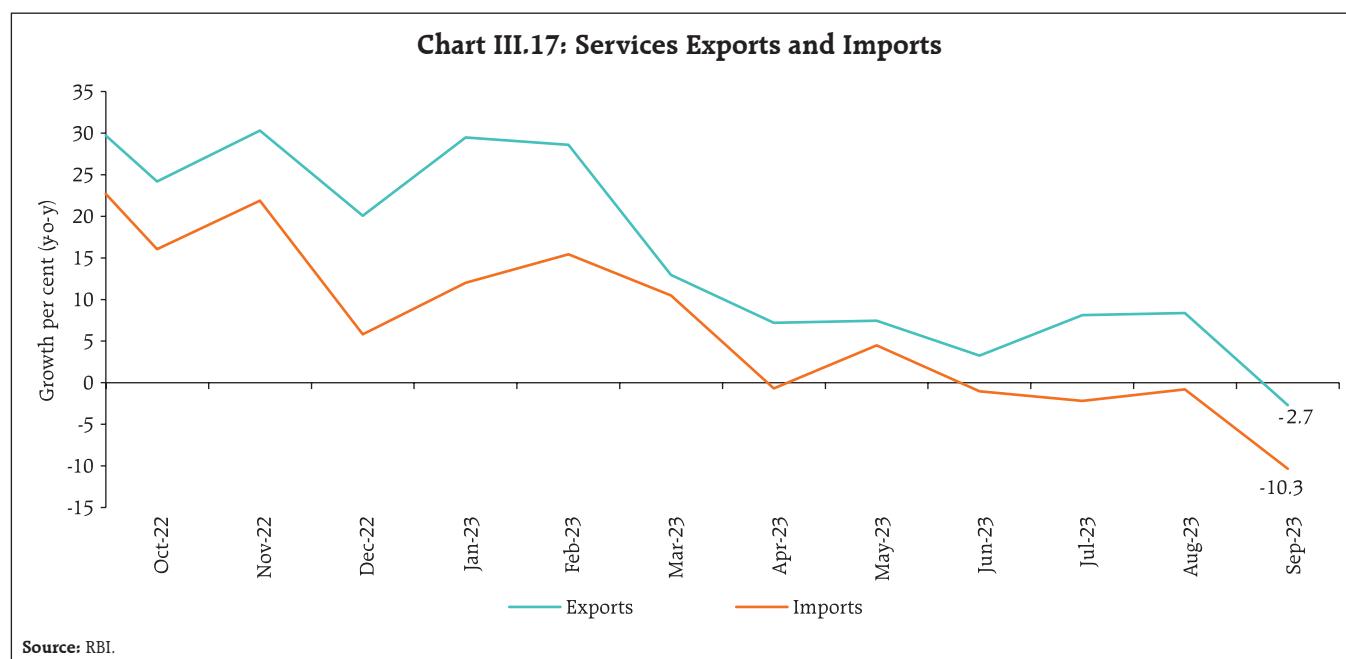
**Chart III.15: Decomposition of India's Merchandise Trade Deficit**

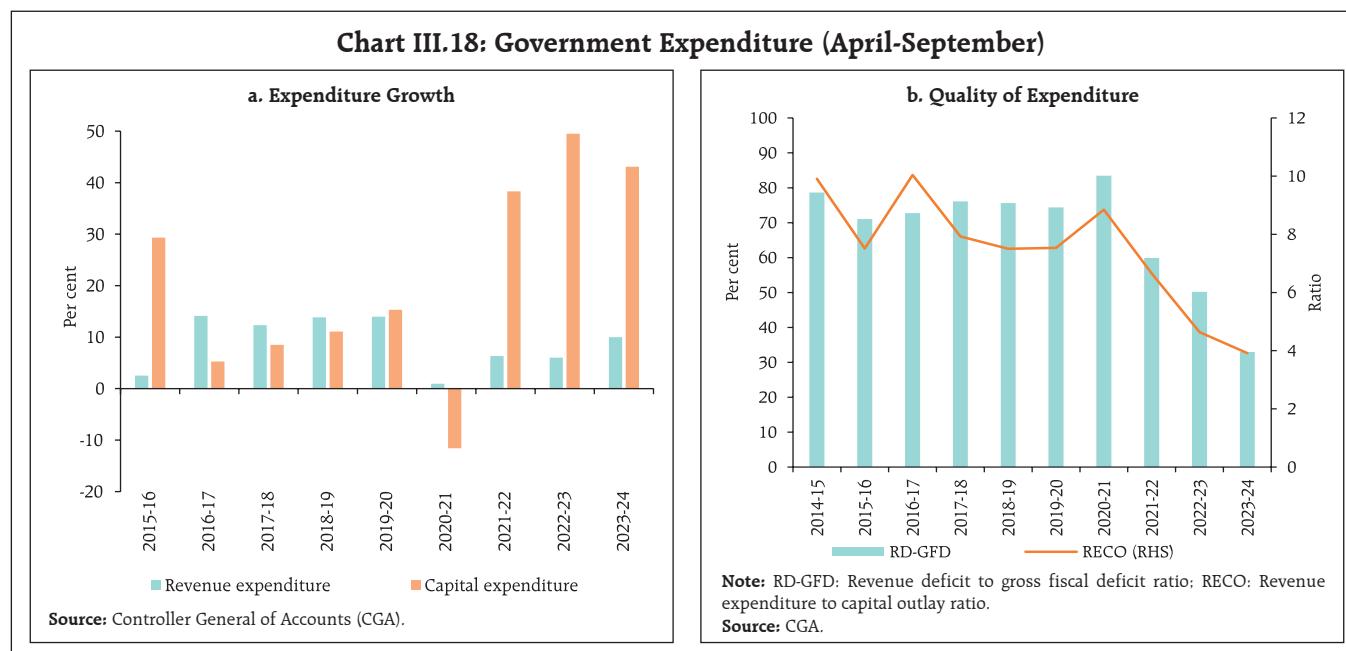
Sources: PIB; and DGCI&S.



billion from US\$ 167.1 billion during the corresponding period a year ago. Petroleum products were the major source of the cumulative trade deficit, followed by electronic goods (Chart III.16). Country-wise, China and Russia remained the major sources of the trade deficit during this period.

Services exports at US\$ 28.4 billion in September 2023 declined by 2.7 per cent (y-o-y), primarily driven by transportation and financial services. On the other hand, services imports declined by 10.3 per cent, resulting in net services earnings of US\$ 13.8 billion in September 2023 (Chart III.17).

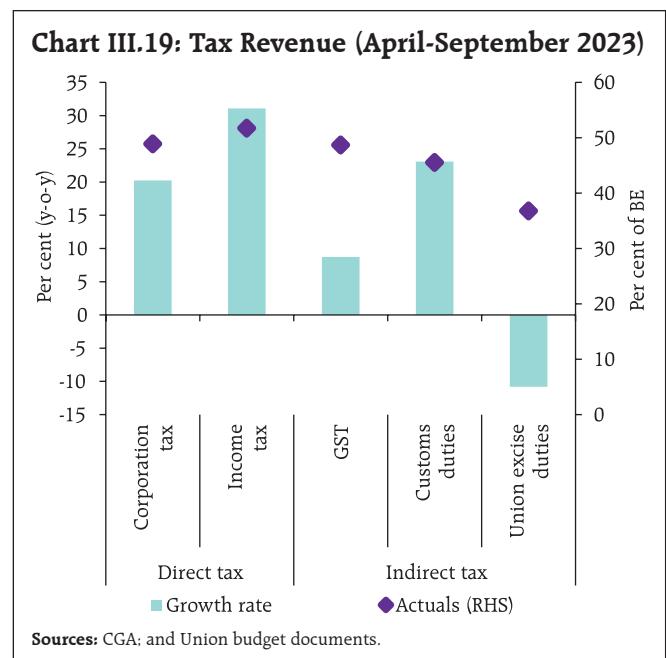




The gross fiscal deficit (GFD) of the central government stood at 39.3 per cent of the budget estimates (BE) for H1:2023-24, marginally higher than 37.3 per cent of BE a year ago. This is attributable to an increase in capital expenditure by 43.1 per cent (y-o-y) and revenue expenditure by 10.0 per cent (y-o-y) [Chart III.18a]. Capital outlay (*i.e.*, capital expenditure excluding loans and advances) recorded an increase of 30.2 per cent, resulting in a marked improvement in the quality of spending of the central government (Chart III.18b).

On the receipts side, direct tax collections grew by 25.2 per cent (y-o-y) during H1:2023-24, with income tax and corporate tax collections growing by 31.1 per cent and 20.2 per cent, respectively. Direct taxes underwent an ebullient upswing in August-September 2023. The robust growth in direct tax collections is attributable to increased compliance, higher advance tax collections and a widening tax base.<sup>5,6,7</sup> On the other hand, indirect tax collections grew by 6.6 per cent (y-o-y), with the growth in goods and services tax (GST) and customs revenues outweighing the contraction in

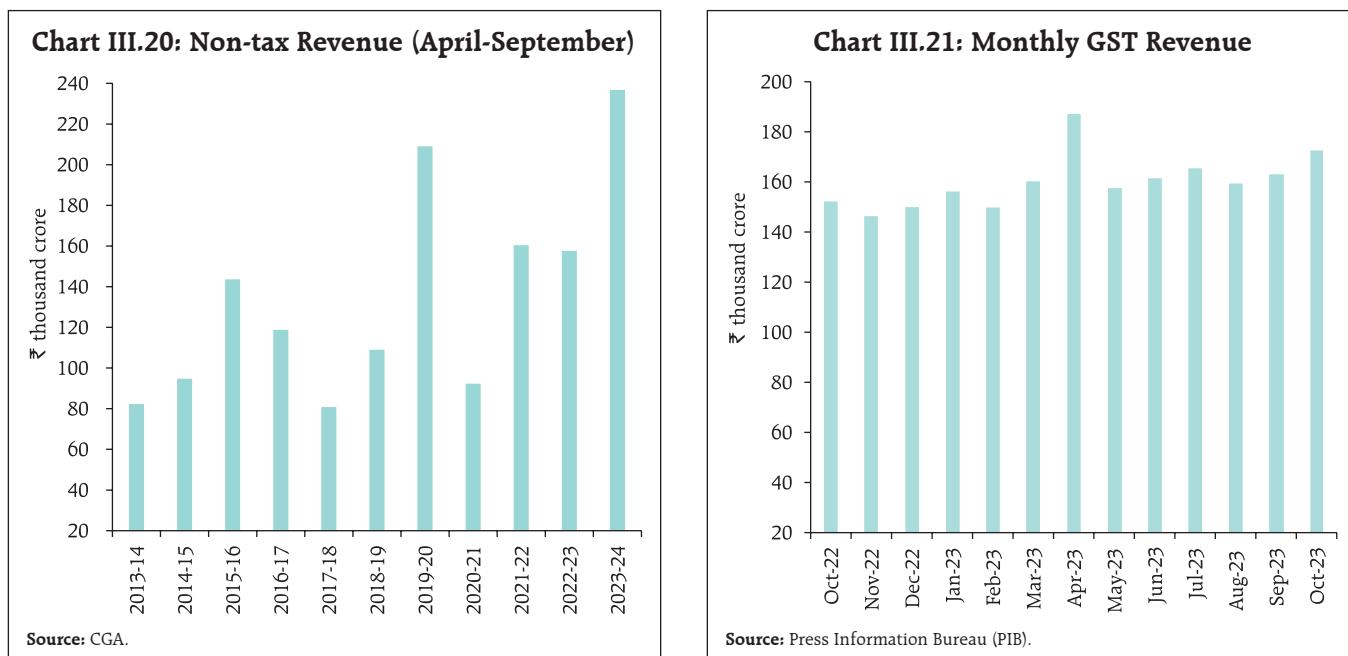
excise duties. Higher custom revenues are attributable to, *inter alia*, higher export and import duties for a few items, counterweighing the contraction in excise duties y-o-y partly due to duty cuts announced last year. Overall, gross tax revenue recorded a growth of 16.3 per cent (y-o-y), led by growth in all major tax heads, except excise collections, which registered a contraction of 10.8 per cent (Chart III.19).



<sup>5</sup> PIB, Ministry of Finance, November 1, 2023.

<sup>6</sup> PIB, Ministry of Finance, October 26, 2023.

<sup>7</sup> PIB, Ministry of Finance, September 18, 2023.



Non-tax revenue collection recorded a y-o-y growth of 50.2 per cent during H1:2023-24, on the back of higher than budgeted surplus transfer from the Reserve Bank,<sup>8</sup> while non-debt capital receipts contracted by 41.0 per cent<sup>9</sup> (Chart III.20). Total receipts of the central government recorded an expansion of 17.7 per cent on a y-o-y basis.

GST collections (*Centre plus States*) grew by 13.4 per cent (y-o-y) to ₹1.72 lakh crore in October 2023, which is the second highest since its inception (Chart III.21). Gross GST collections for April-October 2023-24 at ₹11.6 lakh crore was 11.4 per cent higher than a year ago (₹ 10.5 lakh crore).

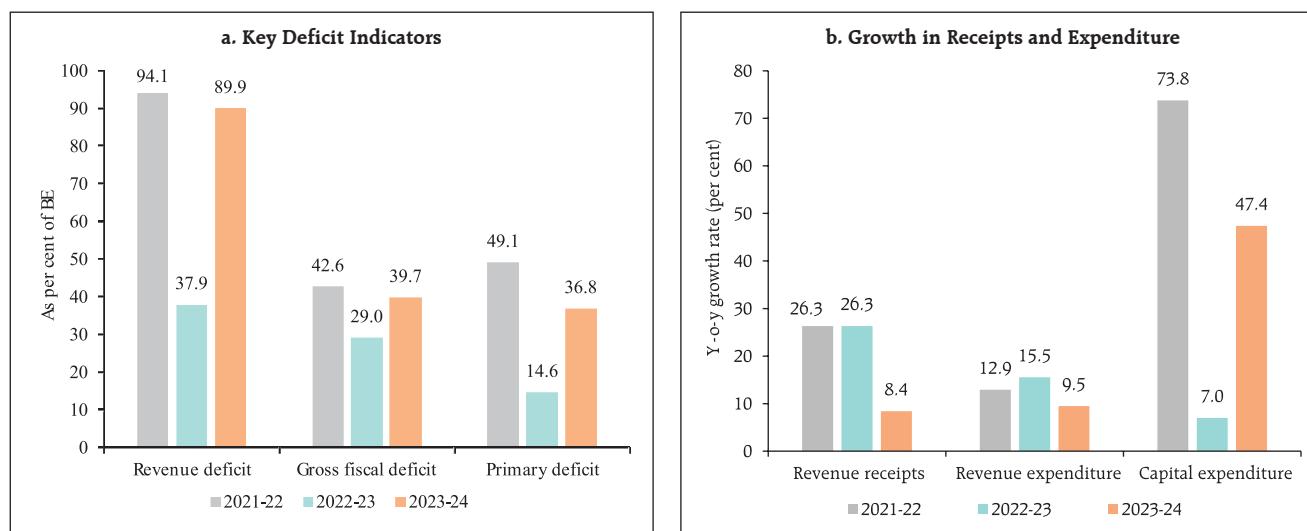
<sup>8</sup> During 2023-24, the Reserve Bank transferred a surplus of ₹87,416.22 crore to the central government which is higher than both the amount transferred last year (₹30,307.45 crore) and the budgeted amount under Dividend/Surplus transfer of Reserve Bank of India, Nationalised Banks, and Financial Institutions in the Union Budget 2023-24 (₹48,000 crore).

<sup>9</sup> During H1:2023-24, the government mobilised ₹6,950 crore in the form of disinvestment receipts as compared with ₹24,590 crore during the corresponding period of the previous year.

During H1:2023-24, States' GFD<sup>10</sup> stood at 39.7 per cent of BE, higher than in the previous year (Chart III.22a) due to a slower growth in revenue receipts *vis-à-vis* revenue expenditure (Chart III.22b).

Within revenue receipts, growth in tax and non-tax revenues moderated mainly on account of a high base. The grants from the Centre contracted due to the cessation of GST compensation to States and tapering of finance commission grants (Chart III.23a). The thrust on capital spending by States has continued, with a 47.4 per cent growth in capital expenditure on the back of the Union Government's Scheme for Special Assistance to States for Capital Investment. As of end-October, 2023, the Union government had approved expenditure amounting to ₹96,206 crore (accounting for 74 per cent of the ₹1.3 lakh crore budgeted for 2023-24), out of which ₹58,494 crore has already been disbursed to the States. The focus on

<sup>10</sup> Data pertains to 23 states.

**Chart III.22: States' Fiscal Indicators (H1:2023-24)**

**Note:** Data pertains to 23 states.

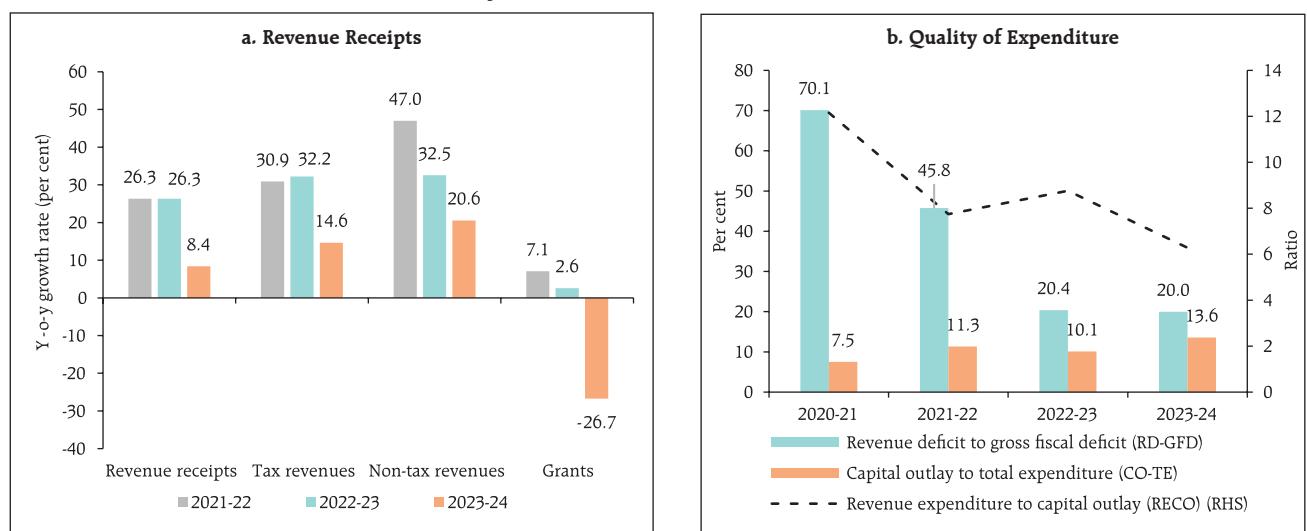
**Source:** CAG.

capex has improved the quality of expenditure of the States (Chart III.23b).

### Aggregate Supply

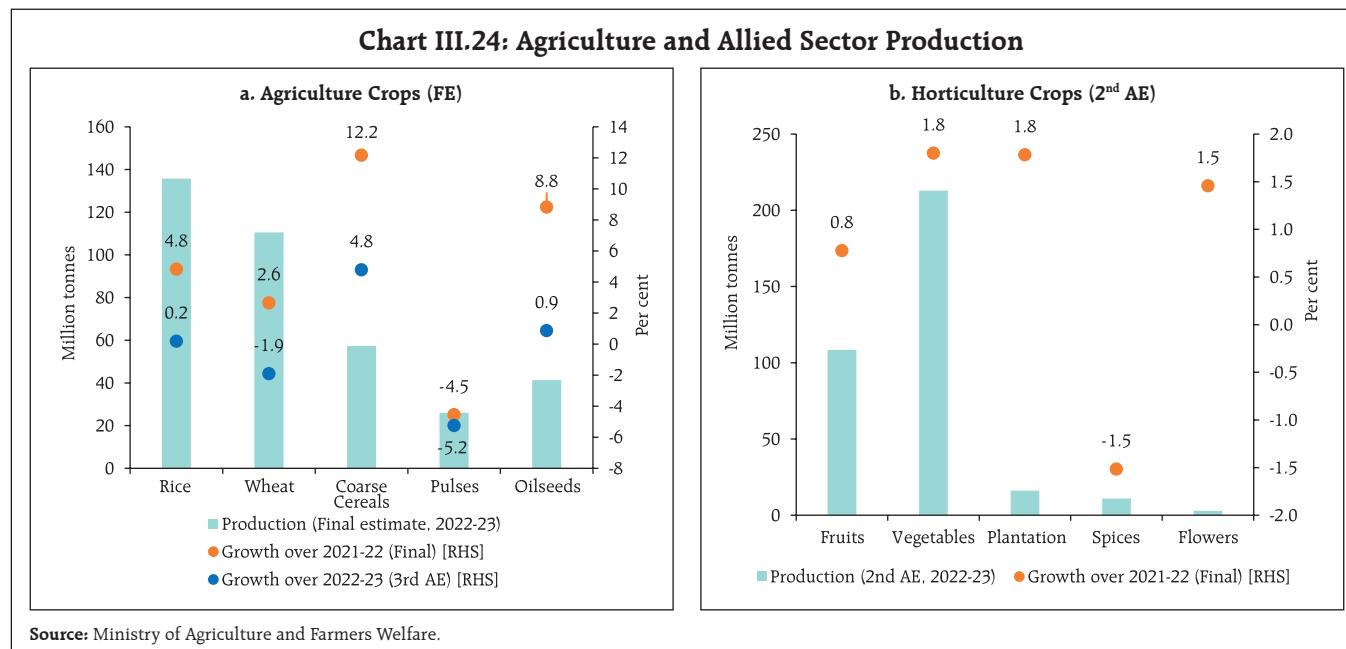
The final estimates (FE) of crop production for 2022-23 stood at 329.7 million tonnes, recording a 4.5

per cent increase over its level in the previous year (Chart III.24a). The second advance estimate (AE) of horticultural production at 351.9 million tonnes for 2022-23 was 1.4 per cent higher than 2021-22 (FE), driven by higher production of fruits and vegetables (Chart III.24b).

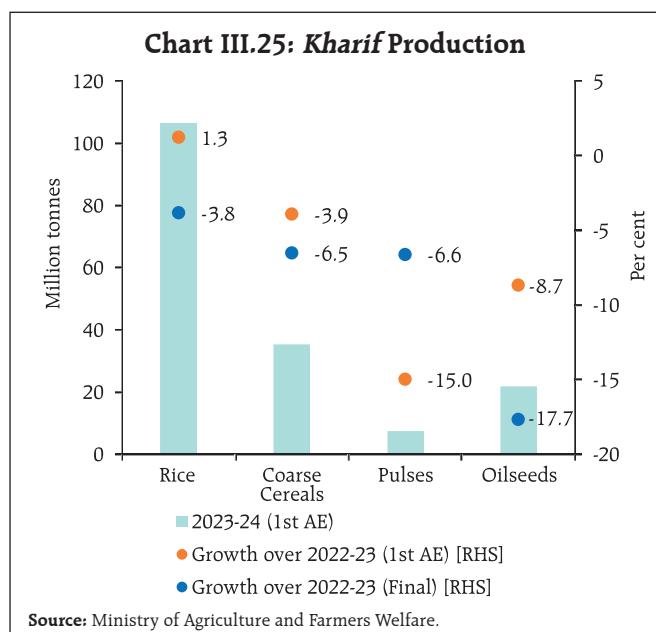
**Chart III.23: Key Fiscal Performance Indicators (H1:2023-24)**

**Note:** Data pertains to 23 states.

**Source:** CAG.



The first AE<sup>11</sup> of the *kharif* production for 2023-24 at 148.6 million tonnes was 4.6 per cent lower than the FE for 2022-23 (Chart III.25). The decline was largest in the case of oilseeds and pulses.

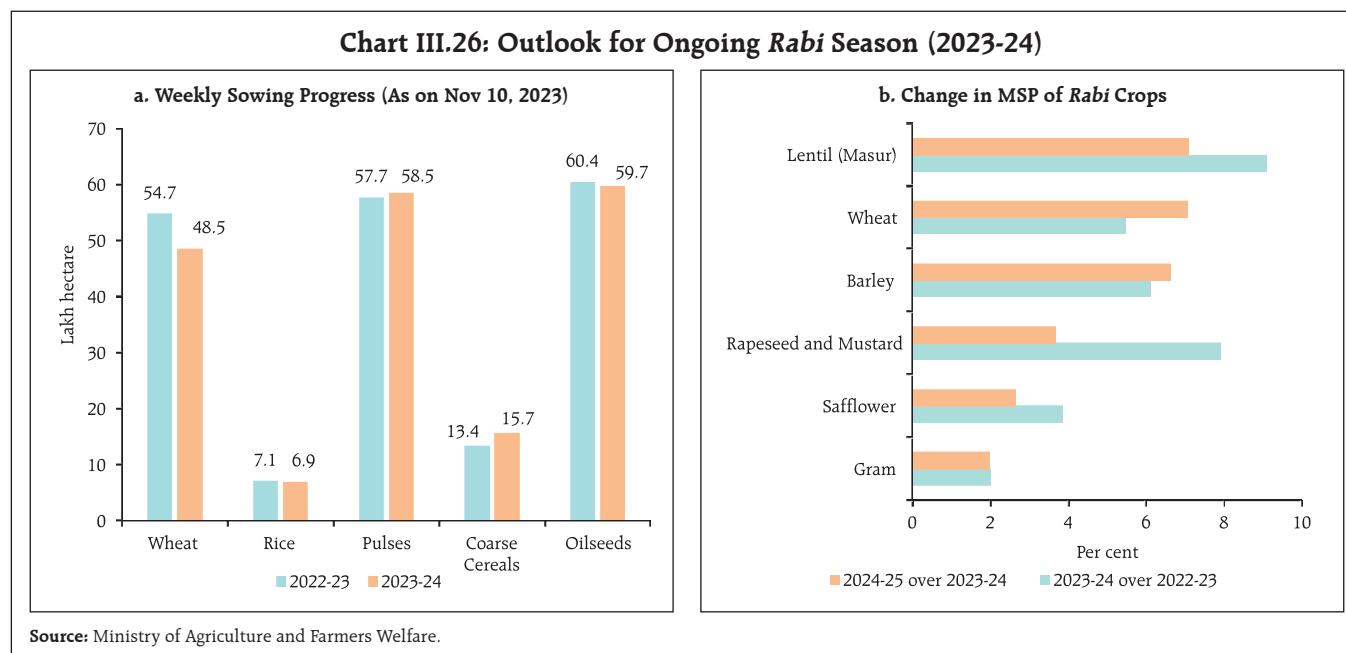


<sup>11</sup> While the production estimates received from the States are validated using various information from multiple sources, the first advance estimate mainly relies on the sown area (obtained mostly through visual observation) and average yield of the last 3 years; and hence, may undergo further revisions after receiving the yield estimates based on actual crop cutting experiments.

Reflecting the possible impact of the prevailing *El Nino* conditions in spite of positive Indian Ocean Dipole conditions, the cumulative north-east monsoon rainfall during October 01-November 10, 2023 was 26 per cent below long period average (LPA). Reservoir levels were 8.3 per cent lower than the decadal average (as of November 09, 2023). Notwithstanding these headwinds, the sowing of *rabi* crops has commenced, and 189.3 lakh hectares<sup>12</sup> has been covered (as of November 10, 2023). The overall acreage has declined by 2.1 per cent (y-o-y), even though the acreage recorded under lentil, jowar, field pea, rapeseed and mustard has been higher than the previous year (Chart III.26a). Minimum support prices (MSP) for the *rabi* marketing season (RMS) [April 2024 to March 2025] were increased in the range of 2.0 per cent (for gram) to 7.1 per cent (for wheat and lentil) [Chart III.26b]. The MSP increase announced for wheat was the highest since the RMS of 2013-14.

The headline PMI for the manufacturing sector moderated to 55.5 in October 2023 from 57.5 a month ago on the back of lower new orders and output (Chart

<sup>12</sup> It is around 29.2 per cent of the total normal area for the season.

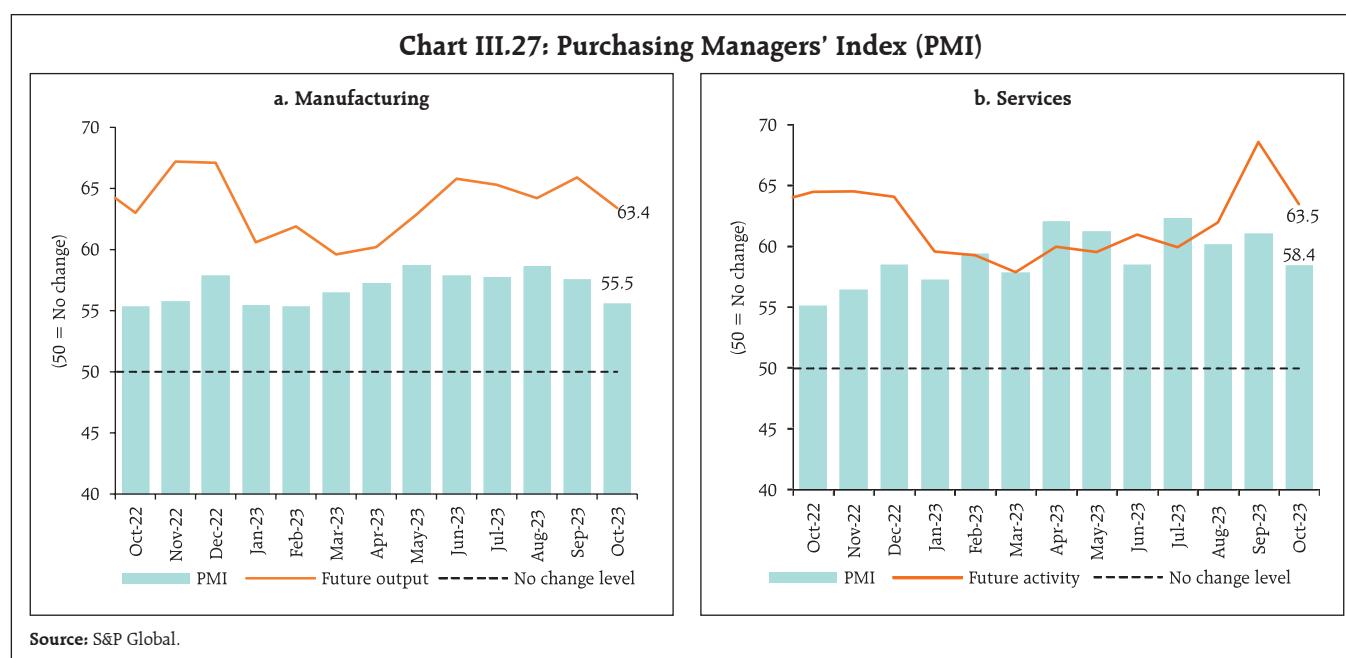


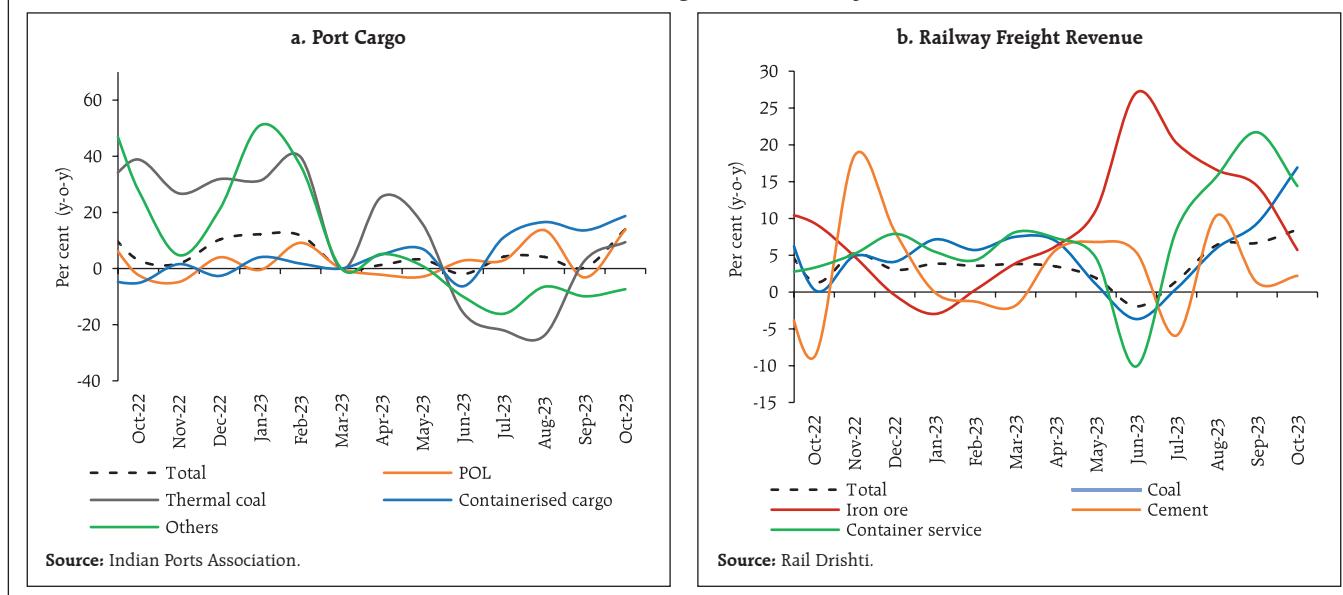
III.27a). The PMI for services declined to 58.4 in October, recording the slowest rate of expansion since March, and future activity recorded some slowing (Chart III.27b).

Various indicators of transport activity point towards a gathering pace of activity. Cargo traffic at major ports recorded a growth of 18.7 per cent (y-o-y)

in October 2023, driven by increased freight traffic of iron ore and coking coal (Chart III.28a). A pick-up in freight movement of containerised cargo and coal also resulted in a higher railway freight revenue growth in y-o-y terms (Chart III.28b).

Coincident indicators of the construction sector remained robust in October, with steel consumption



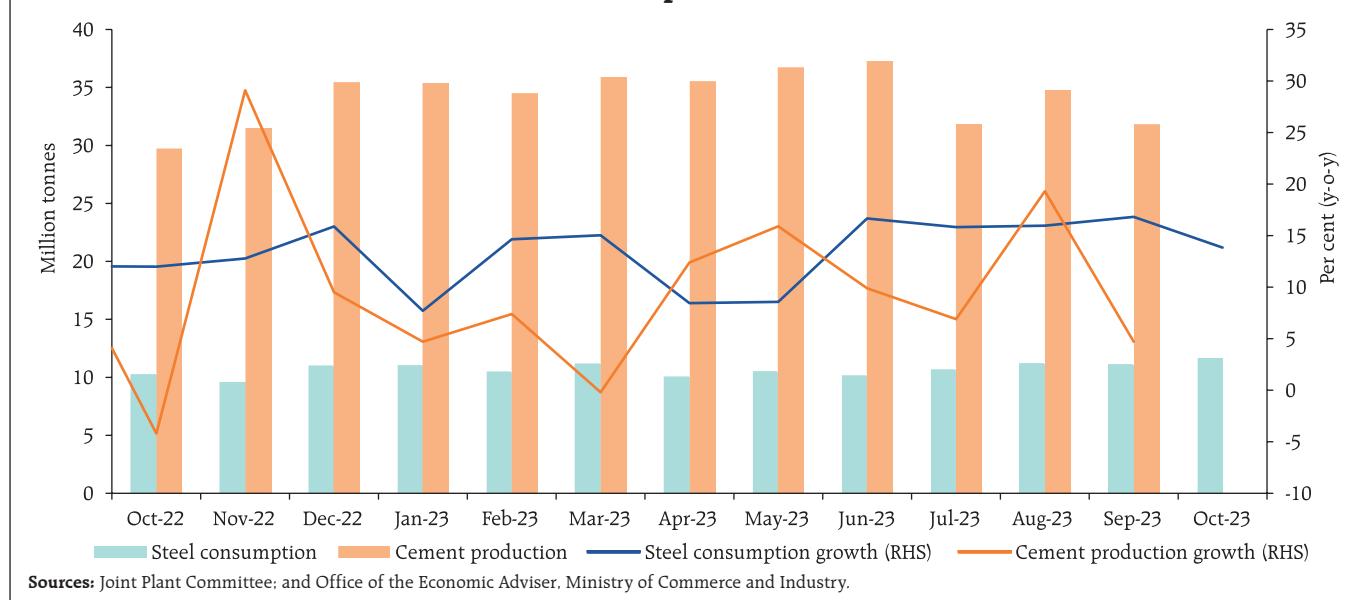
**Chart III.28: Port Cargo and Railway Traffic**

increasing by 13.8 per cent (y-o-y). Even though cement production recorded a sequential moderation, it continued to grow by 4.7 per cent (y-o-y) in September 2023 (Chart III.29).

High frequency indicators for the services sector remained robust in October 2023, led by festival demand. Higher y-o-y growth in E-way bills, railway

freight, port cargo traffic and air cargo endorsed the uptick (Table III.1).

Regarding regional policy initiatives, Delhi's Motor Vehicle Aggregator and Delivery Service Provider Scheme 2023 seeks to make a time-bound transition of commercial vehicle fleets to zero-emission EVs. Haryana's Ex-Situ Management of Paddy Straw Policy

**Chart III.29: Steel Consumption and Cement Production**

**Table III.1: High-Frequency Indicators – Services**

| Sector                                        | Indicator                             | Growth (y-o-y, per cent) |        |        |        |        |        |        |        |        |        |  |
|-----------------------------------------------|---------------------------------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|                                               |                                       | Jan-23                   | Feb-23 | Mar-23 | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Oct-23 |  |
| Urban demand                                  | Passenger Vehicles Sales              | 17.2                     | 11.0   | 4.5    | 12.9   | 14.9   | 1.6    | 2.9    | 11.6   | 3.1    | 17.3   |  |
|                                               | Two Wheeler Sales                     | 5.0                      | 7.6    | 7.7    | 15.1   | 17.4   | 1.7    | -7.2   | 0.6    | 0.8    | 20.1   |  |
| Rural demand                                  | Three Wheeler Sales                   | 103.0                    | 86.1   | 69.2   | 104.2  | 70.4   | 98.6   | 78.9   | 68.8   | 47.0   | 42.1   |  |
|                                               | Tractor Sales                         | 24.4                     | 20.0   | 13.7   | -11.1  | 1.2    | 4.2    | 6.1    | 1.1    | -14.7  | -4.3   |  |
| Trade, hotels,<br>transport,<br>communication | Commercial Vehicles Sales             | 11.8                     |        |        | -3.3   |        |        | 6.9    |        |        |        |  |
|                                               | Railway Freight Traffic               | 3.8                      | 3.6    | 3.8    | 3.5    | 1.9    | -1.9   | 1.5    | 6.4    | 6.7    | 8.5    |  |
|                                               | Port Cargo Traffic                    | 12.2                     | 11.8   |        | 1.3    | 3.2    | -2.0   | 4.2    | 4.1    | 0.3    | 13.8   |  |
|                                               | Domestic Air Cargo Traffic*           | -7.5                     | 3.7    | -4.4   | -1.7   | -12.7  | -12.2  | -14.0  | -2.6   | -2.2   | 4.3    |  |
|                                               | International Air Cargo Traffic*      | -4.3                     | -4.6   | 0.8    | -3.0   | -0.5   | 5.8    | -2.7   | 11.6   | 11.0   | 16.7   |  |
|                                               | Domestic Air Passenger Traffic *      | 95.3                     | 55.8   | 22.9   | 23.2   | 15.9   | 21.1   | 25.5   | 23.2   | 19.6   | 11.0   |  |
|                                               | International Air Passenger Traffic * | 115.1                    | 105.3  | 62.4   | 43.9   | 35.8   | 24.1   | 21.1   | 21.0   | 21.1   | 20.5   |  |
|                                               | GST E-way Bills (Total)               | 19.7                     | 18.4   | 16.3   | 12.2   | 19.7   | 15.5   | 16.4   | 19.5   | 9.5    | 30.5   |  |
|                                               | GST E-way Bills (Intra State)         | 24.1                     | 22.2   | 20.7   | 16.2   | 23.0   | 18.8   | 20.8   | 22.6   | 12.4   | 30.0   |  |
|                                               | GST E-way Bills (Inter State)         | 12.8                     | 12.4   | 9.3    | 5.9    | 14.3   | 9.9    | 9.1    | 14.4   | 4.9    | 31.2   |  |
|                                               | Hotel occupancy rate@                 | 64.9                     | 71.2   | 62.7   | 63.2   | 61.9   | 64.0   | 60.9   | 60.9   | 61.0   |        |  |
|                                               | Average revenue per room              | 53.1                     | 62.0   | 39.6   | 21.2   | 15.8   | 14.0   | 14.2   | 13.9   | 18.3   |        |  |
|                                               | Tourist Arrivals                      | 330.8                    | 259.4  | 132.5  | 53.7   | 41.3   | 24.0   | 13.6   | 22.6   | 17.5   |        |  |
| Construction                                  | Steel Consumption                     | 7.7                      | 14.6   | 15.0   | 8.4    | 8.6    | 16.7   | 15.8   | 16.0   | 16.8   | 13.8   |  |
|                                               | Cement Production                     | 4.7                      | 7.4    | -0.2   | 12.4   | 15.9   | 9.9    | 6.9    | 19.3   | 4.7    |        |  |
| PMI Index#                                    | Services                              | 57.2                     | 59.4   | 57.8   | 62.0   | 61.2   | 58.5   | 62.3   | 60.1   | 61.0   | 58.4   |  |

**Note:** #: Data in levels. \*: Data are based on the monthly average of daily figures. @: Data in rate, not in y-o-y rate of growth.

**Sources:** CMIE; CEIC; IHS Markit; SIAM; Airports Authority of India; and Joint Plant Committee.

2023 seeks to harness paddy straw for sustainable energy and eliminate crop residue burning. To boost tourism, Goa has launched a homestay bed and breakfast (B&B) policy to enhance tourism in the State's hinterlands.

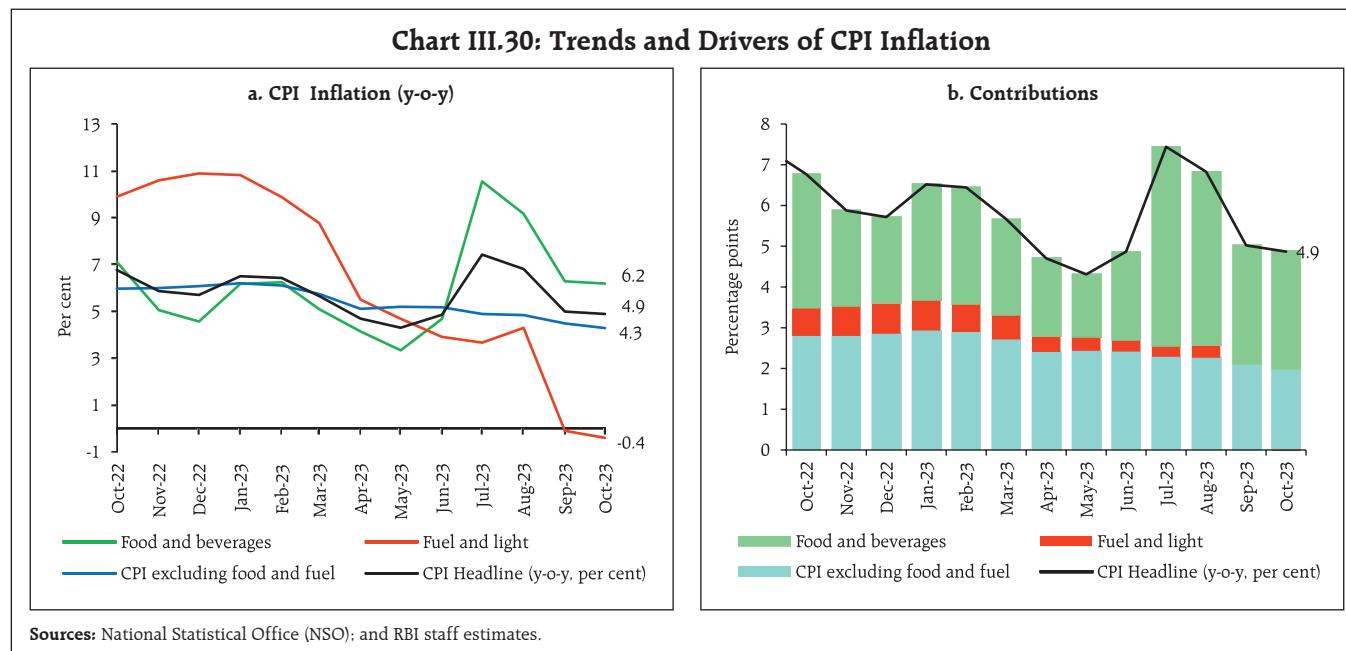
### Inflation

Headline inflation, as measured by y-o-y changes in the all-India consumer price index (CPI)<sup>13</sup>, moderated to 4.9 per cent in October 2023 from 5.0 per cent in September (Chart III.30). The 15 bps softening in inflation came from a favourable base effect of 80 bps which more than offset the positive price momentum

of 65 bps during the month. All the three major groups recorded positive momentum with a m-o-m increase of around 95 bps in food prices, 28 bps in fuel prices, and 40 bps in the core group (*i.e.*, excluding food and fuel).

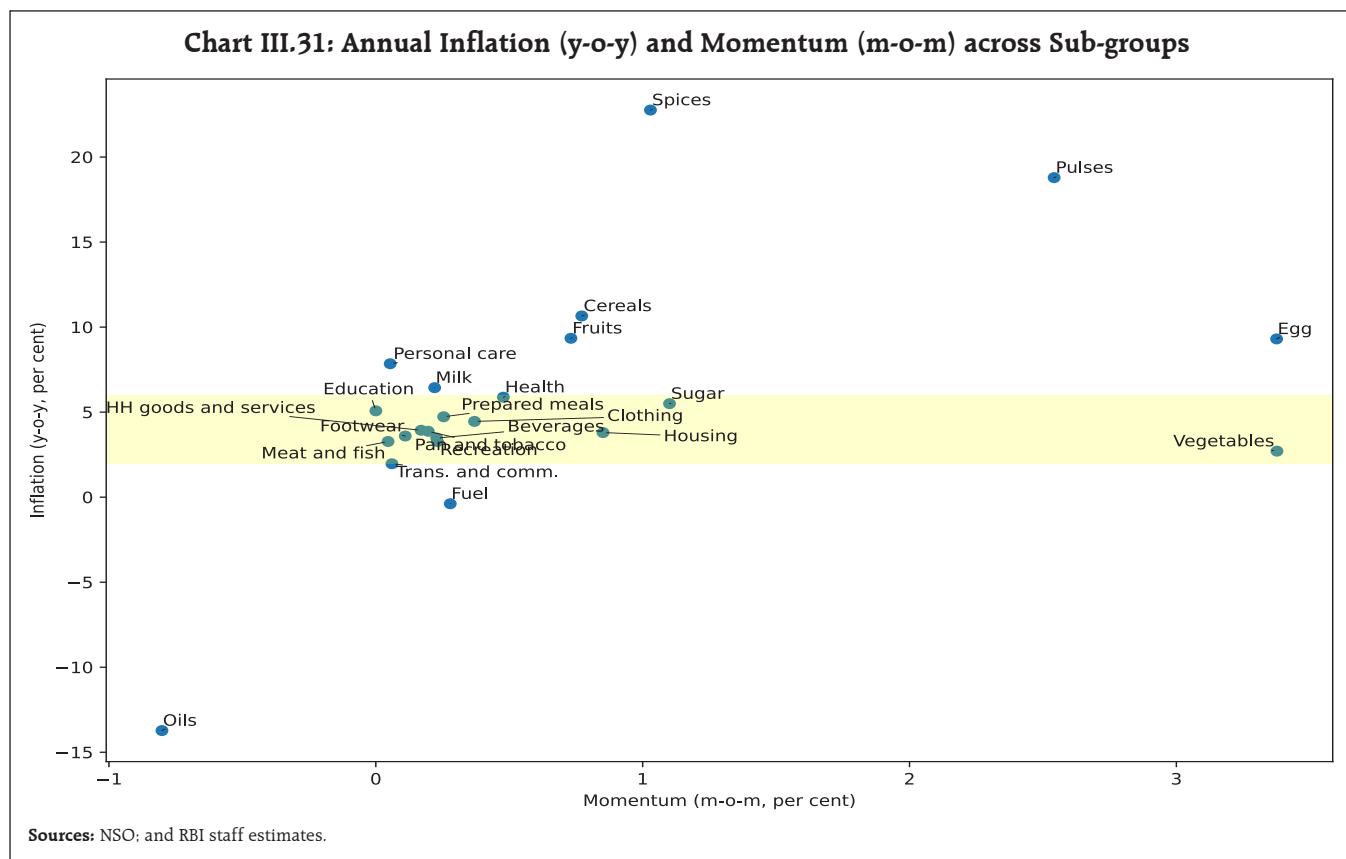
Food inflation (y-o-y) dipped to 6.2 per cent in October from 6.3 per cent in September. In terms of sub-groups, inflation in cereals, meat and fish, milk, vegetables, spices, non-alcoholic beverages, and prepared meals softened, while it edged up in eggs, fruits, pulses and sugar. Edible oils remained in deflation (Chart III.31).

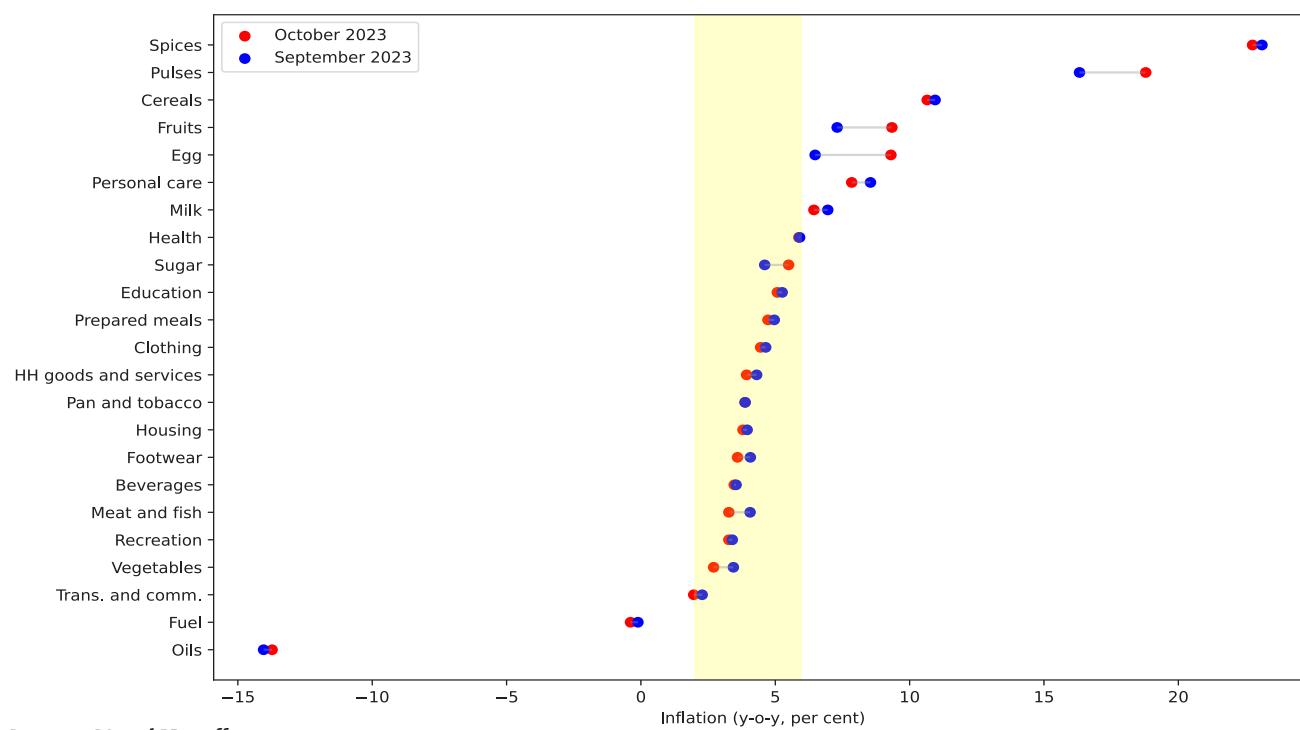
<sup>13</sup> As per the provisional data released by the National Statistical Office (NSO) on November 13, 2023.



Deflation in the fuel and light group deepened to (-) 0.4 per cent in October from (-) 0.1 per cent in September, mainly driven by softening of y-o-y

growth in prices of electricity and other cooking fuel. Deflation in LPG and kerosene prices continued in October.



**Chart III.32: Annual Inflation across Sub-groups (October 2023 versus September 2023)**

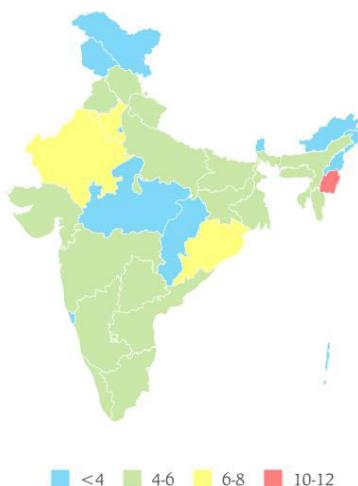
Core inflation moderated to 4.3 per cent in October from 4.5 per cent in September. While inflation in clothing and footwear, housing, household goods and services, transportation and communication, education and personal care and effects moderated, it remained steady in pan, tobacco and intoxicants, health, recreation and amusement (Chart III.32).

In terms of regional distribution, rural inflation at 5.12 per cent was higher than urban inflation at 4.62 per cent in October 2023. Majority of the states registered inflation in the range of 4-6 per cent. Haryana, Odisha, and Rajasthan experienced inflation between 6 to 8 per cent (Chart III.33).

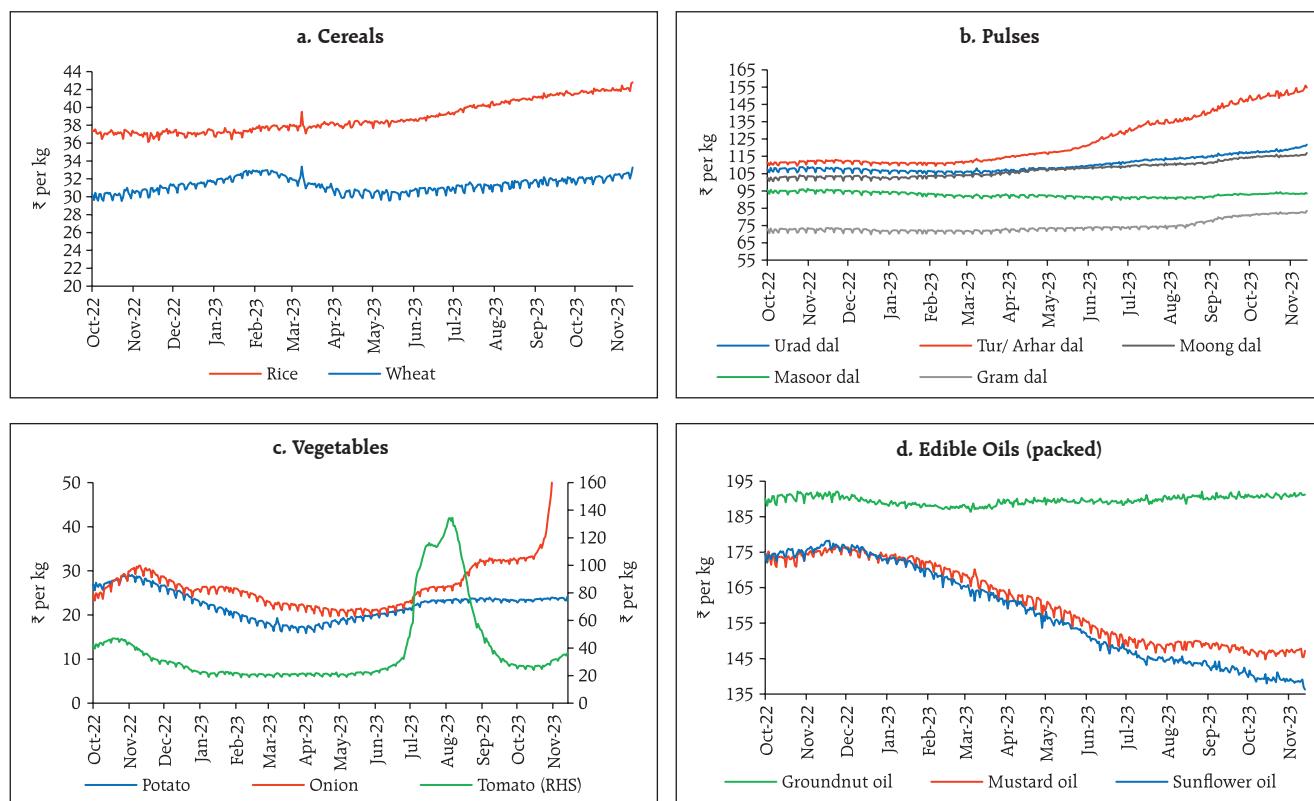
High frequency food price data for November (up to 13<sup>th</sup>) indicate that cereal and pulse prices have increased further, while edible oil prices continued to decline (Chart III.34). Amongst key vegetables, a sharp increase was observed in onion prices, with

tomato prices also showing some firming up. Potato prices remained largely stable.

Onion prices have picked up in the latter fortnight of October due to incidences of delayed sowing as

**Chart III.33: Spatial Distribution of Inflation October 2023 (CPI-Combined, y-o-y, per cent)**

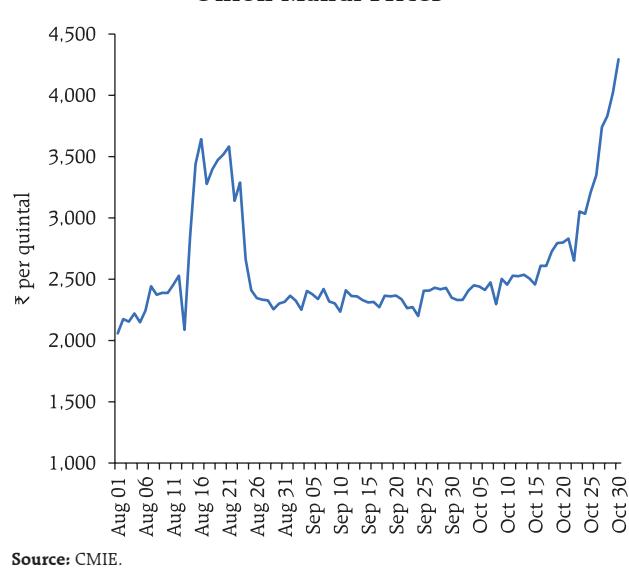
**Note:** Map is for illustrative purposes only.  
Sources: NSO; and RBI staff estimates.

**Chart III.34: DCA Essential Commodity Prices**

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

well as crop damages in major producing states along with increased demand during the festival season (Chart III.35). In order to contain these prices, the Government has imposed a minimum export price at US\$800 per tonne (around ₹ 67 per kg) valid from October 29 till the end of the year.<sup>14</sup> The fresh arrival of *kharif* onions to be harvested in November could also augment supply. Furthermore, release of onion stocks in high price regions and additional procurement (of 2 lakh tonnes) have also been started to keep prices under control.

Retail selling prices of petrol and diesel in the four major metros remained steady in November (up to 13th). Kerosene prices recorded a moderate decline in November so far, reversing the upward

**Chart III.35: Recent Trends in Onion Mandi Prices**

<sup>14</sup> <https://pib.gov.in/PressReleasePage.aspx?PRID=1973134>.

**Table III.2: Petroleum Products Prices**

| Item                     | Unit       | Domestic Prices |        |          | Month-over-month<br>(per cent) |          |
|--------------------------|------------|-----------------|--------|----------|--------------------------------|----------|
|                          |            | Nov-22          | Oct-23 | Nov-23 ^ | Oct-23                         | Nov-23 ^ |
| Petrol                   | ₹/litre    | 102.92          | 102.92 | 102.92   | 0.0                            | 0.0      |
| Diesel                   | ₹/litre    | 92.72           | 92.72  | 92.72    | 0.0                            | 0.0      |
| Kerosene<br>(subsidised) | ₹/litre    | 59.38           | 57.95  | 55.21    | 5.6                            | -4.7     |
| LPG (non-subsidised)     | ₹/cylinder | 1063.25         | 913.25 | 913.25   | 0.0                            | 0.0      |

^ : For the period November 1-13, 2023.

**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 the subsidised prices in Kolkata, Mumbai and Chennai.

**Sources:** IOCL; Petroleum Planning and Analysis Cell (PPAC); and RBI staff estimates.

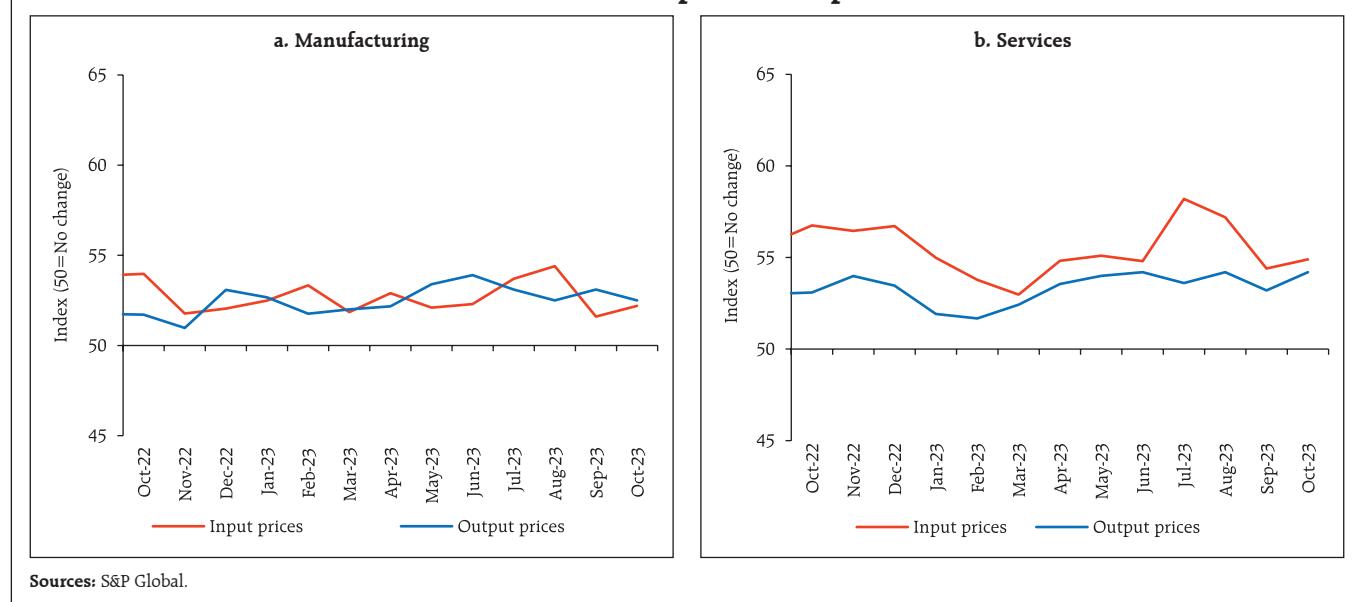
trend observed over the past four months. LPG prices were kept unchanged in October and November (Table III.2).

The PMIs for October 2023 indicated a moderate uptick in input costs across manufacturing and services. The rate of expansion in selling prices, on the other hand, moderated in the manufacturing

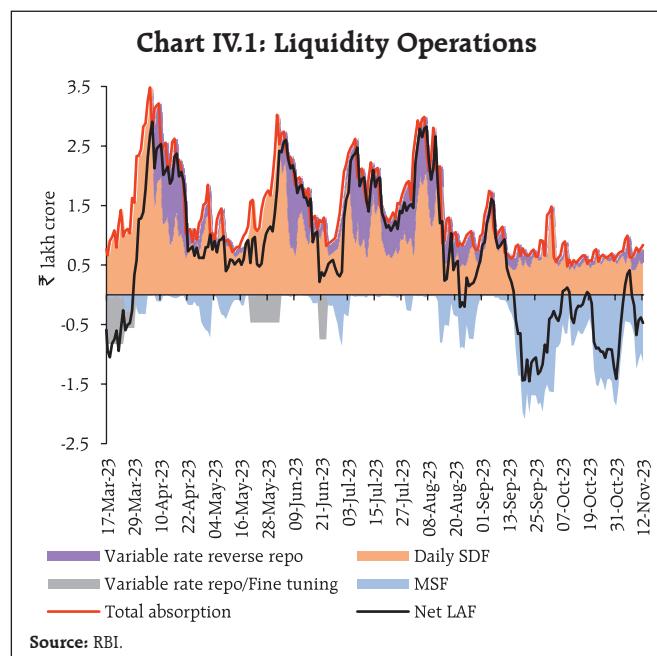
sector while it increased in the services sector (Chart III.36).

#### IV. Financial Conditions

The build-up in government cash balances in the wake of higher GST collections<sup>15</sup> led to a drain of liquidity from the system in October. Subsequent government spending in the beginning of November ameliorated pressures, which was somewhat offset by festive related expansion in currency in circulation. Accordingly, banks took recourse to the marginal standing facility (MSF), which averaged ₹1.1 lakh crore during October 16 – November 14, 2023 as against ₹1.3 lakh crore during September 16 – October 15, 2023. The average total absorption under the liquidity adjustment facility (LAF) moderated to ₹0.7 lakh crore during October 16 – November 14, 2023 from ₹0.8 lakh crore during September 16 to mid-October, with nearly all of the funds being placed under the standing deposit facility (SDF) [Chart IV.1]. Large placement of funds under the SDF alongside simultaneous recourse to the MSF is symptomatic of skewed liquidity distribution in the banking system.

**Chart III.36: PMI: Input and Output Prices**

<sup>15</sup> GST collection for October 2023 was at ₹1.72 lakh crore, the second highest level ever.



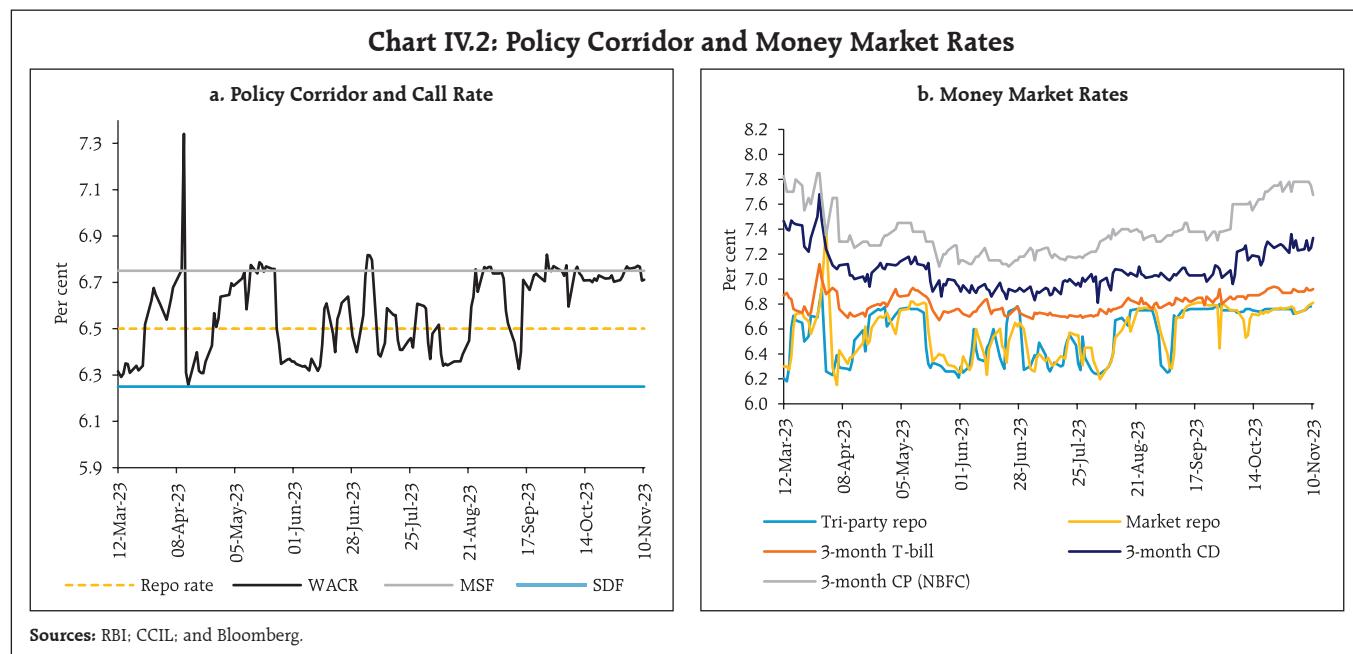
On a net basis, the Reserve Bank injected liquidity averaging about ₹0.5 lakh crore under the LAF during October 16 – November 14, 2023.

Reflecting these developments, overnight money market rates — the weighted average call rate (WACR);

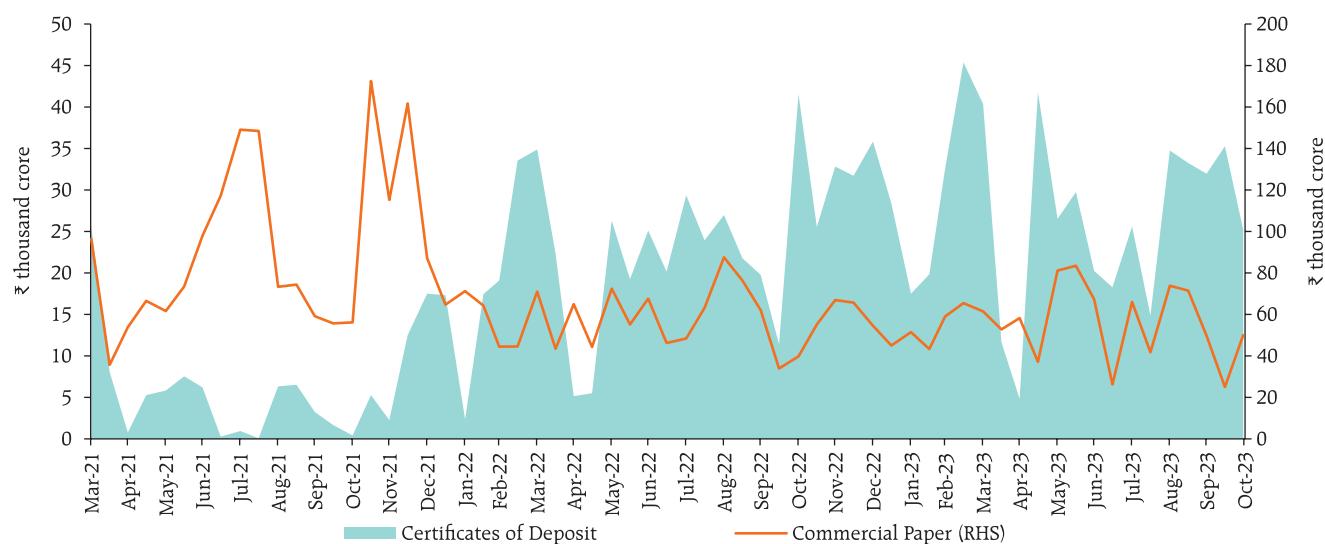
the triparty repo rate; and market repo rate —hovered close to the ceiling of the LAF corridor (Chart IV.2a). In the term money segment, the yield increased gradually across 3-month treasury bills (T-bills), 3-month certificates of deposit (CDs), and commercial paper (CP) for non-banking financial companies (NBFCs) [Chart IV.2b].

In the primary market, fund mobilisation through issuances of CDs remained robust at ₹3.9 lakh crore during 2023-24 (up to November 3) higher than ₹3.6 lakh crore a year ago, in response to sustained demand for credit. Banks' reliance on the issuance of CDs has increased after a brief hiatus to bridge the gap between credit offtake and deposit growth (Chart IV.3). CP issuances at ₹7.8 lakh crore (up to October 31) were also robust, *albeit* marginally lower than ₹8.1 lakh crore during the same period a year ago.

Tracking movements in the US treasury yield<sup>16</sup>, the domestic 10 year G-sec benchmark yield softened to 7.29 per cent on November 13, from a high of 7.38 per cent on October 23 (Chart IV.4a). The yield



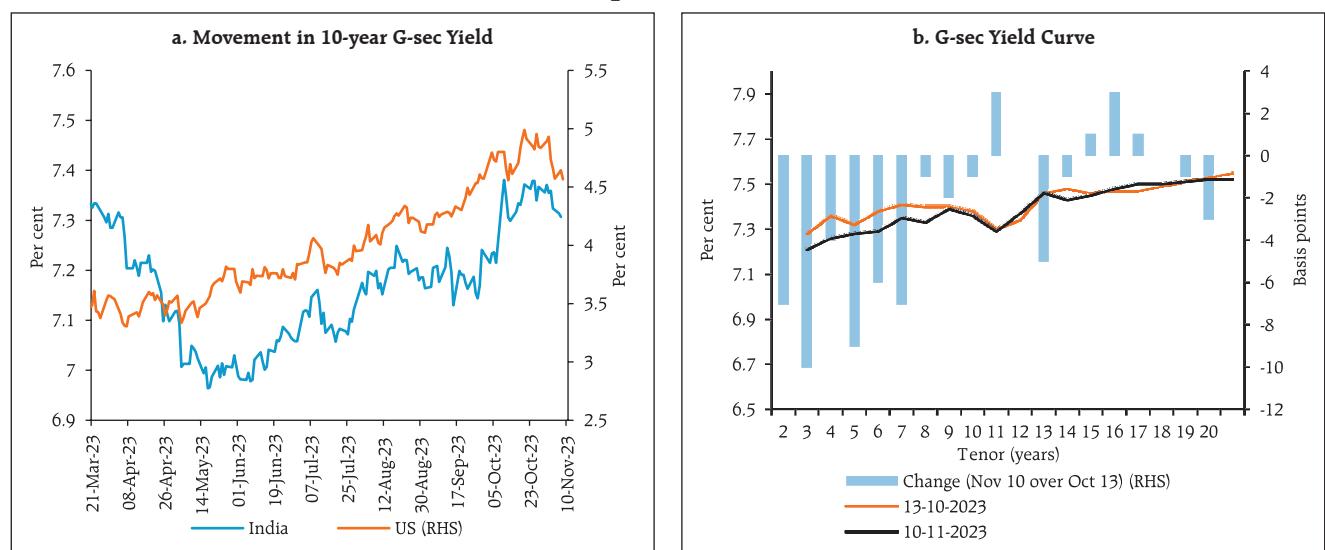
<sup>16</sup> The yield on the 10 -year US treasury approached 5 per cent in early October but eased subsequently, particularly after the release of the FOMC statement, which was perceived to be more dovish than anticipated.

**Chart IV.3: Certificates of Deposit (CD) and Commercial Paper (CP) - Fortnightly Issuances**

Source: RBI.

curve has largely remained flat despite the heavy borrowing calendar, reflecting strong demand for long term bonds (Chart IV.4b). In the primary market, the auction of the debut 50-year G-sec on November 3 saw strong market interest enabling the Government to raise ₹10,000 crore at a cut-off yield of 7.46 per cent.

Corporate bond yields and associated risk premia generally increased during the second half of October to early November 2023 (Table IV.1). Overall, corporate bond issuances during 2023-24 (up to September) were higher at ₹3.9 lakh crore as compared with ₹2.8 lakh crore a year ago.

**Chart IV.4: Developments in the G-sec Market**

Sources: Bloomberg; CCIL; and RBI staff estimates.

**Table IV.1: Financial Markets - Rates and Spread**

| Instrument | Interest Rates (per cent)             |                                     |           | Spread (basis points)<br>(Over Corresponding Risk-free Rate) |                                     |           |
|------------|---------------------------------------|-------------------------------------|-----------|--------------------------------------------------------------|-------------------------------------|-----------|
|            | Sept 18,<br>2023 –<br>Oct 13,<br>2023 | Oct 16,<br>2023 –<br>Nov 9,<br>2023 | Variation | Sept 18,<br>2023 –<br>Oct 13,<br>2023                        | Oct 16,<br>2023 –<br>Nov 9,<br>2023 | Variation |
| 1          | 2                                     | 3                                   | (4 = 3-2) | 5                                                            | 6                                   | (7 = 6-5) |

| Corporate Bonds       |       |       |    |     |     |    |
|-----------------------|-------|-------|----|-----|-----|----|
| (i) AAA<br>(1-year)   | 7.73  | 7.80  | 7  | 52  | 54  | 2  |
| (ii) AAA<br>(3-year)  | 7.83  | 8.03  | 20 | 43  | 57  | 14 |
| (iii) AAA<br>(5-year) | 7.76  | 7.84  | 8  | 35  | 37  | 2  |
| (iv) AA (3-year)      | 8.47  | 8.64  | 12 | 106 | 118 | 12 |
| (v) BBB-(3-year)      | 12.17 | 12.31 | 14 | 476 | 484 | 8  |

Note: Yields and spreads are computed as monthly averages.

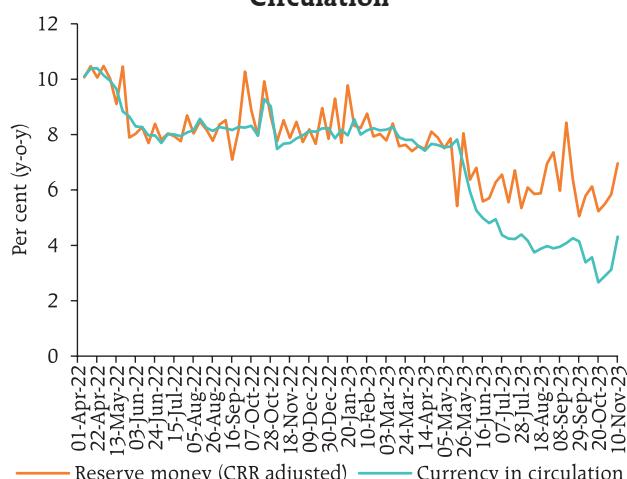
Sources: FIMMDA; and Bloomberg.

Reserve money (RM), excluding the first-round impact of change in the cash reserve ratio (CRR), recorded a growth of 7.0 per cent (y-o-y) as on November 10, 2023 (8.5 per cent a year ago) [Chart IV.5]. Growth of currency in circulation (CiC), the

largest component of RM, decelerated to 4.3 per cent from 7.7 per cent a year ago, reflecting the withdrawal of ₹2000 banknotes.<sup>17</sup>

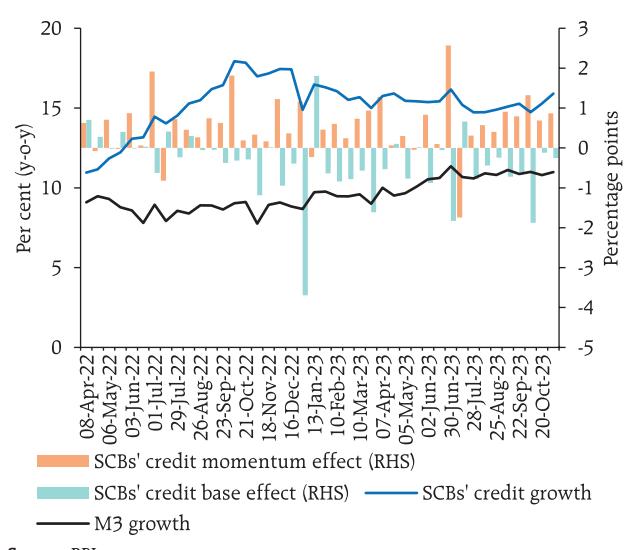
As on November 3, money supply ( $M_3$ ) grew by 11.0 per cent (y-o-y) as against 7.8 per cent a year ago (excluding the impact of the merger of HDFC with HDFC Bank with effect from July 1, 2023). Aggregate deposits, the largest component of  $M_3$ , increased by 12.2 per cent (7.8 per cent a year ago). The growth of scheduled commercial banks' (SCBs') deposits, which had increased in the wake of the withdrawal of ₹2000 banknotes, has now stabilised. SCBs' credit accelerated from 14.7 per cent in early October to 15.9 per cent as on November 3 (Chart IV.6 and IV.7).

SCBs mobilised much higher financial resources during H1:2023-24 than a year ago. Funds mobilised through all major sources (deposits, borrowings, and capital & reserves) registered strong growth. SCBs' incremental credit and investment also increased in tandem (Chart IV.8).

**Chart IV.5: Reserve Money and Currency in Circulation**

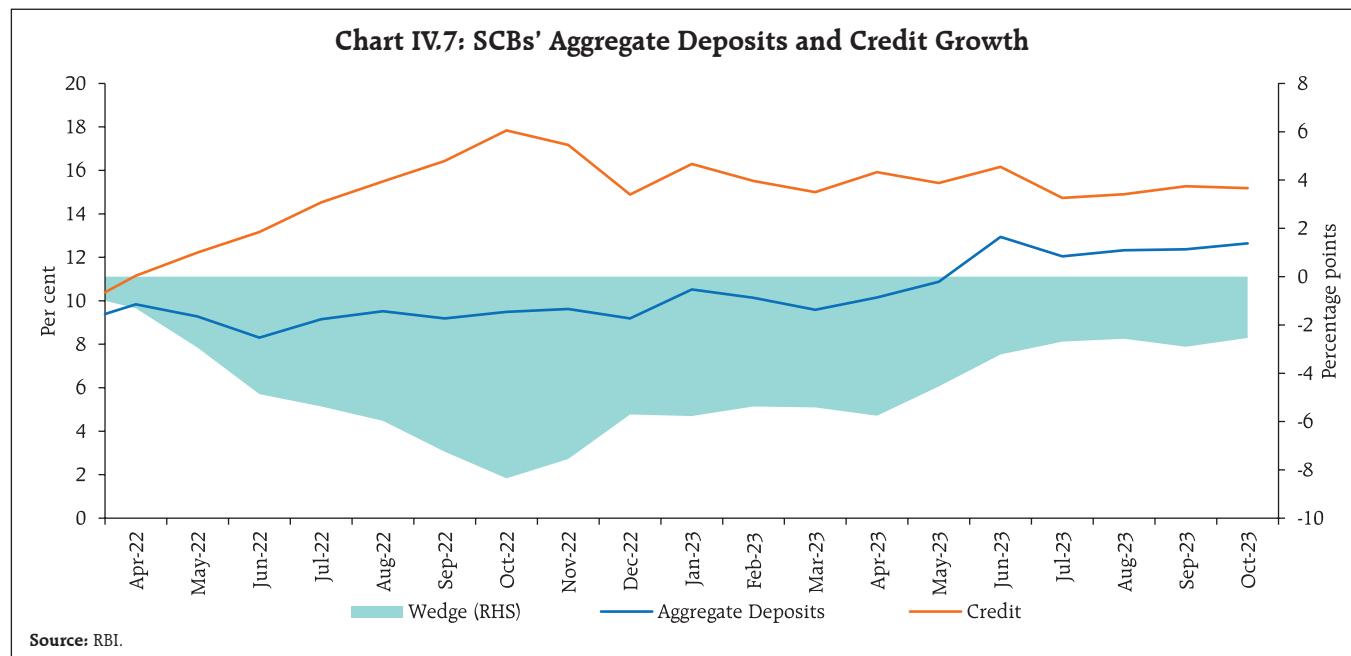
Note: 1. Data pertain to last Friday of every month.  
2. Latest data for reserve money pertain to November 10, 2023.

Source: RBI.

**Chart IV.6:  $M_3$  Growth and Credit Growth of SCBs' - Base and Momentum Effect**

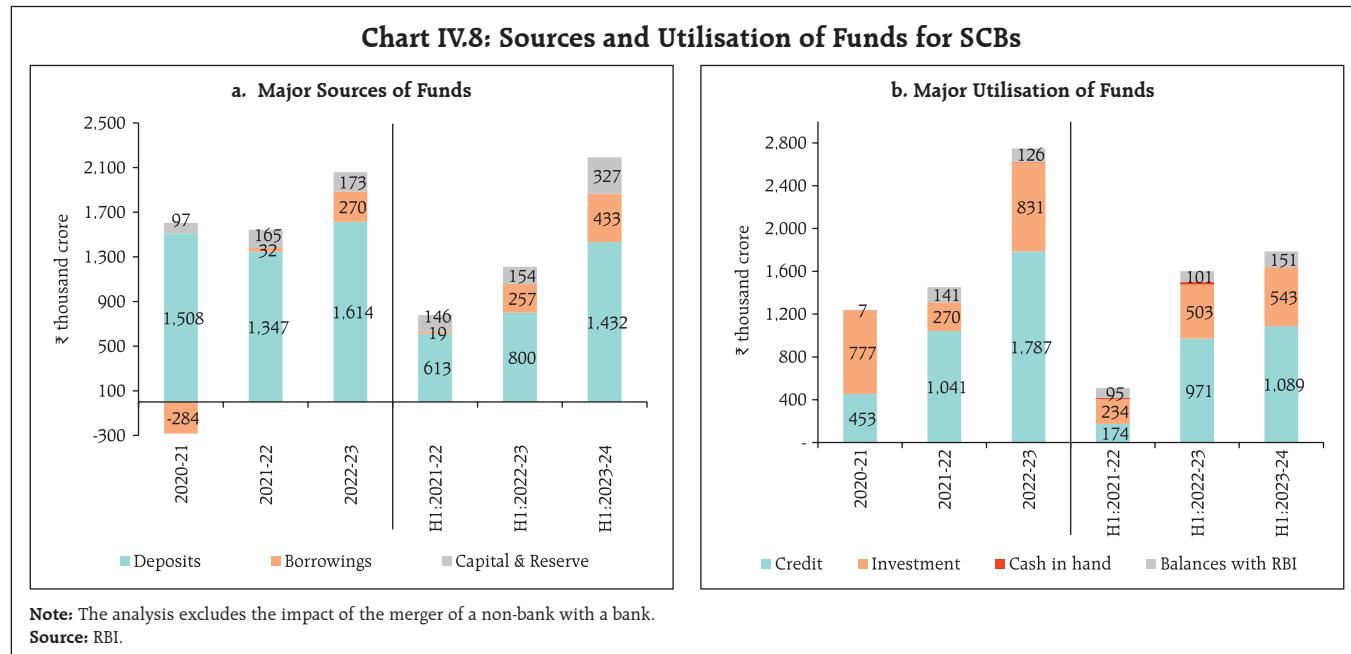
Source: RBI.

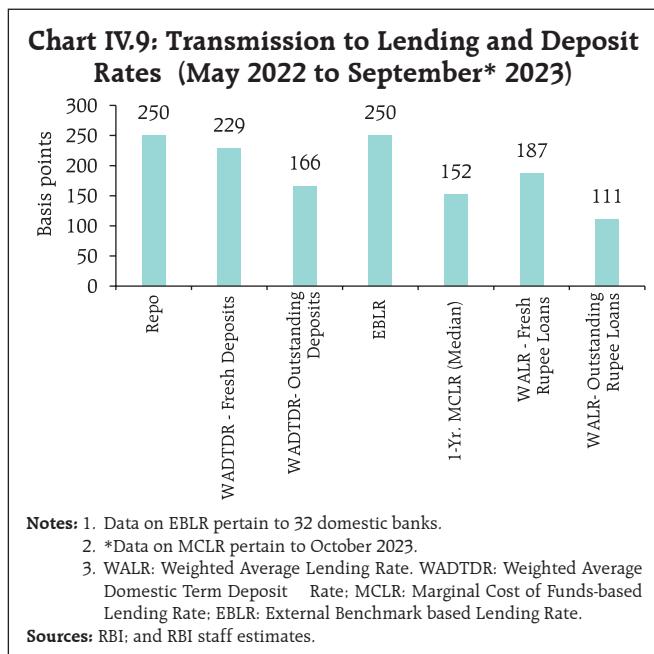
<sup>17</sup> Announced on May 19, 2023. Of the total ₹3.56 lakh crore of ₹2000 banknotes in circulation as on May 19, 2023, ₹3.46 lakh crore has been received back as of October 31, 2023.



In response to the cumulative 250 bps hike in policy rate since May 2022, banks have revised their repo-linked external benchmark-based lending rates (EBLRs) upward by the same magnitude. The 1-year median MCLR increased by 152 bps during May 2022

to October 2023. The weighted average lending rates (WALRs) on fresh and outstanding loans of SCBs increased by 187 bps and 111 bps, respectively, during May 2022 – September 2023. On the deposit side, the weighted average domestic term deposit rates





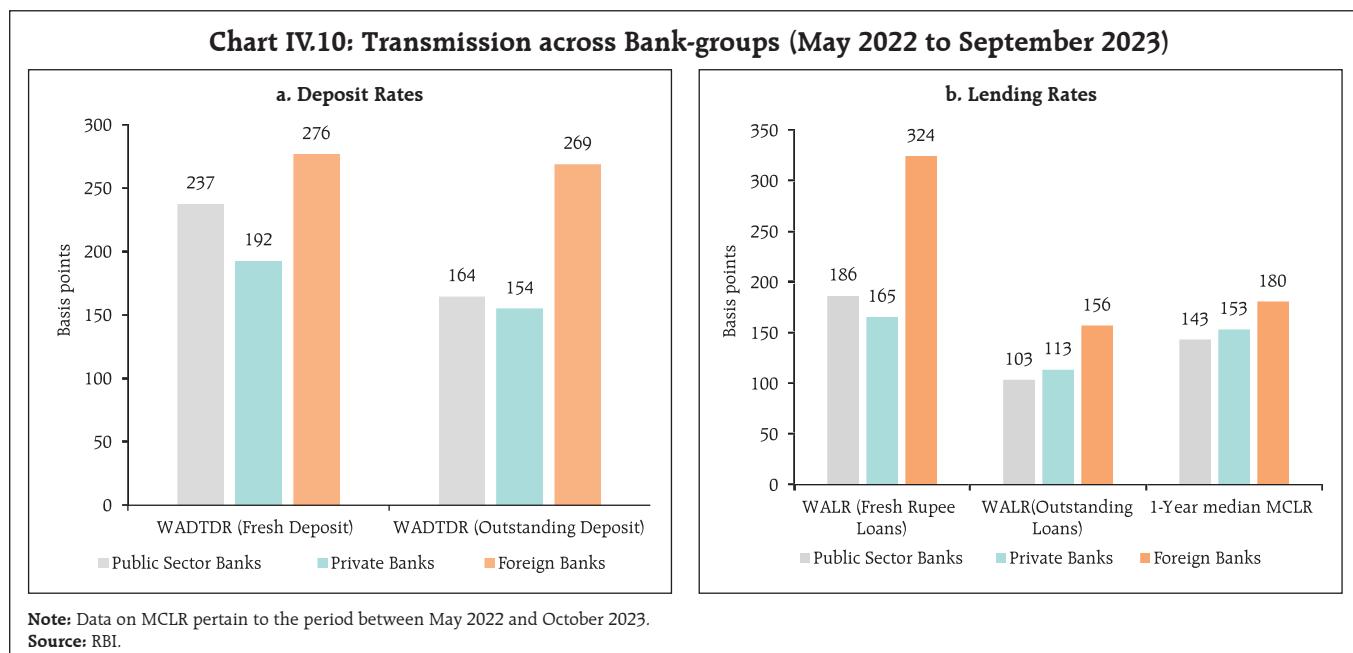
(WADTDRs) on fresh and outstanding rupee deposits increased by 229 bps and 166 bps, respectively (Chart IV.9).

The increase in the WADTDR on fresh and outstanding rupee deposits and WALR on fresh rupee loans were higher for public sector banks than for private banks, while the WALR on outstanding loans was higher for private banks (Chart IV.10).

Indian listed private non-financial companies<sup>18</sup> witnessed a pick-up in revenue growth (y-o-y) alongside flat expenditure growth during Q2:2023-24, leading to an uptick in operating profits (Chart IV.11).

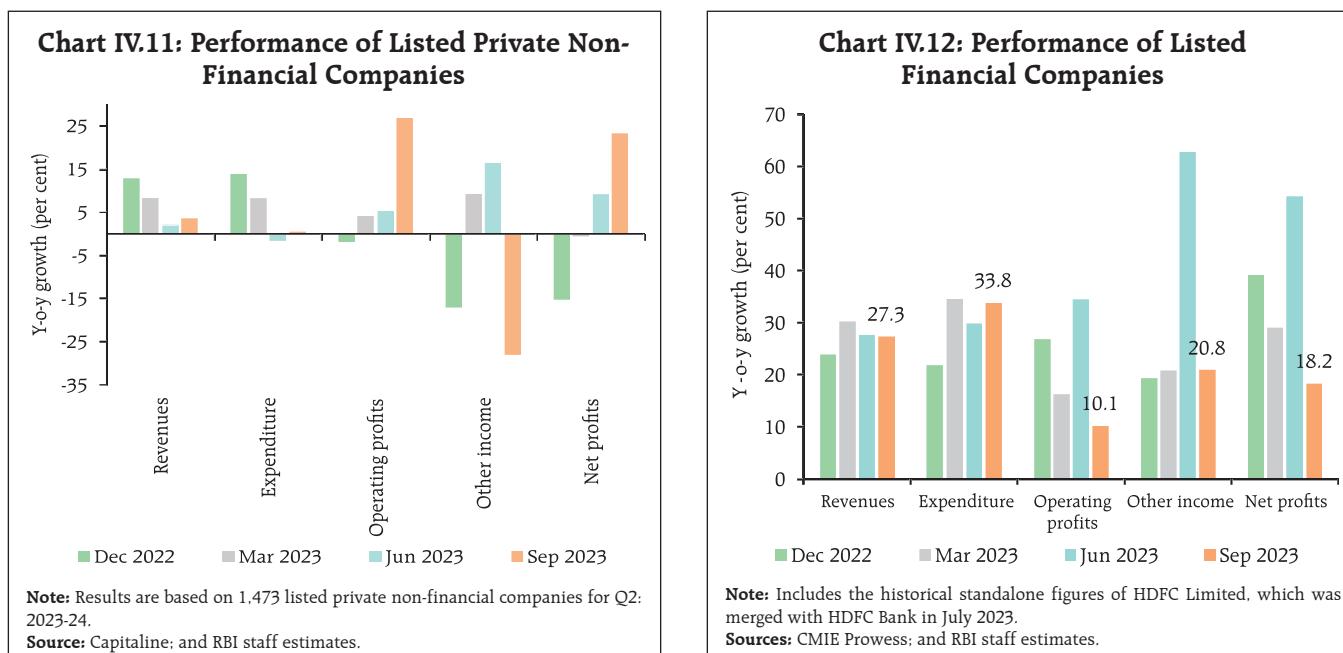
The banking and financial sector reported yet another quarter of resilient performance<sup>19</sup>, as alluded to in this article's introduction (Chart IV.12).

In line with their global counterparts, Indian equities declined in the second half of October 2023 amid rising geopolitical tensions in the Middle East and elevated US Treasury yields. Overall, the BSE Sensex declined by 3 per cent during October



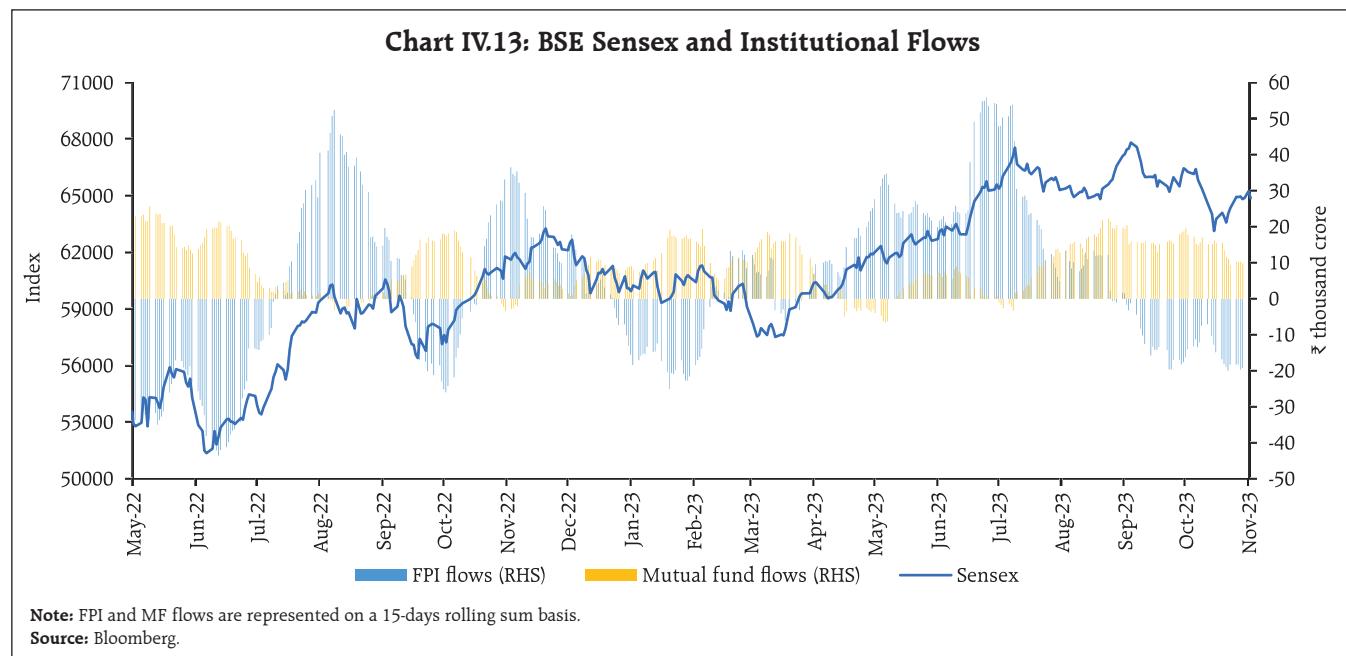
<sup>18</sup> Based on standalone earnings for Q2:2023-24 reported by 1,473 listed private non-financial companies, that represent 82.8 per cent of total sale size covered in RBI study on 'Performance of Private Corporate Business Sector during Q2:2022-23'.

<sup>19</sup> Based on stand-alone earnings for Q2:2023-24 reported by 484 listed banking and financial sector companies.



(Chart IV.13). During November (up to 12<sup>th</sup>), the BSE Sensex increased by 2.2 per cent to close at 65,259, buoyed by robust auto sales and GST collections data, unchanged US Fed policy rates, and positive global cues.

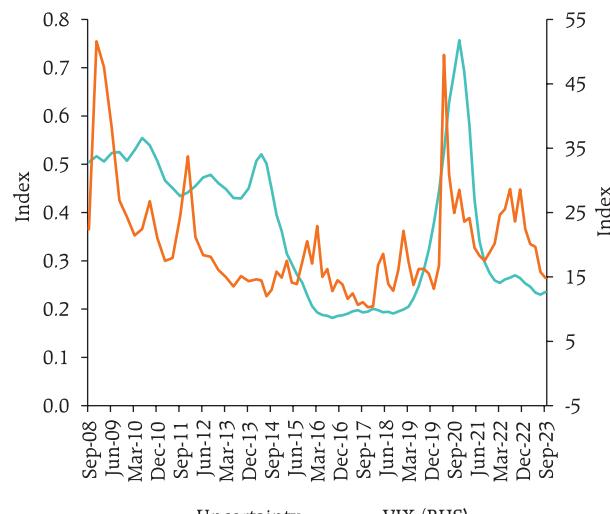
The broader market indices, as measured by the BSE Midcap and BSE Smallcap index, declined by 3.4 per cent and 1.7 per cent, respectively, in October 2023. They also witnessed greater volatility in comparison with the benchmark. Individual investors' direct



allocation to midcap and smallcap companies roughly account for over two-fifths<sup>20</sup> of their overall direct investments in listed companies in India. Besides, the assets under management of midcap and smallcap mutual fund schemes account for over 20 per cent of equity-oriented mutual fund schemes. Empirical evidence suggests that flows into midcap and smallcap mutual fund schemes exert a positive influence on the returns of midcap and smallcap companies (Box 1).

Macroeconomic uncertainty – as measured from the responses of the survey of professional forecasters (SPF)<sup>21</sup> – shows a correlation of about 0.5 with the Nifty VIX – volatility index based on Nifty index option prices (Chart IV.14). Historically, uncertainty was high in the post-GFC (global financial crisis) period till 2013-14 but declined thereafter and remained subdued with the adoption of the flexible inflation targeting (FIT) framework in India, till 2019-20. A subsequent rise in uncertainty induced by the COVID-19 pandemic in 2020 ebbed in 2022 and has continued to decline since then.

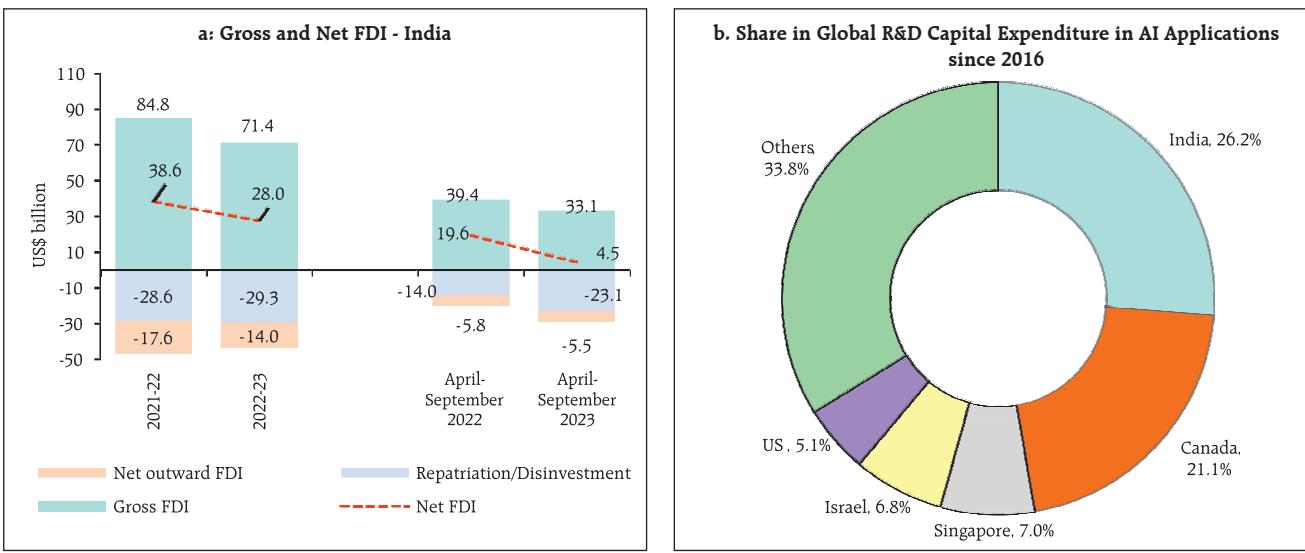
**Chart IV.14: Macroeconomic Uncertainty and Equity Market Volatility**



Sources: Bloomberg; and RBI staff estimates.

Gross inward foreign direct investment (FDI) moderated to US\$ 33.1 billion during April-September 2023 from US\$ 39.4 billion during the same period a year ago (Chart IV.15a). More than half of the FDI equity flows were directed towards manufacturing, financial services, transport and computer services.

**Chart IV.15: Foreign Direct Investment Flows to India**



Sources: RBI; and fDi Intelligence.

<sup>20</sup> Sources: CMIE Prowess; AMFI; and RBI staff estimates.

<sup>21</sup> Patra et al. (2023, October). Measuring Uncertainty: An Indian Perspective. *RBI Bulletin*, 77(10), 169-178.

The moderation in flows were majorly witnessed in communication services, retail and wholesale trade and manufacturing sectors. Singapore, Mauritius, Japan, the US and Netherlands were the major source countries, contributing more than two-thirds of the FDI equity flows. Net FDI declined to US\$ 4.5 billion during April-September 2023 from US\$ 19.6 billion a year ago due to a moderation in gross FDI and a rise in repatriation. Artificial intelligence (AI) has emerged as a major area of interest for FDI investors. Of the 778 projects (total worth of US\$ 26.8 billion) related to R&D of AI applications announced globally since 2016, India received the maximum share (26.2 per cent), followed by Canada, Singapore, Israel, and the US (Chart IV.15b).<sup>22</sup>

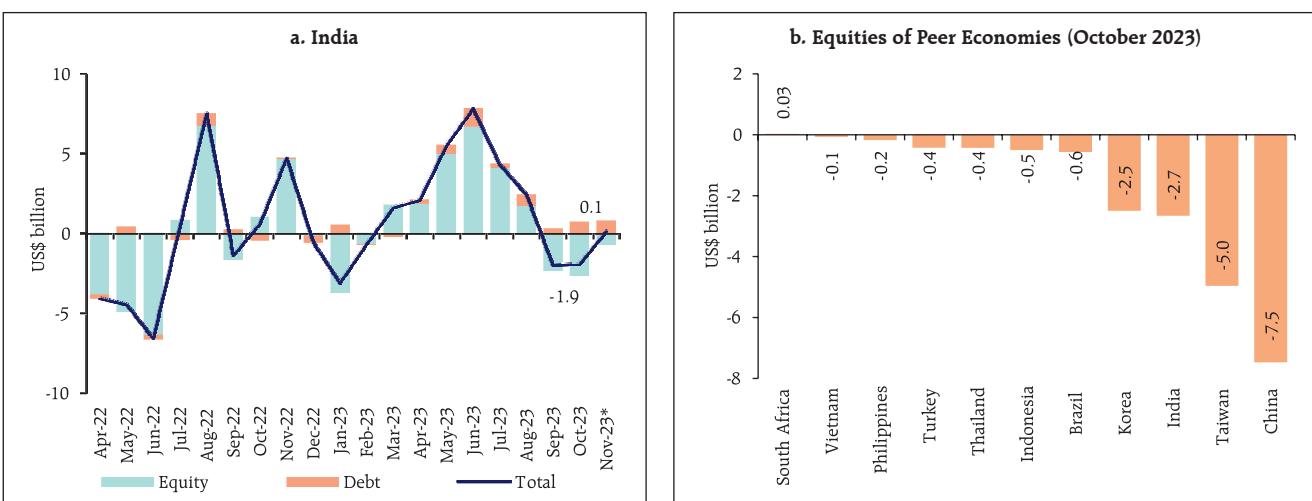
Foreign portfolio investors (FPIs) remained net sellers in domestic financial markets in October 2023, with net outflows to the tune of US\$ 1.9 billion, led by

the equity segment (Chart IV.16a). Financial services recorded the highest FPI outflows, followed by information technology and oil, gas and consumable fuels during the month. EMEs, in general, witnessed outflow pressures in October (Chart IV.16b). FPIs turned net buyers after two months in November 2023 (up to 9<sup>th</sup>), with a net inflow of US\$ 0.1 billion due to inflows in the debt segment (US\$ 0.8 billion).

Net accretions to non-resident deposits rose to US\$ 5.4 billion during April-September 2023 as compared with US\$ 2.8 billion a year ago, mainly due to a rise in net accretions to Foreign Currency Non-Resident [FCNR(B)] accounts.

External commercial borrowing (ECB) registrations moderated (US\$ 8.0 billion) in Q2:2023-24 from a record (US\$ 21.0 billion) in the previous quarter. Gross disbursement of ECBS to India at US\$ 20.5 billion during H1:2023-24 were

**Chart IV.16: Net Portfolio Investments**

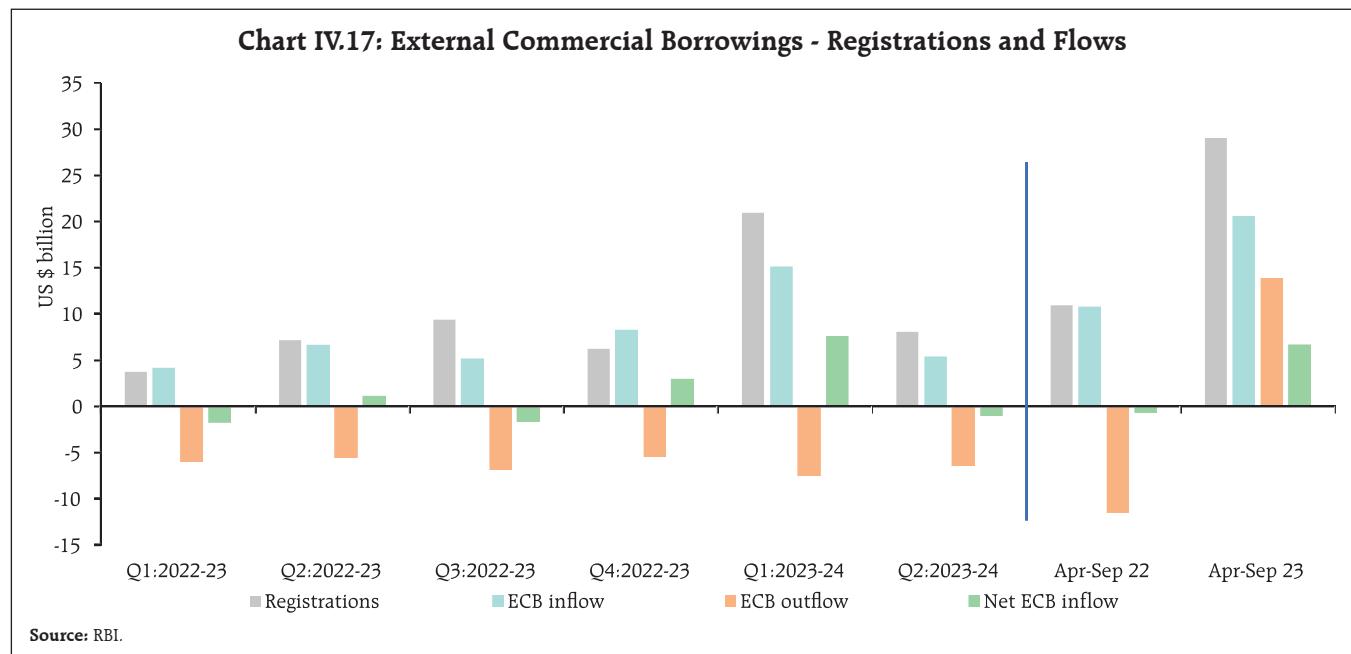


**Notes:** 1. Debt includes investments under the voluntary retention route and hybrid instruments.

2. \*: Data up to November 9, 2023.

**Sources:** National Securities Depository Limited; and Institute of International Finance.

<sup>22</sup> According to fDi intelligence, a specialist division from the *Financial Times*, that provides a comprehensive offering of services related to foreign direct investment.

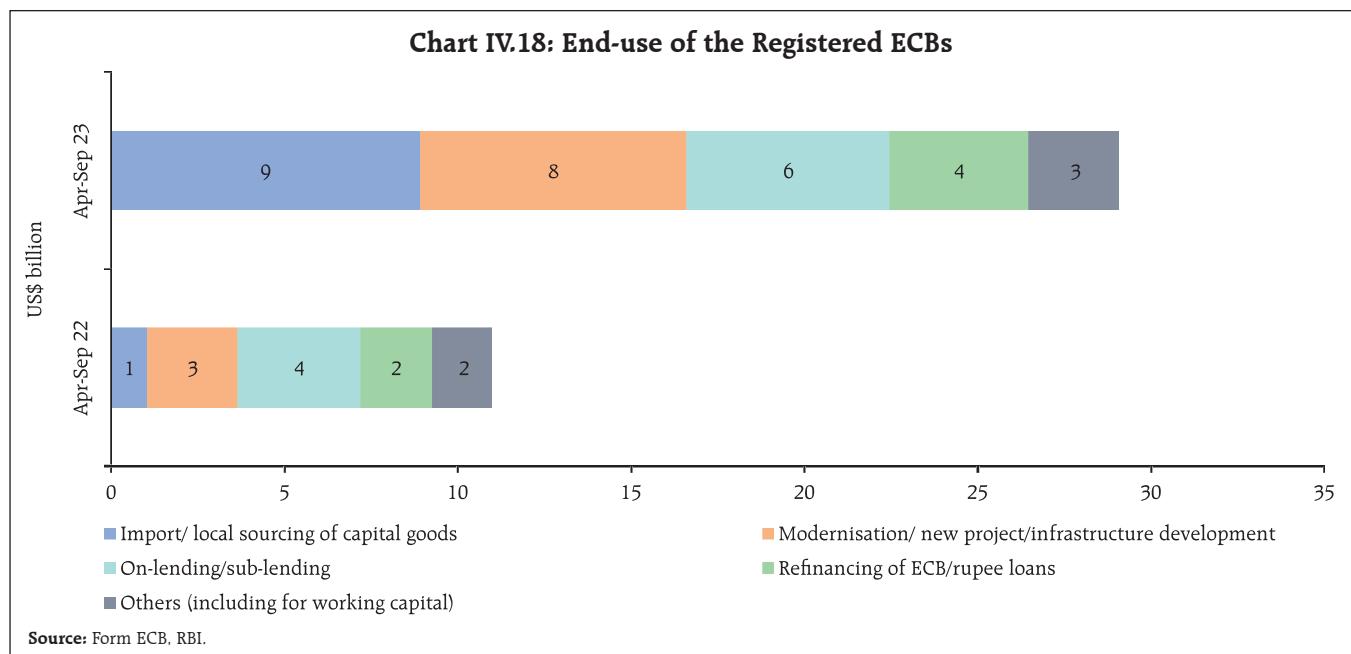


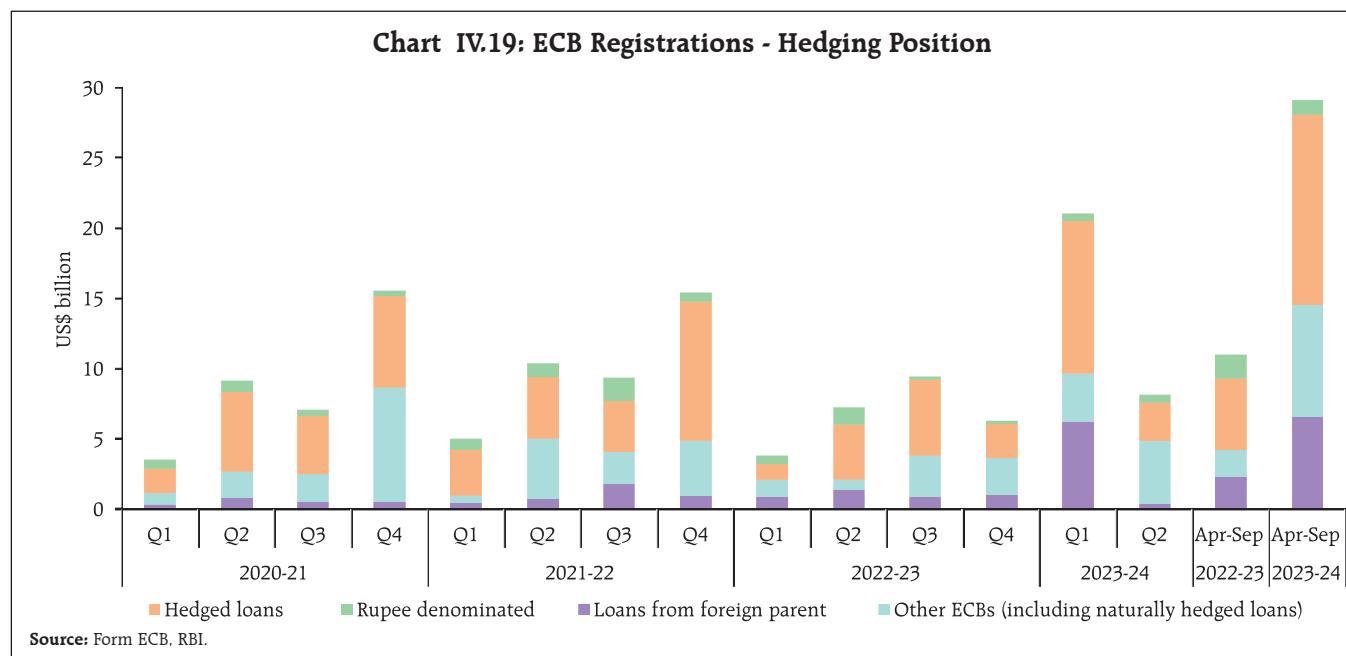
nearly double those of US\$10.8 billion a year ago (Chart IV.17). More than half of the new ECBs raised during H1:2023-24 were earmarked for capital expenditure (Chart IV.18).

Almost three-fourth of registered ECBs during H1:2023-24 was effectively hedged in terms of explicit hedging, rupee-denominated loans and loans from

foreign parents, which considerably offsets the interest and exchange rate sensitivity of such exposures (Chart IV.19).

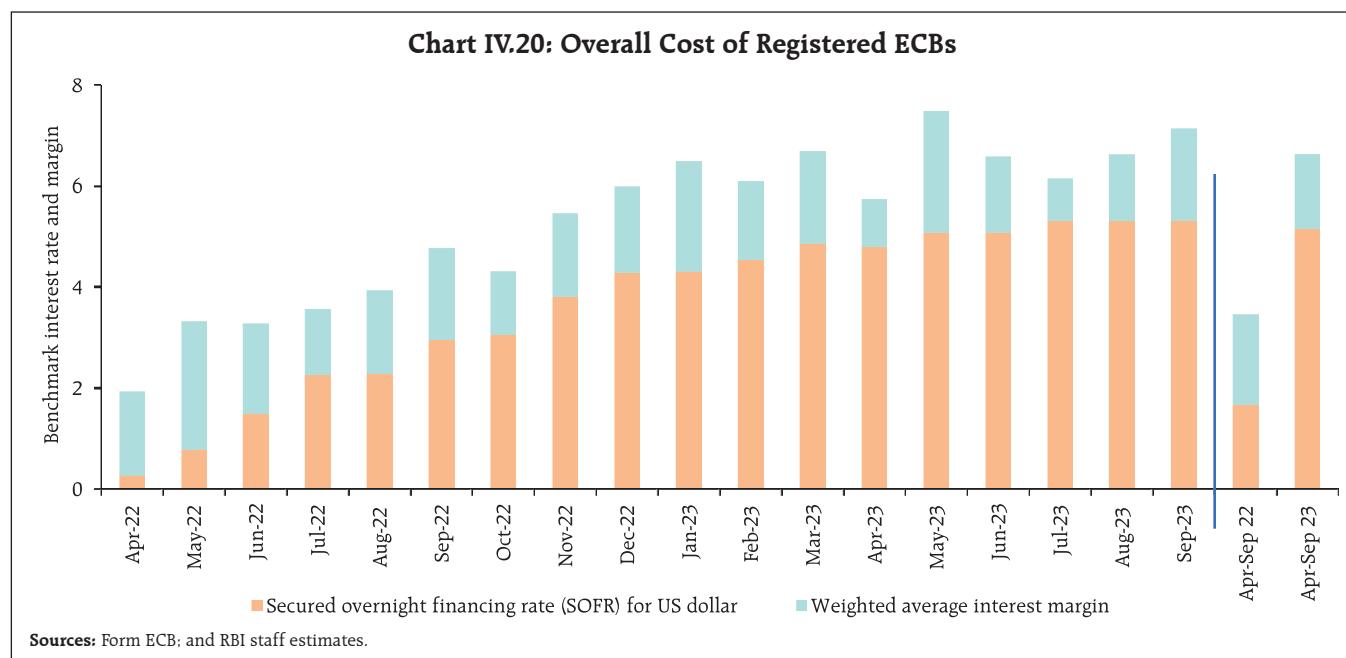
Tighter global monetary conditions led to elevated global benchmark interest rates, such as the secured overnight financing rate (SOFR), which resulted in a rise in the overall cost of ECBs raised during H1:2023-

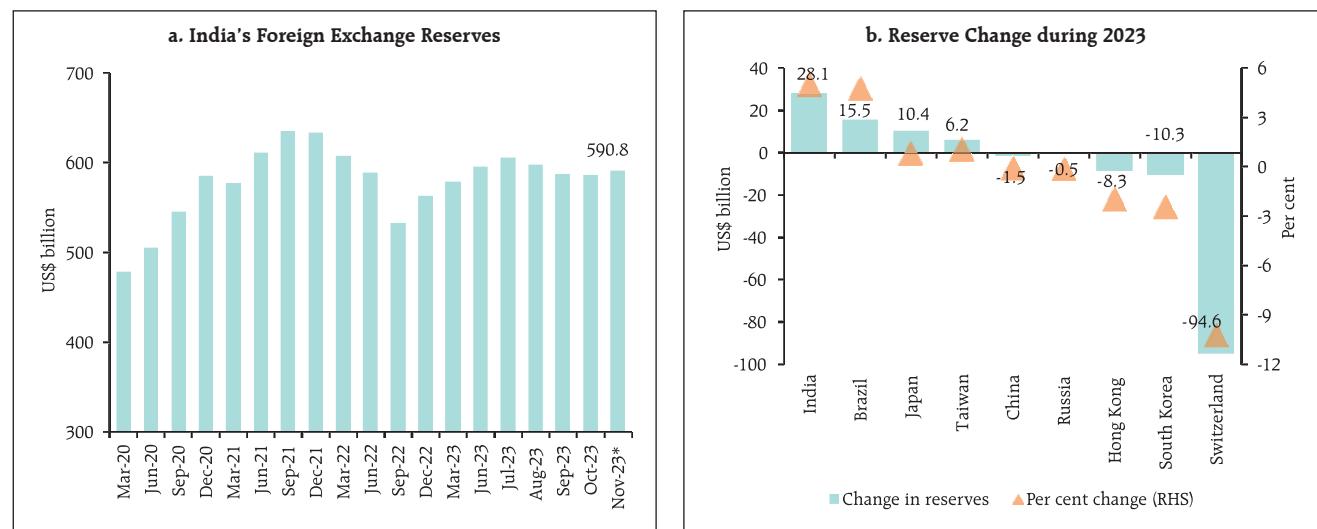




24. The weighted average interest margin (WAIM) over the benchmark rates, however, moderated to 146 bps during H1:2023-24 from 177 bps a year ago due to large value loans by big corporates (Chart IV.20). However, the increase in share of small value loans pushed the WAIM to 182 bps in September from 130 bps in August 2023.

The foreign exchange reserves stood at US\$ 590.8 billion on November 3, 2023 covering about 10 months' of imports projected for 2023-24 (94 per cent of total external debt outstanding at end-June 2023) [Chart IV.21a]. India's foreign exchange reserves have increased by US\$ 28.1 billion during the calendar year 2023 so far, which is the highest



**Chart IV.21: Foreign Exchange Reserves**

**Note:** Data for India and Russia are for November 3, 2023, end-September 2023 for Hong Kong and Switzerland and end-October 2023 for the remaining countries.

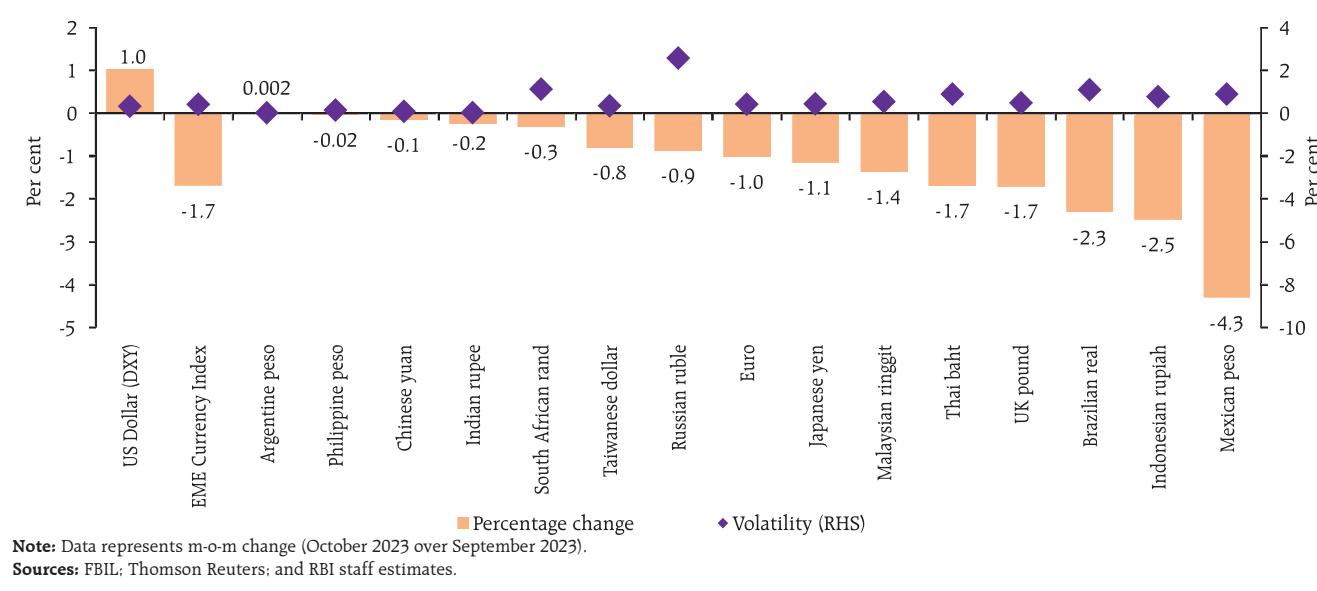
**Sources:** RBI; and respective central bank websites.

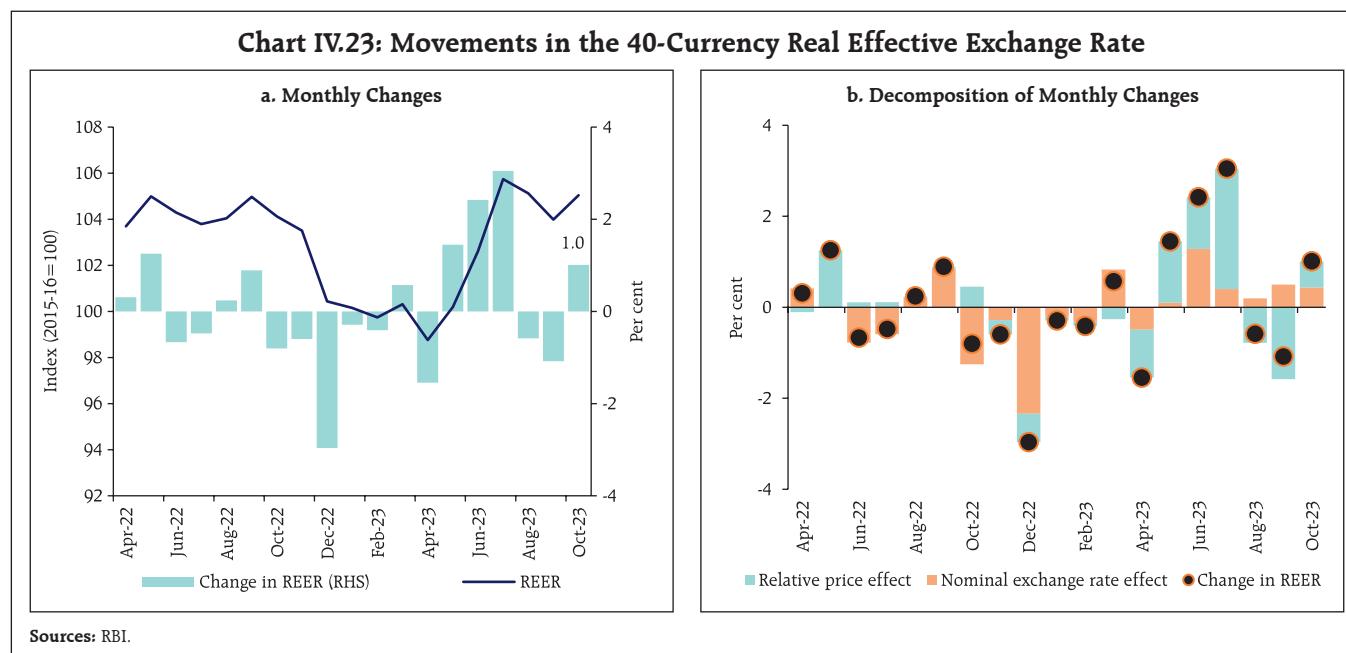
among major foreign exchange reserves holding countries (Chart IV.21b).

The Indian rupee (INR) depreciated by 0.2 per cent (m-o-m) *vis-à-vis* the US dollar in October 2023 as most EMEs witnessed pressures from capital outflows

(Chart IV.22). The INR, however, remained as one of the least volatile major currencies during the month.

In terms of the 40-currency real effective exchange rate (REER), the INR appreciated by 1.0 per cent (m-o-m) in October 2023 (Chart IV.23).

**Chart IV.22: Movements of the Indian Rupee and Major Currencies against the US Dollar**



## Payment Systems

Buoyed by the festival season, digital payments witnessed a strong expansion in October 2023, with growth (y-o-y) under major payment modes outpacing the increase in the previous month (Table IV.2). The Unified Payments Interface (UPI) added another billion to reach 11 billion transactions in a short span of two months, the quickest addition of a billion, to date. The Initial Public Offering (IPO) facility through UPI exhibited robust adoption,

with the number of mandates nearly doubling in October 2023 over the corresponding month in 2022. Credit cards continued their ascent, supported by cashbacks, reward points, contactless cards, and UPI-linked credit cards.<sup>23</sup> The extension of the Bharat Bill Payment System (BBPS) to business-to-business (B2B) payments<sup>24</sup> is expected to bolster its usage.

To foster an orderly development of the cross-border payments domain, the Reserve Bank has decided to regulate entities involved in payment

**Table IV.2: Growth in Select Payment Systems**

(y-o-y in per cent)

| Payment System Indicators | Transaction Volume |        |        |        | Transaction Value |        |        |        |
|---------------------------|--------------------|--------|--------|--------|-------------------|--------|--------|--------|
|                           | Sep-22             | Sep-23 | Oct-22 | Oct-23 | Sep-22            | Sep-23 | Oct-22 | Oct-23 |
| RTGS                      | 13.6               | 7.9    | 3.4    | 18.0   | 24.6              | 5.5    | 14.0   | 16.6   |
| NEFT                      | 29.0               | 29.2   | 27.9   | 38.2   | 20.8              | 7.0    | 10.1   | 19.6   |
| UPI                       | 85.5               | 55.7   | 73.2   | 56.2   | 70.5              | 41.4   | 57.1   | 41.6   |
| IMPS                      | 20.1               | 2.3    | 12.0   | 2.2    | 40.2              | 11.7   | 25.7   | 15.5   |
| NACH                      | 38.2               | 20.2   | 19.4   | -1.5   | 28.1              | 14.1   | 20.3   | 11.9   |
| NETC                      | 33.9               | 15.4   | 32.1   | 13.0   | 41.1              | 19.9   | 32.6   | 24.4   |
| BBPS                      | 49.5               | 20.2   | 55.1   | 26.6   | 36.8              | 43.8   | 56.4   | 59.2   |

Note: RTGS: Real Time Gross Settlement; NEFT: National Electronic Funds Transfer; IMPS: Immediate Payment Service; NACH: National Automated Clearing House; NETC: National Electronic Toll Collection.

Source: RBI.

<sup>23</sup> PWC India, 2023. *The Indian Payments Handbook – 2023-28*.

<sup>24</sup> NPCI Press Releases, October 19, 2023.

and settlement for cross-border export/import transactions, designating them as "Payment Aggregators – Cross Border (PA-CB)" under the Payment and Settlement Systems Act, 2007. Further, to encourage innovation, the Reserve Bank has introduced the fifth cohort (theme-neutral) under the Regulatory Sandbox (RS), along with the successful exit of all entities from the third

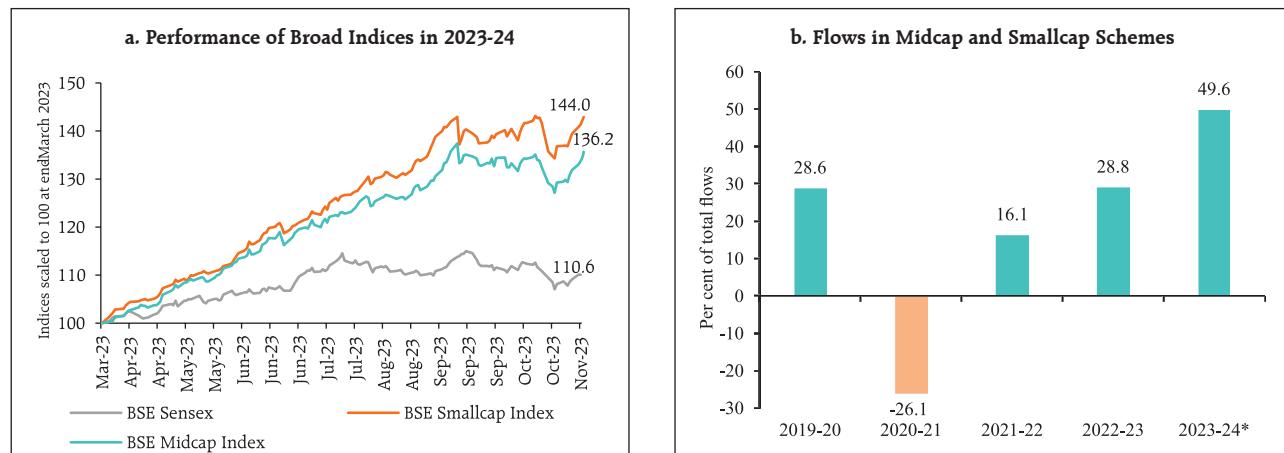
RS cohort focused on 'MSME Lending'. Consistent policy support and the expanding digital payment landscape are anticipated to significantly reduce reliance on usage of cash in the coming years. Most of the growth in digital payments is expected in consumer-to-business payments, followed by consumer-to-consumer and business-to-business transactions.<sup>25</sup>

#### **Box 1: Relationship Between Mutual Fund Flows and Broader Market Performance**

In the equity market, the broad market indices have performed well in 2023-24 so far, with the smallcap and midcap mutual fund (MF) schemes, accounting for almost half of the net inflows into open-ended equity-oriented schemes (Chart IV.B). A surge in inflows through MFs has even created deployment challenges for fund managers, prompting a few fund houses to decline fresh lumpsum investments in these schemes.<sup>26</sup> Some financial analysts have identified equity mutual fund flows as a driving force in the sustained run-up in markets.<sup>27</sup>

Multiple channels link flows from MFs with market returns. The *feedback-trader* hypothesis holds that investors buy fund shares as a response to rising prices and sell when prices fall, thereby causing a positive co-movement. Under the *price-pressure* hypothesis, flows cause returns. According to the *information-response* hypothesis, both stock market returns and fund flows react to new information. It shows that mutual fund flows are forward looking (Warther, 1995; Jank, 2012).

**Chart IV.B: Broader Markets Have Gained Traction**



**Notes:** 1. \* 2023-24 data is up to October 2023.

2. Flows data pertains to open-ended equity oriented schemes only as a per cent of total flows.

3. There were net outflows from open-ended equity oriented schemes in 2020-21 out of which 26.1 per cent were from midcap and smallcap schemes.

**Sources:** Bloomberg; SEBI; AMFI; and RBI staff estimates.

(Contd...)

<sup>25</sup> McKinsey & Company. (2023). *The 2023 McKinsey Global Payments Report*.

<sup>26</sup> <https://www.livemint.com/money/personal-finance/why-mutual-fund-amcs-are-declining-fresh-lump-sum-investments-in-small-cap-funds-explained-11689387001005.html>

<sup>27</sup> Why stock prices are holding up despite FIIs selling (deccanherald.com)

Granger causality tests between flows and returns in the midcap/smallcap segments conducted on monthly data on schemes for the period April 2019 to September 2023 show that one-way causation exists between flows and returns,

**Table IV.B: Test of Causality Between Flows and Return**

|              | Flows do not Granger Cause Returns | Returns do not Granger Cause Flows |
|--------------|------------------------------------|------------------------------------|
|              | F statistic                        |                                    |
| I: Midcap    | 6.07***<br>(0.01)                  | 0.02<br>(0.89)                     |
| II: Smallcap | 7.70***<br>(0.00)                  | 1.42<br>(0.23)                     |

**Notes:** 1. We use a reduced-form bivariate vector autoregressive (VAR) model. Net flows are normalised by the previous month's net assets under management to control for the rising trend in flows (Remolona et al., 1997). Specifically, excess midcap/smallcap returns are calculated as monthly returns on the midcap/ smallcap index minus the annualized three-month T-bill return (Edward and Zhang, 1998). All the series used are stationary.

2. P values are reported in parentheses. \* P<.1; \*\*P<.05; \*\*\*P<.01.

**Source:** RBI staff estimates.

i.e., past values of flows influence current returns but not vice versa which supports the *price pressure* hypothesis (Table IV.B).

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Jank, S. (2012). Mutual fund flows, expected returns, and the real economy. *Journal of Banking & Finance*, 36(11), 3060-3070.

Remolona, E. M., Kleiman, P., & Gruenstein Bocain, D. (1997). Market returns and mutual fund flows. *Economic Policy Review*, 3(2), 33-52.

Warther, V.A. (1995). "Aggregate mutual fund flows and security returns", *Journal of Financial Economics*, 39(2-3), 209-235.

## Conclusion

This 37<sup>th</sup> edition of the State of the Economy (SoE) article marks the third year of its revival after a long hiatus of 25 years. As we noted in the 25<sup>th</sup> edition, this article was born in dark times when the pandemic had engulfed the nation.

Since the 25<sup>th</sup> edition in November 2022, this article has been a sentinel to several noteworthy developments. A combination of monetary policy action and supply side interventions guided inflation down from the high reaches to which it had climbed through the first seven months of 2022-23; in fact, November 2022 was the first month when headline inflation dropped back into the RBI's tolerance band in the whole calendar year. We are not out of the woods yet and have miles to go, but readings of around 5 per cent and 4.9 per cent in September and October, respectively, are a welcome relief from the average of 6.7 per cent in 2022-23 and 7.1 per cent in July-August 2023. India's external sector has remained viable, with a modest current account deficit (CAD) financed by resilient capital flows, one of the least volatile currencies in the world and a healthy level of foreign exchange reserves. The momentum of growth has picked up, taking GDP well above pre-pandemic

levels to becoming the fifth largest economy in the world at market exchange rates.

Steadfast policy initiatives are showing results, with the financial sector exhibiting soundness and supporting the credit needs of a resurgent economy. In the payments space, India has made significant strides while offering its digital public infrastructure to the world. This period also witnessed India assuming the presidency of the G20. India's priorities and deliverables as well as achievements contributed to global public welfare and left a rich legacy of further actionable issues that would help bind the world into one family.

The State of the Economy has witnessed the ups and downs of this passage. We decided against many odds that we would try to infuse the light and hope of facts into our readership through difficult challenges that confronted the Indian economy on this journey. We have been both praised and pilloried for our efforts. Yet, as Governor Shri Shaktikanta Das remarked while accepting the Changemaker of the Year award on behalf of the RBI, "*It was necessary to give confidence to the markets and the people*". He went on to quote Mahatma Gandhi: *When the horizon is dark, it is faith that keeps you going*.

# ***Reading the Market's Mind: Decoding Monetary Policy Expectations from Financial Data***

by Joice John, Bhimappa A. Talwar, Priyanka Sachdeva and Indranil Bhattacharyya<sup>^</sup>

*In a forward-looking monetary policy framework, central banks closely monitor market expectations on the evolving economic outlook as well as on future policy actions. This paper explores the methodology of extracting market expectations on the policy rate from the 2-month Overnight Index Swaps (OIS) rate and finds it effective in decoding near term market expectations. During 2016-2023, monetary policy surprises have been rare suggesting that the RBI's communication strategy has been successful in anchoring market expectations. Our findings indicate that such policy surprises have an instantaneous impact on interest rates of longer maturities across money and bond markets on the policy day.*

## **Introduction**

In a forward-looking and market-based monetary policy framework, expectations about the future in addition to current economic conditions largely influence the decision making of economic agents viz., the public, market participants and all stakeholders. Since expectations on the economic outlook govern saving and investment decisions in the economy that generate business cycles, monetary authorities – in their stabilisation role – closely monitor market expectations on evolving economic activity as well as on future policy actions.

One of the key indicators for monetary policy formulation is the market expectation on the central bank's policy rate, which reveals useful information about the market's assessment of current economic developments and its perceptions about the future. Expectations of the future policy rate – including its timing and pace of change – are an important driver of financial asset prices and cost of credit to the wider economy, thus playing a significant role in monetary policy transmission. It is in this context that forward guidance has gained prominence in the communication strategy of central banks to anchor market expectations on future policy rates (Woodford, 2005). Prescient decoding of market expectations on the policy rate can avoid undue financial market volatility that ensues when expectations significantly differ from central bank actions. Unexpected movement in the federal funds rate (FFR) is found to be a key driver of treasury yields (Kuttner, 2001) and stock prices (Bernanke and Kuttner, 2005). Policy rate expectations can also be a key input for the central bank's projection of growth and inflation.

The related literature and cross-country practices suggest that financial market instruments (futures and swaps), surveys and empirical models are the commonly used methods for extracting market expectations. While survey-based measures are directly measurable, subjective, and available with a lag, interest rate expectations embedded in the price of financial instruments are based on financial transactions, information on which are available at a regular frequency. Moreover, high frequency data availability – on a daily or even intra-day basis – for financial indicators enable a more robust identification of monetary policy surprises that are relatively less influenced by other economic news. In contrast, survey or model-based measures are generally available at a lower frequency. Moreover, survey-based measures are highly subjective and

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<sup>^</sup> The authors are from the Monetary Policy Department, Reserve Bank of India. They are grateful to Muneesh Kapur for comments and suggestions. The views expressed in this article are those of the authors and do not represent the views of the Reserve Bank of India.

suffer from sampling bias while model-based measures rely on certain restrictive assumptions that make them less reliable, particularly during periods of high uncertainty. Nevertheless, it is prudent to use different methods and not be reliant on any single method for drawing policy inputs.

Amongst financial market instruments, the closest possible direct measure of expected future policy rates is the interest rate futures, which incorporate expectations of interest rates and are closely linked to the policy rate over the short to medium term horizon. The fed fund futures (FFFs) have been widely used as a measure of monetary policy expectations in the US (Krueger and Kuttner, 1996). For countries without similar interest rate hedging instruments, expectation is measured from the price of the instrument that moves along with the policy rate, e.g., Treasury Bills, unsecured interbank loan, and forward rate agreements (FRAs) (Joyce *et al.*, 2008). Nevertheless, measuring expectations from such instruments is rendered complex because of additional factors that contribute to pricing, such as credit risk, liquidity risk, and term premium.

In view of the above, the search for an alternative measure led to the identification of the overnight indexed swap (OIS) rates as a measure of monetary policy expectations that is more generally comparable across different countries (Lloyd, 2018; 2021). An OIS is an interest rate derivative contract in which two entities agree to swap/exchange a fixed *vis-à-vis* a floating interest rate payment based on a notional principal amount. As against futures which are standardised instrument traded on exchanges, the OIS is traded over the counter (OTC). While the futures settle against the short-term rate (*i.e.*, overnight rate) on a specific future date, the OIS settles against the path of short-term rate prevailing from the inception of the contract till its maturity. Financial agents primarily use OIS contracts to manage their interest

rate exposures through hedging and appropriate arbitrage opportunities. As a risk management tool, OIS *inter alia* provides various benefits such as (i) reduction in credit risk; (ii) flexibility to move to interest rate basis of choice; (iii) converting fixed rate liability into floating or *vice versa*; and (iv) managing duration of investment portfolio. Subsequent research has proliferated the use of OIS to measure market expectations on the policy rate.

In the Indian context, a recent study using Lloyd's methodology (2018) found that OIS rates of select maturities provide credible measures of market expectations on the future path of the policy rate (Rituraj and Kumar, 2019). We build on this study on several counts. First, we use the 2-month OIS rate, given the bi-monthly policy cycle in India, to gauge only the near-term policy expectations (till the next policy) rather than the long term, focusing on the more recent period (2016-23). Second, while Rituraj and Kumar (*op cit.*) use the number of calendar days between the inception of the contract till its maturity for calculating the value of the floating leg, this paper estimates the floating leg based on the number of business days (accounting for the holidays in between), which may be more appropriate. Third, using an event study (ES) approach, we empirically evaluate the role of market expectation and policy surprises in determining the immediate impact of policy changes on the money and bond markets in India on the policy day, which helps in identifying how market participants adjust their expectations after a policy announcement.

The remaining part of the paper is structured in the following manner: Section II provides a brief snapshot of the relevant literature while the stylised features of the OIS market are discussed in Section III. The empirical methodology, results and implications are presented in Section IV while Section V concludes.

## II. Related Literature

The FFFs is a prime measure of monetary policy expectations in the US which is widely used in the literature (Krueger and Kuttner, 1996; Kuttner, 2001; Faust, Swanson and Wright, 2004; Sack, 2004; Piazzesi and Swanson, 2008; Hamilton and Okimoto, 2011). While comparing the performance of various market-based instruments in the US – including FFFs and Eurodollar futures – as predictors of the future monetary policy stance, it was found that the FFFs predict monetary policy better in horizons up to six months (Gurkaynak *et al.*, 2007). The absence of similar instruments, however, motivated the search for comparable measures in many countries.

Using OIS rates as an alternative measure that can be used outside the US and which is more generally comparable across different countries, it was found that one to 12-month US OIS rates provide measures of investors' interest rate expectations that are comparable to that of FFFs (Lloyd, 2018; 2021). Additionally, 1 to 24-month US, euro-zone and Japanese OIS rates and one to 18-month UK OIS rates were found to accurately measure expectations on future short-term interest rates in these countries.

The use of OIS contracts as measures of investors' interest rate expectations offers various advantages.<sup>1</sup> First, counterparty risk is minimal in OIS contracts since it involves only an exchange of interest and not notional principal amounts, although such risks along with the risk premia are likely to increase in times of stress (Finlay and Olivan, 2012). Second, OIS contracts do not involve any initial cash flow and only the net payments are exchanged, thus minimising liquidity risk. Taking cognizance of these important features, several studies have used OIS rates to decipher market expectations on future

monetary policy (Christensen and Rudebusch, 2012; Woodford, 2012; Kamber and Mohanty, 2018; Altavilla *et al.*, 2019; Lloyd, 2021).

As mentioned before, it was found that OIS rates of 1-, 9- and 12-months tenors provide credible measures of market expectations on the future path of the policy rate in the Indian context during normal times (Rituraj and Kumar, *op cit*). Moreover, unanticipated changes in monetary policy during the global financial crisis (GFC) of 2008 and the taper tantrum of 2013 were found to have a substantial bearing on 'excess returns' in the OIS market, unlike normal times. In the same spirit, several recent studies have used excess return derived from OIS rates as a proxy for monetary policy surprises. After controlling for the surprise component of monetary policy changes as reflected in Indian OIS rates, a text-mining analysis of the monetary policy statements of the Reserve Bank of India (RBI) found significant improvement in policy communication since the advent of the inflation targeting regime (Mathur and Sengupta, 2019). Using the 1-month OIS rate to delineate the expected and unexpected components of monetary policy announcements, an ES analysis around announcement days found that Indian G-sec yields generally react to monetary policy surprises (Das *et al.*, 2020).

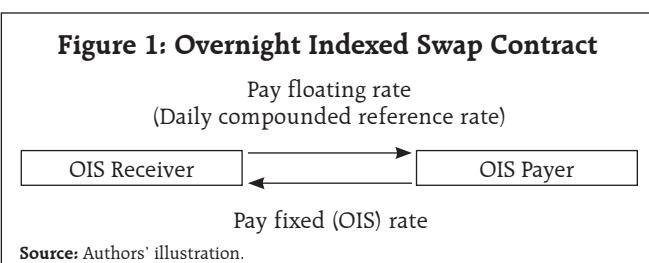
Monetary policy surprises derived from OIS rates are found to significantly impact the stocks of banking, financial services, and the realty sectors (Prabu *et al.*, 2020). Maturity-wise changes in OIS rates in a narrow window around the RBI's monetary policy announcements are used to capture the unexpected (surprise) component of policy decisions, which are complemented with narrative analysis to investigate the reliability of OIS rates in inferring market expectations (Lakdawala and Sengupta, 2021). Using changes in OIS rates (1-month) as a proxy for monetary policy surprises alongside other short-term OIS rates and longer-term treasury securities, it was found that monetary policy surprises have a

<sup>1</sup> OIS rates, however, can sometimes become distorted by lack of liquidity as well as positioning from market participants; for example, those willing to trade based on the likelihood of large and unexpected 'tail events' may adversely affect economic conditions.

positive and statistically significant impact on yields of Indian government and corporate bonds (Ahmed et al., 2022).

### III. OIS Market in India: Stylised Facts

As mentioned earlier, an OIS is an interest rate derivative contract in which two parties agree to swap/exchange a fixed interest rate payment (the OIS rate) *vis-à-vis* a floating interest rate payment over the tenor of the contract. In an OIS contract, the floating leg interest payment is derived by calculating the accrued interest payments from a strategy of investing the notional principal in a reference rate and repeating this on an overnight basis for the duration of the contract, reinvesting principal *plus* interest continuously. The floating rate is usually the overnight (unsecured) interbank rate and the reference rate for OIS contracts in India is the Mumbai Interbank Offered Rate (MIBOR). On the other hand, the OIS rate represents the contract's fixed rate which contains market participants' expectations about future overnight rates. The notional principal is used to calculate interest payments but is not exchanged; it is only the interest payments that are exchanged at pre-determined intervals over the tenor of the contract, *i.e.*, if the fixed interest rate payment exceeds that of the floating rate, the agent who took on the former payments must pay the other at settlement. More simply, an investor who has taken a long position in an OIS contract will receive payments based on a fixed swap rate and make payments based on the overnight rate that is realised over the contract's maturity (Figure 1).



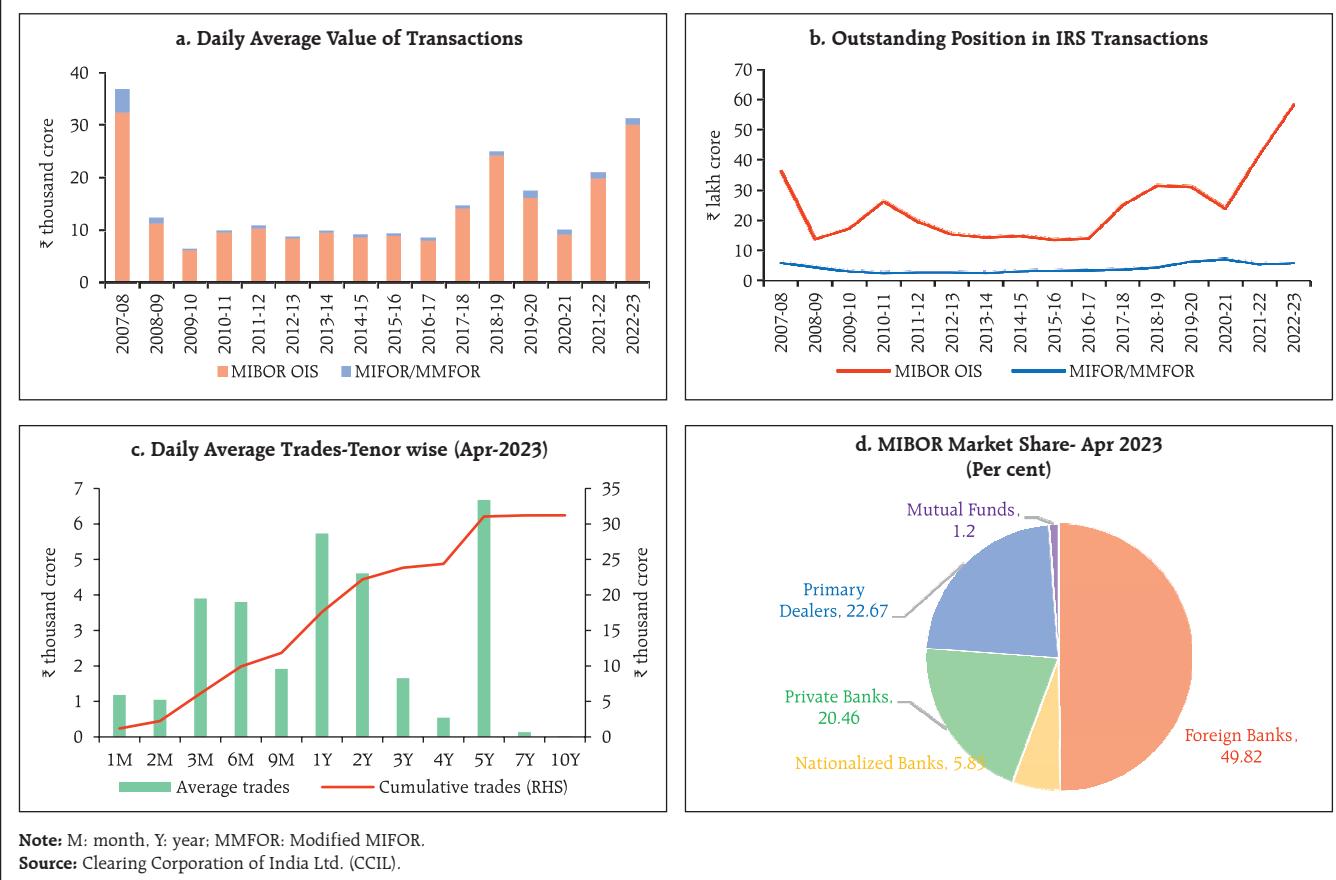
#### III.1 Evolution

Interest rate derivatives (IRDs), which are traded either on organised exchanges or on OTC markets, were permitted in India in July 1999. Within IRD, interest rate swaps (IRS) – which involve swapping of interest rate payments based on notional principal – have the largest market share. Currently, the trading in IRS is dominated by MIBOR-OIS with the MIBOR as the floating interest rate, followed by the Mumbai Inter-bank Forward Offer Rate (MIFOR) counterpart. In the MIBOR segment, the daily average value of transactions, although lower than the levels prior to the GFC, have increased considerably since COVID-19 (Chart 1a), while the outstanding value of transactions has more than doubled since 2020–21 (Chart 1b). Across tenors, the trading is primarily concentrated in 1-year, 2-year, and 5-year maturity segments, with the short-term segment (up to 1 year) comprising more than 50 per cent of total trade (Chart 1c). Market share is dominated by foreign banks followed by primary dealers and private sector banks (Chart 1d). Despite their large interest rate exposure, the participation of nationalised banks in the IRS markets remains thin. In this regard, as the balance sheet of nationalised banks becomes more market linked, particularly in the wake of the adoption of external benchmarks lending rate (EBLR), their demand for hedging is expected to increase, thus contributing further to the development of the IRD market (Acharya, 2020). The share of nationalised banks has improved from 0.5 per cent in April 2020 to 5.9 per cent in April 2023.

#### III.2 OIS rates and Monetary Policy Expectations

The no-arbitrage condition requires that the fixed leg of an OIS contract should be equal to the expected overnight rates compounded daily for the period of the contract, *plus* a term premium. Therefore, if overnight rates are expected to increase (decrease) during the period of the contract, the OIS rate should

**Chart 1: MIBOR-OIS Transactions**

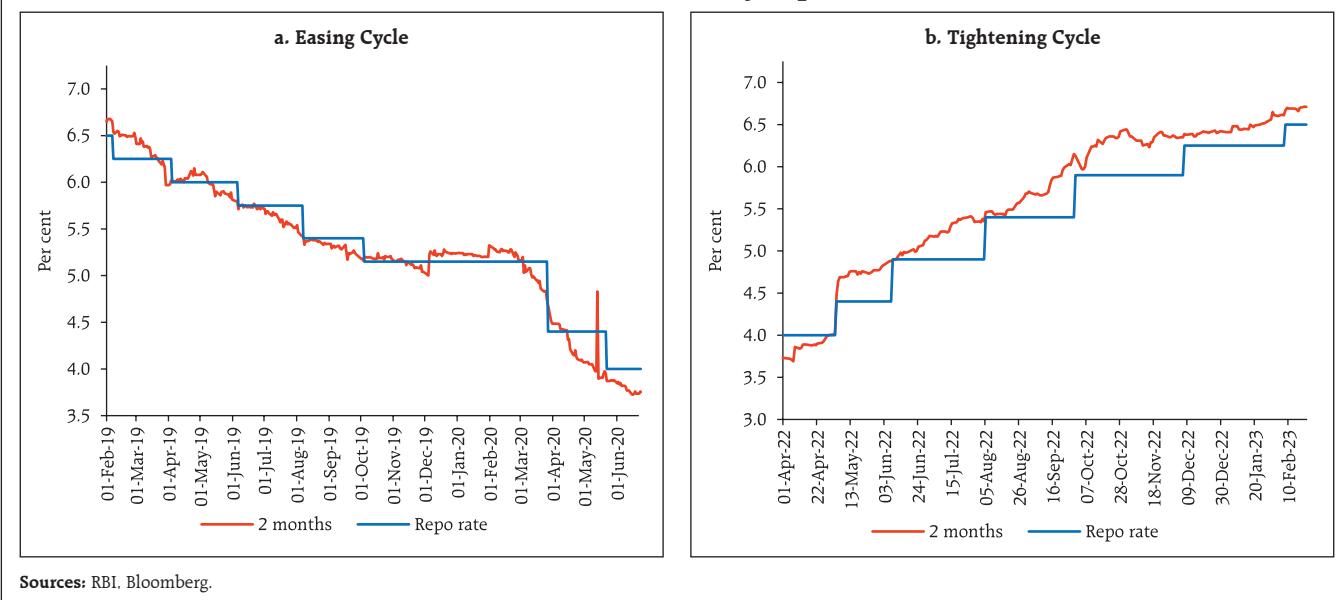


consequently move up (down). This feature of the OIS is useful in identifying the "surprise" component of any policy announcement that can affect money market rates.

In the context of extracting market expectations, the positioning in the OIS market is based on expectations about the future direction of policy interest rates since overnight MIBOR is traded based on the inter-bank call money rate – the operating target of monetary policy. For instance, market participants expecting an increase in interest rate may choose an OIS contract where they pay the fixed rate and receive the actual (floating) rate over the period of the swap. In this sense, the OIS rates can be used to decipher market expectations of monetary policy. As mentioned before, the liquidity premia and counterparty risks are

minimal in an OIS contract; therefore, if the excess return, i.e., the difference between the fixed and the floating leg is, on an average, zero, then the OIS can provide a robust measure of investors' expectations of future overnight interest rates over the horizon of the contract.

The OIS rates start moderating (firming up) towards the expected policy rate over the tenure of the contract. For instance, the 2-month OIS rate – tenor similar to the frequency of the monetary policy cycle – gradually eases over the ensuing two months if the market expects a reduction in the policy repo rate in the upcoming monetary policy meeting and vice versa. For India, the 2-month OIS rates seem to capture well the policy easing cycle during February 2019 to May 2020 and the tightening cycle commencing

**Chart 2: OIS and Policy Repo Rate**

Sources: RBI, Bloomberg.

May 2022 (Chart 2). In contrast, OIS rates of longer maturity reflect expectations on the future path of the policy rate (multiple policy cycles) along with the term premia. This is in accordance with the expectation hypothesis of the term structure – interest rates are expected to move in a way that equalises the expected return on short and long-term investment strategies for comparable investment horizons.

#### IV. Empirical Findings

For deriving the market expectations on the next policy rate announcement, as noted earlier, we use the two-month OIS rate as the two-month window contains one and only one policy announcement.<sup>2</sup> Let  $i_{t,t+2}^{OIS}$  denotes the annualised 2-month OIS rate – the swap's fixed interest rate and  $i_{t,t+2}^{FLT}$  be the annualised *ex-post* realised (net) return from the floating leg of the same contract. Following Lloyd (2018, 2021), the floating leg of a 2-month ( $N$  days) OIS contract purchased on day  $t_{1-s}$  is

$$i_{t,t+2}^{FLT} = \left( \left[ \prod_{j=1}^N (1 + \gamma_j f_{lt,j}) \right] - 1 \right) * \left( \frac{365}{N} \right) \quad \dots(1)$$

<sup>2</sup> Excluding the off-cycle policy announcements which were fully unanticipated.

where  $\gamma_j$  is the accrual factor of the form  $\gamma_j = D_j/365$ ;  $f_{lt,j}$  is the realised overnight reference rate; and  $D_j$  is the day count between business days  $t_j$  and  $t_{j+1}$ .<sup>3</sup>

The *ex-post* realised (annualised) excess return ( $r_{x,t,t+2}^{FLT}$ ) on the 2-month OIS contract is

$$r_{x,t,t+2}^{FLT} = i_{t,t+2}^{OIS} - i_{t,t+2}^{FLT} \quad \dots(2)$$

Under the expectations' hypothesis of the term structure of OIS rates, the interest rates on the fixed leg of the contract equals that of the floating leg. This implies that the *ex-post* realised excess return (as in 2) should have zero mean. In the Indian context, the average excess return of the 2-month OIS rate over the period from 2010 to 2023, controlled for episodes of market turmoil (e.g., taper tantrum) yields zero mean, indicating that the 2-month OIS rate can provide a good measure of expected (anticipated) policy rate in the forthcoming meeting by market participants

<sup>3</sup> Even though the horizon is 2-months, the number of days of the contract may vary because of the presence of intermittent non-trading days which may lead to the maturity date being on a non-trading day. The floating leg of the contract is calculated adjusting for these differences. On a week with no public holidays,  $D_j$  is 1 on Monday to Thursday, 3 on Friday, and 0 on Saturday and Sunday. If there are public holidays on weekdays,  $D_j$  is adjusted accordingly.

(RBI, 2023). The changes in the policy rate can be decomposed into

$$\Delta PR = \Delta PR^{exp} + \Delta PR^{sur} \quad \dots(3)$$

where  $\Delta PR$  is the actual change in the policy rate,  $\Delta PR^{sur}$  is the unanticipated change in policy rate derived from excess return<sup>4</sup> and  $\Delta PR^{exp}$  is the anticipated component of policy.<sup>5</sup> Based on the above methodology, the excess return is tabulated for all monetary policy announcements since October 2016 – the first Monetary Policy Committee (MPC) meeting – and up to the financial year 2022-23 (Table 1).

Only five out of the 40 policy announcements during this period surprised<sup>6</sup> the market, *viz.*, (i) October 5, 2018; (ii) March 27, 2020; (iii) February 10, 2022; (iv) May 4, 2022; and (v) September 30, 2022. In the October 2018 policy, the MPC kept the policy rate unchanged contrary to market expectations of a rate hike. There was an element of "surprise" in the MPC's decision of March 27, 2020 after the outbreak of the COVID-19 pandemic. Given the world-wide turmoil and spike in uncertainty, a significant reduction in the policy rate was widely anticipated by the market but it was surprised by a larger reduction<sup>7</sup> – the surprise being about 25 bps.

In most of the subsequent policy announcements, market expectations were broadly in sync with policy decisions. While the RBI kept the policy rate unchanged in February 2022 in contrast to some expectation of a

**Table 1: Average Excess Return**  
Basis points (bps)

| Policy Date    | $\Delta$ Policy Rate | Excess Return | Policy Date    | $\Delta$ Policy Rate | Excess Return |
|----------------|----------------------|---------------|----------------|----------------------|---------------|
| <b>2016-17</b> |                      |               | <b>2020-21</b> |                      |               |
| August 09      | 0                    | -9            | March 27*      | -75                  | 24            |
| October 04     | -25                  | 10            | May 22         | -40                  | 0             |
| December 07    | 0                    | -7            | August 06      | 0                    | -7            |
| February 08    | 0                    | 1             | October 09     | 0                    | 12            |
| <b>2017-18</b> |                      |               | December 04    | 0                    | 8             |
| April 06       | 0                    | 7             | February 05    | 0                    | 4             |
| June 07        | 0                    | -2            | <b>2021-22</b> |                      |               |
| August 02      | -25                  | 6             | April 07       | 0                    | 3             |
| October 04     | 0                    | 2             | June 04        | 0                    | 5             |
| December 06    | 0                    | 2             | August 06      | 0                    | 6             |
| February 07    | 0                    | 5             | October 08     | 0                    | 4             |
| <b>2018-19</b> |                      |               | December 08    | 0                    | 7             |
| April 05       | 0                    | 4             | February 10    | 0                    | 17            |
| June 06        | 25                   | -3            | <b>2022-23</b> |                      |               |
| August 01      | 25                   | -5            | April 08**     | 0                    | 0             |
| October 05     | 0                    | 15            | May 04         | 40                   | -40           |
| December 05    | 0                    | 5             | June 08        | 50                   | 2             |
| February 07    | -25                  | 8             | August 05      | 50                   | -1            |
| <b>2019-20</b> |                      |               | September 30   | 50                   | -15           |
| April 04       | -25                  | -1            | December 07    | 35                   | 12            |
| June 06        | -25                  | 0             | February 08    | 25                   | 0             |
| August 07      | -35                  | 1             |                |                      |               |
| October 04     | -25                  | -6            |                |                      |               |
| December 05    | 0                    | -10           |                |                      |               |
| February 06    | 0                    | 5             |                |                      |               |

**Notes:** 1. \*: There was an additional 15 bps reduction in the reverse repo rate making the LAF corridor asymmetric.

2. \*\*: Corridor width was restored by introducing the Standing Deposit Facility (SDF) at 25 bps below the policy repo rate.

**Sources:** RBI, and Authors' estimates.

rate hike, the off-cycle policy hike of 40 bps in May 2022 took the market by surprise as evident from the negative excess return of 40 bps. While the next two policies (June and August 2022) were on expected lines, the September 2022 MPC decision entailed a surprise element of 15 bps as the market had priced in a hike of 35 bps as against the actual increase of 50 bps. The February 2023 rate hike of 25 bps, however, was fully anticipated by the market. This analysis suggests that the Reserve Bank's communication has been effective in anchoring market expectations. Supporting the above findings, a recent study found that innovation in monetary policy communication

<sup>4</sup> Excess return is positive when 2-month OIS rate is higher than its floating leg and vice versa. Hence, a positive excess return is equivalent to a negative policy surprise and vice versa.

<sup>5</sup> This decomposition is based on *ex-post* information on overnight reference rates. This is under the assumption that any change in the overnight reference rate is fully attributable to monetary policy and liquidity operations.

<sup>6</sup> Excess return measures the unanticipated (surprise) component of policy rate changes. Large absolute value of excess return indicates that market participants could not fully anticipate the magnitude of policy rate changes.

<sup>7</sup> Policy rate was reduced by 75 bps along with an additional decline of 15 bps in the reverse repo which widened the floor of the liquidity adjustment facility (LAF) corridor.

by the Reserve Bank since the implementation of the flexible inflation targeting (FIT) framework, particularly in the post-COVID period, has increased the predictability of monetary policy in India (Ahmed et al., 2022).

Having estimated the unanticipated changes in policy actions from excess returns, we next evaluate their instantaneous impact on long-term money and bond market rates. For this purpose, we first look at select policy announcement days that had a surprise

element (the five instances mentioned earlier) along with those policy days in which rate changes were announced during the last three years (Table 2).

Table 2 suggests that changes in longer-term rates have moved broadly in tandem with the changes in excess return. There were, however, some policy days in which other measures were announced simultaneously along with the policy rate, especially in the aftermath of the COVID-19 pandemic. In the wake of these developments, a perfect identification

**Table 2: Changes in Interest Rates across Market Segments and Excess Return in Select Episodes (bps)**

| Policy Announcement Days | Change in Repo Rate | Excess Return ^ | Government Securities (G-sec) |      |       | AAA Corporate Bonds (CBs) |      |       | Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------|---------------------|-----------------|-------------------------------|------|-------|---------------------------|------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                     |                 | 3-Yr                          | 5-Yr | 10-Yr | 3-Yr                      | 5-Yr | 10-Yr |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| October 5, 2018          | 0                   | 15              | -18                           | -8   | -11   | -17                       | -16  | -12   | No change in policy rate. Excess return was 15 bps - there was some expectation of an increase in overnight rates. The G-sec and CB rates declined by 8-18 basis points.                                                                                                                                                                                                                                                                                                                                                        |
| March 27, 2020           | -75                 | 24              | -6                            | 12   | -1    | -26                       | -22  | -7    | Policy rate was reduced by 75 bps along with an additional decline of 15 bps on the reverse repo rate (floor of corridor). Apart from these, host of measures were announced: Targeted Long Term Repo Operations (TLTROs), Cash Reserve Ratio (CRR) reduced by 100 bps, banks' limit for borrowing overnight under the MSF raised to 3 per cent of NDTL from 2 per cent. Excess return was 24 bps – the decline in overnight rates was higher than expected. The G-sec and CB rates declined in the range of 1-25 basis points. |
| May 22, 2020             | -40                 | 0               | -6                            | 0    | 12    | -5                        | -7   | -3    | Policy rate cut by 40 bps. Excess return was 0 bps - the decline in policy rate was in line with market expectations. Moderate changes in long term rates across G-sec and CBs.                                                                                                                                                                                                                                                                                                                                                 |
| February 10, 2022        | 0                   | 17              | -2                            | -7   | -8    | -15                       | -16  | -8    | Policy rate unchanged. Excess return was 17 bps - there was some expectation of an increase in overnight rates. The G-sec and CB rates declined by 2-16 basis points.                                                                                                                                                                                                                                                                                                                                                           |
| May 4, 2022              | 40                  | -40             | 9                             | 29   | 24    | 26                        | 29   | 32    | Policy rate increased by 40 bps. Excess return was (-) 40 bps - the increase in policy rate completely surprised the market. The G-sec and CB rates increased by 9-29 basis points.                                                                                                                                                                                                                                                                                                                                             |
| June 8, 2022             | 50                  | 0               | -2                            | 3    | -2    | -10                       | -8   | -2    | Policy rate increased by 50 bps. Excess return was 0 bps - rate hike in sync with market expectations. The G-sec and CB rates changed only by 2-10 bps.                                                                                                                                                                                                                                                                                                                                                                         |
| September 30, 2022       | 50                  | -15             | -6                            | 1    | 5     | -8                        | 2    | 7     | Policy rate increased by 50 bps. Excess return was (-) 15 bps – increase in policy rate was largely anticipated although 15 bps higher than market expectations. Long term rates across G-sec and CBs showed mixed response.                                                                                                                                                                                                                                                                                                    |
| December 7, 2022         | 35                  | 12              | 0                             | 5    | 4     | 4                         | 3    | 2     | Policy rate increased by 25 bps. Excess return was 12 bps – policy rate increase was somewhat anticipated but 12 bps lower than market expectations. Long term rates across G-sec and CB markets mostly remained unchanged.                                                                                                                                                                                                                                                                                                     |
| February 8, 2023         | 25                  | 0               | 5                             | 7    | 2     | 8                         | 6    | 3     | Policy rate increased by 25 bps. Excess return was 0 bps - the increase in policy rate was completely anticipated. The G-sec and CB rates changed by only 2-8 bps.                                                                                                                                                                                                                                                                                                                                                              |

<sup>^</sup> Excess return is positive when 2-month OIS rate is higher than its floating leg and vice versa. Hence, a positive excess return is equivalent to a negative policy surprise and vice versa.

**Sources:** RBI; and Authors' estimates.

of the impact of a monetary policy surprise on long term interest rates might not be possible as the impact of several other measures would get reflected in the markets' reaction. In most instances, however, monetary policy related announcement was the sole event on that day; therefore, we adopted an ES methodology in a regression framework in conformity with the recent literature (Ahmed *et al.*, 2022; Bauer and Swenson, 2023).

To assess the impact, changes in interest rate/yields on these instruments on all the monetary policy announcement days during August 2016 to February 2023 are regressed (i) on changes in the policy rate (Model 1) and (ii) on the anticipated and surprise components (Model 2). While most studies based on tick-by-tick data of the US and the euro area use a small window (30-minutes) around the policy announcements to capture the immediate announcement effect (Altavilla *et al.*, 2019; Bauer and Swenson, 2023), our analysis is conducted on daily data due to unavailability of intra-day data for some indicators. In line with the recent literature, it is also assumed that the monetary policy announcement is the major event on the policy days having the most pronounced impact on the market (Kapp and Kristiansen, 2021).

Since most of the deals in the call money market are traded in the morning hours before the policy announcement and does not fully reflect repo rate changes on the policy day, the changes in the overnight rate – the weighted average call rate (WACR) – is computed as the difference between the call rate a day after the policy announcement ( $t+1$ ) and a day prior to the announcement ( $t-1$ ). Given intra-day data availability on government securities, the changes in yields are computed as the difference between the opening and closing rates on the policy announcement day to exclude the impact of overnight changes in global factors *viz.*, US treasury yields, and crude oil prices, which have a significant bearing on

**Table 3: Monetary Policy Announcement Impact on Market Rates**

| Variables                   | Model 1         | Model 2 <sup>8</sup> |                   |
|-----------------------------|-----------------|----------------------|-------------------|
|                             | $\Delta$ Policy | $\Delta$ Anticipated | $\Delta$ Surprise |
| <b>I. Money Market</b>      |                 |                      |                   |
| $\Delta$ WACR               | 0.939***        | 0.933***             | 0.967***          |
| $\Delta$ T-bill 3M          | 0.456***        | 0.404***             | 0.551**           |
| <b>II. G-sec</b>            |                 |                      |                   |
| $\Delta$ G-sec (3-Yr)       | 0.114*          | 0.065                | 0.375**           |
| $\Delta$ G-sec (5-Yr)       | 0.169**         | 0.117                | 0.333*            |
| $\Delta$ G-sec(10-Yr)       | 0.049           | -0.007               | 0.484**           |
| <b>III. Corporate Bonds</b> |                 |                      |                   |
| $\Delta$ AAA CB (3-Yr)      | 0.146*          | 0.08                 | 0.629***          |
| $\Delta$ AAA CB (5-Yr)      | 0.155*          | 0.079                | 0.703***          |
| $\Delta$ AAA CB (10-Yr)     | 0.113           | 0.076                | 0.527**           |

**Note:** \*\*\*, \*\* and \* represent significance at 1 per cent, 5 per cent and 10 per cent, respectively.

**Sources:** CCIL; Bloomberg; and Authors' estimates.

G-sec yields. As per available data, changes in T-bill and corporate bond yields are computed on close-close basis *i.e.*, difference between rate prevailing at the end of the monetary policy day ( $t$ ) and the closing rate of the previous working day ( $t-1$ ). Accordingly, the estimated impact of changes in the policy rate – along with its anticipated and surprise components – on changes in interest rates of various instruments and maturities across the money and bond markets is presented in Table 3.

As expected, the instantaneous impact of policy rate changes progressively moderates across the term structure. As expected, the extent of instantaneous pass-through is almost unity in the case of the WACR but is more subdued for longer maturities. In the overnight money market, the policy rate changes, irrespective of whether these are anticipated or not, are almost fully passed on immediately. The anticipated policy changes have no significant instantaneous impact on G-sec and corporate bond yields as market participants

<sup>8</sup> Separate regressions run with anticipated and surprise components as independent variables are found to have similar coefficients validating the robustness of the findings of Model 2.

already incorporate them in their expectations. In these segments, however, policy surprises are found to have a strong and significant contemporaneous impact across maturities – more so in corporate bonds than G-sec – as market participants immediately adjust their expectations after the surprise announcement. The findings are consistent with some recent studies that suggests policy surprises having a positive and statistically significant impact on G-sec and corporate bond yields in the Indian context (Das *et al.*, 2020; Ahmed *et al.*, 2022).

#### **IV. Conclusion**

This paper adopts Lloyd's methodology for extracting market expectations on RBI's next policy announcement and identifying the surprise element of policy changes from the 2-month OIS rate. Since the formal adoption of FIT (October 2016) and up to 2022-23, policy surprises have been rare and under exceptional circumstances, suggesting that the RBI's communication have been effective in guiding market expectations. The empirical analysis indicates that policy rate changes have an instantaneous and full impact at the shorter end of the term structure but are muted at the longer end. The anticipated changes in policy rate are found to have no immediate impact on longer term interest rates as those are already factored in by the markets. In contrast, monetary policy surprises have a positive and significant immediate impact across market segments and maturities. Therefore, major central banks abjure from surprising the market through effective communication strategies in normal times, large exogenous shocks can require central banks to take proactive monetary and liquidity actions to maintain domestic macroeconomic stability which can have an element of surprise for the market. As such, policy surprises are used sparingly under exceptional circumstances. Overall, our findings suggest the potency of the 2-month OIS rate in capturing near term market expectations on the policy rate.

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# **Transitioning India's Power Sector: Repurposing of Coal-Fired Power Plants**

by Brij Raj<sup>^</sup> and Amit Kumar<sup>^</sup>

*A timely transition away from coal-fired power plants is crucial for India's transition towards a green economy. However, considering the current energy mix and the projected increase in power demand, it is expected that they will continue to play a critical role for the country in the coming decades. As climate policy becomes increasingly stringent, a significant proportion of coal-based assets are likely to lose their value, resulting in 'stranded' assets, which could affect banks and financial institutions (FIs) having direct and indirect exposures to the sector. The article examines the aspect of repurposing of coal-fired power plants and suggests a calibrated approach for a gradual and non-disruptive transition away from lending by banks and FIs to the coal and other fossil-based sectors while ensuring a just and equitable climate transition.*

## **Introduction**

The power sector in India is the largest source of its greenhouse gas (GHG) emissions, with the majority of these emissions emanating from coal-fired power plants (Manchanda, 2021). Although they remain an important source for the country's energy mix, the Government and other stakeholders are actively working to decarbonise the power sector. Additionally, coal is the primary fuel used to produce steel and cement. India also has a considerable line-up of sanctioned coal-fired power projects, with 28.2 GW of coal-based power capacity currently under various phases of construction (Energy News Monitor, 2023). Availability of cheaper alternatives, particularly solar power, is impacting the price dynamics of the sector,

even as the installed capacity in renewables is not yet sufficient to meet power demand. Going forward, this may put power sector companies under financial strain and limit their resource-raising capabilities from banks, FIs and capital markets. Although lending to and investing in green assets is a crucial part of climate change mitigation and transition to a net-zero emissions economy, the shift needs to be gradual and non-disruptive, particularly for a large and developing economy like India. This article examines the recent trends in the power sector in India, the challenges related to the financing of coal-based power projects and offers suggestions for a gradual and non-disruptive transition and phase down of Coal-Fired Power Plants while taking India's developmental and sustainability needs into account.

## **II. Power Sector in India**

### **II.1 Trends in Power Sector in India**

Over the past twenty years, electricity consumption in India has almost tripled, outpacing the overall energy demand growth. This surge is largely attributed to urbanisation and increasing household income (Ministry of Power, 2020). The increased deployment of electrical motors and a variety of machinery in the industrial sector has also been a contributing factor to the rise in electricity consumption. The power sector in India is witnessing a major overhaul in the wake of the challenges caused by the Covid-19 pandemic, the ongoing Russia-Ukraine conflict, deteriorating global financial conditions and concerns about climate change. The pandemic led to a temporary decline in power demand in 2020-21, but consumption quickly recovered to surpass 2019-2020 levels in 2021-22. The pandemic has underscored the urgent need for accelerated technological advancements in the power sector. Implementing smart technologies, such as an evolved grid system, smart metering, and distribution load management, has become essential for a successful transformation of the sector to adapt to the changing landscape. These advancements are crucial for ensuring energy efficiency, resilience, and

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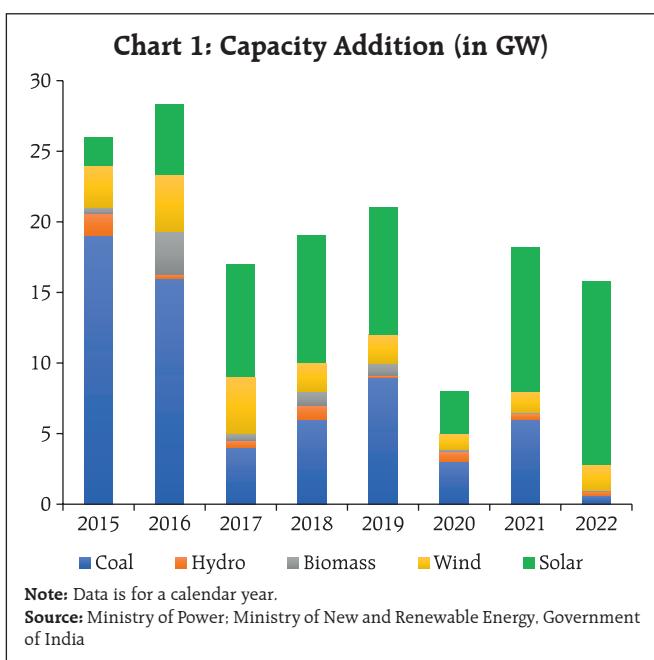
The guidance and feedback from Shri Sunil Nair, Chief General Manager, DoR is gratefully acknowledged. The views expressed are those of the authors and not of the organisation to which they belong.

sustainability in the face of evolving challenges and demands.

## II.2 Energy Mix

Currently, 55 per cent of India's energy needs are met by coal (Ministry of Coal, 2023). Coal remains the largest fuel in the country's energy mix, although oil consumption has risen rapidly due to increased vehicle ownership and use of road transport. The country's power generation capacity grew by 75 per cent between 2011-12 and 2022-23, with renewables<sup>1</sup> accounting for 41 per cent of the total capacity in 2022-23, up from 32 per cent in 2011-12.

Annual coal capacity additions have dropped dramatically from 19GW in 2015 to only 0.6GW in 2022, while simultaneously, annual renewable capacity additions have grown during the period (Ministry of Power, 2022). Since 2017, annual additions to renewable capacity have exceeded those from coal power [Chart 1].



<sup>1</sup> Solar power capacity has expanded the fastest reaching 67GW in March 2023 (16.1 per cent share in total capacity) from less than 1GW in 2011-12 (0.5 per cent share). The non-fossil fuel power generation capacity stands at 179GW as on March 31, 2023.

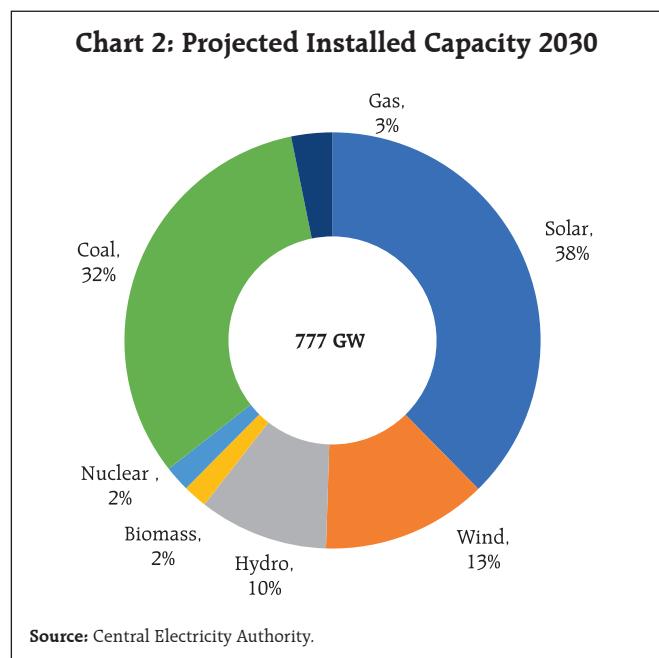
## II.3 Projections for the upcoming decade

India's announcements at the COP26 summit, which took place in Glasgow in November 2021, are expected to shape the future pathways of the country's power sector in the coming decades: (PIB, 2022):

- **Capacity:** Reach 500GW non-fossil energy capacity by 2030<sup>2</sup>
- **Generation:** 50 per cent of its energy requirements should be met from renewable energy by 2030
- **Emissions:** Reduction of total projected carbon emissions by one billion tonnes from November 2021 to 2030
- **Carbon Intensity:** Reduction of carbon intensity of the economy by 45 per cent by 2030, over 2005 levels
- **Net Zero:** Achieving the target of net zero emissions by 2070

State Governments have also set sub-national targets in addition to targets by the Government of India. For instance, in 2019, Gujarat announced that it would no longer invest in new coal-fired power capacity (Ramanathan, 2019). In December 2022, Tamil Nadu took a decision to halt additions to its existing coal power capacity. Concurrently, the Delhi Government approved a new solar policy with the goal of fulfilling 25 per cent of the national capital's annual electricity demand through solar power by 2025. In April 2023, the Central Electricity Authority (CEA) modelled the 2030 optimal generation capacity mix for the country and as per their assessment, India would need 293GW of solar energy and 100GW of wind power respectively by 2030. Around two-thirds of the installed capacity would come from zero-carbon sources, while 252GW of coal and 25GW of gas plants would continue to be in the mix [Chart 2].

<sup>2</sup> As on March 31, 2023, India's non-fossil based power capacity stands at 179 GW.



#### II.4 Coal-Fired Power Plants and the Crucial Transitioning

Coal-fired power plants have played a vital role in meeting India's surging energy demands, making significant contributions to trade, industrialisation, and electrification. In January 2023, the CEA recommended that all power utilities refrain from decommissioning any thermal power generation units until 2030 and ensure their operational availability by undertaking necessary renovation and modernisation.

Nevertheless, the extensive use of coal has led to adverse climate and environmental consequences, impacting air quality, land, water, and agriculture, particularly in regions reliant on coal. To transition away from a carbon-intensive economy, careful consideration of benefits, downsides, and distribution across different scales and timeframes is necessary.

Despite the urgency to accelerate the shift from coal, several barriers stand in the way. Various socio-economic elements present obstacles, including the availability of electricity, the royalties from coal mining, and the payments made into the District Mineral

Foundation (DMF) funds across different states. The technological issues involved in phasing out coal-fired power stations, limited grid integration for renewable energy, storage and smart grid challenges, and local manufacturing and sourcing constraints are also required to be addressed. Factors like black-market activities, subsidies, and Power Purchase Agreements (PPAs) with DISCOMs can also act as impediment to the transition (Climate Investment Funds, 2021).

There are several drivers pushing for a faster transition. The decreasing cost of renewables and storage technologies makes them more cost-effective than fossils. India's commitment to reducing emissions intensity requires addressing inefficiencies in coal-based power generation. Moreover, the reluctance of banks and FIs to fund new coal projects due to the risk of insolvency or closure is also driving the transition. Communities dependent on coal, whose livelihoods are tied to coal value chains, face challenges in engaging with cleaner energy efforts due to their economic and energy structures (ADB, 2023). Therefore, a well-managed transition will necessitate extensive consultations at international, national, and local levels to ensure a fair distribution of benefits over time.

#### III. Financing Coal and other Fossil based Sectors - Emerging Issues

##### III.1 Financial risk on account of stranded assets in Coal and other Fossil-based sectors

Banks' exposure to fossil fuel sector consists of both direct exposure - loans and investments in operations and firms associated with extracting, producing, and investing in fossil fuels - and indirect exposure - in firms that have exposure to fossil fuel investments. As climate policy becomes more stringent on the pathway to net zero emissions, a majority of fossil fuel reserves may never be extracted to prevent further exacerbation of global warming. This may render some of these natural resources and

production infrastructure as 'stranded assets'<sup>3</sup> that would never be fully utilised. In order to maintain global temperature rise within 1.5 degrees Celsius, it is estimated that 60 per cent of the world's oil and gas reserves and 90 per cent of the existing global coal reserves should be left unutilised (Welsby et al, 2021). The resultant devaluation of assets that become unusable could have financial repercussions for investors and this may also influence banks and FIs that have provided financing to these companies or have other forms of indirect exposure.

Investors in emerging economies such as India face a significantly higher risk of incurring financial losses from stranded assets relative to investors in developed economies. This disparity arises from a range of issues, such as the relatively recent establishment of their energy sectors, the high capital costs of renewables, and limited diversification. The increased risk in India is attributed to the relatively young profile of its existing coal power plants, with an average age of just 13 years. In contrast, the coal power infrastructure in developed countries, such as the US, Europe, Russia, Japan, and South Korea, is considerably older with average ages ranging from 21 to 41 years<sup>4</sup>.

The introduction of the Insolvency and Bankruptcy Code in 2016 and the subsequent reporting requirements<sup>5</sup> by the Reserve Bank of India, has brought to light significant stress in the coal mining and energy sectors in India. A 2019 study conducted by The International Institute for Sustainable Development has revealed that Chhattisgarh, Odisha, and Jharkhand are confronting the most substantial

impacts due to their high proportions of stressed assets - amounting to 58 per cent, 55 per cent, and 27 per cent of their respective state capacities (International Institute for Sustainable Development, 2019). This condition places these assets at an elevated *risk of becoming stranded*<sup>6</sup>, signalling a significant vulnerability to economic losses resulting from asset devaluation as the country navigates the shift toward sustainable practices. On an encouraging note, a study by the Institute for Energy Economics and Financial Analysis (IEEFA) indicates that India has only eight remaining stranded coal-based power plants as of April 2023, and several of the initially identified stressed projects having been resolved or being on track for resolution.

Globally, it is estimated that shutting down inefficient coal power plants alone could contribute significantly to reducing emissions in the power sector. In the context of India, the impact of closing inefficient coal power plants is expected to be even more pronounced (CIF, 2021).

According to a study by the Oxford University, the cost of loans related to coal power plants is on the rise reflecting changes in real and perceived energy transition risks by lenders and investors. The *loan spread*<sup>7</sup> for coal mines and coal-fired power plants rose 38 per cent and 54 per cent respectively between 2010 and 2020, as the global economies look for more sustainable investment (Zhou et al, 2021). Banks and FIs in India should, therefore, be able to properly assess and price this risk when lending to fossil fuel firms and gradually redirecting credit away from them is crucial to reaching India's climate goals.

<sup>3</sup> Stranded assets are investments that risk devaluation, unanticipated or premature write-downs and conversion to liabilities due to unexpected changes in market conditions, regulatory changes, shifts in consumer preferences and transitions in technology.

<sup>4</sup> <https://www.iea.org/data-and-statistics/charts/average-age-of-existing-coal-power-plants-in-selected-regions-in-2020>

<sup>5</sup> Master Circular - Prudential norms on Income Recognition, Asset Classification and Provisioning pertaining to Advances

<sup>6</sup> The presence of stress in assets often acts as a precursor to their potential stranding, particularly when the stress arises from systemic issues that reflect larger shifts in the industry or economy, such as the push towards clean energy in response to climate change policies.

<sup>7</sup> "loan spread" refers to the increasing premium that lenders charge for loans to coal mines and coal-fired power plants, reflecting a higher perceived risk as economies shift towards sustainable investments.

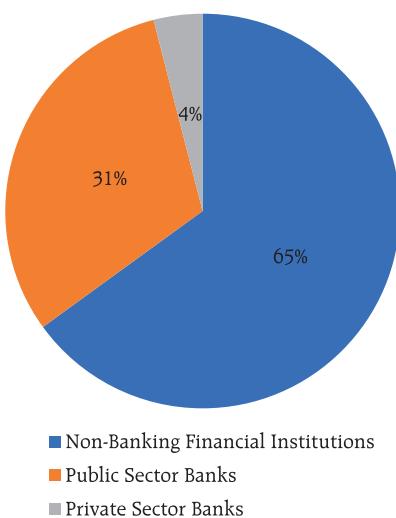
### *III.2 Changes in policy of FIs on financing Coal and other Fossil Sectors*

The recent reduction in investment for thermal power plants in India reflects both the evolving status of coal and the increasing dominance of renewable energy sources within the country's energy matrix. This trend also signifies a heightened sense of risk aversion among banks. According to a recent news report<sup>8</sup>, of the 87 mining sites auctioned off to private entities over the past three years under India's 'Unleashing Coal' initiative - a part of the country's plan to become energy self-sufficient - only four mines have commenced operations. The rest are yet to secure the necessary financial backing to become operational. Globally, this cautious approach by banks extends to reluctance in funding the \$7 billion required for emissions control technology across 120 GW of coal power plants, which is necessary to meet stricter environmental standards (International Energy Agency, 2021).

### *III.3 Financing to Coal-Fired Power Projects in India - Status*

Majority of debt financing to Coal and other Fossil based sectors is being provided by domestic commercial banks and non-banking financial institutions, like the Power Finance Corporation (PFC), Rural Electrification Corporation (REC), etc. As per a December 2022 report by the Centre for Financial Accountability, loans amounting to ₹7.62 lakh crore have been provided by 84 lenders, both domestic and international, to 140 thermal power plants (TPPs) in India (out of which 122 were commissioned and 18 were in the construction phase), with a capacity of 1,000 MW and above between 2005-2022. During this period, the 122 commissioned plants contribute to nearly 196 GW of the 204 GW total commissioned capacity. Out of the

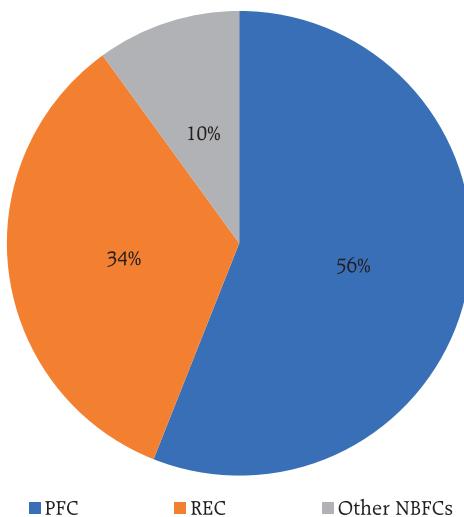
**Chart 3: Financing of Coal-fired Thermal Power Plants**



Source: Centre for Financial Accountability.

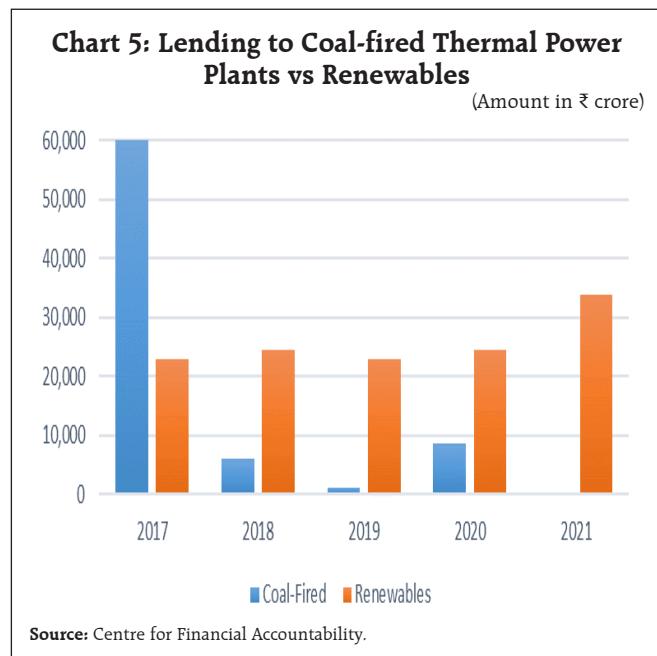
₹7.12 lakh crore loans sanctioned domestically, 96 per cent is sourced from banks with the remaining being sourced from non-banking financial companies (NBFCs) [Chart 3]. Amongst NBFCs, PFC and REC account for 90 per cent of the loans given to the coal-fired thermal power plants [Chart 4]

**Chart 4: Financing of Coal-fired Thermal Power Plants by NBFCs**



Source: Centre for Financial Accountability.

<sup>8</sup> <https://economictimes.indiatimes.com/industry/indl-goods/svs/metalsmining/indiass-coal-mining-bet-stumbles-as-wary-banks-weigh-rising-risks/articleshow/101974095.cms>



While lending to new coal power projects has decreased in the last five years, there has been a gradual increase in lending to new power projects based on renewables [Chart 5].

PFC and REC have emerged as the financiers of last resort for coal power projects in India in recent years, as financiers have increasingly avoided funding coal power projects. In 2021, no new coal power projects received any project finance, while one coal power project was granted a standby credit facility, namely 1.32 GW Buxar thermal power plant in Bihar. It received a total of ₹1,024 crore in loans from three institutions, viz., State Bank of India, Canara Bank and India Infrastructure Finance Company Ltd. In 2020, it was the only coal plant to receive project financing, wherein it secured loans from PFC and REC, with total project cost amounting to ₹8,448 crore (Centre for Financial Accountability, 2022).

#### III.4 Investment with conditions

The decision to not take new exposure to coal exploration activities is a key development for some banks in India. The action also marks a significant change in direction for some banks in India and is

in line with many banks and FIs globally which are moving away from financing coal-related projects over carbon emission concerns such as Sumitomo Mitsui Financial Group of Japan, U.S based JP Morgan Chase, etc. The largest banks in Japan have committed to policies that exclude financing new coal-fired power projects. Japan International Cooperation Agency (JICA) have integrated no-coal commitments into their lending and bond issuance guidelines, in response to pressure from environmental activists and institutional investors concerned about climate change. If banks in India follow suit, then it would significantly affect the flow of credit to coal, oil and gas related businesses, etc., which are very critical for a developing economy like India.

#### III.5 ESG adoption by global banks and impact on financing of coal and other Fossil Sectors

The consideration of Environmental, Social, and Governance (ESG) factors is becoming a cornerstone in the banking sector, significantly impacting the decision-making processes of various stakeholders. A recent analysis of a cohort comprising 60 of the world's largest banks that provide financial backing to major fossil fuel companies revealed a notable trend: banks with reduced financing activities in the fossil fuel sector—both in terms of lending and investment—were less likely to be categorised in the high-risk ESG group. Instead, they were more likely to be classified within the low-to-medium-risk ESG brackets (Bernardelli et al, 2022). This shift has profound implications for the banks and FIs involved, affecting not only their cost of capital but also the duration for which they can secure external financing and ultimately, their market valuation. Thus, as ESG adoption becomes more common, financing fossil fuels will get even more difficult.

#### III.6 Financial Stability and Macroeconomic Concerns

Stranded Assets in coal-fired power plants may represent a systemic threat to the financial stability,

especially for developing economies. As per a recent report by the World Bank, the majority of such assets, particularly middle income economies (MICs), is under the control of governmental entities at both the national and local levels. Out of the \$555 billion of public funds in these coal plants globally, an overwhelming majority (99 per cent) resides within MICs. Moreover, as of early 2020, there are proposals for more than 400 GW of new coal-fired power capacity worldwide. Commissioning these facilities could result in stranded assets valued at approximately half a trillion dollars if efforts to cap the global temperature rise at 1.5°C are successful. (Edwards, et al. 2022).

Incurring costs from decommissioning coal power plants earlier than planned can hamper the financial health for the owners of these assets, implying that both investors and taxpayers will have to bear the financial burden of this loss (World Bank, 2023). Many FIs and investors may have already committed significant capital to these projects, and their inability to diversify their portfolios due to coal's uncertain financial future can lead to concentration risk. In the case of coal, the concentrated exposure could lead to significant losses. In addition, transitioning away from the coal sector also entails macroeconomic costs like impact on employment and livelihoods of the communities dependent on the coal ecosystem.

#### **IV. Repurposing of Coal-Fired Power Plants**

According to a recent World Bank report, to remain on course with a 1.5°C climate scenario, it will be necessary to decommission more than 100 GW of the global coal-fired capacity each year over the next 20 years — effectively shutting down one coal unit daily until 2040. This target is set against the backdrop of the global coal fleet's current capacity of 2,153 GW. Despite the typical 40-year operational lifespan of a coal plant, around 60 per cent of the existing fleet has not yet reached the halfway mark, with many units being under 20 years old (World Bank, 2023). The

challenge in transitioning from coal to green energy not only involves scaling up zero-emission solutions but also expediting the phase-out of coal. While more countries commit to coal phase-out, not all of them fully align with the Net Zero Emissions by 2050 Scenario provided by the International Energy Agency. For instance, at COP26, over 40 economies from both developed and developing countries pledged to phase out coal. However, the phase-out ambition levels in many instances raise questions as some pledges mainly apply to plants near the end of their lifespan or already idle for a long time. The challenge lies in aligning the ambition of the 1.5°C objective with an actionable strategy to fast-track the decommissioning and retirement of plants that still have a long operational lifetime and remain economically competitive, possibly due to long-term contracts.

Innovative climate finance tools, known as coal transition mechanisms (CTMs), are paving the way for a faster shift from coal to clean energy. These mechanisms streamline the move away from coal by offering structured financial solutions, such as securitisation, and robust support systems for those impacted by the energy transition. CTMs aim to balance the divestment from coal with sustainable investment, support for impacted communities, and risk management, ensuring an equitable transition towards a low-carbon economy.

CTMs have gained traction in the key coal markets, including bond securitisation in the US, and programs spearheaded by Multilateral Development Bank, such as Energy Transition Mechanism (ETM) by the Asian Development Bank and Accelerating Coal Transition (ACT) Investment Program by the Climate Investment Fund. Extensive coal transition plans are also taking shape with Just Energy Transition Partnerships in countries like South Africa, Indonesia, and Vietnam. Despite this progress, CTMs remain in nascent stages of development, and establishing

trust among banks, FIs, regulatory bodies and other stakeholders is imperative for their broader adoption and effectiveness.

The repurposing of coal power plants, regardless of ownership, requires additional costs - for decarbonising, decommissioning, retirement, and ensuring a just transition - to the cost of scaling up clean energy to replace coal-fired generation. These expenses can be substantial and need careful management of the complex dynamics surrounding the coal sector in India as discussed in Section II.4.

Refinancing of the existing high-cost debt can act as a strong imperative for the premature decommissioning of fossil fuel assets. There is potential to set up financial mechanisms that refinance the current debt on these energy-generating assets, hastening the period for the recovery of invested capital. For assets under private ownership, such refinancing schemes could lessen the need for hefty severance pay-outs from purchasers to the developers of these fossil fuel assets. Nevertheless, assets held by the public sector may gain from debt refinancing, which would lower their debt servicing obligations and enable an expedited cessation of operations (World Bank, 2023).

Adopting sustainability-linked green bonds (SLGBs) could offer an effective financial mechanism to convert technically-feasible coal-fired power plants to renewable energy sources. This arrangement may be suitable for companies that are able to shut down coal plants ahead of schedule, are dedicated to reducing carbon emissions, and have robust financial health with the ability to tap into debt capital markets. A standard sustainability-linked bond depends on specific key performance indicators (KPIs) connected to the environmental, social, and governance goals determined by the issuer. If these KPIs are not met, the issuer may incur financial consequences, but meeting them can lead to lower interest rates on

future coupon payments. As per a study by IEEFA, as on February 27, 2023, the global SLB market has grown to a substantial US\$244 billion since its first issuance in 2019. However, concerns about greenwashing have arisen as the proceeds from plain vanilla SLBs may fund non-green projects. To address this, IEEFA has proposed an SLGB structure where both the KPIs and the proceeds are specifically tied to designated projects. Under this proposal, a coal power producer would issue an SLGB with three core KPIs:

- Decommissioning coal generation capacity by an ambitious date.
- Establishing renewable energy generation capacity prior to or in parallel with coal decommissioning.
- Implementing a comprehensive reskilling, rehiring, and compensation package to ensure a just transition from coal to renewable energy power plants.

The issuer would be required to allocate the proceeds of the SLGB exclusively to these specified projects, ensuring transparency and preventing any misuse of funds. To promote cost-effective debt for utility companies and motivate early coal plant repurposing, a dual-tranche issuance approach could be employed. The senior tranche would target institutional investors, while the subordinate tranche would attract Multilateral Development Banks (MDBs) and Development Finance Institutions (DFIs). By providing capital at a concessional rate, subordinate bondholders would incentivise early coal plant repurposing.

It should be noted that credit enhancements like guarantees from MDBs or Development DFIs can make SLGBs more affordable. These entities can also provide grants to defray costs associated with reskilling workers, managing the bond issuance, and the crucial tasks of ongoing monitoring and validation necessary to establish a credible SLGB.

A strategy to repurpose the sites and equipment of closed plants for renewable energy, energy storage, or auxiliary services can give them a second life. Funding is generally needed for both the dismantling of old assets and the development of new renewable energy facilities. As per a report by the World Bank, to transition from coal to renewable energy obligations, a range of approaches can be employed. One such method includes refinancing a renewable energy asset under the existing coal power purchase agreement. This could involve bundling the financial obligations for solar power output with the costs associated with the acquisition and decommissioning of the coal facility (World Bank, 2023).

The World Economic Forum (WEF) is leading a task force aimed at Mobilising Investment for Clean Energy in Emerging Economies, in collaboration with the IEA. The task force's primary objectives include evaluating barriers, developing case studies, generating real-world ideas, and implementing solutions to address financing challenges in clean energy within Emerging Economies. The task force has come up with 'bold proposals' to support the acceleration of clean energy investment:

- (i) **Energy Transition Mechanism:** This involves a blended finance mechanism that aligns with a national government's transition plan and Nationally Determined Contributions (NDC) commitment. It allows countries to retire portions of their carbon-intensive power assets over a defined period.
- (ii) **Net Zero Equity:** This proposal introduces a new investment product that channels funds from investors seeking long-term contributions to society rather than immediate returns. Investors, such as foundations, citizens, and governments, can contribute to projects that might not receive funding otherwise, thus de-risking and enabling their implementation.

(iii) **Decommissioning Coal Mapping:** This involves a purpose-built methodology that maps plants at the *national fleet level*<sup>9</sup> and prioritises retirements. It helps frame and sequence decommissioning pathways while providing visibility into required investments.

(iv) **Cost of Capital Observatory:** This effort aims to collect data on estimated and actual costs of capital for clean energy projects. A related study conducted by Imperial College and the IEA highlights that publicly traded renewable companies have outperformed fossil fuel companies, offering higher returns and lower volatility. The renewable portfolio is also less correlated with the broader market.

(v) **Accelerating Corporate Power Purchase Agreements (PPAs):** The proposal seeks to promote direct procurement of renewable power by corporations targeting high levels of renewables consumption.

These proposals hold the potential to catalyse clean energy investment in emerging economies, contributing significantly to the transition towards a more sustainable and greener energy landscape. The task force is actively exploring their viability and applicability to drive positive change and address the financing challenges in the clean energy sector.

However, there is no 1.5°C aligned, science-based classification system currently available to define investments eligible as climate finance under coal transition schemes. The issue of a just transition is also rarely addressed. Mainstreaming climate finance for coal transition necessitates detailed evaluation criteria. The lack of specific, universal criteria and

<sup>9</sup> "National Fleet Level" refers to the collective evaluation of all coal power plants within a country as a unified group for strategic decommissioning planning.

thresholds associated with each activity means that 1.5°C-aligned coal-transition activities will have to be defined independently for each transition process. This increases operational costs as banks and FIs may not have sufficient time and resources to evaluate projects with significant variance or utilise scale to prevent greenwashing claims. To increase the usability of coal transition debt vehicles, establishing credible standards is crucial. Robust criteria are needed to ensure that investments align with a 1.5°C-aligned transition pathway. These criteria should be granular, publicly available, science-based, future-proof, and just and inclusive. Incorporating these criteria will help ensure credibility and avoid greenwashing claims while facilitating the market uptake of coal transition initiatives (MAS, 2023).

## V. Way Forward

### V.1 Importance of calibrated approach by banks and FIs

Despite growth in the renewable sector, coal is expected to remain a significant component of India's energy mix. A transition towards a greener future is critical for the country's sustainable economic growth, and banks and FIs must take a calibrated approach to strategically navigate the shift to renewable energy. They should progressively refine their Environmental, Social, and Governance (ESG) practices, and the move away from financing coal, oil, and gas must be systematic and non-disruptive to ensure these sectors continue to have access to necessary funding.

As per an analysis by the Centre for Science and Environment, by implementing decarbonising strategies<sup>9</sup> for the thermal power sector, GHG emissions can be reduced by up to 22 per cent in comparison to a business-as-usual scenario. Banks and FIs can contribute to decarbonising the sector by assisting the thermal power producers with their

<sup>9</sup> Improve fleet technology and efficiency, renovate and modernise, using a holistic approach to strategically utilise the resources of old units, biomass co-firing and investing in carbon capture and storage (CCS).

transitioning and mitigation goals as also helping them to meet the increasingly stringent environmental norms and emission standards.

### V.2 Roadmap for a gradual and non-disruptive transition from lending to coal and other fossil-based sectors

Realising the goal of establishing 500 GW of non-fossil fuel capacity by 2030 necessitates a comprehensive overhaul of the power sector. This transformation will demand adaptable management of coal-powered facilities, the development of durable grid systems, advancements in battery storage, and the implementation of demand-side response strategies. To promote investment in renewable energy, it is also essential to address associated risks, which include delays in payments to energy producers, challenges in land procurement, and the need for regulatory and contractual certainty. Hence, a roadmap for a gradual and non-disruptive transition from lending to coal and oil and gas sector is very crucial. Some of the notable recent initiatives undertaken by the Government in this regard are as under:

- (i) In a strategic move to bolster the supply-side dynamics of renewable energy and diminish reliance on coal for electricity generation, the Government, in March 2023, instituted a Renewable Generation Obligation (RGO) applicable to new coal-fired thermal power plants. Under this directive, any generating company that commences construction of a coal/lignite-based thermal power station from April 2023 will be required to either establish renewable energy projects amounting to 40 per cent of its coal power capacity by April 2025, or alternatively, secure and provide an equivalent amount of renewable energy. This policy underscores the commitment to a more sustainable and diversified energy mix, encouraging the integration of renewable energy into the national grid. Moreover, a captive coal or lignite-based thermal power

station has been granted exemption from the mandate of the RGO, if it complies with the Renewable Purchase Obligations (RPOs) as stipulated by the Central Government.

- (ii) Flexibility in generation and scheduling of thermal / hydro power stations was provided for in November 2021 through bundling with renewable energy and storage power.
- (iii) While Indian companies have been generating and selling carbon credits, their buyers have been from outside the country. India is working to establish a fully domestic carbon market in which both buyers and sellers are Indian entities. The Energy Conservation (Amendment) Act of 2022 endows the Government of India to set up carbon markets within the country and outline a carbon trading scheme. The Act enables the Government to establish standards for energy consumption, which may include mandating that specified consumers obtain a minimum portion of their energy from non-fossil sources. The Act also aims to expand the reach of the Energy Conservation Building Code to encompass large residential structures, thereby incorporating them into the broader framework of energy conservation efforts.
- (iv) To reduce emissions from Coal based power plants, the Government has promoted Clean Coal Technologies such as Coal Washing Coal gasification and Carbon Capture and Storage (CCS) technologies to help deploy India's vast coal resources without causing air pollution.

### *V.3 Importance of setting science-based targets*

The Science-Based Targets initiative (SBTi) promotes the adoption of scientifically grounded greenhouse gas (GHG) emissions reduction goals among companies to enhance their competitive edge amidst the shift to a low-carbon economy. Companies committing to such targets can have gains in

innovation, diminished regulatory unpredictability, bolstered investor trust, and increased profitability. Within the framework of the SBTi, banks and FIs are mandated to set targets based on emission reductions through direct action within their operations or lending and investment portfolios. These targets ensure a clear pathway towards sustainability, aligning with national and global climate goals. Globally, banks and FIs are increasingly adopting science-based targets. It is vital that the entities regulated by the RBI also consider setting science-based targets for their operations if they have not already done so.

### *V.4 Ensuring a just transition*

Physical manifestations of climate change, such as rising sea levels, prolonged droughts, extreme heat events, and more severe storms, are set to continue imposing the greatest strain on those populations most at risk. As momentum for climate action builds, it is imperative to facilitate a transition that is fair and inclusive. However, without careful management, efforts to combat climate change could unintentionally inflict harm on economies, livelihoods, and ecosystems. A transition that is just and equitable would ensure that measures taken to address climate change effectively balance mitigation and adaptation efforts while striving to be as inclusive and equitable as possible. For instance, an unmanaged phase down of the fossil fuel industry could eliminate 33 per cent of jobs (Sivaprasad et al). Therefore, facilitating a just transition presents a complex challenge, necessitating close collaboration among various stakeholders.

### **VI. Conclusion**

India's power sector is amid a significant transition towards a greener future, and banks and FIs are playing an important part in this endeavor. To ensure a smooth transition, a calibrated approach towards reducing lending to coal and other fossil-based sectors is required. The coal-fired thermal power sector has considerable potential for decarbonisation, and banks and FIs can contribute to this transition by

adopting better ESG practices and providing financing to help producers meet environmental norms and emission standards. While challenges exist due to the country's energy needs, stringent climate policies, and the risk of stranded assets, a well-planned and calibrated approach by banks and FIs can pave the way for a sustainable and equitable future. Setting science-based targets and ensuring a just transition are also essential for a sustainable future. With continued efforts and collaboration of stakeholders, the power sector can help India make significant strides towards becoming a low-carbon economy while meeting its developmental needs.

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# **Monetary Policy Transmission in India: Recent Dynamics**

by Yuvraj Kashyap, Avnish Kumar,  
Anand Prakash and Shubhangi Latey<sup>^</sup>

*Transmission to banks' lending and deposit rates has improved in the recent period, facilitated by the introduction of the external benchmark-based lending rate system. Large surplus liquidity and subdued credit demand aided transmission during the pandemic-phase of the easing cycle. The calibrated normalisation of surplus liquidity and robust credit growth strengthened transmission during the current tightening phase although it is still not complete. An empirical bank-level analysis in a panel framework indicates that a higher share of CASA deposits in total deposits has a softening impact on lending rates, while higher capital adequacy ratio has a positive and significant impact. High CD ratio increases the pass-through to deposit and lending rates while excess SLR lowers the pass-through to deposit rates.*

## **Introduction**

Monetary policy in India moved into a tightening mode in May 2022 amidst inflationary pressures emanating from the conflict in Ukraine, the concomitant jump in international commodity prices, disruption of supply chains and volatility in global financial markets. The policy repo rate was increased by 250 basis points (bps) between May 2022 and February 2023 and the policy stance shifted to 'withdrawal of accommodation' to align inflation with the target, contain second round effects and keep inflation expectations anchored. Alongside, the Reserve Bank of India (RBI) restored the width of the

liquidity adjustment facility (LAF) corridor to 50 bps with the introduction of standing deposit facility (SDF), which replaced the fixed rate reverse repo (FRRR) as the floor of the corridor, in April 2022. The SDF rate was set 40 bps above the FRRR. Additionally, the cash reserve ratio (CRR) was increased by 50 bps in May 2022. In the preceding three years (February 2019-March 2022), monetary policy was in an accommodative mode with cut in the policy repo rate by 250 bps along with large injection of liquidity and other conventional and unconventional measures to mitigate the impact of the COVID-19 pandemic on economic activity.

In this backdrop of this shift in the monetary policy cycle, this article undertakes an assessment of the initial leg of monetary transmission, the process through which changes in central bank's policy rate get transmitted to banks' deposit and lending rates. Banks in India play an important role in meeting the credit needs of the economy and are thus an important conduit in monetary policy transmission. In order to strengthen the transmission of policy rate changes to banks' deposit and lending rates as also to enhance transparency of the rate setting mechanism, the Reserve Bank has periodically refined the process of interest rate setting by banks with external benchmark-based lending rate (EBLR) system being the latest endeavour<sup>1</sup> in this direction.

Previous studies have found some evidence of asymmetry in the response of lending and deposit rates to monetary policy shocks in easy and tight monetary policy cycles, with a relatively faster change in lending rates in response to an increase in policy repo rate as compared to a decrease. For deposits, the

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<sup>^</sup> This article has been prepared by Yuvraj Kashyap, Avnish Kumar, Anand Prakash and Shubhangi Latey of Monetary Policy Department. The authors are thankful to Muneesh Kapur for his guidance and encouragement. The views expressed in the article are those of the authors and do not represent the views of the Reserve Bank of India.

<sup>1</sup> The Reserve Bank mandated that all scheduled commercial banks (excluding regional rural banks and small finance banks) should link all new floating rate personal or retail loans and floating rate loans to micro and small enterprises (MSEs) to an external benchmark, viz., the policy repo rate or 3-month T-bill rate or 6-month T-bill rate or any other benchmark market interest rate published by Financial Benchmarks India Private Ltd. (FBIL) effective October 1, 2019. The directive was extended to medium enterprises effective April 1, 2020.

pass-through was quicker during the easing phase as compared to the tightening phase (Das, 2015; Singh, 2011). An initial assessment of the EBLR regime, encompassing the accommodative phase of monetary policy, indicated that it helped to accelerate the pass-through to banks' interest rates (Kumar and Sachdeva, 2021; Kumar *et. al.*, 2022). The appropriate modulation of system liquidity in consonance with the prevailing monetary policy stance also aided monetary transmission. The EBLR system of loan pricing enables quicker and larger transmission to lending rates (Ranjan, 2022).

Against this background, this article reviews recent dynamics of monetary policy transmission to lending and deposit rates of banks. The article is structured in the following manner. Section II assesses the transmission of the policy rate changes to banks' interest rates at aggregate as well as disaggregated levels in the current tightening cycle *vis-a-vis* the previous easing phase. Section III presents an empirical estimation of the extent of the pass-through to lending and deposit rates of banks and attempts to delineate the potential determinants of the pass-

through. The asymmetric impact of monetary policy on transmission has also been analysed in this section. Finally, Section IV concludes with key takeaways.

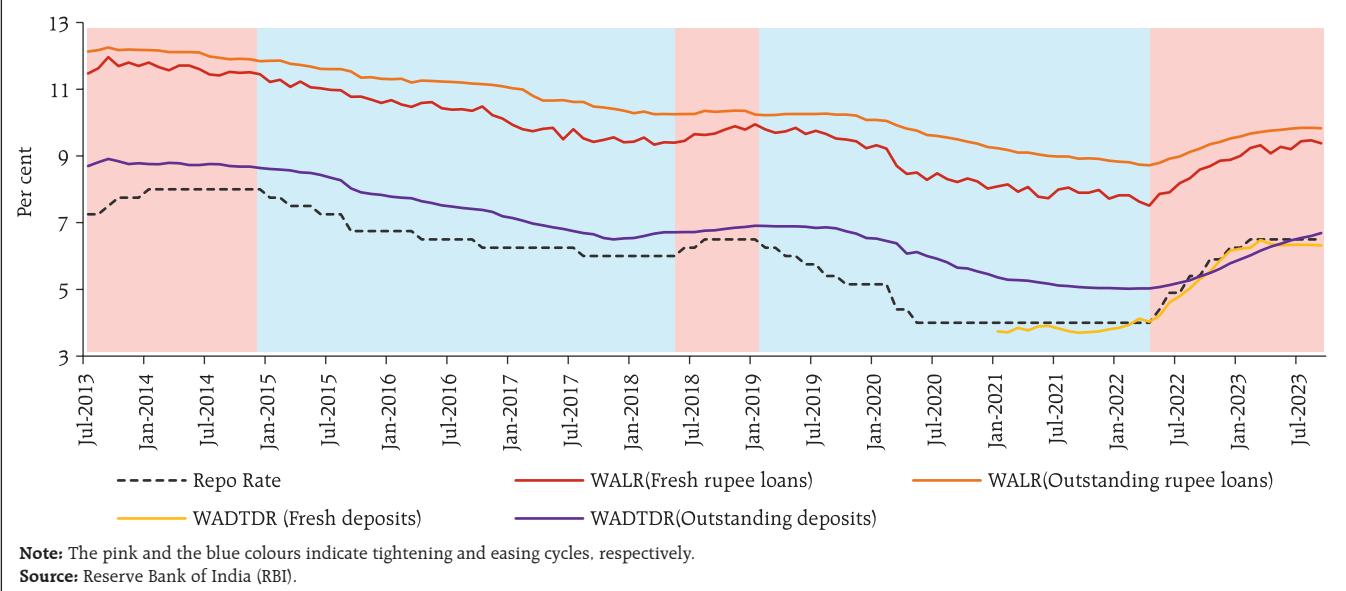
## II. Transmission to Banks' Lending and Deposit Rates

Lending and deposit rates of scheduled commercial banks (SCBs) have exhibited co-movement with the policy repo rate (Chart 1). The extent and speed of transmission have varied across monetary policy cycles and benchmark regimes, along with an asymmetry in the transmission to deposit and lending rates.

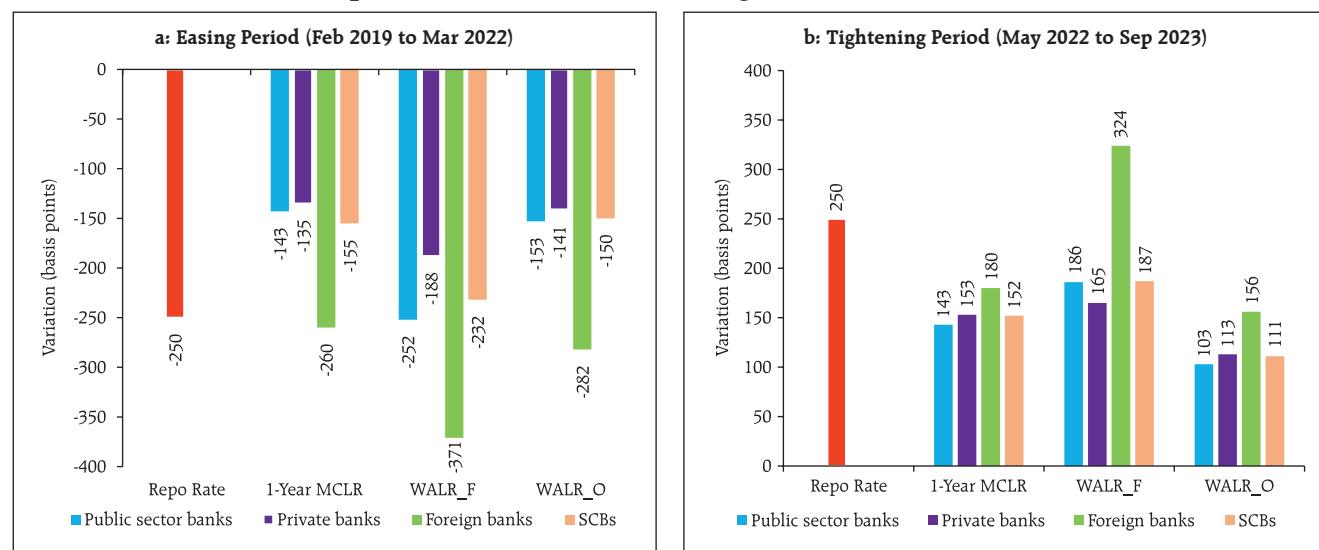
### II.1 Lending Rates

The transmission to lending rates improved significantly during the easing phase, *i.e.*, February 2019 to March 2022 (Chart 2a). Almost complete transmission to lending rates was witnessed, *albeit* over time, and this phase coincided with the introduction of the external benchmark regime in October 2019. The weighted average lending rate (WALR) of SCBs on fresh rupee loans touched a decadal low in April 2022. The lending rates have

**Chart 1: Lending and Deposit Rates of Scheduled Commercial Banks**



**Chart 2: Bank Group wise Transmission to Lending Rates of Scheduled Commercial Banks**



Sources: RBI; and Authors' calculations.

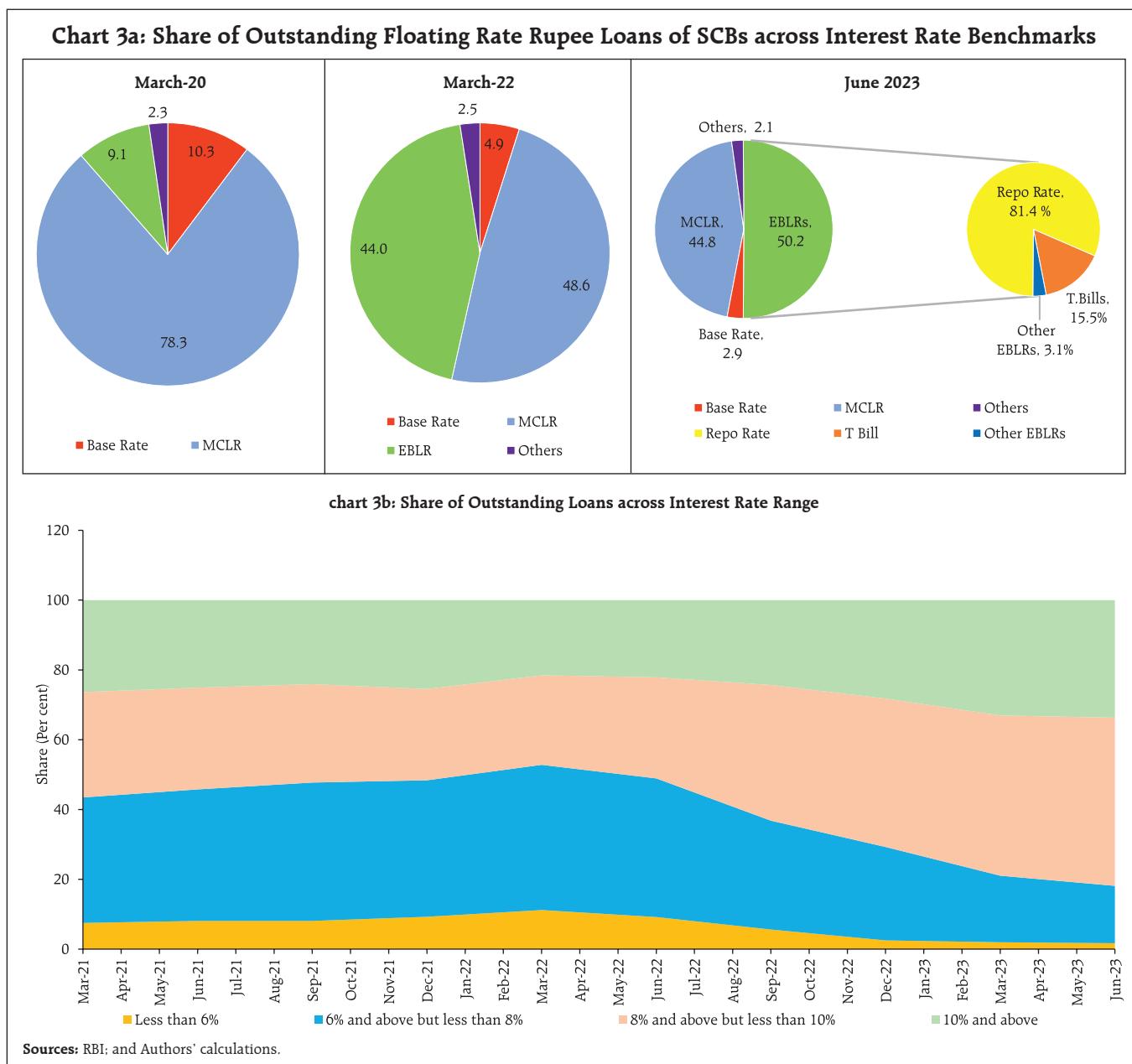
started increasing since May 2022 with the hike in the policy repo rate. The EBLR system, the normalisation of surplus liquidity and robust credit growth aided transmission in the current tightening phase. In response to the cumulative hike in repo rate by 250 bps during May 2022 to October 2023, the SCBs revised their repo-linked benchmark rates upwards by the same magnitude. The 1-year median marginal cost of funds-based lending rate (MCLR) rose by a relatively lower magnitude of 152 bps, reflecting the trends in banks' cost of borrowings. Consequently, the WALR on fresh rupee loans rose by 187 bps, while that on outstanding loans rose by 111 bps during May 2022 to September 2023 (Chart 2b).

The increase in the share of outstanding floating rate loans linked to external benchmark and a quicker reset of such loans at higher benchmark rates have facilitated the transmission to WALR on outstanding loans in the current tightening period. Among various external benchmarks, most banks have chosen the policy repo rate as their benchmark for

the pricing of loans (Chart 3a). The share of loans in the above 8 per cent interest rate range has increased (Chart 3b).

At bank group level, the increase in the WALRs on fresh rupee loans was higher in the case of public sector banks (PSBs) relative to private banks (PvBs) during the period May 2022 to September 2023. However, the transmission to WALR on outstanding loans was relatively more for PvBs as compared to PSBs. The proportion of outstanding floating rate loans of the PvBs linked to external benchmark rates is higher than that of the PSBs, and this could have facilitated a greater pass-through to lending rates of PvBs<sup>2</sup>. The transmission to lending and deposit rates was the maximum in the case of foreign banks, reflecting the preponderance of their loans being EBLR-linked on the lending side and a higher share of low cost and

<sup>2</sup> In the case of private banks, 73.2 per cent of total outstanding floating rate loans were linked to external benchmark as compared to 36.1 per cent for PSBs at end-June 2023. For foreign banks, the corresponding ratio was 87.6 per cent.



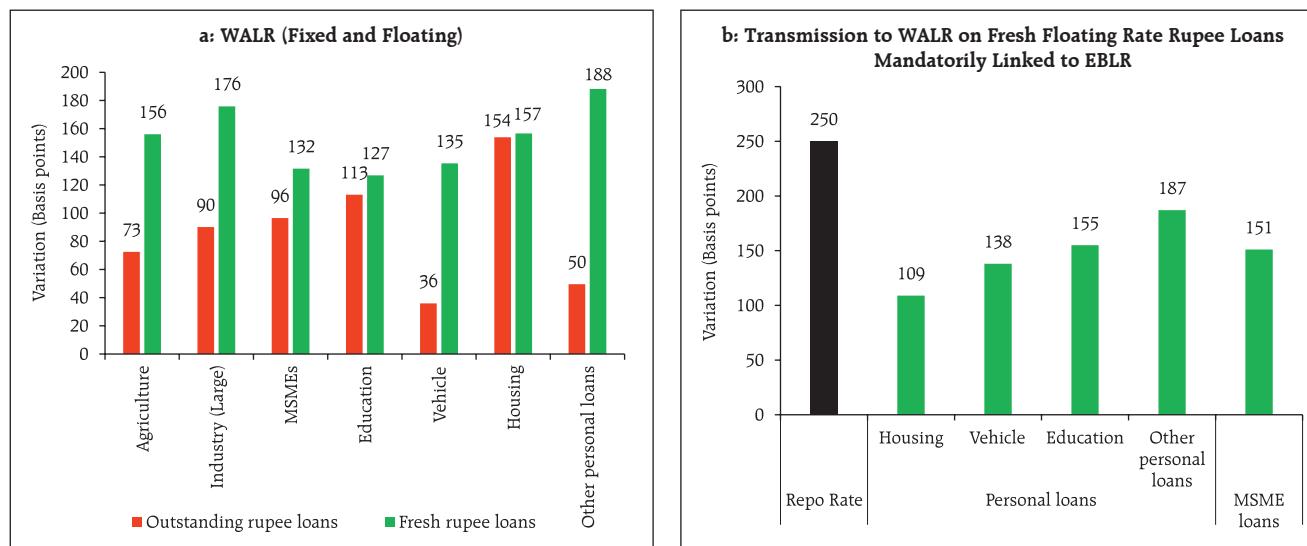
lower duration wholesale deposits on the liabilities side, which facilitate a faster adjustment in interest rates.

The WALRs on fresh as well as outstanding rupee loans to major sectors increased during May 2022 to September 2023 (Chart 4a and 4b). The pass-through has been uneven across sectors reflecting risk profiles and the varied nature of loans extended in each sector.

### II.1.1 Transmission during Tightening Episodes

The pass-through of policy rate changes to lending rates in the tightening cycles over the past decade has varied sizeably, depending upon factors such as the duration of the tightening cycle, the speed of the rate hikes, and the prevailing liquidity conditions apart from episode-specific events. During the taper tantrum tightening episode (July 2013 to December

**Chart 4: Sector wise Transmission to WALRs of Domestic Banks during May 2022 to Sep 2023**

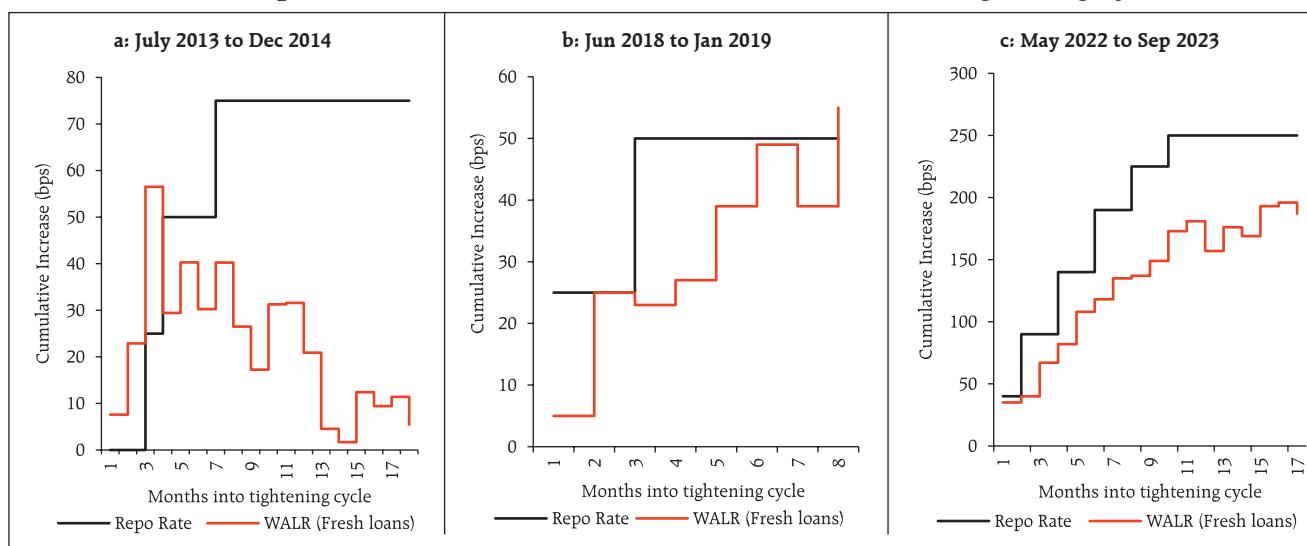


Sources: RBI; and Authors' calculations.

2014), the RBI raised the marginal standing facility (MSF) rate, which became the *de facto* policy rate, and undertook liquidity tightening measures including limiting banks' access to LAF and increase in daily CRR balance maintenance requirement even as the repo rate was left unchanged. Once normalcy was restored in the financial markets, the MSF rate was reduced while the repo rate was increased to contain

the inflationary pressures (RBI, 2014). However, amidst surplus liquidity in the system, banks started reducing their lending rates even as the repo rate was unchanged, impeding the degree of transmission in this cycle (Chart 5a). During the June 2018 to January 2019 tightening episode, SCBs increased their lending rate on fresh loans by 55 bps in response to 50 bps change in the repo rate (Chart 5b). The tightening

**Chart 5: Speed of Transmission to WALR on Fresh Loans across Tightening Cycles**



Sources: RBI; and Authors' calculations.

cycle that started in May 2022 has seen a higher magnitude of increase in the policy repo rate relative to the earlier cycles (Chart 5c). The increase in policy repo rate is still working its way through the system in the current tightening cycle (Das, 2023).

Banks have reportedly reduced spreads charged on new loans over the past few months, thereby moderating the extent of transmission to actual lending rates on new loans (Table 1).

## II.2 Deposit Rates

On the deposit side, the surplus liquidity conditions coupled with weak credit demand prompted banks to reduce their term deposit rates in the previous easing cycle (2019-22). In the current tightening cycle, with the sustained robust credit demand amidst tepid growth in deposits in the initial

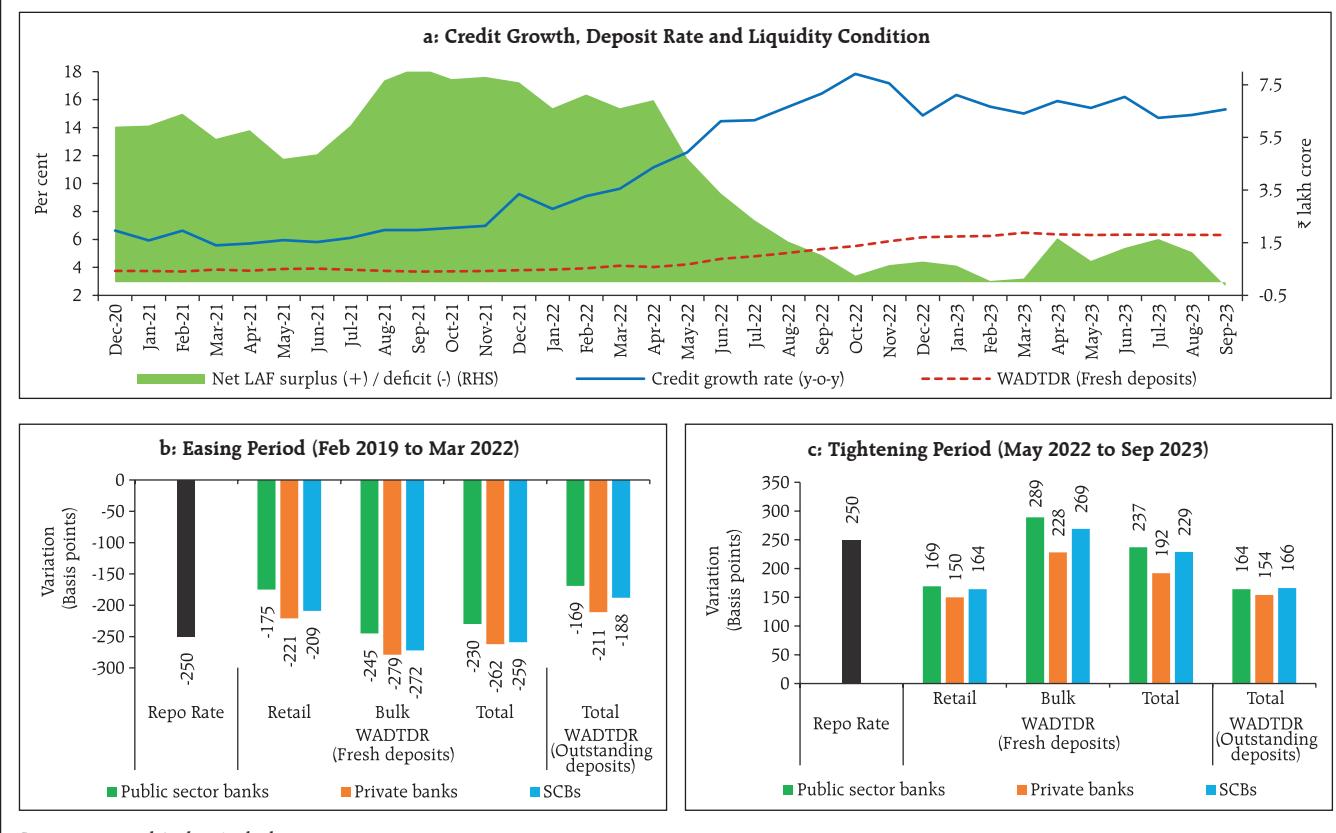
**Table 1: Loans linked to External Benchmark – Spread of WALR (Fresh Loans) over the Repo Rate**  
(Per cent)

| Sectors              | September 2022      |               |                | September 2023      |               |                |
|----------------------|---------------------|---------------|----------------|---------------------|---------------|----------------|
|                      | Public sector banks | Private Banks | Domestic Banks | Public sector banks | Private Banks | Domestic Banks |
| MSME Loans           | 4.13                | 3.55          | 3.81           | 3.77                | 2.71          | 3.05           |
| Personal Loans       |                     |               |                |                     |               |                |
| Housing              | 2.89                | 2.49          | 2.63           | 2.30                | 1.70          | 1.80           |
| Vehicle              | 3.09                | 3.48          | 3.13           | 2.36                | 2.90          | 2.42           |
| Education            | 4.33                | 4.88          | 4.50           | 3.71                | 3.84          | 3.76           |
| Other Personal Loans | 4.03                | 6.38          | 4.21           | 3.39                | 3.36          | 3.37           |

Sources: RBI; and Authors' calculations.

phase and moderation in surplus liquidity in the banking system, banks increased their term deposit rates significantly to attract fresh deposits (Chart 6a).

**Chart 6: Transmission to Deposit Rates of Banks**



During May 2022 to September 2023, the weighted average domestic term deposit rate (WADTDR) on fresh deposits (bulk and retail combined) increased by 229 bps as against the increase of 250 bps in the repo rate. Banks raised their bulk term deposit rates more than retail term deposit rates in the initial phase of the tightening cycle. The increase in retail deposit rates outpaced increase in bulk deposit rates beginning second half of FY 2022-23<sup>3</sup>. Overall, the WADTDR on fresh retail deposits increased by 164 bps as compared to 269 bps in case of fresh bulk deposits during May 2022 to September 2023. The transmission to WADTDR on outstanding deposits was lower at 166 bps over the same period, reflecting the longer maturity profile of term deposits contracted at fixed rates (Chart 6b & 6c).

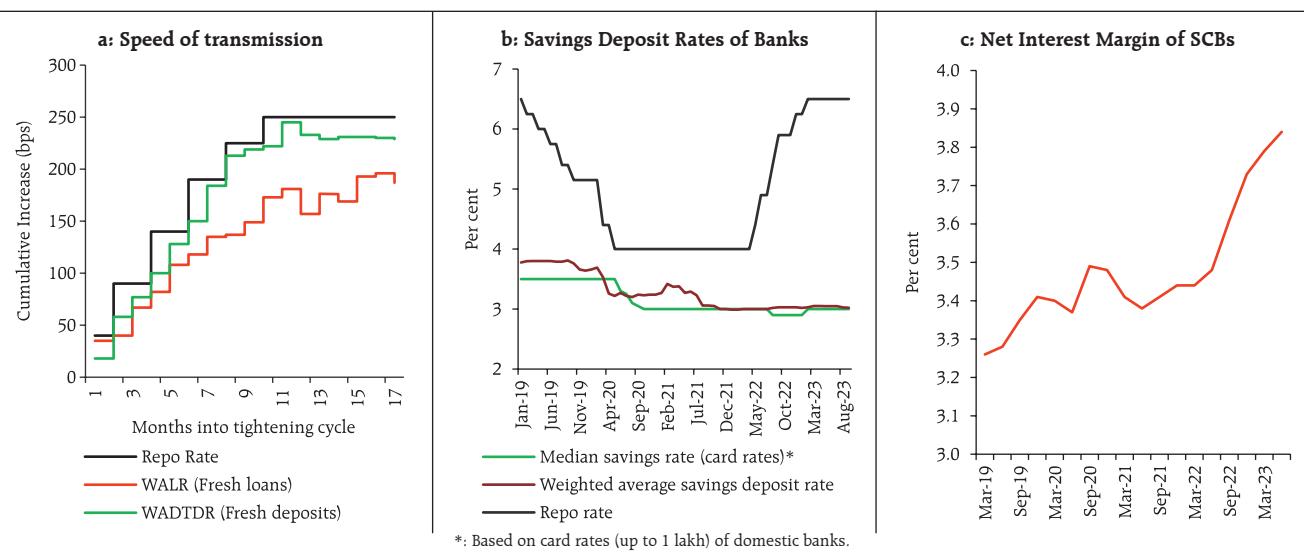
The EBLR system hastened the adjustments in deposit rates during the 2020-22 easing cycle, as banks were incentivised to reduce their term as well

as savings deposit rates to protect their net interest margins (NIMs) in an environment of falling lending rates. On the other hand, during the tightening cycle, the pace of increase in deposit rates (term deposits and savings account deposits taken together) has lagged the pace of increase in lending rates so far. While the increase in term deposit rates in the current tightening cycle has exceeded that in lending rates, the savings deposit rates of banks – which are a third of total deposits – have remained almost unchanged (Chart 7a and 7b). This has moderated the increase in the banks' overall cost of funds. Accordingly, higher NIMs have been observed during the current tightening phase so far (Chart 7c).

### II.3 Recent International Experience

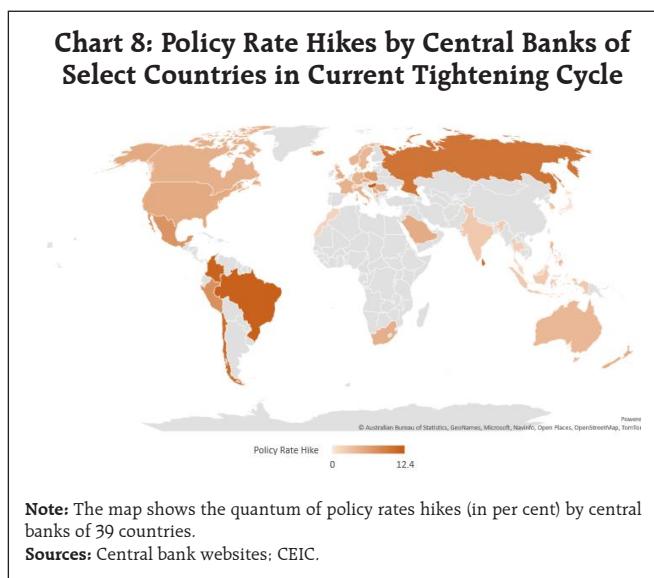
Multi-decadal high inflation has been a global phenomenon across the world since the beginning of 2022. In response, central banks embarked on the path of monetary tightening, which has been the

**Chart 7: Deposit Rates and Net Interest Margin of Banks**



Sources: RBI; and Authors' calculations.

<sup>3</sup> WADTDR on retail and bulk deposits increased by 116 bps and 95 bps, respectively during October 2022 to September 2023.



most synchronised tightening episode in the last five decades (BIS, 2022). Central banks raised policy rates at about twice their historical pace in the 2022-23 cycle (Chart 8).

In response to monetary policy tightening, banks in many jurisdictions have raised their lending rates significantly (Table 2). The pass-through has varied across countries, reflecting *inter alia* different financial structures. In Euro area, where banks constitute an important segment of financial markets, transmission to term deposit rates has been significant while households' sight deposits witnessed limited pass-through (François Villeroy de Galhau, 2023).

### III. Empirical Analysis

In this section, an attempt has been made to empirically estimate the drivers of the pass-through of policy rate changes to lending and deposit rates of SCBs in a panel framework using generalised method of moments (GMM) estimator approach. Following Gambacorta (2008), the role of macroeconomic as well as bank specific factors in shaping monetary transmission is analysed.

**Table 2: Transmission to Bank Lending Rates in Select Countries**

| Country     | Recent Tightening Period | Cumulative increase in policy rate | Category of loans                                                             | Cumulative increase in lending rates | % increase in lending rates to policy rate |
|-------------|--------------------------|------------------------------------|-------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------|
| Australia   | May 2022- Sep 2023       | 400                                | Housing Loan- All loans                                                       | 348                                  | 87                                         |
|             |                          |                                    | Housing loans- Variable rate                                                  | 359                                  | 90                                         |
| Canada      | Mar 2022- Sep 2023       | 475                                | Variable Rate Mortgage (Total)                                                | 587                                  | 124                                        |
|             |                          |                                    | Fixed Rate Loan (5Y and over)                                                 | 164                                  | 35                                         |
| US          | Mar 2022- Sep 2023       | 525                                | 30Y Fixed Rate Mortgage (Average)                                             | 355                                  | 68                                         |
|             |                          |                                    | 15Y Fixed Rate Mortgage (Average)                                             | 371                                  | 71                                         |
| France      | July 2022- Sep 2023      | 450                                | New Loans to NFCs                                                             | 298                                  | 66                                         |
|             |                          |                                    | New Loans to Households                                                       | 201                                  | 45                                         |
| Germany     | July 2022- Sep 2023      | 450                                | New Loans to NFCs                                                             | 305                                  | 68                                         |
|             |                          |                                    | New Loans to Households                                                       | 155                                  | 34                                         |
| Italy       | July 2022- Sep 2023      | 450                                | New Loans to NFCs                                                             | 376                                  | 84                                         |
|             |                          |                                    | New Loans to Households                                                       | 216                                  | 48                                         |
| Netherlands | July 2022- Sep 2023      | 450                                | New Loans to NFCs                                                             | 307                                  | 68                                         |
|             |                          |                                    | New Loans to Households                                                       | 177                                  | 39                                         |
| Spain       | July 2022- Sep 2023      | 450                                | New Loans to NFCs                                                             | 330                                  | 73                                         |
|             |                          |                                    | New Loans to Households                                                       | 219                                  | 49                                         |
| UK          | Dec 2021- Sep 2023       | 515                                | Secured loans on dwellings, new advances to Individuals and individual trusts | 351                                  | 68                                         |
|             |                          |                                    | Other loans, new advances to Individuals and individual trusts                | 230                                  | 45                                         |
| India       | May 2022- Sep 2023       | 250                                | Fresh rupee loans (Total)                                                     | 187                                  | 75                                         |
|             |                          |                                    | Outstanding rupee loans (Total)                                               | 111                                  | 44                                         |

**Sources:** Central bank websites; CEIC.

### III.1 Data and Methodology

The empirical analysis focuses on the flexible inflation targeting (FIT) period (2016:Q3 to 2022:Q4) and uses quarterly data for 28 major SCBs<sup>4</sup> to assess monetary transmission. Additionally, an attempt has also been made to gauge monetary transmission during the EBLR period, i.e., 2019:Q3 to 2022:Q4. In the case of lending rates, the WALR on fresh rupee loans is used as the dependent variable and the policy repo rate (Repo) is considered as the key monetary policy variable along with other macroeconomic and bank-specific control variables. Data on WALR on fresh rupee loans are from returns submitted by banks while the rest of the variables have been sourced from the Database on the Indian Economy, RBI. Based on Gambacorta *op. cit.*, Chattopadhyay and Mitra, 2022; Holton *et. al.*, 2018, the following variables have been identified and used in our model (Table 3).

Incorporating these variables in our model, Equation (I) is used to estimate the pass-through of policy rate changes to lending rates:

$$WALR_{b,t} = \mu + \sum_{i=1}^n \alpha_i WALR_{b,(t-i)} + \\ \sum_{i=0}^n \delta_i Repo_{t-i} + \sum_{i=0}^n \pi_i LIQ_{t-i} + \\ \sum_{i=0}^n \beta_j X_{b,(t-i)} + Dum_t + \varepsilon_{b,t} \quad \dots(I)$$

Where  $WALR_{b,(t-i)}$  represents lagged values of WALR for bank  $b$ ;  $X_{b,t}$  represents the bank-specific variables for bank ' $b$ ' at time ' $t$ '.  $Repo_t$  is the policy repo rate at time ' $t$ '. The coefficient of  $Repo_t$  measures the extent of pass-through to lending rates.  $LIQ_t$  represents the liquidity in the banking system.  $\alpha_{iS}$ ,  $\delta_i$ ,  $\pi_i$ ,  $\beta_{iS}$  and (' $i$ '=0,1, ...) represent partial slope coefficients for equation (I).  $\varepsilon_{b,t}$  denotes stochastic disturbance term for respective equations.  $Dum_t$  is time dummy for demonetisation<sup>5</sup>. The disturbance term contains unobserved bank-specific effect (time invariant) and

**Table 3: Dependent and Explanatory Variables used for Model Estimation**

**Dependent Variable:** WALR on Fresh Rupee Loans

| Explanatory Variables                                                  | Expected Sign | Theory                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy Repo rate                                                       | (+)           | Policy rate changes get transmitted to the lending rates of banks through the interest rate channel of monetary transmission.                                                                                                                                                              |
| Current account savings account (CASA) deposit share in total deposits | (-)           | Accretion of CASA deposits is a relatively cheaper source for banks to fund credit growth. An increase in CASA share can lead to lower lending rate if the spread remains constant.                                                                                                        |
| Gross Non-Performing Assets (GNPA) Ratio                               | (+) / (-)     | A high GNPA may prompt banks to charge higher spread (credit risk premium) to protect their margins. However, high NPAs could also prompt banks to rejig their portfolio towards more creditworthy borrowers, which can lead to lower lending rates.                                       |
| Capital to Risk weighted Assets Ratio (CRAR)                           | (+) / (-)     | Higher capital requirements increase the cost of intermediation and banks may pass on the cost to borrowers. On the other hand, banks with higher CRAR may be able to raise funds at a relatively lower cost, thereby reducing their lending rates even if financial conditions are tight. |
| Net LAF adjusted for NDTL                                              | (-)           | An increase in liquidity in the banking system is expected to have a softening impact on lending rates, as banks' requirements of funds could be lower resulting in a reduction in deposit rates.                                                                                          |
| Incremental Credit to Deposit Ratio                                    | (+)           | A measure of bank's lending capacity given its deposit funding. A high CD ratio, <i>ceteris paribus</i> , could prompt banks to raise their lending rates, and <i>vice versa</i> for a moderation in their CD ratio.                                                                       |

<sup>4</sup> As at end March 2023, the share of these 28 SCBs in total outstanding credit was more than 90 per cent.

<sup>5</sup> Demonetisation dummy for the period Q3:2016 to Q4:2016 is included in the model. Transmission gained significant traction during this period resulting from a massive influx of low-cost CASA deposits into the banking system prompting a faster reduction in term deposit rates by banks, which led to a sharp reduction in the cost of funds and, hence, in lending rates.

idiosyncratic disturbances term (varies across time but not across banks). In the case of deposits, the analysis is based on a relatively short period 2020:Q1 to 2022:Q4, given the data availability. The weighted average domestic term deposit rate (WADTDR) on fresh deposits of the SCBs have been used as the dependant variable. Independent variables include repo rate, and other control variables, *viz.*, liquidity, credit ratio, investment ratio and bank size.

Drawing from Arellano-Bover (1995) and Blundell and Bond (1998), system GMM estimator approach in a dynamic panel framework has been used for empirical estimation for consistent and efficient estimates (Roodman, 2009). In our model, the GMM has been used given the observed persistence in the dependent variable (WALR and WADTDR) and the model has potential heterogeneity arising out of fixed individual bank effects. The robustness of the model was tested using a variety of diagnostics tests: (i) Sargan test of over identifying restrictions for the validity of the instruments; and (ii) Arellano-Bond test (AB test) for serial correlations of the residuals for first order and absence in the subsequent higher orders, *i.e.*, AR(1) should be significant, and AR(2) should be insignificant.

### III.2 Results

At the outset, bin scatter plots<sup>6</sup> have been drawn for a preliminary non-parametric analysis of the relationship between the dependent and the explanatory variables. Scatter plots show that the WALR on fresh rupee loans is positively correlated with the repo rate, while liquidity, CASA share and GNPA are negatively correlated during the EBLR period as well as for the whole sample period, *i.e.*, FIT period. CRAR is positively correlated during the

EBLR period, while there is a weak correlation in the whole sample period. The correlation between incremental CD ratio and lending rate is ambiguous for the whole sample period (Annex Chart 1 and Chart 2).

**Table 4: Pass-through of Repo Rate changes to Lending Rates – A System GMM Approach**

| Dependent Variable:<br>WALR  | Model I<br>(FIT Period) | Model II<br>(Tightening<br>Dummy) | Model III<br>(EBLR Period) |
|------------------------------|-------------------------|-----------------------------------|----------------------------|
| <b>Explanatory Variables</b> |                         |                                   |                            |
| WALR (-1)                    | 0.554***<br>(0.10)      | 0.582***<br>(0.04)                | 0.690***<br>(0.01)         |
| WALR (-2)                    | 0.112<br>(0.10)         | 0.094***<br>(0.03)                |                            |
| Repo Rate                    | 0.229***<br>(0.03)      | 0.206***<br>(0.03)                | 0.255***<br>(0.02)         |
| CASA (-1)                    | -0.010**<br>(0.00)      | -0.009**<br>(0.00)                | -0.006**<br>(0.00)         |
| CRAR (-1)                    | 0.040*<br>(0.02)        | 0.037**<br>(0.02)                 | 0.024<br>(0.02)            |
| GNPA (-1)                    |                         |                                   | -0.006<br>(0.01)           |
| GNPA (-3)                    | 0.004<br>(0.01)         | 0.003<br>(0.01)                   |                            |
| LIQ                          |                         |                                   | -0.019***<br>(0.01)        |
| LIQ (-1)                     | -0.057***<br>(0.01)     | -0.051***<br>(0.01)               |                            |
| ICD (-1)                     | 0.002***<br>(0.00)      | 0.002***<br>(0.00)                | 0.004***<br>(0.00)         |
| Constant                     | 1.715**<br>(0.76)       | 1.759**<br>(0.71)                 | 1.481***<br>(0.32)         |
| Demonetisation<br>Dummy      | -0.086***<br>(0.02)     | -0.043<br>(0.04)                  |                            |
| T_Dummy*Repo                 |                         | 0.013**<br>(0.01)                 |                            |
| <b>Long run Passthrough</b>  |                         |                                   |                            |
| Repo Rate                    | 69***<br>(0.073)        | 63***<br>(0.73)                   | 82***<br>(0.058)           |
| <b>Diagnostics</b>           |                         |                                   |                            |
| AR (1) (p)                   | 0.013                   | 0.001                             | 0.011                      |
| AR (2) (p)                   | 0.770                   | 0.858                             | 0.995                      |
| Sargan (p)                   | 0.096                   | 0.109                             | 0.082                      |
| No. of Banks                 | 28                      | 28                                | 28                         |
| Observations                 | 728                     | 728                               | 392                        |

<sup>6</sup> Bin scatter groups the x-axis variable into equal-sized bins, computes the mean of the x-axis and y-axis variables within each bin, then creates a scatterplot of these data points. The result is a nonparametric visualisation of the conditional expectation function.

'\*\*\*', '\*\*' and '\*' represent significance level at 1%, 5% and 10% respectively. Standard errors in parentheses.

The results of the econometric analysis (for WALR) are reported in **Table 4**. Three models have been estimated with model I covering the entire sample period, *i.e.*, FIT period, while model II specifically deals with the impact on transmission during the tightening cycles in the whole sample period. Model III covers the EBLR sub-period. The results suggest that a 100 bps increase in the policy repo rate has a contemporaneous significant positive impact of 20-25 bps on the lending rates of banks across the models and the long-run impact is higher at 82 bps during the EBLR period, and 69 bps during the overall period (63 bps in model II).

Systemic liquidity in the banking system and the share of CASA deposits in total deposits have the expected negative and significant impact on lending rates. It may be mentioned that the share of CASA deposits in total deposits increased from 41.2 per cent in September 2019 to 44.8 per cent in March 2022. An increase in credit/deposit ratio has positive impact on lending rates and thus expected to strengthen the pass-through to lending rates during the tightening phase. While capital adequacy ratio has a positive and significant impact on lending rates over the full sample period, the asset quality of banks has an insignificant impact on the lending rates.

To assess the asymmetric impact of monetary policy, an interaction dummy ( $T\_Dum_t * Repo_t$ ) that captures the differential pass-through to lending rates during the tightening cycles *vis-à-vis* easing cycles is introduced as:

$$WALR_{b,t} = \mu + \sum_{i=1}^n \alpha_i WALR_{b,(t-i)} + \\ \sum_{i=0}^n \delta_i Repo_{t-i} + \sum_{i=0}^n \pi_i LIQ_{t-i} + \\ \sum_{i=0}^n \beta_j X_{b,(t-i)} + Dum_t + \\ (T\_Dum_t * Repo_t) + \varepsilon_{i,t} \quad \dots(II)$$

where,  $T\_Dum_t = \begin{cases} 1 & \text{if monetary tightening episodes} \\ 0, & \text{otherwise} \end{cases}$

The coefficient of the interaction dummy ( $T\_Dum_t * Repo_t$ ) is positive and significant (Model II), implying that the pass-through to lending rates is higher during the tightening cycle.

In the case of deposit rates, as noted earlier, the analysis pertains to a shorter period 2020:Q1 to 2022:Q4. The results indicate that a 100 bps change in the policy repo rate pushes term deposit rates by around 70 bps contemporaneously (**Table 5**). The

**Table 5: Pass-through of Repo Rate changes to Deposit Rates**

*Dependent Variable: WADTDR- Fresh deposits*

| Explanatory Variables | Model I<br>(Baseline) | Model II             |
|-----------------------|-----------------------|----------------------|
| WADTDR(-1)            | 0.409***<br>(0.018)   | 0.396***<br>(0.021)  |
| Repo Rate             | 0.681***<br>(0.020)   | 0.705***<br>(0.023)  |
| Liquidity(-1)         | -0.015***<br>(0.004)  | -0.023***<br>(0.004) |
| CD Ratio (-1)         | 0.015***<br>(0.001)   | 0.007***<br>(0.002)  |
| Investment_ratio (-1) |                       | -2.797***<br>(0.214) |
| Bank size             |                       | -0.053*<br>(0.018)   |
| Constant              | -1.287***<br>(0.099)  | 0.684**<br>(0.292)   |

#### Long Run pass-through

| Repo Rate | 1.15***<br>(0.021) | 1.16***<br>(0.026) |
|-----------|--------------------|--------------------|
|-----------|--------------------|--------------------|

#### Diagnostics

|                   |       |       |
|-------------------|-------|-------|
| AR(1) (p)         | 0.006 | 0.004 |
| AR(2) (p)         | 0.183 | 0.120 |
| J-Hansen Test (p) | 0.300 | 0.431 |
| No. of Banks      | 28    | 28    |
| Observations      | 336   | 336   |

**Note:** This table reports results of estimating  $Y_{i,t} = \alpha + \beta X_{i,t} + \varepsilon_{i,t}$ ; where,  $Y_{i,t}$  denotes WADTDR- fresh deposits during 2020:Q1 to 2022:Q4. The  $X_{i,t}$  variables include repo rate, and other control variables, *viz.*, liquidity, credit ratio, investment ratio and bank size. Investment ratio is calculated as ratio of SLR approved securities to total deposits. Bank size is taken as log of total assets of banks.

'\*\*\*', '\*\*' and '\*' represent significance level at 1%, 5% and 10% respectively. Standard errors are in parentheses.

surplus liquidity and the credit/deposit ratio have the expected negative and positive signs, respectively. High investment ratio dampens transmission to deposit rates as banks can meet higher credit demand by drawing down on their excess investments rather than mobilising fresh deposits. Bank size is found to have a negative impact on deposit rates suggesting big banks offer lower rates on term deposits.

#### **IV. Conclusion**

This article has attempted to analyse recent dynamics in monetary transmission to banks' lending and deposit rates. The transmission to banks' interest rates has improved in the recent period, facilitated by the introduction of the EBLR system. Large surplus liquidity and subdued credit demand aided transmission during the pandemic-phase of the easing cycle, while the calibrated normalisation of surplus liquidity and robust credit growth strengthened transmission during the current tightening phase. The transmission to term deposit rates has been robust while savings deposit rates have exhibited rigidity. An empirical bank-level analysis in a panel framework indicates that surplus liquidity in the banking system and a higher share of CASA deposits in total deposits has a negative and significant impact on lending rates, while higher capital adequacy ratio has a positive and significant impact on lending rates. High credit/deposit ratio strengthens the transmission to deposit and lending rates while excess SLR lowers the pass-through to deposit rates. The pass-through to lending rates is found to be higher during the tightening cycle. The extent of transmission has improved after the introduction of EBLR system in October 2019. With the MCLR-linked loans still a sizeable part of the lending portfolio, the transmission of the policy rate actions to deposit and lending rates is ongoing at the current juncture.

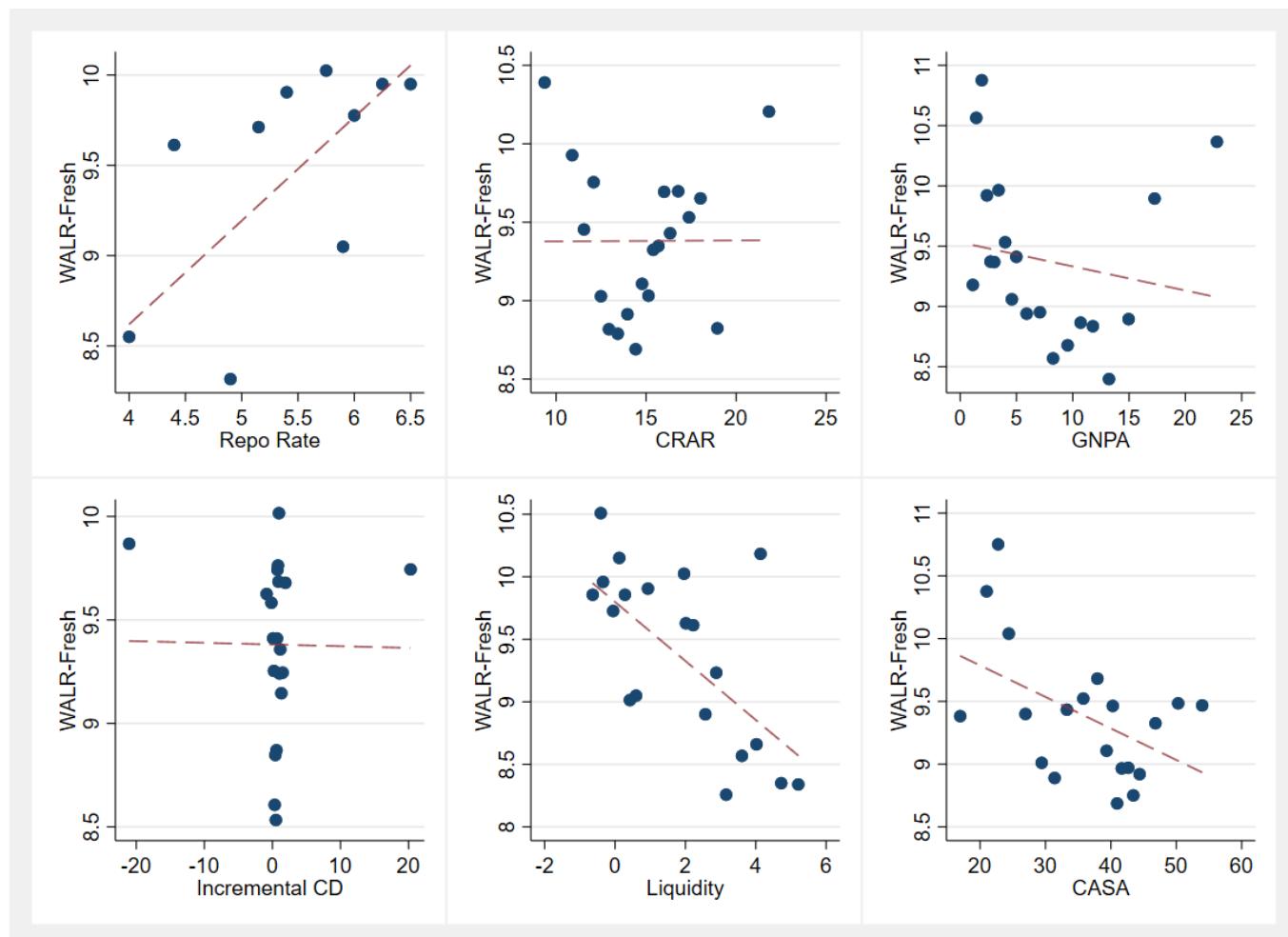
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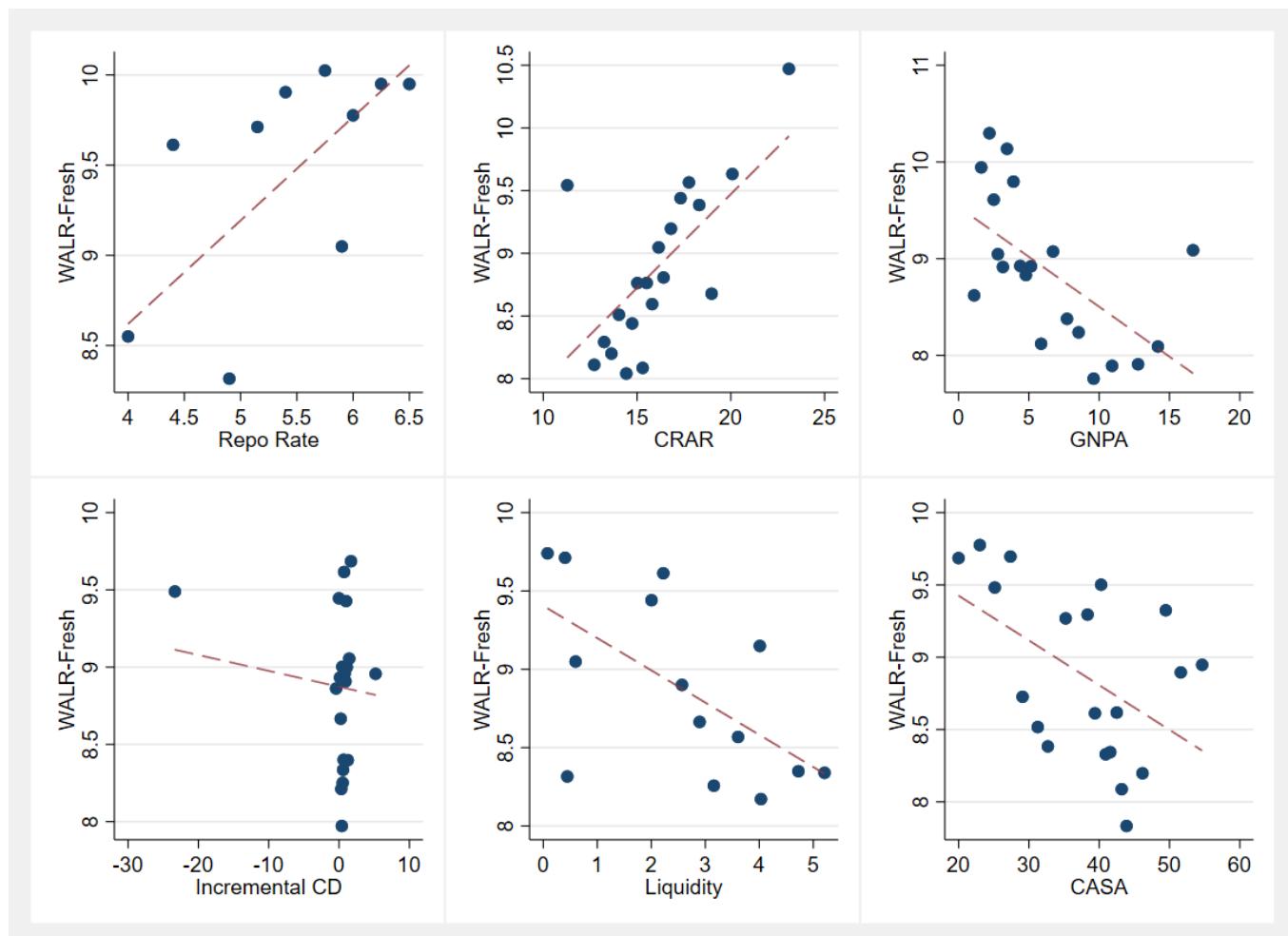
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## Annex

Chart 1: Lending Rates on Fresh Rupee Loans and its Determinants (2016:Q3 to 2022:Q4)



**Chart 2: Lending Rates on Fresh Rupee Loans and its Determinants (2019:Q3 to 2022:Q4)**





## CURRENT STATISTICS

Select Economic Indicators

Reserve Bank of India

Money and Banking

Prices and Production

Government Accounts and Treasury Bills

Financial Markets

External Sector

Payment and Settlement Systems

Occasional Series



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**Notes:** .. = Not available.  
 – = Nil/Negligible.  
 P = Preliminary/Provisional. PR = Partially Revised.

## No. 1: Select Economic Indicators

| Item                                              | 2022-23 | 2021-22    |           | 2022-23   |            | 2023-24    |
|---------------------------------------------------|---------|------------|-----------|-----------|------------|------------|
|                                                   |         | Q4         |           | Q1        | Q4         |            |
|                                                   |         | 1          | 2         | 3         | 4          | 5          |
| <b>1 Real Sector (% Change)</b>                   |         |            |           |           |            |            |
| 1.1 GVA at Basic Prices                           |         | 7.0        | 3.9       | 11.9      | 6.5        | 7.8        |
| 1.1.1 Agriculture                                 |         | 4.0        | 4.1       | 2.4       | 5.5        | 3.5        |
| 1.1.2 Industry                                    |         | 2.4        | 1.3       | 7.3       | 4.7        | 4.6        |
| 1.1.3 Services                                    |         | 9.5        | 4.9       | 16.3      | 7.4        | 10.0       |
| 1.1a Final Consumption Expenditure                |         | 6.4        | 5.8       | 16.5      | 2.7        | 4.9        |
| 1.1b Gross Fixed Capital Formation                |         | 11.4       | 4.9       | 20.4      | 8.9        | 8.0        |
|                                                   |         | 2022-23    |           | 2022      |            | 2023       |
|                                                   |         | 2022       |           | Sep.      | Aug.       | Sep.       |
|                                                   |         | 1          | 2         | 3         | 4          | 5          |
| 1.2 Index of Industrial Production                |         | 5.2        | -0.7      | 3.3       | 10.3       | 5.8        |
| <b>2 Money and Banking (% Change)</b>             |         |            |           |           |            |            |
| 2.1 Scheduled Commercial Banks                    |         |            |           |           |            |            |
| 2.1.1 Deposits                                    |         | 9.6        | 9.5       | 12.5      | 12.4       | 11.5       |
| 2.1.2 Credit #                                    |         | 15.0       | 15.5      | 20.1      | (13.2)     | (12.3)     |
| 2.1.2.1 Non-food Credit #                         |         | 15.4       | 16.0      | 20.7      | 14.9       | 13.0       |
| 2.1.2.2 Food Credit #                             |         | 15.4       | 16.0      | 20.7      | (19.7)     | (17.6)     |
| 2.1.3 Investment in Govt. Securities              |         | 14.5       | 10.3      | 8.7       | 15.0       | 13.1       |
| 2.2 Money Stock Measures                          |         |            |           |           |            |            |
| 2.2.1 Reserve Money (M0)                          |         | 7.8        | 10.3      | 12.9      | 9.8        | 6.4        |
| 2.2.2 Broad Money (M3)                            |         | 9.0        | 8.9       | 8.6       | 10.8       | 10.9       |
| 3 Ratios (%)                                      |         |            |           |           |            |            |
| 3.1 Cash Reserve Ratio                            |         | 4.50       | 4.50      | 4.50      | 4.50       | 4.50       |
| 3.2 Statutory Liquidity Ratio                     |         | 18.00      | 18.00     | 18.00     | 18.00      | 18.00      |
| 3.3 Cash-Deposit Ratio                            |         | 5.0        | 5.1       | 5.4       | 5.8        | 5.4        |
| 3.4 Credit-Deposit Ratio                          |         | 75.8       | 73.3      | 74.3      | 75.0       | 75.3       |
| 3.5 Incremental Credit-Deposit Ratio#             |         | 113.0      | 107.3     | 105.8     | (77.5)     | (77.8)     |
| 3.6 Investment-Deposit Ratio                      |         | 30.0       | 29.8      | 28.9      | 60.9       | 69.7       |
| 3.7 Incremental Investment-Deposit Ratio          |         | 43.5       | 64.0      | 31.7      | (103.8)    | (99.5)     |
| 4 Interest Rates (%)                              |         |            |           |           |            |            |
| 4.1 Policy Repo Rate                              |         | 6.50       | 5.40      | 5.90      | 6.50       | 6.50       |
| 4.2 Fixed Reverse Repo Rate                       |         | 3.35       | 3.35      | 3.35      | 3.35       | 3.35       |
| 4.3 Standing Deposit Facility (SDF) Rate *        |         | 6.25       | 5.15      | 5.65      | 6.25       | 6.25       |
| 4.4 Marginal Standing Facility (MSF) Rate         |         | 6.75       | 5.65      | 6.15      | 6.75       | 6.75       |
| 4.5 Bank Rate                                     |         | 6.75       | 5.65      | 6.15      | 6.75       | 6.75       |
| 4.6 Base Rate                                     |         | 8.65/10.10 | 7.75/8.80 | 7.75/8.80 | 8.85/10.10 | 8.85/10.10 |
| 4.7 MCLR (Overnight)                              |         | 7.50/8.50  | 6.80/7.65 | 6.85/7.75 | 7.95/8.40  | 7.95/8.45  |
| 4.8 Term Deposit Rate >1 Year                     |         | 6.00/7.25  | 5.30/6.10 | 5.30/6.10 | 6.00/7.25  | 6.00/7.25  |
| 4.9 Savings Deposit Rate                          |         | 2.70/3.00  | 2.70/3.00 | 2.70/3.00 | 2.70/3.00  | 2.70/3.00  |
| 4.10 Call Money Rate (Weighted Average)           |         | 6.78       | 5.10      | 5.52      | 6.75       | 6.75       |
| 4.11 91-Day Treasury Bill (Primary) Yield         |         | -          | 5.63      | 6.18      | 6.82       | 6.86       |
| 4.12 182-Day Treasury Bill (Primary) Yield        |         | 7.28       | 6.09      | 6.64      | 7.02       | 7.08       |
| 4.13 364-Day Treasury Bill (Primary) Yield        |         | 7.31       | 6.32      | 6.80      | 7.03       | 7.08       |
| 4.14 10-Year G-Sec Par Yield (FBIL)               |         | 7.31       | 7.17      | 7.41      | 7.14       | 7.22       |
| <b>5 Reference Rate and Forward Premiums</b>      |         |            |           |           |            |            |
| 5.1 INR-US\$ Spot Rate (Rs. Per Foreign Currency) |         | 82.22      | 79.91     | 81.55     | 82.65      | 83.06      |
| 5.2 INR-Euro Spot Rate (Rs. Per Foreign Currency) |         | 89.61      | 79.62     | 80.11     | 89.17      | 87.94      |
| 5.3 Forward Premiums of US\$ 1-month (%)          |         | 2.41       | 3.30      | 3.83      | 1.31       | 1.88       |
| 3-month (%)                                       |         | 2.19       | 3.20      | 3.38      | 1.38       | 1.69       |
| 6-month (%)                                       |         | 2.31       | 3.00      | 3.02      | 1.40       | 1.75       |
| <b>6 Inflation (%)</b>                            |         |            |           |           |            |            |
| 6.1 All India Consumer Price Index                |         | 6.7        | 7.0       | 7.4       | 6.8        | 5.0        |
| 6.2 Consumer Price Index for Industrial Workers   |         | 6.1        | 5.9       | 6.5       | 6.9        | 4.7        |
| 6.3 Wholesale Price Index                         |         | 9.6        | 12.5      | 10.6      | -0.5       | -0.3       |
| 6.3.1 Primary Articles                            |         | 10.3       | 14.7      | 11.5      | 6.7        | 3.7        |
| 6.3.2 Fuel and Power                              |         | 29.4       | 35.0      | 33.1      | -6.3       | -3.3       |
| 6.3.3 Manufactured Products                       |         | 5.7        | 7.5       | 6.1       | -2.3       | -1.3       |
| <b>7 Foreign Trade (% Change)</b>                 |         |            |           |           |            |            |
| 7.1 Imports                                       |         | 16.8       | 37.2      | 12.6      | -2.8       | -15.0      |
| 7.2 Exports                                       |         | 6.9        | 10.9      | 4.7       | 3.8        | -2.7       |

Note : Financial Benchmark India Pvt. Ltd. (FBIL) has commenced publication of the G-Sec benchmarks with effect from March 31, 2018 as per RBI circular FMRD.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).

Figures in parentheses include the impact of merger of a non-bank with a bank.

\*: 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 |                |                |                |                |                |                |
|-----------------------------------------------------------------|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                                                 | 2022-23                       | 2022           | 2023           |                |                |                |                |
|                                                                 |                               | Oct.           | Sep. 29        | Oct. 06        | Oct. 13        | Oct. 20        | Oct. 27        |
|                                                                 |                               | 1              | 2              | 3              | 4              | 5              | 6              |
| <b>1 Issue Department</b>                                       |                               |                |                |                |                |                |                |
| <b>1.1 Liabilities</b>                                          |                               |                |                |                |                |                |                |
| 1.1.1 Notes in Circulation                                      | 3348235                       | 3181735        | 3257516        | 3262322        | 3269934        | 3272413        | 3271881        |
| 1.1.2 Notes Held in Banking Department                          | 9                             | 13             | 10             | 11             | 13             | 13             | 13             |
| <b>1.1/1.2 Total Liabilities (Total Notes Issued) or Assets</b> | <b>3348245</b>                | <b>3181748</b> | <b>3257526</b> | <b>3262333</b> | <b>3269947</b> | <b>3272426</b> | <b>3271894</b> |
| <b>1.2 Assets</b>                                               |                               |                |                |                |                |                |                |
| 1.2.1 Gold                                                      | 140766                        | 117426         | 137471         | 132615         | 136611         | 142158         | 143945         |
| 1.2.2 Foreign Securities                                        | 3207202                       | 3063884        | 3119750        | 3129454        | 3132922        | 3129910        | 3127636        |
| 1.2.3 Rupee Coin                                                | 277                           | 439            | 305            | 264            | 413            | 357            | 313            |
| 1.2.4 Government of India Rupee Securities                      | -                             | -              | -              | -              | -              | -              | -              |
| <b>2 Banking Department</b>                                     |                               |                |                |                |                |                |                |
| <b>2.1 Liabilities</b>                                          |                               |                |                |                |                |                |                |
| 2.1.1 Deposits                                                  | 1354217                       | 1348275        | 1678098        | 1591506        | 1582995        | 1628331        | 1675645        |
| 2.1.1.1 Central Government                                      | 5001                          | 101            | 100            | 101            | 101            | 100            | 101            |
| 2.1.1.2 Market Stabilisation Scheme                             |                               |                |                |                |                |                |                |
| 2.1.1.3 State Governments                                       | 42                            | 42             | 42             | 42             | 42             | 42             | 42             |
| 2.1.1.4 Scheduled Commercial Banks                              | 868940                        | 781814         | 969235         | 960612         | 926752         | 917856         | 906993         |
| 2.1.1.5 Scheduled State Co-operative Banks                      | 8100                          | 7784           | 8917           | 8701           | 8303           | 8608           | 8100           |
| 2.1.1.6 Non-Scheduled State Co-operative Banks                  | 5177                          | 4315           | 4900           | 4894           | 4687           | 4694           | 4610           |
| 2.1.1.7 Other Banks                                             | 48260                         | 43657          | 49321          | 48361          | 47249          | 47351          | 47526          |
| 2.1.1.8 Others                                                  | 316490                        | 447830         | 518710         | 432283         | 456064         | 509084         | 566312         |
| 2.1.1.9 Financial Institution Outside India                     | 102207                        | 62731          | 126871         | 136512         | 139797         | 140596         | 141961         |
| 2.1.2 Other Liabilities                                         | 1642294                       | 1327741        | 1498291        | 1475963        | 1496814        | 1480126        | 1499252        |
| <b>2.1/2.2 Total Liabilities or Assets</b>                      | <b>2996512</b>                | <b>2676016</b> | <b>3176389</b> | <b>3067469</b> | <b>3079809</b> | <b>3108457</b> | <b>3174897</b> |
| <b>2.2 Assets</b>                                               |                               |                |                |                |                |                |                |
| 2.2.1 Notes and Coins                                           | 9                             | 13             | 10             | 11             | 13             | 13             | 13             |
| 2.2.2 Balances Held Abroad                                      | 1008993                       | 846033         | 1235681        | 1222927        | 1218659        | 1179448        | 1225339        |
| 2.2.3 Loans and Advances                                        |                               |                |                |                |                |                |                |
| 2.2.3.1 Central Government                                      | 48677                         | -              | -              | -              | -              | -              | -              |
| 2.2.3.2 State Governments                                       | 792                           | 2186           | 11606          | 24303          | 20364          | 20227          | 21871          |
| 2.2.3.3 Scheduled Commercial Banks                              | 112731                        | 115871         | 170292         | 68932          | 79204          | 143806         | 160738         |
| 2.2.3.4 Scheduled State Co-op.Banks                             | -                             | 35             | -              | -              | -              | -              | -              |
| 2.2.3.5 Industrial Dev. Bank of India                           | -                             | -              | -              | -              | -              | -              | -              |
| 2.2.3.6 NABARD                                                  | -                             | 4554           | -              | -              | -              | -              | -              |
| 2.2.3.7 EXIM Bank                                               | -                             | -              | -              | -              | -              | -              | -              |
| 2.2.3.8 Others                                                  | 24485                         | 17566          | 3030           | 3149           | 2494           | 3181           | 3181           |
| 2.2.3.9 Financial Institution Outside India                     | 102128                        | 63100          | 127232         | 136284         | 140505         | 140080         | 141618         |
| 2.2.4 Bills Purchased and Discounted                            |                               |                |                |                |                |                |                |
| 2.2.4.1 Internal                                                | -                             | -              | -              | -              | -              | -              | -              |
| 2.2.4.2 Government Treasury Bills                               | -                             | -              | -              | -              | -              | -              | -              |
| 2.2.5 Investments                                               | 1408486                       | 1413208        | 1388293        | 1380757        | 1380540        | 1374295        | 1371530        |
| 2.2.6 Other Assets                                              | 290209                        | 213451         | 240246         | 231106         | 238031         | 247408         | 250608         |
| 2.2.6.1 Gold                                                    | 230734                        | 193994         | 226353         | 219585         | 226202         | 235386         | 238344         |

\* Data are provisional.

**No. 3: Liquidity Operations by RBI**

(₹ Crore)

| Date          | Liquidity Adjustment Facility |                 |                          |                                     |        |        | Standing<br>Liquidity<br>Facilities | OMO (Outright) |          | Net Injection (+)/<br>Absorption (-)<br>(1+3+5+7+9-2-4-6<br>-8) |         |
|---------------|-------------------------------|-----------------|--------------------------|-------------------------------------|--------|--------|-------------------------------------|----------------|----------|-----------------------------------------------------------------|---------|
|               | Repo                          | Reverse<br>Repo | Variable<br>Rate<br>Repo | Variable<br>Rate<br>Reverse<br>Repo | MSF    | SDF    |                                     | Sale           | Purchase |                                                                 |         |
|               |                               |                 |                          |                                     |        |        |                                     | 1              | 2        | 3                                                               | 4       |
| Sep. 1, 2023  | -                             | -               | -                        | -                                   | 1520   | 79488  | -                                   | 400            | -        | -                                                               | -78368  |
| Sep. 2, 2023  | -                             | -               | -                        | -                                   | 172    | 33107  | -                                   | -              | -        | -                                                               | -32935  |
| Sep. 3, 2023  | -                             | -               | -                        | -                                   | 29     | 13653  | -                                   | -              | -        | -                                                               | -13624  |
| Sep. 4, 2023  | -                             | -               | -                        | -                                   | 1511   | 152092 | -461                                | -              | -        | -                                                               | -151042 |
| Sep. 5, 2023  | -                             | -               | -                        | -                                   | 2066   | 148149 | -665                                | 770            | -        | -                                                               | -147518 |
| Sep. 6, 2023  | -                             | -               | -                        | -                                   | 4906   | 90268  | -250                                | 245            | -        | -                                                               | -85857  |
| Sep. 7, 2023  | -                             | -               | -                        | -                                   | 4453   | 72539  | 611                                 | -              | -        | -                                                               | -67475  |
| Sep. 8, 2023  | -                             | -               | -                        | 18670                               | 8493   | 83935  | -                                   | 760            | -        | -                                                               | -94872  |
| Sep. 9, 2023  | -                             | -               | -                        | -                                   | 556    | 6995   | -                                   | -              | -        | -                                                               | -6439   |
| Sep. 10, 2023 | -                             | -               | -                        | -                                   | 71     | 4699   | -                                   | -              | -        | -                                                               | -4628   |
| Sep. 11, 2023 | -                             | -               | -                        | -                                   | 13953  | 52143  | 696                                 | 230            | -        | -                                                               | -37724  |
| Sep. 12, 2023 | -                             | -               | -                        | -                                   | 24815  | 49683  | -                                   | 0              | -        | -                                                               | -24868  |
| Sep. 13, 2023 | -                             | -               | -                        | -                                   | 31187  | 46175  | -                                   | 260            | -        | -                                                               | -15248  |
| Sep. 14, 2023 | -                             | -               | -                        | -                                   | 43095  | 42275  | -                                   | 675            | -        | -                                                               | 145     |
| Sep. 15, 2023 | -                             | -               | -                        | -                                   | 95192  | 45976  | -                                   | 1720           | -        | -                                                               | 47496   |
| Sep. 16, 2023 | -                             | -               | -                        | -                                   | 39696  | 16610  | -                                   | -              | -        | -                                                               | 23086   |
| Sep. 17, 2023 | -                             | -               | -                        | -                                   | 1931   | 3140   | -                                   | -              | -        | -                                                               | -1209   |
| Sep. 18, 2023 | -                             | -               | -                        | -                                   | 197165 | 46724  | -                                   | 510            | -        | -                                                               | 149931  |
| Sep. 19, 2023 | -                             | -               | -                        | -                                   | 11416  | 12677  | -                                   | -              | -        | -                                                               | -1261   |
| Sep. 20, 2023 | -                             | -               | -                        | -                                   | 165565 | 50275  | -                                   | 610            | -        | -                                                               | 114680  |
| Sep. 21, 2023 | -                             | -               | -                        | -                                   | 198730 | 46762  | -                                   | 815            | -        | -                                                               | 151153  |
| Sep. 22, 2023 | -                             | -               | 5995                     | -                                   | 168348 | 60650  | -                                   | 0              | -        | -                                                               | 101703  |
| Sep. 23, 2023 | -                             | -               | -                        | -                                   | 601    | 5982   | -                                   | -              | -        | -                                                               | -5381   |
| Sep. 24, 2023 | -                             | -               | -                        | -                                   | 36     | 3211   | -                                   | -              | -        | -                                                               | -3175   |
| Sep. 25, 2023 | -                             | -               | -                        | -                                   | 184946 | 57929  | -                                   | 775            | -        | -                                                               | 126242  |
| Sep. 26, 2023 | -                             | -               | -                        | -                                   | 180596 | 58665  | -11                                 | 115            | -        | -                                                               | 121805  |
| Sep. 27, 2023 | -                             | -               | -                        | -                                   | 196667 | 85868  | -13                                 | 145            | -        | -                                                               | 110641  |
| Sep. 28, 2023 | -                             | -               | -                        | -                                   | 162199 | 84624  | -                                   | -              | -        | -                                                               | 77575   |
| Sep. 29, 2023 | -                             | -               | -                        | -                                   | 150692 | 59782  | -                                   | 355            | -        | -                                                               | 90555   |
| Sep. 30, 2023 | -                             | -               | -                        | -                                   | 11544  | 67923  | -                                   | -              | -        | -                                                               | -56379  |

#### **No. 4: Sale/ Purchase of U.S. Dollar by the RBI**

#### i) Operations in onshore / offshore OTC segment

#### **ii) Operations in currency futures segment**

| Item                                                                                           | 2022-23 | 2022  | 2023 |       |
|------------------------------------------------------------------------------------------------|---------|-------|------|-------|
|                                                                                                |         | Sep.  | Aug. | Sep.  |
|                                                                                                |         | 1     | 2    | 3     |
| 1 Net Purchase/ Sale of Foreign Currency (US \$ Million) (1.1-1.2)                             | 0       | 0     | 0    | 0     |
| 1.1 Purchase (+)                                                                               | 10930   | 895   | 441  | 1598  |
| 1.2 Sale (-)                                                                                   | 10930   | 895   | 441  | 1598  |
| 2 Outstanding Net Currency Futures Sales (-)/ Purchase (+) at the end of month (US \$ Million) | 0       | -1460 | 0    | -1725 |

**No. 4 A : Maturity Breakdown (by Residual Maturity) of Outstanding  
Forwards of RBI (US \$ Million)**

| <b>Item</b>                            | <b>As on September 30 , 2023</b> |                  |                  |
|----------------------------------------|----------------------------------|------------------|------------------|
|                                        | <b>Long (+)</b>                  | <b>Short (-)</b> | <b>Net (1-2)</b> |
|                                        | <b>1</b>                         | <b>2</b>         | <b>3</b>         |
| 1. Upto 1 month                        | 8825                             | 16475            | -7650            |
| 2. More than 1 month and upto 3 months | 3958                             | 2300             | 1658             |
| 3. More than 3 months and upto 1 year  | 10634                            | 0                | 10634            |
| 4. More than 1 year                    | 0                                | 0                | 0                |
| <b>Total (1+2+3+4)</b>                 | <b>23417</b>                     | <b>18775</b>     | <b>4642</b>      |

**No. 5: RBI's Standing Facilities**

(₹ Crore)

| <b>Item</b>                                   | <b>As on the Last Reporting Friday</b> |                |                |                |                |                |                |                |
|-----------------------------------------------|----------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                               | <b>2022-23</b>                         | <b>2022</b>    | <b>2023</b>    |                |                |                |                |                |
|                                               |                                        | <b>Oct. 21</b> | <b>May. 19</b> | <b>Jun. 30</b> | <b>Jul. 28</b> | <b>Aug. 25</b> | <b>Sep. 22</b> | <b>Oct. 20</b> |
|                                               |                                        | <b>1</b>       | <b>2</b>       | <b>3</b>       | <b>4</b>       | <b>5</b>       | <b>6</b>       | <b>7</b>       |
| 1 MSF                                         | 28388                                  | 51134          | 3326           | 31256          | 25417          | 73658          | 168348         | 124191         |
| 2 Export Credit Refinance for Scheduled Banks |                                        |                |                |                |                |                |                |                |
| 2.1 Limit                                     |                                        | -              | -              |                |                |                |                |                |
| 2.2 Outstanding                               |                                        | -              | -              |                |                |                |                |                |
| 3 Liquidity Facility for PDs                  |                                        |                |                |                |                |                |                |                |
| 3.1 Limit                                     | 4900                                   | 4900           | 4900           | 4900           | 4900           | 4900           | 4900           | 4900           |
| 3.2 Outstanding                               | 2442                                   | 1022           | 3800           | 3319           | 3082           | 3122           | 3054           | 3181           |
| 4 Others                                      |                                        |                |                |                |                |                |                |                |
| 4.1 Limit                                     | 76000                                  | 76000          | 76000          | 76000          | 76000          | 76000          | 76000          | 76000          |
| 4.2 Outstanding                               | 15900                                  | 20249          |                |                |                |                |                |                |
| 5 Total Outstanding (1+2.2+3.2+4.2)           | 46730                                  | 72405          | 7126           | 34575          | 28499          | 76780          | 171402         | 127372         |

# Money and Banking

## No. 6: Money Stock Measures

(₹ Crore)

| Item                                               | Outstanding as on March 31/last reporting Fridays of the month/<br>reporting Fridays |                |                |                |                |
|----------------------------------------------------|--------------------------------------------------------------------------------------|----------------|----------------|----------------|----------------|
|                                                    | 2022-23                                                                              | 2022           | 2023           |                |                |
|                                                    |                                                                                      | Sep. 23        | Aug. 25        | Sep. 08        | Sep. 22        |
|                                                    | 1                                                                                    | 2              | 3              | 4              | 5              |
| 1 Currency with the Public (1.1 + 1.2 + 1.3 – 1.4) | 3276436                                                                              | 3044594        | 3205302        | 3209232        | 3195976        |
| 1.1 Notes in Circulation                           | 3348219                                                                              | 3138282        | 3278580        | 3288738        | 3270463        |
| 1.2 Circulation of Rupee Coin                      | 29542                                                                                | 28048          | 30657          | 30657          | 30657          |
| 1.3 Circulation of Small Coins                     | 743                                                                                  | 743            | 743            | 743            | 743            |
| 1.4 Cash on Hand with Banks                        | 102085                                                                               | 122480         | 104763         | 110906         | 105887         |
| 2 Deposit Money of the Public                      | 2398359                                                                              | 2183446        | 2423242        | 2406241        | 2416872        |
| 2.1 Demand Deposits with Banks                     | 2320598                                                                              | 2120902        | 2351355        | 2334439        | 2344131        |
| 2.2 'Other' Deposits with Reserve Bank             | 77761                                                                                | 62544          | 71887          | 71801          | 72741          |
| <b>3 M1 (1 + 2)</b>                                | <b>5674795</b>                                                                       | <b>5228040</b> | <b>5628545</b> | <b>5615473</b> | <b>5612848</b> |
| 4 Post Office Saving Bank Deposits                 | 200257                                                                               | 196440         | 200257         | 200257         | 200257         |
| <b>5 M2 (3 + 4)</b>                                | <b>5875052</b>                                                                       | <b>5424480</b> | <b>5828802</b> | <b>5815730</b> | <b>5813105</b> |
| 6 Time Deposits with Banks                         | 16668966                                                                             | 15844856       | 17697364       | 17862742       | 17749453       |
|                                                    |                                                                                      |                | (17844160)     | (18006560)     | (17891449)     |
| 7 M3 (3 + 6)                                       | 22343760                                                                             | 21072896       | 23325909       | 23478215       | 23362301       |
|                                                    |                                                                                      |                | (23472705)     | (23622032)     | (23504298)     |
| 8 Total Post Office Deposits                       | 1113230                                                                              | 1074592        | 1113230        | 1113230        | 1113230        |
| 9 M4 (7 + 8)                                       | 23456990                                                                             | 22147488       | 24439139       | 24591445       | 24475531       |
|                                                    |                                                                                      |                | (24585935)     | (24735262)     | (24617528)     |

**Note:** Figures in parentheses include the impact of merger of a non-bank with a bank.

**No. 7: Sources of Money Stock (M<sub>3</sub>)**

(₹ Crore)

| Sources                                                                    | Outstanding as on March 31/last reporting Fridays of the month/<br>reporting Fridays |                 |                 |                 |                 |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|
|                                                                            | 2022-23                                                                              | 2022            | 2023            |                 |                 |
|                                                                            |                                                                                      | Sep. 23         | Aug. 25         | Sep. 08         | Sep. 22         |
|                                                                            | 1                                                                                    | 2               | 3               | 4               | 5               |
| <b>1 Net Bank Credit to Government</b>                                     | <b>7165533</b>                                                                       | <b>6437672</b>  | <b>7274511</b>  | <b>7416974</b>  | <b>7179702</b>  |
| 1.1 RBI's net credit to Government (1.1.1–1.1.2)                           |                                                                                      |                 | (7387274)       | (7529840)       | (7292666)       |
| 1.1.1 Claims on Government                                                 | 1451126                                                                              | 1060547         | 1185246         | 1244968         | 1010573         |
| 1.1.1.1 Central Government                                                 | 1456169                                                                              | 1418983         | 1415628         | 1422307         | 1406456         |
| 1.1.1.2 State Governments                                                  | 792                                                                                  | 6515            | 16470           | 24915           | 13480           |
| 1.1.2 Government deposits with RBI                                         | 5043                                                                                 | 358436          | 230382          | 177338          | 395882          |
| 1.1.2.1 Central Government                                                 | 5001                                                                                 | 358394          | 230340          | 177296          | 395840          |
| 1.1.2.2 State Governments                                                  | 42                                                                                   | 42              | 42              | 42              | 42              |
| 1.2 Other Banks' Credit to Government                                      | 5714407                                                                              | 5377124         | 6089264         | 6172006         | 6169128         |
|                                                                            |                                                                                      |                 | (6202028)       | (6284872)       | (6282093)       |
| <b>2 Bank Credit to Commercial Sector</b>                                  | <b>14429636</b>                                                                      | <b>13375783</b> | <b>15052452</b> | <b>15178628</b> | <b>15290027</b> |
|                                                                            |                                                                                      |                 | (15654654)      | (15772956)      | (15882467)      |
| 2.1 RBI's credit to commercial sector                                      | 26549                                                                                | 29638           | 5186            | 4421            | 5118            |
| 2.2 Other banks' credit to commercial sector                               | 14403087                                                                             | 13346144        | 15047266        | 15174207        | 15284909        |
|                                                                            |                                                                                      |                 | (15649468)      | (15768535)      | (15877350)      |
| 2.2.1 Bank credit by commercial banks                                      | 13675235                                                                             | 12629875        | 14315110        | 14444841        | 14558874        |
|                                                                            |                                                                                      |                 | (14917312)      | (15039169)      | (15151314)      |
| 2.2.2 Bank credit by co-operative banks                                    | 710187                                                                               | 699065          | 714934          | 711732          | 708331          |
| 2.2.3 Investments by commercial and co-operative banks in other securities | 17665                                                                                | 17205           | 17222           | 17634           | 17704           |
|                                                                            |                                                                                      |                 | (17222)         | (17634)         | (17704)         |
| <b>3 Net Foreign Exchange Assets of Banking Sector (3.1 + 3.2)</b>         | <b>4911766</b>                                                                       | <b>4452333</b>  | <b>5075585</b>  | <b>5085525</b>  | <b>5059464</b>  |
| 3.1 RBI's net foreign exchange assets (3.1.1–3.1.2)                        | 4587355                                                                              | 4196740         | 4751175         | 4761115         | 4735054         |
| 3.1.1 Gross foreign assets                                                 | 4587616                                                                              | 4196980         | 4751434         | 4761374         | 4735313         |
| 3.1.2 Foreign liabilities                                                  | 260                                                                                  | 240             | 259             | 259             | 259             |
| 3.2 Other banks' net foreign exchange assets                               | 324410                                                                               | 255593          | 324410          | 324410          | 324410          |
| <b>4 Government's Currency Liabilities to the Public</b>                   | <b>30285</b>                                                                         | <b>28791</b>    | <b>31400</b>    | <b>31400</b>    | <b>31400</b>    |
| <b>5 Banking Sector's Net Non-monetary Liabilities</b>                     | <b>4193459</b>                                                                       | <b>3221682</b>  | <b>4108039</b>  | <b>4234313</b>  | <b>4198291</b>  |
|                                                                            |                                                                                      |                 | (4676208)       | (4797689)       | (4761700)       |
| 5.1 Net non-monetary liabilities of RBI                                    | 1587565                                                                              | 1226523         | 1510374         | 1520116         | 1507527         |
| 5.2 Net non-monetary liabilities of other banks (residual)                 | 2605895                                                                              | 1995159         | 2597665         | 2714197         | 2690764         |
|                                                                            |                                                                                      |                 | (3165833)       | (3277573)       | (3254173)       |
| <b>M<sub>3</sub>(1+2+3+4–5)</b>                                            | <b>22343760</b>                                                                      | <b>21072896</b> | <b>23325909</b> | <b>23478215</b> | <b>23362301</b> |
|                                                                            |                                                                                      |                 | (23472705)      | (23622032)      | (23504298)      |

**Note:** Figures in parentheses include the impact of merger of a non-bank with a bank.

**No. 8: Monetary Survey**

(₹ Crore)

| Item                                                                            | Outstanding as on March 31/last reporting Fridays of the month/reporting Fridays |          |          |          |          |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------|----------|----------|----------|
|                                                                                 | 2022-23                                                                          | 2022     | 2023     |          |          |
|                                                                                 |                                                                                  | Sep. 23  | Aug. 25  | Sep. 08  | Sep. 22  |
|                                                                                 | 1                                                                                | 2        | 3        | 4        | 5        |
| <b>Monetary Aggregates</b>                                                      |                                                                                  |          |          |          |          |
| NM <sub>1</sub> (1.1+1.2.1+1.3)                                                 | 5674795                                                                          | 5228040  | 5628293  | 5615473  | 5612848  |
| NM <sub>2</sub> (NM <sub>1</sub> + 1.2.2.1)                                     | 13103413                                                                         | 12297566 | 13510696 | 13570882 | 13517264 |
| NM <sub>3</sub> (NM <sub>2</sub> + 1.2.2.2 + 1.4 = 2.1 + 2.2 + 2.3 – 2.4 – 2.5) | 22628165                                                                         | 21469976 | 23962818 | 24140076 | 24017844 |
| (24109614) (24283894) (24159840)                                                |                                                                                  |          |          |          |          |
| <b>1 Components</b>                                                             |                                                                                  |          |          |          |          |
| 1.1 Currency with the Public                                                    | 3276436                                                                          | 3044594  | 3205051  | 3209232  | 3195976  |
| 1.2 Aggregate Deposits of Residents                                             | 18828639                                                                         | 17830960 | 19867806 | 20013126 | 19909500 |
| 1.2.1 Demand Deposits                                                           | 2320598                                                                          | 2120902  | 2351355  | 2334439  | 2344131  |
| 1.2.2 Time Deposits of Residents                                                | 16508041                                                                         | 15710058 | 17516451 | 17678687 | 17565368 |
| 1.2.2.1 Short-term Time Deposits                                                | 7428619                                                                          | 7069526  | 7882403  | 7955409  | 7904416  |
| 1.2.2.1.1 Certificates of Deposits (CDs)                                        | 303993                                                                           | 245508   | 296520   | 294081   | 280304   |
| 1.2.2.2 Long-term Time Deposits                                                 | 9079423                                                                          | 8640532  | 9634048  | 9723278  | 9660953  |
| (9714786) (9802377) (9739051)                                                   |                                                                                  |          |          |          |          |
| 1.3 'Other' Deposits with RBI                                                   | 77761                                                                            | 62544    | 71887    | 71801    | 72741    |
| 1.4 Call/Term Funding from Financial Institutions                               | 445329                                                                           | 531879   | 818074   | 845917   | 839627   |
| <b>2 Sources</b>                                                                |                                                                                  |          |          |          |          |
| 2.1 Domestic Credit                                                             | 22710730                                                                         | 20902032 | 23445850 | 23706973 | 23570628 |
| 2.1.1 Net Bank Credit to the Government                                         | 7165533                                                                          | 6437672  | 7274511  | 7416974  | 7179702  |
| 2.1.1.1 Net RBI credit to the Government                                        | 1451126                                                                          | 1060547  | 1185246  | 1244968  | 1010573  |
| 2.1.1.2 Credit to the Government by the Banking System                          | 5714407                                                                          | 5377124  | 6089264  | 6172006  | 6169128  |
| (6202028) (6284872) (6282093)                                                   |                                                                                  |          |          |          |          |
| 2.1.2 Bank Credit to the Commercial Sector                                      | 15545198                                                                         | 14464360 | 16171339 | 16289999 | 16390926 |
| (16773541) (16884326) (16983367)                                                |                                                                                  |          |          |          |          |
| 2.1.2.1 RBI Credit to the Commercial Sector                                     | 26549                                                                            | 34173    | 5186     | 4421     | 5118     |
| 2.1.2.2 Credit to the Commercial Sector by the Banking System                   | 15518649                                                                         | 14430187 | 16166153 | 16285577 | 16385809 |
| (16768355) (16879905) (16978249)                                                |                                                                                  |          |          |          |          |
| 2.1.2.2.1 Other Investments (Non-SLR Securities)                                | 1096333                                                                          | 1065553  | 1099978  | 1093472  | 1085195  |
| 2.2 Government's Currency Liabilities to the Public                             | 30285                                                                            | 28791    | 31148    | 31400    | 31400    |
| 2.3 Net Foreign Exchange Assets of the Banking Sector                           | 4699822                                                                          | 4424539  | 4797159  | 4775065  | 4759109  |
| 2.3.1 Net Foreign Exchange Assets of the RBI                                    | 4587355                                                                          | 4196740  | 4751175  | 4761115  | 4735054  |
| 2.3.2 Net Foreign Currency Assets of the Banking System                         | 112467                                                                           | 227799   | 45984    | 13950    | 24056    |
| 2.4 Capital Account                                                             | 3446786                                                                          | 3274754  | 3902430  | 3898231  | 3890240  |
| 2.5 Other items (net)                                                           | 1365887                                                                          | 610631   | 977078   | 1038507  | 1016462  |

Note: Figures in parentheses include the impact of merger of a non-bank with a bank.

**No. 9: Liquidity Aggregates**

(₹ Crore)

| Aggregates                                             | 2022-23         | 2022            | 2023            |                 |                 |
|--------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                                        |                 | Sep.            | Jul.            | Aug.            | Sep.            |
|                                                        | 1               | 2               | 3               | 4               | 5               |
| <b>1 NM<sub>3</sub></b>                                | <b>22628165</b> | <b>21469976</b> | <b>23864857</b> | <b>23962818</b> | <b>24017844</b> |
| 2 Postal Deposits                                      | 668887          | 634858          | 656356          | 656356          | 656356          |
| <b>3 L<sub>1</sub> (1 + 2)</b>                         | <b>23297052</b> | <b>22104834</b> | <b>24521213</b> | <b>24619174</b> | <b>24674200</b> |
| 4 Liabilities of Financial Institutions                | 54724           | 58930           | 73298           | 71557           | 65846           |
| 4.1 Term Money Borrowings                              | 1692            | 1643            | 1107            | 1137            | 1152            |
| 4.2 Certificates of Deposit                            | 46407           | 49270           | 62185           | 60285           | 53260           |
| 4.3 Term Deposits                                      | 6625            | 8017            | 10006           | 10136           | 11435           |
| <b>5 L<sub>2</sub> (3 + 4)</b>                         | <b>23351776</b> | <b>22163765</b> | <b>24594511</b> | <b>24690731</b> | <b>24740046</b> |
| 6 Public Deposits with Non-Banking Financial Companies | 85254           | 78061           | ..              | ..              | 91373           |
| <b>7 L<sub>3</sub> (5 + 6)</b>                         | <b>23437030</b> | <b>22241826</b> | <b>24831419</b> |                 |                 |

Note : 1. Figures in the columns might not add up to the total due to rounding off of numbers.

2. Figures in parentheses include the impact of merger of a non-bank with a bank.

**No. 10: Reserve Bank of India Survey**

(₹ Crore)

| Item                                                                                               | Outstanding as on March 31/last reporting Fridays of the month/<br>reporting Fridays |         |         |         |         |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------|---------|---------|---------|
|                                                                                                    | 2022-23                                                                              | 2022    | 2023    |         |         |
|                                                                                                    |                                                                                      | Sep. 23 | Aug. 25 | Sep. 8  | Sep. 22 |
|                                                                                                    | 1                                                                                    | 2       | 3       | 4       | 5       |
| <b>1 Components</b>                                                                                |                                                                                      |         |         |         |         |
| 1.1 Currency in Circulation                                                                        | 3378521                                                                              | 3167073 | 3309813 | 3320138 | 3301863 |
| 1.2 Bankers' Deposits with the RBI                                                                 | 930477                                                                               | 822550  | 1073614 | 1055431 | 1021317 |
| 1.2.1 Scheduled Commercial Banks                                                                   | 868940                                                                               | 767171  | 1010361 | 992546  | 959345  |
| 1.3 'Other' Deposits with the RBI                                                                  | 77761                                                                                | 62544   | 71887   | 71801   | 72741   |
| Reserve Money (1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 - 2.4 - 2.5)                                      | 4386759                                                                              | 4052168 | 4455314 | 4447370 | 4395920 |
| <b>2 Sources</b>                                                                                   |                                                                                      |         |         |         |         |
| 2.1 RBI's Domestic Credit                                                                          | 1356683                                                                              | 1053160 | 1183365 | 1174971 | 1136994 |
| 2.1.1 Net RBI credit to the Government                                                             | 1451126                                                                              | 1060547 | 1185246 | 1244968 | 1010573 |
| 2.1.1.1 Net RBI credit to the Central Government (2.1.1.1 + 2.1.1.2 + 2.1.1.3 + 2.1.1.4 - 2.1.1.5) | 1450376                                                                              | 1054074 | 1168819 | 1220095 | 997136  |
| 2.1.1.1.1 Loans and Advances to the Central Government                                             | 48677                                                                                | -       | -       | -       | -       |
| 2.1.1.1.2 Investments in Treasury Bills                                                            | -                                                                                    | -       | -       | -       | -       |
| 2.1.1.1.3 Investments in dated Government Securities                                               | 1406423                                                                              | 1412049 | 1398848 | 1396958 | 1392638 |
| 2.1.1.1.3.1 Central Government Securities                                                          | 1406423                                                                              | 1412049 | 1398848 | 1396958 | 1392638 |
| 2.1.1.1.4 Rupee Coins                                                                              | 277                                                                                  | 420     | 311     | 433     | 338     |
| 2.1.1.1.5 Deposits of the Central Government                                                       | 5001                                                                                 | 358394  | 230340  | 177296  | 395840  |
| 2.1.1.2 Net RBI credit to State Governments                                                        | 749                                                                                  | 6473    | 16427   | 24873   | 13437   |
| 2.1.2 RBI's Claims on Banks                                                                        | -120992                                                                              | -41560  | -7067   | -74419  | 121303  |
| 2.1.2.1 Loans and Advances to Scheduled Commercial Banks                                           | -120992                                                                              | -37025  | -7067   | -74419  | 121303  |
| 2.1.3 RBI's Credit to Commercial Sector                                                            | 26549                                                                                | 34173   | 5186    | 4421    | 5118    |
| 2.1.3.1 Loans and Advances to Primary Dealers                                                      | 8476                                                                                 | 910     | 3122    | 2358    | 3054    |
| 2.1.3.2 Loans and Advances to NABARD                                                               | -                                                                                    | 4534    | -       | -       | -       |
| 2.2 Government's Currency Liabilities to the Public                                                | 30285                                                                                | 28791   | 31148   | 31400   | 31400   |
| 2.3 Net Foreign Exchange Assets of the RBI                                                         | 4587355                                                                              | 4196740 | 4751175 | 4761115 | 4735054 |
| 2.3.1 Gold                                                                                         | 371500                                                                               | 306807  | 366616  | 368121  | 367410  |
| 2.3.2 Foreign Currency Assets                                                                      | 4215873                                                                              | 3889950 | 4384576 | 4393011 | 4367662 |
| 2.4 Capital Account                                                                                | 1505657                                                                              | 1358279 | 1641017 | 1635629 | 1622166 |
| 2.5 Other Items (net)                                                                              | 81908                                                                                | -131756 | -130643 | -115513 | -114638 |

**No. 11: Reserve Money - Components and Sources**

(₹ Crore)

| Item                                                                   | 2022-23 | Outstanding as on March 31/last Fridays of the month/Fridays |         |         |         |         |         |
|------------------------------------------------------------------------|---------|--------------------------------------------------------------|---------|---------|---------|---------|---------|
|                                                                        |         | 2022                                                         |         | 2023    |         |         |         |
|                                                                        |         | Sep. 30                                                      |         | Sep. 1  | Sep. 8  | Sep. 15 | Sep. 22 |
|                                                                        |         | 1                                                            | 2       | 3       | 4       | 5       | 6       |
| Reserve Money<br>(1.1 + 1.2 + 1.3 = 2.1 + 2.2 + 2.3 + 2.4 + 2.5 - 2.6) | 4386759 | 4129912                                                      | 4513860 | 4447370 | 4496069 | 4395920 | 4395307 |
| <b>1 Components</b>                                                    |         |                                                              |         |         |         |         |         |
| 1.1 Currency in Circulation                                            | 3378521 | 3158321                                                      | 3305986 | 3320138 | 3308373 | 3301863 | 3289165 |
| 1.2 Bankers' Deposits with RBI                                         | 930477  | 901286                                                       | 1134948 | 1055431 | 1115861 | 1021317 | 1032373 |
| 1.3 'Other' Deposits with RBI                                          | 77761   | 70305                                                        | 72926   | 71801   | 71836   | 72741   | 73769   |
| <b>2 Sources</b>                                                       |         |                                                              |         |         |         |         |         |
| 2.1 Net Reserve Bank Credit to Government                              | 1451126 | 1179495                                                      | 1318142 | 1244968 | 1170660 | 1010573 | 1023924 |
| 2.2 Reserve Bank Credit to Banks                                       | -120992 | -41927                                                       | -80606  | -74419  | 50263   | 121303  | 104528  |
| 2.3 Reserve Bank Credit to Commercial Sector                           | 26549   | 18892                                                        | 5098    | 4421    | 5094    | 5118    | 5080    |
| 2.4 Net Foreign Exchange Assets of RBI                                 | 4587355 | 4176810                                                      | 4788173 | 4761115 | 4767337 | 4735054 | 4719356 |
| 2.5 Government's Currency Liabilities to the Public                    | 30285   | 29003                                                        | 31400   | 31400   | 31400   | 31400   | 31649   |
| 2.6 Net Non-Monetary Liabilities of RBI                                | 1587565 | 1232361                                                      | 1548348 | 1520116 | 1528684 | 1507527 | 1489230 |

**No. 12: Commercial Bank Survey**

(₹ Crore)

| Item                                                                    | Outstanding as on last reporting Fridays of the month/<br>reporting Fridays of the month |          |            |            |            |
|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------|------------|------------|------------|
|                                                                         | 2022-23                                                                                  | 2022     | 2023       |            |            |
|                                                                         |                                                                                          | Sep. 23  | Aug. 25    | Sep. 8     | Sep. 22    |
|                                                                         | 1                                                                                        | 2        | 3          | 4          | 5          |
| <b>1 Components</b>                                                     |                                                                                          |          |            |            |            |
| 1.1 Aggregate Deposits of Residents                                     | 17882989                                                                                 | 16897196 | 18913252   | 19056069   | 18954584   |
| 1.1.1 Demand Deposits                                                   |                                                                                          |          | (19060048) | (19199887) | (19096581) |
| 1.1.2 Time Deposits of Residents                                        | 2180431                                                                                  | 1981191  | 2212312    | 2194425    | 2204591    |
| 1.1.2.1 Short-term Time Deposits                                        | 15702559                                                                                 | 14916006 | 16700940   | 16861644   | 16749993   |
| 1.1.2.1.1 Certificates of Deposits (CDs)                                | 7066151                                                                                  | 6712203  | 7515423    | 7587740    | 7537497    |
| 1.1.2.2 Long-term Time Deposits                                         | 303993                                                                                   | 245508   | 296520     | 294081     | 280304     |
| 1.2 Call/Term Funding from Financial Institutions                       | 8636407                                                                                  | 8203803  | 9185517    | 9273904    | 9212496    |
| <b>2 Sources</b>                                                        |                                                                                          |          |            |            |            |
| 2.1 Domestic Credit                                                     | 445329                                                                                   | 531879   | 818074     | 845917     | 839627     |
| 2.1.1 Credit to the Government                                          | 20197246                                                                                 | 18780840 | 21214123   | 21417507   | 21519465   |
| 2.1.1.1 Non-food Credit                                                 | 5414322                                                                                  | 5074818  | 5788050    | 5869220    | 5867696    |
| 2.1.1.2 Net Credit to Primary Dealers                                   |                                                                                          |          | (5900814)  | (5982086)  | (5980660)  |
| 2.1.1.3 Investments in Other Approved Securities                        | 14782924                                                                                 | 13706022 | 15426073   | 15548287   | 15651770   |
| 2.1.1.4 Other Investments (in non-SLR Securities)                       | 13675235                                                                                 | 12629875 | (16028274) | (16142615) | (16244210) |
| 2.1.2.1 Bank Credit                                                     | 13655330                                                                                 | 12608087 | 14315110   | 14444841   | 14558874   |
| 2.1.2.1.1 Non-food Credit                                               |                                                                                          |          | (14917312) | (15039169) | (15151314) |
| 2.1.2.1.2 Net Credit to Primary Dealers                                 | 19491                                                                                    | 18753    | 19173      | 18162      | 15968      |
| 2.1.2.1.3 Investments in Other Approved Securities                      | 826                                                                                      | 803      | 775        | 775        | 696        |
| 2.1.2.1.4 Other Investments (in non-SLR Securities)                     | 1087371                                                                                  | 1056591  | 1091015    | 1084509    | 1076232    |
| 2.2 Net Foreign Currency Assets of Commercial Banks (2.2.1-2.2.2-2.2.3) | 112467                                                                                   | 227799   | 45984      | 13950      | 24056      |
| 2.2.1 Foreign Currency Assets                                           | 351387                                                                                   | 428154   | 336338     | 309360     | 321548     |
| 2.2.2 Non-resident Foreign Currency Repatriable Fixed Deposits          | 160924                                                                                   | 134798   | 180913     | 184055     | 184084     |
| 2.2.3 Overseas Foreign Currency Borrowings                              | 77996                                                                                    | 65556    | 109441     | 111355     | 113408     |
| 2.3 Net Bank Reserves (2.3.1+2.3.2-2.3.3)                               | 833002                                                                                   | 914364   | 1110573    | 1166248    | 932184     |
| 2.3.1 Balances with the RBI                                             | 809907                                                                                   | 767171   | 1010361    | 992546     | 959345     |
| 2.3.2 Cash in Hand                                                      | 90263                                                                                    | 110168   | 93145      | 99284      | 94141      |
| 2.3.3 Loans and Advances from the RBI                                   | 67168                                                                                    | -37025   | -7067      | -74419     | 121303     |
| 2.4 Capital Account                                                     | 1916959                                                                                  | 1892304  | 2237243    | 2238432    | 2243904    |
| 2.5 Other items (net) (2.1+2.2+2.3-2.4-1.1-1.2)                         | 897438                                                                                   | 601625   | 402112     | 457288     | 437590     |
| 2.5.1 Other Demand and Time Liabilities (net of 2.2.3)                  | 711655                                                                                   | 626207   | 781267     | 761818     | 763831     |
| 2.5.2 Net Inter-Bank Liabilities (other than to PDs)                    | 44733                                                                                    | 10933    | 180408     | 178737     | 175901     |

**Note:** Figures in parentheses include the impact of merger of a non-bank with a bank.**No. 13: Scheduled Commercial Banks' Investments**

(₹ Crore)

| Item                                           | As on<br>March 24,<br>2023 | 2022    |           | 2023      |           |   |
|------------------------------------------------|----------------------------|---------|-----------|-----------|-----------|---|
|                                                |                            | Sep. 23 | Aug. 25   | Sep. 08   | Sep. 22   |   |
|                                                |                            |         | 2         | 3         | 4         | 5 |
| <b>1 SLR Securities</b>                        | 5415148                    | 5075622 | 5901589   | 5982861   | 5981357   |   |
|                                                |                            |         | (5788825) | (5869995) | (5868392) |   |
| <b>2 Other Government Securities (Non-SLR)</b> | 182265                     | 154764  | 180085    | 180051    | 180327    |   |
| <b>3 Commercial Paper</b>                      | 65058                      | 64736   | 57376     | 56156     | 57960     |   |
| <b>4 Shares issued by</b>                      |                            |         |           |           |           |   |
| 4.1 PSUs                                       | 9736                       | 9868    | 9048      | 9040      | 8972      |   |
| 4.2 Private Corporate Sector                   | 71099                      | 69565   | 83515     | 84941     | 83578     |   |
| 4.3 Others                                     | 4500                       | 5049    | 5576      | 5568      | 5399      |   |
| <b>5 Bonds/Debentures issued by</b>            |                            |         |           |           |           |   |
| 5.1 PSUs                                       | 92304                      | 101267  | 90401     | 90326     | 91081     |   |
| 5.2 Private Corporate Sector                   | 325035                     | 315463  | 288808    | 290711    | 286773    |   |
| 5.3 Others                                     | 99384                      | 94481   | 109063    | 109091    | 108132    |   |
| <b>6 Instruments issued by</b>                 |                            |         |           |           |           |   |
| 6.1 Mutual funds                               | 48810                      | 53746   | 76060     | 74162     | 70809     |   |
| 6.2 Financial institutions                     | 189180                     | 187652  | 191082    | 184463    | 183201    |   |

**Note:** Figures in parentheses exclude the impact of the merger.

**No. 14: Business in India - All Scheduled Banks and All Scheduled Commercial Banks**

(₹ Crore)

| Item                                                 | As on the Last Reporting Friday (in case of March)/ Last Friday |                 |                 |                                |                 |                 |                 |                 |
|------------------------------------------------------|-----------------------------------------------------------------|-----------------|-----------------|--------------------------------|-----------------|-----------------|-----------------|-----------------|
|                                                      | All Scheduled Banks                                             |                 |                 | All Scheduled Commercial Banks |                 |                 |                 |                 |
|                                                      | 2022-23                                                         | 2022            | 2023            | 2022-23                        | 2022            | 2023            | 2022            | 2023            |
|                                                      |                                                                 | Sep.            | Aug.            |                                | Sep.            | Sep.            |                 |                 |
|                                                      | 1                                                               | 2               | 3               | 4                              | 5               | 6               | 7               | 8               |
| Number of Reporting Banks                            | 212                                                             | 213             | 212             | 212                            | 137             | 137             | 137             | 137             |
| <b>1 Liabilities to the Banking System</b>           | <b>355252</b>                                                   | <b>302399</b>   | <b>511608</b>   | <b>529155</b>                  | <b>351843</b>   | <b>298536</b>   | <b>508423</b>   | <b>526671</b>   |
| 1.1 Demand and Time Deposits from Banks              | 228517                                                          | 202311          | 243491          | 255220                         | 226119          | 199213          | 241128          | 252857          |
| 1.2 Borrowings from Banks                            | 67566                                                           | 48094           | 199138          | 202599                         | 67199           | 47845           | 199018          | 202552          |
| 1.3 Other Demand and Time Liabilities                | 59170                                                           | 51994           | 68978           | 71336                          | 58524           | 51478           | 68276           | 71263           |
| <b>2 Liabilities to Others</b>                       | <b>19730504</b>                                                 | <b>19169535</b> | <b>21406268</b> | <b>21883023</b>                | <b>19278894</b> | <b>18726016</b> | <b>20949742</b> | <b>21423325</b> |
| 2.1 Aggregate Deposits                               | 18477677                                                        | 17969264        | 19680101        | 20141453                       | 18043914        | 17543827        | 19240961        | 19701045        |
| 2.1.1 Demand                                         | 2225416                                                         | 2280092         | 2256991         | 2455204                        | 2180431         | 2233996         | 2212312         | 2408810         |
| 2.1.2 Time                                           | 16252261                                                        | 15689172        | 17423111        | 17686248                       | 15863483        | 15309832        | 17028649        | 17292236        |
| 2.2 Borrowings                                       | 449945                                                          | 461739          | 822369          | 795714                         | 445329          | 456497          | 818074          | 791542          |
| 2.3 Other Demand and Time Liabilities                | 802881                                                          | 738532          | 903798          | 945857                         | 789651          | 725691          | 890708          | 930738          |
| <b>3 Borrowings from Reserve Bank</b>                | <b>165085</b>                                                   | <b>112556</b>   | <b>93310</b>    | <b>170292</b>                  | <b>165085</b>   | <b>112521</b>   | <b>93310</b>    | <b>170292</b>   |
| 3.1 Against Usance Bills /Promissory Notes           | -                                                               | -               | -               | -                              | -               | -               | -               | -               |
| 3.2 Others                                           | 165085                                                          | 112556          | 93310           | 170292                         | 165085          | 112521          | 93310           | 170292          |
| <b>4 Cash in Hand and Balances with Reserve Bank</b> | <b>920953</b>                                                   | <b>976214</b>   | <b>1126135</b>  | <b>1087194</b>                 | <b>900170</b>   | <b>953656</b>   | <b>1103506</b>  | <b>1064291</b>  |
| 4.1 Cash in Hand                                     | 92788                                                           | 111656          | 95460           | 97312                          | 90263           | 108743          | 93145           | 95056           |
| 4.2 Balances with Reserve Bank                       | 828165                                                          | 864558          | 1030676         | 989882                         | 809907          | 844913          | 1010361         | 969235          |
| <b>5 Assets with the Banking System</b>              | <b>397974</b>                                                   | <b>368427</b>   | <b>409036</b>   | <b>437517</b>                  | <b>326601</b>   | <b>306807</b>   | <b>347187</b>   | <b>375502</b>   |
| 5.1 Balances with Other Banks                        | 232378                                                          | 237182          | 226965          | 236066                         | 193422          | 195531          | 185201          | 194013          |
| 5.1.1 In Current Account                             | 18939                                                           | 29133           | 12120           | 17805                          | 15528           | 24701           | 9164            | 14640           |
| 5.1.2 In Other Accounts                              | 213440                                                          | 208050          | 214845          | 218261                         | 177894          | 170829          | 176037          | 179373          |
| 5.2 Money at Call and Short Notice                   | 49763                                                           | 24681           | 37031           | 50363                          | 24864           | 10226           | 20919           | 35254           |
| 5.3 Advances to Banks                                | 45330                                                           | 47280           | 47079           | 53076                          | 41184           | 45379           | 46290           | 51014           |
| 5.4 Other Assets                                     | 70503                                                           | 59284           | 97961           | 98013                          | 67130           | 55671           | 94777           | 95220           |
| <b>6 Investment</b>                                  | <b>5560664</b>                                                  | <b>5218402</b>  | <b>6047925</b>  | <b>6177151</b>                 | <b>5415148</b>  | <b>5070727</b>  | <b>5901589</b>  | <b>6028859</b>  |
| 6.1 Government Securities                            | 5553702                                                         | 5211728         | 6041382         | 6170331                        | 5414322         | 5069889         | 5900814         | 6028163         |
| 6.2 Other Approved Securities                        | 6963                                                            | 6675            | 6543            | 6820                           | 826             | 838             | 775             | 696             |
| <b>7 Bank Credit</b>                                 | <b>14078261</b>                                                 | <b>13403658</b> | <b>15313741</b> | <b>15717411</b>                | <b>13675235</b> | <b>13032473</b> | <b>14917312</b> | <b>15323660</b> |
| 7a Food Credit                                       | 65622                                                           | 64885           | 67044           | 59884                          | 19906           | 19167           | 19355           | 18687           |
| 7.1 Loans, Cash-credits and Overdrafts               | 13824693                                                        | 13151719        | 15056247        | 15444657                       | 13424906        | 12783404        | 14662675        | 15053692        |
| 7.2 Inland Bills-Purchased                           | 39446                                                           | 39195           | 43973           | 47381                          | 39435           | 39175           | 43961           | 47367           |
| 7.3 Inland Bills-Discounted                          | 165428                                                          | 164859          | 171306          | 183687                         | 162910          | 162753          | 169119          | 181569          |
| 7.4 Foreign Bills-Purchased                          | 19758                                                           | 18926           | 17545           | 17124                          | 19545           | 18754           | 17323           | 16896           |
| 7.5 Foreign Bills-Discounted                         | 28936                                                           | 28958           | 24669           | 24562                          | 28439           | 28386           | 24233           | 24136           |

**Note:** Figures in parentheses exclude the impact of the merger.

### No. 15: Deployment of Gross Bank Credit by Major Sectors

(₹ Crore)

| Sector                                                             | Outstanding as on |                 |                 |                          | Growth(%)   |              |
|--------------------------------------------------------------------|-------------------|-----------------|-----------------|--------------------------|-------------|--------------|
|                                                                    | Mar. 24,<br>2023  | 2023            |                 | Financial<br>year so far | Y-o-Y       |              |
|                                                                    |                   | 2022            | Sep. 23         |                          | 2023-24     | 2023         |
|                                                                    | 1                 | 2               | 3               | 4                        | %           | %            |
| <b>I. Bank Credit (II + III)</b>                                   | <b>13675235</b>   | <b>12629875</b> | <b>14920147</b> | <b>15151319</b>          | <b>10.8</b> | <b>20.0</b>  |
|                                                                    |                   |                 | (14317945)      | (14558878)               | (6.5)       | (15.3)       |
| <b>II. Food Credit</b>                                             | <b>19906</b>      | <b>21788</b>    | <b>19355</b>    | <b>18865</b>             | <b>-5.2</b> | <b>-13.4</b> |
| <b>III. Non-food Credit</b>                                        | <b>13655330</b>   | <b>12608087</b> | <b>14900791</b> | <b>15132454</b>          | <b>10.8</b> | <b>20.0</b>  |
|                                                                    |                   |                 | (14298590)      | (14540013)               | (6.5)       | (15.3)       |
| <b>1. Agriculture &amp; Allied Activities</b>                      | <b>1687191</b>    | <b>1561537</b>  | <b>1796113</b>  | <b>1823239</b>           | <b>8.1</b>  | <b>16.8</b>  |
| <b>2. Industry (Micro and Small, Medium and Large)</b>             | <b>3336722</b>    | <b>3240817</b>  | <b>3406423</b>  | <b>3470913</b>           | <b>4.0</b>  | <b>7.1</b>   |
| 2.1 Micro and Small                                                | 598390            | 572104          | 621974          | 629682                   | 5.2         | 10.1         |
| 2.2 Medium                                                         | 253384            | 238281          | 255703          | 261695                   | 3.3         | 9.8          |
| 2.3 Large                                                          | 2484949           | 2430432         | 2528745         | 2579537                  | 3.8         | 6.1          |
| <b>3. Services</b>                                                 | <b>3608574</b>    | <b>3222165</b>  | <b>3944678</b>  | <b>4031515</b>           | <b>11.7</b> | <b>25.1</b>  |
|                                                                    |                   |                 | (3816115)       | (3908917)                | (8.3)       | (21.3)       |
| 3.1 Transport Operators                                            | 176239            | 157763          | 188944          | 191886                   | 8.9         | 21.6         |
| 3.2 Computer Software                                              | 21559             | 21519           | 22206           | 23365                    | 8.4         | 8.6          |
| 3.3 Tourism, Hotels & Restaurants                                  | 66466             | 66098           | 71858           | 73405                    | 10.4        | 11.1         |
| 3.4 Shipping                                                       | 6677              | 7245            | 5604            | 5676                     | -15.0       | -21.7        |
| 3.5 Aviation                                                       | 28330             | 23409           | 39603           | 39655                    | 40.0        | 69.4         |
| 3.6 Professional Services                                          | 134661            | 120581          | 143340          | 147320                   | 9.4         | 22.2         |
| 3.7 Trade                                                          | 819921            | 745734          | 835897          | 866511                   | 5.7         | 16.2         |
| 3.7.1. Wholesale Trade <sup>1</sup>                                | 396631            | 377709          | 403155          | 419632                   | 5.8         | 11.1         |
| 3.7.2 Retail Trade                                                 | 423291            | 368025          | 432742          | 446879                   | 5.6         | 21.4         |
| 3.8 Commercial Real Estate                                         | 314604            | 297707          | 408759          | 410208                   | 30.4        | 37.8         |
|                                                                    |                   |                 | (336177)        | (341620)                 | (8.6)       | (14.8)       |
| 3.9 Non-Banking Financial Companies (NBFCs) <sup>2</sup> of which, | 1331097           | 1124077         | 1383446         | 1419966                  | 6.7         | 26.3         |
| 3.9.1 Housing Finance Companies (HFCs)                             | 314678            | 307931          | 309883          | 307266                   | -2.4        | -0.2         |
| 3.9.2 Public Financial Institutions (PFIs)                         | 175614            | 143131          | 178994          | 193096                   | 10.0        | 34.9         |
| 3.10 Other Services <sup>3</sup>                                   | 709020            | 658034          | 845021          | 853522                   | 20.4        | 29.7         |
|                                                                    |                   |                 | (804674)        | (814643)                 | (14.9)      | (23.8)       |
| <b>4. Personal Loans</b>                                           | <b>4085168</b>    | <b>3702006</b>  | <b>4770125</b>  | <b>4826833</b>           | <b>18.2</b> | <b>30.4</b>  |
|                                                                    |                   |                 | (4314756)       | (4375216)                | (7.1)       | (18.2)       |
| 4.1 Consumer Durables                                              | 20044             | 18900           | 21221           | 20956                    | 4.6         | 10.9         |
| 4.2 Housing                                                        | 1936428           | 1803716         | 2456320         | 2476697                  | 27.9        | 37.3         |
|                                                                    |                   |                 | (2029296)       | (2053017)                | (6.0)       | (13.8)       |
| 4.3 Advances against Fixed Deposits                                | 121897            | 96332           | 111037          | 113560                   | -6.8        | 17.9         |
| 4.4 Advances to Individuals against share & bonds                  | 6778              | 6636            | 6833            | 6925                     | 2.2         | 4.4          |
| 4.5 Credit Card Outstanding                                        | 194282            | 167179          | 217864          | 217203                   | 11.8        | 29.9         |
| 4.6 Education                                                      | 96847             | 90858           | 106502          | 109743                   | 13.3        | 20.8         |
| 4.7 Vehicle Loans                                                  | 500299            | 447209          | 533965          | 542191                   | 8.4         | 21.2         |
| 4.8 Loan against gold jewellery                                    | 88428             | 81309           | 96265           | 97660                    | 10.4        | 20.1         |
| 4.9 Other Personal Loans                                           | 1120165           | 989867          | 1220119         | 1241899                  | 10.9        | 25.5         |
|                                                                    |                   |                 | (1192357)       | (1214539)                | (8.4)       | (22.7)       |
| <b>5. Priority Sector (Memo)</b>                                   |                   |                 |                 |                          |             |              |
| (i) Agriculture & Allied Activities <sup>4</sup>                   | 1708951           | 1601293         | 1816482         | 1845976                  | 8.0         | 15.3         |
| (ii) Micro & Small Enterprises <sup>5</sup>                        | 1570231           | 1478308         | 1718398         | 1746750                  | 11.2        | 18.2         |
| (iii) Medium Enterprises <sup>6</sup>                              | 399260            | 371997          | 408065          | 423017                   | 6.0         | 13.7         |
| (iv) Housing                                                       | 621376            | 625520          | 758806          | 765797                   | 23.2        | 22.4         |
|                                                                    |                   |                 | (657940)        | (665154)                 | (7.0)       | (6.3)        |
| (v) Education Loans                                                | 59507             | 58881           | 60553           | 61140                    | 2.7         | 3.8          |
| (vi) Renewable Energy                                              | 4656              | 3750            | 4766            | 4853                     | 4.2         | 29.4         |
| (vii) Social Infrastructure                                        | 2464              | 2412            | 2572            | 2584                     | 4.9         | 7.1          |
| (viii) Export Credit                                               | 15424             | 15951           | 9215            | 8930                     | -42.1       | -44.0        |
| (ix) Others                                                        | 59659             | 51703           | 48587           | 49483                    | -17.1       | -4.3         |
| (x) Weaker Sections including net PSLC- SF/MF                      | 1384249           | 1283749         | 1416790         | 1470855                  | 6.3         | 14.6         |

## 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 93 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. Figures in parentheses exclude the impact of the merger.

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 "Agriculture and Allied Activities" under the priority sector also include priority sector lending certificates (PSLCs).

5 "Micro and Small Enterprises" under the priority sector include credit to micro and small enterprises in industry and services sectors and also include PSLCs.

6 "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. 24,<br>2023  | 2022    | 2023      |           | Financial<br>year so far | Y-o-Y |
|                                                               |                   | Sep. 23 | Aug. 25   | Sep. 22   | 2023-24                  | 2023  |
|                                                               | 1                 | 2       | 3         | 4         | %                        | %     |
| <b>2 Industries (2.1 to 2.19)</b>                             | 3336722           | 3240817 | 3406423   | 3470913   | 4.0                      | 7.1   |
|                                                               |                   |         | (3388164) | (3452756) | (3.5)                    | (6.5) |
| <b>2.1 Mining &amp; Quarrying (incl. Coal)</b>                | 58812             | 50180   | 50668     | 51962     | -11.6                    | 3.6   |
| <b>2.2 Food Processing</b>                                    | 182878            | 160107  | 175520    | 173309    | -5.2                     | 8.2   |
| 2.2.1 Sugar                                                   | 22867             | 18968   | 17647     | 16434     | -28.1                    | -13.4 |
| 2.2.2 Edible Oils & Vanaspati                                 | 19737             | 15919   | 18261     | 17999     | -8.8                     | 13.1  |
| 2.2.3 Tea                                                     | 5162              | 6112    | 5569      | 5757      | 11.5                     | -5.8  |
| 2.2.4 Others                                                  | 135112            | 119108  | 134043    | 133120    | -1.5                     | 11.8  |
| <b>2.3 Beverage &amp; Tobacco</b>                             | 23362             | 17776   | 24411     | 25406     | 8.8                      | 42.9  |
| <b>2.4 Textiles</b>                                           | 227843            | 213404  | 237253    | 239988    | 5.3                      | 12.5  |
| 2.4.1 Cotton Textiles                                         | 91095             | 81299   | 93460     | 94906     | 4.2                      | 16.7  |
| 2.4.2 Jute Textiles                                           | 3867              | 3719    | 3787      | 3982      | 3.0                      | 7.1   |
| 2.4.3 Man-Made Textiles                                       | 40354             | 38917   | 41587     | 42873     | 6.2                      | 10.2  |
| 2.4.4 Other Textiles                                          | 92527             | 89470   | 98418     | 98228     | 6.2                      | 9.8   |
| <b>2.5 Leather &amp; Leather Products</b>                     | 11675             | 11551   | 11729     | 11879     | 1.7                      | 2.8   |
| <b>2.6 Wood &amp; Wood Products</b>                           | 19963             | 17441   | 20836     | 21503     | 7.7                      | 23.3  |
| <b>2.7 Paper &amp; Paper Products</b>                         | 43010             | 41428   | 42206     | 43489     | 1.1                      | 5.0   |
| <b>2.8 Petroleum, Coal Products &amp; Nuclear Fuels</b>       | 149363            | 151473  | 119948    | 137297    | -8.1                     | -9.4  |
| <b>2.9 Chemicals &amp; Chemical Products</b>                  | 216481            | 215149  | 213330    | 220748    | 2.0                      | 2.6   |
| 2.9.1 Fertiliser                                              | 33805             | 36852   | 28407     | 29449     | -12.9                    | -20.1 |
| 2.9.2 Drugs & Pharmaceuticals                                 | 67130             | 64211   | 70408     | 72463     | 7.9                      | 12.9  |
| 2.9.3 Petro Chemicals                                         | 20661             | 21860   | 21382     | 21653     | 4.8                      | -0.9  |
| 2.9.4 Others                                                  | 94885             | 92225   | 93133     | 97183     | 2.4                      | 5.4   |
| <b>2.10 Rubber, Plastic &amp; their Products</b>              | 79037             | 75487   | 78204     | 80408     | 1.7                      | 6.5   |
| <b>2.11 Glass &amp; Glassware</b>                             | 8100              | 6502    | 8885      | 9236      | 14.0                     | 42.0  |
| <b>2.12 Cement &amp; Cement Products</b>                      | 56592             | 50308   | 58718     | 59473     | 5.1                      | 18.2  |
| <b>2.13 Basic Metal &amp; Metal Product</b>                   | 343507            | 306675  | 355094    | 364955    | 6.2                      | 19.0  |
| 2.13.1 Iron & Steel                                           | 228860            | 205442  | 236217    | 245780    | 7.4                      | 19.6  |
| 2.13.2 Other Metal & Metal Product                            | 114646            | 101233  | 118877    | 119175    | 4.0                      | 17.7  |
| <b>2.14 All Engineering</b>                                   | 175260            | 173176  | 182635    | 185895    | 6.1                      | 7.3   |
| 2.14.1 Electronics                                            | 41781             | 40124   | 43006     | 45013     | 7.7                      | 12.2  |
| 2.14.2 Others                                                 | 133479            | 133053  | 139628    | 140881    | 5.5                      | 5.9   |
| <b>2.15 Vehicles, Vehicle Parts &amp; Transport Equipment</b> | 96603             | 91973   | 103170    | 105390    | 9.1                      | 14.6  |
| <b>2.16 Gems &amp; Jewellery</b>                              | 77718             | 78021   | 92909     | 90433     | 16.4                     | 15.9  |
| <b>2.17 Construction</b>                                      | 122880            | 120041  | 126361    | 126292    | 2.8                      | 5.2   |
| <b>2.18 Infrastructure</b>                                    | 1201983           | 1214880 | 1238433   | 1250042   | 4.0                      | 2.9   |
| 2.18.1 Power                                                  | 620425            | 620963  | 614306    | 619416    | -0.2                     | -0.2  |
| 2.18.2 Telecommunications                                     | 111334            | 131526  | 134842    | 135463    | 21.7                     | 3.0   |
| 2.18.3 Roads                                                  | 284793            | 278943  | 299786    | 302701    | 6.3                      | 8.5   |
| 2.18.4 Airports                                               | 9492              | 8572    | 7774      | 7941      | -16.3                    | -7.4  |
| 2.18.5 Ports                                                  | 8175              | 8556    | 8097      | 7941      | -2.9                     | -7.2  |
| 2.18.6 Railways                                               | 11169             | 11825   | 12522     | 12668     | 13.4                     | 7.1   |
| 2.18.7 Other Infrastructure                                   | 156593            | 154494  | 161106    | 163912    | 4.7                      | 6.1   |
| <b>2.19 Other Industries</b>                                  | 241656            | 245244  | 266112    | 273207    | 13.1                     | 11.4  |

**Note:** Data since July 28, 2023 include the impact of the merger of a non-bank with a bank. Figures in parentheses exclude the impact of the merger.

**No. 17: State Co-operative Banks Maintaining Accounts with the Reserve Bank of India**

(₹ Crore)

| Item                                                  | Last Reporting Friday (in case of March)/Last Friday/<br>Reporting Friday |                 |                 |                 |                 |                 |                 |                 |                 |
|-------------------------------------------------------|---------------------------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                                       | 2022-23                                                                   | 2022            |                 | 2023            |                 |                 |                 |                 |                 |
|                                                       |                                                                           | Aug. 26         | Jun. 02         | Jun. 16         | Jun. 30         | Jul. 14         | Jul. 28         | Aug. 11         | Aug. 25         |
|                                                       | 1                                                                         | 2               | 3               | 4               | 5               | 6               | 7               | 8               | 9               |
| Number of Reporting Banks                             | 33                                                                        | 32              | 33              | 33              | 33              | 33              | 33              | 33              | 33              |
| <b>1 Aggregate Deposits (2.1.1.2+2.2.1.2)</b>         | <b>144701.9</b>                                                           | <b>125494.2</b> | <b>138772.4</b> | <b>138742.0</b> | <b>138579.7</b> | <b>138672.4</b> | <b>139476.4</b> | <b>139987.6</b> | <b>139938.2</b> |
| 2 Demand and Time Liabilities                         |                                                                           |                 |                 |                 |                 |                 |                 |                 |                 |
| <b>2.1 Demand Liabilities</b>                         | <b>30241.2</b>                                                            | <b>24974.3</b>  | <b>27392.9</b>  | <b>27086.6</b>  | <b>28185.3</b>  | <b>27362.1</b>  | <b>28096.2</b>  | <b>27425.8</b>  | <b>26773.3</b>  |
| 2.1.1 Deposits                                        |                                                                           |                 |                 |                 |                 |                 |                 |                 |                 |
| 2.1.1.1 Inter-Bank                                    | 6893.3                                                                    | 6345.3          | 6680.5          | 6522.8          | 6015.4          | 6805.3          | 7260.0          | 6554.5          | 6615.2          |
| 2.1.1.2 Others                                        | 18195.4                                                                   | 13086.0         | 15199.5         | 15451.1         | 15613.8         | 14892.5         | 15206.0         | 15006.2         | 14594.4         |
| 2.1.2 Borrowings from Banks                           | 0.0                                                                       | 599.7           |                 |                 | 439.8           |                 |                 |                 |                 |
| 2.1.3 Other Demand Liabilities                        | 5152.4                                                                    | 4943.3          | 5512.8          | 5112.7          | 6116.4          | 5664.3          | 5630.2          | 5865.1          | 5563.7          |
| <b>2.2 Time Liabilities</b>                           | <b>194129.9</b>                                                           | <b>174028.1</b> | <b>182351.9</b> | <b>181741.0</b> | <b>182740.2</b> | <b>181858.7</b> | <b>184270.2</b> | <b>182247.5</b> | <b>182044.5</b> |
| 2.2.1 Deposits                                        |                                                                           |                 |                 |                 |                 |                 |                 |                 |                 |
| 2.2.1.1 Inter-Bank                                    | 65875.0                                                                   | 57214.2         | 56939.9         | 56097.2         | 57869.2         | 56166.7         | 56504.5         | 54804.5         | 53971.0         |
| 2.2.1.2 Others                                        | 126506.5                                                                  | 112408.2        | 123572.9        | 123290.9        | 122965.9        | 123779.9        | 124270.4        | 124981.4        | 125343.8        |
| 2.2.2 Borrowings from Banks                           | 845.8                                                                     | 1957.6          | 841.0           | 1320.5          | 839.7           | 839.5           | 2399.5          | 1361.5          | 1584.5          |
| 2.2.3 Other Time Liabilities                          | 902.6                                                                     | 2448.0          | 998.1           | 1032.4          | 1065.4          | 1072.6          | 1095.8          | 1100.1          | 1145.2          |
| 3 Borrowing from Reserve Bank                         | 0.0                                                                       |                 |                 |                 |                 |                 |                 |                 |                 |
| 4 Borrowings from a notified bank / Government        | 84382.5                                                                   | 62522.8         | 77822.6         | 76606.3         | 73630.1         | 73111.5         | 69968.4         | 69348.8         | 68594.1         |
| 4.1 Demand                                            | 20545.9                                                                   | 12585.2         | 16509.4         | 16603.5         | 15253.8         | 19968.3         | 17964.1         | 15500.3         | 18516.2         |
| 4.2 Time                                              | 63836.7                                                                   | 49937.6         | 61313.2         | 60002.8         | 58376.2         | 53143.2         | 52004.3         | 53848.5         | 50077.9         |
| <b>5 Cash in Hand and Balances with Reserve Bank</b>  | <b>12386.8</b>                                                            | <b>10250.5</b>  | <b>11860.0</b>  | <b>11642.1</b>  | <b>11981.9</b>  | <b>12172.0</b>  | <b>11770.2</b>  | <b>11835.6</b>  | <b>11838.9</b>  |
| 5.1 Cash in Hand                                      | 1540.1                                                                    | 692.1           | 857.9           | 861.8           | 845.0           | 1033.6          | 766.7           | 726.8           | 664.1           |
| 5.2 Balance with Reserve Bank                         | 10846.7                                                                   | 9558.4          | 11002.1         | 10780.3         | 11136.9         | 11138.4         | 11003.5         | 11108.8         | 11174.8         |
| <b>6 Balances with Other Banks in Current Account</b> | <b>3500.7</b>                                                             | <b>1094.8</b>   | <b>3192.9</b>   | <b>3037.1</b>   | <b>2666.2</b>   | <b>2636.0</b>   | <b>1704.7</b>   | <b>1466.8</b>   | <b>1475.4</b>   |
| <b>7 Investments in Government Securities</b>         | <b>80906.4</b>                                                            | <b>71873.8</b>  | <b>73176.7</b>  | <b>72011.3</b>  | <b>72286.7</b>  | <b>71605.8</b>  | <b>72244.8</b>  | <b>71733.8</b>  | <b>71649.5</b>  |
| <b>8 Money at Call and Short Notice</b>               | <b>34771.6</b>                                                            | <b>18686.5</b>  | <b>20792.4</b>  | <b>20027.0</b>  | <b>19661.2</b>  | <b>19794.3</b>  | <b>20748.8</b>  | <b>21134.7</b>  | <b>21285.0</b>  |
| <b>9 Bank Credit (10.1+11)</b>                        | <b>124978.1</b>                                                           | <b>120016.1</b> | <b>127852.7</b> | <b>128449.8</b> | <b>128006.9</b> | <b>128149.5</b> | <b>127405.4</b> | <b>127603.3</b> | <b>125245.6</b> |
| 10 Advances                                           |                                                                           |                 |                 |                 |                 |                 |                 |                 |                 |
| <b>10.1 Loans, Cash-Credits and Overdrafts</b>        | <b>124928.2</b>                                                           | <b>119992.7</b> | <b>127783.3</b> | <b>128377.8</b> | <b>127932.8</b> | <b>128072.2</b> | <b>127329.1</b> | <b>127514.9</b> | <b>125169.9</b> |
| 10.2 Due from Banks                                   | 131095.9                                                                  | 107006.1        | 121239.6        | 121397.0        | 120521.3        | 120095.2        | 119210.1        | 118054.9        | 116627.8        |
| 11 Bills Purchased and Discounted                     | 49.9                                                                      | 23.3            | 69.4            | 71.9            | 74.2            | 77.3            | 76.3            | 88.4            | 75.7            |

## Prices and Production

### No. 18: Consumer Price Index (Base: 2012=100)

| Group/Sub group                       | 2022-23      |              |              | Rural        |              |              | Urban        |              |              | Combined     |              |              |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                       | Rural        | Urban        | Combined     | Oct.22       | Sep.23       | Oct.23 (P)   | Oct.22       | Sep.23       | Oct.23 (P)   | Oct.22       | Sep.23       | Oct.23 (P)   |
|                                       | 1            | 2            | 3            | 4            | 5            | 6            | 7            | 8            | 9            | 10           | 11           | 12           |
| <b>1 Food and beverages</b>           | <b>173.9</b> | <b>179.7</b> | <b>176.0</b> | <b>177.4</b> | <b>186.7</b> | <b>188.4</b> | <b>183.3</b> | <b>193.0</b> | <b>194.9</b> | <b>179.6</b> | <b>189.0</b> | <b>190.8</b> |
| 1.1 Cereals and products              | 163.3        | 165.3        | 164.0        | 164.7        | 181.4        | 182.9        | 166.4        | 181.3        | 182.7        | 165.2        | 181.4        | 182.8        |
| 1.2 Meat and fish                     | 208.7        | 215.2        | 211.0        | 208.8        | 214.5        | 215.1        | 214.9        | 223.7        | 222.9        | 210.9        | 217.7        | 217.8        |
| 1.3 Egg                               | 174.7        | 177.1        | 175.6        | 170.3        | 178.5        | 185.3        | 171.9        | 184.2        | 189.3        | 170.9        | 180.7        | 186.8        |
| 1.4 Milk and products                 | 170.1        | 170.7        | 170.3        | 170.9        | 181.5        | 181.7        | 171.0        | 181.6        | 182.2        | 170.9        | 181.5        | 181.9        |
| 1.5 Oils and fats                     | 197.0        | 181.1        | 191.2        | 191.6        | 164.5        | 163.1        | 177.7        | 158.3        | 157.0        | 186.5        | 162.2        | 160.9        |
| 1.6 Fruits                            | 164.1        | 169.6        | 166.7        | 162.2        | 173.6        | 174.9        | 165.7        | 182.7        | 183.8        | 163.8        | 177.8        | 179.1        |
| 1.7 Vegetables                        | 160.8        | 198.7        | 173.6        | 184.8        | 184.5        | 190.3        | 228.6        | 225.5        | 234.0        | 199.7        | 198.4        | 205.1        |
| 1.8 Pulses and products               | 168.1        | 168.2        | 168.2        | 169.7        | 195.0        | 199.7        | 169.9        | 200.1        | 205.7        | 169.8        | 196.7        | 201.7        |
| 1.9 Sugar and confectionery           | 119.9        | 122.2        | 120.7        | 121.1        | 126.6        | 128.1        | 123.4        | 128.4        | 129.7        | 121.9        | 127.2        | 128.6        |
| 1.10 Spices                           | 199.4        | 193.5        | 197.5        | 201.6        | 246.3        | 248.7        | 196.4        | 236.0        | 238.7        | 199.9        | 242.9        | 245.4        |
| 1.11 Non-alcoholic beverages          | 175.4        | 161.3        | 169.6        | 175.8        | 180.5        | 181.0        | 161.6        | 168.2        | 168.6        | 169.9        | 175.4        | 175.8        |
| 1.12 Prepared meals, snacks, sweets   | 185.1        | 190.4        | 187.6        | 185.6        | 193.2        | 193.5        | 191.5        | 200.7        | 201.4        | 188.3        | 196.7        | 197.2        |
| <b>2 Pan, tobacco and intoxicants</b> | <b>195.0</b> | <b>199.9</b> | <b>196.3</b> | <b>194.9</b> | <b>202.2</b> | <b>202.5</b> | <b>200.1</b> | <b>207.2</b> | <b>207.8</b> | <b>196.3</b> | <b>203.5</b> | <b>203.9</b> |
| <b>3 Clothing and footwear</b>        | <b>184.5</b> | <b>172.9</b> | <b>179.9</b> | <b>185.9</b> | <b>192.7</b> | <b>193.2</b> | <b>173.6</b> | <b>181.2</b> | <b>182.1</b> | <b>181.0</b> | <b>188.1</b> | <b>188.8</b> |
| 3.1 Clothing                          | 184.8        | 175.0        | 180.9        | 186.1        | 193.3        | 193.8        | 175.5        | 183.2        | 184.1        | 181.9        | 189.3        | 190.0        |
| 3.2 Footwear                          | 182.7        | 161.4        | 173.9        | 184.4        | 189.4        | 189.5        | 162.6        | 170.2        | 170.6        | 175.3        | 181.4        | 181.6        |
| <b>4 Housing</b>                      | --           | <b>170.0</b> | <b>170.0</b> | --           | --           | --           | <b>171.2</b> | <b>176.2</b> | <b>177.7</b> | <b>171.2</b> | <b>176.2</b> | <b>177.7</b> |
| <b>5 Fuel and light</b>               | <b>179.7</b> | <b>178.4</b> | <b>179.2</b> | <b>180.8</b> | <b>181.6</b> | <b>182.3</b> | <b>180.0</b> | <b>175.5</b> | <b>175.7</b> | <b>180.5</b> | <b>179.3</b> | <b>179.8</b> |
| <b>6 Miscellaneous</b>                | <b>173.8</b> | <b>166.5</b> | <b>170.3</b> | <b>173.9</b> | <b>181.6</b> | <b>181.9</b> | <b>166.8</b> | <b>173.7</b> | <b>173.9</b> | <b>170.5</b> | <b>177.8</b> | <b>178.0</b> |
| 6.1 Household goods and services      | 173.7        | 165.1        | 169.6        | 174.4        | 181.3        | 181.7        | 166.0        | 171.7        | 171.9        | 170.4        | 176.8        | 177.1        |
| 6.2 Health                            | 181.3        | 174.6        | 178.7        | 181.2        | 190.4        | 191.4        | 174.7        | 184.9        | 185.5        | 178.7        | 188.3        | 189.2        |
| 6.3 Transport and communication       | 167.3        | 158.8        | 162.8        | 167.4        | 171.3        | 171.4        | 158.8        | 161.3        | 161.4        | 162.9        | 166.0        | 166.1        |
| 6.4 Recreation and amusement          | 170.0        | 165.8        | 167.6        | 170.6        | 175.9        | 176.3        | 166.3        | 171.2        | 171.6        | 168.2        | 173.3        | 173.7        |
| 6.5 Education                         | 175.6        | 169.7        | 172.2        | 176.5        | 184.9        | 184.8        | 171.2        | 180.3        | 180.4        | 173.4        | 182.2        | 182.2        |
| 6.6 Personal care and effects         | 173.2        | 173.4        | 173.3        | 172.0        | 185.1        | 185.2        | 172.3        | 186.1        | 186.2        | 172.1        | 185.5        | 185.6        |
| <b>General Index (All Groups)</b>     | <b>175.8</b> | <b>173.5</b> | <b>174.7</b> | <b>177.9</b> | <b>185.8</b> | <b>187.0</b> | <b>175.3</b> | <b>182.2</b> | <b>183.4</b> | <b>176.7</b> | <b>184.1</b> | <b>185.3</b> |

Source: National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India.

P: Provisional

### No. 19: Other Consumer Price Indices

| Item                                              | Base Year | Linking Factor | 2022-23 |       | 2022  |      | 2023  |   |
|---------------------------------------------------|-----------|----------------|---------|-------|-------|------|-------|---|
|                                                   |           |                | 2022-23 |       | Sep.  | Aug. | Sep.  |   |
|                                                   |           |                | 1       | 2     | 3     | 4    | 5     | 6 |
| 1 Consumer Price Index for Industrial Workers     | 2016      | 2.88           | 131.1   | 131.3 | 139.2 |      | 137.5 |   |
| 2 Consumer Price Index for Agricultural Labourers | 1986-87   | 5.89           | 1148    | 1149  | 1224  |      | 1226  |   |
| 3 Consumer Price Index for Rural Labourers        | 1986-87   | -              | 1160    | 1161  | 1234  |      | 1237  |   |

Source: Labour Bureau, Ministry of Labour and Employment, Government of India.

### No. 20: Monthly Average Price of Gold and Silver in Mumbai

| Item                             | 2022-23 | 2022  |       | 2023  |       |
|----------------------------------|---------|-------|-------|-------|-------|
|                                  |         | Sep.  | Aug.  | Sep.  |       |
|                                  |         | 1     | 2     | 3     | 4     |
| 1 Standard Gold (₹ per 10 grams) |         | 52731 | 49914 | 58738 | 58743 |
| 2 Silver (₹ per kilogram)        |         | 61991 | 55232 | 72135 | 71852 |

Source: India Bullion & Jewellers Association Ltd., Mumbai for Gold and Silver prices in Mumbai.

**No. 21: Wholesale Price Index**  
(Base: 2011-12 = 100)

| Commodities                                                                           | Weight         | 2022-23      | 2022         |              | 2023         |              |
|---------------------------------------------------------------------------------------|----------------|--------------|--------------|--------------|--------------|--------------|
|                                                                                       |                |              | Oct.         | Aug.         | Sep.(P)      | Oct.(P)      |
|                                                                                       | 1              | 2            | 3            | 4            | 5            | 6            |
| <b>1 ALL COMMODITIES</b>                                                              | <b>100.000</b> | <b>152.5</b> | <b>152.9</b> | <b>152.5</b> | <b>151.5</b> | <b>152.1</b> |
| <b>1.1 PRIMARY ARTICLES</b>                                                           | <b>22.618</b>  | <b>176.8</b> | <b>181.2</b> | <b>190.3</b> | <b>182.4</b> | <b>184.5</b> |
| <b>1.1.1 FOOD ARTICLES</b>                                                            | <b>15.256</b>  | <b>179.5</b> | <b>186.1</b> | <b>202.8</b> | <b>188.3</b> | <b>190.8</b> |
| 1.1.1.1 Food Grains (Cereals+Pulses)                                                  | 3.462          | 178.6        | 179.6        | 190.1        | 194.8        | 197.1        |
| 1.1.1.2 Fruits & Vegetables                                                           | 3.475          | 200.6        | 230.8        | 263.6        | 200.3        | 204.1        |
| 1.1.1.3 Milk                                                                          | 4.440          | 167.8        | 166.7        | 179.6        | 179.7        | 179.9        |
| 1.1.1.4 Eggs, Meat & Fish                                                             | 2.402          | 170.6        | 167.8        | 174.4        | 166.4        | 172.3        |
| 1.1.1.5 Condiments & Spices                                                           | 0.529          | 187.2        | 191.2        | 251.7        | 253.6        | 250.7        |
| 1.1.1.6 Other Food Articles                                                           | 0.948          | 178.1        | 180.0        | 179.8        | 180.0        | 183.6        |
| <b>1.1.2 NON-FOOD ARTICLES</b>                                                        | <b>4.119</b>   | <b>172.1</b> | <b>166.0</b> | <b>163.2</b> | <b>164.2</b> | <b>163.8</b> |
| 1.1.2.1 Fibres                                                                        | 0.839          | 203.0        | 193.1        | 170.6        | 171.7        | 167.4        |
| 1.1.2.2 Oil Seeds                                                                     | 1.115          | 205.2        | 189.0        | 187.8        | 185.8        | 181.9        |
| 1.1.2.3 Other non-food Articles                                                       | 1.960          | 131.2        | 127.5        | 135.4        | 136.9        | 137.9        |
| 1.1.2.4 Floriculture                                                                  | 0.204          | 257.4        | 298.5        | 265.3        | 277.6        | 298.8        |
| <b>1.1.3 MINERALS</b>                                                                 | <b>0.833</b>   | <b>203.5</b> | <b>196.8</b> | <b>205.5</b> | <b>204.8</b> | <b>220.8</b> |
| 1.1.3.1 Metallic Minerals                                                             | 0.648          | 191.7        | 182.6        | 189.0        | 189.1        | 200.5        |
| 1.1.3.2 Other Minerals                                                                | 0.185          | 245.2        | 246.6        | 263.4        | 260.0        | 292.0        |
| <b>1.1.4 CRUDE PETROLEUM &amp; NATURAL GAS</b>                                        | <b>2.410</b>   | <b>158.4</b> | <b>170.7</b> | <b>152.3</b> | <b>168.0</b> | <b>167.0</b> |
| <b>1.2 FUEL &amp; POWER</b>                                                           | <b>13.152</b>  | <b>159.5</b> | <b>158.0</b> | <b>149.1</b> | <b>153.1</b> | <b>154.1</b> |
| <b>1.2.1 COAL</b>                                                                     | <b>2.138</b>   | <b>133.3</b> | <b>134.3</b> | <b>137.6</b> | <b>136.7</b> | <b>136.7</b> |
| 1.2.1.1 Coking Coal                                                                   | 0.647          | 143.4        | 143.4        | 143.4        | 143.4        | 143.4        |
| 1.2.1.2 Non-Coking Coal                                                               | 1.401          | 119.8        | 119.8        | 125.8        | 125.8        | 125.8        |
| 1.2.1.3 Lignite                                                                       | 0.090          | 271.1        | 294.3        | 279.8        | 258.1        | 258.1        |
| <b>1.2.2 MINERAL OILS</b>                                                             | <b>7.950</b>   | <b>172.9</b> | <b>166.4</b> | <b>157.6</b> | <b>163.7</b> | <b>165.8</b> |
| <b>1.2.3 ELECTRICITY</b>                                                              | <b>3.064</b>   | <b>143.3</b> | <b>152.9</b> | <b>135.1</b> | <b>137.0</b> | <b>136.0</b> |
| <b>1.3 MANUFACTURED PRODUCTS</b>                                                      | <b>64.231</b>  | <b>142.6</b> | <b>141.9</b> | <b>139.9</b> | <b>140.3</b> | <b>140.3</b> |
| <b>1.3.1 MANUFACTURE OF FOOD PRODUCTS</b>                                             | <b>9.122</b>   | <b>165.3</b> | <b>163.7</b> | <b>160.8</b> | <b>160.2</b> | <b>161.0</b> |
| 1.3.1.1 Processing and Preserving of meat                                             | 0.134          | 143.7        | 140.9        | 143.0        | 143.3        | 143.9        |
| 1.3.1.2 Processing and Preserving of fish, Crustaceans, Molluscs and products thereof | 0.204          | 144.9        | 139.2        | 144.0        | 140.7        | 144.2        |
| 1.3.1.3 Processing and Preserving of fruit and Vegetables                             | 0.138          | 125.8        | 127.4        | 132.3        | 130.8        | 129.5        |
| 1.3.1.4 Vegetable and Animal oils and Fats                                            | 2.643          | 181.9        | 173.3        | 147.5        | 143.3        | 142.3        |
| 1.3.1.5 Dairy products                                                                | 1.165          | 167.0        | 168.2        | 178.8        | 178.6        | 179.7        |
| 1.3.1.6 Grain mill products                                                           | 2.010          | 162.1        | 165.1        | 174.1        | 176.3        | 178.2        |
| 1.3.1.7 Starches and Starch products                                                  | 0.110          | 158.9        | 163.6        | 150.3        | 152.9        | 152.7        |
| 1.3.1.8 Bakery products                                                               | 0.215          | 163.0        | 163.4        | 164.3        | 164.9        | 165.1        |
| 1.3.1.9 Sugar, Molasses & honey                                                       | 1.163          | 126.8        | 127.3        | 132.6        | 134.5        | 136.6        |
| 1.3.1.10 Cocoa, Chocolate and Sugar confectionery                                     | 0.175          | 135.9        | 135.4        | 137.9        | 138.5        | 138.7        |
| 1.3.1.11 Macaroni, Noodles, Couscous and Similar farinaceous products                 | 0.026          | 155.8        | 162.5        | 148.4        | 149.6        | 150.6        |
| 1.3.1.12 Tea & Coffee products                                                        | 0.371          | 178.2        | 178.5        | 182.6        | 179.9        | 183.0        |
| 1.3.1.13 Processed condiments & salt                                                  | 0.163          | 176.5        | 178.0        | 189.6        | 193.2        | 192.3        |
| 1.3.1.14 Processed ready to eat food                                                  | 0.024          | 141.2        | 142.9        | 146.2        | 146.5        | 146.9        |
| 1.3.1.15 Health supplements                                                           | 0.225          | 179.4        | 183.8        | 179.2        | 181.7        | 181.5        |
| 1.3.1.16 Prepared animal feeds                                                        | 0.356          | 208.8        | 206.5        | 211.7        | 210.9        | 212.0        |
| <b>1.3.2 MANUFACTURE OF BEVERAGES</b>                                                 | <b>0.909</b>   | <b>128.9</b> | <b>129.1</b> | <b>131.4</b> | <b>131.3</b> | <b>131.3</b> |
| 1.3.2.1 Wines & spirits                                                               | 0.408          | 129.3        | 129.7        | 133.2        | 133.4        | 133.5        |
| 1.3.2.2 Malt liquors and Malt                                                         | 0.225          | 134.5        | 135.1        | 135.6        | 134.8        | 135.0        |
| 1.3.2.3 Soft drinks; Production of mineral waters and Other bottled waters            | 0.275          | 123.7        | 123.3        | 125.1        | 125.3        | 125.0        |

**No. 21: Wholesale Price Index (Contd.)**

(Base: 2011-12 = 100)

| Commodities                                                                                           | Weight       | 2022-23      | 2022         |              | 2023         |              |
|-------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                                                                                       |              |              | Oct.         | Aug.         | Sep.(P)      | Oct.(P)      |
|                                                                                                       | 1            | 2            | 3            | 4            | 5            | 6            |
| <b>1.3.3 MANUFACTURE OF TOBACCO PRODUCTS</b>                                                          | <b>0.514</b> | <b>165.3</b> | <b>164.2</b> | <b>172.6</b> | <b>173.1</b> | <b>174.2</b> |
| 1.3.3.1 Tobacco products                                                                              | 0.514        | 165.3        | 164.2        | 172.6        | 173.1        | 174.2        |
| <b>1.3.4 MANUFACTURE OF TEXTILES</b>                                                                  | <b>4.881</b> | <b>142.7</b> | <b>142.5</b> | <b>134.1</b> | <b>134.2</b> | <b>134.7</b> |
| 1.3.4.1 Preparation and Spinning of textile fibres                                                    | 2.582        | 133.2        | 132.0        | 119.8        | 120.0        | 120.5        |
| 1.3.4.2 Weaving & Finishing of textiles                                                               | 1.509        | 158.9        | 160.1        | 156.9        | 156.7        | 156.9        |
| 1.3.4.3 Knitted and Crocheted fabrics                                                                 | 0.193        | 129.9        | 132.5        | 119.9        | 118.4        | 119.6        |
| 1.3.4.4 Made-up textile articles, Except apparel                                                      | 0.299        | 153.6        | 155.2        | 156.6        | 157.6        | 156.7        |
| 1.3.4.5 Cordage, Rope, Twine and Netting                                                              | 0.098        | 156.8        | 156.2        | 141.8        | 139.2        | 137.9        |
| 1.3.4.6 Other textiles                                                                                | 0.201        | 132.2        | 130.4        | 124.5        | 125.2        | 131.0        |
| <b>1.3.5 MANUFACTURE OF WEARING APPAREL</b>                                                           | <b>0.814</b> | <b>148.7</b> | <b>149.3</b> | <b>150.6</b> | <b>150.6</b> | <b>151.6</b> |
| 1.3.5.1 Manufacture of Wearing Apparel (woven), Except fur Apparel                                    | 0.593        | 147.3        | 147.9        | 149.0        | 148.4        | 149.1        |
| 1.3.5.2 Knitted and Crocheted apparel                                                                 | 0.221        | 152.2        | 153.3        | 154.8        | 156.4        | 158.6        |
| <b>1.3.6 MANUFACTURE OF LEATHER AND RELATED PRODUCTS</b>                                              | <b>0.535</b> | <b>122.2</b> | <b>122.2</b> | <b>125.5</b> | <b>124.7</b> | <b>124.3</b> |
| 1.3.6.1 Tanning and Dressing of leather; Dressing and Dyeing of fur                                   | 0.142        | 105.6        | 103.9        | 110.8        | 109.0        | 106.5        |
| 1.3.6.2 Luggage, Handbags, Saddlery and Harness                                                       | 0.075        | 141.0        | 140.8        | 140.9        | 141.7        | 142.1        |
| 1.3.6.3 Footwear                                                                                      | 0.318        | 125.2        | 126.0        | 128.4        | 127.7        | 128.0        |
| <b>1.3.7 MANUFACTURE OF WOOD AND PRODUCTS OF WOOD AND CORK</b>                                        | <b>0.772</b> | <b>143.2</b> | <b>142.9</b> | <b>144.9</b> | <b>145.0</b> | <b>145.8</b> |
| 1.3.7.1 Saw milling and Planing of wood                                                               | 0.124        | 137.6        | 138.7        | 137.6        | 138.6        | 139.1        |
| 1.3.7.2 Veneer sheets; Manufacture of plywood, Laminboard, Particle board and Other panels and Boards | 0.493        | 141.8        | 141.1        | 143.8        | 144.2        | 145.1        |
| 1.3.7.3 Builder's carpentry and Joinery                                                               | 0.036        | 204.0        | 205.7        | 201.8        | 201.7        | 201.7        |
| 1.3.7.4 Wooden containers                                                                             | 0.119        | 136.7        | 136.0        | 139.8        | 138.0        | 138.8        |
| <b>1.3.8 MANUFACTURE OF PAPER AND PAPER PRODUCTS</b>                                                  | <b>1.113</b> | <b>152.0</b> | <b>152.8</b> | <b>139.0</b> | <b>138.8</b> | <b>138.9</b> |
| 1.3.8.1 Pulp, Paper and Paperboard                                                                    | 0.493        | 158.4        | 159.3        | 146.8        | 146.7        | 146.2        |
| 1.3.8.2 Corrugated paper and Paperboard and Containers of paper and Paperboard                        | 0.314        | 148.3        | 150.1        | 140.3        | 140.1        | 141.1        |
| 1.3.8.3 Other articles of paper and Paperboard                                                        | 0.306        | 145.6        | 145.2        | 125.1        | 124.6        | 124.8        |
| <b>1.3.9 PRINTING AND REPRODUCTION OF RECORDED MEDIA</b>                                              | <b>0.676</b> | <b>172.5</b> | <b>172.4</b> | <b>183.1</b> | <b>182.6</b> | <b>183.2</b> |
| 1.3.9.1 Printing                                                                                      | 0.676        | 172.5        | 172.4        | 183.1        | 182.6        | 183.2        |
| <b>1.3.10 MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS</b>                                          | <b>6.465</b> | <b>145.4</b> | <b>146.3</b> | <b>136.3</b> | <b>136.2</b> | <b>136.3</b> |
| 1.3.10.1 Basic chemicals                                                                              | 1.433        | 159.2        | 159.9        | 138.3        | 138.8        | 139.6        |
| 1.3.10.2 Fertilizers and Nitrogen compounds                                                           | 1.485        | 144.8        | 148.0        | 141.4        | 141.1        | 141.2        |
| 1.3.10.3 Plastic and Synthetic rubber in primary form                                                 | 1.001        | 143.2        | 140.6        | 132.8        | 132.6        | 131.6        |
| 1.3.10.4 Pesticides and Other agrochemical products                                                   | 0.454        | 143.4        | 144.5        | 132.9        | 131.4        | 132.7        |
| 1.3.10.5 Paints, Varnishes and Similar coatings, Printing ink and Mastics                             | 0.491        | 145.0        | 145.7        | 143.6        | 144.2        | 143.7        |
| 1.3.10.6 Soap and Detergents, Cleaning and Polishing preparations, Perfumes and Toilet preparations   | 0.612        | 140.8        | 142.8        | 140.1        | 140.1        | 140.0        |
| 1.3.10.7 Other chemical products                                                                      | 0.692        | 142.1        | 143.3        | 134.3        | 133.8        | 133.7        |
| 1.3.10.8 Man-made fibres                                                                              | 0.296        | 110.7        | 109.4        | 103.5        | 103.3        | 103.4        |
| <b>1.3.11 MANUFACTURE OF PHARMACEUTICALS, MEDICINAL CHEMICAL AND BOTANICAL PRODUCTS</b>               | <b>1.993</b> | <b>140.9</b> | <b>141.2</b> | <b>141.8</b> | <b>142.9</b> | <b>143.0</b> |
| 1.3.11.1 Pharmaceuticals, Medicinal chemical and Botanical products                                   | 1.993        | 140.9        | 141.2        | 141.8        | 142.9        | 143.0        |
| <b>1.3.12 MANUFACTURE OF RUBBER AND PLASTICS PRODUCTS</b>                                             | <b>2.299</b> | <b>129.7</b> | <b>129.2</b> | <b>127.1</b> | <b>128.1</b> | <b>127.5</b> |
| 1.3.12.1 Rubber Tyres and Tubes; Retreading and Rebuilding of Rubber Tyres                            | 0.609        | 111.8        | 113.2        | 113.6        | 113.6        | 113.5        |
| 1.3.12.2 Other Rubber Products                                                                        | 0.272        | 106.4        | 105.7        | 106.7        | 106.8        | 106.7        |
| 1.3.12.3 Plastics products                                                                            | 1.418        | 141.8        | 140.6        | 136.8        | 138.4        | 137.5        |

**No. 21: Wholesale Price Index (Contd.)**  
 (Base: 2011-12 = 100)

| Commodities                                                                                           | Weight       | 2022-23      | 2022         |              | 2023         |              |
|-------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                                                                                       |              |              | Oct.         | Aug.         | Sep.(P)      | Oct.(P)      |
|                                                                                                       | 1            | 2            | 3            | 4            | 5            | 6            |
| <b>1.3.13 MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS</b>                                      | <b>3.202</b> | <b>133.7</b> | <b>133.5</b> | <b>135.0</b> | <b>135.0</b> | <b>135.2</b> |
| 1.3.13.1 Glass and Glass products                                                                     | 0.295        | 158.1        | 158.7        | 163.0        | 164.2        | 163.6        |
| 1.3.13.2 Refractory products                                                                          | 0.223        | 119.0        | 119.1        | 123.1        | 119.8        | 120.0        |
| 1.3.13.3 Clay Building Materials                                                                      | 0.121        | 135.3        | 136.5        | 123.5        | 124.6        | 128.6        |
| 1.3.13.4 Other Porcelain and Ceramic Products                                                         | 0.222        | 118.0        | 117.5        | 121.8        | 122.1        | 122.3        |
| 1.3.13.5 Cement, Lime and Plaster                                                                     | 1.645        | 137.2        | 136.7        | 137.5        | 137.7        | 138.2        |
| 1.3.13.6 Articles of Concrete, Cement and Plaster                                                     | 0.292        | 134.4        | 134.3        | 138.4        | 138.1        | 137.4        |
| 1.3.13.7 Cutting, Shaping and Finishing of Stone                                                      | 0.234        | 125.6        | 125.9        | 130.7        | 131.4        | 130.8        |
| 1.3.13.8 Other Non-Metallic Mineral Products                                                          | 0.169        | 105.9        | 105.4        | 103.0        | 101.5        | 101.2        |
| <b>1.3.14 MANUFACTURE OF BASIC METALS</b>                                                             | <b>9.646</b> | <b>148.7</b> | <b>145.6</b> | <b>140.6</b> | <b>142.6</b> | <b>142.3</b> |
| 1.3.14.1 Inputs into steel making                                                                     | 1.411        | 159.7        | 155.8        | 136.1        | 145.0        | 143.8        |
| 1.3.14.2 Metallic Iron                                                                                | 0.653        | 165.9        | 164.2        | 154.9        | 155.3        | 153.4        |
| 1.3.14.3 Mild Steel - Semi Finished Steel                                                             | 1.274        | 127.0        | 126.1        | 120.7        | 121.8        | 120.3        |
| 1.3.14.4 Mild Steel -Long Products                                                                    | 1.081        | 149.7        | 147.9        | 140.8        | 142.6        | 143.1        |
| 1.3.14.5 Mild Steel - Flat products                                                                   | 1.144        | 155.0        | 148.7        | 141.8        | 144.5        | 145.9        |
| 1.3.14.6 Alloy steel other than Stainless Steel- Shapes                                               | 0.067        | 146.9        | 149.0        | 136.6        | 139.2        | 139.1        |
| 1.3.14.7 Stainless Steel - Semi Finished                                                              | 0.924        | 151.9        | 146.1        | 139.7        | 137.2        | 136.1        |
| 1.3.14.8 Pipes & tubes                                                                                | 0.205        | 175.4        | 175.6        | 167.8        | 169.4        | 170.2        |
| 1.3.14.9 Non-ferrous metals incl. precious metals                                                     | 1.693        | 145.9        | 141.1        | 143.7        | 144.6        | 143.8        |
| 1.3.14.10 Castings                                                                                    | 0.925        | 130.7        | 130.6        | 143.0        | 142.9        | 145.5        |
| 1.3.14.11 Forgings of steel                                                                           | 0.271        | 172.4        | 173.4        | 174.5        | 174.0        | 172.8        |
| <b>1.3.15 MANUFACTURE OF FABRICATED METAL PRODUCTS, EXCEPT MACHINERY AND EQUIPMENT</b>                | <b>3.155</b> | <b>139.0</b> | <b>137.7</b> | <b>138.9</b> | <b>139.5</b> | <b>138.9</b> |
| 1.3.15.1 Structural Metal Products                                                                    | 1.031        | 132.7        | 131.3        | 133.3        | 134.7        | 133.0        |
| 1.3.15.2 Tanks, Reservoirs and Containers of Metal                                                    | 0.660        | 161.1        | 157.0        | 158.3        | 158.3        | 157.1        |
| 1.3.15.3 Steam generators, Except Central Heating Hot Water Boilers                                   | 0.145        | 100.5        | 103.1        | 105.6        | 103.6        | 105.7        |
| 1.3.15.4 Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy                     | 0.383        | 135.2        | 135.3        | 142.5        | 143.0        | 143.3        |
| 1.3.15.5 Cutlery, Hand Tools and General Hardware                                                     | 0.208        | 112.2        | 113.2        | 108.5        | 108.4        | 108.4        |
| 1.3.15.6 Other Fabricated Metal Products                                                              | 0.728        | 145.0        | 144.2        | 142.5        | 143.4        | 143.6        |
| <b>1.3.16 MANUFACTURE OF COMPUTER, ELECTRONIC AND OPTICAL PRODUCTS</b>                                | <b>2.009</b> | <b>116.6</b> | <b>117.1</b> | <b>119.4</b> | <b>119.7</b> | <b>119.8</b> |
| 1.3.16.1 Electronic Components                                                                        | 0.402        | 115.0        | 115.6        | 115.6        | 116.7        | 116.1        |
| 1.3.16.2 Computers and Peripheral Equipment                                                           | 0.336        | 135.0        | 134.9        | 135.1        | 135.1        | 135.9        |
| 1.3.16.3 Communication Equipment                                                                      | 0.310        | 129.4        | 129.6        | 136.9        | 136.1        | 136.1        |
| 1.3.16.4 Consumer Electronics                                                                         | 0.641        | 99.7         | 100.4        | 103.4        | 103.5        | 104.0        |
| 1.3.16.5 Measuring, Testing, Navigating and Control equipment                                         | 0.181        | 112.8        | 113.5        | 114.2        | 114.4        | 114.1        |
| 1.3.16.6 Watches and Clocks                                                                           | 0.076        | 151.2        | 151.6        | 156.6        | 157.3        | 157.3        |
| 1.3.16.7 Irradiation, Electromedical and Electrotherapeutic equipment                                 | 0.055        | 108.9        | 111.6        | 108.9        | 109.6        | 109.6        |
| 1.3.16.8 Optical instruments and Photographic equipment                                               | 0.008        | 100.5        | 101.6        | 103.6        | 103.6        | 103.5        |
| <b>1.3.17 MANUFACTURE OF ELECTRICAL EQUIPMENT</b>                                                     | <b>2.930</b> | <b>128.8</b> | <b>129.2</b> | <b>132.1</b> | <b>131.0</b> | <b>131.9</b> |
| 1.3.17.1 Electric motors, Generators, Transformers and Electricity distribution and Control apparatus | 1.298        | 126.3        | 128.1        | 131.6        | 129.3        | 131.7        |

**No. 21: Wholesale Price Index (Concl.)**

(Base: 2011-12 = 100)

| Commodities                                                                      | Weight        | 2022-23      | 2022         |              | 2023         |              |
|----------------------------------------------------------------------------------|---------------|--------------|--------------|--------------|--------------|--------------|
|                                                                                  |               |              | Oct.         | Aug.         | Sep.(P)      | Oct.(P)      |
|                                                                                  | 1             | 2            | 3            | 4            | 5            | 6            |
| 1.3.17.2 Batteries and Accumulators                                              | 0.236         | 131.9        | 133.1        | 136.5        | 137.2        | 137.3        |
| 1.3.17.3 Fibre optic cables for data transmission or live transmission of images | 0.133         | 116.6        | 119.9        | 123.6        | 125.6        | 123.5        |
| 1.3.17.4 Other electronic and Electric wires and Cables                          | 0.428         | 146.3        | 141.4        | 146.3        | 146.8        | 145.6        |
| 1.3.17.5 Wiring devices, Electric lighting & display equipment                   | 0.263         | 117.2        | 117.5        | 116.1        | 116.3        | 116.3        |
| 1.3.17.6 Domestic appliances                                                     | 0.366         | 134.1        | 134.7        | 135.2        | 133.2        | 133.6        |
| 1.3.17.7 Other electrical equipment                                              | 0.206         | 117.4        | 117.5        | 121.1        | 120.8        | 121.7        |
| <b>1.3.18 MANUFACTURE OF MACHINERY AND EQUIPMENT</b>                             | <b>4.789</b>  | <b>126.2</b> | <b>126.5</b> | <b>128.5</b> | <b>129.0</b> | <b>129.0</b> |
| 1.3.18.1 Engines and Turbines, Except aircraft, Vehicle and Two wheeler engines  | 0.638         | 126.9        | 126.9        | 127.9        | 129.3        | 128.6        |
| 1.3.18.2 Fluid power equipment                                                   | 0.162         | 128.4        | 127.4        | 130.5        | 131.3        | 131.4        |
| 1.3.18.3 Other pumps, Compressors, Taps and Valves                               | 0.552         | 117.6        | 117.1        | 116.7        | 116.7        | 117.1        |
| 1.3.18.4 Bearings, Gears, Gearing and Driving elements                           | 0.340         | 124.2        | 124.4        | 126.7        | 127.0        | 125.7        |
| 1.3.18.5 Ovens, Furnaces and Furnace burners                                     | 0.008         | 79.8         | 79.9         | 84.0         | 82.2         | 81.4         |
| 1.3.18.6 Lifting and Handling equipment                                          | 0.285         | 126.3        | 125.9        | 128.7        | 128.2        | 128.5        |
| 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         | 143.0        | 141.7        | 145.4        | 146.5        | 145.8        |
| 1.3.18.9 Agricultural and Forestry machinery                                     | 0.833         | 137.2        | 138.0        | 141.2        | 141.9        | 142.1        |
| 1.3.18.10 Metal-forming machinery and Machine tools                              | 0.224         | 120.5        | 121.2        | 122.3        | 122.9        | 122.9        |
| 1.3.18.11 Machinery for mining, Quarrying and Construction                       | 0.371         | 84.9         | 85.2         | 88.4         | 88.9         | 89.9         |
| 1.3.18.12 Machinery for food, Beverage and Tobacco processing                    | 0.228         | 127.7        | 129.8        | 124.4        | 124.5        | 124.6        |
| 1.3.18.13 Machinery for textile, Apparel and Leather production                  | 0.192         | 130.0        | 132.6        | 138.6        | 139.2        | 139.0        |
| 1.3.18.14 Other special-purpose machinery                                        | 0.468         | 140.6        | 141.2        | 144.1        | 144.1        | 144.5        |
| 1.3.18.15 Renewable electricity generating equipment                             | 0.046         | 69.2         | 70.3         | 71.0         | 71.0         | 71.1         |
| <b>1.3.19 MANUFACTURE OF MOTOR VEHICLES, TRAILERS AND SEMI-TRAILERS</b>          | <b>4.969</b>  | <b>127.6</b> | <b>128.1</b> | <b>128.3</b> | <b>127.6</b> | <b>127.7</b> |
| 1.3.19.1 Motor vehicles                                                          | 2.600         | 126.0        | 125.8        | 128.9        | 128.7        | 128.4        |
| 1.3.19.2 Parts and Accessories for motor vehicles                                | 2.368         | 129.3        | 130.6        | 127.7        | 126.4        | 126.9        |
| <b>1.3.20 MANUFACTURE OF OTHER TRANSPORT EQUIPMENT</b>                           | <b>1.648</b>  | <b>137.4</b> | <b>137.3</b> | <b>142.8</b> | <b>145.3</b> | <b>143.9</b> |
| 1.3.20.1 Building of ships and Floating structures                               | 0.117         | 162.5        | 163.6        | 163.7        | 163.7        | 163.7        |
| 1.3.20.2 Railway locomotives and Rolling stock                                   | 0.110         | 105.5        | 104.3        | 106.4        | 106.4        | 106.4        |
| 1.3.20.3 Motor cycles                                                            | 1.302         | 137.6        | 137.4        | 144.4        | 147.5        | 145.8        |
| 1.3.20.4 Bicycles and Invalid carriages                                          | 0.117         | 139.8        | 140.4        | 138.5        | 138.1        | 138.6        |
| 1.3.20.5 Other transport equipment                                               | 0.002         | 152.5        | 153.4        | 157.5        | 159.8        | 160.8        |
| <b>1.3.21 MANUFACTURE OF FURNITURE</b>                                           | <b>0.727</b>  | <b>157.2</b> | <b>156.2</b> | <b>160.1</b> | <b>160.8</b> | <b>160.0</b> |
| 1.3.21.1 Furniture                                                               | 0.727         | 157.2        | 156.2        | 160.1        | 160.8        | 160.0        |
| <b>1.3.22 OTHER MANUFACTURING</b>                                                | <b>1.064</b>  | <b>147.7</b> | <b>144.9</b> | <b>154.7</b> | <b>154.8</b> | <b>153.4</b> |
| 1.3.22.1 Jewellery and Related articles                                          | 0.996         | 146.5        | 143.4        | 154.1        | 154.3        | 152.8        |
| 1.3.22.2 Musical instruments                                                     | 0.001         | 189.3        | 194.5        | 179.0        | 180.3        | 189.4        |
| 1.3.22.3 Sports goods                                                            | 0.012         | 150.5        | 151.7        | 155.4        | 155.4        | 155.2        |
| 1.3.22.4 Games and Toys                                                          | 0.005         | 159.0        | 159.0        | 160.4        | 159.9        | 160.2        |
| 1.3.22.5 Medical and Dental instruments and Supplies                             | 0.049         | 170.4        | 170.5        | 164.5        | 162.7        | 162.7        |
| <b>2 FOOD INDEX</b>                                                              | <b>24.378</b> | <b>174.2</b> | <b>177.7</b> | <b>187.1</b> | <b>177.8</b> | <b>179.6</b> |

Source: Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India.

**No. 22: Index of Industrial Production (Base:2011-12=100)**

| Industry                               | Weight | 2021-22 | 2022-23 | April-September |         | September |       |
|----------------------------------------|--------|---------|---------|-----------------|---------|-----------|-------|
|                                        |        |         |         | 2022-23         | 2023-24 | 2022      | 2023  |
|                                        | 1      | 2       | 3       | 4               | 5       | 6         | 7     |
| <b>General Index</b>                   | 100.00 | 131.6   | 138.5   | 135.1           | 123.1   | 133.8     | 141.6 |
| <b>1 Sectoral Classification</b>       |        |         |         |                 |         |           |       |
| 1.1 Mining                             | 14.37  | 113.3   | 119.9   | 108.6           | 136.7   | 100.0     | 111.5 |
| 1.2 Manufacturing                      | 77.63  | 131.0   | 137.1   | 134.0           | 194.0   | 134.6     | 140.6 |
| 1.3 Electricity                        | 7.99   | 170.1   | 185.2   | 193.2           | 154.0   | 187.4     | 205.9 |
| <b>2 Use-Based Classification</b>      |        |         |         |                 |         |           |       |
| 2.1 Primary Goods                      | 34.05  | 129.5   | 139.2   | 135.5           | 144.1   | 128.5     | 138.8 |
| 2.2 Capital Goods                      | 8.22   | 88.7    | 100.3   | 97.3            | 103.8   | 103.9     | 111.6 |
| 2.3 Intermediate Goods                 | 17.22  | 143.9   | 149.4   | 148.1           | 154.3   | 145.3     | 153.8 |
| 2.4 Infrastructure/ Construction Goods | 12.34  | 148.2   | 160.7   | 152.5           | 171.0   | 156.9     | 168.7 |
| 2.5 Consumer Durables                  | 12.84  | 113.8   | 114.5   | 118.6           | 117.8   | 123.8     | 125.0 |
| Consumer non-durables                  | 15.33  | 146.7   | 147.7   | 139.6           | 149.1   | 138.9     | 142.6 |

Source : Central Statistics Office, Ministry of Statistics and Programme Implementation, Government of India.

**Government Accounts and Treasury Bills****No. 23: Union Government Accounts at a Glance**

(Amount in ₹ Crore)

| Item                                                 | Financial Year<br>2023-24<br>(Budget<br>Estimates) | April – September    |                      |                                   |             |
|------------------------------------------------------|----------------------------------------------------|----------------------|----------------------|-----------------------------------|-------------|
|                                                      |                                                    | 2023-24<br>(Actuals) | 2022-23<br>(Actuals) | Percentage to Budget<br>Estimates |             |
|                                                      |                                                    |                      |                      | 2023-24                           | 2022-23     |
|                                                      | 1                                                  | 2                    | 3                    | 4                                 | 5           |
| <b>1 Revenue Receipts</b>                            | <b>2632281</b>                                     | <b>1397112</b>       | <b>1169561</b>       | <b>53.1</b>                       | <b>53.1</b> |
| 1.1 Tax Revenue (Net)                                | 2330631                                            | 1160340              | 1011961              | 49.8                              | 52.3        |
| 1.2 Non-Tax Revenue                                  | 301650                                             | 236772               | 157600               | 78.5                              | 58.4        |
| <b>2 Non Debt Capital Receipt</b>                    | <b>84000</b>                                       | <b>20166</b>         | <b>34187</b>         | <b>24.0</b>                       | <b>43.1</b> |
| 2.1 Recovery of Loans                                | 23000                                              | 13216                | 9597                 | 57.5                              | 67.2        |
| 2.2 Other Receipts                                   | 61000                                              | 6950                 | 24590                | 11.4                              | 37.8        |
| <b>3 Total Receipts (excluding borrowings) (1+2)</b> | <b>2716281</b>                                     | <b>1417278</b>       | <b>1203748</b>       | <b>52.2</b>                       | <b>52.7</b> |
| <b>4 Revenue Expenditure<br/>of which :</b>          | <b>3502136</b>                                     | <b>1628511</b>       | <b>1480708</b>       | <b>46.5</b>                       | <b>46.3</b> |
| 4.1 Interest Payments                                | 1079971                                            | 484329               | 436682               | 44.8                              | 46.4        |
| <b>5 Capital Expenditure</b>                         | <b>1000961</b>                                     | <b>490628</b>        | <b>342889</b>        | <b>49.0</b>                       | <b>45.7</b> |
| <b>6 Total Expenditure (4+5)</b>                     | <b>4503097</b>                                     | <b>2119139</b>       | <b>1823597</b>       | <b>47.1</b>                       | <b>46.2</b> |
| <b>7 Revenue Deficit (4-1)</b>                       | <b>869855</b>                                      | <b>231399</b>        | <b>311147</b>        | <b>26.6</b>                       | <b>31.4</b> |
| <b>8 Fiscal Deficit (6-3)</b>                        | <b>1786816</b>                                     | <b>701861</b>        | <b>619849</b>        | <b>39.3</b>                       | <b>37.3</b> |
| <b>9 Gross Primary Deficit (8-4.1)</b>               | <b>706845</b>                                      | <b>217532</b>        | <b>183167</b>        | <b>30.8</b>                       | <b>25.4</b> |

Source: Controller General of Accounts (CGA), Ministry of Finance, Government of India and Union Budget 2023-24.

**No. 24: Treasury Bills – Ownership Pattern**

(₹ Crore)

| Item                                                                          | 2022-23 | 2022    |         | 2023   |        |         |         |         |   |
|-------------------------------------------------------------------------------|---------|---------|---------|--------|--------|---------|---------|---------|---|
|                                                                               |         | Sep. 30 | Aug. 25 | Sep. 1 | Sep. 8 | Sep. 15 | Sep. 22 | Sep. 29 |   |
|                                                                               |         | 1       | 2       | 3      | 4      | 5       | 6       | 7       | 8 |
| <b>1 91-day</b>                                                               |         |         |         |        |        |         |         |         |   |
| 1.1 Banks                                                                     | 6191    | 9333    | 22486   | 27168  | 22792  | 19518   | 20263   | 19820   |   |
| 1.2 Primary Dealers                                                           | 20071   | 23970   | 24198   | 20746  | 19746  | 19073   | 21111   | 17017   |   |
| 1.3 State Governments                                                         | 8038    | 37050   | 29577   | 32801  | 32801  | 33751   | 32677   | 31677   |   |
| 1.4 Others                                                                    | 80638   | 98258   | 107517  | 104286 | 107661 | 108909  | 104126  | 106663  |   |
| <b>2 182-day</b>                                                              |         |         |         |        |        |         |         |         |   |
| 2.1 Banks                                                                     | 53154   | 80243   | 73109   | 73493  | 72825  | 76753   | 75823   | 75415   |   |
| 2.2 Primary Dealers                                                           | 97274   | 80342   | 117704  | 116497 | 116047 | 117891  | 113123  | 108252  |   |
| 2.3 State Governments                                                         | 2592    | 34399   | 22541   | 22413  | 23413  | 24413   | 24268   | 25418   |   |
| 2.4 Others                                                                    | 110072  | 91165   | 115187  | 108010 | 101128 | 88056   | 85754   | 83033   |   |
| <b>3 364-day</b>                                                              |         |         |         |        |        |         |         |         |   |
| 3.1 Banks                                                                     | 101834  | 97268   | 85480   | 88017  | 88035  | 86728   | 86465   | 87844   |   |
| 3.2 Primary Dealers                                                           | 146080  | 185459  | 167514  | 165244 | 166693 | 174604  | 173310  | 172707  |   |
| 3.3 State Governments                                                         | 48284   | 41445   | 48926   | 46238  | 45535  | 42529   | 46234   | 48023   |   |
| 3.4 Others                                                                    | 149086  | 141273  | 152006  | 152739 | 152272 | 146668  | 149225  | 149448  |   |
| <b>4 14-day Intermediate</b>                                                  |         |         |         |        |        |         |         |         |   |
| 4.1 Banks                                                                     |         |         |         |        |        |         |         |         |   |
| 4.2 Primary Dealers                                                           |         |         |         |        |        |         |         |         |   |
| 4.3 State Governments                                                         | 212758  | 117841  | 159374  | 118211 | 98349  | 135595  | 147651  | 133789  |   |
| 4.4 Others                                                                    | 926     | 633     | 1041    | 804    | 421    | 638     | 1315    | 783     |   |
| <b>Total Treasury Bills<br/>(Excluding 14 day<br/>Intermediate T Bills) #</b> | 823313  | 920205  | 966244  | 957652 | 948949 | 938892  | 932378  | 925317  |   |

# 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. 25: 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                                          |  |  |  |
| <b>91-day Treasury Bills</b>  |                 |               |                  |                 |               |                  |                 |                   |                   |                                            |  |  |  |
| <b>2023-24</b>                |                 |               |                  |                 |               |                  |                 |                   |                   |                                            |  |  |  |
| Aug. 30                       | 10000           | 209           | 38952            | 4751            | 48            | 9973             | 4751            | 14724             | 98.33             | 6.8225                                     |  |  |  |
| Sep. 6                        | 10000           | 197           | 28027            | 1040            | 63            | 9960             | 1040            | 11000             | 98.33             | 6.8001                                     |  |  |  |
| Sep. 13                       | 10000           | 249           | 47507            | 3482            | 40            | 9968             | 3482            | 13450             | 98.32             | 6.8474                                     |  |  |  |
| Sep. 20                       | 10000           | 180           | 50627            | 4522            | 36            | 9978             | 4522            | 14500             | 98.32             | 6.8548                                     |  |  |  |
| Sep. 27                       | 10000           | 182           | 27820            | 1034            | 47            | 9966             | 1034            | 11000             | 98.32             | 6.8648                                     |  |  |  |
| <b>182-day Treasury Bills</b> |                 |               |                  |                 |               |                  |                 |                   |                   |                                            |  |  |  |
| <b>2023-24</b>                |                 |               |                  |                 |               |                  |                 |                   |                   |                                            |  |  |  |
| Aug. 30                       | 8000            | 200           | 25055            | 45              | 54            | 7955             | 45              | 8000              | 96.62             | 7.0200                                     |  |  |  |
| Sep. 6                        | 8000            | 206           | 22453            | 1024            | 106           | 7976             | 1024            | 9000              | 96.62             | 7.0243                                     |  |  |  |
| Sep. 13                       | 8000            | 180           | 21529            | 1786            | 67            | 7914             | 1786            | 9700              | 96.60             | 7.0494                                     |  |  |  |
| Sep. 20                       | 8000            | 185           | 25957            | 22              | 75            | 7978             | 22              | 8000              | 96.60             | 7.0671                                     |  |  |  |
| Sep. 27                       | 8000            | 180           | 23043            | 1190            | 87            | 7960             | 1190            | 9150              | 96.59             | 7.0778                                     |  |  |  |
| <b>364-day Treasury Bills</b> |                 |               |                  |                 |               |                  |                 |                   |                   |                                            |  |  |  |
| <b>2023-24</b>                |                 |               |                  |                 |               |                  |                 |                   |                   |                                            |  |  |  |
| Aug. 30                       | 6000            | 180           | 27598            | 1414            | 26            | 5981             | 1414            | 7395              | 93.45             | 7.0298                                     |  |  |  |
| Sep. 6                        | 6000            | 163           | 19693            | 1668            | 41            | 5983             | 1668            | 7651              | 93.45             | 7.0300                                     |  |  |  |
| Sep. 13                       | 6000            | 180           | 20035            | 2482            | 52            | 5979             | 2482            | 8462              | 93.42             | 7.0599                                     |  |  |  |
| Sep. 20                       | 6000            | 170           | 20005            | 5778            | 83            | 5991             | 5778            | 11769             | 93.40             | 7.0890                                     |  |  |  |
| Sep. 27                       | 6000            | 165           | 22875            | 2894            | 26            | 5982             | 2894            | 8877              | 93.40             | 7.0846                                     |  |  |  |

## Financial Markets

### No. 26: Daily Call Money Rates

(Per cent per annum)

| As on              | Range of Rates       | Weighted Average Rates |
|--------------------|----------------------|------------------------|
|                    | Borrowings/ Lendings | Borrowings/ Lendings   |
|                    | 1                    | 2                      |
| September 01 ,2023 | 5.00-6.70            | 6.52                   |
| September 02 ,2023 | 5.70-6.20            | 6.00                   |
| September 04 ,2023 | 5.00-6.55            | 6.44                   |
| September 05 ,2023 | 5.00-6.50            | 6.38                   |
| September 06 ,2023 | 5.00-6.50            | 6.32                   |
| September 07 ,2023 | 5.50-6.75            | 6.40                   |
| September 08 ,2023 | 5.00-6.85            | 6.71                   |
| September 11 ,2023 | 5.00-6.80            | 6.67                   |
| September 12 ,2023 | 5.00-6.85            | 6.73                   |
| September 13 ,2023 | 5.00-6.85            | 6.73                   |
| September 14 ,2023 | 5.00-6.85            | 6.73                   |
| September 15 ,2023 | 5.00-6.90            | 6.70                   |
| September 16 ,2023 | 5.70-6.75            | 6.19                   |
| September 18 ,2023 | 5.00-6.95            | 6.82                   |
| September 20 ,2023 | 5.00-6.95            | 6.76                   |
| September 21 ,2023 | 5.00-6.95            | 6.75                   |
| September 22 ,2023 | 5.00-6.95            | 6.77                   |
| September 25 ,2023 | 5.00-6.85            | 6.75                   |
| September 26 ,2023 | 5.00-6.85            | 6.73                   |
| September 27 ,2023 | 5.00-6.88            | 6.77                   |
| September 28 ,2023 | 5.80-6.85            | 6.60                   |
| September 29 ,2023 | 5.60-6.95            | 6.75                   |
| September 30 ,2023 | 5.75-6.85            | 6.27                   |
| October 03 ,2023   | 5.00-6.90            | 6.76                   |
| October 04 ,2023   | 5.00-6.85            | 6.73                   |
| October 05 ,2023   | 5.00-6.85            | 6.73                   |
| October 06 ,2023   | 5.00-6.85            | 6.71                   |
| October 07 ,2023   | 5.00-6.75            | 6.14                   |
| October 09 ,2023   | 5.00-6.85            | 6.71                   |
| October 10 ,2023   | 5.00-6.85            | 6.70                   |
| October 11 ,2023   | 5.00-6.85            | 6.71                   |
| October 12 ,2023   | 5.00-6.85            | 6.71                   |
| October 13 ,2023   | 5.00-6.90            | 6.73                   |

Note: Includes Notice Money.

**No. 27: Certificates of Deposit**

| Item                                      | 2022      |           | 2023      |           |           |
|-------------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                                           | Sep. 23   | Aug. 11   | Aug. 25   | Sep. 8    | Sep. 22   |
|                                           | 1         | 2         | 3         | 4         | 5         |
| 1 Amount Outstanding (₹ Crore)            | 252148.25 | 304165.32 | 301277.83 | 297684.67 | 291829.65 |
| 1.1 Issued during the fortnight (₹ Crore) | 19760.15  | 14893.63  | 34741.11  | 33248.85  | 31959.30  |
| 2 Rate of Interest (per cent)             | 5.81-6.73 | 6.77-7.71 | 6.88-7.67 | 6.85-7.67 | 6.88-7.70 |

**No. 28: Commercial Paper**

| Item                                        | 2022       |            | 2023       |            |            |
|---------------------------------------------|------------|------------|------------|------------|------------|
|                                             | Sep. 30    | Aug. 15    | Aug. 31    | Sep. 15    | Sep. 30    |
|                                             | 1          | 2          | 3          | 4          | 5          |
| 1 Amount Outstanding (₹ Crore)              | 400866.35  | 447570.85  | 450064.05  | 432568.65  | 412234.35  |
| 1.1 Reported during the fortnight (₹ Crore) | 62062.80   | 41800.20   | 73816.05   | 71469.15   | 49675.85   |
| 2 Rate of Interest (per cent)               | 5.91-12.26 | 6.81-12.55 | 6.93-16.55 | 6.84-12.50 | 6.89-11.36 |

**No. 29: Average Daily Turnover in Select Financial Markets**

(₹ Crore)

| Item                               | 2022-23 | 2022    |         | 2023   |        |         |         |         |
|------------------------------------|---------|---------|---------|--------|--------|---------|---------|---------|
|                                    |         | Sep. 30 | Aug. 25 | Sep. 1 | Sep. 8 | Sep. 15 | Sep. 22 | Sep. 29 |
|                                    | 1       | 2       | 3       | 4      | 5      | 6       | 7       | 8       |
| 1 Call Money                       | 19987   | 21491   | 17813   | 12380  | 15821  | 15626   | 13738   | 13325   |
| 2 Notice Money                     | 2605    | 3219    | 318     | 5006   | 1460   | 4351    | 726     | 4295    |
| 3 Term Money                       | 612     | 717     | 735     | 553    | 589    | 1388    | 638     | 312     |
| 4 Triparty Repo                    | 697245  | 886850  | 612373  | 738384 | 601178 | 742899  | 567907  | 559348  |
| 5 Market Repo                      | 504418  | 604797  | 486636  | 608900 | 509596 | 580815  | 485473  | 444818  |
| 6 Repo in Corporate Bond           | 2085    | 232     | 452     | 3438   | 3051   | 1496    | 1574    | 152     |
| 7 Forex (US \$ million)            | 67793   | 1210496 | 97473   | 98764  | 95814  | 89985   | 98929   | 106919  |
| 8 Govt. of India Dated Securities  | 66200   | 73979   | 88757   | 86297  | 90648  | 96360   | 106801  | 117087  |
| 9 State Govt. Securities           | 5450    | 3860    | 3858    | 3268   | 3198   | 2397    | 2709    | 8406    |
| 10 Treasury Bills                  |         |         |         |        |        |         |         |         |
| 10.1 91-Day                        | 4380    | 5663    | 3085    | 5628   | 4209   | 3971    | 5665    | 6645    |
| 10.2 182-Day                       | 4480    | 5473    | 4758    | 6870   | 5269   | 3614    | 8519    | 6311    |
| 10.3 364-Day                       | 2900    | 2884    | 1660    | 1831   | 2180   | 915     | 1995    | 2936    |
| 10.4 Cash Management Bills         |         |         |         |        |        |         |         |         |
| 11 Total Govt. Securities (8+9+10) | 83410   | 91858   | 102118  | 103893 | 105504 | 107258  | 125689  | 141385  |
| 11.1 RBI                           | 660     | 479     | 666     | 434    | 380    | 642     | 2161    | 560     |

**No. 30: New Capital Issues by Non-Government Public Limited Companies**

(Amount in ₹ Crore)

| Security & Type of Issue        | 2022-23       |              | 2022-23 (Apr.-Sep.) |              | 2023-24 (Apr.-Sep.) * |              | Sep. 2022     |             | Sep. 2023 *   |              |
|---------------------------------|---------------|--------------|---------------------|--------------|-----------------------|--------------|---------------|-------------|---------------|--------------|
|                                 | 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           |
| <b>1 Equity Shares</b>          | <b>237</b>    | <b>45266</b> | <b>97</b>           | <b>22126</b> | <b>147</b>            | <b>31157</b> | <b>30</b>     | <b>2712</b> | <b>35</b>     | <b>9564</b>  |
| 1A Premium                      | 218           | 42408        | 86                  | 20876        | 138                   | 29063        | 27            | 2436        | 34            | 9121         |
| 1.1 Public                      | 164           | 38515        | 69                  | 20503        | 109                   | 24899        | 22            | 2414        | 31            | 9284         |
| 1.1.1 Premium                   | 161           | 37158        | 66                  | 19772        | 109                   | 23965        | 22            | 2316        | 31            | 9084         |
| 1.2 Rights                      | 73            | 6751         | 28                  | 1623         | 38                    | 6258         | 8             | 298         | 4             | 280          |
| 1.2.1 Premium                   | 57            | 5250         | 20                  | 1103         | 29                    | 5097         | 5             | 121         | 3             | 38           |
| <b>2 Preference Shares</b>      | <b>-</b>      | <b>-</b>     | <b>-</b>            | <b>-</b>     | <b>-</b>              | <b>-</b>     | <b>-</b>      | <b>-</b>    | <b>-</b>      | <b>-</b>     |
| 2.1 Public                      | -             | -            | -                   | -            | -                     | -            | -             | -           | -             | -            |
| 2.2 Rights                      | -             | -            | -                   | -            | -                     | -            | -             | -           | -             | -            |
| <b>3 Bonds &amp; Debentures</b> | <b>34</b>     | <b>9221</b>  | <b>16</b>           | <b>3704</b>  | <b>20</b>             | <b>7682</b>  | <b>3</b>      | <b>602</b>  | <b>6</b>      | <b>2318</b>  |
| 3.1 Convertible                 | -             | -            | -                   | -            | -                     | -            | -             | -           | -             | -            |
| 3.1.1 Public                    | -             | -            | -                   | -            | -                     | -            | -             | -           | -             | -            |
| 3.1.2 Rights                    | -             | -            | -                   | -            | -                     | -            | -             | -           | -             | -            |
| 3.2 Non-Convertible             | 34            | 9221         | 16                  | 3704         | 20                    | 7682         | 3             | 602         | 6             | 2318         |
| 3.2.1 Public                    | 34            | 9221         | 16                  | 3704         | 20                    | 7682         | 3             | 602         | 6             | 2318         |
| 3.2.2 Rights                    | -             | -            | -                   | -            | -                     | -            | -             | -           | -             | -            |
| <b>4 Total (1+2+3)</b>          | <b>271</b>    | <b>54487</b> | <b>113</b>          | <b>25830</b> | <b>167</b>            | <b>38839</b> | <b>33</b>     | <b>3314</b> | <b>41</b>     | <b>11882</b> |
| 4.1 Public                      | 198           | 47736        | 85                  | 24207        | 129                   | 32581        | 25            | 3016        | 37            | 11602        |
| 4.2 Rights                      | 73            | 6751         | 28                  | 1623         | 38                    | 6258         | 8             | 298         | 4             | 280          |

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.

Source : Securities and Exchange Board of India.

\* : Data is Provisional.

## External Sector

### No. 31: Foreign Trade

| Item            | Unit          | 2022-23  |         | 2023    |         |         |         |         |  |
|-----------------|---------------|----------|---------|---------|---------|---------|---------|---------|--|
|                 |               | Sep.     | May     | Jun.    | Jul.    | Aug.    | Sep.    |         |  |
|                 |               | 1        | 2       | 3       | 4       | 5       | 6       | 7       |  |
| 1 Exports       | ₹ Crore       | 3621550  | 283946  | 287957  | 282413  | 283533  | 318069  | 285926  |  |
|                 | US \$ Million | 451070   | 35391   | 34970   | 34343   | 34513   | 38421   | 34429   |  |
| 1.1 Oil         | ₹ Crore       | 782303   | 58296   | 48207   | 55547   | 55101   | 79735   | 53905   |  |
|                 | US \$ Million | 97468    | 7266    | 5854    | 6755    | 6707    | 9632    | 6491    |  |
| 1.2 Non-oil     | ₹ Crore       | 2839247  | 225650  | 239751  | 226867  | 228431  | 238334  | 232021  |  |
|                 | US \$ Million | 353602   | 28125   | 29116   | 27588   | 27806   | 28789   | 27938   |  |
| 2 Imports       | ₹ Crore       | 5749801  | 508445  | 473318  | 439708  | 434914  | 497915  | 447130  |  |
|                 | US \$ Million | 715969   | 63372   | 57481   | 53471   | 52940   | 60145   | 53840   |  |
| 2.1 Oil         | ₹ Crore       | 1682475  | 140884  | 128247  | 103117  | 96702   | 121799  | 116183  |  |
|                 | US \$ Million | 209418   | 17560   | 15575   | 12539   | 11771   | 14713   | 13990   |  |
| 2.2 Non-oil     | ₹ Crore       | 4067326  | 367561  | 345071  | 336591  | 338211  | 376117  | 330947  |  |
|                 | US \$ Million | 506551   | 45812   | 41906   | 40931   | 41169   | 45433   | 39850   |  |
| 3 Trade Balance | ₹ Crore       | -2128251 | -224499 | -185360 | -157294 | -151381 | -179847 | -161204 |  |
|                 | US \$ Million | -264899  | -27981  | -22511  | -19128  | -18427  | -21724  | -19411  |  |
| 3.1 Oil         | ₹ Crore       | -900172  | -82588  | -80040  | -47570  | -41601  | -42064  | -62278  |  |
|                 | US \$ Million | -111950  | -10294  | -9720   | -5785   | -5064   | -5081   | -7499   |  |
| 3.2 Non-oil     | ₹ Crore       | -1228079 | -141911 | -105321 | -109724 | -109780 | -137783 | -98926  |  |
|                 | US \$ Million | -152949  | -17688  | -12790  | -13343  | -13363  | -16643  | -11912  |  |

Source: DGCI&S and Ministry of Commerce & Industry.

### No. 32: Foreign Exchange Reserves

| Item                                | Unit                   | 2022    |         | 2023    |         |         |         |         |  |
|-------------------------------------|------------------------|---------|---------|---------|---------|---------|---------|---------|--|
|                                     |                        | Nov. 04 | Sep. 22 | Sep. 29 | Oct. 06 | Oct. 13 | Oct. 20 | Oct. 27 |  |
|                                     |                        | 1       | 2       | 3       | 4       | 5       | 6       | 7       |  |
| 1 Total Reserves                    | ₹ Crore                | 4370135 | 4898336 | 4882783 | 4867956 | 4878276 | 4850051 | 4879087 |  |
|                                     | US \$ Million          | 529994  | 590702  | 586908  | 584742  | 585895  | 583532  | 586111  |  |
| 1.1 Foreign Currency Assets         | ₹ Crore                | 3881411 | 4339928 | 4328124 | 4325067 | 4324217 | 4282084 | 4307970 |  |
|                                     | US \$ Million          | 470727  | 523363  | 520236  | 519529  | 519351  | 515202  | 517504  |  |
| 1.2 Gold                            | ₹ Crore                | 305555  | 367410  | 363824  | 352200  | 362813  | 377545  | 382289  |  |
|                                     | US \$ Million          | 37057   | 44307   | 43731   | 42306   | 43575   | 45425   | 45923   |  |
| 1.3 SDRs                            | Volume (Metric Tonnes) | 786.28  | 799.59  | 800.78  | 803.58  | 803.58  | 803.58  | 803.58  |  |
|                                     | SDRs Million           | 13658   | 13681   | 13681   | 13681   | 13681   | 13681   | 13681   |  |
|                                     | ₹ Crore                | 143391  | 149366  | 149243  | 149212  | 149830  | 148987  | 149095  |  |
|                                     | US \$ Million          | 17390   | 18012   | 17939   | 17923   | 17995   | 17925   | 17910   |  |
| 1.4 Reserve Tranche Position in IMF | ₹ Crore                | 39778   | 41633   | 41593   | 41477   | 41416   | 41436   | 39733   |  |
|                                     | US \$ Million          | 4820    | 5019    | 5002    | 4983    | 4975    | 4980    | 4773    |  |

\* Difference, if any, is due to rounding off.

### No. 33: Non-Resident Deposits

(US \$ Million)

| Scheme                | Outstanding   |               |               |               |               | Flows       |             |         |
|-----------------------|---------------|---------------|---------------|---------------|---------------|-------------|-------------|---------|
|                       | 2022-23       | 2022          |               | 2023          |               |             | 2022-23     | 2023-24 |
|                       |               | Sep.          | Mar.          | Aug.          | Sep. (P)      | Apr.-Sep.   |             |         |
|                       |               | 1             | 2             | 3             | 4             | 5           |             |         |
| <b>1 NRI Deposits</b> | <b>138879</b> | <b>133674</b> | <b>138879</b> | <b>141987</b> | <b>143070</b> | <b>2839</b> | <b>5418</b> |         |
| 1.1 FCNR(B)           | 19363         | 16008         | 19363         | 20915         | 21284         | -910        | 1920        |         |
| 1.2 NR(E)RA           | 95817         | 95807         | 95817         | 96179         | 96458         | 1727        | 1617        |         |
| 1.3 NRO               | 23699         | 21858         | 23699         | 24892         | 25328         | 2021        | 1880        |         |

P: Provisional.

**No. 34: Foreign Investment Inflows**

(US \$ Million)

| Item                                                                              | 2022-23 | 2022-23   | 2023-24   | 2022  | 2023  |       |
|-----------------------------------------------------------------------------------|---------|-----------|-----------|-------|-------|-------|
|                                                                                   |         | Apr.-Sep. | Apr.-Sep. | Sep.  | Aug.  | Sep.  |
|                                                                                   |         | 1         | 2         | 3     | 4     | 5     |
| <b>1.1 Net Foreign Direct Investment (1.1.1-1.1.2)</b>                            | 27986   | 19601     | 4544      | 1567  | -2833 | 1547  |
| <b>1.1.1 Direct Investment to India (1.1.1.1-1.1.1.2)</b>                         | 42006   | 25360     | 10064     | 2566  | -1707 | 2780  |
| <b>1.1.1.1 Gross Inflows/Gross Investments</b>                                    | 71355   | 39374     | 33125     | 5167  | 4742  | 6210  |
| 1.1.1.1.1 Equity                                                                  | 47600   | 27646     | 21185     | 3100  | 3034  | 4215  |
| 1.1.1.1.1.1 Government (SIA/FIPB)                                                 | 692     | 556       | 191       | 90    | 78    | 15    |
| 1.1.1.1.1.2 RBI                                                                   | 37097   | 21078     | 15177     | 2544  | 1605  | 2587  |
| 1.1.1.1.1.3 Acquisition of shares                                                 | 8245    | 5276      | 5120      | 339   | 1225  | 1486  |
| 1.1.1.1.1.4 Equity capital of unincorporated bodies                               | 1566    | 736       | 697       | 126   | 126   | 126   |
| 1.1.1.1.2 Reinvested earnings                                                     | 19105   | 9062      | 9240      | 1557  | 1557  | 1557  |
| 1.1.1.1.3 Other capital                                                           | 4650    | 2666      | 2700      | 510   | 151   | 438   |
| <b>1.1.1.2 Repatriation/Disinvestment</b>                                         | 29349   | 14014     | 23060     | 2601  | 6449  | 3430  |
| 1.1.1.2.1 Equity                                                                  | 27094   | 12908     | 21575     | 2370  | 6367  | 3346  |
| 1.1.1.2.2 Other capital                                                           | 2255    | 1107      | 1485      | 231   | 82    | 84    |
| <b>1.1.2 Foreign Direct Investment by India (1.1.2.1+1.1.2.2+1.1.2.3-1.1.2.4)</b> | 14020   | 5758      | 5520      | 998   | 1125  | 1233  |
| 1.1.2.1 Equity capital                                                            | 8771    | 3036      | 3239      | 632   | 460   | 541   |
| 1.1.2.2 Reinvested Earnings                                                       | 4412    | 2206      | 2233      | 368   | 368   | 368   |
| 1.1.2.3 Other Capital                                                             | 4714    | 2272      | 2400      | 400   | 445   | 490   |
| 1.1.2.4 Repatriation/Disinvestment                                                | 3877    | 1756      | 2352      | 401   | 148   | 166   |
| <b>1.2 Net Portfolio Investment (1.2.1+1.2.2+1.2.3-1.2.4)</b>                     | -5152   | -8098     | 20257     | -1175 | 2339  | -2098 |
| 1.2.1 GDRs/ADRs                                                                   | -       | -         | -         | -     | -     | -     |
| 1.2.2 FIIs                                                                        | -4828   | -7757     | 20873     | -1052 | 2440  | -1996 |
| 1.2.3 Offshore funds and others                                                   | -       | -         | -         | -     | -     | -     |
| 1.2.4 Portfolio investment by India                                               | 324     | 341       | 616       | 123   | 100   | 102   |
| <b>1 Foreign Investment Inflows</b>                                               | 22834   | 11503     | 24801     | 392   | -493  | -551  |

**No. 35: Outward Remittances under the Liberalised Remittance Scheme (LRS) for Resident Individuals**

(US \$ Million)

| Item                                       | 2022-23         | 2022           | 2023           |                |                |
|--------------------------------------------|-----------------|----------------|----------------|----------------|----------------|
|                                            |                 | Sep.           | Jul.           | Aug.           | Sep.           |
|                                            |                 | 1              | 2              | 3              | 4              |
| <b>1 Outward Remittances under the LRS</b> | <b>27140.65</b> | <b>2671.40</b> | <b>2359.51</b> | <b>3379.54</b> | <b>3492.91</b> |
| 1.1 Deposit                                | 1011.07         | 79.30          | 50.12          | 60.74          | 118.56         |
| 1.2 Purchase of immovable property         | 188.73          | 14.64          | 14.89          | 16.29          | 29.13          |
| 1.3 Investment in equity/debt              | 1256.15         | 76.54          | 58.06          | 94.08          | 208.45         |
| 1.4 Gift                                   | 3005.27         | 243.73         | 233.96         | 268.89         | 383.70         |
| 1.5 Donations                              | 12.78           | 0.98           | 0.65           | 0.63           | 0.91           |
| 1.6 Travel                                 | 13662.15        | 1402.67        | 1419.42        | 2039.72        | 1765.07        |
| 1.7 Maintenance of close relatives         | 4174.06         | 366.47         | 282.30         | 378.41         | 559.79         |
| 1.8 Medical Treatment                      | 55.74           | 4.67           | 4.22           | 4.41           | 4.85           |
| 1.9 Studies Abroad                         | 3427.81         | 424.95         | 267.28         | 483.29         | 396.08         |
| 1.10 Others                                | 346.89          | 57.46          | 28.62          | 33.10          | 26.37          |

**No. 36: Indices of Nominal Effective Exchange Rate (NEER) and  
Real Effective Exchange Rate (REER) of the Indian Rupee**

| Item                                          | 2021-22 | 2022-23 | 2022   |        | 2023   |     |
|-----------------------------------------------|---------|---------|--------|--------|--------|-----|
|                                               |         |         | Oct    | Sep    | Oct    | Sep |
|                                               | 1       | 2       | 3      | 4      | 5      |     |
| <b>40-Currency Basket (Base: 2015-16=100)</b> |         |         |        |        |        |     |
| 1 Trade-Weighted                              |         |         |        |        |        |     |
| 1.1 NEER                                      | 93.13   | 91.27   | 91.67  | 91.34  | 91.74  |     |
| 1.2 REER                                      | 104.67  | 102.84  | 104.13 | 103.99 | 105.04 |     |
| 2 Export-Weighted                             |         |         |        |        |        |     |
| 2.1 NEER                                      | 93.55   | 93.03   | 93.21  | 93.58  | 94.05  |     |
| 2.2 REER                                      | 103.48  | 101.10  | 101.90 | 101.27 | 102.27 |     |
| <b>6-Currency Basket (Trade-weighted)</b>     |         |         |        |        |        |     |
| 1 Base : 2015-16 =100                         |         |         |        |        |        |     |
| 1.1 NEER                                      | 87.04   | 85.93   | 86.85  | 84.27  | 84.52  |     |
| 1.2 REER                                      | 102.22  | 101.90  | 103.45 | 102.43 | 103.38 |     |
| 2 Base : 2021-22 =100                         |         |         |        |        |        |     |
| 2.1 NEER                                      | 100.00  | 98.72   | 99.78  | 96.82  | 97.10  |     |
| 2.2 REER                                      | 100.00  | 99.69   | 101.20 | 100.21 | 101.14 |     |

**No. 37: External Commercial Borrowings (ECBs) – Registrations**

(Amount in US \$ Million)

| Item                                                                                     | 2022-23    | 2022       |            | 2023       |   |
|------------------------------------------------------------------------------------------|------------|------------|------------|------------|---|
|                                                                                          |            | Sep.       | Aug.       | Sep.       |   |
|                                                                                          |            | 1          | 2          | 3          | 4 |
| 1 Automatic Route                                                                        |            |            |            |            |   |
| 1.1 Number                                                                               | 1093       | 100        | 92         | 81         |   |
| 1.2 Amount                                                                               | 24156      | 2609       | 1498       | 2200       |   |
| 2 Approval Route                                                                         |            |            |            |            |   |
| 2.1 Number                                                                               | 9          | 1          | 2          | 2          |   |
| 2.2 Amount                                                                               | 2473       | 100        | 1270       | 564        |   |
| 3 Total (1+2)                                                                            |            |            |            |            |   |
| 3.1 Number                                                                               | 1102       | 101        | 94         | 83         |   |
| 3.2 Amount                                                                               | 26629      | 2709       | 2768       | 2764       |   |
| 4 Weighted Average Maturity (in years)                                                   | 5.72       | 5.30       | 4.90       | 5.20       |   |
| 5 Interest Rate (per cent)                                                               |            |            |            |            |   |
| 5.1 Weighted Average Margin over 6-month LIBOR or reference rate for Floating Rate Loans | 1.68       | 1.80       | 1.30       | 1.82       |   |
| 5.2 Interest rate range for Fixed Rate Loans                                             | 0.00-11.80 | 0.00-11.40 | 0.00-11.60 | 0.00-15.00 |   |

**Borrower Category**

|                                              |      |      |     |      |
|----------------------------------------------|------|------|-----|------|
| I. Corporate Manufacturing                   | 6925 | 616  | 988 | 130  |
| II. Corporate-Infrastructure                 | 8396 | 1129 | 713 | 712  |
| a.) Transport                                | 333  | 0    | 182 | 281  |
| b.) Energy                                   | 2235 | 152  | 3   | 331  |
| c.) Water and Sanitation                     | 32   | 7    | 6   | 0    |
| d.) Communication                            | 1538 | 0    | 0   | 0    |
| e.) Social and Commercial Infrastructure     | 530  | 330  | 61  | 0    |
| f.) Exploration,Mining and Refinery          | 2085 | 350  | 460 | 100  |
| g.) Other Sub-Sectors                        | 1643 | 290  | 1   | 0    |
| III. Corporate Service-Sector                | 1773 | 91   | 64  | 495  |
| IV. Other Entities                           | 1805 | 102  | 0   | 0    |
| a.) units in SEZ                             | 6    | 2    | 0   | 0    |
| b.) SIDBI                                    | 0    | 0    | 0   | 0    |
| c.) Exim Bank                                | 1800 | 100  | 0   | 0    |
| V. Banks                                     | 0    | 0    | 0   | 0    |
| VI. Financial Institution (Other than NBFC ) | 0    | 0    | 0   | 0    |
| VII. NBFCs                                   | 7540 | 770  | 795 | 1402 |
| a). NBFC- IFC/AFC                            | 3031 | 150  | 712 | 1193 |
| b). NBFC-MFI                                 | 313  | 105  | 44  | 13   |
| c). NBFC-Others                              | 4196 | 515  | 39  | 196  |
| VIII. Non-Government Organization (NGO)      | 0    | 0    | 0   | 0    |
| IX. Micro Finance Institution (MFI)          | 0    | 0    | 0   | 0    |
| X. Others                                    | 189  | 1    | 208 | 25   |

Note: Based on applications for ECB/Foreign Currency Convertible Bonds (FCCBs) which have been allotted loan registration number during the period.

**No. 38: India's Overall Balance of Payments**

(US\$ Million)

| Item                                                    | Apr-Jun 2022  |               |               | Apr-Jun 2023 (P) |               |               |
|---------------------------------------------------------|---------------|---------------|---------------|------------------|---------------|---------------|
|                                                         | Credit        | Debit         | Net           | Credit           | Debit         | Net           |
|                                                         | 1             | 2             | 3             | 4                | 5             | 6             |
| <b>Overall Balance Of Payments (1+2+3)</b>              | <b>424381</b> | <b>419786</b> | <b>4595</b>   | <b>403245</b>    | <b>378813</b> | <b>24432</b>  |
| <b>1 Current Account (1.1+ 1.2)</b>                     | <b>231036</b> | <b>249000</b> | <b>-17964</b> | <b>221417</b>    | <b>230631</b> | <b>-9214</b>  |
| <b>1.1 Merchandise</b>                                  | <b>122797</b> | <b>185851</b> | <b>-63054</b> | <b>105029</b>    | <b>161625</b> | <b>-56596</b> |
| <b>1.2 Invisibles (1.2.1+1.2.2+1.2.3)</b>               | <b>108239</b> | <b>63149</b>  | <b>45090</b>  | <b>116388</b>    | <b>69006</b>  | <b>47382</b>  |
| 1.2.1 Services                                          | 76093         | 45024         | 31069         | 80573            | 45448         | 35125         |
| 1.2.1.1 Travel                                          | 4705          | 6299          | -1593         | 6412             | 9489          | -3077         |
| 1.2.1.2 Transportation                                  | 9849          | 11780         | -1931         | 7412             | 7693          | -281          |
| 1.2.1.3 Insurance                                       | 915           | 510           | 405           | 761              | 591           | 170           |
| 1.2.1.4 G.n.i.e.                                        | 170           | 207           | -37           | 159              | 250           | -91           |
| 1.2.1.5 Miscellaneous                                   | 60454         | 26230         | 34225         | 65830            | 27426         | 38404         |
| 1.2.1.5.1 Software Services                             | 34476         | 3784          | 30692         | 38172            | 4243          | 33928         |
| 1.2.1.5.2 Business Services                             | 17751         | 14303         | 3448          | 21831            | 15203         | 6627          |
| 1.2.1.5.3 Financial Services                            | 1660          | 1514          | 146           | 1891             | 1152          | 739           |
| 1.2.1.5.4 Communication Services                        | 961           | 439           | 522           | 831              | 324           | 507           |
| 1.2.2 Transfers                                         | 25651         | 2777          | 22874         | 27117            | 4251          | 22866         |
| 1.2.2.1 Official                                        | 31            | 222           | -191          | 20               | 227           | -208          |
| 1.2.2.2 Private                                         | 25620         | 2555          | 23065         | 27097            | 4024          | 23073         |
| 1.2.3 Income                                            | 6495          | 15348         | -8853         | 8698             | 19307         | -10609        |
| 1.2.3.1 Investment Income                               | 4804          | 14565         | -9761         | 6871             | 18439         | -11568        |
| 1.2.3.2 Compensation of Employees                       | 1691          | 783           | 908           | 1827             | 868           | 959           |
| <b>2 Capital Account (2.1+2.2+2.3+2.4+2.5)</b>          | <b>192841</b> | <b>170786</b> | <b>22055</b>  | <b>181828</b>    | <b>147453</b> | <b>34374</b>  |
| <b>2.1 Foreign Investment (2.1.1+2.1.2)</b>             | <b>106256</b> | <b>107494</b> | <b>-1238</b>  | <b>109044</b>    | <b>88232</b>  | <b>20812</b>  |
| <b>2.1.1 Foreign Direct Investment</b>                  | <b>23025</b>  | <b>9633</b>   | <b>13392</b>  | <b>19268</b>     | <b>14188</b>  | <b>5081</b>   |
| 2.1.1.1 In India                                        | 22474         | 6211          | 16263         | 17780            | 10427         | 7352          |
| 2.1.1.1.1 Equity                                        | 16948         | 5797          | 11151         | 11265            | 9351          | 1914          |
| 2.1.1.1.2 Reinvested Earnings                           | 4390          | 0             | 4390          | 4567             | 0             | 4567          |
| 2.1.1.1.3 Other Capital                                 | 1136          | 415           | 722           | 1948             | 1077          | 871           |
| 2.1.1.2 Abroad                                          | 552           | 3422          | -2870         | 1489             | 3760          | -2271         |
| 2.1.1.2.1 Equity                                        | 552           | 1254          | -702          | 1489             | 1813          | -324          |
| 2.1.1.2.2 Reinvested Earnings                           | 0             | 1103          | -1103         | 0                | 1130          | -1130         |
| 2.1.1.2.3 Other Capital                                 | 0             | 1065          | -1065         | 0                | 817           | -817          |
| <b>2.1.2 Portfolio Investment</b>                       | <b>83231</b>  | <b>97861</b>  | <b>-14630</b> | <b>89775</b>     | <b>74045</b>  | <b>15731</b>  |
| 2.1.2.1 In India                                        | 82548         | 97207         | -14659        | 88743            | 72654         | 16089         |
| 2.1.2.1.1 FIIs                                          | 82548         | 97207         | -14659        | 88743            | 72654         | 16089         |
| 2.1.2.1.1.1 Equity                                      | 72768         | 87798         | -15029        | 77174            | 63525         | 13649         |
| 2.1.2.1.1.2 Debt                                        | 9780          | 9410          | 370           | 11569            | 9129          | 2440          |
| 2.1.2.1.2 ADR/GDRs                                      | 0             | 0             | 0             | 0                | 0             | 0             |
| 2.1.2.2 Abroad                                          | 683           | 654           | 29            | 1032             | 1391          | -358          |
| <b>2.2 Loans (2.2.1+2.2.2+2.2.3)</b>                    | <b>23965</b>  | <b>19905</b>  | <b>4060</b>   | <b>30287</b>     | <b>28038</b>  | <b>2249</b>   |
| <b>2.2.1 External Assistance</b>                        | <b>3229</b>   | <b>1424</b>   | <b>1805</b>   | <b>3030</b>      | <b>1577</b>   | <b>1454</b>   |
| 2.2.1.1 By India                                        | 8             | 23            | -15           | 7                | 23            | -16           |
| 2.2.1.2 To India                                        | 3221          | 1400          | 1820          | 3023             | 1553          | 1470          |
| <b>2.2.2 Commercial Borrowings</b>                      | <b>3252</b>   | <b>6062</b>   | <b>-2809</b>  | <b>15382</b>     | <b>9597</b>   | <b>5784</b>   |
| 2.2.2.1 By India                                        | 216           | 138           | 78            | 2212             | 2071          | 140           |
| 2.2.2.2 To India                                        | 3037          | 5924          | -2887         | 13170            | 7526          | 5644          |
| <b>2.2.3 Short Term to India</b>                        | <b>17484</b>  | <b>12420</b>  | <b>5064</b>   | <b>11875</b>     | <b>16864</b>  | <b>-4989</b>  |
| 2.2.3.1 Buyers' credit & Suppliers' Credit >180 days    | 17484         | 11502         | 5982          | 11875            | 14352         | -2477         |
| 2.2.3.2 Suppliers' Credit up to 180 days                | 0             | 918           | -918          | 0                | 2512          | -2512         |
| <b>2.3 Banking Capital (2.3.1+2.3.2)</b>                | <b>49574</b>  | <b>30533</b>  | <b>19041</b>  | <b>33355</b>     | <b>20408</b>  | <b>12947</b>  |
| <b>2.3.1 Commercial Banks</b>                           | <b>49574</b>  | <b>30018</b>  | <b>19556</b>  | <b>33183</b>     | <b>20408</b>  | <b>12776</b>  |
| 2.3.1.1 Assets                                          | 35834         | 16375         | 19458         | 13391            | 3451          | 9941          |
| 2.3.1.2 Liabilities                                     | 13741         | 13643         | 97            | 19792            | 16957         | 2835          |
| 2.3.1.2.1 Non-Resident Deposits                         | 12287         | 11937         | 349           | 18896            | 16688         | 2208          |
| 2.3.2 Others                                            | 0             | 514           | -514          | 172              | 0             | 172           |
| <b>2.4 Rupee Debt Service</b>                           | <b>0</b>      | <b>59</b>     | <b>-59</b>    | <b>0</b>         | <b>62</b>     | <b>-62</b>    |
| <b>2.5 Other Capital</b>                                | <b>13045</b>  | <b>12795</b>  | <b>251</b>    | <b>9142</b>      | <b>10713</b>  | <b>-1571</b>  |
| <b>3 Errors &amp; Omissions</b>                         | <b>505</b>    | <b>0</b>      | <b>505</b>    | <b>0</b>         | <b>728</b>    | <b>-728</b>   |
| <b>4 Monetary Movements (4.1+ 4.2)</b>                  | <b>0</b>      | <b>4595</b>   | <b>-4595</b>  | <b>0</b>         | <b>24432</b>  | <b>-24432</b> |
| 4.1 I.M.F.                                              | 0             | 0             | 0             | 0                | 0             | 0             |
| 4.2 Foreign Exchange Reserves (Increase - / Decrease +) | 0             | 4595          | -4595         | 0                | 24432         | -24432        |

Note: P: Preliminary.

**No. 39: India's Overall Balance of Payments**

(₹ Crore)

| Item                                                    | Apr-Jun 2022   |                |               | Apr-Jun 2023 (P) |                |                |
|---------------------------------------------------------|----------------|----------------|---------------|------------------|----------------|----------------|
|                                                         | Credit         | Debit          | Net           | Credit           | Debit          | Net            |
|                                                         | 1              | 2              | 3             | 4                | 5              | 6              |
| <b>Overall Balance Of Payments (1+2+3)</b>              | <b>3275683</b> | <b>3240212</b> | <b>35471</b>  | <b>3314641</b>   | <b>3113815</b> | <b>200826</b>  |
| 1 Current Account (1.1+ 1.2)                            | 1783304        | 1921965        | -138662       | 1820030          | 1895772        | -75742         |
| 1.1 Merchandise                                         | 947837         | 1434534        | -486697       | 863329           | 1328547        | -465219        |
| 1.2 Invisibles (1.2.1+1.2.2+1.2.3)                      | 835466         | 487431         | 348035        | 956701           | 567225         | 389477         |
| 1.2.1 Services                                          | 587342         | 347531         | 239811        | 662307           | 373579         | 288728         |
| 1.2.1.1 Travel                                          | 36320          | 48618          | -12298        | 52702            | 77997          | -25295         |
| 1.2.1.2 Transportation                                  | 76019          | 90923          | -14904        | 60923            | 63237          | -2314          |
| 1.2.1.3 Insurance                                       | 7061           | 3936           | 3125          | 6255             | 4854           | 1401           |
| 1.2.1.4 G.n.i.e.                                        | 1314           | 1596           | -282          | 1305             | 2051           | -746           |
| 1.2.1.5 Miscellaneous                                   | 466628         | 202458         | 264170        | 541121           | 225440         | 315681         |
| 1.2.1.5.1 Software Services                             | 266112         | 29209          | 236902        | 313769           | 34880          | 278889         |
| 1.2.1.5.2 Business Services                             | 137013         | 110398         | 26614         | 179448           | 124971         | 54477          |
| 1.2.1.5.3 Financial Services                            | 12811          | 11683          | 1129          | 15546            | 9473           | 6073           |
| 1.2.1.5.4 Communication Services                        | 7419           | 3390           | 4029          | 6827             | 2663           | 4165           |
| 1.2.2 Transfers                                         | 197995         | 21434          | 176560        | 222898           | 34944          | 187954         |
| 1.2.2.1 Official                                        | 241            | 1713           | -1472         | 160              | 1869           | -1708          |
| 1.2.2.2 Private                                         | 197753         | 19722          | 178032        | 222738           | 33076          | 189662         |
| 1.2.3 Income                                            | 50130          | 118466         | -68336        | 71495            | 158701         | -87206         |
| 1.2.3.1 Investment Income                               | 37081          | 112425         | -75344        | 56477            | 151570         | -95092         |
| 1.2.3.2 Compensation of Employees                       | 13049          | 6041           | 7008          | 15018            | 7132           | 7886           |
| <b>2 Capital Account (2.1+2.2+2.3+2.4+2.5)</b>          | <b>1488483</b> | <b>1318247</b> | <b>170236</b> | <b>1494611</b>   | <b>1212057</b> | <b>282555</b>  |
| <b>2.1 Foreign Investment (2.1.1+2.1.2)</b>             | <b>820164</b>  | <b>829717</b>  | <b>-9553</b>  | <b>896332</b>    | <b>725262</b>  | <b>171070</b>  |
| 2.1.1 Foreign Direct Investment                         | 177727         | 74355          | 103373        | 158385           | 116622         | 41764          |
| 2.1.1.1 In India                                        | 173468         | 47943          | 125526        | 146148           | 85713          | 60435          |
| 2.1.1.1.1 Equity                                        | 130813         | 44743          | 86070         | 92594            | 76861          | 15733          |
| 2.1.1.1.2 Reinvested Earnings                           | 33883          | 0              | 33883         | 37542            | 0              | 37542          |
| 2.1.1.1.3 Other Capital                                 | 8772           | 3200           | 5572          | 16012            | 8853           | 7160           |
| 2.1.1.2 Abroad                                          | 4259           | 26412          | -22153        | 12237            | 30908          | -18671         |
| 2.1.1.2.1 Equity                                        | 4259           | 9676           | -5417         | 12237            | 14902          | -2665          |
| 2.1.1.2.2 Reinvested Earnings                           | 0              | 8513           | -8513         | 0                | 9291           | -9291          |
| 2.1.1.2.3 Other Capital                                 | 0              | 8222           | -8222         | 0                | 6715           | -6715          |
| 2.1.2 Portfolio Investment                              | 642437         | 755362         | -112926       | 737947           | 608641         | 129306         |
| 2.1.2.1 In India                                        | 637168         | 750316         | -113148       | 729461           | 597209         | 132252         |
| 2.1.2.1.1 FIIs                                          | 637168         | 750316         | -113148       | 729461           | 597209         | 132252         |
| 2.1.2.1.1.1 Equity                                      | 561680         | 677686         | -116006       | 634364           | 522169         | 112195         |
| 2.1.2.1.1.2 Debt                                        | 75489          | 72631          | 2858          | 95097            | 75040          | 20058          |
| 2.1.2.1.2 ADR/GDRs                                      | 0              | 0              | 0             | 0                | 0              | 0              |
| 2.1.2.2 Abroad                                          | 5268           | 5046           | 222           | 8486             | 11432          | -2946          |
| <b>2.2 Loans (2.2.1+2.2.2+2.2.3)</b>                    | <b>184977</b>  | <b>153640</b>  | <b>31336</b>  | <b>248958</b>    | <b>230472</b>  | <b>18486</b>   |
| 2.2.1 External Assistance                               | 24922          | 10988          | 13934         | 24910            | 12961          | 11949          |
| 2.2.1.1 By India                                        | 63             | 180            | -117          | 61               | 192            | -131           |
| 2.2.1.2 To India                                        | 24859          | 10808          | 14051         | 24849            | 12769          | 12080          |
| 2.2.2 Commercial Borrowings                             | 25103          | 46788          | -21685        | 126436           | 78890          | 47546          |
| 2.2.2.1 By India                                        | 1664           | 1062           | 603           | 18179            | 17027          | 1153           |
| 2.2.2.2 To India                                        | 23438          | 45726          | -22287        | 108257           | 61863          | 46393          |
| 2.2.3 Short Term to India                               | 134952         | 95864          | 39087         | 97612            | 138621         | -41009         |
| 2.2.3.1 Buyers' credit & Suppliers' Credit >180 days    | 134952         | 88778          | 46173         | 97612            | 117969         | -20357         |
| 2.2.3.2 Suppliers' Credit up to 180 days                | 0              | 7086           | -7086         | 0                | 20652          | -20652         |
| <b>2.3 Banking Capital (2.3.1+2.3.2)</b>                | <b>382650</b>  | <b>235676</b>  | <b>146974</b> | <b>274174</b>    | <b>167750</b>  | <b>106424</b>  |
| 2.3.1 Commercial Banks                                  | 382650         | 231704         | 150945        | 272764           | 167750         | 105014         |
| 2.3.1.1 Assets                                          | 276591         | 126397         | 150194        | 110076           | 28366          | 81710          |
| 2.3.1.2 Liabilities                                     | 106059         | 105308         | 752           | 162687           | 139384         | 23304          |
| 2.3.1.2.1 Non-Resident Deposits                         | 94837          | 92139          | 2697          | 155328           | 137175         | 18153          |
| 2.3.2 Others                                            | 0              | 3971           | -3971         | 1410             | 0              | 1410           |
| <b>2.4 Rupee Debt Service</b>                           | <b>0</b>       | <b>456</b>     | <b>-456</b>   | <b>0</b>         | <b>512</b>     | <b>-512</b>    |
| <b>2.5 Other Capital</b>                                | <b>100693</b>  | <b>98758</b>   | <b>1934</b>   | <b>75147</b>     | <b>88061</b>   | <b>-12913</b>  |
| <b>3 Errors &amp; Omissions</b>                         | <b>3896</b>    | <b>0</b>       | <b>3896</b>   | <b>0</b>         | <b>5987</b>    | <b>-5987</b>   |
| <b>4 Monetary Movements (4.1+ 4.2)</b>                  | <b>0</b>       | <b>35471</b>   | <b>-35471</b> | <b>0</b>         | <b>200826</b>  | <b>-200826</b> |
| 4.1 I.M.F.                                              | 0              | 0              | 0             | 0                | 0              | 0              |
| 4.2 Foreign Exchange Reserves (Increase - / Decrease +) | 0              | 35471          | -35471        | 0                | 200826         | -200826        |

Note: P: Preliminary.

## No. 40: Standard Presentation of BoP in India as per BPM6

| Item                                                                                        | (US\$ Million) |          |            |                  |            |             |
|---------------------------------------------------------------------------------------------|----------------|----------|------------|------------------|------------|-------------|
|                                                                                             | Apr-Jun 2022   |          |            | Apr-Jun 2023 (P) |            |             |
|                                                                                             | Credit         | Debit    | Net        | Credit           | Debit      | Net         |
| 1                                                                                           | 2              | 3        | 4          | 5                | 6          |             |
| <b>1 Current Account (1.A+1.B+1.C)</b>                                                      |                |          |            |                  |            |             |
| <b>1.A Goods and Services (1.A.a+1.A.b)</b>                                                 |                |          |            |                  |            |             |
| <b>1.A.a Goods (1.A.a.1 to 1.A.a.3)</b>                                                     |                |          |            |                  |            |             |
| 1.A.a.1 General merchandise on a BOP basis                                                  | 231033         | 248979   | -17945     | 221416           | 230612     | -9195       |
| 1.A.a.2 Net exports of goods under merchanting                                              | 198890         | 230876   | -31985     | 185602           | 207073     | -21471      |
| 1.A.a.3 Nonmonetary gold                                                                    | 122797         | 185851   | -63054     | 105029           | 161625     | -56596      |
| 1.A.b Services (1.A.b.1 to 1.A.b.13)                                                        | 122351         | 175362   | -53011     | 104590           | 151928     | -47337      |
| 1.A.b.1 Manufacturing services on physical inputs owned by others                           | 446            | 0        | 446        | 438              | 0          | 438         |
| 1.A.b.2 Maintenance and repair services n.i.e.                                              | 0              | 10489    | -10489     | 0                | 9698       | -9698       |
| 1.A.b.3 Transport                                                                           | 76093          | 45024    | 31069      | 80573            | 45448      | 35125       |
| 1.A.b.4 Travel                                                                              | 321            | 28       | 293        | 481              | 42         | 439         |
| 1.A.b.5 Construction                                                                        | 48             | 432      | -384       | 47               | 431        | -385        |
| 1.A.b.6 Insurance and pension services                                                      | 9849           | 11780    | -1931      | 7412             | 7693       | -281        |
| 1.A.b.7 Financial services                                                                  | 4705           | 6299     | -1593      | 6412             | 9489       | -3077       |
| 1.A.b.8 Charges for the use of intellectual property n.i.e.                                 | 1660           | 1514     | 146        | 1891             | 1152       | 739         |
| 1.A.b.9 Telecommunications, computer, and information services                              | 332            | 2251     | -1919      | 381              | 3647       | -3266       |
| 1.A.b.10 Other business services                                                            | 35521          | 4436     | 31085      | 39091            | 4859       | 34231       |
| 1.A.b.11 Personal, cultural, and recreational services                                      | 17751          | 14303    | 3448       | 21831            | 15203      | 6627        |
| 1.A.b.12 Government goods and services n.i.e.                                               | 946            | 1252     | -306       | 968              | 1279       | -312        |
| 1.A.b.13 Others n.i.e.                                                                      | 170            | 207      | -37        | 159              | 250        | -91         |
| 1.B Primary Income (1.B.1 to 1.B.3)                                                         | 3137           | 1284     | 1853       | 272              | 115        | 157         |
| 1.B.1 Compensation of employees                                                             | 6495           | 15348    | -8853      | 8698             | 19307      | -10609      |
| 1.B.2 Investment income                                                                     | 1691           | 783      | 908        | 1827             | 868        | 959         |
| 1.B.2.1 Direct investment                                                                   | 3631           | 14204    | -10572     | 5461             | 18003      | -12542      |
| 1.B.2.2 Portfolio investment                                                                | 2274           | 9197     | -6923      | 2039             | 9977       | -7938       |
| 1.B.2.3 Other investment                                                                    | 62             | 1604     | -1542      | 208              | 2250       | -2042       |
| 1.B.2.4 Reserve assets                                                                      | 102            | 3388     | -3286      | 517              | 5587       | -5070       |
| 1.B.3 Other primary income                                                                  | 1193           | 15       | 1178       | 2697             | 189        | 2508        |
| 1.C Secondary Income (1.C.1+1.C.2)                                                          | 1173           | 362      | 811        | 1410             | 436        | 973         |
| 1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs             | 25648          | 2755     | 22893      | 27116            | 4231       | 22885       |
| 1.C.1.1 Personal transfers (Current transfers between resident and non-resident households) | 25620          | 2555     | 23065      | 27097            | 4024       | 23073       |
| 1.C.1.2 Other current transfers                                                             | 24969          | 1806     | 23163      | 26325            | 2680       | 23645       |
| 1.C.2 General government                                                                    | 651            | 749      | -98        | 772              | 1343       | -571        |
| <b>2 Capital Account (2.1+2.2)</b>                                                          | 28             | 200      | -172       | 19               | 208        | -189        |
| 2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets            | 141            | 227      | -86        | 150              | 142        | 8           |
| 2.2 Capital transfers                                                                       | 19             | 132      | -113       | 12               | 51         | -39         |
| 2.2.1 Direct investment in direct investment enterprises                                    | 123            | 96       | 27         | 138              | 91         | 47          |
| <b>3 Financial Account (3.1 to 3.5)</b>                                                     |                |          |            |                  |            |             |
| <b>3.1 Direct Investment (3.1A+3.1B)</b>                                                    |                |          |            |                  |            |             |
| 3.1.A Direct Investment in India                                                            | 192702         | 175175   | 17527      | 181679           | 171763     | 9916        |
| 3.1.A.1 Equity and investment fund shares                                                   | 23025          | 9633     | 13392      | 19268            | 14188      | 5081        |
| 3.1.A.1.1 Equity other than reinvestment of earnings                                        | 22474          | 6211     | 16263      | 17780            | 10427      | 7352        |
| 3.1.A.1.2 Reinvestment of earnings                                                          | 21337          | 5797     | 15541      | 15832            | 9351       | 6481        |
| 3.1.A.2 Debt instruments                                                                    | 16948          | 5797     | 11151      | 11265            | 9351       | 1914        |
| 3.1.A.2.1 Direct investor in direct investment enterprises                                  | 4390           | 0        | 4390       | 4567             | 0          | 4567        |
| 3.1.B Direct Investment by India                                                            | 1136           | 415      | 722        | 1948             | 1077       | 871         |
| 3.1.B.1 Equity and investment fund shares                                                   | 552            | 3422     | -2870      | 1489             | 3760       | -2271       |
| 3.1.B.1.1 Equity other than reinvestment of earnings                                        | 552            | 2357     | -1805      | 1489             | 2943       | -1455       |
| 3.1.B.1.2 Reinvestment of earnings                                                          | 0              | 1254     | -702       | 1489             | 1813       | -324        |
| 3.1.B.2 Debt instruments                                                                    | 0              | 1103     | -1103      | 0                | 1130       | -1130       |
| 3.1.B.2.1 Direct investor in direct investment enterprises                                  | 0              | 1065     | -1065      | 0                | 817        | -817        |
| 3.2 Portfolio Investment                                                                    | 0              | 1065     | -1065      | 0                | 817        | -817        |
| 3.2.A Portfolio Investment in India                                                         | 83231          | 97861    | -14630     | 89775            | 74045      | 15731       |
| 3.2.A.1 Equity and investment fund shares                                                   | 82548          | 97207    | -14659     | 88743            | 72654      | 16089       |
| 3.2.A.2 Debt securities                                                                     | 72768          | 87798    | -15029     | 77174            | 63525      | 13649       |
| 3.2.B Portfolio Investment by India                                                         | 9780           | 9410     | 370        | 11569            | 9129       | 2440        |
| 3.3 Financial derivatives (other than reserves) and employee stock options                  | 683            | 654      | 29         | 1032             | 1391       | -358        |
| 3.4 Other investment                                                                        | 5267           | 7658     | -2391      | 5013             | 5736       | -723        |
| 3.4.1 Other equity (ADRs/GDRs)                                                              | 81179          | 55428    | 25751      | 67622            | 53363      | 14259       |
| 3.4.2 Currency and deposits                                                                 | 0              | 0        | 0          | 0                | 0          | 0           |
| 3.4.2.1 Central bank (Rupee Debt Movements; NRG)                                            | 12287          | 12452    | -165       | 19068            | 16688      | 2380        |
| 3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)                 | 0              | 514      | -514       | 172              | 0          | 172         |
| 3.4.2.3 General government                                                                  | 12287          | 11937    | 349        | 18896            | 16688      | 2208        |
| 3.4.2.4 Other sectors                                                                       | 0              | 0        | 0          | 0                | 0          | 0           |
| 3.4.3 Loans (External Assistance, ECBs and Banking Capital)                                 | 43769          | 25567    | 18202      | 32699            | 14894      | 17805       |
| 3.4.3.A Loans to India                                                                      | 43545          | 25406    | 18139      | 30480            | 12799      | 17681       |
| 3.4.3.B Loans by India                                                                      | 224            | 161      | 63         | 2219             | 2095       | 124         |
| 3.4.4 Insurance, pension, and standardized guarantee schemes                                | 74             | 184      | -110       | 38               | 168        | -130        |
| 3.4.5 Trade credit and advances                                                             | 17484          | 12420    | 5064       | 11875            | 16864      | -4989       |
| 3.4.6 Other accounts receivable/payable - other                                             | 7566           | 4807     | 2759       | 3942             | 4750       | -807        |
| 3.4.7 Special drawing rights                                                                | 0              | 0        | 0          | 0                | 0          | 0           |
| 3.5 Reserve assets                                                                          | 0              | 4595     | -4595      | 0                | 24432      | -24432      |
| 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              | 4595     | -4595      | 0                | 24432      | -24432      |
| <b>4 Total assets/liabilities</b>                                                           | 192702         | 175175   | 17527      | 181679           | 171763     | 9916        |
| 4.1 Equity and investment fund shares                                                       | 100681         | 104446   | -3765      | 100577           | 83113      | 17464       |
| 4.2 Debt instruments                                                                        | 84455          | 61327    | 23128      | 77159            | 59469      | 17690       |
| 4.3 Other financial assets and liabilities                                                  | 7566           | 9402     | -1836      | 3942             | 29181      | -25239      |
| <b>5 Net errors and omissions</b>                                                           | <b>505</b>     | <b>0</b> | <b>505</b> | <b>0</b>         | <b>728</b> | <b>-728</b> |

Note: P: Preliminary.

## No. 41: Standard Presentation of BoP in India as per BPM6

(₹ Crore)

| Item                                                                                        | Apr-Jun 2022   |                |                | Apr-Jun 2023 (P) |                |                |
|---------------------------------------------------------------------------------------------|----------------|----------------|----------------|------------------|----------------|----------------|
|                                                                                             | Credit         | Debit          | Net            | Credit           | Debit          | Net            |
|                                                                                             | 1              | 2              | 3              | 4                | 5              | 6              |
| <b>1 Current Account (1.A+1.B+1.C)</b>                                                      | <b>1783282</b> | <b>1921798</b> | <b>-138516</b> | <b>1820024</b>   | <b>1895610</b> | <b>-75586</b>  |
| <b>1.A Goods and Services (1.A.a+1.A.b)</b>                                                 | <b>1535179</b> | <b>1782065</b> | <b>-246886</b> | <b>1525636</b>   | <b>1702127</b> | <b>-176490</b> |
| <b>1.A.a Goods (1.A.a.1 to 1.A.a.3)</b>                                                     | <b>947837</b>  | <b>1434534</b> | <b>-486697</b> | <b>863329</b>    | <b>1328547</b> | <b>-465219</b> |
| 1.A.a.1 General merchandise on a BOP basis                                                  | 944394         | 1353574        | -409180        | 859724           | 1248834        | -389109        |
| 1.A.a.2 Net exports of goods under merchanting                                              | 3443           | 0              | 3443           | 3604             | 0              | 3604           |
| 1.A.a.3 Nonmonetary gold                                                                    | 0              | 80960          | -80960         | 0                | 79714          | -79714         |
| <b>1.A.b Services (1.A.b.1 to 1.A.b.13)</b>                                                 | <b>587342</b>  | <b>347531</b>  | <b>239811</b>  | <b>662307</b>    | <b>373579</b>  | <b>288728</b>  |
| 1.A.b.1 Manufacturing services on physical inputs owned by others                           | 2474           | 213            | 2261           | 3955             | 345            | 3610           |
| 1.A.b.2 Maintenance and repair services n.i.e.                                              | 367            | 3334           | -2967          | 382              | 3546           | -3164          |
| 1.A.b.3 Transport                                                                           | 76019          | 90923          | -14904         | 60923            | 63237          | -2314          |
| 1.A.b.4 Travel                                                                              | 36320          | 48618          | -12298         | 52702            | 77997          | -25295         |
| 1.A.b.5 Construction                                                                        | 5705           | 5637           | 68             | 7153             | 5726           | 1427           |
| 1.A.b.6 Insurance and pension services                                                      | 7061           | 3936           | 3125           | 6255             | 4854           | 1401           |
| 1.A.b.7 Financial services                                                                  | 12811          | 11683          | 1129           | 15546            | 9473           | 6073           |
| 1.A.b.8 Charges for the use of intellectual property n.i.e.                                 | 2560           | 17373          | -14813         | 3128             | 29977          | -26849         |
| 1.A.b.9 Telecommunications, computer, and information services                              | 274180         | 34244          | 239936         | 321321           | 39942          | 281380         |
| 1.A.b.10 Other business services                                                            | 137013         | 110398         | 26614          | 179448           | 124971         | 54477          |
| 1.A.b.11 Personal, cultural, and recreational services                                      | 7303           | 9666           | -2363          | 7953             | 10515          | -2562          |
| 1.A.b.12 Government goods and services n.i.e.                                               | 1314           | 1596           | -282           | 1305             | 2051           | -746           |
| 1.A.b.13 Others n.i.e.                                                                      | 24215          | 9910           | 14305          | 2235             | 945            | 1290           |
| <b>1.B Primary Income (1.B.1 to 1.B.3)</b>                                                  | <b>50130</b>   | <b>118466</b>  | <b>-68336</b>  | <b>71495</b>     | <b>158701</b>  | <b>-87206</b>  |
| 1.B.1 Compensation of employees                                                             | 13049          | 6041           | 7008           | 15018            | 7132           | 7886           |
| 1.B.2 Investment income                                                                     | 28028          | 109634         | -81605         | 44888            | 147982         | -103094        |
| 1.B.2.1 Direct investment                                                                   | 17555          | 70988          | -53433         | 16758            | 82009          | -65250         |
| 1.B.2.2 Portfolio investment                                                                | 476            | 12377          | -11902         | 1710             | 18491          | -16781         |
| 1.B.2.3 Other investment                                                                    | 789            | 26155          | -25366         | 4252             | 45927          | -41674         |
| 1.B.2.4 Reserve assets                                                                      | 9209           | 113            | 9095           | 22167            | 1555           | 20612          |
| 1.B.3 Other primary income                                                                  | 9053           | 2792           | 6261           | 11590            | 3588           | 8002           |
| <b>1.C Secondary Income (1.C.1+1.C.2)</b>                                                   | <b>197973</b>  | <b>21267</b>   | <b>176706</b>  | <b>222893</b>    | <b>34783</b>   | <b>188110</b>  |
| 1.C.1 Financial corporations, nonfinancial corporations, households, and NPISHs             | 197753         | 19722          | 178032         | 222738           | 33076          | 189662         |
| 1.C.1.1 Personal transfers (Current transfers between resident and/non-resident households) | 192727         | 13938          | 178789         | 216392           | 22033          | 194358         |
| 1.C.1.2 Other current transfers                                                             | 5026           | 5784           | -757           | 6346             | 11042          | -4696          |
| 1.C.2 General government                                                                    | 219            | 1545           | -1326          | 155              | 1707           | -1552          |
| <b>2 Capital Account (2.1+2.2)</b>                                                          | <b>1092</b>    | <b>1755</b>    | <b>-663</b>    | <b>1232</b>      | <b>1165</b>    | <b>66</b>      |
| 2.1 Gross acquisitions (DR.)/disposals (CR.) of non-produced nonfinancial assets            | 145            | 1016           | -871           | 100              | 418            | -319           |
| 2.2 Capital transfers                                                                       | 947            | 738            | 208            | 1132             | 747            | 385            |
| <b>3 Financial Account (3.1 to 3.5)</b>                                                     | <b>1487413</b> | <b>1352130</b> | <b>135283</b>  | <b>1493386</b>   | <b>1411879</b> | <b>81507</b>   |
| <b>3.1 Direct Investment (3.1A+3.1B)</b>                                                    | <b>177727</b>  | <b>74355</b>   | <b>103373</b>  | <b>158385</b>    | <b>116622</b>  | <b>41764</b>   |
| 3.1.A Direct Investment in India                                                            | 173468         | 47943          | 125526         | 146148           | 85713          | 60435          |
| 3.1.A.1 Equity and investment fund shares                                                   | 164697         | 44743          | 119954         | 130136           | 76861          | 53275          |
| 3.1.A.1.1 Equity other than reinvestment of earnings                                        | 130813         | 44743          | 86070          | 92594            | 76861          | 15733          |
| 3.1.A.1.2 Reinvestment of earnings                                                          | 33883          | 0              | 33883          | 37542            | 0              | 37542          |
| 3.1.A.2 Debt instruments                                                                    | 8772           | 3200           | 5572           | 16012            | 8853           | 7160           |
| 3.1.A.2.1 Direct investor in direct investment enterprises                                  | 8772           | 3200           | 5572           | 16012            | 8853           | 7160           |
| 3.1.B Direct Investment by India                                                            | 4259           | 26412          | -22153         | 12237            | 30908          | -18671         |
| 3.1.B.1 Equity and investment fund shares                                                   | 4259           | 18190          | -13931         | 12237            | 24193          | -11956         |
| 3.1.B.1.1 Equity other than reinvestment of earnings                                        | 4259           | 9676           | -5417          | 12237            | 14902          | -2665          |
| 3.1.B.1.2 Reinvestment of earnings                                                          | 0              | 8513           | -8513          | 0                | 9291           | -9291          |
| 3.1.B.2 Debt instruments                                                                    | 0              | 8222           | -8222          | 0                | 6715           | -6715          |
| 3.1.B.2.1 Direct investor in direct investment enterprises                                  | 0              | 8222           | -8222          | 0                | 6715           | -6715          |
| <b>3.2 Portfolio Investment</b>                                                             | <b>642437</b>  | <b>755362</b>  | <b>-112926</b> | <b>737947</b>    | <b>608641</b>  | <b>129306</b>  |
| 3.2.A Portfolio Investment in India                                                         | 637168         | 750316         | -113148        | 729461           | 597209         | 132252         |
| 3.2.1 Equity and investment fund shares                                                     | 561680         | 677686         | -116006        | 634364           | 522169         | 112195         |
| 3.2.2 Debt securities                                                                       | 75489          | 72631          | 2858           | 95097            | 75040          | 20058          |
| 3.2.B Portfolio Investment by India                                                         | 5268           | 5046           | 222            | 8486             | 11432          | -2946          |
| <b>3.3 Financial derivatives (other than reserves) and employee stock options</b>           | <b>40653</b>   | <b>59109</b>   | <b>-18455</b>  | <b>41207</b>     | <b>47148</b>   | <b>-5941</b>   |
| <b>3.4 Other investment</b>                                                                 | <b>626596</b>  | <b>427834</b>  | <b>198762</b>  | <b>555847</b>    | <b>438643</b>  | <b>117204</b>  |
| 3.4.1 Other equity (ADRs/GDRs)                                                              | 0              | 0              | 0              | 0                | 0              | 0              |
| 3.4.2 Currency and deposits                                                                 | 94837          | 96111          | -1274          | 156738           | 137175         | 19563          |
| 3.4.2.1 Central bank (Rupee Debt Movements; NRG)                                            | 0              | 3971           | -3971          | 1410             | 0              | 1410           |
| 3.4.2.2 Deposit-taking corporations, except the central bank (NRI Deposits)                 | 94837          | 92139          | 2697           | 155328           | 137175         | 18153          |
| 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)                                 | 337838         | 197341         | 140497         | 268782           | 122426         | 146356         |
| 3.4.3.A Loans to India                                                                      | 336111         | 196099         | 140012         | 250542           | 105207         | 145335         |
| 3.4.3.B Loans by India                                                                      | 1728           | 1242           | 485            | 18240            | 17219          | 1022           |
| 3.4.4 Insurance, pension, and standardized guarantee schemes                                | 571            | 1417           | -846           | 308              | 1380           | -1072          |
| 3.4.5 Trade credit and advances                                                             | 134952         | 95864          | 39087          | 97612            | 138621         | -41009         |
| 3.4.6 Other accounts receivable/payable - other                                             | 58398          | 37101          | 21298          | 32407            | 39041          | -6634          |
| 3.4.7 Special drawing rights                                                                | 0              | 0              | 0              | 0                | 0              | 0              |
| <b>3.5 Reserve assets</b>                                                                   | <b>0</b>       | <b>35471</b>   | <b>-35471</b>  | <b>0</b>         | <b>200826</b>  | <b>-200826</b> |
| 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              | 35471          | -35471         | 0                | 200826         | -200826        |
| <b>4 Total assets/liabilities</b>                                                           | <b>1487413</b> | <b>1352130</b> | <b>135283</b>  | <b>1493386</b>   | <b>1411879</b> | <b>81507</b>   |
| 4.1 Equity and investment fund shares                                                       | 777128         | 806190         | -29062         | 826738           | 683184         | 143554         |
| 4.2 Debt instruments                                                                        | 651887         | 473369         | 178518         | 634241           | 488829         | 145412         |
| 4.3 Other financial assets and liabilities                                                  | 58398          | 72572          | -14173         | 32407            | 239866         | -207460        |
| <b>5 Net errors and omissions</b>                                                           | <b>3896</b>    | <b>0</b>       | <b>3896</b>    | <b>0</b>         | <b>5987</b>    | <b>-5987</b>   |

Note: P: Preliminary.

**No. 42: India's International Investment Position**

(US\$ Million)

| Item                                 | As on Financial Year/Quarter End |             |        |             |        |             |        |             |
|--------------------------------------|----------------------------------|-------------|--------|-------------|--------|-------------|--------|-------------|
|                                      | 2022-23                          |             | 2022   |             | 2023   |             |        |             |
|                                      |                                  |             | 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 | 225592                           | 523360      | 214443 | 517277      | 225592 | 523360      | 227864 | 532357      |
| 1.1 Equity Capital*                  | 142071                           | 493896      | 134570 | 489565      | 142071 | 493896      | 143525 | 501438      |
| 1.2 Other Capital                    | 83521                            | 29464       | 79872  | 27712       | 83521  | 29464       | 84338  | 30920       |
| 2. Portfolio investment              | 10966                            | 243559      | 10614  | 244999      | 10966  | 243559      | 11325  | 258589      |
| 2.1 Equity                           | 4958                             | 138958      | 8153   | 135476      | 4958   | 138958      | 8698   | 152928      |
| 2.2 Debt                             | 6008                             | 104601      | 2461   | 109523      | 6008   | 104601      | 2627   | 105660      |
| 3. Other investment                  | 87717                            | 503353      | 77407  | 484558      | 87717  | 503353      | 92624  | 515595      |
| 3.1 Trade credit                     | 27507                            | 124301      | 21118  | 122817      | 27507  | 124301      | 29742  | 119313      |
| 3.2 Loan                             | 10714                            | 202589      | 6543   | 193367      | 10714  | 202589      | 14499  | 207118      |
| 3.3 Currency and Deposits            | 30526                            | 141133      | 30242  | 137445      | 30526  | 141133      | 30584  | 144069      |
| 3.4 Other Assets/Liabilities         | 18970                            | 35330       | 19504  | 30929       | 18970  | 35330       | 17798  | 45094       |
| 4. Reserves                          | 578449                           |             | 589155 |             | 578449 |             | 595051 |             |
| 5. Total Assets/ Liabilities         | 902725                           | 1270272     | 891618 | 1246835     | 902725 | 1270272     | 926864 | 1306541     |
| 6. Net IIP (Assets - Liabilities)    |                                  | -367548     |        | -355217     |        | -367548     |        | -379677     |

Note: \* Equity capital includes share of investment funds and reinvested earnings.

# Payment and Settlement Systems

## No.43: Payment System Indicators

### PART I - Payment System Indicators - Payment & Settlement System Statistics

| System                                                  | Volume (Lakh) |          |           |           |           |            | Value (₹ Crore) |          |      |  |
|---------------------------------------------------------|---------------|----------|-----------|-----------|-----------|------------|-----------------|----------|------|--|
|                                                         | FY 2022-23    | 2022     |           | 2023      |           | FY 2022-23 | 2022            |          | 2023 |  |
|                                                         |               | Sep.     | Aug.      | Sep.      |           |            | Sep.            | Aug.     | Sep. |  |
|                                                         | 1             | 2        | 3         | 4         | 5         | 6          | 7               | 8        |      |  |
| <b>A. Settlement Systems</b>                            |               |          |           |           |           |            |                 |          |      |  |
| <b>Financial Market Infrastructures (FMIs)</b>          |               |          |           |           |           |            |                 |          |      |  |
| <b>1 CCIL Operated Systems (1.1 to 1.3)</b>             | 41.44         | 3.97     | 3.83      | 3.73      | 258797336 | 24321858   | 21796085        | 21104039 |      |  |
| 1.1 Govt. Securities Clearing (1.1.1 to 1.1.3)          | 15.00         | 1.51     | 1.46      | 1.52      | 172251292 | 16060463   | 14374901        | 13723954 |      |  |
| 1.1.1 Outright                                          | 7.99          | 0.86     | 0.82      | 0.93      | 10090700  | 1027326    | 1075273         | 1211320  |      |  |
| 1.1.2 Repo                                              | 4.07          | 0.36     | 0.44      | 0.41      | 68032487  | 6014630    | 6265271         | 5629136  |      |  |
| 1.1.3 Tri-party Repo                                    | 2.94          | 0.30     | 0.20      | 0.19      | 94128105  | 9018508    | 7034358         | 6883498  |      |  |
| 1.2 Forex Clearing                                      | 25.16         | 2.34     | 2.23      | 2.10      | 78932050  | 7499481    | 6636448         | 6811643  |      |  |
| 1.3 Rupee Derivatives @                                 | 1.27          | 0.11     | 0.14      | 0.11      | 7613994   | 761914     | 784735          | 568441   |      |  |
| <b>B. Payment Systems</b>                               |               |          |           |           |           |            |                 |          |      |  |
| <b>I Financial Market Infrastructures (FMIs)</b>        |               |          |           |           |           |            |                 |          |      |  |
| <b>1 Credit Transfers - RTGS (1.1 to 1.2)</b>           | 2425.62       | 198.30   | 218.08    | 213.94    | 149946286 | 13789637   | 13742007        | 14545183 |      |  |
| 1.1 Customer Transactions                               | 2411.19       | 197.10   | 216.88    | 212.80    | 131667176 | 12094321   | 12202747        | 12960210 |      |  |
| 1.2 Interbank Transactions                              | 14.43         | 1.20     | 1.20      | 1.13      | 18279111  | 1695316    | 1539260         | 1584974  |      |  |
| <b>II Retail</b>                                        |               |          |           |           |           |            |                 |          |      |  |
| <b>2 Credit Transfers - Retail (2.1 to 2.6)</b>         | 983620.84     | 79564.56 | 119823.49 | 119215.72 | 55009620  | 4621357    | 5374181         | 5340256  |      |  |
| 2.1 AePS (Fund Transfers) @                             | 5.90          | 0.55     | 0.34      | 0.31      | 356       | 32         | 22              | 21       |      |  |
| 2.2 APBS \$                                             | 17833.95      | 1170.40  | 1791.92   | 1818.74   | 247535    | 12805      | 20129           | 17943    |      |  |
| 2.3 IMPS                                                | 56532.64      | 4622.31  | 4891.65   | 4728.97   | 5585441   | 454451     | 514280          | 507497   |      |  |
| 2.4 NACH Cr \$                                          | 19257.19      | 1630.85  | 1627.49   | 1512.78   | 1541815   | 114718     | 128612          | 109472   |      |  |
| 2.5 NEFT                                                | 52847.43      | 4332.45  | 5651.92   | 5598.05   | 33719541  | 2922913    | 3134602         | 3126190  |      |  |
| 2.6 UPI @                                               | 837143.73     | 67808.00 | 105860.16 | 105556.87 | 13914932  | 1116438    | 1576537         | 1579133  |      |  |
| 2.6.1 of which USSD @                                   | 17.21         | 1.47     | 2.60      | 2.52      | 197       | 17         | 41              | 37       |      |  |
| <b>3 Debit Transfers and Direct Debits (3.1 to 3.3)</b> | 15343.05      | 1257.34  | 1522.83   | 1514.68   | 1289611   | 106118     | 135193          | 138748   |      |  |
| 3.1 BHIM Aadhaar Pay @                                  | 214.22        | 16.35    | 13.96     | 13.87     | 6791      | 516        | 416             | 441      |      |  |
| 3.2 NACH Dr \$                                          | 13502.52      | 1114.09  | 1374.16   | 1371.81   | 1280219   | 105390     | 134543          | 138081   |      |  |
| 3.3 NETC (linked to bank account) @                     | 1626.31       | 126.90   | 134.72    | 129.00    | 2601      | 211        | 234             | 226      |      |  |
| <b>4 Card Payments (4.1 to 4.2)</b>                     | 63324.72      | 5352.43  | 4981.95   | 4578.77   | 2152245   | 183298     | 201292          | 189199   |      |  |
| 4.1 Credit Cards (4.1.1 to 4.1.2)                       | 29145.24      | 2453.06  | 2905.78   | 2739.43   | 1432255   | 122094     | 148602          | 142320   |      |  |
| 4.1.1 PoS based \$                                      | 15598.46      | 1311.63  | 1520.79   | 1420.96   | 541932    | 44969      | 52961           | 49440    |      |  |
| 4.1.2 Others \$                                         | 13546.79      | 1141.43  | 1384.99   | 1318.47   | 890323    | 77125      | 95641           | 92879    |      |  |
| 4.2 Debit Cards (4.2.1 to 4.2.1)                        | 34179.48      | 2899.38  | 2076.18   | 1839.34   | 719989    | 61204      | 52690           | 46880    |      |  |
| 4.2.1 PoS based \$                                      | 22904.86      | 1887.58  | 1495.96   | 1326.09   | 476520    | 38093      | 34615           | 30525    |      |  |
| 4.2.2 Others \$                                         | 11274.61      | 1011.80  | 580.22    | 513.26    | 243470    | 23111      | 18075           | 16355    |      |  |
| <b>5 Prepaid Payment Instruments (5.1 to 5.2)</b>       | 74667.44      | 6048.61  | 6366.80   | 6143.16   | 287111    | 24090      | 23669           | 23668    |      |  |
| 5.1 Wallets                                             | 59112.76      | 4706.99  | 5041.90   | 4899.67   | 221896    | 17915      | 19987           | 19926    |      |  |
| <b>5.2 Cards (5.2.1 to 5.2.2)</b>                       | 15554.69      | 1341.62  | 1324.90   | 1243.49   | 65215     | 6175       | 3682            | 3742     |      |  |
| 5.2.1 PoS based \$                                      | 1013.09       | 79.41    | 742.19    | 721.81    | 14777     | 1172       | 862             | 852      |      |  |
| 5.2.2 Others \$                                         | 14541.60      | 1262.21  | 582.71    | 521.68    | 50438     | 5004       | 2820            | 2890     |      |  |
| <b>6 Paper-based Instruments (6.1 to 6.2)</b>           | 7109.28       | 603.84   | 565.42    | 538.35    | 7172904   | 590573     | 593323          | 575021   |      |  |
| 6.1 CTS (NPCI Managed)                                  | 7109.28       | 603.84   | 565.42    | 538.35    | 7172904   | 590573     | 593323          | 575021   |      |  |
| 6.2 Others                                              | 0.00          | —        | —         | —         | —         | —          | —               | —        |      |  |
| <b>Total - Retail Payments (2+3+4+5+6)</b>              | 1144065.34    | 92826.78 | 133260.50 | 131990.68 | 65911490  | 5525435    | 6327659         | 6266892  |      |  |
| <b>Total Payments (1+2+3+4+5+6)</b>                     | 1146490.96    | 93025.08 | 133478.58 | 132204.62 | 215857776 | 19315072   | 20069666        | 20812075 |      |  |
| <b>Total Digital Payments (1+2+3+4+5)</b>               | 1139381.68    | 92421.24 | 132913.16 | 131666.27 | 208684872 | 18724499   | 19476343        | 20237054 |      |  |

**PART II - Payment Modes and Channels**

| System                                                                          | Volume (Lakh) |          |           |           | Value (₹ Crore) |            |         |         |      |  |
|---------------------------------------------------------------------------------|---------------|----------|-----------|-----------|-----------------|------------|---------|---------|------|--|
|                                                                                 | FY 2022-23    | 2022     |           | 2023      |                 | FY 2022-23 | 2022    |         | 2023 |  |
|                                                                                 |               | Sep.     | Aug.      | Sep.      | Sep.            |            | Sep.    | Aug.    | Sep. |  |
|                                                                                 | 1             | 2        | 3         | 4         | 5               | 6          | 7       | 8       |      |  |
| <b>A. Other Payment Channels</b>                                                |               |          |           |           |                 |            |         |         |      |  |
| <b>1 Mobile Payments (mobile app based) (1.1 to 1.2)</b>                        | 805338.23     | 65660.55 | 101423.21 | 101214.61 | 22031628        | 1791834    | 2423257 | 2434721 |      |  |
| 1.1 Intra-bank \$                                                               | 62306.61      | 5133.31  | 6553.02   | 6606.30   | 4191430         | 348494     | 439916  | 446014  |      |  |
| 1.2 Inter-bank \$                                                               | 743031.61     | 60527.24 | 94870.20  | 94608.31  | 17840197        | 1443340    | 1983340 | 1988707 |      |  |
| <b>2 Internet Payments (Netbanking / Internet Browser Based) @ (2.1 to 2.2)</b> | 42630.64      | 3576.41  | 3790.98   | 3656.92   | 91539296        | 8423481    | 8295085 | 8219736 |      |  |
| 2.1 Intra-bank @                                                                | 10703.78      | 918.60   | 1033.68   | 991.70    | 53506133        | 4985305    | 4490488 | 4178539 |      |  |
| 2.2 Inter-bank @                                                                | 31926.86      | 2657.81  | 2757.30   | 2665.22   | 38033163        | 3438176    | 3804596 | 4041198 |      |  |
| <b>B. ATMs</b>                                                                  |               |          |           |           |                 |            |         |         |      |  |
| <b>3 Cash Withdrawal at ATMs \$ (3.1 to 3.3)</b>                                | 69468.87      | 5725.73  | 5723.39   | 5377.11   | 3305008         | 265243     | 273107  | 260496  |      |  |
| 3.1 Using Credit Cards \$                                                       | 88.37         | 7.22     | 8.09      | 7.85      | 4296            | 351        | 383     | 380     |      |  |
| 3.2 Using Debit Cards \$                                                        | 68975.18      | 5684.15  | 5685.19   | 5340.59   | 3286749         | 263765     | 271612  | 259054  |      |  |
| 3.3 Using Pre-paid Cards \$                                                     | 405.32        | 34.36    | 30.12     | 28.67     | 13963           | 1127       | 1112    | 1062    |      |  |
| <b>4 Cash Withdrawal at PoS \$ (4.1 to 4.2)</b>                                 | 27.73         | 2.71     | 1.26      | 0.97      | 278             | 34         | 12      | 9       |      |  |
| 4.1 Using Debit Cards \$                                                        | 27.41         | 2.67     | 1.25      | 0.96      | 276             | 34         | 12      | 9       |      |  |
| 4.2 Using Pre-paid Cards \$                                                     | 0.33          | 0.04     | 0.01      | 0.01      | 2               | 0          | 0       | 0       |      |  |
| <b>5 Cash Withdrawal at Micro ATMs @</b>                                        | 12375.16      | 1004.99  | 1055.42   | 991.43    | 333966          | 26097      | 27023   | 25477   |      |  |
| 5.1 AePS @                                                                      | 12375.16      | 1004.99  | 1055.42   | 991.43    | 333966          | 26097      | 27023   | 25477   |      |  |

**PART III - Payment Infrastructures (Lakh)**

| System                                 | As on March 2023 | 2022     |          | 2023     |      |
|----------------------------------------|------------------|----------|----------|----------|------|
|                                        |                  | Sep.     | Aug.     | Sep.     | Sep. |
|                                        | 1                | 2        | 3        | 4        |      |
| <b>Payment System Infrastructures</b>  |                  |          |          |          |      |
| <b>1 Number of Cards (1.1 to 1.2)</b>  | 10465.62         | 10162.40 | 10693.35 | 10598.05 |      |
| 1.1 Credit Cards                       | 853.03           | 777.02   | 912.78   | 930.17   |      |
| 1.2 Debit Cards                        | 9612.59          | 9385.38  | 9780.57  | 9667.88  |      |
| <b>2 Number of PPIs @ (2.1 to 2.2)</b> | 16185.22         | 15860.18 | 16625.74 | 16718.09 |      |
| 2.1 Wallets @                          | 13384.65         | 13106.33 | 13328.60 | 13437.06 |      |
| 2.2 Cards @                            | 2800.57          | 2753.84  | 3297.15  | 3281.03  |      |
| <b>3 Number of ATMs (3.1 to 3.2)</b>   | 2.59             | 2.55     | 2.58     | 2.58     |      |
| 3.1 Bank owned ATMs \$                 | 2.23             | 2.20     | 2.23     | 2.23     |      |
| 3.2 White Label ATMs \$                | 0.36             | 0.35     | 0.35     | 0.35     |      |
| <b>4 Number of Micro ATMs @</b>        | 16.11            | 12.43    | 15.29    | 14.87    |      |
| <b>5 Number of PoS Terminals</b>       | 77.90            | 70.35    | 82.47    | 83.02    |      |
| <b>6 Bharat QR @</b>                   | 53.82            | 48.64    | 58.99    | 59.82    |      |
| <b>7 UPI QR *</b>                      | 2563.77          | 2164.30  | 2881.64  | 2950.06  |      |

@@: 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. 44: Small Savings

(₹ Crore)

| Scheme                                        |  |                    | 2021-22        | 2021           | 2022           |                |                |
|-----------------------------------------------|--|--------------------|----------------|----------------|----------------|----------------|----------------|
|                                               |  |                    |                | Dec.           | Oct.           | Nov.           | Dec.           |
|                                               |  |                    | 1              | 2              | 3              | 4              | 5              |
| <b>1 Small Savings</b>                        |  | <b>Receipts</b>    | <b>203175</b>  | <b>18175</b>   | <b>10387</b>   | <b>9057</b>    | <b>11632</b>   |
|                                               |  | <b>Outstanding</b> | <b>1463777</b> | <b>1397878</b> | <b>1556375</b> | <b>1565352</b> | <b>1576921</b> |
| <b>1.1 Total Deposits</b>                     |  | <b>Receipts</b>    | <b>144749</b>  | <b>13855</b>   | <b>7696</b>    | <b>6204</b>    | <b>9136</b>    |
|                                               |  | <b>Outstanding</b> | <b>1012241</b> | <b>969847</b>  | <b>1082284</b> | <b>1088482</b> | <b>1097617</b> |
| 1.1.1 Post Office Saving Bank Deposits        |  | Receipts           | 17581          | 2630           | 6              | -393           | 3806           |
|                                               |  | Outstanding        | 188433         | 179437         | 196446         | 196053         | 199859         |
| 1.1.2 Sukanya Samridhi Yojna                  |  | Receipts           | 23748          | 1845           | 1394           | 1597           | 1890           |
|                                               |  | Outstanding        | 58783          | 47264          | 70176          | 71773          | 73663          |
| 1.1.3 National Saving Scheme, 1987            |  | Receipts           | -1524          | -366           | -20            | -20            | -22            |
|                                               |  | Outstanding        | 1894           | 3200           | 1701           | 1680           | 1659           |
| 1.1.4 National Saving Scheme, 1992            |  | Receipts           | -352           | 2              | -2             | -2             | -2             |
|                                               |  | Outstanding        | -177           | 150            | -195           | -198           | -200           |
| 1.1.5 Monthly Income Scheme                   |  | Receipts           | 14441          | 1228           | 506            | 275            | -125           |
|                                               |  | Outstanding        | 235820         | 232747         | 240671         | 240946         | 240821         |
| 1.1.6 Senior Citizen Scheme 2004              |  | Receipts           | 22281          | 1929           | 1491           | 1256           | 935            |
|                                               |  | Outstanding        | 119333         | 114134         | 130652         | 131908         | 132843         |
| 1.1.7 Post Office Time Deposits               |  | Receipts           | 43725          | 3926           | 1900           | 1547           | 527            |
|                                               |  | Outstanding        | 251282         | 241034         | 272186         | 273732         | 274259         |
| 1.1.7.1 1 year Time Deposits                  |  | Outstanding        | 118282         | 116043         | 124019         | 124073         | 123599         |
| 1.1.7.2 2 year Time Deposits                  |  | Outstanding        | 8008           | 7931           | 8553           | 8686           | 8765           |
| 1.1.7.3 3 year Time Deposits                  |  | Outstanding        | 6918           | 6983           | 6879           | 6913           | 6938           |
| 1.1.7.4 5 year Time Deposits                  |  | Outstanding        | 118074         | 110077         | 132735         | 134060         | 134957         |
| 1.1.8 Post Office Recurring Deposits          |  | Receipts           | 24840          | 2662           | 2421           | 1941           | 2125           |
|                                               |  | Outstanding        | 156869         | 151885         | 170550         | 172491         | 174616         |
| 1.1.9 Post Office Cumulative Time Deposits    |  | Receipts           | 7              | -1             | 0              | 0              | 0              |
|                                               |  | Outstanding        | -19            | -25            | -19            | -19            | -19            |
| 1.1.10 Other Deposits                         |  | Receipts           | 2              | 0              | 0              | 0              | 0              |
|                                               |  | Outstanding        | 23             | 21             | 22             | 22             | 22             |
| 1.1.11 PM Care for children                   |  | Receipts           |                |                | 0              | 3              | 2              |
|                                               |  | Outstanding        |                |                | 94             | 94             | 94             |
| <b>1.2 Saving Certificates</b>                |  | <b>Receipts</b>    | <b>45307</b>   | <b>3978</b>    | <b>2545</b>    | <b>2564</b>    | <b>2115</b>    |
|                                               |  | <b>Outstanding</b> | <b>333189</b>  | <b>321027</b>  | <b>353818</b>  | <b>356308</b>  | <b>358362</b>  |
| 1.2.1 National Savings Certificate VIII issue |  | Receipts           | 19696          | 1860           | 791            | 627            | 446            |
|                                               |  | Outstanding        | 155043         | 150513         | 162152         | 162779         | 163224         |
| 1.2.2 Indira Vikas Patras                     |  | Receipts           | -16            | 0              | 0              | 0              | 0              |
|                                               |  | Outstanding        | 143            | 158            | 142            | 142            | 142            |
| 1.2.3 Kisan Vikas Patras                      |  | Receipts           | -1115          | -426           | -134           | -165           | -238           |
|                                               |  | Outstanding        | -7891          | -8455          | -9302          | -9466          | -9704          |
| 1.2.4 Kisan Vikas Patras - 2014               |  | Receipts           | 26619          | 2544           | 1888           | 2102           | 1907           |
|                                               |  | Outstanding        | 174560         | 168720         | 189654         | 191756         | 193663         |
| 1.2.5 National Saving Certificate VI issue    |  | Receipts           | 92             | 0              | 0              | 0              | 0              |
|                                               |  | Outstanding        | -22            | -114           | -22            | -22            | -22            |
| 1.2.6 National Saving Certificate VII issue   |  | Receipts           | 31             | 0              | 0              | 0              | 0              |
|                                               |  | Outstanding        | -44            | -74            | -44            | -44            | -44            |
| 1.2.7 Other Certificates                      |  | Outstanding        | 11400          | 10279          | 11238          | 11163          | 11103          |
| <b>1.3 Public Provident Fund</b>              |  | <b>Receipts</b>    | <b>13119</b>   | <b>342</b>     | <b>146</b>     | <b>289</b>     | <b>381</b>     |
|                                               |  | <b>Outstanding</b> | <b>118347</b>  | <b>107004</b>  | <b>120273</b>  | <b>120562</b>  | <b>120942</b>  |

**Note :** Data on receipts from April 2017 are net receipts, i.e., gross receipt minus gross payment.

**Source:** Accountant General, Post and Telegraphs.

**No. 45 : Ownership Pattern of Central and State Governments Securities**

(Per cent)

| Category                       | Central Government Dated Securities |                |                |                |                |
|--------------------------------|-------------------------------------|----------------|----------------|----------------|----------------|
|                                | 2022                                |                |                | 2023           |                |
|                                | Jun.                                | Sep.           | Dec.           | Mar.           | Jun.           |
|                                | 1                                   | 2              | 3              | 4              | 5              |
| <b>(A) Total (in ₹. Crore)</b> | <b>8784931</b>                      | <b>9098788</b> | <b>9373372</b> | <b>9645776</b> | <b>9898751</b> |
| 1 Commercial Banks             | 36.16                               | 36.44          | 36.13          | 36.61          | 36.58          |
| 2 Co-operative Banks           | 1.84                                | 1.80           | 1.70           | 1.64           | 1.56           |
| 3 Non-Bank PDs                 | 0.33                                | 0.38           | 0.44           | 0.49           | 0.73           |
| 4 Insurance Companies          | 26.34                               | 25.94          | 26.14          | 25.97          | 26.21          |
| 5 Mutual Funds                 | 2.32                                | 2.58           | 2.87           | 2.81           | 2.69           |
| 6 Provident Funds              | 4.77                                | 4.66           | 4.67           | 4.71           | 4.59           |
| 7 Pension Funds                | 3.61                                | 3.84           | 3.91           | 3.98           | 4.18           |
| 8 Financial Institutions       | 1.09                                | 0.98           | 1.07           | 0.98           | 1.20           |
| 9 Corporates                   | 1.52                                | 1.58           | 1.57           | 1.62           | 1.22           |
| 10 Foreign Portfolio Investors | 1.43                                | 1.38           | 1.31           | 1.36           | 1.59           |
| 11 RBI                         | 16.06                               | 15.28          | 14.73          | 14.26          | 13.78          |
| 12 Others                      | 4.57                                | 5.14           | 5.45           | 5.57           | 5.67           |
| 12.1 State Governments         | 1.84                                | 1.83           | 1.88           | 2.03           | 2.03           |

| Category                       | State Governments Securities |                |                |                |                |
|--------------------------------|------------------------------|----------------|----------------|----------------|----------------|
|                                | 2022                         |                |                | 2023           |                |
|                                | Jun.                         | Sep.           | Dec.           | Mar.           | Jun.           |
|                                | 1                            | 2              | 3              | 4              | 5              |
| <b>(B) Total (in ₹. Crore)</b> | <b>4472011</b>               | <b>4589128</b> | <b>4712902</b> | <b>4929079</b> | <b>5050874</b> |
| 1 Commercial Banks             | 34.22                        | 34.37          | 34.34          | 33.91          | 34.13          |
| 2 Co-operative Banks           | 4.06                         | 3.89           | 3.80           | 3.64           | 3.68           |
| 3 Non-Bank PDs                 | 0.41                         | 0.36           | 0.44           | 0.62           | 0.50           |
| 4 Insurance Companies          | 28.39                        | 27.71          | 27.42          | 26.80          | 26.73          |
| 5 Mutual Funds                 | 1.89                         | 2.08           | 2.02           | 1.94           | 2.08           |
| 6 Provident Funds              | 20.52                        | 20.18          | 20.31          | 21.29          | 21.19          |
| 7 Pension Funds                | 4.43                         | 4.73           | 4.74           | 4.81           | 4.84           |
| 8 Financial Institutions       | 1.73                         | 1.71           | 1.77           | 1.84           | 1.82           |
| 9 Corporates                   | 1.98                         | 1.85           | 1.94           | 2.00           | 1.92           |
| 10 Foreign Portfolio Investors | 0.02                         | 0.02           | 0.02           | 0.02           | 0.02           |
| 11 RBI                         | 0.79                         | 0.79           | 0.75           | 0.72           | 0.70           |
| 12 Others                      | 1.56                         | 2.32           | 2.45           | 2.42           | 2.39           |
| 12.1 State Governments         | 0.21                         | 0.21           | 0.24           | 0.27           | 0.27           |

| Category                       | Treasury Bills |               |               |               |                |
|--------------------------------|----------------|---------------|---------------|---------------|----------------|
|                                | 2022           |               |               | 2023          |                |
|                                | Jun.           | Sep.          | Dec.          | Mar.          | Jun.           |
|                                | 1              | 2             | 3             | 4             | 5              |
| <b>(C) Total (in ₹. Crore)</b> | <b>1022053</b> | <b>920205</b> | <b>839931</b> | <b>823313</b> | <b>1012301</b> |
| 1 Commercial Banks             | 51.37          | 50.91         | 49.15         | 53.92         | 47.64          |
| 2 Co-operative Banks           | 1.34           | 1.48          | 1.27          | 1.29          | 1.20           |
| 3 Non-Bank PDs                 | 2.49           | 2.12          | 2.17          | 2.85          | 1.99           |
| 4 Insurance Companies          | 5.34           | 5.46          | 5.81          | 6.11          | 4.93           |
| 5 Mutual Funds                 | 14.86          | 11.98         | 14.23         | 15.30         | 17.04          |
| 6 Provident Funds              | 1.70           | 3.21          | 1.37          | 0.10          | 1.46           |
| 7 Pension Funds                | 0.05           | 0.02          | 0.02          | 0.07          | 0.01           |
| 8 Financial Institutions       | 3.73           | 4.17          | 4.52          | 3.72          | 7.96           |
| 9 Corporates                   | 4.27           | 3.86          | 3.59          | 4.99          | 4.42           |
| 10 Foreign Portfolio Investors | 0.40           | 0.53          | 0.50          | 0.40          | 0.12           |
| 11 RBI                         | 0.00           | 0.00          | 0.00          | 0.00          | 0.00           |
| 12 Others                      | 14.45          | 16.25         | 17.37         | 11.25         | 13.23          |
| 12.1 State Governments         | 10.99          | 12.27         | 13.38         | 7.16          | 10.33          |

**No. 46: Combined Receipts and Disbursements of the Central and State Governments**

(₹ Crore)

| Item                                                     | 2017-18        | 2018-19        | 2019-20        | 2020-21        | 2021-22 RE     | 2022-23 BE     |
|----------------------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                                          | 1              | 2              | 3              | 4              | 5              | 6              |
| <b>1 Total Disbursements</b>                             | <b>4515946</b> | <b>5040747</b> | <b>5410887</b> | <b>6353359</b> | <b>7453320</b> | <b>8008684</b> |
| 1.1 Developmental                                        | 2635110        | 2882758        | 3074492        | 3823423        | 4489442        | 4761567        |
| 1.1.1 Revenue                                            | 2029044        | 2224367        | 2446605        | 3150221        | 3444624        | 3536719        |
| 1.1.2 Capital                                            | 519356         | 596774         | 588233         | 550358         | 963856         | 1144725        |
| 1.1.3 Loans                                              | 86710          | 61617          | 39654          | 122844         | 80962          | 80123          |
| 1.2 Non-Developmental                                    | 1812455        | 2078276        | 2253027        | 2442941        | 2864084        | 3140466        |
| 1.2.1 Revenue                                            | 1741432        | 1965907        | 2109629        | 2271637        | 2653832        | 2928102        |
| 1.2.1.1 Interest Payments                                | 814757         | 894520         | 955801         | 1060602        | 1244104        | 1408929        |
| 1.2.2 Capital                                            | 69370          | 111029         | 141457         | 169155         | 178038         | 209892         |
| 1.2.3 Loans                                              | 1654           | 1340           | 1941           | 2148           | 32214          | 2472           |
| 1.3 Others                                               | 68381          | 79713          | 83368          | 86995          | 99794          | 106652         |
| <b>2 Total Receipts</b>                                  | <b>4528422</b> | <b>5023352</b> | <b>5734166</b> | <b>6397162</b> | <b>7193029</b> | <b>7944834</b> |
| 2.1 Revenue Receipts                                     | 3376416        | 3797731        | 3851563        | 3688030        | 4894050        | 5497245        |
| 2.1.1 Tax Receipts                                       | 2978134        | 3278947        | 3231582        | 3193390        | 4026487        | 4551271        |
| 2.1.1.1 Taxes on commodities and services                | 1853859        | 2030050        | 2012578        | 2076013        | 2608666        | 2904479        |
| 2.1.1.2 Taxes on Income and Property                     | 1121189        | 1246083        | 1216203        | 1114805        | 1414088        | 1642678        |
| 2.1.1.3 Taxes of Union Territories (Without Legislature) | 3086           | 2814           | 2800           | 2572           | 3732           | 4115           |
| 2.1.2 Non-Tax Receipts                                   | 398282         | 518783         | 619981         | 494640         | 867564         | 945974         |
| 2.1.2.1 Interest Receipts                                | 34224          | 36273          | 31137          | 33448          | 40481          | 46552          |
| 2.2 Non-debt Capital Receipts                            | 142433         | 140287         | 110094         | 64994          | 117937         | 90824          |
| 2.2.1 Recovery of Loans & Advances                       | 42213          | 44667          | 59515          | 16951          | 33188          | 19835          |
| 2.2.2 Disinvestment proceeds                             | 100219         | 95621          | 50578          | 48044          | 84748          | 70989          |
| <b>3 Gross Fiscal Deficit [ 1 - ( 2.1 + 2.2 ) ]</b>      | <b>997097</b>  | <b>1102729</b> | <b>1449230</b> | <b>2600335</b> | <b>2441333</b> | <b>2420614</b> |
| <b>3A Sources of Financing: Institution-wise</b>         |                |                |                |                |                |                |
| 3A.1 Domestic Financing                                  | 989167         | 1097210        | 1440548        | 2530155        | 2421587        | 2401363        |
| 3A.1.1 Net Bank Credit to Government                     | 144792         | 387091         | 571872         | 890012         | 627255         | -----          |
| 3A.1.1.1 Net RBI Credit to Government                    | -144847        | 325987         | 190241         | 107493         | 350911         | -----          |
| 3A.1.2 Non-Bank Credit to Government                     | 844375         | 710119         | 868676         | 1640143        | 1794332        | 2401363        |
| 3A.2 External Financing                                  | 7931           | 5519           | 8682           | 70180          | 19746          | 19251          |
| <b>3B Sources of Financing: Instrument-wise</b>          |                |                |                |                |                |                |
| 3B.1 Domestic Financing                                  | 989167         | 1097210        | 1440548        | 2530155        | 2421587        | 2401363        |
| 3B.1.1 Market Borrowings (net)                           | 794856         | 795845         | 971378         | 1696012        | 1377060        | 1808401        |
| 3B.1.2 Small Savings (net)                               | 71222          | 88961          | 209232         | 458801         | 565522         | 398870         |
| 3B.1.3 State Provident Funds (net)                       | 42351          | 51004          | 38280          | 41273          | 45133          | 44731          |
| 3B.1.4 Reserve Funds                                     | 18423          | -18298         | 10411          | 4545           | -1675          | 5824           |
| 3B.1.5 Deposits and Advances                             | 25138          | 66289          | -14227         | 25682          | 32945          | 34029          |
| 3B.1.6 Cash Balances                                     | -12476         | 17395          | -323279        | -43802         | 260291         | 63850          |
| 3B.1.7 Others                                            | 49653          | 96014          | 548753         | 347643         | 142310         | 45659          |
| 3B.2 External Financing                                  | 7931           | 5519           | 8682           | 70180          | 19746          | 19251          |
| <b>4 Total Disbursements as per cent of GDP</b>          | <b>26.4</b>    | <b>26.7</b>    | <b>27.0</b>    | <b>32.1</b>    | <b>31.5</b>    | <b>31.0</b>    |
| <b>5 Total Receipts as per cent of GDP</b>               | <b>26.5</b>    | <b>26.6</b>    | <b>28.6</b>    | <b>32.3</b>    | <b>30.4</b>    | <b>30.8</b>    |
| <b>6 Revenue Receipts as per cent of GDP</b>             | <b>19.8</b>    | <b>20.1</b>    | <b>19.2</b>    | <b>18.6</b>    | <b>20.7</b>    | <b>21.3</b>    |
| <b>7 Tax Receipts as per cent of GDP</b>                 | <b>17.4</b>    | <b>17.3</b>    | <b>16.1</b>    | <b>16.1</b>    | <b>17.0</b>    | <b>17.6</b>    |
| <b>8 Gross Fiscal Deficit as per cent of GDP</b>         | <b>5.8</b>     | <b>5.8</b>     | <b>7.2</b>     | <b>13.1</b>    | <b>10.3</b>    | <b>9.4</b>     |

...: Not available. RE: Revised Estimates; BE: Budget Estimates

Source : Budget Documents of Central and State Governments.

**No. 47: Financial Accommodation Availed by State Governments under various Facilities**

(₹ Crore)

| Sr.<br>No | State/Union Territory | During September-2023          |                        |                               |                        |                        |                        |
|-----------|-----------------------|--------------------------------|------------------------|-------------------------------|------------------------|------------------------|------------------------|
|           |                       | 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        | 896.01                         | 27                     | 1885.39                       | 22                     | 1671.49                | 13                     |
| 2         | Arunachal Pradesh     | -                              | -                      | -                             | -                      | -                      | -                      |
| 3         | Assam                 | 532.09                         | 5                      | -                             | -                      | -                      | -                      |
| 4         | Bihar                 | -                              | -                      | -                             | -                      | -                      | -                      |
| 5         | Chhattisgarh          | 993.51                         | 11                     | -                             | -                      | -                      | -                      |
| 6         | Goa                   | 12.71                          | 6                      | -                             | -                      | -                      | -                      |
| 7         | Gujarat               | -                              | -                      | -                             | -                      | -                      | -                      |
| 8         | Haryana               | 431.92                         | 14                     | 307.85                        | 5                      | -                      | -                      |
| 9         | Himachal Pradesh      | -                              | -                      | 327.22                        | 2                      | -                      | -                      |
| 10        | Jammu & Kashmir UT    | -                              | -                      | 963.11                        | 16                     | 319.51                 | 6                      |
| 11        | Jharkhand             | -                              | -                      | -                             | -                      | -                      | -                      |
| 12        | Karnataka             | -                              | -                      | -                             | -                      | -                      | -                      |
| 13        | Kerala                | 276.36                         | 12                     | 1005.92                       | 12                     | 5.97                   | 1                      |
| 14        | Madhya Pradesh        | -                              | -                      | -                             | -                      | -                      | -                      |
| 15        | Maharashtra           | -                              | -                      | -                             | -                      | -                      | -                      |
| 16        | Manipur               | 15.11                          | 28                     | 193.52                        | 28                     | 133.03                 | 21                     |
| 17        | Meghalaya             | 51.21                          | 2                      | -                             | -                      | -                      | -                      |
| 18        | Mizoram               | 70.50                          | 14                     | 107.71                        | 14                     | 60.69                  | 5                      |
| 19        | Nagaland              | -                              | -                      | -                             | -                      | -                      | -                      |
| 20        | Odisha                | -                              | -                      | -                             | -                      | -                      | -                      |
| 21        | Puducherry            | -                              | -                      | -                             | -                      | -                      | -                      |
| 22        | Punjab                | 1783.37                        | 30                     | 210.31                        | 2                      | -                      | -                      |
| 23        | Rajasthan             | 9365.99                        | 30                     | 418.33                        | 10                     | -                      | -                      |
| 24        | Tamil Nadu            | -                              | -                      | -                             | -                      | -                      | -                      |
| 25        | Telangana             | 863.02                         | 30                     | 1443.81                       | 26                     | 666.68                 | 10                     |
| 26        | Tripura               | -                              | -                      | -                             | -                      | -                      | -                      |
| 27        | Uttar Pradesh         | -                              | -                      | -                             | -                      | -                      | -                      |
| 28        | Uttarakhand           | 549.54                         | 15                     | 402.47                        | 12                     | 224.23                 | 5                      |
| 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. 48: Investments by State Governments**

(₹ Crore)

| Sr.<br>No | State/Union<br>Territory | As on end of September 2023           |                                       |                          |                                  |
|-----------|--------------------------|---------------------------------------|---------------------------------------|--------------------------|----------------------------------|
|           |                          | Consolidated<br>Sinking Fund<br>(CSF) | Guarantee<br>Redemption Fund<br>(GRF) | Government<br>Securities | Auction Treasury<br>Bills (ATBs) |
| 1         | 2                        | 3                                     | 4                                     | 5                        |                                  |
| 1         | Andhra Pradesh           | 10477                                 | 1031                                  | 0                        | 0                                |
| 2         | Arunachal Pradesh        | 2363                                  | 5                                     | 0                        | 2110                             |
| 3         | Assam                    | 6460                                  | 81                                    | 0                        | 0                                |
| 4         | Bihar                    | 8464                                  | -                                     | 0                        | 1200                             |
| 5         | Chhattisgarh             | 6666                                  | 5                                     | 1                        | 3550                             |
| 6         | Goa                      | 863                                   | 415                                   | 0                        | 0                                |
| 7         | Gujarat                  | 12112                                 | 605                                   | 0                        | 21000                            |
| 8         | Haryana                  | 1851                                  | 1542                                  | 0                        | 0                                |
| 9         | Himachal Pradesh         | -                                     | -                                     | 0                        | 0                                |
| 10        | Jammu & Kashmir UT       | -                                     | -                                     | 0                        | 0                                |
| 11        | Jharkhand                | 1629                                  | -                                     | 0                        | 0                                |
| 12        | Karnataka                | 16628                                 | 471                                   | 0                        | 34983                            |
| 13        | Kerala                   | 2771                                  | -                                     | 0                        | 0                                |
| 14        | Madhya Pradesh           | -                                     | 1158                                  | 0                        | 0                                |
| 15        | Maharashtra              | 61978                                 | 1523                                  | 0                        | 4000                             |
| 16        | Manipur                  | 63                                    | 127                                   | 0                        | 0                                |
| 17        | Meghalaya                | 1070                                  | 84                                    | 8                        | 0                                |
| 18        | Mizoram                  | 385                                   | 44                                    | 0                        | 0                                |
| 19        | Nagaland                 | 1615                                  | 42                                    | 0                        | 0                                |
| 20        | Odisha                   | 16486                                 | 1852                                  | 106                      | 21757                            |
| 21        | Puducherry               | 490                                   | -                                     | 0                        | 1250                             |
| 22        | Punjab                   | 7625                                  | 0                                     | 0                        | 0                                |
| 23        | Rajasthan                | -                                     | -                                     | 129                      | 11600                            |
| 24        | Tamil Nadu               | 8461                                  | -                                     | 0                        | 2842                             |
| 25        | Telangana                | 7166                                  | 1568                                  | 0                        | 0                                |
| 26        | Tripura                  | 1017                                  | 22                                    | 0                        | 825                              |
| 27        | Uttarakhand              | 4554                                  | 192                                   | 0                        | 0                                |
| 28        | Uttar Pradesh            | 6448                                  | -                                     | 89                       | 0                                |
| 29        | West Bengal              | 11563                                 | 845                                   | 239                      | 0                                |
|           | <b>Total</b>             | <b>199203</b>                         | <b>11613</b>                          | <b>572</b>               | <b>105117</b>                    |

**Notes:** 1. CSF and GRF are reserve funds maintained by some State Governments with the Reserve Bank of India.

2. ATBs include Treasury bills of 91 days, 182 days and 364 days invested by State Governments in the primary market.

3. - : Not Applicable (not a member of the scheme).

## No. 49: Market Borrowings of State Governments

(₹ Crore)

| Sr. No. | State              | 2021-22             |                   | 2022-23             |                   | 2023-24             |                   |                     |                   |                     |                   | Total amount raised, so far in 2023-24 |        |
|---------|--------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|---------------------|-------------------|----------------------------------------|--------|
|         |                    |                     |                   |                     |                   | July                |                   | August              |                   | September           |                   |                                        |        |
|         |                    | Gross Amount Raised | Net Amount Raised | Gross                                  | Net    |
| 1       | 2                  | 3                   | 4                 | 5                   | 6                 | 7                   | 8                 | 9                   | 10                | 11                  | 12                | 13                                     |        |
| 1       | Andhra Pradesh     | 46443               | 36103             | 57478               | 45814             | 7000                | 7000              | 6000                | 3784              | 6000                | 4447              | 41500                                  | 36565  |
| 2       | Arunachal Pradesh  | 563                 | 530               | 559                 | 389               | -                   | -                 | -                   | -                 | -                   | -                 | -                                      | -      |
| 3       | Assam              | 12753               | 10753             | 17100               | 16105             | 1000                | 1000              | 1250                | 1250              | 1000                | 1000              | 8250                                   | 8250   |
| 4       | Bihar              | 28489               | 24334             | 36800               | 27467             | 4000                | -                 | 6000                | 2000              | 4000                | 1922              | 14000                                  | 3922   |
| 5       | Chhattisgarh       | 4000                | 913               | 2000                | -2287             | -                   | -700              | -                   | -                 | 2000                | 1300              | 5000                                   | 2800   |
| 6       | Goa                | 2000                | 1450              | 1350                | 500               | 200                 | -                 | 300                 | 150               | 450                 | 450               | 1150                                   | 600    |
| 7       | Gujarat            | 31054               | 13554             | 43000               | 28300             | -                   | -                 | -                   | -1016             | 2500                | 416               | 8000                                   | 1900   |
| 8       | Haryana            | 30500               | 20683             | 45158               | 28638             | 2000                | -462              | 4000                | 1990              | 6000                | 5011              | 22000                                  | 13302  |
| 9       | Himachal Pradesh   | 4000                | 1875              | 14000               | 11941             | 1000                | 1000              | -                   | -                 | 500                 | 223               | 2300                                   | 1173   |
| 10      | Jammu & Kashmir UT | 8562                | 5373              | 8473                | 5969              | 400                 | -100              | 1400                | 1400              | 873                 | 873               | 4973                                   | 3773   |
| 11      | Jharkhand          | 5000                | 3191              | 4000                | -155              | -                   | -300              | -                   | -500              | -                   | -                 | -                                      | -800   |
| 12      | Karnataka          | 59000               | 49000             | 36000               | 26000             | -                   | -                 | -                   | -2102             | -                   | -1500             | -                                      | -3602  |
| 13      | Kerala             | 27000               | 18120             | 30839               | 15620             | 5500                | 5000              | 6300                | 3100              | 1000                | 1000              | 19800                                  | 12600  |
| 14      | Madhya Pradesh     | 22000               | 13900             | 40158               | 26849             | -                   | -                 | -                   | -1000             | 9000                | 7500              | 15000                                  | 12000  |
| 15      | Maharashtra        | 68750               | 40790             | 72000               | 42815             | 4000                | -3500             | 3000                | 1114              | 7000                | 3966              | 39000                                  | 25081  |
| 16      | Manipur            | 1476                | 1326              | 1422                | 1147              | 150                 | 150               | 200                 | 200               | 200                 | 100               | 900                                    | 800    |
| 17      | Meghalaya          | 1608                | 1298              | 1753                | 1356              | 200                 | 200               | -                   | -                 | -                   | -160              | 700                                    | 440    |
| 18      | Mizoram            | 747                 | 447               | 1315                | 1129              | 80                  | 60                | 80                  | 80                | -                   | -                 | 510                                    | 360    |
| 19      | Nagaland           | 1727                | 1222              | 1854                | 1199              | -                   | -                 | -                   | -60               | -                   | -                 | 900                                    | 640    |
| 20      | Odisha             | 0                   | -6473             | 0                   | -7500             | -                   | -1000             | -                   | -                 | -                   | -                 | -                                      | -1500  |
| 21      | Puducherry         | 1374                | 841               | 1200                | 698               | -                   | -                 | -                   | -                 | -                   | -125              | -                                      | -125   |
| 22      | Punjab             | 25814               | 12428             | 45500               | 33660             | 3500                | 2471              | 6750                | 5250              | 4739                | 4127              | 28489                                  | 20206  |
| 23      | Rajasthan          | 51149               | 38243             | 46057               | 30110             | 4500                | 3000              | 4500                | 3000              | 6000                | 3500              | 31000                                  | 19188  |
| 24      | Sikkim             | 1511                | 1471              | 1414                | 1320              | -                   | -                 | -                   | -45               | 250                 | 250               | 550                                    | 505    |
| 25      | Tamil Nadu         | 87000               | 72500             | 87000               | 65722             | 15000               | 5000              | 7000                | 5332              | 6000                | 4348              | 53000                                  | 31680  |
| 26      | Telangana          | 45716               | 39256             | 40150               | 30922             | 5000                | 5000              | 5000                | 3416              | 5000                | 3890              | 27000                                  | 23473  |
| 27      | Tripura            | 300                 | 0                 | 0                   | -645              | -                   | -                 | -                   | -                 | -                   | -                 | -                                      | -      |
| 28      | Uttar Pradesh      | 62500               | 42355             | 55612               | 41797             | 3000                | 3000              | 6000                | 6000              | -                   | -                 | 15500                                  | 10267  |
| 29      | Uttarakhand        | 3200                | 1800              | 3200                | 1450              | -                   | -                 | -                   | -                 | 1000                | 1000              | 1000                                   | 1000   |
| 30      | West Bengal        | 67390               | 45199             | 63000               | 42500             | 1500                | -500              | 4500                | 2566              | 6500                | 5000              | 17500                                  | 8066   |
|         | Grand Total        | 701626              | 492483            | 758392              | 518829            | 58030               | 26319             | 62280               | 35910             | 70012               | 48540             | 358022                                 | 232564 |

- : 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. 50 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise**

(Amount in ₹ Crore)

| Item                                                              | 2020-21         |                 |                 |                  |                  |
|-------------------------------------------------------------------|-----------------|-----------------|-----------------|------------------|------------------|
|                                                                   | Q1              | Q2              | Q3              | Q4               | Annual           |
| <b>Net Financial Assets (I-II)</b>                                | <b>583412.7</b> | <b>554437.6</b> | <b>463583.5</b> | <b>679174.4</b>  | <b>2280608.2</b> |
| <i>Per cent of GDP</i>                                            | 15.0            | 11.7            | 8.5             | 11.8             | 11.5             |
| <b>I. Financial Assets</b>                                        | <b>788786.3</b> | <b>592945.3</b> | <b>633317.9</b> | <b>1047276.1</b> | <b>3062325.6</b> |
| <i>Per cent of GDP</i>                                            | 20.3            | 12.5            | 11.6            | 18.2             | 15.4             |
| <i>of which:</i>                                                  |                 |                 |                 |                  |                  |
| <b>1. Total Deposits (a+b)</b>                                    | <b>297412.4</b> | <b>278631.7</b> | <b>158172.2</b> | <b>506213.3</b>  | <b>1240429.7</b> |
| (a) <b>Bank Deposits</b>                                          | <b>281191.3</b> | <b>264565.3</b> | <b>147096.0</b> | <b>507719.3</b>  | <b>1200571.8</b> |
| i. Commercial Banks                                               | 279010.5        | 262033.7        | 143558.6        | 462689.8         | 1147292.5        |
| ii. Co-operative Banks                                            | 2180.8          | 2531.6          | 3537.3          | 45029.5          | 53279.3          |
| (b) <b>Non-Bank Deposits</b>                                      | <b>16221.1</b>  | <b>14066.4</b>  | <b>11076.3</b>  | <b>-1506.0</b>   | <b>39857.9</b>   |
| <i>of which:</i>                                                  |                 |                 |                 |                  |                  |
| <b>Other Financial Institutions (i+ii)</b>                        | <b>11040.9</b>  | <b>8886.2</b>   | <b>5896.0</b>   | <b>-6686.2</b>   | <b>19137.0</b>   |
| i. Non-Banking Financial Companies                                | 1441.0          | 3763.0          | 3514.8          | 3521.2           | 12240.0          |
| ii. Housing Finance Companies                                     | 9599.9          | 5123.2          | 2381.3          | -10207.3         | 6897.0           |
| <b>2. Life Insurance Funds</b>                                    | <b>124387.9</b> | <b>143462.2</b> | <b>157535.1</b> | <b>142216.5</b>  | <b>567601.8</b>  |
| <b>3. Provident and Pension Funds (including PPF)</b>             | <b>114496.3</b> | <b>107087.9</b> | <b>105344.6</b> | <b>175769.3</b>  | <b>502698.2</b>  |
| <b>4. Currency</b>                                                | <b>202432.7</b> | <b>21286.9</b>  | <b>91456.0</b>  | <b>66800.5</b>   | <b>381976.1</b>  |
| <b>5. Investments</b>                                             | <b>6249.8</b>   | <b>-12956.4</b> | <b>67659.3</b>  | <b>63624.0</b>   | <b>124576.7</b>  |
| <i>of which:</i>                                                  |                 |                 |                 |                  |                  |
| (a) Mutual Funds                                                  | -16021.0        | -28837.7        | 57675.4         | 51267.0          | 64083.8          |
| (b) Equity                                                        | 18599.4         | 8291.5          | 5307.1          | 6333.3           | 38531.2          |
| <b>6. Small Savings (excluding PPF)</b>                           | <b>42751.6</b>  | <b>54377.4</b>  | <b>52095.1</b>  | <b>91597.0</b>   | <b>240821.1</b>  |
| <b>II. Financial Liabilities</b>                                  | <b>205373.6</b> | <b>38507.7</b>  | <b>169734.4</b> | <b>368101.7</b>  | <b>781717.4</b>  |
| <i>Per cent of GDP</i>                                            | 5.3             | 0.8             | 3.1             | 6.4              | 3.9              |
| <b>Loans/Borrowings</b>                                           |                 |                 |                 |                  |                  |
| <b>1. Financial Corporations (a+b)</b>                            | <b>205490.3</b> | <b>38624.3</b>  | <b>169851.0</b> | <b>368219.1</b>  | <b>782184.7</b>  |
| (a) <b>Banking Sector</b>                                         | <b>211058.8</b> | <b>13213.0</b>  | <b>139622.0</b> | <b>276579.8</b>  | <b>640473.6</b>  |
| <i>of which:</i>                                                  |                 |                 |                 |                  |                  |
| i. Commercial Banks                                               | 211259.3        | 13213.8         | 140514.3        | 240050.4         | 605037.9         |
| (b) <b>Other Financial Institutions</b>                           | <b>-5568.6</b>  | <b>25411.3</b>  | <b>30229.0</b>  | <b>91639.4</b>   | <b>141711.1</b>  |
| i. Non-Banking Financial Companies                                | -15450.4        | 21627.1         | 15921.2         | 64881.1          | 86979.0          |
| ii. Housing Finance Companies                                     | 10516.6         | 2875.1          | 13048.5         | 25336.1          | 51776.2          |
| iii. Insurance Corporations                                       | -634.8          | 909.2           | 1259.3          | 1422.2           | 2955.9           |
| <b>2. Non-Financial Corporations (Private Corporate Business)</b> | <b>33.8</b>     | <b>33.8</b>     | <b>33.8</b>     | <b>33.0</b>      | <b>134.4</b>     |
| <b>3. General Government</b>                                      | <b>-150.4</b>   | <b>-150.4</b>   | <b>-150.4</b>   | <b>-150.4</b>    | <b>-601.7</b>    |

**No. 50 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise (Contd.)**

(Amount in ₹ Crore)

| Item                                                              | 2021-22          |                 |                 |                 |                  |
|-------------------------------------------------------------------|------------------|-----------------|-----------------|-----------------|------------------|
|                                                                   | Q1               | Q2              | Q3              | Q4              | Annual           |
| <b>Net Financial Assets (I-II)</b>                                | <b>370115.8</b>  | <b>334234.9</b> | <b>489774.4</b> | <b>503089.0</b> | <b>1696155.6</b> |
| <i>Per cent of GDP</i>                                            | 7.2              | 6.0             | 7.9             | 7.7             | 7.2              |
| <b>I. Financial Assets</b>                                        | <b>364661.7</b>  | <b>527896.1</b> | <b>818355.4</b> | <b>887657.3</b> | <b>2597511.9</b> |
| <i>Per cent of GDP</i>                                            | 7.1              | 9.4             | 13.1            | 13.6            | 11.1             |
| <i>of which:</i>                                                  |                  |                 |                 |                 |                  |
| <b>1.Total Deposits (a+b)</b>                                     | <b>-82726.1</b>  | <b>204033.6</b> | <b>426977.3</b> | <b>277625.7</b> | <b>824852.1</b>  |
| <b>(a) Bank Deposits</b>                                          | <b>-106428.9</b> | <b>197105.1</b> | <b>422392.9</b> | <b>264882.9</b> | <b>777952.1</b>  |
| i. Commercial Banks                                               | -107940.7        | 195441.8        | 418267.0        | 262326.1        | 768094.3         |
| ii. Co-operative Banks                                            | 1511.8           | 1663.4          | 4125.9          | 2556.8          | 9857.8           |
| <b>(b) Non-Bank Deposits</b>                                      | <b>23702.8</b>   | <b>6928.5</b>   | <b>4584.5</b>   | <b>12742.8</b>  | <b>46900.0</b>   |
| <i>of which:</i>                                                  |                  |                 |                 |                 |                  |
| <b>Other Financial Institutions (i+ii)</b>                        | <b>16950.0</b>   | <b>170.7</b>    | <b>-2178.3</b>  | <b>5960.0</b>   | <b>20902.3</b>   |
| i. Non-Banking Financial Companies                                | 4972.6           | -765.5          | 73.3            | 4211.8          | 8492.2           |
| ii. Housing Finance Companies                                     | 11977.3          | 936.2           | -2251.6         | 1748.2          | 12410.1          |
| <b>2. Life Insurance Funds</b>                                    | <b>114711.5</b>  | <b>127449.8</b> | <b>103248.6</b> | <b>121541.6</b> | <b>466951.5</b>  |
| <b>3. Provident and Pension Funds (including PPF)</b>             | <b>127624.0</b>  | <b>115463.1</b> | <b>98146.0</b>  | <b>221372.4</b> | <b>562605.5</b>  |
| <b>4. Currency</b>                                                | <b>128660.2</b>  | <b>-68631.2</b> | <b>62793.3</b>  | <b>146845.0</b> | <b>269667.4</b>  |
| <b>5. Investments</b>                                             | <b>24929.6</b>   | <b>82305.4</b>  | <b>69760.9</b>  | <b>50972.1</b>  | <b>227967.9</b>  |
| <i>of which:</i>                                                  |                  |                 |                 |                 |                  |
| (a) Mutual Funds                                                  | 14573.0          | 63151.3         | 37912.2         | 44963.7         | 160600.1         |
| (b) Equity                                                        | 4502.5           | 13218.5         | 27808.2         | 3084.1          | 48613.3          |
| <b>6. Small Savings (excluding PPF)</b>                           | <b>50405.2</b>   | <b>66218.1</b>  | <b>56372.0</b>  | <b>68243.2</b>  | <b>241238.4</b>  |
| <b>II. Financial Liabilities</b>                                  | <b>-5454.1</b>   | <b>193661.2</b> | <b>328581.0</b> | <b>384568.3</b> | <b>901356.3</b>  |
| <i>Per cent of GDP</i>                                            | -0.1             | 3.5             | 5.3             | 5.9             | 3.8              |
| <b>Loans/Borrowings</b>                                           |                  |                 |                 |                 |                  |
| <b>1. Financial Corporations (a+b)</b>                            | <b>-5562.3</b>   | <b>193553.0</b> | <b>328472.8</b> | <b>384460.1</b> | <b>900923.7</b>  |
| <b>(a) Banking Sector</b>                                         | <b>21436.5</b>   | <b>138722.6</b> | <b>267950.7</b> | <b>348360.4</b> | <b>776470.2</b>  |
| <i>of which:</i>                                                  |                  |                 |                 |                 |                  |
| i. Commercial Banks                                               | 26978.6          | 140268.7        | 265271.5        | 337009.8        | 769528.5         |
| <b>(b) Other Financial Institutions</b>                           | <b>-26998.8</b>  | <b>54830.4</b>  | <b>60522.2</b>  | <b>36099.7</b>  | <b>124453.5</b>  |
| i. Non-Banking Financial Companies                                | -34757.9         | 28876.8         | 29476.5         | -2163.2         | 21432.2          |
| ii. Housing Finance Companies                                     | 7132.0           | 24403.8         | 29494.8         | 37436.2         | 98466.8          |
| iii. Insurance Corporations                                       | 627.1            | 1549.8          | 1550.9          | 826.7           | 4554.5           |
| <b>2. Non-Financial Corporations (Private Corporate Business)</b> | <b>33.8</b>      | <b>33.8</b>     | <b>33.8</b>     | <b>33.8</b>     | <b>135.1</b>     |
| <b>3. General Government</b>                                      | <b>74.4</b>      | <b>74.4</b>     | <b>74.4</b>     | <b>74.4</b>     | <b>297.4</b>     |

**No. 50 (a): Flow of Financial Assets and Liabilities of Households - Instrument-wise (Concl.)**

(Amount in ₹ Crore)

| Item                                                              | 2022-23         |                 |                 |                 | Annual           |
|-------------------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|------------------|
|                                                                   | Q1              | Q2              | Q3              | Q4              |                  |
| <b>Net Financial Assets (I-II)</b>                                | <b>297770.4</b> | <b>293705.1</b> | <b>279460.1</b> | <b>505937.8</b> | <b>1376873.5</b> |
| Per cent of GDP                                                   | 4.6             | 4.5             | 4.0             | 7.0             | 5.1              |
| <b>I. Financial Assets</b>                                        | <b>586920.5</b> | <b>646714.8</b> | <b>750856.7</b> | <b>974558.5</b> | <b>2959050.5</b> |
| Per cent of GDP                                                   | 9.0             | 9.8             | 10.8            | 13.6            | 10.9             |
| of which:                                                         |                 |                 |                 |                 |                  |
| <b>1. Total Deposits (a+b)</b>                                    | <b>183072.0</b> | <b>315216.2</b> | <b>276593.9</b> | <b>324746.6</b> | <b>1099628.6</b> |
| (a) Bank Deposits                                                 | <b>163162.9</b> | <b>299545.0</b> | <b>256363.7</b> | <b>307491.6</b> | <b>1026563.1</b> |
| i. Commercial Banks                                               | 158613.3        | 300565.0        | 248459.8        | 284968.0        | 992606.2         |
| ii. Co-operative Banks                                            | 4549.6          | -1020.1         | 7903.8          | 22523.6         | 33956.9          |
| (b) Non-Bank Deposits                                             | <b>19909.1</b>  | <b>15671.3</b>  | <b>20230.2</b>  | <b>17255.0</b>  | <b>73065.5</b>   |
| of which:                                                         |                 |                 |                 |                 |                  |
| <b>Other Financial Institutions (i+ii)</b>                        | <b>6314.4</b>   | <b>2076.7</b>   | <b>6635.6</b>   | <b>3660.4</b>   | <b>18687.1</b>   |
| i. Non-Banking Financial Companies                                | 4040.2          | 3267.2          | 1800.9          | 5372.2          | 14480.5          |
| ii. Housing Finance Companies                                     | 2274.2          | -1190.5         | 4834.7          | -1711.8         | 4206.6           |
| <b>2. Life Insurance Funds</b>                                    | <b>73669.9</b>  | <b>152049.5</b> | <b>167894.1</b> | <b>141206.6</b> | <b>534820.1</b>  |
| <b>3. Provident and Pension Funds (including PPF)</b>             | <b>155604.2</b> | <b>132126.0</b> | <b>140204.4</b> | <b>235093.2</b> | <b>663027.7</b>  |
| <b>4. Currency</b>                                                | <b>66438.9</b>  | <b>-54579.3</b> | <b>76760.1</b>  | <b>148990.2</b> | <b>237609.8</b>  |
| <b>5. Investments</b>                                             | <b>51603.2</b>  | <b>48630.6</b>  | <b>49879.2</b>  | <b>64168.5</b>  | <b>214281.5</b>  |
| 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          |
| <b>6. Small Savings (excluding PPF)</b>                           | <b>54375.1</b>  | <b>51114.5</b>  | <b>37367.7</b>  | <b>58196.2</b>  | <b>201053.5</b>  |
| <b>II. Financial Liabilities</b>                                  | <b>289150.0</b> | <b>353009.7</b> | <b>471396.5</b> | <b>468620.7</b> | <b>1582177.0</b> |
| Per cent of GDP                                                   | 4.4             | 5.4             | 6.8             | 6.5             | 5.8              |
| <b>Loans/Borrowings</b>                                           |                 |                 |                 |                 |                  |
| <b>1. Financial Corporations (a+b)</b>                            | <b>289141.6</b> | <b>353001.2</b> | <b>471388.1</b> | <b>468612.3</b> | <b>1582143.3</b> |
| (a) Banking Sector                                                | <b>234845.3</b> | <b>263782.5</b> | <b>368167.4</b> | <b>349555.0</b> | <b>1216350.1</b> |
| of which:                                                         |                 |                 |                 |                 |                  |
| i. Commercial Banks                                               | 230283.8        | 261265.3        | 365304.6        | 331292.5        | 1188146.3        |
| (b) Other Financial Institutions                                  | <b>54296.3</b>  | <b>89218.8</b>  | <b>103220.8</b> | <b>119057.3</b> | <b>365793.1</b>  |
| i. Non-Banking Financial Companies                                | 29281.6         | 54439.6         | 75878.8         | 80295.9         | 239895.9         |
| ii. Housing Finance Companies                                     | 22336.7         | 33031.2         | 24903.3         | 36745.8         | 117017.0         |
| iii. Insurance Corporations                                       | 2678.0          | 1747.9          | 2438.7          | 2015.6          | 8880.3           |
| <b>2. Non-Financial Corporations (Private Corporate Business)</b> | <b>33.7</b>     | <b>33.7</b>     | <b>33.7</b>     | <b>33.7</b>     | <b>135.0</b>     |
| <b>3. General Government</b>                                      | <b>-25.3</b>    | <b>-25.3</b>    | <b>-25.3</b>    | <b>-25.3</b>    | <b>-101.3</b>    |

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 2022-23 and revised estimates for 2020-21 and 2021-22.

3. The preliminary estimates for 2022-23 will undergo revision with the release of first revised estimates of national income, consumption expenditure, savings, and capital formation, 2022-23 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. 50 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators**

| Item                                      | Jun-2020          | Sep-2020          | Dec-2020          | Mar-2021          |
|-------------------------------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Financial Assets (a+b+c+d+e+f+g+h)</b> | <b>20405824.2</b> | <b>21066027.8</b> | <b>21906338.5</b> | <b>22874301.5</b> |
| <i>Per cent of GDP</i>                    | 107.2             | 111.5             | 114.0             | 115.4             |
| <b>(a) Bank Deposits (i+ii)</b>           | <b>9977865.6</b>  | <b>10242430.9</b> | <b>10389526.9</b> | <b>10897246.1</b> |
| i. Commercial Banks                       | 9192702.5         | 9454736.2         | 9598294.8         | 10060984.6        |
| ii. Co-operative Banks                    | 785163.1          | 787694.7          | 791232.1          | 836261.6          |
| <b>(b) Non-Bank Deposits</b>              |                   |                   |                   |                   |
| <i>of which:</i>                          |                   |                   |                   |                   |
| <b>Other Financial Institutions</b>       | <b>180857.4</b>   | <b>189743.6</b>   | <b>195639.6</b>   | <b>188953.5</b>   |
| i. Non-Banking Financial Companies        | 51463.0           | 55226.1           | 58740.8           | 62262.0           |
| ii. Housing Finance Companies             | 129394.4          | 134517.6          | 136898.8          | 126691.5          |
| <b>(c) Life Insurance Funds</b>           | <b>4102000.7</b>  | <b>4274424.9</b>  | <b>4551882.0</b>  | <b>4752932.3</b>  |
| <b>(d) Currency</b>                       | <b>2434693.7</b>  | <b>2455980.6</b>  | <b>2547436.6</b>  | <b>2614237.0</b>  |
| <b>(e) Mutual funds</b>                   | <b>1343752.0</b>  | <b>1443784.4</b>  | <b>1648999.0</b>  | <b>1730461.0</b>  |
| <b>(f) Public Provident Fund (PPF)</b>    | <b>663478.0</b>   | <b>671884.3</b>   | <b>678997.2</b>   | <b>742189.5</b>   |
| <b>(g) Pension Funds</b>                  | <b>464705.0</b>   | <b>494930.0</b>   | <b>548913.0</b>   | <b>578025.0</b>   |
| <b>(h) Small Savings (excluding PPF)</b>  | <b>1238471.7</b>  | <b>1292849.1</b>  | <b>1344944.2</b>  | <b>1370257.1</b>  |
| <b>Financial Liabilities (a+b)</b>        | <b>7190710.8</b>  | <b>7229335.1</b>  | <b>7399186.1</b>  | <b>7767405.3</b>  |
| <i>Per cent of GDP</i>                    | 37.8              | 38.3              | 38.5              | 39.2              |
| <b>Loans/Borrowings</b>                   |                   |                   |                   |                   |
| <b>(a) Banking Sector</b>                 | <b>5728735.3</b>  | <b>5741948.3</b>  | <b>5881570.2</b>  | <b>6158150.0</b>  |
| <i>of which:</i>                          |                   |                   |                   |                   |
| i. Commercial Banks                       | 5226482.2         | 5239696.0         | 5380210.4         | 5620260.7         |
| ii. Co-operative Banks                    | 500870.2          | 500865.3          | 499968.8          | 536494.1          |
| <b>(b) Other Financial Institutions</b>   | <b>1461975.5</b>  | <b>1487386.9</b>  | <b>1517615.9</b>  | <b>1609255.3</b>  |
| <i>of which:</i>                          |                   |                   |                   |                   |
| i. Non-Banking Financial Companies        | 687643.6          | 709270.7          | 725191.9          | 790073.0          |
| ii. Housing Finance Companies             | 673118.3          | 675993.4          | 689041.8          | 714377.9          |
| iii. Insurance Corporations               | 101213.7          | 102122.8          | 103382.2          | 104804.4          |

**No. 50 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators (Contd.)**

(Amount in ₹ Crore)

| Item                                      | Jun-2021          | Sep-2021          | Dec-2021          | Mar-2022          |
|-------------------------------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Financial Assets (a+b+c+d+e+f+g+h)</b> | <b>23318920.4</b> | <b>23991428.3</b> | <b>24700622.2</b> | <b>25435684.2</b> |
| <i>Per cent of GDP</i>                    | <i>110.7</i>      | <i>109.3</i>      | <i>108.7</i>      | <i>108.4</i>      |
| <b>(a) Bank Deposits (i+ii)</b>           | <b>10790817.3</b> | <b>10987922.4</b> | <b>11410315.3</b> | <b>11675198.2</b> |
| i. Commercial Banks                       | 9953043.9         | 10148485.7        | 10566752.7        | 10829078.8        |
| ii. Co-operative Banks                    | 837773.4          | 839436.7          | 843562.6          | 846119.4          |
| <b>(b) Non-Bank Deposits</b>              |                   |                   |                   |                   |
| <i>of which:</i>                          |                   |                   |                   |                   |
| <b>Other Financial Institutions</b>       | <b>205903.4</b>   | <b>206074.1</b>   | <b>203895.8</b>   | <b>209855.7</b>   |
| i. Non-Banking Financial Companies        | 67234.6           | 66469.1           | 66542.3           | 70754.2           |
| ii. Housing Finance Companies             | 138668.8          | 139605.0          | 137353.4          | 139101.6          |
| <b>(c) Life Insurance Funds</b>           | <b>4929725.2</b>  | <b>5142278.8</b>  | <b>5213527.2</b>  | <b>5357350.2</b>  |
| <b>(d) Currency</b>                       | <b>2742897.3</b>  | <b>2674266.1</b>  | <b>2737059.4</b>  | <b>2883904.4</b>  |
| <b>(e) Mutual funds</b>                   | <b>1855000.1</b>  | <b>2064363.5</b>  | <b>2126112.0</b>  | <b>2152140.5</b>  |
| <b>(f) Public Provident Fund (PPF)</b>    | <b>757397.8</b>   | <b>762264.0</b>   | <b>767287.3</b>   | <b>834147.6</b>   |
| <b>(g) Pension Funds</b>                  | <b>616517.0</b>   | <b>667379.0</b>   | <b>699173.0</b>   | <b>736592.0</b>   |
| <b>(h) Small Savings (excluding PPF)</b>  | <b>1420662.3</b>  | <b>1486880.4</b>  | <b>1543252.3</b>  | <b>1586495.5</b>  |
| <b>Financial Liabilities (a+b)</b>        | <b>7755119.8</b>  | <b>7868215.0</b>  | <b>8256715.7</b>  | <b>8668329.0</b>  |
| <i>Per cent of GDP</i>                    | <i>36.8</i>       | <i>35.9</i>       | <i>36.3</i>       | <i>36.9</i>       |
| <b>Loans/Borrowings</b>                   |                   |                   |                   |                   |
| <b>(a) Banking Sector</b>                 | <b>6172863.3</b>  | <b>6231128.1</b>  | <b>6559106.7</b>  | <b>6934620.2</b>  |
| <i>of which:</i>                          |                   |                   |                   |                   |
| i. Commercial Banks                       | 5640516.1         | 5700327.0         | 6025626.4         | 6389789.3         |
| ii. Co-operative Banks                    | 530937.1          | 529376.2          | 532040.6          | 543376.3          |
| <b>(b) Other Financial Institutions</b>   | <b>1582256.5</b>  | <b>1637086.9</b>  | <b>1697609.1</b>  | <b>1733708.8</b>  |
| <i>of which:</i>                          |                   |                   |                   |                   |
| i. Non-Banking Financial Companies        | 755315.1          | 784191.9          | 813668.4          | 811505.2          |
| ii. Housing Finance Companies             | 721510.0          | 745913.7          | 775408.5          | 812844.7          |
| iii. Insurance Corporations               | 105431.4          | 106981.2          | 108532.1          | 109358.8          |

**No. 50 (b): Stocks of Financial Assets and Liabilities of Households- Select Indicators (Concl.)**

(Amount in ₹ Crore)

| Item                                      | Jun-2022          | Sep-2022          | Dec-2022          | Mar-2023          |
|-------------------------------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Financial Assets (a+b+c+d+e+f+g+h)</b> | <b>25689017.4</b> | <b>26240728.5</b> | <b>27208717.9</b> | <b>28083947.0</b> |
| <i>Per cent of GDP</i>                    | <i>103.2</i>      | <i>101.5</i>      | <i>102.4</i>      | <i>103.1</i>      |
| <b>(a) Bank Deposits (i+ii)</b>           | <b>11911196.2</b> | <b>11956360.9</b> | <b>12421907.5</b> | <b>12701761.3</b> |
| i. Commercial Banks                       | 11060527.2        | 11106712.0        | 11564354.7        | 11821685.0        |
| ii. Co-operative Banks                    | 850669.0          | 849648.9          | 857552.8          | 880076.4          |
| <b>(b) Non-Bank Deposits</b>              |                   |                   |                   |                   |
| <i>of which:</i>                          |                   |                   |                   |                   |
| <b>Other Financial Institutions</b>       | <b>216170.2</b>   | <b>218246.9</b>   | <b>224882.5</b>   | <b>228542.9</b>   |
| i. Non-Banking Financial Companies        | 74794.4           | 78061.6           | 79862.5           | 85234.7           |
| ii. Housing Finance Companies             | 141375.8          | 140185.3          | 145020.0          | 143308.2          |
| <b>(c) Life Insurance Funds</b>           | <b>5325967.3</b>  | <b>5559681.9</b>  | <b>5786592.6</b>  | <b>6038630.4</b>  |
| <b>(d) Currency</b>                       | <b>2950343.2</b>  | <b>2895763.9</b>  | <b>2972524.0</b>  | <b>3121514.2</b>  |
| <b>(e) Mutual funds</b>                   | <b>2048097.3</b>  | <b>2260209.7</b>  | <b>2355315.8</b>  | <b>2367792.5</b>  |
| <b>(f) Public Provident Fund (PPF)</b>    | <b>851913.4</b>   | <b>858591.1</b>   | <b>864730.6</b>   | <b>939814.6</b>   |
| <b>(g) Pension Funds</b>                  | <b>744459.2</b>   | <b>799889.0</b>   | <b>853412.0</b>   | <b>898342.0</b>   |
| <b>(h) Small Savings (excluding PPF)</b>  | <b>1640870.6</b>  | <b>1691985.1</b>  | <b>1729352.9</b>  | <b>1787549.1</b>  |
| <b>Financial Liabilities (a+b)</b>        | <b>8957470.6</b>  | <b>9310471.8</b>  | <b>9781859.9</b>  | <b>10253472.2</b> |
| <i>Per cent of GDP</i>                    | <i>36.0</i>       | <i>36.0</i>       | <i>36.8</i>       | <i>37.6</i>       |
| <b>Loans/Borrowings</b>                   |                   |                   |                   |                   |
| <b>(a) Banking Sector</b>                 | <b>7169465.5</b>  | <b>7433248.0</b>  | <b>7801415.3</b>  | <b>8153970.3</b>  |
| <i>of which:</i>                          |                   |                   |                   |                   |
| i. Commercial Banks                       | 6620073.1         | 6881338.5         | 7246643.0         | 7580935.6         |
| ii. Co-operative Banks                    | 547894.8          | 550354.8          | 553201.4          | 571339.8          |
| <b>(b) Other Financial Institutions</b>   | <b>1788005.1</b>  | <b>1877223.8</b>  | <b>1980444.6</b>  | <b>2099501.9</b>  |
| <i>of which:</i>                          |                   |                   |                   |                   |
| i. Non-Banking Financial Companies        | 840786.9          | 895226.5          | 971105.3          | 1051401.1         |
| ii. Housing Finance Companies             | 835181.3          | 868212.5          | 893115.8          | 929861.7          |
| iii. Insurance Corporations               | 112036.9          | 113784.8          | 116223.5          | 118239.1          |

Note : 1. Data as ratios to GDP have been calculated based on the Provisional Estimates of National Income 2022-23, released by NSO on May 31, 2023.

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.  
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<sub>2</sub> and NM<sub>3</sub> 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<sub>1</sub> and L<sub>2</sub> are compiled monthly and L<sub>3</sub> 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. 24**

Primary Dealers (PDs) include banks undertaking PD business.

**Table No. 30**

Exclude private placement and offer for sale.

1: Exclude bonus shares.

2: Include cumulative convertible preference shares and equi-preference shares.

**Table No. 32**

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. 34**

1.1.1.1.2 & 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. 35**

1.10: Include items such as subscription to journals, maintenance of investment abroad, student loan repayments and credit card payments.

**Table No. 36**

Increase in indices indicates appreciation of rupee and *vice versa*. For 6-Currency index, base year 2021-22 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. 37**

Based on applications for ECB/Foreign Currency Convertible Bonds (FCCBs) which have been allotted loan registration number during the period.

**Table Nos. 38, 39, 40 & 41**

Explanatory notes on these tables are available in December issue of RBI Bulletin, 2012.

**Table No. 43**

## 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 (WLAs). WLAs are included from April 2014 onwards.

**Table No. 45**

(-) represents nil or negligible

The table format is revised since June 2023 issue of the bulletin.

State Government Securities include special bonds issued under Ujjwal DISCOM Assurance Yojana (UDAY).

Bank PDs are clubbed under Commercial Banks. However, they form very small fraction of total outstanding securities.

The category 'Others' comprises State Governments, DICGC, PSUs, Trusts, Foreign Central Banks, HUF/ Individuals etc.

**Table No. 46**

GDP data is based on 2011-12 base. GDP for 2022-23 is from Union Budget 2022-23.

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. 47**

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. 48**

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://dbie.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**.

### Recent Publications of the Reserve Bank of India

| <b>Name of Publication</b>                                                                         | <b>Price</b>                                                                                                                  |                                                                                                 |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|                                                                                                    | <b>India</b>                                                                                                                  | <b>Abroad</b>                                                                                   |
| 1. Reserve Bank of India Bulletin 2023                                                             | ₹350 per copy<br>₹250 per copy (concessional rate*)<br>₹4,000 (one year subscription)<br>₹3,000 (one year concessional rate*) | US\$ 15 per copy<br>US\$ 150 (one-year subscription)<br>(inclusive of air mail courier charges) |
| 2. Handbook of Statistics on the Indian States 2021-22                                             | ₹550 (Normal)<br>₹600 (inclusive of postage)                                                                                  | US\$ 24<br>(inclusive of air mail courier charges)                                              |
| 3. Handbook of Statistics on the Indian Economy 2022-23                                            | ₹600 (Normal)<br>₹650 (inclusive of postage)<br>₹450 (concessional)<br>₹500 (concessional with postage)                       | US\$ 50<br>(inclusive of air mail courier charges)                                              |
| 4. State Finances - A Study of Budgets of 2022-23                                                  | ₹600 per copy (over the counter)<br>₹650 per copy (inclusive of postal charges)                                               | US\$ 24 per copy<br>(inclusive of air mail courier charges)                                     |
| 5. Report on Currency and Finance 2022-23                                                          | ₹575 per copy (over the counter)<br>₹625 per copy (inclusive of postal charges)                                               | US\$ 22 per copy<br>(inclusive of air mail courier charges)                                     |
| 6. Report of the committee on Fuller Capital account Convertibility (Tarapore Committee Report II) | ₹140 per copy (over the counter)<br>₹170 per copy (inclusive of postal charges)                                               | US\$ 25 per copy<br>(inclusive of air mail courier charges)                                     |
| 7. Banking Glossary (2012)                                                                         | ₹80 per copy (over the counter)<br>₹120 per copy (inclusive of postal charges)                                                |                                                                                                 |
| 8. Anuvad Ke Vividh Aayam (Hindi)                                                                  | ₹165 per copy (over the counter)<br>₹205 per copy (inclusive of postal charges)                                               |                                                                                                 |
| 9. Bank Me Rajbhasha Niti Ka Karyanvayan: Dasha Aur Disha (Hindi)                                  | ₹150 per copy (over the counter)<br>₹200 per copy (inclusive of postal charges)                                               |                                                                                                 |
| 10. Reserve Bank of India Occasional Papers Vol. 43, No. 1, 2022                                   | ₹200 per copy (over the counter)<br>₹250 per copy (inclusive of postal charges)                                               | US\$ 18 per copy<br>(inclusive of air mail courier charges)                                     |
| 11. Perspectives on Central Banking Governors Speak (1935-2010) Platinum Jubilee                   | ₹1400 per copy (over the counter)                                                                                             | US\$ 50 per copy<br>(inclusive of air mail courier charges)                                     |
| 12. Report on Municipal Finances                                                                   | ₹300 per copy (over the counter)<br>₹350 per copy (inclusive of postal charges)                                               | US\$ 16 per copy<br>(inclusive of air mail courier charges)                                     |

**Notes**

- Many of the above publications are available at the RBI website ([www.rbi.org.in](http://www.rbi.org.in)).
- Time Series data are available at the Database on Indian Economy (<http://dbie.rbi.org.in>).
- The Reserve Bank of India History 1935-1997 (4 Volumes), Challenges to Central Banking in the Context of Financial Crisis and the Regional Economy of India: Growth and Finance are available at leading book stores in India.
- \* Concession is available for students, teachers/lecturers, academic/education institutions, public libraries and Booksellers in India provided the proof of eligibility is submitted.

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 Department of Economic and Policy Research (DRKD, DEPR),  
 Reserve Bank of India, Amar Building, Ground Floor,  
 Sir P. M. Road, Fort, P. B. No.1036, Mumbai - 400 001.  
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